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1. OVERALL INTRODUCTION

1.1. EXECUTIVE SUMMARY: BOO-Games Boosting European Games Industry

The digital games market is a fast growing market within the broader group of economic activities referred to as the creative industries: the global demand for digital games is expected to grow 10% annually over the next few years. At the moment, the European games industry contributes more than €3.5bn to the economy and employs more than 100,000 people, including 60,000 skilled jobs. Games could represent a new source of growth for the European economy but many regions are still missing adequate policies and funding schemes which could support such activities. Therefore the development of strong digital and interactive media strategies should be prioritised on the policy agenda throughout Europe.

The aim of the BOO-Games project is to support regional development authorities in understanding the importance of the games industry for the European economy.

In particular, the project focuses on the challenges policy makers are either not yet aware of, or which they already face, as game relevant questions move up on the political agenda due to their economical and societal impact. Thus the project will centre on different elements, including: public funding, private investment incentives, talent incubation, cluster development and improvement of the public perception of digital games potential as well as risk management for public authorities in the communication on game related matters.

Matching together regions which are more advanced regions in this field with less experienced regions, the project will promote mutual learning by means of interregional cooperation, ultimately contributing to the improvement of the effectiveness of local development policies targeting the digital and interactive media.

1.2. OVERVIEW, OBJECTIVES AND STRUCTURE OF THE COMPONENT 3 REGIONAL ANALYSIS

This document is a general summary of the regional analysis which is part of Component 3 of the, Boosting European Games Industry (BOO Games), INTERREG IVC Study. Ten regions took part in this study, consisting of regions that are new to the digital gaming sector, and those regions that are more established in the digital gaming industry.

The aim of the regional analysis was to examine the current state of the art of each region's gaming industry. This was done in order to map existing policies, strategies, financial instruments and services offered to support SMEs in the games sector at a regional level. This was done in order to obtain valuable information for the next phase of the Boo Games project where good practices and lessons learned are collected and integrated into a Good Practice Guide. The regional analysis constitutes the basis for cooperation, exchange and mutual learning activities in the subsequent tasks in the project. Each region will develop an implementation plan to assure that the lessons learned during the project can be integrated into local/regional/national policies in order to sensitisze policy makers on the common issues that the games industry is facing in Europe.
1.3. STRUCTURE OF THE DOCUMENT

Information was gathered by involving the main stakeholders of the game industry. Three types of data collection methods were used to obtain information about the regions. These included desk research, semi-structured interviews and/or focus groups, and an online questionnaire. The whole document is structured on the basis of 7 themes. These themes are based on the OECD framework1 (see Table 1) and forms the basis of the document’s structure.

![Determinants](image)

Table 1. Framework as a basis for question formulation: questionnaire, interviews, focus groups

This model was used as a framework for the data collection. The OECD/EUROSTAT Entrepreneurship Indicator Project identified six themes (Table 1) that describe the determinants affecting entrepreneurial performance in order to encourage countries to use the same definitions, methodologies and classifications when discussing entrepreneurial activities. The main characteristics of these themes can be described as follows:

Capital and Access to Finance: Covers all phases of business life, from access to early seed funds to access to stock markets.

Technology and Research & Development: R&D and technology creates new inventions that the entrepreneur and entrepreneurial businesses can turn into new product or processes. The R&D in this context should be understood as a resource that can be created or purchased, whether directly or in an embodied or diffused form.

Entrepreneurial capabilities: The entrepreneurial capabilities include the human and social capital of the entrepreneurs.

Market conditions: Opportunities are created by the market conditions in the country. These market conditions include public involvement in markets, competition in the markets, access to foreign markets, procurement regulation, and standardisation.

Regulatory Framework: Entrepreneurship happens within a regulatory framework which affects performance. A combination of opportunity, capabilities and resources does not necessarily lead to entrepreneurship if opportunity costs (e.g. forgone salary and loss of health insurance) and start-up costs outweigh the potential benefits. In this framework, the regulatory framework is defined very broadly and includes all taxes, regulations and other public rules and institutions affecting entrepreneurship.

Culture: affects all parts of the model and is included as the final factors in the framework. Culture influences an entrepreneur’s behaviour, attitudes, and overall effectiveness and, moreover, is often unnoticed by the entrepreneur since it is the conductive environment. In this framework, culture comprises each individual’s assumptions, adaptations, perceptions and learning.

This framework can be adapted to the specific context of the cultural and creative industries (CCI’s), focusing on the digital games sector.

Additional aspects to Cover: An ‘overview of the sector’ and ‘perceived needs’ has also been added. Determinants of Entrepreneurial activity focusing on the gaming sector.

---

Overview of the Sector: An overview of the game sector in each region to establish the current state of affair and map out the regions.

Perceived Needs: Needs will differ between regions. These can include determinants listed under the entrepreneurship indicator (OECD/EUROSTAT). Finding out the state of the art of the game industry and the perceived needs of stakeholders is useful for the creation of good practices. It also indicates the current gaps in the sector.

The structure of the document is as follows:

First, a short ‘Introduction section’ is included describing the three methods of collecting information. These methods are: desk research, interviews and/or focus groups, and questionnaires.

Then, the ‘Methodology section’ follows, describing the multi-method approach taken for the desk research, interviews and/or focus groups, and questionnaires.

After that, the first part of the ‘Summary section’ provides a summary of the overall results of the desk research (per theme), a summary per region of the interview results, and a summary of the overall questionnaire results.

The second part of the summary section also includes a section consisting of a SWOT matrix, per region, combining the main observations from all three sources (desk research, interviews and the questionnaire). A synthesized integrated SWOT matrix is also included with general observations that pertain to all of the regions.

The third part of the Summary section includes a ‘Conclusion section’. This conclusion is an integrated summary of the main themes and trends found in the previous sections.

Finally, the ‘Recommendations section’ identifies general recommendations provided per region and, subsequently, divided per theme.

General conclusions per region are provided. For those interested in more in-depth information concerning each region or a particular section, please refer to the relevant Appendices.

1.4. INTRODUCTION: Desk Research, interview/Focus group & questionnaire

Desk Research was the first step in obtaining information per region about the gaming industry and in identifying regional needs which should be addressed in order to boost or establish the regional gaming industry. Information was collected under 7 themes (see Table 3). Interviews and/or focus groups with relevant stakeholders were held to obtain a more comprehensive overview of the gaming industry (see Table 4). An online questionnaire was created to collect data on the size and scope of the gaming industry in various countries and regions, as well as information about public policies, regulations, market opportunities, financial and business support structures, networks, umbrella organisations and educational/research institutions (see Table 8).

Overall results were analyzed in order to understand: main characteristics of the gaming related companies (size, turnover, products, position in the value chain, etc.), as well as the regional markets, policies, main trends, opportunities and problems that are faced by the gaming sector. Information obtained per region is summarized within the Summary section. Main trends are described and identified gaps are mentioned in the conclusion section.
2. METHODOLOGY

2.1. METHODOLOGY DESK RESEARCH

Ten regions have collaborated in this study, representing 9 countries and 14 partners. The consortium is made up of educational or research institutes and enterprise support organisations. Table 2 provides a list of each region, along with the participant organisation and the country of origin.

<table>
<thead>
<tr>
<th>Region</th>
<th>Partner Number</th>
<th>Participant Organisation</th>
<th>Country</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEST MIDLANDS</td>
<td>Partner 1</td>
<td>Coventry University Enterprises Limited (CUE)</td>
<td>UK</td>
</tr>
<tr>
<td>WEST MIDLANDS</td>
<td>Partner 2</td>
<td>Stratford on Avon District Council</td>
<td>UK</td>
</tr>
<tr>
<td>BADEN-WÜRTTEMBER</td>
<td>Partner 3</td>
<td>MFG Baden-Württemberg mbH</td>
<td>DE</td>
</tr>
<tr>
<td>BADEN-WURTTEMBER</td>
<td>Partner 4</td>
<td>City of Kahlruhe Economic Development</td>
<td>DE</td>
</tr>
<tr>
<td>ILE-DE-FRANCE / Paris Region</td>
<td>Partner 5</td>
<td>Ile-de-France Region</td>
<td>FR</td>
</tr>
<tr>
<td>ILE-DE-FRANCE / Paris Region</td>
<td>Partner 6</td>
<td>PREDA – Paris Region Economic Development Agency</td>
<td>FR</td>
</tr>
<tr>
<td>ASTURIAS</td>
<td>Partner 7</td>
<td>European Business and Innovation Centre in the Principality of Asturias Centro Europeo de Empresas e Innovación del Principado de Asturias (CEEI Asturias)</td>
<td>SP</td>
</tr>
<tr>
<td>UMBRIA</td>
<td>Partner 8</td>
<td>Sviluppumbria SpA</td>
<td>IT</td>
</tr>
<tr>
<td>PIEDMONT</td>
<td>Partner 9</td>
<td>Piedmont Region</td>
<td>IT</td>
</tr>
<tr>
<td>PIEDMONT</td>
<td>Partner 10</td>
<td>CSP- Innovation in ICT</td>
<td>IT</td>
</tr>
<tr>
<td>UTRECHT</td>
<td>Partner 11</td>
<td>Utrecht School of the Arts</td>
<td>NL</td>
</tr>
<tr>
<td>MALTA</td>
<td>Partner 12</td>
<td>Foundation Temi Zammit</td>
<td>MT</td>
</tr>
<tr>
<td>SOFIA</td>
<td>Partner 13</td>
<td>Applied Research and Communications Fund</td>
<td>BG</td>
</tr>
<tr>
<td>SALZBURG</td>
<td>Partner 14</td>
<td>Innovation- and Technology Transfer Salzburg</td>
<td>AT</td>
</tr>
</tbody>
</table>

Table 2. List of partners collaborating in the INTERREG IV BOO Games study

Within the study, each region identified the main actors and current and/or potential stakeholders in their region. An overview of the number of stakeholders per region is provided below (see Table 3). Please note that this is a non-exhaustive list, although it does provide a comprehensive overview of all ten regions. For all regions, stakeholders have been divided into four distinct categories. These categories were chosen to encompass the different types of stakeholders exemplified within the games industry. Stakeholders perspectives’ are also represented in the questionnaire, focus groups and interviews.

The types of stakeholders were:

1. Policy-maker/public agency;
2. Educational/Research Organisation;
3. Enterprise support organisation;
4. Game related enterprise or organisation;
5. Others: e.g. Festivals/Conferences.

It is also worth mentioning that this categorisation is not exclusive, as some stakeholders have multiple roles. For instance a stakeholder may work in an ‘Educational Organisation’ but also have their own ‘Game related enterprise’. This is one instance where the dynamic and changing nature of the games industry is exemplified.
2.1.1. Stakeholders: Who was contacted?

Stakeholders within the region were identified by making use of the already established networks in the region as well as through desk research. Please see the 'Appendix A: Desk Research, Section 1. Overview: Main Stakeholders per Region' for a complete overview and description of the main players and stakeholders per region. Even though both national and regional players are taken into account, the main focus of the study is on a regional perspective.

<table>
<thead>
<tr>
<th>Stakeholder Type</th>
<th>Region</th>
<th>Policy-maker/Public agency</th>
<th>Educational/Research Org.</th>
<th>Enterprise support org.</th>
<th>Game related enterprise or org.</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEST MIDLANDS</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>0</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Utrechter</td>
<td>4</td>
<td>5</td>
<td>4</td>
<td>35</td>
<td>4</td>
<td>52</td>
<td></td>
</tr>
<tr>
<td>PIEDMONT</td>
<td>10</td>
<td>12</td>
<td>12</td>
<td>8</td>
<td>4</td>
<td>46</td>
<td></td>
</tr>
<tr>
<td>UMBRIA</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>20</td>
<td>4</td>
<td>44</td>
<td></td>
</tr>
<tr>
<td>SOFIA</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>10</td>
<td>77</td>
<td>91</td>
<td></td>
</tr>
<tr>
<td>BADEN-WÜRTTEMBERG</td>
<td>4</td>
<td>6</td>
<td>1</td>
<td>13</td>
<td>21</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>MALTA</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>15</td>
<td>0</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>ILE-DÉ-FANCE (PARIS REGION)</td>
<td>40</td>
<td>7</td>
<td>3</td>
<td>60</td>
<td>0</td>
<td>110</td>
<td></td>
</tr>
<tr>
<td>SALZBURG</td>
<td>12</td>
<td>8</td>
<td>7</td>
<td>12</td>
<td>3</td>
<td>42</td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Overview of Stakeholder List per Region

For the desk research, each region was asked to create a report providing information to address the following:

<table>
<thead>
<tr>
<th>Desk Research Topics</th>
<th>Desk Research Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview of the Gaming Industry</td>
<td>1. Overview</td>
</tr>
<tr>
<td>Typology: Innovation Scoreboard</td>
<td></td>
</tr>
<tr>
<td>Value Chain</td>
<td></td>
</tr>
<tr>
<td>Regulation and Policies</td>
<td>2. Access to Market</td>
</tr>
<tr>
<td>Access to Market</td>
<td>3. Access to Finance</td>
</tr>
<tr>
<td>Access to Finance</td>
<td></td>
</tr>
<tr>
<td>Access to Knowledge and Innovation</td>
<td>4. Access to Knowledge and Innovation</td>
</tr>
<tr>
<td>Access to Skills</td>
<td>5. Access to Skills</td>
</tr>
<tr>
<td>Other Support Identified</td>
<td>6. Other Support</td>
</tr>
<tr>
<td>Needs</td>
<td>7. Needs</td>
</tr>
</tbody>
</table>

Table 4. Desk Research Topics Divided in Themes
2.2. METHODOLOGY: INTERVIEWS AND/OR FOCUS GROUPS

2.2.1. Interview: Who was interviewed

In order to receive more in-depth information concerning the current state of the art of the regions, semi-structured interviews were held with stakeholders in each region. The people interviewed were targeted as they were representatives of the various stakeholder groups and came from all sectors of society. These included people from the public sector and private businesses, policy makers, coordinators of regional innovation centres, incubator managers, professors and researchers from the university, and practitioners working in field of video game development.

2.2.2. Focus Groups: Who was interviewed

Three focus groups were also held in the regions of Asturias, Sofia, and the West Midlands.

In the West Midlands, a workshop was organised in the Birmingham Custard Factory on the 28th of June 2012. The focus group and working session was organised with the support of Creative England in the framework of their Cluster 2020 project. The session gathered 12 participants from the business sector with a few support agency participants. The main aim of this session was to determine the businesses view on the support available in the creative and digital sector. This workshop was not solely held for the video game sector but also included other businesses. During the session the participants were able to discuss the current barriers they are facing as small businesses in the creative sector, what the opportunities and exciting developments happening for the sector are, and finally what are the kind of business services they would like to see in the region to address their needs.

In Asturias, a total of 19 stakeholders took part on the Games Working Roundtable held in the European Business and Innovation Centre (CEEI Asturias) on May 25th. 2012. The current situation of the games industry, as well as the needs and future perspective for the games sector, were discussed. The roundtable consisted of mainly game companies, policy makers and regional actors of high relevance for this sector. The roundtable was an important opportunity to analyse the results of the questionnaire about the games sector in Asturias, evaluate the information included on the regional study and obtain feedback on interview results. It was also a good networking opportunity.

In Sofia, a meeting was held on the premises of ARC Fund on Friday, July 13th, 2012, which was attended by 20 stakeholders (including policy-makers, company CEO’s, and representatives of enterprise support organisations) from the digital gaming and creative industries, in order to discuss the results of the desk research, interviews and online questionnaire. The main challenges identified during this meeting reflected, in large part, the research which had already been conducted within BOO Games. These included the views:

• There is an insufficiency of highly qualified specialists in the digital gaming sector.
• There is a lack of understanding by the tax authorities of the specifics of the game development companies.
• Effective forms of financial support can be improved.

Table 5 provides a complete overview of the number of stakeholders interviewed and the number of participants in the focus groups per region:

<table>
<thead>
<tr>
<th>REGION</th>
<th>INTERVIEWEES</th>
<th>FOCUS GROUP PARTICIPANTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEST MIDLANDS</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>UTRECHT</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>PIEDMONT</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>UMBRIA</td>
<td>27</td>
<td>0</td>
</tr>
<tr>
<td>ASTURIAS</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>SOFIA</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>BADEN WURTTEMBER</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>MALTA</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>ILE-DE-FRANCE</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>SALZBURG</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 5. Overview of Stakeholders interviewed and Number of Participants in Focus Group held per Region
2.2.3. Interview Construction

All regions held interviews. The interview consisted of thirteen questions which covered the main themes which were also included in the desk research and questionnaires (see Table 6). A copy of the interview questions and template can be found in the Appendix B. Below is a more detailed description of what was asked per theme.

<table>
<thead>
<tr>
<th>Interview Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. REGIONAL OVERVIEW OF THE GAMING INDUSTRY</td>
</tr>
<tr>
<td>2. REGULATION AND POLICIES</td>
</tr>
<tr>
<td>3. ACCESS TO MARKET: WHERE IS EACH REGION SITUATED ON THE INNOVATION SCOREBOARD</td>
</tr>
<tr>
<td>4. ACCESS TO KNOWLEDGE</td>
</tr>
<tr>
<td>5. PERCEIVED NEEDS: CHALLENGES AND ACTION POINTS</td>
</tr>
</tbody>
</table>

Table 6. Interview Themes

REGIONAL OVERVIEW OF THE GAMING INDUSTRY

Interviewees were asked to identify the main stakeholders who could help grow the games sector, describe the games industry in their region and provide their impressions regarding how well connected games enterprises are in their region.

They were also asked what types of games were produced in their region, whether organisations in their region focus on serious games, and the public perception of the gaming industry.

A general summary of their answers are provided in section x. For more in-depth information about insights gathered per region, please refer to the sections entitled REGIONAL OVERVIEW OF THE GAMING INDUSTRY in Appendix x.

REGULATION AND POLICIES

Interviewees were asked whether they knew of policies that are in place to support the games industry. They were also asked about the available initiatives, policies or actions which are needed to stimulate growth in the games sector.

A general summary of their answers are provided in section x. For more in-depth information about insights gathered per region, please refer to the section entitled REGULATION AND POLICIES in Appendix x.

ACCESS TO MARKET: WHERE IS EACH REGION SITUATED? INNOVATION SCOREBOARD

Interviewees were asked how innovative they thought their region is, and to indicate where they would place their region using the Innovation Scoreboard.² The Innovation Union Scoreboard (IUS) includes innovation indicators and trend analyses for the EU27 Member States, as well as for Croatia, Iceland, the Former Yugoslav Republic of Macedonia, Norway, Serbia, Switzerland and Turkey. It also includes comparisons based on a more reduced set of indicators between the EU27 and 10 global competitors. The IUS 2011 distinguishes between 3 main types of indicators and 8 innovation dimensions, capturing in total 25 different indicators.

The Scoreboard places Member States into the following four country groups and regional categories:

<table>
<thead>
<tr>
<th>Innovation Indicator/Type</th>
<th>Country</th>
<th>Region</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation leaders</td>
<td>Denmark, Finland, <strong>Germany</strong>, Sweden all show a performance well above that of the EU27 average.</td>
<td>Baden- Württemberg</td>
</tr>
<tr>
<td>Innovation followers</td>
<td>Austria, Belgium, Cyprus, Estonia, <strong>France</strong>, Ireland, Luxembourg, <strong>Netherlands</strong>, Slovenia and the UK all show a performance close to that of the EU27 average.</td>
<td>Salzburg, Ile-de-France, Utrecht, West Midlands, Piedmont (region is higher in terms of innovation than the country)</td>
</tr>
<tr>
<td>Moderate innovators</td>
<td>The performance of Czech Republic, Greece, Hungary, <strong>Italy</strong>, Malta, Poland, Portugal, Slovakia and Spain is below that of the EU27 average.</td>
<td>Umbria, Malta</td>
</tr>
<tr>
<td>Modest innovators</td>
<td>The performance of Bulgaria, Latvia, Lithuania and Romania is well below that of the EU27 average.</td>
<td>Sofia</td>
</tr>
</tbody>
</table>

Table 7. Innovation Union Scoreboard (IUS) and Categorisation per Region

A general summary of their answers are provided below in section 5.3 ‘Summary of Interviews: Placement of Regions according to the Innovation Scoreboard’. For more in depth information about insights gathered per region, please refer to the section entitled ‘WHERE IS EACH REGION SITUATED? INNOVATION SCOREBOARD’ in the Appendix B: Interview Results’.

**ACCESS TO KNOWLEDGE**

Interviewees were asked what the main challenges are in growing their business/faced by game enterprises. Access to knowledge was one of the obstacles mentioned by all regions.

A general summary of their answers are provided in below section 5.4. ‘Summary of Interviews: Access to Knowledge’. For more in depth information about insights gathered per region, please refer to the section entitled ‘ACCESS TO KNOWLEDGE’ in Appendix B: Interview Results’.

**PERCEIVED NEEDS**

Interviewees were asked two questions specific to these needs. These were: 1) ‘What are the biggest challenges in growing your business/faced by the games enterprises?’, and 2) ‘What are the most important action points for your region. Please choose three in order of priority: a) creating awareness of the added value of the games industry, b) creating policies and regulations catered to the game industry, c) access to market and other opportunities, d) access to finance, e) networking/cluster development, and f) creating and sustaining research & educational programmes.

Overall summaries for both questions (main challenges and top three action points) are included in the general summary in section 5.5 ‘Summary of Interviews: Perceived Needs: Challenges and Action Points’. For more in depth information about insights gathered per region, please refer to the section entitled ‘PERCEIVED NEEDS’ in Appendix B: Interview Results’.

2.2.4. Interview: Collecting Results

Per region, interviews were recorded and transcribed and relevant quotes and excerpts and summaries are found in ‘Appendix B: Interview Results’. For certain regions, names of the stakeholders are mentioned, in other regions, the quotes were anonymized and general statements were made.

______________

BOO-Games Regional Analysis Report, January 2013, p. 16
2.3. METHODOLOGY: QUESTIONNAIRE

2.3.1. Questionnaire Construction

The questionnaire consisted of ninety-two questions under different sections comprised of six different themes (see Table 8). Types of questions included: thirty-eight multiple choice questions (question # 1, 2, 4-9, 11-14, 16-21, 34, 36, 48-55, 57, 59, 60, 63, 67, 70, 73-75, 90), forty-two questions based on a five-point Likert scale (question # 19, 22-33, 37-47, 56, 61-68, 71, 72, 76, 77-80, 82-89) and seven open-ended questions (question # 10, 15, 35, 58, 69, 81 and 91).

Below is an overview of the questionnaire construction. Note that question numbers correspond to the English questionnaire. A copy of the questionnaire can be found in Appendix C. Questions were aligned with the desk research and the interviews based on entrepreneurial themes. These themes were chosen as they provide a comprehensive overview of the sector and are also based on the prior research done on creative industries.

<table>
<thead>
<tr>
<th>1. Information about the Questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boo Games questionnaire</td>
</tr>
<tr>
<td>Boo Games project questionnaire</td>
</tr>
<tr>
<td>2a. Overview of the Games Enterprises (THEME 1)</td>
</tr>
<tr>
<td>About you and your organization</td>
</tr>
<tr>
<td>About your enterprise</td>
</tr>
<tr>
<td>2b. Overview of the Gaming Sector</td>
</tr>
<tr>
<td>About the games sector in your region</td>
</tr>
<tr>
<td>3. Policies and Regulations          (THEME 2)</td>
</tr>
<tr>
<td>About policies and regulations</td>
</tr>
<tr>
<td>4. Access to Market                  (THEME 3)</td>
</tr>
<tr>
<td>About markets and opportunities</td>
</tr>
<tr>
<td>5. Access to Finance                 (THEME 4)</td>
</tr>
<tr>
<td>About finances</td>
</tr>
<tr>
<td>6. Access to Knowledge and Innovation (THEME 5)</td>
</tr>
<tr>
<td>About knowledge and working together</td>
</tr>
<tr>
<td>About business skills</td>
</tr>
<tr>
<td>About help and support</td>
</tr>
<tr>
<td>7. Perceived Needs                   (THEME 6)</td>
</tr>
<tr>
<td>About the things you need</td>
</tr>
</tbody>
</table>

Table 8. Questionnaire Outline

2.3.2. Questionnaire Fine-tuning

In the first phase, questions were developed and provided to all partners for feedback. After integrating this feedback, the questionnaire was launched online. Each region was given a specific web link, with the customized questionnaire.

In the “Beta–testing” phase (2 weeks), partners tested the online questionnaire functions and the accuracy of translation. Feedback was integrated in order to streamline the functions.

The final version of the questionnaire was available online for one month (May-June 2012). Companies and stakeholders contacted by each region were provided with the link and asked to fill in the questionnaire. Personal reminders were sent out per region.

Questions were translated into 5 languages, including English, Italian, Spanish, French and Bulgarian. German and Dutch respondents answered the English version of the questionnaire as both regions indicated that English was not a language barrier.
2.3.3. Questionnaire: Collecting Results

The analysis was conducted by Sviluppumbria and HKU through the use of SurveyMonkey, an online survey tool. The questionnaire was online from the 10th May to the 10th of June, 2012. A total of 345 responses were obtained. The responses per region are shown in the following table.

<table>
<thead>
<tr>
<th>Region</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>The West Midlands</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Utrecht</td>
<td>62 (18%)</td>
</tr>
<tr>
<td>Piedmont</td>
<td>63 (18%)</td>
</tr>
<tr>
<td>Umbria</td>
<td>27 (8%)</td>
</tr>
<tr>
<td>Asturias</td>
<td>45 (13%)</td>
</tr>
<tr>
<td>Sofia</td>
<td>80 (23%)</td>
</tr>
<tr>
<td>Baden- Württemberg</td>
<td>43 (12%)</td>
</tr>
<tr>
<td>Malta</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Ile-de-France</td>
<td>13 (4%)</td>
</tr>
<tr>
<td>Salzburg</td>
<td>5 (1%)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>345 (100%)</strong></td>
</tr>
</tbody>
</table>

Table 9. Questionnaire Response Rates per Region

As indicated in the above table, regions had different response rates, varying from 0 to 80 responses. For some questions (question # 9,11,12,21,48,51,52,53,57,60,63,70,73,90), respondents could fill in more than one option, which results in cumulative percentages greater than one hundred percent. It is also worth mentioning that, as some respondents skipped questions, the response rate changed per question, making the actual response rate fluctuate.

Due to the varying number of responses shown above, the sample, even though quantifiable, can not be deemed statistically significant. Hence, direct quantitative comparisons cannot be made between regions. However, main qualitative characteristics, trends and opportunities can be highlighted.

Section 4 ‘Summary: Overall Questionnaire Results’ will describe the main trends for all regions. Results provided per region will also be included. Malta and the West Midlands are not included in the overall analysis due to the lack of responses. For a more in-depth view of each region, please refer to regional analysis of the questionnaire in Appendix B.

2.3.4. Overall Considerations: Main Trends

Section 4 ‘Summary: Overall Questionnaire Results’ lists the main trends that arose from the results. For a more in depth look at the overall analysis of the questionnaire and analysis per region, please refer to the ‘Appendix C: Questionnaire Results’. Results are classified under the themes indicated in Table 8.
3. SUMMARIES PER THEME: DESK RESEARCH

The desk research collated information about main themes which are deemed important to assess each region's digital games industry. Below is a summary of this information.

3.1. NATIONAL OVERVIEW OF THE GAMING INDUSTRY

In the United Kingdom, high growth is observed for Innovative SMEs collaborating with others. A strong decline is observed for sales of new products. Growth performance in human resources, open, excellent and attractive research systems, firm investments and linkages & entrepreneurship is well above average. In the United Kingdom, the global market for video games is projected to grow at an annual rate of 10.6% over the coming years, to reach $86.7 billion in 2014. The sector generated £2 billion in global sales and contributed £1 billion to GDP. For regional purposes, the West Midlands region houses various small video game enterprises, as well as the bigger developer named Codemasters.

In the Netherlands, the Dutch games industry is defined by developers, publishers, distributors and retail. Apart from the companies directly active in the Dutch games industry, a significant number of players are active in a wide range of services related to the industry, ranging from legal services to software suppliers. Games companies are spread across several cities in the Netherlands. The majority of Dutch Game companies can be found in the near vicinity of game related education centres in Utrecht, Eindhoven, Breda and Leeuwarden. Utrecht has a strong governmental policy focused on business start-ups and is an important capital for the gaming industry.

In Italy, there are a few major publishers which are mainly the subsidiaries of large international groups active in the market. Smaller companies stand out for being young and dynamic, often started by professionals who have gained experience in more established areas of business such as communication design and animation. They are situated throughout Italy, from Veneto to Campania, Emilia Romagna, Abruzzo, Lazio and Lombardia. On a regional scale, companies develop “serious games” and “educational games” or games for certain age groups (6-10 years). The national and regional games industry has a sufficient capacity and quality to grow.

In Spain, The Spanish Association of Video Games Developers and Entertainment Software (DEV) was created in 2008 to represent the interests of the most important Spanish software developers. According to GAMELAB, Spain has a healthy games industry that currently consists of over 200 companies and 3,000 professionals producing and publishing high quality games for all platforms. In addition, the Spanish Association of Publishers and Distributors Entertainment Software (ADESE), which includes among its members companies such as Electronic Arts or Nintendo, acts as a representative association and voice of the sector to government, institutions, media and general public opinion.

In Germany, the German games industry constitutes an important part of the cultural and creative industries in Germany, employing around 10,000 people. On the national level, there are two main networks that bring together the relevant stakeholders from industry, including the German Association of Developers of Computer Games Developers and the German Association of Interactive Entertainment Software. It is likely that these two associations will merge in the next weeks.

As regards to the games industry, Malta has under 40 games staff and only two companies operating on a full-time basis with a permanent team of developers.

In France, highly qualified researchers and research centres are strengthening their links with businesses and government incentives designed to stimulate public-private partnerships. France’s 71 innovation clusters (competitiveness clusters) unite researchers and manufacturers from the same industry in a region and showcase the diversity of France’s key sectors.

In Salzburg, educational institutions have developed specific degree programmes meeting the needs of the gaming industry and it is to be expected that in the upcoming years highly qualified developers and publishers will emerge and highly qualified researchers and research centres will continue to work on many innovation projects together with businesses.

3.2. VALUE CHAIN (national)

Through the years the United Kingdom has been known for having quite a predominant place in terms of video game developers in Europe. This also meant that the classic video games value chain was longer due to the quality element of the development phase. The United Kingdom is known for the development of console games with higher specifications and therefore a longer and costlier activity. Publishers were then approached by fewer and bigger developers and the financial risk taken by the publisher was offset by the reputation and commitment of the developers. Nowadays the value chain has considerably changed because of the mobile and online market. It is shorter in terms of time and investments. Online games allow developers to release their games in a short time and directly get to their final customers. Hence, the ecosystem has changed rapidly for 3 different types of segments: the more traditional console market, the online market and the mobile market. In
particular in the West Midlands, the Serious Games sector is very active and more opportunities have arisen from the online and mobile segment.

The Netherlands confirm the trend in shorter value chains resulting from mobile and online games. In the case of serious or applied games, the model is slightly different. The game is often assigned, financed and distributed by a client: this is usually a company or a government agency. While serious games sometimes do use the retail driven value chain or the mobile driven value, it is less common as these games are often aimed at a specific audience. In the region of Utrecht, shorter and more direct value chains are more common. Mobile driven value chains, where for example Facebook is used as an online publisher, and online value chains, where developers directly deal with their customers, are common.

In Italy, the software companies are paid a fixed amount (production costs plus a fee between 10 and 20%) or more rarely with guaranteed minimum royalties on the sales (20-25% of the estimated retail price). The Italian industry is composed mostly of web design companies, interaction design companies or animation companies who are developing new businesses in apps for mobile phones, in social games or serious games. The publisher is left out of the value chain.

Spain has a more developed scene than Italy, having a multitude of companies in each sector of the traditional value chain. The regional context of the video game industry starts with small development studies, mainly micro companies and highly-qualified sole traders with a high level of ICT implementation, and involved in a shorter value chain. In comparison with the traditional value chain, small developers see in the online paradigm shift as providing new opportunities without the support of the large publishers. This new market is forcing small developers to face new competences and areas previously developed by the publisher, such as marketing, in order to reach the game users.

Game development in Bulgaria, in contrast to game publishing and distribution, is quite a difficult enterprise for firms as this requires a high initial investment and know-how which are yet ubiquitous in Bulgaria. Also, for this type of activity, seeing returns on investment tends to take longer than it does for other linkages in the value chain. This, coupled with minimal support options for these types of activities, produce a degree of disincentive for game development.

Germany is particularly strong in the market of online and browser games. Within the online value chain there are mainly three types of models which are used to generate revenues: subscription, free-to-play and in-store download models. Games companies can also earn their money as publishers: games are bought or licenced in a raw stage and then customized for regional/national markets. The producer of the raw products gets a fixed price and a share out of the actual turnover.

In France, online distribution models open attractive opportunities, also for traditional developers. Online and mobile games development is less cash hungry and thus a number of games can be self-funded by development studios. Also, the shortening of the value chain means developers earn between 70% (distribution through an online shop such as App Store, PSN, and XBLA) and 100% (direct sale to consumers through the developer’s own online shop) of the price paid by the consumer. The online business model is therefore more attractive to private investors investing in game development. Traditional developers expect to receive a bigger cut of the profit through usage of online models.

As regional software developers, web design and interactive designers are relatively small in size. Game development in Salzburg focuses on serious or applied games and mobile and online games. Regional distributors look for cooperation with educational and research institutions to develop new products with young entrepreneurs.

### 3.3. Regulation and Policies

While the existing regulations and policies supporting the games industry differ among the regions in Europe, all regions see (additional) access to finance, tax breaks and funding as important action points to improve the games sector. For an overview of regulations and policies per region please refer to ‘Appendix A: Desk Researchm, section 3: Regulations and Policies’. Many countries, (e.g. the United Kingdom, the Netherlands, Italy and Germany), do not have policies specifically aimed at the games industry, but there often are policies catered to support the creative industries, ICT, technology and innovation which game companies can make use of. The gap between countries can be wide: while France has specific regulations for the game industry, Bulgaria has no policies supporting creative businesses.

The lack of policies might be due to the stigma games still have attached to them. In some countries, like Spain, games are associated with entertainment and leisure activities. It is also important to raise awareness in all regions to improve the reputation of the sector. Austria has established an organisation that seeks to enhance knowledge and guidance to parents and children, overcoming prejudices. In the Netherlands and France, there are more general organisations or ‘knowledge hubs’ that promote and represent the games industry. Several regions have policies that support research & development by companies and knowledge institutions.

Some regions such as Malta want to improve internet access and connectivity while this is not an issue (any more) for other regions. IPR protection and anti-piracy measurements are important to companies in some countries as well: Spain actively tries to reduce piracy and Bulgaria wants to improve IP rights.

While the games sector is growing, most regions also indicate that competition and the global economic crisis have increased the need for funding, especially for start-ups. Several regions have, or feel that they should have governments that encourage serious games and learning for children.
3.4. ACCESS TO MARKET

The United Kingdom has a video games retail market valued at £3.3 billion in 2010 and the market is projected to grow by 7.5 percent between 2009 and 2012. UK independent games studios continue to attract international business; all major studios have UK-based developers, including Microsoft, Sony, Disney and Nintendo. These overseas corporations have also established their European headquarters in the UK.

The revenues of the Dutch game market are expected to grow rapidly. Big growth can especially be seen with social gaming, mobile devices, MMOs, portal gaming and PC games. New revenue models and lower development costs make it much easier for smaller companies to compete in the game industry. Game companies in the Utrecht region largely focus on digital distribution and mobile platforms such as Facebook, Flash and the App Store. With the expected growth of revenue for these categories, it bodes well for Utrecht’s game industry.

Umbria notes that in Italy the total videogames industry in 2011 is worth €1.035 billion. The growth rate between the years 2006-2011 has been 9.4% and still traditional platforms (console and PC) have 67% of the total market. Despite the economic downturn, with shrinking family spending, video games are becoming more popular in Italy which is now ranked 4th in Europe, after UK, Germany and France.

Piedmont confirms this increase in popularity, but mentions that there is a strong decline in sales of physical games at retail shops, due to a growing segment of the digitization of PC Games now oriented toward new online channels.

In Spain, software sales in 2009 reached €638 million, with an annual growth of 5% between 2005 and 2009. The gaming industry in Spain accounts for 53% of the market of interactive and audio-visual entertainment. Like other countries, through convergence and widespread technology, Spain sees a shift towards more online usage of playing games. It is expected that video games become even more important as a rich source of information, learning, and training, not only for children and adolescents, but also in adult education (e.g. languages) or even when recovering historical heritage.

In Bulgaria, the importance of Sofia for the cultural and creative industries is high, as it was estimated that Sofia attracts about 80-94% of all foreign investments in this area. According to ‘The Games Industry in Eastern Europe’ the business environment is bureaucratic. Multiplayer, social and mobile games are by far the most suitable kind of games for revenue purposes.

In Germany, the online business of game development is booming; just in 2011 the turnover generated online amounted at €183 million. On the consumer side, the BIU has estimated that users pay on an average 12.62 Euro monthly for online games, while for browser games this average value is around 7.02 Euro (BIU, “Online und Browser Games”). The whole industry turnover was of 1.99 billion Euro, an increase of 3.5 % compared to the previous year (BIU, “Marktzahlen”). Starting from 2005, the German market has risen at an average rate of 13% per year (Deloitte, Bitkom, 10).

Malta continues in this line, stating that it is vital to supply new platforms through which individuals can participate, such as mobile technology and digital television. In this area, the most significant change has been, and will continue to be, smartphone technology. Malta is classified as a smaller sales territory under Italy/Southern Europe. Businesses would be required with publishers to obtain full capitalisation.

In France, the turnover for physical video games in 2011 was €3.2 billion. With 14.3 million online users, France sees a big increase in mobile gaming as well. In France, 28 million people play video games, representing over 40% of the population and 65% of French with an online access to internet. ‘Serious Game’ is a Paris region initiative which combines education, apprenticeship, training, communication and information with the technologies and entertainment media created by the video gaming industry, and grows fast.

In Austria, 7.1 million units of games and hardware were sold in 2012, which is an increase of 5.8% compared to 2009. The turnover was € 287 million. There were 5.8 million units of games sold, which is an increase of 7.5% compared to the previous year. Creative enterprises constitute an important field of growth in a modern, knowledge-based society. In Austria, the increase in the number of employees in the creative industries between 2001 and 2006 was higher than that in the overall economy.

3.5. ACCESS TO FINANCE

Creative companies have difficulties finding financial support because the financial community (banks and investors) are not good at identifying the intangible assets and measuring the risk of investing in creative projects.

In England, the Business Investment Fund supports game industry initiatives, especially those that have commercial intentions. Several financial support schemes, not exclusive to the games sector, are available in the UK; Innovation vouchers allow SMEs to work with Universities in their region for an equivalent of €5000. The aim of this scheme is to support SMEs with specific innovation needs and at the same time initiate SME-university collaborations. Even though this initiative was not particularly developed for the video games industry, being a

small grant, it is quite successful within the creative sector. Other small grants are also available to support collaboration between SMEs, graduate placement schemes or proof of concept type initiatives, that provides support to all sectors including the video games sector.

Various Dutch institutes provide (opportunities for) funding. Groups of investors are willing to finance game companies with a focus on start-ups. Such groups of investors can be found throughout the Netherlands. Access to Venture Capital (VC) firms is one of the key challenges facing the industry, and in order to succeed, Dutch game developers need to work on improving their business models and increase their level of collaboration to create scale advantages.

In Piedmont, results show that financial instruments most relevant for the development of the games sector are venture funds, bank loans and public subsidies, as game projects lack the funding for their design process and prototype phases. At a regional level, the main access to finance are the innovation poles (creativity and multimedia and the ICT pole). The overall amount for the 12 innovation poles is of 60 M Euro for the period of 5 years. The innovation poles are conceived as a significant group of enterprises – innovative start-ups, small-medium-large enterprises - as well as research institutes involved in a specific sector or territorial area with the aim of supporting innovation through a sound interaction, a joint use of infrastructure and high added value services, the exchange of knowledge and experiences as well as an effective technology transfer, networking activities and the provision of information to the enterprises of the innovation poles. The other important financial instrument referring specifically to video games is the regional call for digital creativity aimed at small and medium enterprises and professionals under 35. The call is aimed at both micro and associations of enterprises for a total of 2 million euros. These instruments funded about 80 projects. Next year, the notice will be re-opened and will be assigned to other loans.

In the Umbria, GEPAFIN Spa is a public financial agency that manages specific measures to strengthen SMEs. It does not have specific measures dedicated to the gaming sector. It also has funds dedicated to research and innovation of the EU through a specific joint venture, called ATI PRISMA.

In Asturias, CEEI Asturias is acting as a ‘bridge to’ or ‘facilitator’ to other funds, as one of its main services is focused on providing access to finance for entrepreneurs and innovative companies. In collaboration with different regional financing entities, CEEI Asturias functions as a formal ‘quality validator’ of projects, through a successful methodology which supports entrepreneurs and businesses when looking for finance.

In Bulgaria looking at access to finance for the creative industries, some of the main barriers to accessing finance for companies in the cultural and creative industries are their size and lack of/low level of tangible assets. In Sofia, a special strategy, backed by finance should be put in place to support the cultural and creative industries and should be coordinated with the Agency on Small and Medium-Sized Enterprises, as well as with the National Employment Agency.

In Germany there are already several publicly funded programmes in different regions of the Federal Republic supporting the development of games and interactive applications. Some examples are provided below:

- e.g. Baden-Württemberg's Digital Content Funding, Bayern's the FilmFernsehFond Bayern GmbH (Bayerische Staatsregierung, "Computerspielförderung") supports the development of high qualitative, pedagogic and cultural computer games. Starting from 2011 also the Filmstiftung Nordrhein-Westfalen GmbH (Filmstiftung Nordrhein-Westfalen, "Förderung") offers a support programme targeting the games industry. The possibility to access venture capital for games companies of Baden-Württemberg, as well as in other part of Germany, is still limited.

- Malta Enterprise has created a number of incentives to help different types of SMEs to continue to develop and improve their business activity. Many of these initiatives may be applicable to companies who offer services to new incoming industries like games production where innovation and development is the key to success.

- Various associations provide funding in France. The video games support fund (FAJV) and the Centre national du cinéma et de l'image animée (CNC), provides subsidies and the National Video Games Association supervises training, promotion and setting standards, with the aim of maintaining a competitive computer game development scene.

- In Austria, Impulse is a nation-wide operating promotion programme for the creative industry with multiple lines of funding available. Departure offers Viennese companies and company founders of the creative industries four funding programmes tailor-made to the various requirements of the applicants on both content and on an economic point of view. Starting in 2013, a new creative voucher model will start in Austria based on the experiences made in the pilot region of Salzburg. Small and medium enterprises will have the chance to receive a € 5,000 voucher for the implementation of innovation projects with partners from creative industries. By strengthening the cross-sectorial cooperation, creative services (such as from gaming) will be integrated in the innovation process of SMEs.
3.6. ACCESS TO KNOWLEDGE & INNOVATION

Access to Knowledge is varied across the regions. Certain regions (Ile-de-France, West Midlands and Utrecht) have more well-established and clearly defined support structures in place to cater to the gaming industry. Incubators and network organisations are geared and tailor-made to the gaming industry, as well as business clusters.

Other regions have more general support instruments such as incubators and network organisations facilitating SMEs and start-ups (Umbria, Piedmont, Baden-Württemberg). Regions with less experience in the gaming sector have initiated a great growth spurt due to new policies and initiatives focusing on ICT development (Malta).

Fortunately, all have educational facilities in place with courses related to the gaming industry. However, the range of courses and link to the labour market is not yet established in all regions. The types of courses also vary greatly.

3.7. ACCESS TO SKILLS

In the West Midlands, specific sector support will be linked to networking activities and workshops organised by associations, universities, and business support agencies such as Creative England and business incubators such as the Serious Games Institute. Some events are also organised regularly to raise awareness for SMEs working in the sector as well as SMEs in other sectors in order to support entrepreneurial skills, internationalisation, collaboration, IPR and other common barriers within the sector.

In Utrecht, support comes from coaching and advice on different aspects of working in the game industry. Besides this, multiple institutions offer training on entrepreneurship and doing business abroad, including networking among entrepreneurs in the field.

Piedmont builds on this notion by recognising that the main weaknesses of game enterprise start-ups are the lack of managerial skills and the lack of economic financing competence. Advice and support about business skills is available mainly from personal networks. People interviewed cited that their entrepreneurial skills have been obtained through personal knowledge. Entrepreneurship is not sufficiently addressed in the educational system in the region.

In Umbria there is a shared feeling among entrepreneurs that companies belonging to the gaming sector should provide greater development of entrepreneurial skills and specific training for their staff. Where training is provided, it should also include business aspects and emphasize the importance of these skills. Umbria also points out the importance of creating an incubator or network hub that would perform as a link among universities, research centres, institutions, companies and investors. This would allow for an open exchange of ideas, which is seen as fundamental, and the opportunity for businesses to grow into structured firms.

In Asturias, the aforementioned CEEI Asturias is working as the prime vehicle concerning access to business. Lack of economic and financing competences remains the biggest problem in securing business opportunities in Asturias.

In Sofia, it appears that the most cited weaknesses of game enterprise start-ups include a lack of managerial and financing competence. Additionally, nearly all respondents agreed that game enterprises should do more to support the development of business skills of their staff, and universities should offer more courses on business and entrepreneurial skills.

In Baden-Württemberg, it was recommended that one should work in an existing company or work with a business veteran before committing to one's own business.

Malta has a Business Support Centre which acts as a central contact point for businesses, in some cases acting as an intermediary between the business and the different governmental bodies. The objective of the Business Support Centre is to release the untapped growth potential of services markets in Europe by removing legal and administrative barriers to trade in the services sector.

In the Ile-de-France Region (Paris Region), institutions and main players in the game industry are there which makes it an opportune place for French entrepreneurs to start a game enterprise. However, even some companies in the region noted the lack of competence and the lack of contacts and networks as a weakness in the competence field for the games sector. Business clusters offer programmes linked to human resources and business skills to help the region's video games companies. Existing programmes have to be promoted more among companies.

In Salzburg, the “Business Creation Centre Salzburg” (BCCS) supports innovative business ideas for academic start-ups (spin-offs), and supports as such, start-up projects within the field of gaming by providing infrastructure, consulting services and monetary support. Also, WE-Workshops and C Hoch3 Coaching-Workshops for entrepreneurs are organised and a special innovation service is provided by ITG Salzburg. In Austria, national support instruments in coaching and training on entrepreneurship, including networking, are being implemented on a regional level, which work to meet regional needs.
3.8. OTHER SUPPORT

In the West Midlands, the Serious Games Institute provides companies with specialised support. Through the incubator, specialists are able to signpost enterprises or entrepreneurs to the right service. Even though the institute provides support through grants for innovation, for digitalisation or mobile technologies for example, companies tend to come for specific support regarding the sector. In particular the staff can support companies in terms of matchmaking for collaborative activities, proof of concept or even difficulties with a certain development stage. Other universities and agencies in the region propose business support activities that are available for the creative sector as well as other industries.

Utrecht has various support measures which have already been mentioned in prior sections. On a national level, the government recently identified the creative industries as one nine ‘top sectors’. Within the creative industries, GATHER (2012-2016) aims to increase and enhance the collaboration between the industry and knowledge institutes. Serious/Applied Games are given extra attention with the establishment of the GATHER network (GAmes for SafeTy, Health, Education and IndustRy), which aims to strengthen the ecosystem of the Dutch games industry and international positions. The Creative Cities Amsterdam Area (CCAA) is a collaborative initiative where Amersfoort and Utrecht are two of seven cities involved in this project, which is set up to strengthen and stimulate the creative industries, by offering support to starting and existing enterprises. The game industry is one of the domains.

In Piedmont, Italy, the Torino Wireless foundation promotes company collaboration on innovative projects, analyses company needs in terms of specific innovation services, and organises networking activities to define the strategic agenda and yearly plan of activities to be approved and financed by the Regional Government of Piedmont. Umbria indicates that other support instruments are Universities, research centres and private education structures.

Although in Spain there are no incubators specialised in video games, those working in the video game sector, being part of the creative and digital industries, seem to agree that incubators should be leading in providing support to these entrepreneurs. This perception is a result of the strong feeling that the position of the games sector could primarily (but not uniquely) be based on giving young entrepreneurs, professionals and companies the role of revitalising the economic context and creating leverage to the creation of SMEs. Initiatives such as GAMELAB are an added value to the video games sector by promoting its visibility and potential to regional and national economies.

In Bulgaria, a recent project entitled BCreative, in which the Bulgarian partner in BOO-Games was involved, aimed to streamline business support services for small and medium-sized enterprises in the creative industries. It provides online support such as methods of obtaining finance, building business networks, and gaining knowledge on different subjects of interest to those in the creative industries, including the digital gaming sector.

In Germany there are some local places which act as support hubs to the gaming industry. The Games City Lab and Games City Port are two examples from the city of Hamburg (Hamburg@work) which act as places where games companies can meet students and together develop new collaborative projects, keep up to date with new technologies and trends, and provide opportunities for networking.

In Malta the added value of translation and help desk services was mentioned as a way in which companies have managed to target some of the newly established industries that are developing in Malta. This could repeat itself with the establishment of new business ventures such as the production of digital games. Also web developers, accountancy firms, customer services and legal services can provide support for starting entrepreneurs. However support mechanisms targeted to the gaming industry were not mentioned.

France has many supportive bodies, including but not limited to: The National Video Games Association (SNJV, Syndicat national du jeu vidéo), The French Agency for Video Games (AFJV, Agence française pour le jeu vidéo), The National Centre of Cinematography and the Moving Image (CNC, Centre national de la Cinématographie et de l’image animée), The Ministries of Economy and Industry. They also have various business clusters: Cap Digital, digital content cluster, Capital Games, Paris Region video games cluster, and the other regional clusters: Atlantgames (Pays de la Loire), Bordeaux Games (Aquitaine Region), Game In (Game Industry North), Gamesud (Provence-Alpe Côte d’Azur Region), PixLR (Languedoc-Roussillon Region).

In Austria, the Austrian Association for Entertainment Software and the ComputerGrafik Association support the promotion, organisation, networking, structuring, and representation of the interests of Austrian computer and video games. This is done by setting up regional hubs, starting fundraisers through crowdsourcing and by raising awareness by transregional visibility. In these regards a yearly conference at the University of Applied Sciences is being organised, called “Games Day”.

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5https://www.howtogrow.eu/system/pg/home/
3.9. NEEDS

In the West Midlands, the need for creating awareness of the added value of the games industry was seen as important, as the exposure is needed and the right contacts are crucial when developers or companies in general want to grow, collaborate or simply generate income. This is needed for the sustainability of the sector, which is a concern of its own. Also the skill level amongst applicants directly after graduating from higher education is generally not high enough.

In Utrecht, main needs identified were access to finance, lack of entrepreneuriale skills and having a good overview of the current gaming industry and how to engage in it as an up-and-coming game company. Access to market was also seen as important. Maintaining the already available network/cluster development was also seen as essential. Working in an interdisciplinary context and across sectors is also seen as paramount in order to sustain the regional gaming industry. Hence increasing awareness of the added value of the gaming industry and visibility of the gaming industry on a regional, national and international level remains a need.

In Piedmont these needs exist as well. Access to finance is a high priority and combining serious games with other fields of business seems like the next logical step to raise awareness and provide a solid ground for game development.

Creating awareness is also a high priority for the Umbria region. Besides that, the most important needs expressed by companies interviewed in Umbria are related to acquiring a specific structure (e.g. hub, network cluster, incubator) within the regional territory, where companies operating in the gaming industry or related to it can settle down, find specific support and technical assistance.

In Asturias, the existence of GAMELAB provides access to knowledge (innovation), regulations and policies, access to the market, and access to finance on both a national and international basis. Besides GAMELAB, CEEI FINANCIA supports creative entrepreneurs with capital investments. The biggest current needs seems to be to continue increasing the visibility of the sector via cross-sectorial cooperation and networking activities, as well as to provide the appropriate skills and specialised qualification of human resources for the games industry. Being aware of the needs concerning access to finance for the gaming industry, new financial actions or instruments as well as tax incentives are remarkable elements to improve the development of this sector.

The trend of needs for financial resources continues in Sofia and Bulgaria, where a games fund providing financing, grants, and/or tax credits to companies seeking to develop new products, would be a good start for a more stable sector. Second to this, linkages between industry and educational institutions should be strengthened.

Baden-Württemberg lists four needs: a wider awareness and networking opportunities for games developers, acceptance, promotion and investments. One of the gaps causing these needs is that companies working in the field still do not recognise the presence of a real game industry in the region.

Malta refers to its tax policies for a healthy business climate, but lacks information on where the sector needs support.

France states that it is the second country after the U.S. with the most employees in the video game business. Therefore no real needs are required to further promote the industry, but steady advancement is welcome. Promoting and developing the specialised video game cluster in the Paris region and helping actors grow in the market are some priorities. Salzburg’s ambition is to promote innovation in and by means of the creative sector (e.g. gaming). Therefore the biggest current need seems to be to raise awareness for the importance of game related applications and support cross-sectorial cooperation with traditional business fields and organise networking activities. In addition existing framework conditions (e.g. incubators) need to meet the needs of highly skilled and talented professionals from the games industry.

3.10. OVERVIEW OF THE CURRENT REGIONAL SITUATION

For the United Kingdom, the multiplicity of screens/platforms through which people can consume content is an ever increasing driver for the industry. Besides convergence of media sources, divergence is also a driver within games with the number and variety of platforms and screens for content ever increasing.

The games industry of the region Utrecht is a fast growing, innovative sector. The incubator Dutch Game Garden is seen as the heart of the region as it is the central hub for industry activities and support as well as its building that is home to many game-related companies. The Dutch Game Garden has played and continues to play a large role in building the ecosystem and stimulating the growth of the games industry in Utrecht. Utrecht also has some important educational institutions like Utrecht University, Utrecht School of the Arts, Hogeschool Utrecht and Grafisch Lyceum Utrecht who offer programmes and courses on games and game-related subjects.

The Virtual Reality & Multi Media Park is a hallmark in Piedmont’s advancement towards a more developed game industry. The park works both as an incubator, and a development lab, where the market’s feasibility of applications and prototypes, based on state of the art technology, are tested and evaluated. Piedmont notes however, that today Italy is at risk of remaining cut off by the booming gaming market and fails to keep up with the Asian countries, other European countries, and America. Piedmont suggests several solutions for further innovations and possibilities for growth.

Umbria presents a general situation of structural fragility and weakness and difficulty to transform innovative potential into productive aims. However, the good level and skills of the workforce and the extremely high participation of all social and economic stakeholders to the regional policies processes, are the main features
of an attractive territory, where favourable conditions have increased the flows of people, capital, resources and investments.

The biggest challenge for Asturias comes in the form of securing financial means, and therefore lists several recommendations such as to promote a friendly environment on both sides (video games industries and financers) to solve the obstacles to access to finance, especially at the early stage of developments - or promote adequate lines of funding, not only public finance, but also from private investors.

For the industry in Sofia and Bulgaria to grow, several considerations need to be made, including effective forms of financial support and an increased focus on entrepreneurialism. This increased focus could, in part, be promoted by popularising the successes of entrepreneurs in the gaming sector as well as popularising the career opportunities available after studying in the science, technology, engineering and mathematics (STEM) fields. Also, there is an insufficiency of highly qualified specialists in the digital gaming sector in part due to the lack of digital gaming educational programmes and the applicability of higher education to the job market. It was noted that there is a lack of understanding by the tax authorities of the specifics of the game development companies. The development of a state-funded administrative office to help support small companies in developing applications for funding, as well as for accounting services, would be beneficial. Finally, the completion of a strategy for the development of the creative industries, including specific measures for subsectors after consulting with relevant stakeholders, is needed to support the sector.

Baden-Württemberg notes that the level of innovation in the game industry in some areas is remarkably high, but the field lacks cooperation and in some cases financial backing. Setting up of a regional games network, supported by public institutions, but driven by expert of the sector, and strengthening synergies, are two of the most important needs for improvement right now.

Malta lacks initial investment in the early stages of companies and projects. Another concern is the lack of a business networking. In their conclusion, their report includes a large plan with recommendations for improvement called 'the digital game strategy'. This strategy contains recommendations for schooling, starting businesses and attracting international players to the Maltese industry.

Ile-de-France (Paris region) has a developed video game industry. Many games have been developed in the country for more than 40 years. The French government, the regional and local authorities, as well as the main professional organisations develop policies and support instruments concerning access to finance, to help the stakeholders of the national and regional video game industry to stay competitive in a globalised world.

Salzburg’s challenge will be to raise awareness in traditional business fields (like health, tourism, trade and crafts) for the potential of gaming applications and to stimulate demand. Furthermore, existing support measures (like incubators or funding instruments) need to meet the necessities of start-ups and young entrepreneurs in the field of gaming. However, the high level of skilled regional workforce (coming from the University of Applied Sciences) provide favourable conditions to cope with the above mentioned challenges.
4. SUMMARY: OVERALL QUESTIONNAIRE RESULTS

A summary of the main trends under the six themes that arose from the questionnaire responses is provided below.

4.1. OVERVIEW OF THE GAMES ENTERPRISES

4.1.1. Size of Game enterprises

The majority of the enterprises working in the game sector are start-ups or SMEs (small and medium sized enterprises); Seventy-nine percent of the respondents were employed in enterprises consisting of less than 25 employees. Citing the responses ranging from highest to lowest, 25% work in enterprises with “less than 5 employees”, 24% between “5-9 employees”, 19% of the respondents work in a “one man business or as a freelancer”, and 11% work in an enterprise with “10-24 employees”. The remaining 21% of the respondents work in enterprises with “more than 25 employees”.

Similarly, the average size of the game sector companies in each region, is less than 25 employees (75%); 24.5% are in the range of “10-24 employees", 29.1% are between “5-9 employees”, 16.3% have “less than 5 employees” and, 5.1% are a “one man business or freelancers”. Hence, in general, it can be stated that within the regions surveyed, the game sector is mostly characterized by SMEs.

Regarding the annual turnover, the majority of respondents (67%) had a turnover of “under 200,000 euro". Seven percent declared to be in the “200,000-500,000 euro“ range, another 7% declared to have “more than 1M euro” turnover, 3% indicated that they were in the “more than 2M euro” category. Seventeen percent preferred not to reveal (by indicating “rather not say”) their annual turnover.

This coincides with the previous results concerning type of enterprise. Turnover of the majority of enterprises falls below the 200,000 euro range, illustrating that respondents are mainly people working in SMEs.

To summarise, game enterprises are small and medium enterprises (SMEs), with less than 25 employees and less than €200,000 turnover. SMEs are the most common type of company in Europe. Triple A companies and companies with more than 25 employees are mainly located in countries where the game sector is more developed, such as France, England and Germany.
4.1.2. Types of Games Developed

Game related enterprises are SMEs mainly focused on entertainment games and serious games.

Out of 333 respondents, those focused on "entertainment" games was the greatest, (N= 115), followed closely by "serious games – learning" (71), "serious games – persuasive" and "well-being and health" (both 37), and "location-based games" (30). Forty-three respondents were unaware of the types of games created in the region ("don't know"). Interestingly the total amount of respondents who chose serious games (learning, persuasive or well-being & health) was 145. This indicates an already present market for serious games, as they are being made by many companies (N = 115).

To summarise, it should be noted that while games for entertainment continue to represent a significant portion of the digital gaming market (according to those who responded to our questionnaire), serious games are clearly very important for the sector. With 43.5 % of the respondents to the questionnaire noting that companies in their region are focusing on serious games. This aspect of the digital gaming sector should not be ignored when crafting favourable public policies for the sector.

4.1.3. Genre of Games Developed

Looking at the type of products focused on by the enterprise, Out of 211 respondents, the majority are mainly focused on "single player" products (N= 35), "multiplayer" (N= 26), "serious games" (N= 26), "mobile games" (N= 21) and "simulation" (N= 24).

To summarise, game enterprises are currently mainly developing single player games, multiplayer games and serious games and simulation.
4.2. OVERVIEW OF THE GAMING SECTOR

4.2.1. Value Chain

Figure 2: Value Chain: At which level is your business most active? (N=271)

Figure 2 shows that, of the sample of 271 respondents, businesses are active at all levels of the games value chain. Enterprises are mostly involved in “development and programming” (N = 51), “game design” (N= 44) and “art and animation” (N= 37). “Production” (N= 31), “publishing” (N= 18), “business and marketing” (N = 14) and “community management” (N= 14), “audio” (N= 13), “quality assurance” (N= 12) and “middleware” (N =10) are in the middle range.

Game-related enterprises seem to be the least active in “console and platform making” (N= 3), “retailing” (N= 5), and “distributing” (N= 8).

To summarise, enterprises included in the sample are usually active in “development and programming”, “game design” and “animation”. Development and programming are skills which are found in all regions.

4.2.2. Business Models

Examining the revenue models used, most of the respondents used the “B2C (business to consumer)” (N= 30) and “B2B (business to business)” (N= 42) model, followed by the “online download” (“own website”) (N= 26), and online download “other platform” (N= 31). The total number of respondents total online models 57.

Respondents also mentioned that in the near future business models such as “virtual goods” can open up new interesting market opportunities.

In sum, online models and B2C and B2B are the types or revenue models most used. This situation is changing quickly, due to mobile technology spreading (mobile phones, tablets, laptops and the most recently “phables”, halfway between phones and tablets).

4.2.3. Future Trends

Of the 655 responses, the genres of games that are predicted to generate the biggest revenues in the future are: “mobile games” (N = 115), “social games” (N = 103), “multiplayer” (N = 98), “serious games” (N = 86) and “simulation” (N = 43).

To summarise, when asked about future trends, respondents cited that the most interesting business areas for gaming companies will be mobile, multiplayer and serious games.
4.3. POLICIES AND REGULATIONS

4.3.1. Interest in the Potential of Gaming

All the respondents showed a great interest in the economic potential of the gaming sector. In regions/countries where the games sector is not yet at a high level of development, many interviewed enterprises working in related sectors (such as ICT, video, etc.) stated that they did not think about the potentialities of the gaming sector as they often thought of this sector as a sector where great investments are needed, together with very high technical competencies and skills.

Others stated that they seldom thought about the opportunities that could arise from the different areas (serious, mobile etc.) in the gaming sector. The majority of respondents were very interested in obtaining more information on this sector and the related ones, in order to examine potential future opportunities that could arise from connections between the gaming and other sectors.

4.3.2. Dissemination

Most of the respondents would like more information about the gaming industry as they find that they are not informed enough.

Many respondents also mentioned/agreed with the statement that they would like the public sector to directly organise or support events about the gaming industry. This is a strong need in most countries as most entrepreneurs are not aware of the opportunities linked to the development of this sector and the possibilities linked to cross-sectoral exchange.

4.4. ACCESS TO MARKET

Only 35% of the respondents declared that in their region market conditions are favourable for the establishment and maintenance of the games industry. Twenty-three percent found that the market was unfavourable in their region. Around 42% of the respondents chose “neutral” regarding this question.

This either indicates that they are not aware of the market conditions in their regions or that they do not find this issue important enough to comment on. The former is probably more likely, as respondents did indicate that they were interested in obtaining more information on policy measures.

4.4.1. Serious Games

Many enterprises are becoming aware of the potential of “serious gaming” as a great economic opportunity, especially for those regions where the game sector is not highly developed yet and where highly skilled game designers and artists are not present in the region. During the BOO Games Seminar held in Perugia on the 5th of October, the potential market opportunities linked to “serious gaming” applied, for example, to the medical sector, were discussed.

4.4.2. Mobile Games

For regions that are still emerging in the gaming industry, an important market opportunity is represented by mobile games. The entrance barriers are quite low; from a technological point of view the requisites are relatively easy to meet and the required investment is low. The graphic needs of most of the products developed for mobile phones are not as high as those, for example, needed to develop a console game (Psp, Wii, WiiU, Xbox and Xbox 360).

Mobile games could represent a possible “first try” for companies who up to now have been working in the ICT sector; challenges remain such as the high level of competition. These are just some examples of the opportunities that companies are now discovering, in part resulting from the dissemination and activities carried out within BOO Games.
4.5. ACCESS TO FINANCE

4.5.1. Access to Finance

According to the results of the questionnaire, access to finance is considered to be the most important problem faced by gaming companies. Most of the financial instruments available in the regions are not gaming sector dedicated, and this makes the access to finance difficult. The sector is still considered risky by investors. Most entrepreneurs self-finance their investments.

4.5.2. Types of Support

![Graph showing ranking of usefulness of types of support](image)

When asked which type of support is the most useful for game enterprises, respondents chose, in order of relevance: “financing of the prototype phase” (N = 108), followed by “developing business models” (N = 65), “financing the concept phase” (N = 62), “coaching/support before the application process” (N = 59), “support during the application process” (N = 58) and “financing the other items” (N = 58), “support from game experts” (N = 48), and finally “evaluating market potential of a product/service” (N = 44).

Prototype financing is the first step of creating and testing a new product. This phase of product development is considered to be “high risk” and is generally self financed.

Out of 634 respondents, when asked which financial instruments are most relevant for the development of the games sector, the most important financial instruments are: “self financing” (N = 89), “public subsidies” (N = 71), “venture and equity funds” (N = 65), “private financing” (N = 63), “business angels” (N = 62), “tax incentives” (N = 50) and “bank loans” (N = 47). Crowd funding was mentioned by thirty respondents. So, even though there is an option to raise small and medium sized sums of money to finance prototypes, it does not seem to be the most relevant option.

In sum,

Finance is seen as the most useful in the prototype phase of game development.

Respondents find that currently, the 3 main financial support instruments for the game sector are: self-financing, public subsidies and venture equity funds.

Respondents find these entrepreneurial skills most useful: developing business models and coaching and support for business applications.
Help in Setting Up their enterprise. This is a risky phase in when companies need to find money in order to start their own company. In most countries, financial instruments are available in order to help start-ups, which range from loans to grants to venture capital. However, in most cases these are not specifically game-related. Often banks or other sources of finance prefer not to invest in this sector due to risk management concerns.

Which Support Measures could improve the Games Sector?

Of the eight support measures (IPR, eCommerce, data protection, tax breaks, labour regulations, licenses, removing red tape and setting up, the three most important areas to improve in order to help the game sector are “setting up” (N = 94), “IPR management” (N = 89) and “removing red tape” (N = 81). The total number of respondents was 531.

These are followed by “tax breaks” (N = 78), “ecommerce” (N = 56), “licences” (N = 51), “labour regulations” (N = 44) and “data protection” (N = 38).

More streamlined procedures/help with red tape is needed. Procedures are another important matter in the life of gaming related companies. Many of them underlined that the fact of having less bureaucratic hurdles to overcome would allow them to better focus in the development of their products and the managing of the company.

Tax incentives. Often the gaming sector development is linked to the possibility of having tax incentives. Only a few of the partner regions have a specific tax reduction for gaming related companies. In Italy, for instance, a specific law proposal was presented on April 2012 by several government members (Palmieri, Angelino Alfano, Brunetta, Romani, Stanca, Baldelli, Bergamini, Calabria, Cassinelli, Garofalo, Murgia, Vaiducci, Vignal). In the framework of the Digital Agenda 2012. This forecasts such a possibility, but it has not been approved yet.

IPR support. This is another important problem that arose from the questionnaire and from the interviews: many gaming related companies declare that a strong IPR support can be a very important factor in the development of the gaming sector. This is especially important within Europe where the problem of piracy is quite widespread.

However, IPR support was not mentioned as important by all game enterprises, as due to the shift of business models, open source models are becoming more popular.

In sum, concerning access to finance, the three most important areas to improve (according to the responses obtained) in order to help the game sector include setting up, IPR management, and removing red tape.

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4.6. ACCESS TO KNOWLEDGE AND INNOVATION

4.6.1. Availability of Educational Institutions Offering Game-related Courses

When asked whether universities are available that offer specific courses focusing on games in the region, half of the respondents indicated that this was not the case.

Regions with universities or educational institutions offering game-related courses include: West Midlands, Ile-de-France, Utrecht, Baden-Württemberg and Salzburg and Asturias.

Regions which offer courses related to the ICT sector but not yet specific game-related courses are:
- Sovereign, Umbria and Piedmont. Malta and Sofia, is currently setting up game-related courses. This highlights the need in some regions of specific university courses focusing on games.

In sum, concerning access to knowledge, more developed regions such as the West Midlands, Ile-de-France and Utrecht, offer specific University Courses such as programming, graphics, 3D modeling. In Umbria, Piedmont and Sofia such specific courses are lacking. In Malta and Bulgaria courses are currently being set-up.

4.6.2. Advice & Support Concerning Business Skills

Main Weaknesses of Start-ups

Out of 436 respondents, the main weaknesses of start-ups were: “lack of economic financing competence” (N = 101), then “lack of managerial skills” (N = 90), “lack of commercial competence” (N = 75), “lack of entrepreneurial skills” (N = 73) and “lack of contacts and networks” (N = 53).

Of 323 respondents, availability of advice and support about business skills are mostly available from “consultants” (N= 68), “sectoral organizations or associations” (N = 64), “personal networks” (N = 63), and “educational research institutes” (N = 55).

Game companies themselves are not always aware of interested in obtaining these skills. When asked, how these skills are currently acquired, respondents answered “personal knowledge” (N = 80) and “trial and error” (N= 69). The majority of respondents learn entrepreneurial skills on the job. Combining personal knowledge and trial and error with extra educational or vocational courses, contacts and specialised SME advice centres could decrease the attrition rate of fledgling companies.

Other sources of knowledge included “Educational or vocational institutes” with 44 respondents, “contacts and networks” with 40 respondents, “life long learning projects” with 36 respondents, and “Specialised SME advice centres” with 28 respondents. The lower level of results obtained from the “educational or vocational
institutions” and “specialised SME advice centres” confirms that there may be a strong need to raise the level and the intensity of education dedicated to gaming and gaming related companies.

In sum, policy-makers and business incubators highlight the lack of business skills as one of the main weaknesses for game start-ups and SMEs. Game companies generally have expertise in developing products but miss business education or entrepreneurial skills. Many companies fail due to this lack of expertise. Currently these skills are mainly acquired via personal knowledge and trial and error.

4.6.3. Dedicated Clusters and Incubators

Forty percent of the respondents asserted that a game cluster/incubator exists in the region; 43% declared not to have one and 15% did not know whether an incubator or games cluster existed. Once they were requested to express their opinion on the need of a game cluster/incubator, the majority of the respondents (83%) agreed that having an incubator would be useful for their business. A small minority were unsure about the added benefits of a cluster (15% = “don’t know”, 2% = “no”).

This need is felt very deeply by gaming companies. The fact of having a specific location at controlled or below market prices, together with affordable services and, perhaps most importantly, the chance to be next-door with other companies working in the same field/sector, is a very important added value. This also allows them to exchange experiences, technology and ideas and to cooperate together in developing joint projects.

In sum, the importance of having a dedicated cluster or incubator in order to help foster this specific sector was underlined. All regions except Sofia have incubators in place to help businesses. However, not all regions have incubators focused on the gaming sector.
4.7. PERCEIVED NEEDS

Respondents were asked to identify the main obstacles for creating and sustaining the games industry in their region. The results are located in the figure below.

**What is the main obstacle for creating or sustaining the games industry in your region? (You can answer more than once)**

- Access to business support
- Access to market
- Access to finance
- Access to knowledge
- Access to R&D and technology
- A supportive regulatory framework

**Figure 5. Main Regional Obstacles for the Games Industry (N = 340)**

4.7.1. Overall Perceived Needs

The main obstacles for creating and sustaining the games industry according the results obtained include: “access to finance” (N = 107), “access to market” (N = 52), “access to business support” (N = 49), followed by “a supportive regulatory framework” (N = 45) and “access to knowledge” (N = 45), and “access to R&D and technology” (N = 42).

The most important obstacle is “access to finance”, which is mentioned twice as many times as the other options. This indicates the strong need within the regions to have dedicated financial instruments that could be activated by modifying the already established financial instruments and give specific reserves of money to game related projects when in the prototype phase.

4.7.2. Needs Specified per Region

Table 10 provides an overview of the ranking of the top three answers per region.

Six regions answered the question, ‘What are the most important action points for your region. Please choose three in order of priority: a) creating awareness for the added value of the games industry, b) creating policies and regulations catered to the game industry, c) access to market and other opportunities, d) access to finance, e) network/cluster development, f) creating and sustaining research & educational programmes’.

‘Access to finance’ remains the main obstacle for all regions. All topics were rated as perceived obstacles for sustaining or boosting the games industry. Looking more closely at the ranking, it is interesting to note that having ‘a supportive regulatory framework’ was mentioned by Umbria, Baden-Württemberg and Sofia as one of the top three obstacles. These regions differ in their stage of development, where Baden-Württemberg is an innovation leader, Umbria a moderate innovator and Sofia a modest innovator.

‘Access to knowledge’ was mentioned as one of the top three challenges for Utrecht, Umbria and Asturias. This is also interesting to note as Utrecht does have educational institutes and networks which are specifically catered to the games industry, whereas Umbria does not have specialised game-related courses or
regional game-related networks. Asturias is starting to have some game-related courses but does not, as of yet, have a specific game-related network in the region. Results from the interviews could shed more light on why Utrecht mentions this as one of the main challenges.

The ‘access to market’ indicator was mentioned by Utrecht, Piedmont, Asturias and Baden-Württemberg as important. Umbria and Sofia did not rate this as one of its top three challenges.

‘Access to business support’ is seen as one of the top challenges in Utrecht, Baden-Württemberg and Sofia. It is not mentioned in the top three by Umbria, Piedmont or Asturias. Utrecht has access to specialised business support catered to the gaming industry in their regions, whereas Baden-Württemberg, Umbria, Piedmont and Asturias have access to general business support in their region. It could be that more developed regions are more aware of the importance of access to business support or expect more from their network organisations.

Seemingly for regions which are still developing their game industry, ‘access to knowledge’ or ‘access to market’ are seen as bigger hurdles than ‘access to business support’. The exception is Sofia, who also mentions ‘access to business support’ as a priority. This may be due to the fact that Sofia lacks both a supportive regulatory framework and business support, whereas both Utrecht and Baden-Württemberg have certain support structures already in place.

<table>
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<tr>
<th>Topic</th>
<th>Utrecht</th>
<th>Piedmont</th>
<th>Umbria</th>
<th>Asturias</th>
<th>Sofia</th>
<th>Baden-Württemberg</th>
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Table 10. Ranking of Top Three Answers per Region

In sum, for all regions, access to finance remains the biggest obstacle for creating or sustaining the industry in their region. Access to market, access to business support, access to a supportive regulatory framework, access to knowledge and access to R&D technology also remain challenges and were mentioned to a similar extent in a collective overview of the regions.

In sum, per region, of the six regions who answered this question, access to finance remains the main obstacle for all regions. Access to knowledge was mentioned as one of the top three challenges for Utrecht, Umbria and Asturias. Access to market was mentioned by Utrecht, Piedmont, Asturias and Baden-Württemberg. Access to business support is seen as one of the top challenges in Utrecht and Baden-Württemberg and Sofia.
SUMMARY: INTERVIEW RESULTS

5.1. SUMMARY OF INTERVIEWS: Current Regional Overview of the Gaming Industry

5.1.1. Main stakeholders responsible for growth in the games sector

The types of stakeholders mentioned per region are similar. Regardless of whether the region is more or less developed, stakeholders that are needed and responsible for growth in the games sector are actors who have also been identified in ‘Appendix: Desk Research, section 1: Overview: Main Stakeholders per Region’.

These include educational institutes, policy makers and government officials, entrepreneurs with a background in game design or ICT, enterprise support agencies and public and private investors who have access to local, international and global business opportunities. Publishers were also mentioned.

The importance of how stakeholders interact was also mentioned several times. Ile-de-France stated that generating growth could be helped by balancing aspects such as funding, R&D, promotion and dissemination, and networking and representation to the government and towards other sectors.

Piedmont highlighted the lack of investors and venture capitalists. They state that Italy does not seem to have a clear perception of the economic implications game development could have on a regional level. Asturias also mentioned that structuring the games sector could primarily (but not uniquely) rely on entrepreneurs and young professionals and companies.

Those interviewed in Utrecht, Baden-Württemberg and, Salzburg and Asturias mentioned the need for providing a platform for these professionals to further their business. The use of networks and alignment of stakeholders from different backgrounds is seen as a key factor to further collaboration and development in the gaming industry and the presence of a specialized incubator increases the visibility of the gaming sector.

Most regions emphasized the importance of education and universities in stimulating growth as they have a very important role in providing the adequate skills needed to develop the right workforce. For instance, in Sofia it was further mentioned by some game experts that a closer relationship with academic institutions is needed in order to create better synergies between academia and industry. They also mentioned a stakeholder which is not commonly targeted, the parents of grammar school aged children; If parents open up to the idea of learning through gaming, they deepen the market for educational games and, when conversing with teachers and school directors, can induce a shift away from out-dated teaching models to new interactive ones.

Those interviewed in Sofia also repeatedly mentioned the importance of public authorities and their role in sustaining the industry. Public authorities play a major role in the creation of a favourable business environment and should focus primarily on the provision of efficient procedures and infrastructure and encourage innovation.

As a Maltese respondent mentioned, the enterprise support agencies both in the field of fiscal and investment support, as well as in terms of creative industry hubs and managed incubators, are also essential.

5.1.2. Regional Description of the games industry

The West Midlands describes the gaming industry as important within the region, as 20 percent of the UK games industry is located here. The serious games sector is also developed. They do mention a skills gap between needed professionals and the graduate pool.

Utrecht describes its industry as young and still growing, consisting mainly of start-ups and SMEs. The emergence of the sector has been facilitated due to the presence of educational institutes, an incubator and the backing up of the public sector.

Piedmont describes its industry as emerging with a promising potential in the field of serious games applied to different contexts. They further mention the dynamic nature of the gaming industry, where users and types of platforms (e.g. online) and devices (e.g. mobile) used, contribute to the emergence of different business models and value chains.

Umbria mentions that there are many companies involved in gaming related sectors (ICT, video, multimedia, web, etc) and interviewees showed great interest in the potential of gaming. Rather than following the creation of a game sector with triple A companies similar to those in England, France and Canada, they would like to focus on the potential of creating serious games instead.

Asturias describes its region as emerging with a small presence of game companies. The awareness of the potential gain in boosting the regional gaming industry is apparent due, in part, to the Gamelab event. The importance of cross-sector collaboration and collaboration of policy makers and public organisations in providing the right support instruments was also highlighted.

Sofia's gaming industry is still in its infancy although developing rapidly. There are three large foreign-owned companies (Crytek, Ubisoft and Gameloft) and around 15 gaming companies that are situated in Sofia. Educational courses focused on game development are lacking.
Baden-Württemberg describes the industry as technologically advanced with a great potential. However the connections between the SMEs, one big player and the educational institutions is regarded as scattered, with a gap in targeted educational opportunities and a lack of focus in the current regional policies.

Malta’s industry is also still in its infancy. However it does have a well-developed remote gaming sector representing 10 percent of the world market with over 250 license holders based in Malta. Malta is interested in developing the gaming industry further and has set up a strategy group for digital games to facilitate this.

Ile-de-France has a developed gaming industry with over 100 developers who work on different platforms, 40 video game publishers, and 30 schools connected to the creative industries. The region also benefits from cross-sectorial networking.

Salzburg’s gaming industry is emerging with a number of small sized enterprises and a few large international players. New Master programmes at the University of Applied Sciences in the field of gaming and awareness raising measures such as the Games Day event demonstrate Salzburg’s ambition to make use of its high potential especially in the field of mobile computing, pervasive gaming and serious gaming and new application in the area of mixed reality.

In sum, each region has developed differently and factors contributing to a region’s development are quite varied. However certain needs are the same. Creating a viable ecosystem is something which all regions are interested in. Stakeholders who were interviewed were also well aware of the difficulty of defining such an ecosystem due to the quick-paced, transient and flexible nature of the gaming industry. Being aware of current and future trends and tapping onto new market potentials is crucial. Carving a niche for oneself is key in an ever increasingly competitive industry.

5.1.3. Interconnectedness of the games industry

In the West Midlands, the gaming industry, even though quite active, does not have an official network or cluster dedicated to the video game sector. A skills gap was also mentioned. However universities do support the sector via research and collaborative projects.

In Utrecht, the games enterprises in the Utrecht region are well connected via the Dutch Game Garden and Dutch Game Association. Games enterprises also have an open and collaborative way of working together. It was mentioned that educational institutions, even though they do collaborate together, are not as connected as they could be. Control, the game-related magazine, was also mentioned as an easy way to connect people, as it is easily accessible to the target group. Festival and Conferences such as the Festival of Games, Game in the City and Indigo, also provide formal channels to connect.

In Piedmont, the majority of respondents declared that there are no connections, except for companies that are involved in one of the regional innovation clusters that also have that function. A cluster dedicated to gaming seems to be necessary. The View Conference, an annual meeting between local industry experts and global game industry experts, is mentioned as a step towards connecting the local and international game enterprises.

In Umbria, the potential of cross-sector relationships, with, for example, tourism, the medical sector and education sector has been underlined in addition to the need to strengthen the connections between universities and companies, and the involvement of the public sector in terms of investment.

In Asturias, the games industry is still emerging and networking is important to share information and increase collaboration. CEE! Asturias provides such services, but mentions that more networking actions are important. The importance of providing appropriate qualifications was also mentioned.

In Sofia, the gaming industry is relatively small. Attendance at conferences allows the development of business partnerships. Networking takes place in a relatively informal way. There were differences in opinion concerning how connected to industry was, where some wanted to formalise networking opportunities whereas others still found that even informally, the sector was not well connected.

In Baden-Württemberg, networking events were seen as crucial to boosting the games sector. However according to a respondent, this is still not fully exploited in the region. Another respondent also mentioned that a cross-link to other related industries such as comics, film and animation are beneficial to the development of the industry and to fostering innovation.

In Malta, the remote gaming companies are well connected due, in part due to their close geographical proximity. Network events are also organised. Newcomers in the field are still finding their way around the sector.

In Ile-de-France, companies are well connected due to the different professional organisations such as SNJV, the competitiveness and business clusters Capital Games and Cap Digital (R&D and cross-fertilization), trade shows, schools, public organisations and private initiatives such as BulkyPix (studio space).

In Salzburg, the regional potential of cross-sectorial partnerships (e.g. in the fields of tourism, health and education) needs to be unlocked by further awareness raising and networking measures. Based upon the activities of the University of Applied Sciences Salzburg, experiences and possibilities need to be shared and the relatively small number of gaming companies, researchers and SME’s from various branches shall be further connected.

In sum, how well connected the games industry is, differs per region. For regions who have incubators, hubs and network organizations whose job it is to connect with this target group, networks and connections are more easy to track and also more visible to the game enterprises, general public and potential investors or collaborative partners. For those regions that are lacking one specific location where one can exchange ideas and receive information, the gaming industry is more dispersed and difficult to pinpoint. All regions agree that the
presence of an incubator or hub specialized in the gaming industry or more broadly catering to the creative industries, is needed.

However, it is also interesting to note that even in regions with access to network organizations, there are game companies who choose not to be part of associations catered to their needs. Why this is the case has not been identified, however visibility, lack of time, lack of resources such as finance, and lack of awareness of the added value of exposure could be factors which play a role.

The gaming industry is generally seen as an open-minded industry. Especially for young start-ups and small SMEs, the sharing of information and assignments is common. However this is not the case in all regions. For instance Piedmont mentioned that one of the changes which would help young entrepreneurs would be an increase in trust and cooperation between companies.

5.1.4. Types of Games Produced in the Region

The West Midlands originally focussed mainly on console development (with a particular strength in racing games), but most recently it has seen a growth in casual, serious and mobile game development.

Utrecht produces almost all types of games but is known for its indie scene and knowledge of applied/serious games. Type of games mentioned in Utrecht were: casual, online, downloadable (Xbox live), mobile, serious, indie games, board games, pervasive, and advergames.

Piedmont mentions the increasing interest in serious game production.

Umbria mentions that games which are considered to have the greatest potential for development are those based on mobile (serious games and entertainment centre), social games and serious games.

The Asturian games industry produces mainly mobile games and serious games for single players and multiplayers and serious games mainly linked to health and training fields. There are also some companies focussed on simulation, action/shooter, social games, rendering and advergaming.

Sofia develops browser games and while not yet as developed as some of the other regions, this is expanding rapidly. It currently produces games which do not require intensive human or financial resources in order to manage the risk.

In Baden-Württemberg the focus is on online and mobile games which are mostly based on a free to play basis. The most produced genres of games in Germany are browser games. Casual and mobile games are also becoming increasingly important. Serious games are not the focus of game companies in Baden-Württemberg.

The most popular games produced in Malta are MMO, Social Games, Freemium Games, Point-and-Click Adventure Games and want to focus on servicing international game developers and build on working on Mobile, Tablet, PC, Console-Downloadable (e.g. Xbox-Live/Playstation Network), Casual, Flash and other browser games which require smaller teams.

Île-de-France produces all types of games using different platforms such as console, MMOG, mobile games, social games and serious games. There is no organisation focused solely on serious games, however companies do produce serious games.

In Salzburg, the focus is on mobile and online games, as well as the production of pervasive and serious/applied games.

For a more in-depth and descriptive look at the types of games produced per region, please refer to the desk research in ‘Appendix A: Desk Research under section 1 Value Chain and section 3 Access to Market’ and questionnaire results in section 4.1.2. ‘Types of Games Developed’.

5.1.5. Public Perception of the Gaming Industry

In general, the public perception of the gaming industry is similar per region. The perception has improved in recent years but the general public is still mostly unaware of the potential and impact of the games sector.

5.2. SUMMARY OF INTERVIEWS: Regulations & Policies

There are no policies supporting the games industries in Piedmont (Italy), Salzburg (Austria), and Sofia (Bulgaria). In Germany and the Netherlands, there are no policies specifically targeting the games industry. Nevertheless there is a widely felt need among stakeholders for policies which strengthen the links between business and universities together with an increase in information about economic productivity of the gaming industry.

Italy would like to lobby the public sector for economic intervention.

Utrecht (the Netherlands) would like to see more flexibility and diversity in funding, such as crowd funding, funds for start-ups and tax breaks. Dutch policy makers do believe in the Games Industry: a new supporting policy in Utrecht is the Top Sector Creative Industries that has (Serious) Games as one of its focus areas. Also the CLICK network GATHER was established to support games.

Most mention that other public policies which already help the industry include tax cuts for entrepreneurs, tax incentives for starting a digital company and flat rate taxation.

However in Bulgaria, tax relief for game developers should still be introduced as it is a high risk venture in its initial stages, and tax authorities and banks do not always understand the specific challenges some gaming
companies face. As games companies only get the revenue when the project is finished and sold, financial support in these initial stages of development of a company would be helpful for the businesses.

Salzburg’s new economic programme regards creative services from digital, interactive media and creative industries in general as important drivers for innovation and economic change. Aiming on a stronger linkage between service providers from the creative industries and other business fields, specific support measures are in the stage of implementation and development, such as a creative voucher model, co-working spaces, specific business support measures, an incubator programme, a design forum and related conferences, talks and exhibitions.

Most agree there is a need for governmental support measures to popularise the potential of this business, such as business parks/incubators and public policies to support small companies to be able to participate in networking events abroad and on a national level. Specific policies and actions need to be targeted to the improvement of the overall business environment, creating more business-oriented people, which will benefit the gaming sector as well. For example, measures within the ‘Strategy for Creative Industries’, which is under development within the Ministry of Bulgaria, could also be targeted at the games industry. This is already the case in more developed regions such as the Netherlands.

Even though there are few existing policies, there are still several financing options for the games industry and opportunities for starting companies with innovative ideas or digital media initiatives in Europe.

In Bulgaria, companies may use JEREMIE’s measures that have been launched in order to finance their activities as its objective is to fill in the existing financial gap created by banks. The programme’s financial resources are around BGN 1.7 billion (€850 mil.) and cover the whole life cycle of a company from the day it was founded. Some other potential funding instruments include: Eleven Accelerator Venture Fund and LAUNCHub (for start-up capital); Neveq (for risk investment); Access capital (growth fund), managed by the manager of Empower; Roslin (for mezzanine capital); and guarantee funds which will cooperate with several banks in Bulgaria such as Reiffeisen bank as well as business angels. Gaming companies can also use priority Axis 1 of Operational Programme Competitiveness in order to receive financial aid for their innovative projects.

Also a non-governmental organisation, with sufficient potential to attract finance, and enthusiasm to promote the industry is needed. Although specific policies targeting the games industry are generally lacking in the abovementioned European regions, there are policies in place for the digital sector. These are more developed in countries such as the United Kingdom, France, Germany and the Netherlands. Malta has favourable tax incentives but no policies directly catered to the games industry. Business related needs were also highlighted.

5.3. SUMMARY OF INTERVIEWS: Placement of Regions according to the Innovation Scoreboard

| Innovation leaders | Baden-Württemberg |
| Innovation followers | The West Midlands, Ile-de-France, Utrecht, Piedmont, Salzburg |
| Moderate innovators | Asturias, Umbria, Malta |
| Modest innovators | Sofia |

Table 11. Placement of Regions according to the Innovation Scoreboard

Responses from interviews highlight differences in opinion concerning where each region is situated in terms of innovation. For instance, Baden-Württemberg, which is defined as an ‘innovation leaders’ on the Innovation Union Scoreboard (IUS) do not see themselves as high innovators in the context of the gaming industry. The regional game industry in Baden-Württemberg is often regarded from its own stakeholders as an innovation follower or a moderate innovator. Those interviewed in Baden-Württemberg see Germany as an ‘innovation leader’ in terms of new technologies, new engines, drivers and structures of servers used in the back-end for online gaming, and in the setting up of business models. However they consider a good part of the game companies in Baden-Württemberg to be ‘innovation followers’, as game companies focus on game design and content and not on the technologies used. This definition of innovation centres on advancements in technology as more innovative than game design.

This was also mentioned by a respondent in Utrecht who noted that game companies were seen as followers because they are ‘extremely good adapters [with] almost none of them having research departments themselves’ (stakeholder University of Utrecht). Companies are seen as extremely good at adapting new ideas and using these to create games. However they rarely have research departments of their own which could facilitate innovation. Game companies are also faced with the need to make choices concerning what to invest in (e.g. new technology), as trends change. According to the IUS, Utrecht as a region is defined as an ‘innovation follower’. It can also be argued that the applied/serious gaming industry of Utrecht can be graded as an ‘innovation leader’ due to the fact that at least twelve of the thirty-three game related enterprises or organisations (identified via desk research) are involved with applied game design. Applied games are a relatively new and upcoming sector of the game industry. Besides this, there is also an extensive amount of education and research focused on applied/serious games.
Ile-de-France also mentioned that the regional gaming industry is seen as an innovation leaders. This contrasts with their IUS score which positions them as 'innovation followers'. It is worthy to note that the IUS score does not specifically measure the gaming industry but is a general indicator of innovation in the region.

The regions of Asturias (moderate innovators), Sofia (modest innovators), and the West Midlands (innovation followers) are aware of their position on the innovation scoreboard and their analysis agrees for the most part with the IUS classification.

Moderate innovators such as Malta and Umbria did not specifically mention the IUS scoreboard. However these regions did mention that they are aware of the innovative potential of their region and the importance of shifting their focus to a more digital technology. Malta is also currently very active in creating an environment where the gaming industry can emerge.

Sofia (modest innovator) has a relatively strong use of knowledge-based products and services with some SME clusters, but without significant incentives for cultural and creative entrepreneurship and risk taking and without significant state aid and support for CCIs. Sofia still has a long road but promising road ahead to realise their potential and become a player on a regional and international level.

5.4. SUMMARY OF INTERVIEWS: Access to Knowledge

Besides access to finance, access to knowledge is one of the main obstacles in sustaining and growing the regional game industry. Regions such as the West Midlands, Utrecht, Salzburg, Baden-Württemberg and Ile-de-France already have established courses catered to the gaming industry. Even though these courses are established, the transfer of expertise and knowledge to start-ups in the region is still a challenge. Where to offer these courses (at universities/higher educational institutions, in incubators or incubators specifically for games) has also been debated.

Awareness of the importance and added value of these skills was also deemed minimal. Start-ups and young professionals in business might have the passion, creativity and drive to start their own game company. However being aware of the bigger picture and having basic knowledge of finance is crucial.

"Communication was seen as one of the biggest challenges for game companies. More specifically: having a long-term vision of where the company will be going, understanding and manoeuvring oneself in the playing field. This can be done by 'understanding exactly how the system works, how you can change the system' and benchmarking and combining knowledge on a regional, national, European and international level." Stakeholder Utrecht Region

The analysis of the Sofia region mentions that there is a lack of managerial and financing competence and that more support is needed in the development of business skills within organisations and during the educational process. They also recommend cross-ministerial work to ensure productive outcomes and would like to have a digital game incubator with varied roles such as coaching, incubation, networking, etc. Ile-de-France also mentions the lack of competences and lack of contacts and networks. Umbria states that companies belonging to the gaming sector should provide a greater development of entrepreneurial skills and specific training for the staff of this type of business. Business aspects should be included, emphasizing the importance of these acquired skills. The creation of an incubator, linking universities, research centres, institutions, companies and investors, where the exchanging ideas is fundamental and where it is possible create businesses.
5.5. SUMMARY OF INTERVIEWS: Perceived Needs: Challenges and Action Points

5.5.1. Main Challenges Facing the Games Industry
What follows is an inventory of the main challenges facing the gaming industry provided by stakeholders interviewed in each region. For more specific information per region, please refer to Appendix B: Interview Results, under the section entitled "Perceived Needs: What are the biggest challenges in growing your business/faced by the games enterprise?"

Access to Knowledge
- Lack of access to research or innovation.
- Access to Courses and Training concerning game design, graphics, programming and also business skills
- Technological scouting for skills, and how to redirect them.
- Access to an existing network
- Lack of access to research or innovation
- Lack of courses focusing on entrepreneurial skills
- Technology vigilance is crucial as the market is changing continuously

Access to Business Skills for Start-ups and Game Companies
- Access to talent: Availability of qualified human resources in the region
- Help setting up your own business in the games sector
- Lack of support for business skills
- Lack of entrepreneurial skills and mindset
- Lack of courses focusing on entrepreneurial skills
- Programmes to help enterprises to become ‘investment-ready’
- In-house training opportunities in Companies by those qualified in the field
- Having a long-term vision for your company
- Implementing structure and process management in alignment with company growth
- Commercial knowledge
- Awareness of the changing technologies and market trends
- Awareness of the constantly developing environment (e.g. companies need to cover different kinds of platforms)

Access to Finance
- Lack of specific financial support dedicated to the sector (e.g. lack of venture capital, business angel network, specified public funds)
- Lack of specific tax exemptions
- Tax benefits for private investors to invest in the creative sector
- Establish new innovative funding measures for the games industry to remain competitive
- Make use of crowdsourcing/crowdfunding for local game developers and publishers
- Lack of Intellectual Property Management support.

Access to Market
- International market access

Creating Awareness
- Importance of having a long-term vision and awareness of the games industry/ecosystem
- Promote a continuing shift in attitude and culture towards video games.
- Create awareness about the added value of the games industry in the region, including entertainment and serious games
- Raise awareness and trans-regional visibility

Infrastructure
- Networking should be created, improved and/or implemented (depending on the region)
- Lack of a dedicated incubator/cluster (depending on the region)
- Easy access to an existing network
- Lack of access to research or innovation
- Support services with access to information about e.g. business strategy and access to finance
- Location disadvantages such as high rent
- Extend the network to encompass different sectors (clear communication between sectors)
- Need to stimulate partnerships between businesses, public institutions and the games sector
- More regional and national conferences and events for the games industry
- Technological scouting for skills and how to redirect them

Regulations and Policies
- Develop an overarching strategy for the Creative Industries, focusing on digital interactive media
- Lack of a specific policy aimed at promoting and supporting the game sector
- More streamlined procedures/eliminating red tape
- Stronger support for the gaming industry from a political level
5.5.2. Summary of Action Points Identified

<table>
<thead>
<tr>
<th>REGION</th>
<th>TOP 3 ACTION POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>THE WEST MIDLANDS</td>
<td>1. research &amp; education</td>
</tr>
<tr>
<td></td>
<td>2. policies &amp; regulations</td>
</tr>
<tr>
<td></td>
<td>3. awareness</td>
</tr>
<tr>
<td>URECHT</td>
<td>1. access to finance</td>
</tr>
<tr>
<td></td>
<td>2. network/cluster development</td>
</tr>
<tr>
<td></td>
<td>3. research &amp; education</td>
</tr>
<tr>
<td>PIEDMONT</td>
<td>1. access to finance</td>
</tr>
<tr>
<td></td>
<td>2. awareness</td>
</tr>
<tr>
<td></td>
<td>3. access to market</td>
</tr>
<tr>
<td></td>
<td>3. network/cluster development</td>
</tr>
<tr>
<td>UMBRIA</td>
<td>1. access to finance</td>
</tr>
<tr>
<td></td>
<td>2. access to market</td>
</tr>
<tr>
<td></td>
<td>3. network/cluster development</td>
</tr>
<tr>
<td>ASTURIAS</td>
<td>1. awareness</td>
</tr>
<tr>
<td></td>
<td>2. access to market</td>
</tr>
<tr>
<td></td>
<td>3. research &amp; education</td>
</tr>
<tr>
<td>SOFIA</td>
<td>1. access to finance</td>
</tr>
<tr>
<td></td>
<td>2. research &amp; education</td>
</tr>
<tr>
<td></td>
<td>3. awareness</td>
</tr>
<tr>
<td>BADEN-WURTTEMBER</td>
<td>1. awareness</td>
</tr>
<tr>
<td></td>
<td>2. network/cluster development</td>
</tr>
<tr>
<td></td>
<td>3. research &amp; education</td>
</tr>
<tr>
<td></td>
<td>access to finance (national need)</td>
</tr>
<tr>
<td>MALTA</td>
<td>1. awareness</td>
</tr>
<tr>
<td></td>
<td>2. access to finance</td>
</tr>
<tr>
<td></td>
<td>3. network/cluster development</td>
</tr>
<tr>
<td>ILE-DE-FRANCE</td>
<td>1. access to market</td>
</tr>
<tr>
<td></td>
<td>2. access to finance</td>
</tr>
<tr>
<td></td>
<td>3. research &amp; education</td>
</tr>
<tr>
<td>SALZBURG</td>
<td>1. awareness</td>
</tr>
<tr>
<td></td>
<td>2. policies &amp; regulations</td>
</tr>
<tr>
<td></td>
<td>3. network/cluster development</td>
</tr>
</tbody>
</table>

Table 12. Top Three Action Points per Region

During the interviews, respondents were asked about the most important action areas to help support the digital gaming industry and choose three in order of priority. Options were: a) creating awareness of the added value of the games industry, b) creating policies and regulations catered to the game industry, c) access to market and other opportunities, d) access to finance, e) network/cluster development, and f) creating and sustaining research & educational programmes. Results from all ten regions are provided in the table. For more detailed answers per region, please refer to section 5 ‘Perceived Needs in Appendix B: Interview Results’, as here only the top three action points have been included.

The top three action points differ per region and per stakeholder interviewed. However there are some commonalities. All regions except Asturias and Salzburg mentioned access to finance as a top three need. Creating awareness of the added value of the games industry was mentioned by eight regions as a top priority (The West Midlands, Piedmont, Asturias, Sofia, Baden-Württemberg, Malta and Salzburg).

Network and cluster development was mentioned by all regions who are currently lacking a specific games-related cluster or incubator in their region. These regions are: Piedmont, Umbria, Baden-Württemberg,
Malta and Salzburg. Interestingly, Utrecht also mentioned network/cluster development a top three action point. This reflects Utrecht still developing its digital games ecosystem, as it is still a young industry.

*Research and education* was mentioned as a top priority by the West Midlands, and as a top three priority by Utrecht, Asturias, Sofia, Baden-Württemberg, Malta, and Ile-de-France. So, regions who are still in their infancy, and regions who are more developed see the need to foster research and education to ensure that their are skilled professionals and that innovation remains high in their region.

*Access to market* was mentioned by Umbria and Asturias as the second action point and Ile-de-France as the first.

Creating *policies and regulations* catered to the game industry was mentioned as a top three action point for the West Midlands and Salzburg.
6. CONCLUSIONS: SWOT MATRIX PER REGION

6.1. UNITED-KINGDOM: The West Midlands

SWOT Matrix

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Since their emergence in the 1970s, video games have grown from a niche market into a global entertainment industry. The part played by UK video games studios in this expansion has led to the sector being described as the “jewel in the crown of the UK’s creative industries”;</td>
<td>• Levels of relative labour costs are considered the UK’s main competitive disadvantage;</td>
</tr>
<tr>
<td>• The UK has the highest number of games development companies and publishers in Europe, with approximately 280 development studios in the UK employing 9,500 people;</td>
<td>• There is a shortage of skills, due to both a brain drain and lack of adequate graduates;</td>
</tr>
<tr>
<td>• Traditionally, the strengths of the UK video games industry have been creativity and innovation in the development of original intellectual property (IP);</td>
<td>• UK Industry has difficulty with intellectual property retention. The consequences of this is that concept innovation and creativity within the UK often generates activity and jobs overseas;</td>
</tr>
<tr>
<td>• UK is one of the early developer of Serious Games;</td>
<td>• The lack of credibility of the sector and the back up from the government, make the investment difficult as well as access to finance in general;</td>
</tr>
<tr>
<td>• Tax relief for Video Games since 2012;</td>
<td>• Knowledge transfer with other creative sub-sectors is limited;</td>
</tr>
<tr>
<td>• Classification and rating legislation for video games.</td>
<td>• The sector does not produce enough hard evidence to justify support policies like those in Canada for example.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• User-led innovation;</td>
<td>• It is competing for investment against lower-cost countries;</td>
</tr>
<tr>
<td>• New medium for teaching and training;</td>
<td>• Some perceive the video games industry as having no wider benefit than in entertainment, and question both the sector’s output and whether such an industry should receive financial incentives;</td>
</tr>
<tr>
<td>• The industry is undergoing significant changes, with the traditional market of boxed retail products for home consoles and computers being supplemented by the rapid growth of games for mobile and handheld devices, as well as social network gaming and online gaming;</td>
<td>• It is predicted that the UK has fallen from third place in the global development rankings to sixth place;</td>
</tr>
<tr>
<td>• In addition, “technologies and business models developed in the video games industry are being applied to areas such as health, defence and architecture.”</td>
<td>• Unsustainable business models;</td>
</tr>
<tr>
<td>• It is estimated that more than 70% of the UK population now play video games in one form or another;</td>
<td>• Barriers to finance.</td>
</tr>
<tr>
<td>• UK government wants UK video games businesses to be particularly well placed to respond to the new opportunities offered by the rapid growth in global demand for interactive entertainment, the new routes to market we see from the growth of online delivery, the broadening demographic for games and the potential for SME games businesses to create new business models;</td>
<td></td>
</tr>
<tr>
<td>• The video games industry is a highly mobile and relatively young industry, with predicted annual growth rates double that of the film industry.</td>
<td></td>
</tr>
</tbody>
</table>

7 NESTA report Level Up – Building a Stronger Games Sector
## SWOT Matrix

### Strengths
- The Dutch games industry is a fast growing sector and is doing well internationally;
- The Netherlands is a leader in the field of serious games;
- Research and innovation is supported by the government;
- Large number of magazines, online platforms and brochures about games and the games industry exist;
- Large number of festivals and events about games or linked to games;
- Several larger-scale (completed and ongoing) research collaborations focused on digital games, supported by the government;
- Well-connected ecosystem with a lot of small start-ups who have good contacts and do business together;
- Due to the presence of the HKU and the UU, many graduates stay and start their own companies in the region;
- The Dutch Game Garden has helped build the ecosystem and stimulates the Utrecht games industry as a whole by organising activities and helping start-ups;
- Lots of different kinds of games are produced in Utrecht: casual, online, mobile, serious, pervasive, indie, board and advergames;
- Good technical infrastructure;
- The Netherlands is host to a large population of gamers, with a significant amount being female gamers. These gamers play on different and often multiple platforms.

### Weaknesses
- Game developers lack entrepreneurial skills and knowledge of business and marketing;
- There are not a lot of strategic collaborations between game companies, they are invisible to the government;
- Collaborations and scale advantages do happen but are not fully exploited;
- Developers do not know about policies and support for the games industry of Utrecht and want to know more about other regions and countries;
- Most companies in Utrecht are small companies, which makes it difficult to compete on an international scale if traditional business models are used;
- Most SMEs have a short term span for financial planning;
- Big-budget consoles games are represented the least in Utrecht;
- Restricted access to venture capital as well as expensive human capital;
- Current business models are not optimal. Collaborations and scale advantages do happen but are not fully exploited;
- More emphasis needed on branding/visibility to entice potential new stakeholders to get acquainted with the industry.

### Opportunities
- Awareness of the added value of the games industry is growing;
- Increasing educational and knowledge institutions aimed specifically at games;
- The Dutch Game Association makes sure SMEs can access the international market and share knowledge;
- Educating other industries about the possibilities of (serious) gaming, potentially creating new clients and new audiences;
- Gaming is mentioned explicitly as one of five focus areas within the Top Sector Creative Industries;
- Utrecht will be the leading region in the CLICK network of games;
- The Dutch government has several subsidies available for companies to support innovation. These subsidies are not directed at the games industry but at companies in general. Nevertheless, they indirectly provide support for the games industry;
- Most companies benefit from digital distribution, increasing smartphone penetration and education programmes in game development;
- Emerging crowd-funding platforms

### Threats
- There is a lack of specific tax exemptions or subsidies;
- Potential lack of jobs due to crisis and oversaturation of the market leading to fragmentation leading to greater competition among game companies;
- Investors have difficulty with long-term vision and awareness of the ecosystem, determining whether something will be a success;
- The import of games is much greater compared to export;
- The global economic crisis and the budget deficit of the Netherlands could affect the games sector;
- Restricted access to venture capital and expensive human capital compared to developing regions and the global market.
As mentioned previously, the games industry of the region Utrecht is a fast growing, innovative sector. The incubator Dutch Game Garden is seen as the heart of the region as it is the central hub for industry activities and support as well as its building that is home to many game-related companies. The Dutch Game Garden has played and continues to play a large role in building the ecosystem and stimulating the growth of the games industry in Utrecht. Utrecht also has some important educational institutions like Utrecht University, Utrecht School of the Arts, Hogeschool Utrecht and Grafisch Lyceum Utrecht who offer programmes and courses on games and game-related subjects.

Internationally, the Dutch games industry is doing well and has been well-received. The Netherlands is a leader in the field of serious gaming. The Dutch Ministry of Economic Affairs, Agriculture and Innovation has financed extensive research about serious gaming from an early stage. Results about topics such as virtual worlds, character's behaviour or artificial intelligence have been handed over to the sector. Interested parties such as TNO, an independent research organisation, have also been involved in serious games since the beginning.

Utrecht is also a lively region in terms of events. Utrecht is home to several game festivals and events such as the annual Festival of Games, Firstlook, INDIGO and Game in the City. These events allow for chances to showcase Dutch talent and increase network opportunities where people who are also unaware of the Dutch gaming industry can have a first glimpse of current and up and coming games and trends.

Current advantages for game companies in terms of access to finance are the emergence of new business models. This is also illustrated in the emergence and growth of the serious games market.

With traditional revenue models, publishers are of great importance to finance game companies. More direct business-to-consumer models have emerged where game companies can make use of online publishing platforms such as Google Play Store or Facebook, or publish their games themselves (for a closer view on the mentioned models, see section 3.1.).

Taking into account the possibilities of lower production costs for mobile and social games compared to traditional games, these more direct revenue models increase the possibilities for game companies to obtain access to finance, as money can be made in more ways and the threshold to start decreases.

Serious games are an example of the business-to-consumer model and open the market range as other sectors are being catered to in addition to the entertainment sector. For instance, hospitals interested in games to improve healthcare, or schools interested in games to improve education. Stakeholders who were interviewed noted that it might be difficult however for Dutch game companies to gain funds from these sectors, as funding schemes and these sectors are different than what the game developers are used to.

A challenge faced by game companies is access to entrepreneurial skills. This can have a direct influence on access to finance and was a recurring theme mentioned in the interviews held by stakeholders within the games industry. Game companies need to professionalise. They need to focus more on the business part of their company, not only on the creative part of making a game.

Take for example Seth van der Meer, founder of the NLDG foundation, who says about Dutch game companies:

“They have to make sure they’re not only producing beautiful games or beautiful whatever, but that they have to hire people, or at least consult people, that can help them with these financial markets and educate them on how to structure a company, how to write your business plan, how to do your marketing. So it [the recession] made many of the creative people more aware of the fact that in the end it’s a business world, not a creative world, that they have to compete in.”

A report by the HKU (2010) titled The Entrepreneurial Dimension of the Cultural and Creative Industries shares similar concerns: “Perhaps the greatest obstacle faced by entrepreneurs and enterprises in the CCI’s [Cultural and Creative Industries] is how to locate the funds to finance their endeavours.” (112) And: “It is also clear that CCI SMEs have a short term span for financial planning. The online questionnaire revealed that 22% of the CCI’s had no financial and economic planning while 53% had a one year forecast […] Only 4% had a financial forecast of up to 5 years.” (114)

Deloitte (2011) stresses in their rapport that business models need to be improved: “Access to Venture Capital (VC) firms is one of the key challenges facing the industry, and in order to succeed, Dutch game developers need to work on improving their business models and increase their level of collaboration to create scale advantages” (5)

In general, it can be argued that finance is available, however gaining access to it is difficult because of a lack of business knowledge within the Dutch game companies. Thus overall, the biggest obstacle about financing does not seem to be the availability of finance, but more how to obtain it.

It is important to note that other obstacles of the game industry, which are also inherent for start-ups and entrepreneurs, are that the game industry being a risky business, the difficulty of quantifying intangible assets which are difficult to reflect in accounts (HKU 2010, 115).

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How to reach these goals?

One of the most important and recurring points in the interviews was the lack of entrepreneurial skills among game developers. In order for developers to gain those skills, educational institutions could additionally offer a course in business and marketing skills for game design students. This will help them create the right mindset and will help when they start their own company or promote their portfolio work. Additionally, the Kamer van Koophandel or an external company could offer business and marketing courses to small companies that will help promote their games and services. This need has also been catered to by The Dutch Game Garden who already provides courses for start-ups. However, it is important that start-ups and SMEs create a team with business-savvy individuals.

A recurring point in the questionnaire results was the lack of knowledge about policies and support for the games industry among developers. By organising events or creating brochures and hand-outs, developers could learn about policies and support for the local games industry as well as gain more knowledge of the games industries in other parts of the Netherlands and other countries. Knowing where to go to obtain the current information and understanding how these policies can be of use to SMEs is also important.
### 6.3. ITALY: Umbria

**SWOT Matrix**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
</table>
| - Unemployment rate: lower than the national average, with a steady growth in employment rate;  
- Highly qualified human resources and workforce;  
- High level of schooling and training of workforce and participation to lifelong learning programmes;  
- Capacity to attract human capital and workforce;  
- Existing regional tools easily adaptable to promote and support gaming companies;  
- Higher than national average public investments in RST (Research and Technology Development)  
- High quality of natural and cultural heritage, both in rural and urban centres, due to public investments in protection and safeguard measures, high level of quality of life, high quality of services and attractiveness of the territory. | - Low population growth rate, with a steady trend towards aging and dependence;  
- SME not used to cooperation/networking;  
- Networks existing only in the traditional sectors;  
- SME's are not highly capitalised;  
- Difficult access to capital;  
- Widely spread population over the regional territory, making the supply of efficient public services more difficult;  
- Reduced accessibility due to poor infrastructures in the area;  
- Prevalence of very small and small enterprises, concentrated in low innovation and mature sectors: this constitutes a barrier for the employment due to a failure to exploit the innovative potential of the region;  
- Low private investments in RST (Research and Technology Development);  
- No structures dedicated to the gaming sector;  
- No formation dedicated to the gaming sector;  
- University courses too focused on traditional sectors;  
- High quality workforce that is not adequately employed;  
- High unemployment rate for women;  
- High risk of digital divide in rural areas;  
- Gaming sector considered to be very risky;  
- Presence of natural and technological risks for the regional territory. |

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
</table>
| - Presence of high quality, excellent enterprises;  
- Many companies in gaming related sectors;  
- Awareness of the cross sector potential;  
- Gaming companies interested in obtaining information and creating networks and relationships among themselves;  
- Growing demand for a qualified workforce;  
- Possibility to give priority within regional calls to gaming companies;  
- Possibility to give priority in BIC locations to gaming companies;  
- Arts Academy of Perugia structuring a new course in graphics and design;  
- Favourable conditions for attracting FDI and gaming companies from other regions / countries. | - Too many companies in traditional declining sectors;  
- Economic crisis involving almost all sectors;  
- Very difficult to receive bank financing;  
- Very low venture capital;  
- Decrease of public funds;  
- Growing competition from neighborhood areas and Asia markets. |
In general, the main features of the regional context can be summarised as follows. Umbria presents a general situation of structural fragility and weakness and difficulty to transform innovative potential into productive aims. However, the good level and skills of the workforce and the extremely high participation of all social and economic stakeholders to the regional policies processes, are the main features of an attractive territory, where favourable conditions have increased the flow of people, capital, resources and investments.

In the course of the last years the region has faced a difficult economic situation, partly caused by the difficulties at a global level, but also due to federal reform in Italy and the progressive limitation of the traditional financial sources. This, rather than being merely a weakness, has also increased the regional government programming and administrative capacity.

In order to face this challenge and preserve a growth rate based on a network system of cities and territories, on social cohesion, on environmental wellbeing and on the qualification and enhancement of all territorial resources and potential, Umbria has chosen an integrated approach. The main instrument, as noted before, is the “L'alleanza per lo sviluppo”, that brings together all regional stakeholders into sharing all choices concerning regional programmes. In general, the region has adopted a participative method of programming all activities and all its actions are carried out through an integrated approach, by putting together public and private concerns and projects.

The macro-objectives that have been set by Umbria in its action to support local development are:

1. provide support to strategic themes of research, innovation, strengthening of network of enterprises in order to enhance competitiveness;
2. support innovation processes, promotion of innovative investments, strengthening of small-dimension enterprises through development of projects and introduction and enhancement of the use of information and communication technologies;
3. promotion and support of the diffusion and transfer of innovation in the companies’ processes including organisation, management and internationalisation;
4. strengthening of the financial structure of enterprises;
5. meeting transversal objectives of energy saving and environmental protection
6. improvement of infrastructure.

In order to meet these objectives the main financial sources that have been allocated come from EU sources, from the Regional Fund for productive activities and from specific national funds. The total amount coming from these resources is 143.340.000 Euro. A broader outlook of the commitment of the Umbrian region to the improvement, strengthening and support of the territory and its growth, includes resources coming from EFS ROP, RDP and Ob. 3 ROP.

In this rapidly changing business environment, SMEs cooperation could be one of the answers to the vulnerable economic situation of small local business, and the region fully understands this. Currently, efforts in setting up support schemes, especially in terms of financing and linking high-growth potential companies, are underway. The participation of the BOO GAMES network is seen as helpful in this direction as well. But BOO GAMES is also a challenge for Umbria, as it focuses on a high-tech industry where not only Umbria but Italy as a whole is lagging behind.

If we look at official data on the number of high-tech companies present in Umbria, we see a surprisingly low number, even compared to the nearby regions of Abruzzo, Emilia Romagna, Tuscany and The Marches.

<table>
<thead>
<tr>
<th>Regions</th>
<th>N° of high-tech companies</th>
<th>Total n° of companies</th>
<th>% of high-tech on total n° of companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Umbria</td>
<td>765</td>
<td>52614</td>
<td>1.45</td>
</tr>
<tr>
<td>Abruzzo</td>
<td>1242</td>
<td>93314</td>
<td>1.33</td>
</tr>
<tr>
<td>Emilia Romagna</td>
<td>4479</td>
<td>254153</td>
<td>1.76</td>
</tr>
<tr>
<td>Tuscany</td>
<td>3249</td>
<td>220445</td>
<td>1.47</td>
</tr>
<tr>
<td>The Marches</td>
<td>1430</td>
<td>103293</td>
<td>1.38</td>
</tr>
</tbody>
</table>

Table 13. Number of high-tech companies in Umbria

In Umbria only 1.45% of the total number of companies are working in high-tech sectors; mainly in the production of medical and precision devices, SW production and SW engineering. Despite this, their impact on the regional productivity is much higher than that of the traditional sector. Looking at the legal status, 45% of the companies are individual companies and only 28% are ltd. This is obviously not a promising factor, since the potential growth of these companies also relies upon their management and investment capability.

But if we look at the average age of entrepreneurs running high-tech companies, they are mainly between 30-39 years old, much younger than their colleagues working in the traditional sectors. This aspect in which companies in the non-traditional sectors are mainly run by younger and very much motivated people should allow institutions to reflect and take appropriate actions on boosting and financially supporting these sectors which creates new jobs and a new engine for the whole regional economic system.
They should set up policies and specific programmes to help the young companies in adopting an intelligent market and expansion strategy according to their respective sectors. If they work on sectors like aerospace and high-precision components, where big market shares are taken by big and multinational companies, they should aim at becoming their reference points for very specific and cutting-edge fields for which they need highly skilled subcontractors.

Alternatively, they are trying to enter into new fast-growing markets such as biotechnologies, genomics, renewable energy and creative industries, they should then try to focus on identifying the right business model and choose the right partners and cooperation for producing attractive services and products for a wide market.

The Creative Industries is obviously a new and emerging industry, where creative content and services could be applied to many traditional and non-traditional sectors. Gaming, not only conceived in terms of SW and HW, but also in terms of new educational and entertaining methods to tell a story, is a new communication method which could be applied in sectors like tourism, enogastronomy, fashion, health, education and social inclusion where the Umbria Region is deeply reshaping policies and instruments.

Therefore, trying to achieve the objectives of Boo Games as well as interacting with strong partners within the project consortium with whom to exchange knowledge, policies and economic strategies, is an extremely interesting opportunity for Umbria.

The factors affecting Umbria's economic growth and its competitiveness in the ever complex and open systems is the historical inability of its enterprises of working together, of exploiting the cluster and networking systems for commercial reasons.

Looking at data, even before the economic crisis, between 2000 and 2003, and comparing Umbria with Italy, we see that Umbria, while representing roughly 1.4% of the Italian productivity and population, covers only 1.2% of the Italian number of enterprises and only 1.0% of the number of employees in enterprises belonging to groups of companies. This data, reflecting the difficulty of Umbrian companies to network with others is also very much reflected in a report published in 2003 by the EC and later in 2006 by the Census for the Ministry of Labour and Social Affairs.

The EC report states that most common reasons for SME cooperation is access to new and larger markets, broader supply of products, access to know-how and technology, additional production capacity and reduced costs. The smallest enterprises most frequently mentioned access to new and larger markets as reasons for cooperating, while the largest enterprises gave preference to cost reduction. Access to labour and access to capital were seldom mentioned as a reason for cooperation.

The size of the enterprise influences the form and the purpose of SME cooperation. Generally, medium-sized enterprises cooperate with other SMEs for strategic reasons and long-term benefits, while micro and small enterprises cooperate with other SMEs for operational purposes with shorter time-scale for the expected benefits.

Small enterprises and micro enterprises tend to have a higher preference for non formal cooperation compared to medium-sized enterprises.

Nearly three out of four SMEs see some sort of barrier to SMEs cooperation. There are two, equally important groups of barriers. The first refers to various aspects of maintaining independence. The second refers to various institutional aspects, such as understanding language and culture, lack of information about potential partners and legal restrictions. These restrictions, especially those related to the lack of trust towards people beyond one's owns social community, strongly affect Umbrian SMEs cooperation within and outside the national system. For all types of Umbrian SMEs, cooperation is hampered by the wish to remain autonomous and the lack of information about the potential partners with whom to cooperate. According to companies interviewed, cooperation is not a natural way of doing business for small entrepreneurs.

Many entrepreneurs have started their own business because they want to be independent: they love their autonomy. Of course they have to deal with other businesses when they buy and sell products and services, but these are common commercial activities. Cooperating with other entrepreneurs is more demanding than buying and selling; one has to exchange essential information with another business. One has to trust people, without having the certainty that the operation will be successful. Consequently, in developing policies to stimulate SME cooperation, policy makers should take into account the fear that small enterprises have of losing their autonomy when entering into formal partnerships and strategic alliances that small enterprises have.

Nevertheless in 2011, a report from Unicredit, underlines that more than 55.9% of SMEs in Umbria declare not to have ANY cooperation with, even nearby, enterprises, (Italy has 52.9%) and even those that do cooperate, do this because of joint research partnerships such as collaborative technological and scientific research (still only 1.7% of them), or to access new foreign markets (only 9.7%).

But these very low figures, clearly show that SMEs cooperation is not fully utilised to access foreign markets. If entrepreneurs were better informed about the advantages of (international) cooperation, if better information and advice was available on how to find a foreign partner and if more success stories were told, this potential could be released and optimised.

Concerning the market conditions in our region, these appear to be favourable to small and medium-sized companies, but not specifically referring to companies belonging to the gaming industry. The companies in our region, in an undifferentiated way, can count on the availability of locations (provided through the infrastructure of the Incubators or Consortia for Industrial Areas), finance (through direct participation in the share capital of regional agencies and the provision of guarantees, grants or loans through special calls) and training (provided both by the Provinces and by the Region).

Unfortunately there is not a widespread awareness of the potential of the gaming industry. This is due, as previously mentioned, on the one hand to the absence of operational realities in this field in our region, on the other hand to the lack of networks with similar intersectional characteristics. The results of the questionnaire in this regard, in fact, show a serious gap to be filled through the activation of special tools, not only financial,
specially prepared by a series of institutional entities to ease the contacts. In this context, these functions may be performed by regional public agencies whose impartiality may be an element of neutrality that is often crucial in ensuring the success of these approaches.

In this regard, a closest involvement of the institutions particularly during the startup could be a source of indirect funding, which is essential thanks to the enactment of specific calls, which can act as an operational incentive.

The government bodies, in fact, though financially limited, can in some cases represent the element of initiation of entrepreneurial initiative in this direction. We can consider, as an example, the tourist industry, where experiments on virtual reality are producing interesting results whose potential is only limited by hardware/software: these projects would allow greater and more complete enjoyment of the historic, artistic and cultural heritage which is mostly state-owned.

Currently, public investments in our region focused on the themes above are very limited. The reason is to be searched in the strong reduction of European available funds.

As previously mentioned, in fact, in our region there is no specific network dedicated to gaming and its promotion. The existing networks in Umbria are those relating to the traditional sectors: mechanics, textiles, handicrafts, etc. Recently, new networks and clusters were added, but their main themes are focused on green chemistry and sustainability.

It has to be noted that the tools (mainly financial ones) currently available to the Regions could be already adaptable to promote and facilitate the establishment of clusters of creative businesses based on gaming. Besides, promotion and dissemination of information related to intersectoral and interregional opportunities could also be effectively carried out by the Region through its agencies.
### 6.4. ITALY: Piedmont

**SWOT Matrix**

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
</table>
| - Excellence in the creative industries and ICT sector or in other areas connected to the video game sector.  
  - The focus on creative industries represents an excellent starting point for the video game industries in Piedmont.  
  - A variety of educational and training opportunities in the sector of video game are available.  
  - Presence of a variety of regional policies adaptable to support the game industries (e.g. innovation pole). | - The current local development of the creative industries appears to still be rather limited and in general characterised by small-scale ventures and few cases of excellence.  
  - Access to finance is not easy with a lack of venture capital and lower investment in the public sector.  
  - Lack of business skills and competences to e.g. develop new models suitable for the video games industry.  
  - Lack of managerial skills and lack of competences for dealing with economic and financial issues. |

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
</table>
| - The presence of the Virtual Reality & Multi Media Park, as a starting point for creating a game cluster. It is already operating as a cluster for the creative industries.  
  - The presence of incubators in the Universities could also be used for the video games sector.  
  - The transformation of Turin, the biggest and most important city in the region, from an industrial to a post-industrial one, with a focus on the development of tourism and culture. | - There is a cultural problem: creativity in Italy is not yet fully considered fully as something that one can use to create leverage for economic growth.  
  - Lack of investment in all business sectors due to the economic crisis. The economic crisis influences investment tendencies, as companies are struggling to maintain their position and are not prone to investing in new areas.  
  - Lack of awareness of the use of video games in contexts other than entertainment, such as education and health.  
  - Lack of skills in order to access EU funds.  
  - The Italian population still suffers from a digital divide. |
Access to Finance
In the creative sectors it is important to invest in, to maintain and to improve the level of competences that have already been developed, as well as to further strengthen them. The focus on creative industries represents an excellent starting point for the creative industries in Piedmont. Future opportunities generated by the co-evolution of ICT innovations and of the conceptual models for the production and diffusion of creative contents are enormous and highly diversified.

However, the birth and the subsequent trajectories of the expansion of local clusters in the creative sectors are heavily dependent on the availability and characteristics of localised human capital, technical infrastructures and sectorial specialisation of economic activities.

Despite such competitive strengths, the current local development of the creative industries appears to be still rather limited and in general characterised by small scale ventures and few cases of excellence.

Hence, the future of this broad field of economic activities will be a function of the capability to foster the emergence of local markets that, in the mid-term, will provide to existing local firms and prospective startups the opportunity to reach a minimum level of internationalisation of their activities.

The success of prospective local creative clusters will be related to the effective establishment of cross border networks with other SMEs and research institutions that can provide complementary assets and skills.

Access to Knowledge
In Piedmont there are a variety of educational and training opportunities in this sector. Piedmont is characterised by a growing number of university degrees, masters, postgraduate and professional courses aimed to satisfy creative industries’ requirements. Among the traditional degree courses, there are some very specialised degrees and courses in the field of the creative industries.

An important institution that completes the overview of the digital system in Piedmont, which both with the cinema and the animation sector, is the aforementioned Virtual Reality & Multi Media Park. This park is equipped with avant-garde technologies for the production and post-production of audio-visual products and for multimedia research and prototyping, with special focus on virtual reality applications. The presence of the VRMMP is important for the region, even though the park is currently redefining its role.

The VRMMP is a high tech facility located on the site of the former FERT film studios. It exists due to the commitment and support of local and regional institutions (University and Polytechnic of Turin) and authorities, in addition to the consistent financial aid from the European Union. The park functions as both an incubator and a development lab, where the market's feasibility of applications and prototypes, based on state of the art technology, are tested and evaluated. Particular attention is given to the increase of productive and entrepreneurial activities. As already mentioned, the Park collaborates with other research centres, institutions, universities and ventures with the objective to create a technological district in Piedmont.

What is the future for the Italian games industry? 11
Today, Italy runs the risk to remain cut off from by the booming gaming market and fails to keep up with Asia, which has had a record growth in 2008, greater than that of Europe and the United States. The Italian digital market (video game console, PC, mobile, online) exceeds the value of 1.03 billion euros, a growth rate (2006 - 2011) of 9.4% and an estimate for the year being 10.5%. This means that Italy is a viable market worth investing in.

However there is still a need for change in terms of institutional policies and corporate vision. New platforms such as Android, Apple, Facebook and others, provide a change in the supply chain and business models, reducing the costs of market access, development cycles of new products and distribution costs. It is important to shorten the time to reach a critical mass, ensuring greater international competition. This promotes new actors on the market which is growing rapidly, and offers new opportunities for developers to self-publish.

Getting up to Speed: Aid from the Public Sector
One way of getting up to speed would be to replicate and adapt successful strategic policies to the Italian context. This has already taken place ten years ago in France and Canada where targeted policies led to an increase in the development of the sector, in comparison to what happened in Italy.

Importance of the Private Sector
The international economic crisis has had repercussions especially on the capital available to the government; the public sector is no longer able to financially support innovation as the development of the video game sector at a national/regional level. Today it is important to increasingly involve the private sector, in particular to finance culture and innovation, as is already happening in in the United States. The role of the public sector in the coming years will probably be the following: no longer direct finance to businesses but acting as a bridge between companies and large private capital that can support the necessary investments and providing capital needed to develop the field of video games.

Potential new business opportunities
The video game industry means new business opportunities for our companies, employment for the youth and young professionals in the content and software industry and the ability to leverage our enormous cultural heritage in key markets and be able to compete on markets around the world.

11 For further information see: http://www.tafterjournal.it/2010/11/02/leconomia-videoludica-italiana-indie-alla-riscossa/
### 6.5. SPAIN: Asturias

#### SWOT Matrix

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional ICT business and economic context</td>
<td>Lack of “sector awareness”</td>
</tr>
<tr>
<td>Proactive professionals. Professionals in continuous training to keep updating their knowledge in new technologies</td>
<td>Little business “critical mass”</td>
</tr>
<tr>
<td>Entrepreneurs profile far from traditional prototype</td>
<td>Little business profile of entrepreneurs and young companies</td>
</tr>
<tr>
<td>Video games projects do not require high investment for their establishment</td>
<td>As a consequence of operating in the global market, there is little “regional” networking and SMEs work in an individualist way</td>
</tr>
<tr>
<td>Video game companies operate in a global market</td>
<td>Lack of specialised high-quality training</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Boo Games Project as catalyst for awareness and development</td>
<td>The economic crisis affecting all sectors</td>
</tr>
<tr>
<td>Awareness that the Games Industry has not reached its full potential in Asturias</td>
<td>Decreasing financial support from Public Administration about financing support</td>
</tr>
<tr>
<td>Social awareness increasing: Acknowledgements, The Prince of Asturias Award to Miyamoto, articles about trends, etc.</td>
<td>Difficulties in accessing finance</td>
</tr>
<tr>
<td>New ICT systems and platforms: Online apps, new opportunities</td>
<td>Regulation framework</td>
</tr>
<tr>
<td>The reduction of the value chain, direct sales without resorting to Publishers</td>
<td>Little consideration as a serious industry, as a result of not being the traditional industry</td>
</tr>
<tr>
<td>Consumption figures are increasing in Spain</td>
<td></td>
</tr>
<tr>
<td>New players (women, adults, the elderly)</td>
<td></td>
</tr>
<tr>
<td>A new emerging economy in the region, more oriented towards the creative sector and services</td>
<td></td>
</tr>
<tr>
<td>Key regional backgrounds: GAMELAB, Technology Centres, as well as creative networks (Laboral University of Gijón, The Oscar Niemeyer International Cultural Centre, Aviles, etc.)</td>
<td></td>
</tr>
</tbody>
</table>

Based on the results of the Study combined by capitalisation activities carried out towards policy makers, we count on submitting an “Action Plan” to the regional government in order to enhance the video game sector.
### 6.6. BULGARIA: Sofia

#### SWOT Matrix

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- The capital city is rapidly growing and elements of the city’s infrastructure are being increasingly modernised;</td>
<td>- No policies at national, regional or municipal level offering targeted support to the digital gaming industry;</td>
</tr>
<tr>
<td>- Low corporate tax rate;</td>
<td>- No targeted academic programmes in the field of digital gaming;</td>
</tr>
<tr>
<td>- Home to many software and IT companies;</td>
<td>- No overall strategy at any level for the Cultural and Creative Industries;</td>
</tr>
<tr>
<td>- Digital gaming companies are concentrated in the Sofia-Capital region;</td>
<td>- General lack of information about the sector and its potential;</td>
</tr>
<tr>
<td>- IT Developers provide a high quality product at very competitive prices;</td>
<td>- IT education is too focused on theory rather than practical application;</td>
</tr>
<tr>
<td>- The game publishing business in Bulgaria is cost-effective due to the low price of labour and overhead costs and considerably high revenue from obtaining licences;</td>
<td>- The entrepreneurial culture in the country is not well-developed;</td>
</tr>
<tr>
<td>- Great creative potential in the country for those who demonstrate out-of-the-box thinking.</td>
<td>- Quality assurance of education in Bulgaria is quite a large problem;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>- A rapidly growing global digital games market;</td>
<td>- The persistence of 'brain-drain' out of the country;</td>
</tr>
<tr>
<td>- Increasing prevalence of digital distribution which allows digital gaming companies direct access to consumers;</td>
<td>- The purchase of successful Bulgarian game companies by foreign firms;</td>
</tr>
<tr>
<td>- A trend within the global digital gaming sector towards online browser games and mobile games which can be created by micro-enterprises;</td>
<td>- The lack of an effective IPR policy and high levels of piracy;</td>
</tr>
<tr>
<td>- Candidate for European Capital of Culture, 2019;</td>
<td>- The availability of human resources is limited and there is a large chasm between what businesses need and the skills that graduates acquire;</td>
</tr>
<tr>
<td>- Emerging local market for educational games.</td>
<td>- Qualified experts from the sector are not allowed to teach in the universities because they do not have a PhD degree which is a requirement for academic staff.</td>
</tr>
</tbody>
</table>

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6.7. GERMANY: Baden-Württemberg

**SWOT Matrix**

On the basis of the questionnaire and the interviews conducted in 2012 and comparing the results with the ones collected in a previous research made in the region in 2009 (Walz, Seibert), it is possible to identify the following strengths, weaknesses, opportunities and threats which are characterizing Baden-Württemberg as a game location.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Baden-Württemberg is a region with a high economic and innovation power, with excellent research infrastructure and a strong business culture. A great number of small and medium enterprises as well as big companies are located in Baden-Württemberg.</td>
<td></td>
</tr>
<tr>
<td>- There is a good numbers of games companies active on the territory and who, most of the time, rely on own financing.</td>
<td></td>
</tr>
<tr>
<td>- Regional games companies have a long experience in different kinds of platforms and genres and they are represented along the whole value chain.</td>
<td></td>
</tr>
<tr>
<td>- Currently there are two public funding programmes managed by the MFG Baden-Württemberg open to games developers.</td>
<td></td>
</tr>
<tr>
<td>- Universities in the region offer some courses which are relevant for game development such as computer graphics, animation, real-time rendering, storytelling and interactive media. Nonetheless a whole degree course on game development in public universities is still missing.</td>
<td></td>
</tr>
<tr>
<td>- The FMX - the Conference on Animation, Effects, Games and Transmedia has established a major international event in the field of animation and visualisation and offers a great platform for networking and knowledge sharing among the experts of the industry.</td>
<td></td>
</tr>
<tr>
<td>- Learntec, the International Trade Fair and Congress for Professional Education, Learning and IT also concentrates on Game-Based Learning as economic relevant topic. Recent Trends, results and examples are presented in the games@learntec area. Within the fair the &quot;Level UP &quot; event informs stakeholders in a one day event about latest research in the sector from the perspective of research and companies to increase multiplayers know how about the sector.</td>
<td></td>
</tr>
<tr>
<td>- The Gamessector in Karlsruhe has more than 48% of jobs and creates a big amount of income in the creative sector – it is being identified as most important and future orientated part of the sector. The new creative incubator therefore will also be hosting the GEELab Europe and the strategic focus is put on the topic with regular events and the setup of a roundtable being a nucleus for the whole region.</td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>- Games companies are still not open enough for collaboration with others fields. Sometimes this is due to the still existing a negative images of the industry.</td>
<td></td>
</tr>
<tr>
<td>- Even if there are already two national association covering the game industry, there isn't at the moment a regional network or association in Baden-Württemberg that reunite the companies of the industry and which is able to represent its needs.</td>
<td></td>
</tr>
<tr>
<td>- A branch-culture and exchange is still missing in Baden-Württemberg.</td>
<td></td>
</tr>
<tr>
<td>- Games companies still have difficulties in finding Venture Capitalists willing to invest in the field. There are still none or few VC companies which are specialised in the sector.</td>
<td></td>
</tr>
<tr>
<td>- Many companies are still struggling to have capital backing for their business.</td>
<td></td>
</tr>
<tr>
<td>- Even if there are already several universities offering game related courses, a whole degree program on game development within a public university is still missing. This in turn, causes skills shortage for the industry.</td>
<td></td>
</tr>
<tr>
<td>- The number of professional development opportunities and events targeting the games industry is still considered unsatisfactory, though major event as the FMX are already in place.</td>
<td></td>
</tr>
<tr>
<td>- Although some public funding programs are already available, some stakeholders believe that they are not well known or they are missing to sustain the need of the industry in the right way.</td>
<td></td>
</tr>
<tr>
<td>Opportunities</td>
<td>Threats</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>• The market for games is expanding constantly thanks to a higher societal acceptance of games and a more widespread computer usage.</td>
<td>• Although games have been recognised in Germany as cultural good in 2008, there is still some distrust towards the industry. Germany can be defined as a country of “high culture”, in that respect games don’t find real recognition as cultural goods within the society and are often obstructed.</td>
</tr>
<tr>
<td>• The introduction of digital distribution models has raised games accessibility also for casual gamers.</td>
<td>• Baden-Württemberg is primarily known as IT location and it is therefore more focused on software development.</td>
</tr>
<tr>
<td>• New business models as free-to-plays and browser games are strongly establishing themselves and offer new opportunities to companies and to users.</td>
<td>• In that respect, the games industry is still insufficiently recognised as key-industry for the IT sector.</td>
</tr>
<tr>
<td>• The strong innovation potential of Baden-Württemberg and the strong technological development in contiguous fields can offer great opportunities also for the local games industry.</td>
<td>• The games industry still suffers from a bad reputation coming from the “killer-game” debate. Already in the 90s games have been mostly associated with violence starting a public debate on this topic, which nowadays is sometimes still actual despite the fact that no studies could ever proof any connection between the consumption of shooters games and real violence.</td>
</tr>
<tr>
<td></td>
<td>• The games industry is still not perceived in the society as cultural industry and also its economic importance is still underestimated.</td>
</tr>
<tr>
<td></td>
<td>• Baden-Württemberg can be considered an unfavorable location for games companies since rent costs and salaries are high. This is particularly true if the region is compared to other German game locations as Hamburg or Berlin that offer more advantageous conditions.</td>
</tr>
<tr>
<td></td>
<td>• Besides, Baden-Württemberg is less appealing to games developers since the creative culture as well as the metropolis environment is less accentuated than in other parts of the country.</td>
</tr>
</tbody>
</table>
### 6.8. MALTA

#### SWOT Matrix

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal taxes/incentives to drive FDI into Malta</td>
<td>Very early stage industry</td>
</tr>
<tr>
<td>Malta is an innovative place</td>
<td>Lack of an experienced technical staff</td>
</tr>
<tr>
<td>Small and energetic companies who are highly motivated to do well</td>
<td>Need to enhance further courses related to the games industry</td>
</tr>
<tr>
<td>Over 200 operations/IT sector in Malta</td>
<td></td>
</tr>
<tr>
<td>Successful establishment of TRC Family Entertainment Ltd. by Chris Deering</td>
<td></td>
</tr>
<tr>
<td>Generation of 100 jobs is an early indication</td>
<td></td>
</tr>
<tr>
<td>Large scale bilateral investment deals</td>
<td></td>
</tr>
<tr>
<td>Business Culture</td>
<td></td>
</tr>
<tr>
<td>One of the most tax-advantageous corporate structures (Malta operates a full imputation system on tax)</td>
<td></td>
</tr>
<tr>
<td>Large corporations attracted by Malta</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expanding games market</td>
<td>Gaming companies know little of what Malta offers in terms of incentives and opportunities</td>
</tr>
<tr>
<td>Substantiation rapid growth</td>
<td></td>
</tr>
<tr>
<td>Incentives and Opportunities</td>
<td></td>
</tr>
<tr>
<td>Potential for shared resources with games such as motion capture</td>
<td></td>
</tr>
<tr>
<td>Transferable skills from gambling</td>
<td></td>
</tr>
</tbody>
</table>
**Skills Gap**

When it comes to attracting established players, Malta has some substantial gaps that must be addressed in order for it to become a fertile ground for a thriving game industry to grow and develop progressively. Perhaps one of the biggest challenges Malta faces is that there are few individuals with game-specific training, particularly in artistic roles. Many countries with no established game industry or perhaps a low number of expertise within the games field, normally have some form of garage development that helps casual game developers. In this respect, Malta has a very small circle of individuals who specialise in games.

Regarding research made, there is no sizeable group of gamers that normally develop mods, re-skins, or any other casual developments. On the contrary, there is some potential in terms of game developers interested in forming teams and taking part in workshops and events. Some examples of this are related to the specific skills centres around the Games Development Challenge organised by St Martin’s Institute and the Gamezing competition established by University of Malta.

Another major gap is the skills deficiency problem and the serious lack of professionals in this area. One can note that there are digital artists with a very poor supply of 3D modelers, animations artists, character modelers, technical artists and the like. Furthermore, there is also a surprising lack of professional idea artists and lead artists that one would expect to find in pretty much any developed region. Some of the reasons for these shortages are related to the lack of budget for such dedicated work.

The above mentioned information signifies that not only is there a major skills gap in game-specific industry roles but also in related digital and non-digital areas. This aspect might be a hidden risk for Malta, unless it does establish a solid talent pool of skilled labour. It is therefore not in Malta’s interest to simply attract game companies to its shores but to attract game companies that will run the development of their games in Malta.

In the case of programming roles, this larger field of expertise is more established, both in the existing work-place and in courses delivered at various institutions. Though, game-specific talent is obviously required for these roles, there is, at least, less of a gap in related industries like software development.

Additionally, educational institutions are the main actors in addressing the skills-gap that has been recognised. Therefore, the development made at MCAST Art and Design is a positive sign for growth in creative education. This institute could be a catalyst for the growth needed in artistic skills, particularly digital ones. The complication faced by MCAST is its falling under a larger organisation that aims at standardising the institutes under its umbrella.

When it comes to game related courses, the major skills gap that exists requires immediate action to be able to address the issue with graduates in the near future (a few years’ time). The small number of education providers and single University in Malta mean that these institutions need to collaborate closely in order to give a well-rounded education that caters for the variety of game industry jobs needed from entry level to top-end positions. It is doubtful that a single institution can carry out such an education, but as things stand already, the educations being given and planned for the near future are relatively complementary.

**How to attract global games companies: Fiscal Support Measures**

Malta’s games cluster can grow fastest by attracting a number of small/medium scale games companies to locate substantial development and/or support operations in Malta, bringing with them experienced staff, technology, methodology and investment. They will recruit locally, transfer skills and technology via training by experienced staff, lend critical mass to an otherwise embryonic cluster and encourage the cluster effects.

A small or medium size company with private shareholding will be most likely attracted by the existing Malta Tax benefits under the range of schemes currently offered by Malta Enterprise. However, as discussed earlier in the report, attracting a console development studio that needs an experienced 100 man team will be a major challenge without very significant incentives given the wide availability of major incentives already provided by many territories. In addition it would likely require a company bringing in to Malta an entire 100 man team with associated relocation costs. The effort of attracting a major developer versus likely reward ratio may make this unattractive though Malta should be prepared to have a package that can be presented as required.

As the industry continues to globalise, Malta could, with the right incentives and support policies, become an attractive location to open development or support teams for major companies, in the same way that Bioware recently opened an MMO support team in Dublin. However industry consultation has shown that global companies will need strong incentives to turn their attention away from the larger, better known locations such as Frankfurt, Paris or London.

Malta’s dividend tax has benefited a small handful of games companies, but none have yet committed major long term investment, although the successful attraction of TRC Family Entertainment Ltd to Malta is a major step forward. While this incentive may be useful in attracting individual CEOs and FDs from privately held, entrepreneurial companies (for instance, Crytek said they were interested in our interviews), it is recommended that additional games specific incentives (detailed below) in particular around additional Cultural Tax Credits (of the type used in France) and R+D Tax Credits (of the type used in Montreal or UK) be added to the offering.

It is important that marketing materials explain how the existing Malta Fiscal Incentives centred on the 5% tax on dividends can bring benefit specifically to games companies. In general, games companies and publishers will be more familiar with the Canadian fiscal offerings which are centred more around production tax credits so carefully crafted marketing material will need to be produced to educate companies.

It is recommended to start planning early the following scheme (“Conversion Scheme”): In view of the fact that the process of digital games production often takes considerable time from idea development to take to
market, the issue of cash flow is often crucial. Financial incentives to contribute towards such costs can determine location decisions. It is therefore recommended that government in some cases considers the conversion of all or some of the tax credits accrued from investment aid or R&D aid into cash. The quantum of cash conversion may depend on generation of new job opportunities, enhancement of skills, training and HR development and the credibility and importance of the operation. Setting a specific budget/fund beforehand may be a further attraction to Companies to invest in Malta.

Support Measures
To win such business, Malta needs to offer one or both of the following two fiscal measures, and as many of the support measures as possible.

Bilateral investment deal
The fastest (but not necessarily the cost most effective) way to attract a global games company and kick-start a substantial Maltese games cluster is to strike a big ticket, bilateral deal between Malta Enterprise and a global games company. However as already highlighted, the effort versus reward of attracting a major company in the short/medium term will likely be high compared with the effort versus reward of attracting small/medium companies.

In the event a large company is attracted then the type of bilateral deals found in Quebec and Singapore, which Malta would need to offer would involve the following commitments: Malta Enterprise delivers a multi-million Euro investment commitment as part of a package of other smaller fiscal incentives and related grants (see below under support measures) that is tailored to the needs of the incoming games company. In return, the incoming games company guarantees that it will build a state of the art xxx-man facility staffed by a combination of the company’s expatriate experts and local talent, and, ideally, work closely with local universities to raise quality levels and then recruit from their output.

Cultural tax credit
A large scale fiscal measure to attract games companies is a tax credit for games that pass a cultural test. The European Commission ruled in 2007 that some games can be classified as cultural products. This effectively exempted such incentives from state aid rules, and opened the way for the EC’s approval of such a tax credit in France. As approval has already been granted following over 12 months of debate and evidence, it is probable that Malta could fast-track the approval of an identical 20% tax credit by adopting the same (surprisingly loose) cultural test as currently utilised in France to score applicant games. Malta could adapt the legislation providing funding to film productions through the Malta Film Fund, which also utilises a cultural test.

Other support measures
A range of support measures should be instituted to differentiate Malta from other territories also offering big ticket fiscal incentives. The 5% tax on dividends has succeeded in attracting Bigpoint temporarily but, upon completion of their largest game to date, Battlestar Galactica, they moved the majority of the operation to San Francisco, leaving only a few administrative staff in Malta. Following this move, Nick Porsche, Battlestar’s Producer left Bigpoint and set up Rock-Solid Games in Malta. This measure, which has drawn some wealthy company owners and serial entrepreneurs, should be maintained over the long term. While this appeals almost exclusively to private shareholders in profitable companies, such people can be key to creating start-ups. One of our international consultation interviews with Crytek indicated that the 5% tax on dividends was attractive to that company if it were considering new locations.

Conclusion
To conclude, it is critical that the Maltese Government continues supporting the digital games sector which will therefore automatically create jobs, develop innovative technologies and keep the small island of Malta a competitive market place. Many local challenges could be turned into opportunities and thus capitalising on existing opportunities and releasing capacities within the field. Moreover, fiscal taxes and incentives are an important stepping stone of enticing private investment.

Therefore, encouraging specific courses in the sector and nurturing a games eco-environment could duplicate further the existing skilled pool of individuals. The Digital Games Strategy aims to attract global games companies to Malta by encouraging them not only to base their business on the island but also to develop games for Malta. The document that was launched not long ago, refers to several areas of concern, such as the lack of “angel investment culture” in Malta. Therefore, the island lacks initial investment in the early stages of companies and projects. Another concern is the lack of a business networking.

The games industry in Malta is still in early stages, however, as Finance Minister Tonio Fenech pointed out that the government “will commit to transform this strategy into a reality.”

### SWOT Matrix

On the basis of information collected on the video games industry and discussions with stakeholders, it is possible to identify strengths, weaknesses, opportunities and threats, which characterise France and especially the Paris Region as a game location.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The Ile-de-France Region is a dynamic and innovative sector.</td>
<td>• The French market is conservative because spending in video games is devoted mainly to games on home console and computer</td>
</tr>
<tr>
<td>• Historical tradition of video games in the Region</td>
<td>• Small size of companies in Paris Region making it difficult to negotiate with different stakeholders</td>
</tr>
<tr>
<td>• Concentrate more than 70% of national jobs in the sector and a high level of skilled workers</td>
<td>• Difficulties to find funding to create or expand businesses</td>
</tr>
<tr>
<td>• Main industrial players (producer, developer, distributor) interacting with the industry</td>
<td>• Difficulties for French companies to export</td>
</tr>
<tr>
<td>• Presence of specialised clusters: Capital Games, Cap Digital Paris Region</td>
<td></td>
</tr>
<tr>
<td>• Dynamism of SMEs of the sector</td>
<td></td>
</tr>
<tr>
<td>• Success story such as “Just dance”</td>
<td></td>
</tr>
<tr>
<td>• Incubator dedicated to the industry</td>
<td></td>
</tr>
<tr>
<td>• Events: Paris Games</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Credit tax cut</td>
<td>• Direct competition coming from the US and other game producers</td>
</tr>
<tr>
<td>• State subsidies</td>
<td>• Emergence of new competitors</td>
</tr>
<tr>
<td>• High concentration of political and educational institutions interacting with the industry in the region</td>
<td>• Aggressive fiscal and social policy in other countries and regions</td>
</tr>
<tr>
<td>• Clusters are present in the region</td>
<td></td>
</tr>
<tr>
<td>• Establishment of an Export plan and Launch of Le Game, the new flagship for France’s video game industry that will federate and promote French video game industry and creativity</td>
<td></td>
</tr>
</tbody>
</table>

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The video games industry is a sector of excellence in France and in the Ile-de-France Region (Paris Region), recognised for its creativity and quality. Many games have been developed in the country for more than 40 years. Video games is the first cultural industry in France, with a total of 300 companies who employ around 5,000 people. Some of France's large companies in the sector are among the largest in the world but the sector is also the source of a very large number of innovative SMEs and micro-enterprises, which need to be supported.

The French government, the regional and local authorities, as well as the main professional organisations develop policies and support instruments concerning access to finance, to help the stakeholders of the national and regional video games industry to stay competitive in a global market.

In France and the Ile-de-France Region, the video games industry benefits from:

- The establishment of competitiveness and business clusters,
- The creation of incubators dedicated to video games and digital content,
- The development of technological cooperation and research programmes among the players of video games,
- The organisation of professional events,
- The existence of financial tools specifically developed to help the sector such as the video game tax credit or the video game support fund as well as programmes to help companies to export and to be promoted in the world

Looking Ahead

With the change of the government at a national level, a new act of decentralisation will be proposed which should give the regions even more responsibility even more important in the field of economic development. Regions should receive all territorial policies on aid and support to SMEs.

To drive these new policies, new tools will be made available for Regions. Two tools will be developed very quickly: 1) the Public Investment Bank and 2) the Region will be directly in charge of the management of the Structural Funds.

Concerning the European Fund (ERDF and ESF) implementation strategies for territories to help the video game and creative industry, should be included in the next regional operational programme 2014-2020. To use these funds, specific axis will have to be written in the operational programme. These tools will be directed towards business clusters and economic actors of the sector.
### 6.10. AUSTRIA: Salzburg

#### SWOT Matrix

Salzburg currently has in development/implementation several support services (e.g. forum for design and media, co-working space, creative industry think-tank…) for the creative industries. For the time-being they focus on its strengths in design, digital and interactive media, but lack an overarching strategy, a holistic approach at regional level that meaningfully links all the measures and makes them visible to a large audience – with one final goal: to rejuvenate the regional economy based on traditional industries, increasing its performance by using the transformative power of service innovation and creative industries. Today more people than ever play digital games. Games have a growing significance primarily in the entertainment industry, but also in other fields such as education and health. This SWOT analysis of the Salzburg region should provide an overview of the status quo. Many of the issues in the SWOT analysis will be dealt with in a separate section of this regional analysis e.g. policies, financing, knowledge.

On the basis of the interviews and the desk research conducted, the following SWOT-Analysis has been performed.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Salzburg is a region with high economic and innovative power, with excellent research infrastructure, especially in Information and Communication Technologies.</td>
<td>• Lack of collaboration between game companies and other industries.</td>
</tr>
<tr>
<td>• Strong Educational and Research institutions: Universities in the region offer special degree programmes relevant to game development.</td>
<td>• No national policies e.g. to cut “non-wage labor costs” &amp; taxes.</td>
</tr>
<tr>
<td>• Games-Day is a transregional conference receiving growing interest.</td>
<td>• No specific monetary and non-monetary support instruments for gaming projects on a regional level.</td>
</tr>
<tr>
<td>• Highly skilled human resources in digital interactive media/gaming.</td>
<td>• No regional hub in gaming.</td>
</tr>
<tr>
<td>• Strong service orientation and knowledge-based economy.</td>
<td>• No overarching strategy.</td>
</tr>
<tr>
<td>• Education targeted on digital interactive media and games.</td>
<td>• Few risk financing measures/Venture Capital support: Many companies struggle to have sufficient capital backing for their business.</td>
</tr>
<tr>
<td>• R&amp;D projects in related fields</td>
<td>• Young Start-Ups and highly skilled professionals move to other regions.</td>
</tr>
<tr>
<td>• Media companies such as Red Bull Mediahouse and distributors such as Sony DADC and Real-Networks.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Matches the economic profile/programme of the region -&gt; to put digital interactive media and gaming higher on the political agenda.</td>
<td>• Raise awareness for the importance of digital interactive media / gaming for other sectors -&gt; work against distrust towards the industry. Games Industry is still not perceived in the society as a cultural industry and its economic importance is still underestimated.</td>
</tr>
<tr>
<td>• High potential for creative and technological innovation – the market is expanding</td>
<td>• Talents move to other regions. To position the region of Salzburg, in the long term, as a creative district open to cooperation and as a creative hub attracting talents in the creative.</td>
</tr>
<tr>
<td>• New business models.</td>
<td></td>
</tr>
<tr>
<td>• Create favourable framework conditions for an ecosystem for service innovation and the creative industries.</td>
<td></td>
</tr>
<tr>
<td>• Bridging the traditional sectors with the creative ones.</td>
<td></td>
</tr>
<tr>
<td>• Stronger visibility of regional ICT capacities.</td>
<td></td>
</tr>
<tr>
<td>• Cross-sectoral focus: Able to strengthen regional economy connecting with other fields:</td>
<td></td>
</tr>
<tr>
<td>• Trade</td>
<td></td>
</tr>
<tr>
<td>• Health/Medicine</td>
<td></td>
</tr>
<tr>
<td>• Education/Training</td>
<td></td>
</tr>
<tr>
<td>• Tourism</td>
<td></td>
</tr>
<tr>
<td>• Culture &amp; Arts</td>
<td></td>
</tr>
<tr>
<td>• Coworking Spaces and other platforms for creative people (design.forum) will be established in the region.</td>
<td></td>
</tr>
</tbody>
</table>
### 6.11. INTEGRATED SWOT MATRIX

Below is an integrated SWOT Matrix incorporating all regions. Statements which are more specific per region can be found in the SWOT matrix per region.

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Regional factors which play a role in the expansion of the gaming industry are often adaptable, making growth possible.</td>
<td></td>
</tr>
<tr>
<td>• Video game enterprises don’t require high investments to be active and successful.</td>
<td></td>
</tr>
<tr>
<td>• Personnel eligible to work in the game industry are often sufficiently schooled.</td>
<td></td>
</tr>
<tr>
<td>• Most regions show a clustering of enterprises; countries can be said to have ‘hot spots’ for video game development.</td>
<td></td>
</tr>
<tr>
<td>• Through their digital nature, most video game enterprises are able to produce games for a national and/or international market, not limited by regional borders.</td>
<td></td>
</tr>
<tr>
<td>• Access to finance remains the biggest weakness for almost all regions.</td>
<td></td>
</tr>
<tr>
<td>• Investing in the video game business is still considered risky.</td>
<td></td>
</tr>
<tr>
<td>• Most video game enterprises remain small both in revenue and number of employees; thus making them vulnerable to market fluctuations and making it harder to negotiate with stakeholders.</td>
<td></td>
</tr>
<tr>
<td>• Game companies are not open enough for collaboration with others fields.</td>
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</tr>
<tr>
<td>• Although some public funding programmes are already available, some stakeholders believe that they are not well known or missing in order to sustain the needs of the industry.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>• More schools are starting programmes specifically or partially designed for computer game design.</td>
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<tr>
<td>• Possibilities for bigger revenues due to more cost-efficient or shorter revenue-chains.</td>
<td></td>
</tr>
<tr>
<td>• New business models as free-to-play and browser games are strongly establishing themselves and offer new opportunities to both companies and users.</td>
<td></td>
</tr>
<tr>
<td>• Low venture capital in most regions</td>
<td></td>
</tr>
<tr>
<td>• Decrease of public funds in most regions</td>
<td></td>
</tr>
<tr>
<td>• The games industry is still not perceived in society as an economic engine for growth and its economic importance is still underestimated</td>
<td></td>
</tr>
<tr>
<td>• Global competitions (USA and Asia); stemming from differences in social and fiscal policies.</td>
<td></td>
</tr>
</tbody>
</table>
7. CONCLUSIONS: SUMMARY PER THEME

7.1. SUMMARY PER THEME

From the combined results of the regional analysis, questionnaires and interviews, the current state of the art of the ten regions (the West Midlands, Utrecht, Umbria, Piedmont, Asturias, Sofia, Baden-Württemberg, Malta, Ile-de-France and Salzburg) involved in the BOO Games Interreg IV project have been described. Summaries per theme are provided below.

7.2. REGIONAL OVERVIEW OF THE GAMING INDUSTRY

Game enterprises are generally small and medium enterprises (SMEs), with less than 25 employees and with an annual turnover under 200,000 euros (questionnaire results). In Europe, SMEs are the most common type of game-related enterprise. Triple A companies and companies with more than 25 employees are mainly located in countries where the games sector is more developed, such as France, England and Germany. For regions who are still developing their gaming industry. Enterprises are usually active in development and programming, game design, and animation (questionnaire results).

The digital gaming industry is emerging as a main player in the creative industries. Whether a region is still in its infancy (e.g. Sofia) or more developed (e.g. Ile-de-France), the economic potential of the gaming industry is apparent. Both entertainment and serious games are important in the sector. Game-related enterprises are currently mainly developing single player games, multiplayer games, serious games and simulation (questionnaire results).

Types of business models (e.g. online business models) are shifting and creating new opportunities for all regions. Especially regions who are still in their infancy can increase their presence in the regional, national and international markets. Presence on a more regional level can be increased via joint business to models (B2B and B2C). This shift can also be seen in the value chain production. Game enterprises are active in development and programming, game design and animation (questionnaire results).

The interconnectedness of the games industry varies per region. Those regions with incubators, hubs and networks, the game industry is more visible for all current and potential stakeholders involved. The visibility of the sector remains an important point for all regions, whether they are more or less developed. The gaming industry is mainly seen as an open-minded industry. Especially for young start-ups and small SMEs, exchanging information and assignments is common.

7.3. POLICY AND REGULATIONS

There is a salient need to know more about policy and support for the games industry in each region. Existing regulations and policies supporting the games industry differ among the regions in Europe. There are no known policies supporting the games industries in Piedmont (Italy), Salzburg (Austria), and Sofia (Bulgaria).

Policies catered to the creative industries are available in Germany, Netherlands and the United Kingdom, however policies specifically targeting the games industry are scarce. There is a widely felt need amongst all regions for policies which strengthen the links between game enterprises and knowledge institutions. There is also a need to increase information and awareness about economic productivity of the gaming industry.

To improve support for the games sector through policy and regulations, main measures chosen were: setting-up your business, IPR management, removing red tape, access to finance, tax breaks and funding.

7.4. ACCESS TO MARKET

Creative enterprises constitute an important field of growth in a modern, knowledge-based society. The video games retail market is growing rapidly. Access to market is essential in order to maintain economic viability and relevance in the games industry. This has become easier for game enterprises due to the shift in business models (online, business-to-business and business-to-consumer). Regions agree that new business models such as virtual goods, web-based gaming and crowdsourcing can open up new market opportunities.

Access to market was mentioned by Utrecht, Piedmont, Asturias and Baden-Württemberg as one of the main obstacles for creating or sustaining the gaming industry (questionnaire results). Access to market was mentioned by Utrecht, Piedmont, Asturias and Baden-Württemberg as one of the top three action points in their region (interview results).

Regions indicated that in order to establish and maintain the games industry, market conditions can still be improved; Almost all regions also find that the amount of public sector investment in order to establish or sustain the video gaming industry, is not sufficient. The exception is in Utrecht and Baden-
Württemberg. In Utrecht, the majority of respondents found the amount of investment in the sector to be sufficient, whereas in Baden-Württemberg, around half of the respondents found that the public sector investment was sufficient.

**Whether there are networks in place to promote the games industry in the region, differs per region.** Utrecht, Piedmont and Ile-de-France indicated that there are networks in place. Half of the respondents in Asturias and Sofia agree with this statement. Umbria and Salzburg find that networks are currently not in place to promote the regional games industry.

**Genres that are considered to be generating the biggest revenues** are: mobile games, social games, multiplayer games, serious games, and simulation. **Digital distribution and cloud computing** are seen as important trends for the games sector. **The need to stimulate partnerships between businesses, public institutions and the game sector** was highlighted by all regions. The general awareness in other sectors about the potential of the games industry also needed to be increased in all regions.

### 7.5. ACCESS TO FINANCE

**Access to finance remains one of the main obstacles for all game companies in all regions.** Access to venture capital is still limited due to the size of game enterprises and the lack of/low level of tangible assets. Creative companies have difficulties finding financial support. Identify intangible assets and measuring the risk of investing in creative projects remains a challenge for potential financial investors, creating a financial gap between investors and game enterprises.

**Financial support is available per region.** However public funds differ per region. Support enterprises are available in most regions in order to help game enterprises to access these funds. However the process of obtaining these funds can be lengthy and requires another skillset from the entrepreneur who might lack the time to acquire it.

In order of priority, **financial instruments seen as the most relevant for the development of the games sector are:** self-financing, public subsidies, venture and equity funds, private financing, business angels, tax incentives, and bank loans.

**Tax benefits for private investors** are considered to be useful for the games industry by all regions. **Finance is most useful in the prototype phase of game development.**

### 7.6. ACCESS TO KNOWLEDGE

Access to knowledge is considered to be of great importance in sustaining and growing the regional game industry.

In all regions analysed, the **game industry has access to a) educational courses, programmes and facilities and b) support structures (such as incubators and network organisations).**

The **level of specialised knowledge offered through these support structures and educational courses differs substantially between the regions,** depending on the degree of development of the games sector. More developed regions such as the West Midlands, Ile-de-France and Utrecht offer specific university courses such as game design, programming, graphics and 3D modeling. In Umbria, Piedmont and Sofia, specialised games courses are lacking, but creative IT courses are offered. Malta and Bulgaria are currently developing courses.

Educational courses seem to be **successful** in teaching game design and development. However there is still a **skills gap** when it comes to financial know-how and entrepreneurial skills useful for freelancers, start-ups, and SMEs.

**Policy-makers and business incubators highlight the lack of business skills as one of the main weaknesses for game start-ups and SMEs.** Game companies generally have expertise in developing products but miss business education or entrepreneurial skills. Few acquire new business knowledge through formal support structures such as educational courses, contacts and networks or specialised SME centres. The entrepreneurial mindset and acquisition of skills appear to be a personal quality or learned on the job.

All regions except Sofia have incubators in place to support businesses, although not all incubators are focused on the gaming sector. **All regions underline the importance of having a dedicated cluster or incubator.**

### 7.7. OTHER SUPPORT

Several business support measures are available to sustain starting and existing entrepreneurs and SMEs in product development, knowledge exchange, innovation and collaboration within and beyond the gaming sector.

The **creation of an incubator and/or hubs** can promote collaborative work between games industry partners, knowledge institutes, and interested clients. This is seen as essential to sustain and enhance business opportunities in the region and increase access to market.

In addition to this, **regional, national and international networks** contribute to sustain and strengthen the sector. Differences in the strength and availability of these networks are apparent among regions.

The **development of a strategic agenda for the games sector** is promoted via the presence of networks and network organisations who cater to the need of the games sector and act as a link with other
interested parties. Visibility of the sector is promoted in this way. Support measures address areas which are useful to the game enterprises, such as: accountancy, finances, building networks and match-making, distributing industry knowledge and expertise, help desk services and customer services, legal services and web development.

7.8. PERCEIVED NEEDS

In sum, for all regions, access to finance remains the biggest obstacle for creating or sustaining the industry in their region. Access to market, access to business support, access to a supportive regulatory framework, access to knowledge and access to R&D technology also remain challenges and were mentioned to a similar extent in a collective overview of the regions (interview results).

Access to knowledge and experts in the field remains a common need by all regions. More developed regions with specialised courses and Universities focusing on games-related courses and introducing entrepreneurial skills is extremely important. How these skillsets are acquired can be approached differently per region (e.g. through personal and organised networks, incubators and education).

Interconnectedness is key to stand strong. Sharing knowledge and openness in this industry characterizes the gaming industry which is still relatively young. Improving business models, increasing trust and collaboration among game enterprises will also create scale advantages. This can be improved by having a hub/incubator with specific access to information relating to the games industry. Having an overarching strategy for the Creative Industries, focusing on digital interactive media/the gaming industry is also of use, as specific policies aimed at promoting and supporting the games industry are beneficial.
8. RECOMMENDATIONS PER REGION:

8.1. UNITED-KINGDOM: The West Midlands Recommendations

Skills Gap
Skillset’s 2010 Creative Media Employer Survey asked employers to identify any potential future skills gaps. Interestingly Computer Games employers predicted that there would be gaps in a wide variety of broad skills areas: Leadership and management (mentioned by 37% of employers), sales and marketing (31%), multi-skilling (29%), technical skills (28%) and skills to develop content for multiple platforms (28%).
Within the broad category of ‘technical skills’, Games employers were most likely to specifically mention computer programming (18%). Likewise within ‘skills to develop content for multiple platforms’ there were a huge variety of specific potential future skills gaps mentioned, the most common relating to design and development of games and mobile applications.

IPRs
The creation and retention of intellectual property is a priority issue for the UK video games industry. We welcome the review of the taxation of IP currently being undertaken by the Government. We expect the Government to set out a timetable for the implementation of the recommendations of the taxation of IP review in its response to this Report. We will monitor its outcome.

Specific measures
The measures announced in the 2010 Budget will have a positive impact on start-ups and small and medium sized businesses, and we welcome the Government’s actions. However, these proposals are not specific to the video games industry. We recommend that proposals for more targeted support be set out by the Government in its response to this Report. Those proposals should be accompanied by a clear and costed action plan.

17 http://www.publications.parliament.uk/pa/cm201011/cmselect/cmscotaf/500/500i.pdf
18 http://www.publications.parliament.uk/pa/cm201011/cmselect/cmscotaf/500/500i.pdf
8.2. NETHERLANDS: Utrecht Recommendations

Recommendations

- Professionalising the industry by helping game developers gain entrepreneurial skills
- Facilitating access to finance and establishing specific tax benefits for game companies
- Increasing and sharing knowledge with developers on policies and support for the games industry
- Increasing and sharing knowledge with developers on the state of the games industry in other regions and countries
- Increase strategic collaborations between game companies in order to increase the potentiality of upscaling and exploiting strategic scale advantages
- Continue campaigning to increase the visibility and awareness about the Dutch gaming industry to the general public, potential stakeholders and the government
- Adapt and invent new business models to the changing dynamic of the gaming industry and the size of the game company
- For gaming companies: focus on short and long-term visions, having a clear strategy of how to break into the market, have market and business-minded people in your company and network
- Create tax exemptions and more subsidies specifically for game companies in order to level the playing field
- Increase the export of Dutch games through traditional publishing models and online distribution
- Access to finance such as venture capital should be increased

- Improve opportunities for small companies to grow and compete on an international scale
- Encourage game developers to make more strategic collaborations and use new business models
- Continue communication among different stakeholders and aim for transparency and a collective vision concerning the gaming industry
8.3. ITALY: Umbria Recommendations

Macro-objectives

- provide support to strategic themes of research, innovation, strengthening of network of enterprises in order to enhance competitiveness;

- support innovation processes, promotion of innovative investments, strengthening of small-dimension enterprises through development of projects and introduction and enhancement of the use of information and communication technologies;

- promotion and support of the diffusion and transfer of innovation in the companies' processes including organisation, management and internationalisation;

- strengthening of the financial structure of enterprises;

- meeting transversal objectives of energy saving and environmental protection

- improvement of infrastructure

Recommendations targeted to the Gaming Industry

- Policy makers in charge of developing policies to stimulate SME cooperation should take into account the fear that small enterprises have of losing their autonomy when entering into formal partnerships and strategic alliances.

- In order to access foreign markets, SME cooperation should be stimulated. This can be done by better informing entrepreneurs about the advantages of (international) cooperation; If better information and advice was available on how to find a foreign partner and if more success stories were told, this potential could be released and optimised.

- Policies and specific programmes should be set-up to help young companies adopt to an intelligent market and create an expansion strategy according to their sectors.
8.4. ITALY: Piedmont Recommendations

- Enhancement of the culture of games as a key component for the development of all communication sectors; equalise gaming to other creative and cultural sector, not considering digital games solely as entertainment.

- Tax incentives for enterprises which invest in the creative and in video game industries

- Investments in Internet connectivity: Availability of broadband across the country is a necessary condition for the dissemination of digital culture and, consequently, for the dissemination of the culture of videogame. Piedmont has an advanced regional plan focusing on broadband coverage (Wipie). However the Italian population still suffers from a digital divide.

- Investment in education and innovation, spreading the culture of games in school, explaining the potential of digital games as more than just entertainment.

- Stimulate innovation in the public sector using Gaming Interfaces: public sector and research should start using games as a format, in communication, e.g. using social game or be able to explain the use of such services.

- General support to enterprises and start up in business development, emphasising the economic potential of the video game sector.

- Promote and develop programmes by European projects included in Culture and Media plans.

- To grow, the business front, entrepreneurs should seize opportunities linked to new platforms, develop key relationships with partners who can invest in the financial sector, enhancing excellence to inspire potential entrepreneurs and attract talent from abroad.

- Public and Private Support Structures should stimulate entrepreneurs, instead of relying on the development of the digital market, with incentives to generate new business and production of quality content.

- Joint Action: one should also develop a plan of coordinated action between public and economic actors.

- To decrease the digital growth gap:
  
i) investment in the production chain of video games in order to stimulate the industry and make it more solid
  
ii) tax legislation specifically designed for this kind of targeted production, for example, to increase the number of consumers, fight piracy
  
iii) create a line of professional training and high-level qualification, which responds to the needed skills expressed by the market
8.5. SPAIN: Asturias Recommendations

For this recommendation, a wide review of the most representative sources and publications on the subject at a European, national and regional level has been done. Gathering information has been completed with informal and formal contacts with the most relevant stakeholders involved in the video games, as well as from insights gathered creating the SWOT analysis.

Overall Recommendations

- Develop awareness activities to promote cross sectorial cooperation with other traditional industries, video games applications, serious games, etc.
- Promote networking and cooperation activities for the video game entrepreneurs and companies.
- Promote specific higher public education to offer specialised studies on video games,
- Support entrepreneurial competences and skills such as financial, commercial, managerial skills by entrepreneurs.

Recommendation concerning Access to Finance

In an attempt to solve difficulties entrepreneurs and companies have when accessing finance, there are general recommendations such as:

- promote a friendly environment on both sides (video games industries & financers) to solve the obstacles to access to finance, especially at early stage.
- promote adequate lines of funding, not only public finance, but also private ones, attracting private investors.

On the basis of the importance of the access to finance of video games industry, there are important regional recommendations that are connected to the European Union's needs:

<table>
<thead>
<tr>
<th>General Access to Finance Recommendations</th>
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<tbody>
<tr>
<td>• Support investment readiness programmes (with CIP, ESF, LLL schemes)</td>
</tr>
<tr>
<td>• Set up a new Creative Industries Investment Fund (with EIF and EIB)</td>
</tr>
<tr>
<td>• Experiment with micro-finance in the creative industries (with Progress scheme)</td>
</tr>
<tr>
<td>• Promote sound framework conditions to stimulate investments in creativity</td>
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<tr>
<td>• Provide guarantees to reduce and cover the risk of investments</td>
</tr>
<tr>
<td>• Promote Venture Capital and Business Angels Networks</td>
</tr>
<tr>
<td>• Set up investment readiness programmes for the sector (training, capacity building, networking, etc.)</td>
</tr>
<tr>
<td>• Focus on improving the services and capacities of intermediary organisations at a local level to better promote CCIs</td>
</tr>
<tr>
<td>• Improve the framework conditions of the sector to enable more investments</td>
</tr>
<tr>
<td>• Increase public investments through new funding lines and the adaptation of existing general funding lines. Attract private investments through public-private investment vehicles.</td>
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</table>

In sum, the project consortium suggests that the European Union promotes greater investments and investment readiness in creative industries to address the above issues.
8.6. BULGARIA: Sofia Recommendations

A meeting was held on the premises of ARC Fund on Friday, July 13th which was attended by 20 stakeholders (including policy-makers, company CEO’s, and representatives of enterprise support organisations) from the digital gaming and creative industries, in order to discuss the results of the desk research, interviews and online survey. The main challenges discussed during this meeting reflected, in large part, the research which has already been conducted. These included the views that:

- There is an insufficiency of highly qualified specialists in the digital gaming sector.
- There is a lack of understanding by the tax authorities of the specifics of the game development companies.
- Effective forms of financial support can be improved.

The provision of financial assistance from the state to the digital gaming sector initiated a lively debate. While some participants held the view that the state should not focus on the provision of direct financial assistance, others felt that the industry needs additional support for start-ups. They argued that because the market for digital games is global, with customer expectations ever-rising, the financial and human resources burden is increasing.

With these discussions, as well as the primary and secondary research already conducted, the following recommendations include the need for:

- Action from the Ministry of Education, Youth and Science in encouraging game related programmes at public and private universities in the country and the provision of information on the opportunities for career development in the creative industries and STEM (science, technology, engineering and mathematics) professions at the secondary school level. This could include information about the salaries in the sector and demand for various professions.
- A guarantee fund for the cultural and creative industries in Bulgaria as many start-ups in the gaming sector do not have the collateral to secure a loan from a bank without such a guarantee.
- The creation of a state-funded administrative office to support businesses with the difficulties they encounter, such as applications for funding and accounting services.
- Initiatives to help the popularisation of successful entrepreneurs and to highlight the potential of the sector.
- Enlarging the scope of the Centre of Training Firms to include the art schools in the country (through taking the Ministry of Culture on board in the initiative) or initiating a similar support mechanism for the development of entrepreneurship in the art schools.
- Completion of the "Strategy for the Development of the Creative Industries" including specific measures for rapidly growing areas of the creative industries (like digital gaming), and organising a consultation session with stakeholders before the finalisation of the document. A periodic evaluation of the strategy’s implementation should be made regularly. The recommendations contained herein could be included in a roadmap for the implementation of such a strategy. When the good practices implementation roadmap is developed later in the BOO-Games project, this could be integrated into the national strategy’s roadmap.
- Support to the creation of creative industries clusters, providing subsidised rents in business parks to help localise game enterprises. This could include financial support for joint-trade show appearances of Bulgarian firms abroad, networking events and consultancy services. Such activities could all be housed in a one-stop shop modelling on the successes of gamecity: Hamburg19.
- Improving the understanding of tax authorities for the specifics of the online industries (organising training courses for staff of the tax authorities).
- Stimulating businesses to provide internships to students.
- Consider tax exemptions/credit (other financial assistance) for game developing companies in the early stages of their development.

19 http://www.gamecity-hamburg.de/en/game-ueber-uns/
More general, yet equally if not even more important steps include:

- Wide-ranging modernisation of the education system in the country. For example, a quota system is in place for the various disciplines at universities in Bulgaria which does not fully consider the needs of the private sector. In the field of IT for example, the quota does not meet the demand for such courses by students. The Ministry of Education, Youth and Science should revise this quota system according to the strategic priorities of Bulgaria's economic development. Also, the arts schools in the country should better reflect the needs of the market with the courses that they offer. The Ministry of Education should also encourage universities to reach out towards companies in order to establish a dialogue about the needs of the private sector.

- Renewed efforts at reducing the bureaucratic burden.

- Improving entrepreneurial skills of young people across all disciplines.

- Improving the connection between industry and academia (lectures from the industry in the universities; more active engagement of the career centres in the universities with the business sector).

The face-to-face interviews and the stakeholder consultation session have revealed that underlying the challenges faced by companies in the sector is an extremely dedicated, passionate and ambitious group of entrepreneurs. They are, in the opinion of the researchers, the embodiment of what is needed to help Bulgaria economically converge with EU-27 standards of living.

The sector is extremely relevant for Bulgaria and for Europe considering the European Union’s objective of building a world leading knowledge-economy, and in promoting environmentally sustainable economic growth. With this in mind, we urge the Ministry of Economy, Energy and Tourism, the Ministry of Education, Youth and Science, the Ministry of Culture and Municipal Authorities in the Sofia-Capital region to review the main recommendations and good practices identified under the BOO-Games project, and to invest time in understanding this sector on their own, and to seriously consider the integration of the 'good practices' roadmap that will be developed within the project over the next two years into their strategic planning processes.
8.7. GERMANY: Baden-Württemberg Recommendations

After having collected and analysed the opinion of several stakeholders of the games industry in Baden-Württemberg by means of online surveys and interviews, and following the results of an accurate research, it is possible to formulate some first recommendations regarding the measure that should be undertaken to sustain the games industry in the region.

- Setting up of a regional games network supported by public institution but driven by expert of the sector. The network has to enable an exchange of experience among actors of the industry and provides access to knowledge for many micro and small companies working in the sector. Such a kind of network should also offer some further professional development as well as transfer of knowledge opportunities. For this reason, a further offer of consulting for business plan, financing, outsourcing, production as well as legal issue should be offered.

- Setting up of a regional chapter of the International Game Developers Association (IGDA), a professional society which gathers 10.000 video and computer game developers worldwide. Within the IGDA Chapters offer an informal meeting point and networking opportunity for games developers within local communities.

- Strengthen the synergies among the games industry and other branches, valoring games as key technologies for other industries. It has to be underlined the important role that the technologies developed within the games industry can play also for other sectors. This would on one side improve the overall perception of games within the society, but above all it would open up new market opportunities for games companies. In that respect, the public sector could sustain the games industry enabling the contact and the exchange with other branches. This could be realised by means of matchmaking events or exploiting already available business networks as bwcon (Baden-Württemberg connected).

- Adoption of measure to decrease the skill shortage and the brain drain, as for instance the institution of a whole game design degree within a public university and the attraction of foreign talents with special programmes.

- Development of more favorable conditions for games companies willing to establish their business in Baden-Württemberg, taking into account the specific characteristic of this industry (namely: micro and small enterprises, orientation to work on project which in turn cause a variable number of employees according to each project). These measures should balance some of the disadvantages usually connected with the games location Baden-Württemberg,namely high salary and high cost of living. In that respect a model such the one adopted in Hamburg with the Games City Port could be possibly replicate, exploiting some already existing initiatives as for instance the KreativründerzentrumPerfektFutur, a dedicated district for creative entrepreneurs currently under construction in Karlsruhe.

- Strengthen location marketing activities as for instance through the creation of a common stand for micro and small games enterprises at some of the most relevant events for the industry, e.g. the fair gamescon in Cologne. These activities should be sustained and promoted by public institutions willing to support the games industry such as the MFG Baden-Württemberg and the Wirtschaftsförderung Karlsruhe, since small enterprises could not afford on their own such marketing activities.

- Promotion of the internationalisation of the games location Baden-Württemberg. This could be reached through many of the activities foreseen within the Boo-Games projects whose aim is in fact to promote an exchange of experience among different regions. Games companies could profit of this exchange through dedicated activities that could be envisaged and tailored on their needs.

- It is also clear that several actors in Baden-Württemberg wish the creation of a specialised network for the sector. In that respect the City of Karlsruhe will use the results of the study to set up a regional games network with the support of the interviewed people as multiplayers bringing in their private networks to come to a critical mass of participants.
8.8. MALTA: Recommendations

Overview of Main Sectors and Transfer Potential to the Gaming Industry

The games industry in Malta proves successful, particularly when transferable to the following sectors:

Entice global games companies

Malta Enterprise offers incentives which are appropriate for a wide range of companies, more specifically private shareholders. Nevertheless, these schemes are not appropriate to specific needs of gaming companies. It is important to note that one of the reasons for Malta to attract international companies is that the island offers one of the most tax-advantageous corporate structures within the European Union, because Malta operates a full imputation system on tax.

Furthermore, this allows for no further tax to be due by non-resident shareholders on receipt of dividends distributed out of profits of a company. These distributions may also trigger refunds of Malta tax paid by the company. The standard refund is 6/7ths of a 35 per cent corporate tax rate. The effective tax rate will generally range from 0% to -5%. The recently approved 15% tax capping extension to digital gaming directors and games designers’ salaries assists with this.

The process of digital games production often takes a considerable time before the ideas arrive to the market. In such cases, issues with cash flow are crucial. Financial incentives to contribute towards such costs can determine location decisions.

It is therefore, suggested that government reflects the adaptation of all or some of the tax credits accumulated from investment aid or R&D aid into cash. Consequently, taking further steps could track incentives being offered by other territories and be alert to new opportunities around emerging online technology and production focussed funding/ investment, counting on completion bonding for computer games.

Film Industry skills— Malta is an attractive film location which shares resources with games such as motion capture. There is hardly any post production industry in Malta which could perhaps share similarities with the games industry. Nevertheless, this does not mean that the film industry can grow out of the game industry and the other way round. On the contrary, according to the recently finalised gaming strategy, Malta has a strong potential for sharing resources across both industries. The most common and shared technical facilities are motion capture and sound studios.

Gambling to gaming transfers— the Games industry needs to reach a competitive advantage and a local analysis showed that there are know-hows and technologies that could be transferred from gambling (remote/i-gaming) to games. The analysed data shows that there is potential for the transfer of skilled individuals with high values statistical analysis from the I-Gaming industry to the casual games. Therefore, this talent could be further capitalised on and expanded to the point that this initiative could give Malta a worldwide creative image.

Business to Business— In terms of business, there are a few noteworthy deficiencies which are related to the lack of early stage investment, lack of business networking/hot desk meeting places where people from the creative industries, investors and games people work and meet. An example of this meeting point could be TechHub in London where many meetings are held.

Encourage local games start-ups— In order to be sustainable in terms of games, Maltese stakeholders must constantly encourage new generations of games start-ups having in mind the appropriate grants, aiding angel Investment and specialist training courses.

Enhance education— Improve Maltese education provision by adding new specialised courses, to bring recruits for overseas and start-up games companies across technology, art and production.

Guidance on delivery

The Digital Strategy of Malta recommends the following delivery guidelines for this strategic objective of attracting global game companies.

Target companies: In order of priority, recommended targets are:

- **Online/mobile targets:** Small/Medium scale mobile, online and social games publisher/developers (such as Rovio, Zynga, Playfish and Disney Playdom), interested in utilising Malta’s technical capability to create sub-divisions focused on customer relationship management, databases, tools and middleware, and analytics.

- **Publisher targets:** Malta should approach large scale console publishers (such as Ubisoft, EA and Square Enix) which may consider locating post-production and support functions (such as QA, localisation and customer support) in Malta.

- **Service targets:** High value service company targets (but fewer in number and mostly small to medium scale) would be QA and localisation (such as Babel), support and community management (such as Crisp Thinking), and mobile social or porting middleware (such as Scoreloop).
Bilateral deal: Malta Enterprise (as already done) should on an annual basis ask potential partners what they want from a location, develop a package around their specific requirements, lending financial support for companies bringing in experienced staff to train raw recruits. The emerging markets of North Africa around mobile and tablet could be a motivator for a major company.

Cultural tax credits: We recommend that it is administered to deliver rapid decisions, early acceptance letters against which banks can guarantee loans and to lower the minimum production budget to €25,000 to reflect the small number of micro-studios. The Maltese Government will need specialist games industry, legal and tax advice to construct, plan, seek and gain European Commission approval for and then to implement such a tax credit, which process, even moving swiftly may take 12 months or more.

New grants: The Maltese Government may well need specialist legal and tax advice to implement any new grants.

To attract global games companies to Malta, two steps need to be progressed in parallel, (1) a pipeline of global companies that are potential candidates to relocate in Malta needs to be created and (2) a range of fiscal measures that can be used as part of the negotiation with these companies needs to be identified, agreed and implemented.

(1) To create the pipeline of candidate global companies the following actions are needed:

<table>
<thead>
<tr>
<th>Time</th>
<th>Task</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Months 1-2</td>
<td>Create long list of target companies</td>
<td>Identify companies that meet the needs of Malta’s games strategy</td>
</tr>
<tr>
<td></td>
<td>Create framework for evaluation</td>
<td>Create an evaluation framework that allows an objective ranking of the long list to identify the target companies. Typically a balanced scorecard approach is adopted</td>
</tr>
<tr>
<td></td>
<td>Review against framework and create short list</td>
<td>Work up value proposition for each company on shortlist</td>
</tr>
<tr>
<td>Months 3 onwards</td>
<td>Create pipeline of global companies that could potentially locate in Malta</td>
<td>Use experienced games professionals to support ME in contacting and negotiating with target companies</td>
</tr>
</tbody>
</table>

(2) Malta Enterprise and the Maltese government have extensive experience of the actions required to evaluate and implement fiscal measures so no action plan is provided. We note that legislation, European approvals and administrative preparation for tax credits may take up to 12 months following the decision to move forward.

Encourage company start-ups

This strategic objective targets the establishment of more and larger indigenous Maltese games companies, which will balance as well as benefit from the arrival of larger global games companies. The recently compiled Creative Economy Strategy names digital games as a priority area. Following this lead, the joint expertise of Malta Enterprise and the Culture and Creative Industries working group could be deployed to tackle the development of local start-ups. With this in mind, a range of measures are recommended, which combine to create the environment for more start-ups to be founded and grow beyond their current, embryonic stages.

Start-up stimulation measures

i. The 5% tax on dividends previously profiled is also useful for start-ups by serial entrepreneurs and should be maintained over the long term.

ii. Start-up grants of €25,000-€50,000 to help new companies cover costs of founding the company, salaries, purchasing machines and software licenses and covering other ancillary costs should be provided via a start-up fund valued at roughly €1,000,000 over 5 years\(^{20}\). Funding could be 1:1 matched or on a stand-alone basis. Malta could extend the terms of the Innovative Start-Up Grants. This is currently being implemented.

iii. Maintain and expand the Prototype grants of up to €25,000 to help companies build early versions of games before commercialisation, such as Abertay’s games prototype fund\(^{21}\). The funding could be linked to universities and should be provided on forgivable terms with the expectation that only successful projects repay with modest interest. This is also currently being implemented.

\(^{20}\) 15-30 grants could be disbursed plus administrative costs.

\(^{21}\) Abertay disburses 6 grants per year from a £3.5m fund [http://prototypefund.abertay.ac.uk/funding/](http://prototypefund.abertay.ac.uk/funding/) and ties the funding to working with students from UK universities.
iv. A public or joint public/privately funded venture or IP fund (such as the UK’s Nesta\(^{22}\)) would invest in high risk businesses providing low interest, convertible loans targeting innovative games or other creative media companies. A games component disbursing seed funding to a single company per year might be worth €150,000 per annum.

v. Educational/industry cross-over grants (such as the UK’s TSB) valued at €100,000- €250,000 will be useful to encourage closer collaboration on technology development with universities in Malta.

vi. Create exciting TechHub like Incubation and Hot Desk facilities, possibly in a central location in Valetta, St. Julians, in Smart City or under the aegis of the Business Support Centre, could provide support for new or incoming games companies over their first 12 months including access to an experienced mentor, subsidised offices, equipment and technology, bandwidth, and software licenses as described in 8.1.4.iv (such as those in Korea\(^{23}\) or TechHub in London\(^{24}\)). Flexibility is advocated here, since creative companies can prefer to locate their offices in social and creative hubs, sometimes shunning corporate locations. Affiliate satellite opportunities with organisations such as TechHub should be explored.

vii. The loan guarantee scheme currently provided by the Maltese government should be optimised to reduce the delays and individual risks that are currently suppressing take-up by both companies and banks\(^{25}\).

viii. A tax credit for VCs or angels to provide early stage risk capital for new companies has recently been put in place which should encourage private finance into games companies.

i. Maltese Enterprise should actively conduct matchmaking between start-ups and incoming games companies and local banks, funds and finance schemes, expediting the task of finding and applying for finance (which can have too high an administrative overhead for small companies). This could effectively extend the remit of the Business Support Centre. Administrative assistance with EU grants, such as the MEDIA programme and other grants should also be offered.

ii. While there is not enough critical mass for a Maltese games trade body in the short term, we recommend that Malta Enterprise negotiates group rates for Maltese games companies to be affiliated with TIGA26, which can deliver networking, educational links and a range of practical support.

iii. We note that Malta Enterprise already provide trade show attendance grants to the USA, Far East and Europe, subsidising some of the cost of Maltese companies attending trade shows to conduct business and gather market intelligence. Suitable trade shows include GDC, Casual Connect and Siggraph.

iv. Malta Enterprise should release small grants for regular (i.e. monthly) networking events for games and other creative media companies, paying for visiting specialists to give seminars, master classes and workshops to the local developer community. This could be an extension of the scheme offered by the Malta Film Fund.

v. Lack of specific skills in Maltese games companies may necessitate expert grants to enable them to bring in specialists with technology, production and commercial skills to deliver short term consultancy to companies, as found in the UK\(^{27}\). This may require the enhancement of Malta’s existing Loan of Highly Qualified Personnel scheme.

Guidance on delivery

The Digital Strategy Plan recommends the following delivery guidelines for this strategic objective.

**Target companies:** This package of initiatives is designed for new and existing Maltese games companies. Although these measures are designed for companies working on any games platform or service sub-sector, they are likely to be utilised in start-ups working on mobile, online PC, social and short-form console (e.g. Xbox Live Arcade and PlayStation Network) games. We note that, in the service category, support and community management companies (such as Crisp Thinking) requiring strong language and interpersonal skills but less/no development skills would be well targeted at Malta’s current raw talent pool.

**New grants and funds:** The Maltese Government may well need specialist legal, tax and games industry advice to plan and implement any new grants and funds.

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\(^{23}\) Such as that offered by KOGIA in South Korea. [http://www.techhub.com/](http://www.techhub.com/)

\(^{24}\) The UK’s Enterprise Finance Guarantee is one model for such guarantees. [http://www.bis.gov.uk/policies/enterprise-and-business-support/access-to-finance/enterprise-finance-guarantee](http://www.bis.gov.uk/policies/enterprise-and-business-support/access-to-finance/enterprise-finance-guarantee)

\(^{25}\) [http://www.tiga.org](http://www.tiga.org), a UK trade body with European members.

\(^{26}\) The UK’s BIS runs a Grant for Business Investment, which covers some consultancy costs.
Encourage education
This strategic objective is designed to provide the third eco-system component, a strong flow of graduates from generic and games-specific degree courses to supply the requirements of both incoming and start-up games companies.

Educational stimulation measures
i. A range of improvements are recommended to Malta’s current courses, such as adding new categories of class and courses, adding dedicated games courses at BSc and BA level, enhancing existing courses to bring them up to date with current industry requirements and adding a Masters-level course.
ii. Salaries for Art, Modeling, Animation and Design instructors for courses linked to Computer games and animation at MCAST need to be uprated to bring them in line with average salaries for such tutors at other European and USA universities and enable MCAST to attract top quality instructors to move to Malta to help reverse the deficit in the raw talent pool for art, animation and design.
iii. Grants should be provided to allow universities to source foreign experts in novel subjects (for instance, HTML5, LLVM or Flash 11 development, social games design, games analytics, new commercial models) to teach short courses at Maltese universities. Courses could be subsidised for students.
iv. Subsidised distance learning initiatives (such as that provided by Train2Game) could prepare generalist students for games production.
v. A university twinning scheme that links Maltese universities with best-of-breed games degree courses (such as Abertay University or DigiPen) could raise standards via student and faculty swaps.
vi. A team of students could be funded to enter Dare to be Digital or Global game jam, which will give valuable team production experience under time pressure.
vii. Malta Enterprise should expand support of the Game Dev Challenge (run by St Martin’s) or Gamezing competition (run by University of Malta) and expand sponsorship each year by offering a financial prize such as a year’s worth of funding worth €25,000 for the winning entry to enable the winner to build out, commercialise and distribute the game.
viii. Subsidise internships between games degree students and local games companies, such as commonly found in UK and US games degrees.

Guidance on delivery
We recommend the following delivery guidelines for this strategic objective.

Create games specific courses: The available games related courses identified should be reviewed and adapted to meet the needs of the games industry. In particular:

Enhance existing courses: Focus on adding general courses on game development to augment the current non-game related art, design, computer science, and management majors. Augment the art majors with some specialised games courses that focus on game tools and technology, level building, creating 3D characters. Augment the Computer Science majors with courses on game platforms, game engines, game middleware.

Introduce emerging technical areas into courses: for instance, HTML5, LLVM or Flash 11 development, social games design, games analytics, new commercial models.

Create new courses focussed on game development: The course recommendations for Malta Universities identified in Appendix A: Desk Research, under Perceived Needs: Identification of Gaps in knowledge/support should be reviewed and implemented.

Enhance salaries: Review the salary structure at MCAST and other institutes to make local salary scales in specific shortage areas such as: fine art, 3D Modelling and animation (including Max, Maya other packages), Game Concept art and life drawing, Scripting and basic programming, Game Design and Level design. (Using Unity, Unreal or similar), Game Production and Management. (Including MS Project and other tools), sufficient to attract quality teaching staff from abroad.

Provided Targeted Grants: Providing grants to attract foreign national teaching staff and to subsidise distance learning and other initiatives may well need specialist legal and advice.

Create Industrial links and showplaces: Malta Enterprise should take a lead role in forging the relationships between the emerging games industry and the educational institutes.
## Next steps (According to the Digital Games Strategy (Malta Enterprise))

<table>
<thead>
<tr>
<th>Time</th>
<th>Task</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Months 1-3</td>
<td>Full Review of existing courses in Malta at all institutions.</td>
<td>The Digital Strategy Report will provide a foundation for the initial analysis required but additional detailed consultation will be required with each of the educational institutes as part of the review process.</td>
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<td></td>
<td>Consultation with local Malta games companies on short course content and needs.</td>
<td>This should be carried out under the sponsorship of Malta Enterprise but may need input from experts with experience of the needs of the games industry.</td>
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<td></td>
<td>Establish Industrial links for student placements.</td>
<td>This should be carried out under the aegis of Malta Enterprise using external industry professionals to make and build necessary links.</td>
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<td></td>
<td>Establish Education Advisory Panel with industry professionals from abroad combined with Senior Malta Academics to advise on course content and future strategy.</td>
<td>Once established, this panel should continue to act as a 'steering group' on educational strategy to meet the needs of the games industry.</td>
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<tr>
<td>Months 4-6</td>
<td>Liaise with software / hardware providers to create links between companies and academic institutes. Where possible, negotiate provision of equipment and materials to assist in providing 'cutting edge', hands on, practical elements within training courses and sign Academic Partner Agreements with those providers.</td>
<td>Target larger companies with a track record of working with academia, such as SONY, Microsoft, Unity, IBM, Sun Systems. Typically, these companies are able to provide, development systems, game engines, hardware, etc., on a subsidised or gift basis.</td>
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<td></td>
<td>Selected academics from Malta Institutions attend Games conferences with strong education content (e.g. SIGGRAPH, GDC) which also serve as opportunity to liaise with industry as required.</td>
<td>Although funding to support attendance of conferences and other events would normally come from the University, it may be necessary for additional subsidy to be provided by Malta Enterprise.</td>
</tr>
<tr>
<td>Months 5-12</td>
<td>Define a short list of new courses and enhanced courses across institutions produced with costs for review the games advisory panel.</td>
<td>The Digital Games Strategy will provide a sound foundation but additional detailed consultation will be required with each of the educational institutes as part of the review process. A minimum of 5 specialist courses and 1 master class series will be run per annum. A provision of a minimum 5 additional modules for existing BSc and MSc courses.</td>
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<td></td>
<td>Selected new short courses are set up and start to run.</td>
<td>Typically new courses start to run at the start of the new academic year (2012-13) but it would be beneficial if this timeframe could be shortened.</td>
</tr>
<tr>
<td>Months 13-24</td>
<td>Establish one new Games Focused BSc Technical Course, one New BA Focused on game art, animation and design at MCAST and one new Games Focused MSc at the University of Malta</td>
<td>The educational advisory panel established above should assist with course content.</td>
</tr>
<tr>
<td>Months 25 – 36</td>
<td>Initiate PhD research programmes and join EU bids with academic partners at academic institutions across.</td>
<td>This creates a strong research context and manpower that can be move into industry as new opportunities arise in the games industry.</td>
</tr>
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</table>
Nurture a games eco-system

Malta Enterprise is the critical implementer of Digital Games strategy which will combine to create a viable and self-sustaining games eco-system with a balance of global and local companies in the medium term. Malta Enterprise must learn from other local support agencies’ experience of growing inorganic games clusters by attracting games companies. In doing so, it will establish new skill sets and methodology, build understanding of the key drivers behind global games companies’ location decisions, build contact networks and then sell Malta into key decision makers in global companies, and ultimately drive all three strategic objectives forward.

Key functions for Malta Enterprise to attract games companies

i. **Research**: The support agency will need to perform some research functions to prepare its sales materials in the following areas:
   - Define key fiscal measures. (Completed)
   - Gather data on the raw talent pool, including the scale, range, skill sets and quality of output from local universities.
   - Gather data on the experienced talent pool, particularly local companies of global prominence, including the spread of genres and platforms.
   - Gather data on local economics, salaries, office costs, cost of living, labour mobility, IP protection and infrastructure. (Completed)
   - Gather the latest research on the industry and then scan games industry news so representatives are up to date with the latest industry trends, practices and concerns. (In progress).

ii. **Sales and promotion**: Key sales and promotions functions are as follows:
   - Identify and sell to global games companies.
   - Promote key fiscal measures to target companies.
   - Promote the raw talent pool, including the scale, range, skill sets and quality of output from local universities.
   - Promote (when appropriate) the experienced talent pool, particularly local companies of global prominence, demonstrating a spread of genres and platforms.
   - Promote cultural proximity between location and incoming company, local economics, salaries, office costs, cost of living, labour mobility, IP protection and infrastructure.
   - Reflect the latest industry trends, practices and concerns in its dealings with games companies.

iii. **Administration**: A range of administrative duties such as:
   - Drive forward measures from this strategy through legislative and administrative processes.
   - Administer and disburse fiscal support, particularly the primary tax credit measures and related grants (such as the training or specialist immigration or relocation grants under support measures) for incoming, existent and start-up games companies.
   - Solicit, process and implement feedback from industry about companies’ concerns, triggering new programmes and support if appropriate.
   - Ensure the retention of companies over the medium to long term by establishing close links and scheduling regular meetings.

iv. **Facilitation**: The agency will need to provide a range of facilitation functions, such as the following, some of which could be handed over to a trade body once the cluster has built critical mass:
   - Facilitate access to finance either via bilateral deals with senior policy makers or via other tax credits, plus support measures
   - Match-make and facilitate additional support measures (such as other grants, incubation facilities, loan guarantees, and other similar measures on behalf of games companies.
   - Match-make incoming companies to local private financial institutions, assisting them in sourcing financing solutions including loans and working capital.
   - Help incoming companies find office space and local recruitment agencies to source local staff, and assist with local bureaucracy such permits, labour laws and other paperwork.
   - Encourage and stimulate industry-university collaboration through the various schemes listed (such as facilitating internships and sourcing university twinning schemes).
8.9. FRANCE: Ile-de-France Region: Recommendations

- Maintain and develop the eco-system in the Paris Region by promoting the existence of the business clusters, of the dedicated incubators, of public and private initiatives to unite video games actors towards start-ups and SME's.

- Maintain and develop tax incentives (like the Research Tax Credit or the Video Games Tax Credit).

- Organize events about the video games industry.

- Develop general and financial support to enterprises: giving support to innovation, international development, and capital funding etc.

- Stimulate innovation through the existence of business and competitiveness clusters.
8.10. AUSTRIA: Salzburg: Recommendations

As a result of the implemented interviews with several stakeholders, the following recommendations can be mentioned:

- Establish new innovative funding measures for the games industry to be competitive. (e.g. Monetary and non-monetary measures like local events regarding the games industry. Analyse the installation of a regional grant or award for digital interactive media and games.)

- Making use of crowdsourcing for local game developers and publishers. Support local game industry in the process of fundraising via these new platforms.

- Develop an overarching strategy for Creative Industries, focusing on digital interactive media.

- Create a regional hub in gaming.

- New measures for founders.

- Raise awareness and trans regional visibility.

- Regional/national quantitative/ qualitative analysis of the games industry (number of companies, employees, turnover, market share, type of games, platforms, distribution channels, developers, publishers, distributors), collect data from the digital distribution, collect regional and national demographic figures.

A grown games industry with a strong competence in creation and distribution of games is able to connect with other fields of the local economy to foster a high potential for innovations. On a national level there is room for dedicated games studio start-ups in the Salzburg region. With increasing experience and expertise, those start-ups have a high potential to fill in niches in the games industry.

For Salzburg especially the fields of trade, health/medicine, education/training, tourism and culture & arts are especially interesting, because of the existent know-how and expertise in these fields. Cooperation with these fields could lead to high-quality products, beyond traditional games.

Cooperation also results in a strengthening of the regional creative industries, because of the strong linking between games and other sectors in the creative industries. Games combined with tourism may offer new experiences and ideas to improve the stream of visitors. In the sector of health and medicine there is a growing demand for prophylaxis and assisted rehabilitation, which could be one of the fields, that are especially interesting in the future.

Education is a key requirement for success in the digital interactive media and games industry. Companies especially need well trained technicians. The MultiMediaArt\textsuperscript{28} and MultiMediaTechnology\textsuperscript{29} bachelor and master programmes at the Salzburg University of Applied Sciences provide their students with solid academic training and an up-to-date curriculum, which meets the demands of the industry.

\textsuperscript{28} \url{www.fh-salzburg.at/mma}, \url{www.multimediaart.at}
\textsuperscript{29} \url{www.fh-salzburg.at/mmt}, \url{www.multimediotechnology.at}
9. RECOMMENDATIONS PER THEME

9.1. RECOMMENDATIONS: REGULATIONS AND POLICIES

ITALY: Umbria
- Meeting transversal objectives of energy saving and environmental protection
- Improvement of the infrastructures.

ITALY: Piedmont
- Promote and develop programmes by European projects included in plans such as the Culture and Media
- Stimulate innovation through the Public Sector using Gaming Interface

SPAIN: Asturias
- Develop awareness activities to promote cross sectorial cooperation with other traditional industries, video games applications, serious games, etc.

BULGARIA: Sofia
- Action from the Ministry of Education, Youth and Science in encouraging game related programmes at public and private universities in the country and the provision of information on the opportunities for career development in the creative industries and STEM (science, technology, engineering and mathematics) professions at the secondary school level. This could include information about the salaries in the sector and demand for various professions.
- Wide-ranging modernisation of the education system in the country. For example, a quota system is in place for the various disciplines at universities in Bulgaria which does not fully consider the needs of the private sector. In the field of IT for example, the quota does not meet the demand for such courses by students. The Ministry of Education, Youth and Science should revise this quota system according to the strategic priorities of Bulgaria's economic development.
- Also, the arts schools in the country should better reflect the needs of the market with the courses that they offer. The Ministry of Education should also encourage universities to reach out towards companies in order to establish a dialogue about the needs of the private sector.
- Renewed efforts at reducing the bureaucratic burden.
- Improving entrepreneurial skills of young people across all disciplines.
- Improving the connection between industry and academia (lectures from the industry in the universities; more active engagement of the career centres in the universities with the business sector).

GERMANY: Baden-Württemberg
- Setting up of a regional games network supported by public institution but driven by expert of the sector. The network has to enable an exchange of experience among actors of the industry and provide access to knowledge for many micro and small companies working in the sector. Such kind of network should also offer some further professional development as well as transfer of knowledge opportunities. For this reason, a further offer of consulting for business plan, financing, outsourcing, production as well as legal issue should be offered.
- Setting up of a regional chapter of the International Game Developers Association (IGDA), a professional society which gathers 10.000 video and computer game developers worldwide. Within the IGDA Chapters offer an informal meeting point and networking opportunity for games developers within local communities.
Promotion of the internationalisation of the games location Baden-Württemberg. This could be reached through many of the activities foreseen within the Boo-Games projects whose aim is in fact to promote an exchange of experience among different regions. Games companies could profit of this exchange through dedicated activities that could be envisaged and tailored on their needs.

**MALTA**

- Malta Enterprise must learn from other local support agencies’ experience of growing inorganic games clusters by attracting games companies. In doing so, it will establish new skill sets and methodology, build understanding of the key drivers behind global games companies’ location decisions, build contact networks and then sell Malta into key decision makers in global companies, and ultimately drive all three strategic objectives forward.

**FRANCE: Ile-de-France Region**

- Maintain and develop tax incentives (like the Research Tax Credit or the Video Games Tax Credit)
- Develop general and financial support to enterprises: giving support in innovation, international development, capital funding, etc.

**AUSTRIA: Salzburg**

- Develop awareness activities to promote cross-sectorial cooperation with other traditional industries and to support the development of serious/applied games, pervasive games, mixed reality, mobile and online games etc.
- Apply existing policy instruments (e.g. creative voucher model, creative industry funding, etc.) to the needs of the gaming sector
9.2. RECOMMENDATIONS: MARKET RESEARCH

**NETHERLANDS: Utrecht**

- Increasing and sharing knowledge to developers on policies and support for the games industry
- Increasing and sharing knowledge to developers on the state of the games industry in other regions and countries

**ITALY: Umbria**

- providing support to strategic themes of research, innovation, strengthening of network of enterprises in order to enhance competitiveness;
- support innovation processes, promotion of innovative investments, strengthening of small-dimension enterprises through development projects and introduction and enhancement of the use of information and communication technologies;
- promotion and support of the diffusion and transfer of innovation in the companies' processes including organisation, management and internationalisation;

**ITALY: Piedmont**

- Enhancement of the cultural politics of gaming as a key component for the development of all sectors of the communication; equalise gaming to other creative and cultural sectors
- General support to enterprises

**SPAIN: Asturias**

- Promote networking and cooperation activities for the video game entrepreneurs and companies
- Promote specialised training in “trendy” topics linked to the sector

**BULGARIA: Sofia**

- Completion of the “Strategy for the Development of the Creative Industries” including specific measures for rapidly growing areas of the creative industries (like digital gaming), and organising a consultation session with stakeholders before the finalisation of the document. A periodic evaluation of the strategy’s implementation should be made regularly. The recommendations contained herein could be included in a roadmap for the implementation of such a strategy. When the good practices implementation roadmap is developed later in the BOO-Games project, this could be integrated into the national strategy’s roadmap.
- Support to the creation of creative industries clusters, providing subsidised rents in business parks to help localise game enterprises. This could include financial support for joint-trade show appearances of Bulgarian firms abroad, networking events and consultancy services. Such activities could all be housed in a one-stop shop modelling on the successes of gamecity: Hamburg30.

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Germany: Baden-Württemberg

- Strengthen location marketing activities as for instance through the creation of a common stand for micro and small games enterprises at some of the most relevant events for the industry, e.g. the fair gamescon in Cologne. These activities should be sustained and promoted by public institutions willing to support the games industry such as the MFG Baden-Württemberg and the Wirtschaftsförderung Karlsruhe, since small enterprises could not afford on their own such marketing activities.

- Strengthen the synergies among the games industry and other branches, valorising games as key technologies for other industries: It has to be underlined the important role that the technologies developed within the games industry can play also for other sectors. This would on one side improve the overall perception of games within the society, but above all it would open up new market opportunities for games companies. In that respect, the public sector could sustain the games industry enabling the contact and the exchange with other branches. This could be realised by means of matchmaking events or exploiting already available business networks as bwcon (Baden-Württemberg connected).

France: Ile-de-France Region

- Maintain and develop the eco-system in Paris Region by promoting the existence of the business clusters, of the dedicated incubators, of public and private initiatives to unite video games actors towards start-ups and SME’s

- Organise events around the video games industry

- Stimulate innovation through the existence of the business and competitiveness cluster

Austria: Salzburg

- Promotion of networking activities and knowledge-sharing between industries, research and education

- Stimulating innovative projects using game related applications
9.3. RECOMMENDATIONS: ACCESS TO FINANCE

**NETHERLANDS: Utrecht**

- Facilitating access to finance and establishing specific tax benefits for game companies

**ITALY: Umbria**

- Strengthening of the financial structure of enterprises;

**ITALY: Piedmont**

- Tax incentives, investments in Internet connectivity
- Investment in education and innovation

**SPAIN: Asturias**

- Support investment readiness programmes (with CIP, ESF, LLL schemes)
- Set up a new Creative Industries Investment Fund (with EIF and EIB)
- Experiment with micro-finance in the creative industries (with Progress scheme)
- Promote sound framework conditions to stimulate investments in creativity
- Provide guarantees to reduce and cover the risk of investments
- Promote Venture Capital and Business Angels Networks
- Set up investment readiness programmes for the sector (training, capacity building, networking, etc.)
- Focus on improving the services and capacities of intermediary organisations at a local level to better promote CCIs
- Improve the framework conditions of the sector to enable more investments
- Increase public investments through new funding lines and the adaptation of existing general funding lines. Attract private investments through public-private investment vehicles.

**BULGARIA: Sofia**

- A guarantee fund for the cultural and creative industries in Bulgaria as many start-ups in the gaming sector do not have the collateral to secure a loan from a bank without such a guarantee.
- The creation of a state-funded administrative office to support businesses with the difficulties they encounter, such as applications for funding and accounting services.
- Consider tax exemptions/credit (other financial assistance) for game developing companies in the early stages of their development.
MALTA

- Malta Enterprise should expand support of the Game Dev Challenge (run by St Martin’s) or Gamezing competition (run by University of Malta) and expand sponsorship each year by offering a financial prize such as a year’s worth of funding worth €25,000 for the winning entry to enable the winner to build out, commercialise and distribute the game.

- Subsidise internships between games degree students and local games companies, such as commonly found in UK and US games degrees.

France: Ile-de-France Region

- Develop general and financial support to enterprises: giving support in innovation, international development, and capital funding

- Promote Venture Capital and Business Angels Networks

- Attract private investments through public-private investment vehicles

- Support investment readiness programmes

- Provide guarantees to reduce and cover the risk of investments

AUSTRIA: Salzburg

- Applying creative industries funding instruments (e.g. Creative Voucher Model) to the need of gaming projects

- Developing special games competitions: receiving grants in order to realise innovative projects making use of gaming applications

- Training Pitching methods and promoting Venture Capital and Business Angels Networks

- Adapt regional services and capacities of intermediary organisations to better promote CCIs taking into account their needs and better understanding their potentials, by improving the framework conditions.
9.4. RECOMMENDATIONS: ACCESS TO KNOWLEDGE

**UNIVERSITY-KINGDOM: West Midlands**

### Twenty recommendations across the talent pipeline

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<td>Recommendation 1.</td>
<td>Bring computer science into the National Curriculum as an essential discipline</td>
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<td>Recommendation 2.</td>
<td>Sign up the best teachers to teach computer science through Initial Teacher Training bursaries and “Golden Hellos”.</td>
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<td>Recommendation 3.</td>
<td>Use video games and visual effects at school to draw greater numbers of young people into stem and computer science.</td>
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<td>Recommendation 4.</td>
<td>Set up a non-stop online repository and community site for teachers for video games and visual effects educational resources.</td>
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<td>Recommendation 5.</td>
<td>Include art and computer science in the English Baccalaureate.</td>
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<td>Recommendation 7.</td>
<td>Build a network of STEMNET and Teach First Video games and visual effects Ambassadors.</td>
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<tr>
<td>Recommendation 8.</td>
<td>Introduce a new National Video Games Development and Animation Schools Competition.</td>
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<td>Recommendation 10.</td>
<td>Provide online careers-related resources for teachers, careers advisers and young people.</td>
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<td>Recommendation 11.</td>
<td>Develop kitemarking schemes, building on Skillset accreditation, which allow the best specialist HE courses to differentiate themselves from less industry-relevant courses.</td>
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<td>Recommendation 12.</td>
<td>HEFCE should include industry-accredited specialist courses in their list of “Strategically Important and Vulnerable” subjects that merit targeted funding. Industry commits to these courses through industrial scholarships and support for CDP for lecturers.</td>
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<tr>
<td>Recommendation 13.</td>
<td>Raise awareness of the video games and visual effects industries in the eyes of STEM and arts graduates.</td>
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<tr>
<td>Recommendation 14.</td>
<td>Give prospective university applicants access to meaningful information about employment prospects for different courses.</td>
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*Based on “Next Gen: Transforming the UK into the world’s leading talent hub for the video games and visual effects industries.”*

- The mobile and Apps space has allowed Games developers to become publishers. New entrants need to be protected by awareness of IP, monetisation, microtransactions, business models like freemium, SEO, licensing, and marketing knowledge.
NETHERLANDS: Utrecht

- Professionalising the industry by helping game developers gain entrepreneurial skills
- Improving opportunities for small companies to grow and compete on an international scale
- Encouraging game developers to make more strategic collaborations and use new business models.
- Concerning entrepreneurial skills/matching game designers with managers: One of the things the Dutch Game Garden is trying to do is influence the start of companies to see if we can get more people from management schools to become friends or connected to development. By the time they decide to start a company together they’ve included someone who actually likes doing business, who thinks it’s fun and not a necessary evil. With the companies who are already established, to help and convince them either to train them in entrepreneurial skills or find someone who will do that.

SPAIN: Asturias

- Promote specific higher public education to offer specialised studies on video games.
- Support entrepreneurial competences and skills such as financial, commercial, managerial skills by entrepreneurs.

BULGARIA: Sofia

- Initiatives to help the popularisation of successful entrepreneurs and to highlight the potential of the sector.
- Enlarging the scope of the Centre of Training Firms to include the art schools in the country (through taking the Ministry of Culture on board in the initiative) or initiating a similar support mechanism for the development of entrepreneurship in the art schools.
- Stimulating businesses to provide internships to students.

GERMANY: Baden-Württemberg

- Adoption of measure to decrease the skill shortage and the brain drain, as for instance the institution of a whole game design degree within a public university and the attraction of foreign talents with special programmes.
- Development of more favorable conditions for games companies willing to establish their business in Baden-Württemberg, taking into account the specific characteristic of this industry (namely: micro and small enterprises, orientation to work on project which in turn cause a variable number of employees according to each project).
- These measures should balance some of the disadvantages usually connected with the games location Baden-Württemberg, namely high salary and high cost of living. In that respect a model such the one adopted in Hamburg with the Games City Port could be possibly replicate, exploiting some already existing initiatives as for instance the KreativgründerzentrumPerfektFutur, a dedicated district for creative entrepreneurs currently under construction in Karlsruhe.
MALTA

- A range of improvements are recommended to Malta’s current courses, such as adding new categories of class and courses, adding dedicated games courses at BSc and BA level, enhancing existing courses to bring them up to date with current industry requirements and adding a Masters-level course.
- Salaries for Art, Modeling, Animation and Design instructors for courses linked to Computer games and animation at MCAST need to be uprated to bring them in line with average salaries for such tutors at other European and USA universities and enable MCAST to attract top quality instructors to move to Malta to help reverse the deficit in the raw talent pool for art, animation and design.
- A university twinning
- Scheme that links Maltese universities with best-of-breed games degree courses (such as Abertay University or DigiPen) could raise standards via student and faculty swaps.

FRANCE: Ile-de-France Region

- Identification of new required skills in the video game industry to help define new courses and tutorials targeted at game-related enterprises.
- Organise events around the video games industry and around business skills
- Help game developers gain entrepreneurial skills
- Encourage strategic collaborations for companies to strengthen their business skills on their market as well as in other markets
- Encourage acquiring new knowledge and skills for interns to develop digital tools in companies

AUSTRIA: Salzburg

- Making use of an international network of European Games Hubs
- Organising events (e.g. Games Day) in the field of gaming
- Promoting and Supporting entrepreneurial competences and skills such as financial, commercial, managerial skills by entrepreneurs.
10. APPENDIX

The Appendix includes Appendix A: DESK RESEARCH, Appendix B: INTERVIEW RESULTS, and Appendix C: QUESTIONNAIRE RESULTS.
APPENDIX A: DESK RESEARCH
1. **OVERVIEW: MAIN STAKEHOLDERS PER REGION**

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1. OVERVIEW: MAIN STAKEHOLDERS PER REGION
Main players and stakeholders in the West Midlands, United Kingdom

1. Policy-maker/public Agency

Public sector and governmental agencies that are playing a role for the video games industry:

**BIS**

The Department for Business, Innovation and Skills (BIS) is making a difference by supporting sustained growth and higher skills across the economy. BIS: working together for growth. Growth is the Government's top priority and every part of Government is focused on it. But we need to grow differently. Growth must be sustainable, shared and balanced – across the country and between sectors of the economy.

There is a clear and active role for Government to create the conditions for the private sector to grow and remove unnecessary barriers that can stifle growth. And there is a strong role for BIS, as the Department for Growth, in enabling this. Almost everything that BIS does – from investing in skills to making markets more dynamic and reducing regulation, and from promoting trade to boosting innovation and helping people start and grow a business – helps drive growth.

Creating the best conditions for private sector growth

They don't think Government has all the answers. That's why BIS and Treasury set up the **Growth Review** in November 2010. The Growth Review invites business to take part in a fundamental assessment of what each part of Government is doing to create the best conditions for private sector growth. It is a rolling programme that will last the lifetime of this Parliament. The outcomes of the initial phase of the Growth Review were announced in the **Plan for Growth** as part of Budget 2011. The Plan for Growth is based around four overarching ambitions for the British economy. It outlines a package of measures to support private sector investment, enterprise and innovation. The second phase of the **Growth Review** is now under way, focusing on six key themes to help create the right conditions for business to start up, invest, grow and create jobs. 

**DCLG**

The Government is overseeing a fundamental shift of power away from Westminster to councils, communities and homes across the nation. A radical localist vision is turning Whitehall on its head by decentralising central government and giving power to the people.

At the **Department for Communities and Local Government** they are helping to end big government and create a free, fair and responsible Big Society by:

- decentralising power as far as possible
- meeting people's housing aspirations
- putting communities in charge of planning
- increasing accountability
- letting people see how their money is being spent.

The Department sets policy on supporting local government; communities and neighbourhoods; regeneration; housing; planning, building and the environment; and fire. The Department is ending the era of top-down government by giving new powers to councils, communities, neighbours and individuals.

**LEPs**

Government is offering local areas the opportunity to take control of their future economic development. Local Enterprise Partnerships are locally-owned partnerships between local authorities and businesses and play a central role in determining local economic priorities and undertaking activities to drive economic growth and the creation of local jobs.

They are also a key vehicle in delivering Government objectives for economic growth and decentralisation, whilst also providing a means for local authorities to work together with business in order to quicken the economic recovery. As Local Enterprise Partnerships are based on more meaningful economic areas, they will be better placed to determine the needs of the local economy along with a greater ability to identify barriers to local economic growth.

On 28 October 2010, Government announced 24 partnerships that were ready to move forward and establish their Local Enterprise Partnership boards. A further 14 partnerships have been announced since October. There are now 38 partnerships

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1. [www.bis.gov.uk](http://www.bis.gov.uk)
2. [www.communities.gov.uk](http://www.communities.gov.uk)
Coventry & Warwickshire Local Enterprise Partnership (LEP) is a private sector/public sector collaboration that is business led and allows the people who know their local economy best to plan and undertake the most appropriate actions. The LEP's aim is to make Coventry & Warwickshire one of the best and easiest places to start, grow and locate a business. The Coventry and Warwickshire Local Enterprise Partnership has a broad, long-term mission statement:

"To make our area a World Class economy in which to do business; a place to: lead a great life, excel at learning, visit and return to - all supported by exceptional private, public and voluntary services".

The LEP's five year strategy sets out the more focussed plans for the next five years, and is driven by the following vision for the Coventry and Warwickshire economy:

"By 2016, through strong private-public sector collaboration, Coventry and Warwickshire will be regarded as one of the best and easiest places in the country to establish, run and grow strong and successful businesses; generating significant new employment and skills opportunities in the area."

We will achieve this vision in three key ways:

1. Developing new ways of working through a strong private-public sector partnership
2. Focussing on a limited set of priorities that can make a real difference to local economic growth over the next five years
3. Play a national influencing role with central Government to promote and support the growth of the low carbon mobility sector

UKTI
UK Trade & Investment (UKTI) works with UK-based businesses to ensure their success in international markets, and encourage the best overseas companies to look to the UK as their global partner of choice. UKTI has a customer commitment to helping its UK and international customers by providing a range of services, to a high standard and improve customer service by listening to customer feedback. We also have a co-ordination role across government to establish a more systematic approach to relationships with companies which are the most economically significant investors and exporters.

TSB
The Technology Strategy Board (TSB) is all about driving innovation. Their role is to stimulate technology-enabled innovation in the areas which offer the greatest scope for boosting UK growth and productivity. They promote, support and invest in technology research, development and commercialisation. They spread knowledge, bringing people together to solve problems or make new advances. They advise Government on how to remove barriers to innovation and accelerate the exploitation of new technologies. And they work in areas where there is a clear potential business benefit, helping today’s emerging technologies become the growth sectors of tomorrow.

Their vision: For the UK to be a global leader in innovation and a magnet for innovative businesses, who can apply technology rapidly, effectively and sustainably to create wealth and enhance quality of life.

The Technology Strategy Board is an executive non-departmental public body (NDPB), established by the Government in 2007 and sponsored by the Department for Business, Innovation and Skills (BIS). The activities of the Technology Strategy Board are jointly supported and funded by BIS and other government departments, the devolved administrations, regional development agencies and research councils.

WMCC
The West Midlands Chambers of Commerce LLP (WMCC) provides a single point of contact and contracting on behalf of the seven Chambers in the West Midlands region. The WMCC now holds substantial contracts for the delivery of core government services across the region such as UK Trade and Investment and also regional programmes on behalf of Advantage West Midlands and Business Link West Midlands.

Our ambition is to be the first choice partner for the delivery of specialised and targeted front line business support. Because our infrastructure of seven local Chambers and staff is firmly established, we can provide a truly unique proposition in terms of our ability to respond quickly, to keep overheads low and to effectively access all or targeted segments of the 250,000 West Midlands businesses.

By offering a single regional point of contact, a consistent local approach to delivery and a huge market reach, the WMCC is the ideal model for the delivery of dependable specialist regional business support at a local level.

3 www.cwlep.com
4 www.ukti.gov.uk
5 http://www.innovateuk.org
Examples of services they can provide programme owners:⁶

- Programme design – advice on business needs and market intelligence. Chambers continuously gather information on business trends and needs - they know what business wants.
- Programme development – they have a vast experience of running programmes and can advise and support the detailed development of new initiatives.
- Programme launch and recruitment of participants – they have resources to cover all aspects of programme marketing and administration. Our local presence and the Chamber brand provide the market reach and credibility to meet recruitment, enrolment or engagement targets.
- Programme implementation – their team of administrators, project managers, specialist advisers, trainers and support staff ensure programmes work effectively and meet targets.

NESTA

The National Endowment for Science, Technology and the Arts (NESTA) is the UK’s innovation foundation. They help people and organisations bring great ideas to life. They do this by providing investments and grants and mobilising research, networks and skills. The company acts through a combination of practical programmes, early stage investment, research and policy, and the formation of partnerships to foster innovation and deliver radical new ideas. Funded by a £250 million endowment from the UK National Lottery, NESTA uses the interest from that endowment to fund and support its projects.⁷

2. Educational Organisations/ Research Organisations

UWM

Universities West Midlands (UWM) is a not-for-profit membership association of the 12 Universities and University Colleges in the West Midlands.

The Universities West Midlands Strategic Board of the 12 regional Vice Chancellors and Principals sets the strategic direction. This group meets bi-monthly as a board followed by an in depth meeting with invited guests representing national and regional strategic bodies.

The current chair is Professor David Eastwood, Vice Chancellor of the University of Birmingham. The secretariat, Executive and Communications Officer, works on behalf of the board to implement the strategic priorities.

In two key areas Universities West Midlands has standing committees to progress the strategy; these are:

- Employer and Business Engagement
- Healthcare

In all other areas Task and Finish groups are formed from the leading players in the field. The universities/colleges members:⁸

- Aston University
- University of Birmingham
- Birmingham City University
- University College Birmingham
- Coventry University
- Harper Adams University College
- Keele University
- Newman University College
- Staffordshire University
- University of Warwick
- University of Wolverhampton
- University of Worcester

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⁶ www.wmchambers.co.uk
⁷ www.nesta.gov.uk
⁸ www.universitieswm.co.uk
The Serious Games Institute (SGI) is based in Coventry University’s Technology Park. The Serious Games Institute is a global thought leader in smart spaces. They enable and facilitate the growth of serious games, virtual worlds and connected industry specialists by supporting research and development into the use and effects of these products, platforms and technologies.

They exhibit and showcase the products and services of our community of companies and academics. We provide business support and facilities to encourage, promote and grow businesses in this sector.

The Institute provides a close interface between high-level applied academic research at Coventry University and leading edge technology companies in the field of game-based learning.

The SGI will have a particular focus on 3D collaborative multi-user environments and other games development platforms which can be harnessed for non-entertainment purposes.

The Serious Games Institute has developed an exciting and innovative study programme that can be tailored to your particular requirements.

**MSc (PgCert/PgDip) in Serious Games and Digital Contents**

**PhD in Serious Games & Virtual Worlds**

The courses have been designed to be fully engaging and interactive allowing each student the opportunity to combine home study with classroom based learning in the SGI. Indeed the SGI training rooms offer students the very latest in ICT technology, including full Wi-Fi access, access to PCs, laptops, virtual worlds, video conference and mobile technology (all IT hardware and software is provided for each learner for the duration of each course).

The courses have not been designed to be over technical and are aimed at learners with a basic knowledge of IT who are keen to explore ways in which such technology could be exploited for business benefit. The SGI limit numbers on each course to 20 and incorporate both internal SGI and external teaching staff, including special visiting lecturers from large industrial partners such as BT, O2, Apple, Cisco and HP.

3. Enterprise Support Organization

Science Parks and UKSPA Affiliates

The mission of UKSPA is to be the authoritative body on the planning, development and the creation of Science Parks that are facilitating the development and management of innovative, high growth, knowledge-based organisations.

A Science Park is a business support and technology transfer initiative that:

- encourages and supports the start up and incubation of innovation-led, high-growth, knowledge-based businesses.
- provides an environment where larger and international businesses can develop specific and close interactions with a particular centre of knowledge creation for their mutual benefit.
- has formal and operational links with centres of knowledge creation such as universities, higher education institutes and research organisations.

The UKSPA Strategic Plan:

UKSPA developed a strategic business plan for 2004-07 which was agreed by the UKSPA Board in March 2004. This plan was developed by taking into consideration the findings and recommendations of the report *Evaluation of the Past and Future Economic Contribution of the UK Science Park Movement* and the subsequent actions agreed at the UKSPA Members' Meetings.

Inventory of science parks and UKSPA affiliates:

- **Birmingham Research Park**
- **Birmingham Science Park Aston**
- **Coventry University Technology Park**
- **Keele University Science & Business Park**

9 [www.seriousgamesinstitute.co.uk](http://www.seriousgamesinstitute.co.uk)
10 [www.brpl.bham.ac.uk](http://www.brpl.bham.ac.uk)
11 [www.bspa.com](http://www.bspa.com)
12 [www.coventry.ac.uk/cutp](http://www.coventry.ac.uk/cutp)
13 [www.kusp.co.uk](http://www.kusp.co.uk)
UK Video Games association or networks:

TIGA
TIGA is the trade association representing the UK’s games industry. The majority of our members are either independent games developers or in-house publisher owned developers. We also have games publishers, outsourcing companies, technology businesses and universities amongst our membership. TIGA was awarded ‘Trade Association of the Year’ and the ‘Member Recruitment Award’ at the Trade Association Forum Best Practice Awards 2010. In 2011, TIGA won a further four awards at the Trade Association Forum Best Practice Awards, including ‘Trade Association of the Year’ for the second consecutive year.

TIGA has been voted a finalist in the CMI Management and Leadership Awards 2011 in the ‘Outstanding Organisation (SME)’ category. Dr Richard Wilson, TIGA CEO, has been voted a finalist in the ‘Outstanding Leader’ category. TIGA was also named as a finalist in the 2010 Chartered Management Institute (CMI) National Management and Leadership Awards in the category of ‘The Outstanding Organisation of the Year Award (SME)

TIGA is an ‘Investors in People’ accredited organisation. TIGA is the trade association representing the UK’s games industry. Our vision is to make the UK the best place in the world to do games business. Our mission is to fight for the interests of game developers. To achieve our vision and mission we focus on the delivery of three strategic objectives: effective political representation, profile raising and helping our members commercially. This means that TIGA members are effectively represented in the corridors of power, their voice is heard in the media and they receive benefits that make a material difference to their businesses, including a reduction in costs and improved commercial opportunities.

UKIE
UKIE is the only trade body for the UK’s wider interactive entertainment industry. They exist to champion the interests, needs and positive image of the videogames and interactive entertainment industry whose companies make up their membership.

There here to help ensure that our members from the videogames and wider interactive entertainment industry have the right economic, political and social environment needed for this expanding industry to thrive.

They provide a range of services to meet the shared needs of our members and to further the interests of the interactive entertainment industry as a whole:

- They build strong working relationships with parliamentarians and policymakers to ensure industry needs are met through appropriate Government support.
- Their dedicated intellectual Property Crime Unit seeks to minimise the damage caused by intellectual property theft and catch those responsible for this criminal activity.
- They act as a public information resource, to help consumers and the media better understand gaming.
- They provide advice to budding IP creators and sellers on how best to pursue careers in the industry.
- They work with our European partners, ISFE to ensure our members are aware of key EU developments and to promote the priorities and interests of the industry in Europe.

Creative Skillset
Creative Skillset is the Creative Industries' Sector Skills Council (SSC) which comprises TV, film, radio, interactive media, animation, computer games, facilities, photo imaging, publishing, advertising and fashion and textiles.

Their aim is to support the productivity of the industry to ensure that it remains globally competitive. They do this by influencing and leading; developing skills, training and education policy; and through opening up the industries to the UK's pool of diverse talent.

14 www.longbridgetechnologypark.co.uk
15 www.mhsp.co.uk
16 www.mira.co.uk
17 www.warwicksciencepark.co.uk
18 www.wolverhamptonsp.co.uk
19 www.ukie.info
They conduct consultation work with industry, publish research and strategic documents, run funding schemes and project work, and provide information about the challenges that face the industry and what we need to do to overcome them.

They also provide impartial Creative Industries careers resources for those looking for a route in, as well as for established industry professionals online and over the phone. Whether you are a freelancer looking for training information, a student furthering your knowledge of industries or a public agency partner, they aim to provide you with easy access to the information you require.

Creative England
Creative England opened for business on 1 October 2011, with the core purpose of supporting the sustainable growth of independent creative businesses, and the talent that feeds them, in every part of England outside London. We are the first agency to provide dedicated support to Film, Television, Games and Digital & Creative Services in the English regions outside London.

4. Game related enterprise or organisation

<table>
<thead>
<tr>
<th>Company</th>
<th>Website</th>
<th>City</th>
<th>State / Province</th>
<th>Country</th>
</tr>
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<tr>
<td>Data Design Interactive</td>
<td><a href="http://www.datadesign.uk.com">www.datadesign.uk.com</a></td>
<td>Stourbridge</td>
<td>West Midlands</td>
<td>England</td>
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<td>Full Fat Productions</td>
<td><a href="http://www.full-fat.com">www.full-fat.com</a></td>
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<td>England</td>
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<tr>
<td>Bigbig Studios (Sony)</td>
<td><a href="http://www.bigbigstudios.com">www.bigbigstudios.com</a></td>
<td>Leamington Spa</td>
<td>Warwickshire</td>
<td>England</td>
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<tr>
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<td>Warwickshire</td>
<td>England</td>
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<tr>
<td>Blitz Academy (Blitz Games Studios)</td>
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<td>Warwickshire</td>
<td>England</td>
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<tr>
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<td>fish in a bottle</td>
<td><a href="http://www.fishinabottle.com">www.fishinabottle.com</a></td>
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<td>FreeStyleGames</td>
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<td>England</td>
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<td>Playground Games</td>
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<td>Leamington Spa</td>
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<td>England</td>
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<td>Rare Limited</td>
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<tr>
<td>Tru Sim (Blitz Games Studios)</td>
<td><a href="http://www.trusim.com">www.trusim.com</a></td>
<td>Leamington Spa</td>
<td>Warwickshire</td>
<td>England</td>
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<tr>
<td>Volatile Games (Blitz)</td>
<td><a href="http://www.volatilegames.com">www.volatilegames.com</a></td>
<td>Leamington</td>
<td>Warwickshire</td>
<td>England</td>
</tr>
</tbody>
</table>
5. Others: Festivals/Conferences

Digital Shoreditch (May/June)\(^{20}\)

The Digital Shoreditch Festival is a large annual celebration which connects thousands of top tier brands, agencies, entrepreneurs and creatives from East London's Tech City and beyond. They also run year round workshops, meetups, contests, networking events and a comprehensive business directory. They are there to strengthen, promote and grow the value of their vibrant community.

**Digital Shoreditch** celebrates the outstanding creative, technical and entrepreneurial talent of East London and Tech City. They run monthly meetups, have a huge festival of the most talented digital and technical creatives, connect brands and buyers to our members, run a comprehensive directory, hackathons and other competitions.

This year’s festival ran from **May 21st to June 1st 2012** and highlighted the thriving digital and tech talent from Clerkenwell to Stratford, Old Street to Bethnal Green and Dalston to the City and beyond.

With over **6000 attendees**, **350 sessions** and **300 speakers**, the 2012 festival brought in companies not just from the UK but from around the globe to experience what our little corner of East London has to offer.

Thinking Digital in Newcastle (July)\(^{21}\)

Thinking Digital was created by Herb Kim in 2007 with the first conference taking place in 2008. The conference was inspired by Herb's experiences at the PopTech and TED conferences as well as by the book Good to Great by Jim Collins. 2012 is the Fifth Anniversary of the Thinking Digital Conference and they are obviously delighted to see it continue to grow. They have built and will continue to build a community of innovative thinkers, doers and creators.

Thinking Digital is a three-day event drawing together exceptional talent from the worlds of technology, media, science, industry and the arts. We attract speakers from around the world to come to Gateshead to share their wisdom and experiences to encourage us all to pursue our passions and dreams. Importantly their Thinkers leave each year with a greater sense of connection to their passions and insight into the world around us.

Today, they attract a global following with nearly 1000 participants in the Thinking Digital community with the annual event being the centre-piece for a flourishing network of people who work within the digital and creative sectors. They feel genuinely blessed to see the same people coming back each year.

The intimate setting and informality of conference is often one of the most commented on pieces of feedback they receive and which really helps to open up the networking of ideas and business opportunities.

London Games Festival in London (September-October 2012)\(^{22}\)

Ukie organised this festival the past years. This year the festival will run between September 27th and October 28th 2012. The month-long festival will be the busiest ever, with Ukie events sitting alongside those organised by other associations, publishers, developers, games retailers and the gaming community as a whole.

\(^{21}\) [www.thinkingdigital.co.uk/](http://digitalshoreditch.com/)
\(^{22}\) [http://londongamesfestival.com/](http://londongamesfestival.com/)
The Festival features a diverse range of events – from massive consumer exhibitions, game launches and parties, to careers’ fairs and educational summits, through to fringe events like video game pub quizzes and karaoke – each celebrating games culture.

London Games Festival director Kirsty Payne is overseeing the festival, though it is curated by the industry as a whole – with everyone invited to contribute. The last London Games Festival in 2010 saw over 75,000 individuals attend 26 separate events.

**LAUNCH in Birmingham (November)**

LAUNCH was created and is managed by Birmingham Science Park with support of an advisory board to drive the direction through to providing advice on the annual conference and games activities.

LAUNCH: Future Gaming & Digital Conference is the leading industry focused conference in the Midlands, featuring expert speakers and demonstrations from the games industry.

LAUNCH celebrates the innovative work being carried out by academic institutions and private enterprises in the Midlands. Showcasing high tech start ups and established SMEs, LAUNCH aims to reinforce the talent capital of the midlands by providing a unique opportunity to learn about the latest trends and developments. We provide a platform where leading experts from around the world share their knowledge and expertise with event attendees through the conference and other networking activities.

The three themes of the annual conference are:
- LAUNCH a Career
- LAUNCH a Business
- LAUNCH a Product

LAUNCH supports the development of games businesses by providing:

- an annual 2 day conference, LAUNCH: Future Gaming & Digital Conference 2012
- a Games & Digital Incubator providing facilities for early stage and startup indie games studios through to facilities and office space for larger established games and digital businesses (from 1 to 200 people or we can build a dedicated building)
- access to a business support incubation scheme for technology businesses
- access to events, science park drinks and opportunities for games businesses
- access to quarterly meetups and MOBILE MONDAY: Birmingham events
- opportunity to enter the LAUNCH AWARDS
- opportunity to join Birmingham’s Tech Community – join the membership, such as the Exa Plan for only £99 a month including unlimited hotdesking & free meeting rooms

LAUNCH has been awarded the status of a ‘High Impact’ event, granted to the best events running in 2011.

Digital media includes everything from online tools and content to computer games and mobile products and services. The UK Games industry is the second largest in the world after the USA, and the West Midlands region has 21% of the UK games workforce. The region has become the UK’s hub for games, serious games and interactive digital media.

**Extended play conference in South West (October)**

Each year Extended Play will explore a key topic or topics which developers can take advantage of to build successful contemporary game properties. Last year the festival focused on ‘games as a service’, looking at what opportunities and challenges this presents. This year we are looking to inspire, and encourage share knowledge and experiences between all attendees through our three session tracks, with keynotes, talks, panels and fun activities.

Extended Play is also the first games festival in the south west and is also designed to promote and enhance the games industry in the area.

This year the conference will build on last year’s successful event, bringing further talks, panels and discussions from industry figures, under three tracks:

**Inspire**: These sessions will be talks designed to inspire creativity, across all areas of game development, from design and writing, to code and art.

**Share**: These sessions will be creators sharing their experiences and stories around all areas of game development.

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23 [http://launchconference.co.uk/](http://launchconference.co.uk/)

24 [http://www.explay.co.uk](http://www.explay.co.uk)
Create: These sessions are designed to have practical take aways, talking about tools, content creation, design and more.

Edinburgh Interactive Festival (August)\textsuperscript{26}

EIF was launched to a group of industry luminaries who went up to Edinburgh during the festival in 2002, care of Tiga CEO Fred Hasson, and Scottish Enterprise, who subsequently backed the event with a grant to get it started in 2003.

The first Chair in 2003 was Tom Stone, then at Lego Interactive, followed by Greg Ingham in 2004 and 2005. Chris Deering took charge from 2006-10, and 2011 will see David Yarnton, MD of Nintendo UK, take the helm.

Originally called EIGF (Edinburgh International Games Festival), in 2006 the event changed its name to Edinburgh Interactive. The festival prides itself in covering emerging areas of interactivity and content.

Edinburgh Interactive brings a mix of business, education and fun through a focused industry conference, a selection of free public screenings of new games and technology plus public sessions and information on how to get involved in interactive entertainment.

Targeted at high level business professionals, the Edinburgh Interactive Conference brings together the crème de la crème of the interactive entertainment industry, to discuss the current trends, opinions, and future of one of the fastest growing sectors of the creative economy.

Edinburgh Interactive offers public screenings of new games and technology, with the added extra of having access to sessions given from industry professionals, and information on education and careers in interactive entertainment.

Edinburgh Interactive is managed by an Executive committee and a board drawn from all areas of the Interactive Entertainment industry, including publishers, developers and the main industry trade body: The Association for UK Interactive Entertainment (UKIE)

GameCity Festival in Nottingham (October)\textsuperscript{26}

GameCity is an innovative arts and culture project powered by Nottingham Trent University. It delivers major research and inclusion projects such as the GameCity festival, GameCityNights, the Interactive Technology and Games (ITAG) conference, and the National Videogame Archive – a unique collaboration with the National Media Museum.

Nottingham Trent University is at the forefront of pioneering research into interactive technologies and their impact on society. From stroke rehabilitation through remote controlled devices to games designed to change attitudes to social problems – our research groups are advancing games culture in the fields of education, health, disabilities, security, heritage and sports.

Nottingham Trent University also offers a wide range of industry-focused degrees at undergraduate, postgraduate and research levels in associated creative industries such as computing, media and multimedia, product design, art and design and creative writing.

Students at the University are able to engage with the GameCity festival as GameCitizens, with opportunities to curate events, undertake project work relevant to their course (eg. Journalism, marketing, photography, media practices), showcase their talents as developers, animators or creators – or just go along and enjoy the festival as part of their university experience.

The festival is mostly free to attend and there are loads of events suitable for all ages.

Their plan is to look at videogames from a different perspective, and encourage everyone to do the same. After all, games aren’t just for playing. They’re for learning, for teaching and for inspiring. At this year’s festival, they want to achieve this in the most accessible, engaging way possible.

It’s a unique exploration of what videogames really mean to the people who play them and the people who make them too.

\textsuperscript{25} http://edinburghinteractive.co.uk/
\textsuperscript{26} http://festival.gamecity.org/
Main players and stakeholders in the Netherlands (national)

Below is an overview of the main players and stakeholders in the Netherlands.

1. Policy-maker/public Agency

Please refer to the regional section ‘Main players and stakeholders in Utrecht the Netherlands (regional)’ on p. 36.

2. Educational Organisations/ Research Organisations

Educational Organisations

Figure x shows an overview of all the publically funded Educational Institutes that provide courses or degrees focused on game design and development and game-related courses in the Netherlands. Privately funded courses have not been included. Currently, there are a total of 44 publicly financed educational institutes, where 35 of these provide a degree in game design and development:

- Twenty Degrees of an Upper Secondary Vocational Level (MBO) (including specialised degrees for web development)
- Twelve Degrees of a Higher Professional Educational Level (HBO) (mainly Bachelor and some Master)
- Three Degrees of a University/Academic Level (Bachelor and Masters)
- Nine minors that are game-related

Concerning the location of the Educational institutes, the majority are located in Amsterdam, Hilversum and Utrecht. This concurs with the number of companies and job opportunities which are also generally located in Amsterdam, Hilversum and Utrecht. Utrecht has the most variety of choice, with education ranging from a vocational to an academic level.

North Brabant also provides a similar amount of choice: TU Eindhoven (University) and the University of Tilburg, Fontys and NHTV (higher professional education), and Sint Lucas Eindhoven and Zoomvliet College (Roosendaal) (upper secondary vocational education).

More information about accredited game degrees and courses via these Dutch websites: 1) www.werkenindegamesindustrie.nl, and 2) www.game-education.nl

27 TFI. "Onderwijs: Game opleidingen in Nederland" GAMES MONITOR ’12: De Nederlandse gamesindustrie onderzocht. Utrecht, the Netherlands. 75-77. Print.
Figure 1. Schematic Overview of Educational Institutes in the Netherlands

Index

Blue Circle: MBO (Upper secondary vocational education)  
Mauve Circle: HBO (Higher Professional Education)  
Green Circle: WO (University Education)  
K = Keuze vak (Elective)  
V = Verplicht vak (Core/Compulsory Module)  
M = Minor

28 TFI."Onderwijs: Game opleidingen in Nederland" GAMES MONITOR ‘12: De Nederlandse gamesindustrie onderzocht. Utrecht, the Netherlands. 74. Print.
<table>
<thead>
<tr>
<th>Name of Education</th>
<th>Type of Education</th>
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<th>Location</th>
<th>Language</th>
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<td>Create a Game</td>
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<td>Arnhem/Nijmegen NL</td>
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<td>WO</td>
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<td>Groningen NL</td>
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29 TFI. "Onderwijs: Game opleidingen in Nederland" GAMES MONITOR '12: De Nederlandse gamesindustrie onderzocht. Utrecht, the Netherlands. 76-77. Print.
<table>
<thead>
<tr>
<th>Position</th>
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<th>School/Institute</th>
<th>Level</th>
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<td>Universiteit Utrecht</td>
<td>4</td>
<td>HBO</td>
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<tr>
<td>Media Developer / Game Developer / Application Developer</td>
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<td>ROC ASA</td>
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<td>MBO</td>
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</tbody>
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*MBO (upper secondary vocational institute), HBO (higher professional education), WO (University education)
Research Collaborations

Below are examples of larger-scale (completed and ongoing) research collaborations focused on digital games.

GATE (Game research for training and entertainment)\(^{30}\)


*Duration of the Project:* November 2007 - March 2012

*Summary:* GATE (Game research for training and entertainment) is a large research project from the FES funds with a budget of € 19 million. It consists of three parts: A long-term research program, innovative pilots, and knowledge transfer where research institutes collaborated with 15 SMEs (that paid 50% of the cost) to make the research results fit-for-use in the industry.

*Ambition*:

The ambition of the GATE project is to develop an international competitive knowledge base with respect to game technology, and to train the talent required to enhance the productivity and competitive edge of small and medium-sized creative industrial companies. The project aim is to substantially improve the competitiveness of companies producing (tools for) games and simulations by providing direct access to new technology and by technology transfer projects. This will lead to larger companies, encourage the founding of new companies, and attract companies from other countries to the Netherlands.

The project will make people aware of the possibilities of gaming in public sectors such as education, health, and safety by performing pilots in these areas. As a result, gaming and simulation will become more commonly applied in these sectors, leading to quality improvements and cost reductions.

*Research Programme*:

The first element of the GATE project is the research program. The goal of the research is to considerably advance the state-of-the-art in gaming, simulation and virtual reality to create highly effective entertainment products and experienced learning systems. In the research program the complementary and multidisciplinary knowledge of the partners is combined.

The goal is to increase the international research position by a unique combination of fundamental research and application development and to attract excellence by creating a stimulating environment and a concentration of talent, best students and best professors.

There are four research themes:

- The theme *Modeling the Virtual World* focuses on techniques for semi-automatically creating convincing and engaging virtual worlds that can be used in games. The rationale behind this research is that the creation of the worlds has become one of the most costly parts of the construction of games. Also, to create adaptive games it is important that the game world can be created and changed on the fly.

- The theme *Virtual Characters* deals with the creation of realistic behavior for the virtual characters that inhabit the virtual worlds and games. These can be avatar representations of the users or computer-controlled characters. Such realistic behavior is important to increase the immersion of players in the game world.

- The third theme deals with *Interacting with the World*. Here we study novel interaction techniques that will improve the way users can steer their games. For example, we study gesture recognition and brain-machine interfaces.

- In the fourth theme *Learning with Simulated Worlds* we study how games and virtual worlds can best be used for training and education. This should improve the quality and effectiveness of such serious games in the future.\(^{31}\)

Dutch Games Valley\(^ {32} \)

The aim of the Dutch Games Valley is to create and sustain an optimal and sustainable business climate for game companies and knowledge institutes with regard to (serious) games in the Noordvleugel and de Randstad area. This will be done by developing a growing number of different connected activities: Expertise Centrum Games en Game design, Dutch Game Connection, and Dutch Games Go Global (DGGG).

*Summary:* Dutch Game Valley was a project financed by ‘Pieken in de Delta’, a programme of the Ministry of

\(^{30}\)“GATE: Game research for training and entertainment.” GATE. N.p., n.d. [http://gate.gameresearch.nl/][22-08-2012].

\(^{31}\)Ibidem.

Economic Affairs. The project is supported by the Utrecht local governments and community of Amersfoort. Aim of the Dutch Games Valley is to create and cultivate an optimal and sustainable establishing climate for games companies and knowledge institutes in the field of serious games in the Noordvleugel/Randstad area. Projects which fall under the Dutch Game Valley are: Expertise Centre on Games and Game Design (EGG), Dutch Game Connection, and Dutch Games Go Global (DGGG).

a) Expertise Centre on Games and Game Design (EGG) (Utrecht)\textsuperscript{33}

**Partners involved:**
TFI (Task Force Innovation Utrecht), HKU (Utrecht School of the Arts) and TNO (the Dutch Organisation for Applied Scientific Research).
The project is part of the broader Dutch Game Valley project, which was established with funding from the national Pieken in de Delta programme of the Ministry of Economic Affairs, with support from the municipality of Utrecht, Utrecht province and the municipality of Amersfoort.

**Duration of the Project:** July 2008 - January 2013

**Summary:**
EGG is a Project within the Dutch Game Valley programme. EGG’s aims is to contribute to the development of highly qualitative games in the Netherlands. EGG offers expertise and advice to potential clients as well as developers.
Its focus is on literature research, concluded projects and games which are in development. ‘Lessons learned’ are mapped in the fields of game development and contexts in which this can be applied. This allows for the creation of a network of expertise for clients, developers, researchers and for anyone interested in applied games, which saves future projects from reinventing the wheel, in addition to allowing the Dutch games sector to expand its innovative character in the field of applied games.
Main activities:
- support in formulating questions concerning serious games with clients
- support by matching questions regarding supply and demand
- collecting and sharing relevant lessons learned
- disseminating existing knowledge
- implementing pilots in the areas of education, healthcare and safety.

b) Dutch Game Connection\textsuperscript{34}

**Summary:** The Dutch Game Connection aims are as follows:
- Develop, cultivate and unlock relevant information
- Create and empower networks within the games industry
- Create an internet portal
- Develop joint PR and marketing material
- Present the Dutch Game Valley
- Scout and develop new activities in the field of games

c) Dutch Games Go Global (DGGG) - international profiling and acquisition\textsuperscript{35}

**Internationale Profilering en Acquisitie**
Dutch Games Go Global has two aims: cooperatively attracting foreign game companies to the region and jointly presenting the Dutch Game Valley to ‘relevant’ potential stakeholders and interested parties.

**Smart Experience Actuator (SEA)**

**Partners involved:** It is a collaborative project between TFI, HKU, UU, HU, Reinwardt Academie and Twente University. The University museum in Utrecht, the department of city promotion of the Utrecht municipality and the recently opened Designer Cafe situated in Utrecht are stakeholders in the different pilots.
SEA has been partially subsidized by ‘Pieken in de Delta’ programme of the Ministry of Economic Affairs, with support from the municipality of Utrecht, Utrecht province and project partners.

**Duration of the Project:** December 2010 - January 2013

\textsuperscript{33} "Het Expertisecentrum voor Games en Game-Design.” EGG. n.p., 2010.
http://www.expertisecentrumgames.nl/over_het_expertisecentrum_games [22-08-2012].
http://www.ccaa.nl/page/40736/nl

\textsuperscript{34} http://www.ccaa.nl/page/40736/nl

\textsuperscript{35} http://www.ccaa.nl/page/40736/nl
Summary: The Smart Experience Actuator project focuses on how one can apply games and playful concepts to sectors such as tourism, heritage and retail. These sectors have questions about how to reach and address new (younger) target groups and to look at innovative opportunities that applying games and playful concepts can provide. Several pilots will portray how innovative applications, experience and knowledge can be developed using ‘smart & playful experiences’ in heritage, retail and tourism sectors and events. 36

GATHER (Games for Safety, Health, Education, and Industry)37

Duration of the Project: 2012 - 2016

Summary: GATHER aims to strengthen the ecosystem of the Dutch games industry and its international position, and will run from 2012 to 2016. (for more information on GATHER see 7.1.1. Identify other support instruments available to support the game industry in the region).

The current government has chosen nine areas where the Netherlands holds a world-wide strong position. The Creative Industries is one of these areas. Entrepreneurs, researchers and the government have developed the innovation network, GATHER (GAmes for SafeTy, Health, Education and IndustRy), focused specifically on gaming.

The aim of this innovation network is the ensure that the Netherlands has the best gaming ecosystem in Europe by 2020. To reach this aim, it is important that businesses, research and knowledge institutions and the government work together in the area of gaming, to increase competition and the strength of innovation.

Dutch Game Music

DutchGameMusic is an initiative started by The Music Institute MultiMedia (MiMM), an organisation with the aim of combining music with multimedia by bringing composers and various projects under the attention of a broader public. DutchGameMusic is such a project. Being produced in cooperation with the Utrecht School of the Arts (Hogeschool voor de Kunsten Utrecht) and various companies, the project aims to raise awareness regarding music in computer games by making such music more visible. This is done by for example reviewing soundtracks of popular computer games and organising events which centre around computer game music. 38

3. Enterprise Support Organization

Dutch Game Garden (DGG)39
The Dutch Game Garden is the main incubator and business centre for game companies in the region of Utrecht.

Dutch Games Association (DGA)40
The DGA is the organisation which represents the Dutch game industry.

It aims to represent the Dutch game sector and inform other sectors. It acts as an ambassador for the international market as well as for national and international governments. The DGA offers a membership to those who have a professional interest in games and are established in the Netherlands. The DGA was established on December 20th, 2008.

The mission of the DGA is to create a healthy climate for the games sector in the Netherlands by:
- stimulating entrepreneurship
- collaboration and business (national and international)
- the formation of an active lobby with the government and other sectors (investors)
- an active profile by reacting to new media developments concerning games
- the formation and facilitation of a knowledge platform.
- to connect, advise, and coordinate gaming in the fields of education and research.

36 http://www.taskforceinnovatie.nl/nieuws/nieuwe-speelse-ervaringen-in-traditionele-sectoren
http://dutchgamegarden.nl/ [19-07-2012].
Invest Utrecht\textsuperscript{41}  

Invest Utrecht, the Foreign Investment Agency of the Province of Utrecht, is an initiative of the province of Utrecht. Their aim is to help and have foreign companies set-up their businesses in Utrecht. One of their four key sectors is gaming.\textsuperscript{42}

4. Game related enterprise or organisation

Recent statistics concerning the number of companies in the Dutch game industry are provided by the Games Monitor 2012.

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<td>6 till 10</td>
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<td>26 till 50</td>
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<tr>
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</table>

Table 3. Number of Companies in the Dutch Games Industry in 2011 classified in terms of Size\textsuperscript{43}

![Figure 2. Size (number of companies) of the Dutch Games Industry per City in 2011\textsuperscript{44}](image)

Many game companies are registered as software companies, advertisement companies, or companies working in the creative industries field.

This matches the results found via the Boo Games questionnaire (see Appendix C: Questionnaire Results).


Syntens Innovatiecentrum

Syntens is a centre for sustainable innovation. Syntens Innovation Centre contributes to the growth of the Dutch economy by stimulating innovation in SME’s. Syntens encourages entrepreneurs to innovate in a sustainable manner and by doing this, stimulates prosperity and welfare in the Netherlands. Syntens makes the entrepreneur aware of the possibilities of innovation and helps them take concrete steps in order to innovate.

The expansive personal network which includes technology providers, entrepreneurs and branche and trade organisations reaches across the most important sectors of the Dutch economy and is regionally available and easily approachable. By creating new connections within this network, for instance amongst entrepreneurs and between entrepreneurs and knowledge institutes, innovation can be created which result in new business. This allows Syntens Innovation Centre (Syntens Innovatiecentrum) to indirectly contribute to generating an estimated annual extra turnover for the Dutch economy of several hundreds of millions of Euros.

Virtueel Platform

A knowledge Institute for E-cultures. It stimulates and enhances innovation of E-culture by sharing knowledge of e-cultures and by making this knowledge visible.

Waag Society (Amsterdam)

Institute for Art, Science & Technology. Waag facilitates six projects/labs (creative care lab, creative learning lab, future internet lab, open design lab, open data lab, urban reality lab, and wetlab), research projects in collaboration with knowledge institutes, TNO and others. Waag develops creative technology for social innovation and researches, develops concepts, pilots and prototypes and acts as an intermediate between the arts, science and the media. Waag Society cooperates with cultural, public and private parties.

Mediamatic (Amsterdam)

A cultural organization focused on cultural developments of new technologies which contribute to the fields of software and art.

Pakhuis De Zwijger (Amsterdam)

Pakhuis de Zwijger is an incubator focused on the creative sector. Pakhuis de Zwijger opened in September 2006 and is located in Amsterdam. It is an example of a platform where creative individuals, whether they be professional or amateurs, can meet and exchange ideas also concerning access to market. Workshops and meetings are provided between creatives, businesses and the public. Examples of themes are where creation and innovation meet. These events are produced by Cultuurfabriek BV and users of the space and external parties.

V2 Institute for the unstable media (Rotterdam)

V2 is an interdisciplinary centre for art and media technology. V2's activities include organizing: presentations, exhibitions and workshops, research and development of artworks in V2's media lab, distributing artworks through V2's Agency, publishing in the field of art and media technology, and developing an online archive.

Creative Cities Amsterdam Area (CCAA) – (Amsterdam/Utrecht)

Aim of the CCAA is to create order in the creative hotspot chaos in the Amsterdam-Utrecht area by providing the creative public structured information on finance, housing, events, business plans and more.

Amsterdam Innovation Motor (Amsterdam)

AIM was set up to help preserve and strengthen Amsterdam area’s leading position in the knowledge-based economy. AIM is an initiative of the Amsterdam Knowledge Network (KennisKring Amsterdam), and was established in 2004.

WZZRD game cafés

Since 2005 WZZRD has used the game cafe in the centre of Utrecht. Now it has expanded to Groningen (April 2007) and in Enschede in CineStar, where currently the biggest game cafe in the Benelux has opened its doors to the public. Due to questions deriving from our guests, we discovered that there were many questions concerning
gaming on location, in all forms and for diverging target groups. WZZRD games catered to these needs of the public and quickly developed into a business which annually organizes more than 100 game events and experiences.

**Dutch magazine/brochures on gaming:**

**Control magazine**

控制杂志 for the Dutch game industry in hardcopy and online versions. Control is a Dutch Magazine catered to the game industry. Since the summer of 2007, the magazine distributes 2000 copies seven times a year. It follows developments in the Dutch game industry and is distributed among companies, people who work in the game industry and students with relevant educational backgrounds. Control also has an international magazine and website.

**Dutch Games Go Global (DGGG)**

DGGG is a brochure with two main aims: there are two main aims: cooperatively attracting foreign game companies to the region and jointly presenting the Dutch Game Valley to 'relevant' potential stakeholders and interested parties.

**Expertise Centrum Games en Game design (EGG)**

EGG is not a brochure or magazine. However handouts can be downloaded focusing on 'lessons learned' and 'tips and tricks' for those interested in serious/applied games.

**[N]Gamer**

[N]Gamer is a Dutch magazine about recent and upcoming Nintendo games, aimed at Nintendo gamers. It is now the longest running Nintendo magazine in the Benelux, with the first magazine appearing in 2003.

**Power Unlimited**

Power Unlimited is the largest Dutch magazine about recent and upcoming entertainment games. The first magazine appeared in 1993 and the magazine is sold in the Netherlands and Belgium.

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5. Others: Festivals/Conferences

Control Gamelab
Control Gamelab is an initiative of Control Magazine and a place where (inter)national game designers, students and peer groups discuss the newest developments in the games industry. Examples include newest gaming technology and business models.

Festival of Games (NLGD) (Festival/conference Utrecht)
The Festival of Games is a business event held in Utrecht each year aimed at everyone who is interested in making a profit with digital games. The next one will take place in April 25-26, 2013. It consists of a Conference, the Showcase, the largest European Career Fair in gaming, and the match-making event Pitch & Match. Target Group: The Festival of Games is the meeting place for decision-makers from the entire value chain of the games industry and related industries such as TV, film, newspapers, telecom, etc. Festival of Games attracts front-runners in business, strategy, marketing, finance, game art, design, technology and development. Focused on boardroom knowledge and deal-making, the Festival of Games is a platform for executives and entrepreneurs.

Holland Paviljoen
The Dutch Game Association (DGA) is in charge of organising the Holland Pavillion during Gamescom. This is due, in part, to funds contributed by Taskforce Innovatie Regio Utrecht (TFI) under the Dutch Games Valley Project. The Gamescon is held on August 15 to 19. This is the fourth installment of Gamescon. It is currently seen as one of the most important international events in Europe catering to the interactive and entertainment industry. The fair is designed to be a business platform and public event. The Holland Pavillion allows Dutch entrepreneurs working in the game industry to showcase themselves for a low fee.

Holland Animation Film Festival (Utrecht)
Is an international festival for animation film in Utrecht. Its main focus is professionals in the field of animation but since 2012 this also includes game animation.

STRP festival (Eindhoven)
STRP festival is one of the largest Music, (interactive) Art and Technology festivals in Europe.

Dutch Electronic Art Festival (DEAF, Rotterdam)
An important international and interdisciplinary biennial that focuses on art and media technology, and can be regarded as a showcase for research and production of new media art.

INDIGO
Entrance: Free
Location: Utrecht
When: Annually (Sept)
Organizer: Dutch Game Garden
Contact: www.dutchgamegarden.nl/

Indigo is a playable exposition organized via the Dutch Game Garden. Last year's finest games, which have been developed by talented Dutch game designers, are showcased. This is a way to familiarize the public with the creativity of Dutch developers. For the makers of the game it is an opportunity to showcase their talent. Indigo is unique in its genre of being a playable exposition. It is jointly a artistic platform for young talent and a market where developers can present their work to publishers, investors and possible financiers. Every game is playable and the makers of the game are also present for any questions that may arise about their game.

The next edition of Indigo will take place on the 28th and 29th of September in Utrecht's city hall (Korteminrebroederstraat). The first day is reserved for stakeholders/representatives of the gaming industry, VIPS and press and other business contacts. The second day is open to all. This showcase is organized once per year. Indigo is also commonly present in other festivals such as the Festival of Games and Game in the City with a small collection of INDIGO games. The ‘best ofs’ of earlier editions are showcased in addition to new titles in

hand-made arcade boxes. Dutch game developers can send a playable version of their game or can come to the Dutch Game Garden to see whether it has a chance to be selected for the INDIGO event.

**Game in the City (Amersfoort)**

Game in the City is an annual congress centred around gaming and the application of game technology in the fields of education, health and the trade industry. Game in the City provides a large number of international speakers and a marketplace around which to focus and make contacts. The conference features various themes such as music & games, television & games, and mobile games. Workshops are also provided which entail subjects like intercontinental brainstorm and debating sessions. Games in the City is also the place where the annual Dutch Game Awards are handed out.

**Games for Health Europe (Amsterdam)**

Building on the successful editions in Boston (USA), Games for Health reached Europe in 2011. The non-profit Games for Health Europe is the official sister conference of the Games for Health project. Together with the USA organisation, we aim to bring serious gaming and healthcare together in order to contribute to more advanced healthcare across Europe.

First conference: October 24th & 25th 2011
Second conference: November 5th & 6th 2012
Third conference: October 28 & 28th 2013

**The Games for Health Project and Conference (USA)**

Founded in 2004, the Games for Health Project supports community, knowledge and business development efforts to use cutting-edge games and game technologies to improve health and health care. The Pioneer Portfolio of the Robert Wood Johnson Foundation is the lead conference sponsor and a major supporter of the Games for Health Project.

To date, the project has brought together researchers, medical professionals and game developers to share information about the impact games and game technologies can have on health, health care and policy. A major effort of the Games for Health Project is the annual Games for Health Conference in Boston. Over three days, more than 400 attendees participate in over 60 sessions provided by an international array of 80+ speakers, cutting across a wide range of activities in health and health care.

Topics include exergaming, physical therapy, disease management, health behavior change, biofeedback, rehab, epidemiology, training, cognitive health, nutrition and health education. The Games for Health Project is produced by the Serious Games Initiative, a Woodrow Wilson International Centre for Scholars effort that applies cutting-edge games and game technologies to a range of public and private policy, leadership and management issues.

**Dutch Game Awards (via Control Magazine)**

The Dutch Game Awards are handed out annually at the Game in the City conference. Sponsored by Control Magazine, the Awards are awarded in 14 different categories with the aim of honoring innovative and successful game design. Control Magazine is a Dutch magazine (which also is available in English) with its headquarters in Utrecht, and features articles about jobs, innovations, projects and other opportunities all featured within the international computer game industry tailored towards a Dutch audience. The Dutch Game Awards is one of their older projects, already spanning five years in 2012.

**Global Game Jam**

The Global Game Jam is an annual 3 day event hosted by various art schools in the Netherlands. During the event, students and other attendees are invited to conceptualise and create their own game. Any game is allowed, even board games. After the event is finished, a winner is announced. Winners and other well-received games can apply for help at the Dutch Game Garden (one of the sponsors for the event) to bring their game to the market.

**PICNIC: Cross Media Week Foundation**

PICNIC is an annual festival geared towards creativity in cross media and technology. PICNIC is a leading European platform for innovation and creativity. PICNIC functions as an incubator and accelerator for game changing ideas, concepts, products and services. Their aim is to address current trends and explore how to creatively apply technology in order to meet business, social and environmental challenges.

Games are also included in the line-up of 2012.

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Gamecamp:
An example is Gamecamp, a collaboration between PICNIC, Virtueel Platform and Microsoft Nederland, where artistic game concepts are pitched. The aim is, in groups of 3-5 people, think of artistic games using Kinect which are connected to DROPSTUFF screens displayed in European cities such as Amsterdam and Venice. The organization is looking for designers, programmers, interaction designers and media artists who would like to take part in this 4 day Gamecamp. 72

Campzone 73
CampZone is the world’s biggest outdoor gaming vacation where gamers come to play games and compete with each other out of tents and caravans. The computers and gaming consoles are connected to each other using a Local Area Network and Internet connection. CampZone is held on a large field in Oirschot (Noord-Brabant) which is transformed yearly for this event into a fully qualified gaming-camping and lasts 11 days.

Barcraft 74
Barcraft is a name for watching Starcraft matches or tournaments in a bar, similar to how sports bars operate. Barcraft started in the United States of America in 2011 and has since then become a phenomenon all over the world. In the Netherlands, three Barcraft events have been organized so far, all in the Winkel van Sinkel in Utrecht by Duh-Events.

DiGRA 75
DiGRA is the association for academics and professionals who research digital games and associated phenomena. The fifth DiGRA conference was held in Hilversum and organized by the Utrecht School of the Arts. The conference’s theme was Think Design Play and aimed to advance the study of games and playfulness. The conference was designed as a playground for meaningful dialogue between all players in the field of games, seeking to connect game research to the creative industries and society by fostering an integrated practice of research, design, engineering and entrepreneurship.

Online directories on games/gaming:

Control career site (related to gaming): http://control-online.nl/career
Gamesindustrie.nl (directory): http://www.gamesindustrie.nl
Dutch Games Directory (directory): http://www.dutchgamesdirectory.nl
www.gameindustry.nl (information): http://www.gamesindustrie.nl/

Dutch online platforms for entertainment games:

Below is a non-exhaustive list of Dutch online platforms for entertainment games.

http://www.bashers.nl
http://www.eurogamer.nl
http://www.femalegamers.nl
http://www.gamekings.tv/
http://www.gamer.nl
http://www.gamersdag.nl
http://www.gamersnet.nl
http://nl.ign.com/
http://www.insidegamer.nl
http://www.xgn.nl

72 http://dropstuff.nl/en/home/gamecamp/
Main players and stakeholders in Utrecht, the Netherlands (regional)

Note: In order to obtain a comprehensive overview of the region, different organisations were approached. The list obtained is as comprehensive as possible however it is likely that we have not been able to include all organisations related to the game industry within the analysis. Additionally the focus was on organisations who are already involved in the direct sphere of the gaming industry. ICT-related companies have not been included in the overview.

Number of Organizations

Definition of the Region

The region of Utrecht was defined by taking into account all organisations identified within the Utrecht province. For all regions, stakeholders have been divided into four distinct categories. These categories were chosen to encompass the different types of stakeholders exemplified within the games industry. These stakeholders are also represented in the questionnaire, focus groups and interviews. Stakeholders within the region were located by making use of: the Dutch Chamber of Commerce, the website of the Dutch Game Garden, a game company database76, and our in-house knowledge (a database consisting of information about companies involved in serious games). In total, fifty-four stakeholders were identified and divided into the following eight categories:

| Table 3. Number & Name of Stakeholders in the Utrecht Region per Stakeholder Category |
|---------------------------------|-----------------|-----------------|-----------------|
| Policy-maker / Public agency | Educational organizations | Research organizations | Collaborative research programmes |
| - Municipality of Utrecht | Utrecht School of the Arts | TNO | - AGS (Advanced Gaming and Simulation) |
| - Province of Utrecht | - Hogeschool Utrecht | | - EGG (Expertise Centre for Games & Game Design) |
| - Municipality of Amersfoort | Utrecht University | | |
| - Province of Amersfoort | Grafisch Lyceum Utrecht | | |
| Game related enterprise or organisation | Bigger game companies | Enterprise support organizations | Festivals |
| Abbey Games | Ubisoft | - Taskforce Innovation Utrecht (TFI) | - NLGD Festival of Games (also hosts INDIGO) |
| AppTornado | - Nintendo Nederland | - The Dutch Game Garden (DGG) | - Game in the City |
| BoosterMedia | | - Invest Utrecht | - This Happened |
| Burea Blauwgeel | | - Dutch Games Association | - First Look |
| Claynote | | | |
| Cyberstep | | | |
| Digital Dreams | | | |
| Dreams of Danu | | | |
| Flow Studios | | | |
| SourceLabs | | | |
| YoYo Games | | | |
| Game Oven Studios | | | |
| Happy Coders | | | |
| Haute Technique | | | |
| Headcandy | | | |
| Hubbub | | | |
| Monkeybizniz | | | |
| Monobanda | | | |
| Nixxes Software BV | | | |
| Pauzeplay | | | |
| Playability | | | |
| Qlvr | | | |
| Quizcontrol | | | |
| Ronimo Games | | | |
| Shapers | | | |
| Sonic Picnic | | | |
| Sticky Game Studios | | | |

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1. Policy-maker/public Agency

The municipality of Utrecht, the province of Utrecht, the municipality of Amersfoort and the province of Amersfoort, province of Utrecht are the main regional policy-makers influencing the business climate of Utrecht and its game industry. The municipality and province of Amersfoort, the second biggest city within the province of Utrecht is also actively involved in the game industry. Collaborations have been formed between different parties in different sectors in order to continue to sustain a healthy game industry. Below, a description of the main educational organizations, enterprise support organizations, and festivals.

2. Educational Organisations/ Research Organisations

Research Organisation:

TNO (Nederlandse Organisatie voor toegepast-natuurwetenschappelijk onderzoek) is a national research organisation which supports companies by connecting people and transferring knowledge. TNO also has a regional branch in Utrecht.

TNO collaborated with the Utrecht University (UU) and the Utrecht School of the Arts (HKU) to form the research programme Advanced Gaming and Simulation (AGS), which: "[...] concentrates on advanced research in gaming and simulation, with a focus on the application fields of training and education". 77

Furthermore, TNO, TFI and HKU formed the Expertise Centre on Games and Game Design (EGG). The aim of EGG is "[...] to be the centre where governments, businesses, the game industry and the press can gain knowledge on applied games and applied game design."78 and also collaborated, among other things, within Gate on the the Mayor Game pilot project (Safety) under the Gate research programme.

Educational Organisations:

Grafisch Lyceum Utrecht is a vocational education institute which offers two specific game related programs:
- Game Artist: teaches graphical aspects of game design. Students learn how to work in teams and do 2D and 3D modeling and animation.
- Game Developer: teaches technical/programming skills. Students learn how to build games and work for clients. 79

Grafisch Lyceum Utrecht also offers a related program:
- Interactive Design 80

Hogeschool Utrecht

The Hogeschool Utrecht (University of Applied Sciences Utrecht) does not offer a specific game study programme, but does offer programmes in related subjects:
- Software engineering / information engineering (Informatica) 81
  Web based systems for e-commerce, Mobile server based computing, Game technology, Business systems, Operating systems
- Information and Communication Technology (Technische informatica) 82
  Teaches to design and develop software products. Includes computer systems, Internet technology, Programming in JAVA & C, Robotics, Gaming.

Utrecht School of the Arts
The Utrecht School of the Arts (HKU) offers several game related programs. The game programs (4 years) that the HKU offers are:
- Game Design & Development.\(^{83}\)
  Here students learn to work in multidisciplinary design teams and get a broad range of courses like game design, level design, programming, modeling etc.
- Game Art\(^{84}\)
  Focuses on the graphical aspect of designing and developing games. Courses include modeling, character design, concept art and animation.
- Interactive Performance Design & Games\(^{85}\)
  Teaches to design for a crossover between games and theater. Courses include painting, drawing, programming.
- Master of Arts for Creative Design for Digital Cultures: Game Design & Development.\(^{86}\)
  The MA CDDC Game Design and Development program addresses the possibilities of practice, experiment and innovative development in the context of computer games.

Programmes at the HKU that in adjacent subjects, are:
- Interaction Design
- Interactive Toy Design

Utrecht University
Utrecht University (UU) offers a bachelor and a master program about game technology:
- BSc Game Technology (faculty of Science). As part of the bachelor Computer Science, Game Technology focuses on developing new techniques to make innovative games.\(^{87}\)
- MSc Game and Media Technology (faculty of Science). The Game and Media Technology Master’s programme focuses on the technological aspects of gaming and multimedia in the context of computer science.\(^{88}\)

The UU also offers a master degree in an umbrella subject:
- Master program New Media & Digital Culture (faculty of Humanities) offers a stimulating environment in which students develop an extensive vocabulary on the meaning and impact of digital technologies, and are guided to become the critical citizens, journalists, researchers, teachers, writers, and policy-makers of the future.\(^{89}\)

Educational institutions and research organizations related to gaming, together with supportive policy-makers, make Utrecht a viable region for game related companies. This presence of different stakeholder types comprising of educational institutes and network collaborators, is a good incentive for game companies to choose to settle in the Utrecht region.

This clustering can be seen clearly when looking at Deloitte’s ‘Market study Dutch games industry: Ready for growth’. Deloitte’s Market Study indicates that “games companies are spread across several cities across the Netherlands” (p.25).\(^{90}\) However, focusing on the region of Utrecht, “the majority of Dutch Game companies can be found in Amsterdam or Utrecht”. The Dutch Game Garden (DGG) “[…] houses several game companies in the city centre” (p.25).\(^{91}\)

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\(^{86}\) “Game Design and Development (MA CDDC GDD).” Hogeschool van de Kunsten Utrecht. HKU, n.d. http://www.hku.nl/web/English/Masters/MasterOfArtsInCreativeDesignForDigitalCultures/MACDDCProgrammes/GameDesignAndDevelopment.htm [19-07-2012].


\(^{91}\) Ibidem.
3. Enterprise Support Organization

Task Force Innovation Utrecht Region (TFI)

TFI's aim is to bring research institutes, government and businesses together and provides a stimulus for businesses, small and medium-sized enterprises (SMEs) in particular, to innovate with their product, service or process. One of TFI's focus areas is Utrecht's game industry, with the goal of increasing the added value of this cluster.

TFI is a major player in accelerating the growth of the game sector in the Netherlands, and in particular in Utrecht. TFI's focus is on stimulating innovation through collaboration between R&D, business and both local and national government. TFI has been successful in developing a number of large programmes to stimulate the Dutch game industry, including the Dutch Game Garden, Dutch Game Valley (geared towards making serious games a serious business), and Level Up!, which matches talented professionals to the needs of the game industry. In addition, TFI organizes frequent serious game jams in a wide range of crossover sectors such as sustainability and healthcare. Lastly, TFI offers international exposure for the most innovative Dutch game designs at game venues such as GDC San Francisco and Gamescom, thereby building Netherlands' reputation as a rapidly expanding game-creating nation.

Level Up!

The Project ‘The Pieken in de Delta project Level Up!’ is a cooperative project between several partners in the game industry and knowledge and education institutes, and is funded by a grant from the Dutch Ministry of Economic Affairs and Utrecht province and city council.

Level Up! aims to develop talent by encouraging and stimulating students of all ages and educational backgrounds to choose a career in the game industry. Level Up! addresses the games industry's need for talented, qualified staff by fostering talent and interest in game design, development and/or art design among students from different levels of lower and higher education.

Ultimately, the project seeks to boost the number of students and other successful candidates for game companies. Furthermore, the project aims to improve coordination between Bachelor's, Master's and research programmes at participating institutes. For more information about the Level Up! project, see: http://www.lvlup.nl/english/about-level-up.html.

Level Up! has three main goals:

1. To foster interest in studying (an aspect of) game design, development and/or art design at an early stage in order to promote interest in a career in the games industry.

2. To develop talent via coherent educational programmes at various levels of secondary and post-secondary education. Disciplines relevant to the games industry will be involved wherever possible. A solid platform for games education is essential for achieving this goal.

3. To improve the transition between educational programmes and the job market, resulting in more efficient matchmaking between available talent in the job market and the games industry as well as increasing the availability of talent.

The Dutch Game Garden (DGG) is also supported by the regional government. The DGG greatly supports Utrecht's game industry by organizing various projects such as connecting knowledge about game design, providing facilities in the centre of Utrecht city, and by incubating game related businesses.

Invest Utrecht, the Foreign Investment Agency of the Province of Utrecht, is an initiative of the province of Utrecht. Their aim is to help and have foreign companies set-up their businesses in Utrecht. One of their four key sectors is gaming.

Besides the support for the game industry coming from policy-makers and enterprise support organizations, Utrecht can be seen as the centre of games education and research. There are four educational institutions identified who are involved in different aspects of game design and development. Together, they provide educated and skilled employees. There are also networks in place between educational institutions and the game industry which facilitates knowledge transfer. For instance, the Dutch Game Garden (DGG) was co-founded by members of the Utrecht University (UU) and the Utrecht School of the Arts (HKU).

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93 Ibidem.
94 Ibidem.
96 http://www.lvlup.nl/level-up/partners/80-taskforce-innovatie-regio-utrecht-tfi.html
4. Game related enterprise or organisation

Table 4. Inventory of Game related Enterprises or Organisations in the Netherlands

<table>
<thead>
<tr>
<th>Game related enterprise or organisation</th>
<th>Bigger game companies</th>
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<tbody>
<tr>
<td>Abbey Games</td>
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<td>AppTornado</td>
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<tr>
<td>BoosterMedia</td>
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<td>Burea Blauwgeel</td>
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<td>Claynote</td>
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<td>Cyberstep</td>
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<td>Digital Dreams</td>
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<tr>
<td>Dreams of Danu</td>
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<td>Flow Studios</td>
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<td>FourceLabs</td>
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<td>YoYo Games</td>
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<td>Monobanda</td>
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<td>Nixxes Software BV</td>
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<td>Pauzeplay</td>
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<td>Playability</td>
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<td>Qlvr</td>
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<td>Quizcontrol</td>
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<tr>
<td>Ronimo Games</td>
<td></td>
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<tr>
<td>Shapers</td>
<td></td>
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<tr>
<td>Sonic Picnic</td>
<td></td>
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<tr>
<td>Sticky Game Studios</td>
<td></td>
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<tr>
<td>Stolen Couch Games</td>
<td></td>
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<tr>
<td>Vlambeer</td>
<td></td>
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<tr>
<td>WSquared Media</td>
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<tr>
<td>Xform</td>
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<tr>
<td>Creative Arists</td>
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<tr>
<td>U-trax</td>
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</tbody>
</table>

|                                                               |                       |
|                                                               | Ubisoft               |
|                                                               | Nintendo Nederland    |
5. Others: Festivals/Conferences

Utrecht is host to a myriad of festivals, strengthening the game industry in multiple ways. It is an opportunity to showcase Dutch talent and increase network opportunities where people who are also unaware of the Dutch gaming industry can have a first glimpse of current and up and coming games and trends.

The Festival of Games is a business event where people from the game industry meet. This festival also hosts Indigo, a place where independent Dutch game developers can showcase their games. The aforementioned DGG, the province of Utrecht and the municipality of Utrecht are sponsors.

This Happened is a worldwide non-profit organisation with a branch in the Netherlands which organizes lectures on interaction design. The format of the lectures is a maximum of 5 speakers whom each talk for a maximum of 10 minutes. All events are free and are held in both Utrecht and Amsterdam. The emphasis of the lectures lies on contemporary projects in interaction design; how concept-development and design-processes are shaped these days with the intent of sharing the knowledge among the field of interaction designers. As such, the lectures server the field by bringing new ideas, sponsors, people and companies to one table.

Firstlook is an event where games are show-cased for the first time. It’s a big event which draws thousands of visitors (which is still a limited, fixed amount) to Amsterdam and features both low-budget and big-budget products coming out of both the game- and hardware industry. Visitors are able to playtest games that have not been released to the public yet. In this sense Firstlook can be regarded as a Dutch version of bigger events like GamesCom and E3.

Game in the City97 located in Amersfoort where innovative projects are showcased and the Dutch Game Awards are held. Game in the City is an annual congress centred around gaming and the application of game technology in the fields of education, health and the trade industry. Game in the City provides a large number of international speakers and a marketplace around which to focus and make contacts. The conference features various themes such as music & games, television & games, and mobile games. Workshops are also provided which entail subjects like intercontinental brainstorm and debating sessions. Games in the City is also the place where the annual Dutch Game Awards are handed out.

Main players and stakeholders in Italy (national)

1. Policy-maker/public Agency

At a national level, the instrument that seems best suited to stimulate the development of video games industry is the Digital Agenda. Even if references to the field of video games are not explicit, reference is made to complementary skills in this area and the agenda may also be used as a flywheel for this industry.

The Digital Agenda Italian (ADI) was established on March 1, 2012 by decree of the Minister of Economic Development, in consultation with the Minister for Public Administration, the Minister for territorial cohesion, the Minister of Education, Universities and Research, and the Ministry of Economy and Finance.

ADI was published in the Official Journal of the Decree Law of 18 October 2012, No. 179, "More urgent measures for the growth of the country" - cd Growth measure 2.0 - where measures are identified in order to apply the ADI.

The main interventions are planned in the areas of: digital identity, digital PA/Open data, digital education, digital health, digital divide, electronic payments and digital justice.  

2. Educational Organisations/ Research Organisations

In the field of education, particularly higher education and universities, there are many courses that teach different aspects, as there is plenty of academic research on the subject but these are initiatives of individual institutions. This makes it difficult to identify a national education system in the game industry. Most of the universities are located in the north of Italy, especially in Lombardia.

Rosselli Foundation

The Rosselli Foundation is an independent research institute and does non-profit work in the social sciences, economic and political culture. This Foundation can be mentioned as potentially interested in video games. The purpose of the Rosselli Foundation is to promote the study of public policy with the contribution of all those scientists who believe in the social and economic potential of an interdisciplinary cognitive approach. In order to give a clearer overview of the scientific and cultural aims of the Rosselli Foundation, all initiatives are divided into five macro areas: Research, Innovation and Competitiveness; Communications and Media; Government and Public Services; Culture, Politics and Society; Finance. The Foundation has published some research on the field of video games that have been used to analyze the national situation in this project.

3. Enterprise Support Organization

As Andrea Persegati, President of AESVI, the Italian Association of Video Games Developers and Publishers, pointed out, "videogames are becoming more and more popular in Italy, as also the new consumer show "Games week" organised in Milan in November 2011 testimonies. More than 30.000 visited the exhibitions in 2 days. Impressive figures for a recently and somehow lately recognised sector."

AESVI (Italian Videogame Developers Association)

AESVI was established in 2001, since its inception it has been professionally serving the business and public affairs needs of companies publishing interactive games for video game consoles, handheld devices, personal computers, and the Internet. The task to make policy makers as well as consumers aware of the educational and social value of videogames is not easy. Nevertheless in more than 10 years of intense activity organising workshops, seminars and market trends reports for lobbying with key stakeholders in charge of industry and innovation policies, not only the association is being recognised by more than 23 members, among which Sony Computer Entertainment, Nintendo and Microsoft, but also the video games sector as a whole has been better understood by families and students.

Since 2010 AESVI is also a Member of the Culture of Confindustria, the Italian Cultural Industry. In November 2011 the association created “AESVI 4 Developers”, a programme dedicated to the game developers from Italy, with the aim of promoting the growth of the Italian videogame industry and ensuring that the development of video games in Italy to become business enterprise established and recognized at all levels.

Many companies have also joined this programme, including Activart, Adventure's Planet, Double Jungle, DP Studios, Digital Tales, Forge Reply, Koala Games (now Ticonblu), Magic Dream Games, Milestone, Milonga, Ubisoft Studios and 505 Games.

AIOMI, Italian Association of Interactive Multimedia

*For further information visit the website www.agenda-digitale.it.*

BOO-Games Regional Analysis Report, January 2013, Appendix A, p. 36
AIOMI is the Italian Association of Interactive Multimedia, founded in the summer of 2008 to promote, disseminate and preserve the culture of video gaming as an artistic means clustering of expression of thought.
AIOMI will support any initiative to Enhance and Promote the video game culture through any form or medium. AIOMI Organizes conferences, roundtables, exhibitions and events is also in charge of Activities’ Training within the video game ever.

AI, Italian Publishers Association
Another potential organisation interested in the video game sector is the Associazione Italiana Editori (Italian Publishers Association) is the trade association for Italian and foreign publishers operating in Italy. They also publish books, magazines and electronic publishing products, (multimedia and online), in Italian.
Whilst the process of digital convergence has blurred the boundaries between publishing as it is traditionally understood and other sectors of the media, the AIE continues to represent companies which produce and handle content, regardless of the distribution format through which it is distributed.

One of the principal aims of the AIE is to represent and defend publishers and to encourage the development of the profession while at the same time promoting initiatives for the spread of books and Italian culture in Italy and throughout the world.

4. Game related enterprise or organisation

Table 5. Inventory of Italian Game Manufacturers and Developers

<table>
<thead>
<tr>
<th>Italian Game Manufacturers and Developers</th>
<th>10th Art Studios di Torre del Greco (Na)</th>
<th>7th Sense Studios di Palermo</th>
<th>Adventure Productions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Artematica Entertainment (GE)</td>
<td>Dokroton Entertainment di Catania</td>
<td>Eve Interactive Studios di Roma</td>
<td></td>
</tr>
<tr>
<td>Frame Studios di Longarone (BL)</td>
<td>Idozu di Padova</td>
<td>Idra Editing di Roma</td>
<td></td>
</tr>
<tr>
<td>Milestone di Milano</td>
<td>Kallcanthus Entertainment di Milano</td>
<td>Koala Games Ticonblue di Bologna</td>
<td></td>
</tr>
<tr>
<td>Playstos Entertainment di Milano</td>
<td>Mobile Idea di Pisa</td>
<td>Naps Team</td>
<td></td>
</tr>
<tr>
<td>SpinVector di Benevento</td>
<td>Twelve di Crotone</td>
<td>Ubisoft Studios Milano di Milano</td>
<td></td>
</tr>
<tr>
<td>Pixel Revolution S.r.l. di Nola (NA)</td>
<td>Raiju Software di Bareggio (MI)</td>
<td>Silent Bay Studios di Genova</td>
<td></td>
</tr>
<tr>
<td>Studio SG di Viterbo (VT)</td>
<td>Virtual Identity di Milano</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The current big challenge is now to help Italy in not only being a big videogames spender but also developer. So far very few companies could be mentioned among the videogames EU developer and publisher, maybe only Milestone, established in 1996 in Milan, and today representing the biggest Italian developer of PC and Console games in the racing sector, both on- and off-road.

Despite this, Milestone is a quite small, although promising, company when compared to the top 10 EU and world-wide publishers and developers, namely, Microsoft Game Studios - Electronic Arts (EARTS) - The largest independent publisher (non-affiliated with a hardware manufacturer); Activision (ATVI) - Another large publisher, with hits such as Guitar Hero III and Call of Duty 4.; Take-Two Interactive Software (TTWO) - Publisher owner several in-house studios, such as Rockstar Games, developer of Grand Theft Auto 4; Ubisoft - French publisher; Vivendi Games - French publisher, owning in-house publisher Sierra and developer Blizzard.

5. Others: Festivals/Conferences

The Italian Videogame Developers Conference is the only Italian Congress of game developers and is organized by AIOMI, the 'Italian Association for Interactive Multimedia. The event is free and takes two days where you touch all the main topics concerning the creation of the game, then from the video game design software with the development of interventions of the big international production.
Main players and stakeholders in Umbria, Italy

1. Policy-maker/public Agency

Chamber of Commerce, Industry, Agriculture and Crafts of the Provinces of Perugia and Terni.

Chambers of Commerce are public bodies that act in the general interest for local enterprises. They are autonomous bodies, as they have their own Statute and are independent, both from the financial and management point of view.

The current multiannual programme foresees several priority objectives, including: internationalisation of SMEs, diffusion of innovation and of technology transfer, promotion and certification of typical local products, and the improvement of local infrastructures.

The Chambers of Commerce oversees a series of activities concerning administration of the enterprise system (register of all enterprises, lists, etc.). Moreover, they have a role in the promotion of local SMEs and economic development and in financing of projects and/or programmes that are presented through public calls for proposals.

### Table 6. Chamber of Commerce, Perugia and Chamber of Commerce, Terni

<table>
<thead>
<tr>
<th>Camera di Commercio di Perugia / Chamber of Commerce – Perugia</th>
<th>Camera di Commercio di Terni / Chamber of Commerce – Terni</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Via cacciatori delle Alpi, 42 06100 Perugia Italy</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:urp@pg.camcom.it">urp@pg.camcom.it</a></td>
</tr>
<tr>
<td>Legal Status</td>
<td>Public body</td>
</tr>
<tr>
<td>Years of activity</td>
<td>170</td>
</tr>
<tr>
<td>Fields of activity</td>
<td>SME services</td>
</tr>
<tr>
<td>N. of employees</td>
<td>50</td>
</tr>
<tr>
<td>Competencies / skills</td>
<td>All company related competences</td>
</tr>
<tr>
<td>Direct Beneficiaries of BSO’s activities</td>
<td>Enterprises, citizens</td>
</tr>
<tr>
<td>Main activities addressed to SMEs</td>
<td>Training, information on public incentives and Technical assistance to present business projects under public calls.</td>
</tr>
<tr>
<td>Main activities addressed to start ups</td>
<td>Information and technical assistance</td>
</tr>
<tr>
<td>Sources of funding</td>
<td>Associated enterprises that are listed in the Public Register of Enterprises overseen by the Chamber.</td>
</tr>
</tbody>
</table>

The 2 Umbrian Chambers act in close collaboration with other public institutions, and in particular with the 2 Provinces, Perugia and Terni, for the best possible integration of strategies and activities for the promotion and the enhancement of the identity of Umbria, both in Italy and abroad.

The Chambers belong to a national and international network that allows access to data, information and services worldwide. Moreover, the Chambers of Commerce organises specific and tailor-made training activities to meet the needs of the local business community and promote meetings, seminars and events.
Table 7. Consorzio aree industriali Terni, Narni, Spoleto

<table>
<thead>
<tr>
<th>Consorzio aree industriali Terni, Narni, Spoleto</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Via Armellini 1 05100 Terni</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:info@tnsconsorzio.it">info@tnsconsorzio.it</a></td>
</tr>
<tr>
<td>Legal Status</td>
<td>Consortium</td>
</tr>
<tr>
<td>Years of activity</td>
<td>12</td>
</tr>
<tr>
<td>Fields of activity</td>
<td>Sme services</td>
</tr>
<tr>
<td>N. of employees</td>
<td>5</td>
</tr>
<tr>
<td>Competencies / skills</td>
<td>Technical assistance for the localization in Consortium areas</td>
</tr>
<tr>
<td>Direct Beneficiaries of BSO's activities</td>
<td>SMEs</td>
</tr>
<tr>
<td>Main activities addressed to SMEs</td>
<td>Information, Communication, promotion, advanced services (TIC/Infrastructures, etc)</td>
</tr>
<tr>
<td>Main activities addressed to start ups</td>
<td>Technical assistance for the localization in Consortium areas</td>
</tr>
<tr>
<td>Sources of funding</td>
<td>Public</td>
</tr>
</tbody>
</table>

The “Consorzio per lo sviluppo delle aree industriali di Terni Narni e Spoleto” (Consortium for the Development of the Industrial Areas of Terni, Narni and Spoleto) is made up of five bodies: the Municipality of Terni, the Province of Terni, the Municipality of Narni, the Municipality of Spoleto and Sviluppumbria Spa.

Regional bodies, public-sector financial institutes, entrepreneurial associations, and banks that promote the economic and industrial development of their regions can all take part in the consortium.

Within the district, the “Consorzio per lo sviluppo delle aree industriali di Terni, Narni e Spoleto” promotes the necessary conditions for the creation and development of industrial areas. It constructs and manages infrastructures and buildings for entrepreneurial activities and promotes support services and every other type of service connected with manufacturing activities.

Table 8. Consorzio Crescendo

<table>
<thead>
<tr>
<th>Consorzio Crescendo</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Via dei Vasari 15/D 05018 Orvieto (TR) - Tel 0763 316121 - P. IVA: 01200620555</td>
</tr>
<tr>
<td>E-mail</td>
<td>info@conso或者其他ecco.it</td>
</tr>
<tr>
<td>Legal Status</td>
<td>Consortium</td>
</tr>
<tr>
<td>Years of activity</td>
<td>8</td>
</tr>
<tr>
<td>Fields of activity</td>
<td>Sme services</td>
</tr>
<tr>
<td>N. of employees</td>
<td>3</td>
</tr>
<tr>
<td>Competencies / skills</td>
<td>Technical assistance for the localization in Consortium areas</td>
</tr>
<tr>
<td>Direct Beneficiaries of BSO's activities</td>
<td>SMEs</td>
</tr>
<tr>
<td>Main activities addressed to SMEs</td>
<td>Information, Communication, promotion, advanced services (TIC/Infrastructures, etc)</td>
</tr>
<tr>
<td>Main activities addressed to start ups</td>
<td>Technical assistance for the localization in Consortium areas</td>
</tr>
<tr>
<td>Sources of funding</td>
<td>Public</td>
</tr>
</tbody>
</table>

The “Consorzio Crescendo” is made up of 21 bodies: most of the 4 small municipalities of the Orvieto area and Sviluppumbria Spa.

The Consorzio Crescendo promotes the necessary conditions for the creation and development of industrial areas in the Orvieto Area. It constructs and manages infrastructures and buildings for entrepreneurial activities and promotes support services and every other type of service connected with manufacturing activities.

Table 9. Sviluppumbria, Regional agency for economic development of Umbria

<table>
<thead>
<tr>
<th>SVILUPPUMBRIA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Via Don Bosco, 11 06121 Perugia, 7 local offices spread out through the Umbria region.</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:Svilpg@sviluppumbria.it">Svilpg@sviluppumbria.it</a></td>
</tr>
<tr>
<td>Legal Status</td>
<td>plc</td>
</tr>
<tr>
<td>Years of activity</td>
<td>36</td>
</tr>
<tr>
<td>Fields of activity</td>
<td>Economic development</td>
</tr>
<tr>
<td>N. of employees</td>
<td>76</td>
</tr>
<tr>
<td>Competencies / skills</td>
<td>Local development, territorial marketing, enterprise creation, international cooperation.</td>
</tr>
</tbody>
</table>
Direct Beneficiaries of BSO's activities | Public bodies and enterprises
---|---
Main activities addressed to SMEs | Technical assistance, Research, locations, finance, turnover support
Main activities addressed to start ups | Technical assistance, finance, locations
Sources of funding | Public shareholders

Sviluppumbria, which was instituted by regional law in 1973, is Umbria’s economic development and promotion agency. Since 2009 Sviluppumbria has become an “in-house” company of the Region. The Umbria region is the majority shareholder, along with other public bodies (provinces, municipalities and Chambers of Commerce).

Sviluppumbria has steadfastly played a key role as a consultant for the region, local institutions, organizations and bodies in a wide range of areas. It offers services for the creation of new entrepreneurial initiatives and for the support of existing businesses and company groupings to attract investments, economic activities and partnerships.

Its core business is regional marketing and FDI attraction, through several instruments and tailor-made packages of opportunities identified on the territory. Sviluppumbria also acts as a promoter and coordinator of development projects, both at regional, national, EU and international level.

Sviluppumbria, after having acquired competences and functions of the former BIC (Business Incubators), is now also able to offer locations and related services in three different municipalities (Terni, Spoleto and Foligno).

Since November 2011, Sviluppumbria has also acquired the former Umbria Innovation Agency, and its related competences, which are linked to innovation and research targeted to promote development in the regional context.

2. Educational Organisations/ Research Organisations

In addition to 2 universities (University of Perugia and University for Foreigners) there are important research centres (SMAART, Ecnp-European center for Nanostructured polymers, ISRIM, Pischiello, CSM) and one technology park (3a Agrifood technology park).

Despite this, the region is suffering from a marginal integration among these actors, a difficulty in providing efficient services to SMEs and a relative fragmentation of competences and services.

Umbria has seen the recent investment and realisation of poles of excellence such as the Mechatronic Pole in Città di Castello (North Umbria), the Automotive Research Center at Pischiello, in Passignano (Central Umbria) and the Aerospace and aero-industry pole of Foligno, but still no positive spillover to the regional economy has yet occurred, as these organizations have only been recently established. A few SMEs have also started to cooperate within these poles, Universities and research centres.

3. Enterprise Support Organization

Umbria Business Support organisations

Umbria boasts a widespread and deeply-rooted BSOs network and experience with 2 Chamber of Commerce, 4 Industrial Development Consortia, 1 Tech Parks, Entrepreneurs Associations both at regional and local level and, on the public side, 1 Regional Development Agency, 1 Financial Agency, 1 Innovation Agency, 1 Regional Research Agency.

**Table 10. National Confederation of Crafts and SMEs (CNA)**

<table>
<thead>
<tr>
<th>CNA</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Via Morettini, 7 06128 Perugia</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:info@cna.perugia.it">info@cna.perugia.it</a></td>
</tr>
<tr>
<td>Legal Status</td>
<td>association</td>
</tr>
<tr>
<td>Years of activity</td>
<td>60</td>
</tr>
<tr>
<td>Fields of activity</td>
<td>SME services</td>
</tr>
<tr>
<td>N. of employees</td>
<td>40</td>
</tr>
<tr>
<td>Competencies / skills</td>
<td>Support of SME</td>
</tr>
<tr>
<td>Direct Beneficiaries of BSO’s activities</td>
<td>SMEs</td>
</tr>
<tr>
<td>Main activities addressed to SMEs</td>
<td>Training, information, technical assistance</td>
</tr>
<tr>
<td>Main activities addressed to start ups</td>
<td>Technical assistance in developing of business enterprise project</td>
</tr>
<tr>
<td>Sources of funding</td>
<td>Annual fees paid by associated enterprises.</td>
</tr>
</tbody>
</table>

The aim of CNA is the promotion a veritable 'culture of enterprise', the qualification and updating of know-how of entrepreneurs and workers and support in the realisation of an environment that is favourable to innovation in small craftworking enterprises.
CNA organises seminars, meetings and research on economic and social matters. It also supports initiatives which foster the development of business friendly public policies. Additionally, CNA, thanks to its professional know-how and expertise, can provide SMEs with consulting services, assistance and information in fiscal, administrative, legal and insurance matters and on problems concerning environmental protection and workplace safety. CNA strives towards meeting the demands of enterprises with innovative and coherent responses and services, in order to enhance competitiveness and quality of production in all sectors.

Table 11. Confapi Umbria

<table>
<thead>
<tr>
<th>Address</th>
<th>Piazza della Repubblica  7 06123, Perugia</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail</td>
<td><a href="mailto:info@piccolamediapresa.com">info@piccolamediapresa.com</a></td>
</tr>
<tr>
<td>Legal Status</td>
<td>Association</td>
</tr>
<tr>
<td>Years of activity</td>
<td>40</td>
</tr>
<tr>
<td>Fields of activity</td>
<td>SME services</td>
</tr>
<tr>
<td>N. of employees</td>
<td>20</td>
</tr>
<tr>
<td>Competencies / skills</td>
<td></td>
</tr>
<tr>
<td>Direct Beneficiaries of BSO’s activities</td>
<td>SMEs</td>
</tr>
<tr>
<td>Main activities addressed to SMEs</td>
<td>Training, information, technical assistance</td>
</tr>
<tr>
<td>Main activities addressed to start ups</td>
<td>Technical assistance in developing of business enterprise project</td>
</tr>
<tr>
<td>Sources of funding</td>
<td>Annual fees paid by associated enterprises</td>
</tr>
</tbody>
</table>

Confapi Umbria is an association whose aim is the protection, development, promotion and representation of moral and economic interests of enterprises and their need concerning production. Confapi promotes and supports industrial and business culture and progress.

To this aim, Confapi provides information to all members and organises meetings, seminars, studies and research, press actions and public debates. Confapi represents member enterprises in their dealings with institutions, public administrations and all other trade associations, economic and political bodies, at a local, national and international level.

Table 12. Confcommercio – Umbria: Italian General Confederation of Enterprises, Professional Occupations and Self-employment

<table>
<thead>
<tr>
<th>Confcommercio Umbria</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Via Settevalli, 320 06129 Perugia</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:info@confcommercio.pg.it">info@confcommercio.pg.it</a></td>
</tr>
<tr>
<td>Legal Status</td>
<td>Association</td>
</tr>
<tr>
<td>Years of activity</td>
<td>64</td>
</tr>
<tr>
<td>Fields of activity</td>
<td>SMEs</td>
</tr>
<tr>
<td>N. of employees</td>
<td>10</td>
</tr>
<tr>
<td>Competencies / skills</td>
<td></td>
</tr>
<tr>
<td>Direct Beneficiaries of BSO’s activities</td>
<td>Trade, tourism and service sectors</td>
</tr>
<tr>
<td>Main activities addressed to SMEs</td>
<td>Advising, training and technical assistance in the definition of business project to be presented under public call</td>
</tr>
<tr>
<td>Main activities addressed to start ups</td>
<td>Front office and information on public call</td>
</tr>
<tr>
<td>Sources of funding</td>
<td>Annual fees paid by associated enterprises</td>
</tr>
</tbody>
</table>

The Italian General Confederation of Enterprises, Professional Occupations and Self-employment is the largest enterprise-representative in Italy, with more than 820,000 members from the trade, tourist, service and transportation sectors. Confcommercio, an independent political subject, promotes the development of the business sector where firms of the tertiary sector operate, in a broad context and with the aim of expanding the entire economic system.

As declared in its Statute, the Confederation has the following objectives: the guardianship and representation of the economic sectors which identify themselves in the Confederation, in the regards of public and private institutions, as well as political, social, economic organizations and trade-unions, including the international ones; the increase in value of the economic and social interests of entrepreneurs and the acknowledgment of their social function.

Transportation and innovative sectors, such as computing, telecommunications, radio and television services, communication and advertising, are present, along with other, more traditional areas, such as education, real estate agencies, private health services, etc.
Table 13. Confindustria Umbria

<table>
<thead>
<tr>
<th>Confindustria Umbria</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Via palermo 80, A 06129 Perugia</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:info@confindustria.perugia.com">info@confindustria.perugia.com</a></td>
</tr>
<tr>
<td>Legal Status</td>
<td>Confederation</td>
</tr>
<tr>
<td>Years of activity</td>
<td>100</td>
</tr>
<tr>
<td>Fields of activity</td>
<td>Services to SMEs and representation of members interests and projects.</td>
</tr>
<tr>
<td>N. of employees</td>
<td>40</td>
</tr>
<tr>
<td>Competencies / skills</td>
<td></td>
</tr>
<tr>
<td>Direct Beneficiaries of BSO’s activities</td>
<td>Enterprises.</td>
</tr>
<tr>
<td>Main activities addressed to SMEs</td>
<td>Relationship with public institutions and other trade associations, training, project development, organisation of meetings, events, studies and researches.</td>
</tr>
<tr>
<td>Main activities addressed to start ups</td>
<td>Information</td>
</tr>
<tr>
<td>Sources of funding</td>
<td>Annual fees paid by associated enterprises.</td>
</tr>
</tbody>
</table>

Founded in 1910, Confindustria is the main organisation representing Italian manufacturing and services companies. A total of 135,320 companies of all sizes - employing a total of 4,954,000 workers - are voluntary members of the organisation. The fundamental value underlying Confindustria’s activities is the belief that free enterprise and free economic activity, within the framework of a market economy, are key factors for the growth and development of society as a whole.

In its by-laws, Confindustria pledges to contribute to Italy’s economic and social growth by cooperating with both Italian and international political institutions and economic, social and cultural organisations.

To this end, Confindustria represents the interests of Italian companies to leading political and administrative institutions, including parliament, the government, trade unions and other social partners. Confindustria is the leading organisation representing the interests of Italian companies that produce goods and services in the political sphere and in relations with trade unions.

Companies can become members of the Confederation through local associations or trade associations and sector federations that are Confindustria members. Direct Confindustria members are, 103 local associations: consisting of companies established in the same provincial area, from different production sectors; 97 trade associations: consisting of companies from all over Italy that operate in similar and related production activities; 21 sector federations: consisting of trade associations, directly or indirectly affiliated with Confindustria, and 3 special aim federations: formed by trade associations to achieve a common goal or roll out a project in special areas.

Concerning the Umbria federation, the main services provided to local SMEs are training and information and communication and technical assistance on enterprise start up.

Table 14. Gepafin spa

<table>
<thead>
<tr>
<th>Gepafin spa</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>Via Campo di Marte 9, 06100 Perugia</td>
</tr>
<tr>
<td>E-mail</td>
<td><a href="mailto:info@gepafin.it">info@gepafin.it</a></td>
</tr>
<tr>
<td>Legal Status</td>
<td>plc</td>
</tr>
<tr>
<td>Years of activity</td>
<td>15</td>
</tr>
<tr>
<td>Fields of activity</td>
<td>Guarantees, shareholdings, and financing</td>
</tr>
<tr>
<td>N. of employees</td>
<td>20</td>
</tr>
<tr>
<td>Competencies / skills</td>
<td>Support to SME</td>
</tr>
<tr>
<td>Direct Beneficiaries of BSO’s activities</td>
<td>Enterprises.</td>
</tr>
<tr>
<td>Main activities addressed to SMEs</td>
<td>Guarantees, shareholdings, and financing</td>
</tr>
<tr>
<td>Main activities addressed to start ups</td>
<td>Guarantees, shareholdings, and financing</td>
</tr>
<tr>
<td>Sources of funding</td>
<td>Public</td>
</tr>
</tbody>
</table>

Gepafin Spa is the regional financing company promoted by the European Union, the Region of Umbria and by 11 credit institutions at both the regional and national level to sustain and develop the activities of small and medium enterprises in Umbria. Sviluppumbria is the pivot shareholder of the company.

Gepafin manages European Community funds to facilitate the access of small and medium enterprises in the industrial, agricultural, artisan and service sectors to financial and risk capital markets, which provide funds for refinancing and company restructuring.
Guarantee assistance

Gepafin offers: 1) guarantees to cover business insolvency risks even for agricultural and new companies; 2) guarantees to cover exchange and interest rate variations; 3) interest subsidy for PAIP area investments; interest subsidy for loans given to small and medium enterprises in the Province of Terni and the Municipality of Spoleto. 4) guarantee fund for areas hit by the earthquake of 1997.

Share capital interventions: 1) guarantees to shareholder for underwriting of share capital; advances to shareholders for increases in share capital; 2) guarantees to institutional investors for investment risk; advances to institutional investors for investment risk; 3) direct investments; risk capital companies.

4. Game related enterprise or organisation

In Umbria there is no game sector yet, so there are no enterprises related directly to games. Most of the interviewed companies belong to the ICT sector, multimedia sector, and engineering and related sectors.

5. Others: Festivals/Conferences

There are no festivals or events or conferences dealing with the game sector in Umbria.
Main players and stakeholders in Piedmont, Italy

Focusing and talking on the development of the gaming industry is Italy is a new phenomenon.

Here is a summary of the most relevant players and stakeholders in Piemonte:

- there are few major Italian publishers: primarily active in the market, are subsidiaries of large international groups;
- there is not a strong link between the producers and publishers. Consequently the entrepreneurial potential development of the gaming production phase has declined, in a situation in part due to limited financial resources and business networking opportunities;
- the major international publishers in Italy mainly act on the side of marketing and distribution of products developed abroad by central companies;
- in other countries similar to Italy, like France, Spain and Scandinavia they have developed a broader manufacturing base, largely due to public policies, in particular in France;
- there is not a national distribution-publishing system interested in the original product: in addition to the few Italian groups, international publishers meet the global needs and there is not a demand for Italian products. The great Italian media groups have no divisions dedicated to video games. In Italy, the few media companies and technology have invested in the past, they did more on multimedia than on the videogame: the few investments in games did not produce a return that would justify further investment;
- in the absence of opportunities in the gaming market, the Italian software houses diversify lending its expertise to similar segments such as advergames, audio –visual post-production, web design, "augmented reality" and educational multimedia products. More opportunities could, in future, come from the web and mobile, where the costs of testing and production are lower.

Most important stakeholders are some associations that are listed below. In particular, note that the AESVI is the association that is working to promote the interests of trades and development policies at national level.

1. Policy-maker/public Agency

The various local institutions in Piedmont and the Piedmont Region in particular, have shown, in recent years, a lot of attention to the development of policies and programmes aimed at promoting the world of digital creativity. The video game sector is included in the creative industries but not a specific sector, as it is still in development.

It is important to mention some of the actions taken by the region of Piedmont as an example of the development of policies and programmes catered to the creative industries: the law concerning Research, the establishment of Innovation Poles, and the voucher to promote digital creativity. For more details on the public agency involved please refer to institutes under the policy-maker/public agency sector.

2. Educational Organisations/ Research Organisations

In the region there are many undergraduate and graduate educational institutions, both public and private, offering specific training on video games, focussing primarily on technical skills. Worth mentioning are these following degrees: the degree in Cinema and Media Engineering at the Politecnich of Turin, the specialist post-graduate school of the Virtual Reality & Multimedia Park, the School of Film Animation in Chieri, the Communication Sciences degree and the Istituto Europeo di Design.

3. Enterprise Support Organization

AIOMI, Italian Association of Interactive Multimedia, founded in the summer of 2008 to promote, disseminate and preserve the culture of video gaming as an artistic means of expression of thought. AIOMI will support any initiative to enhance and promote the video game culture through any form or medium. AIOMI organizes conferences, roundtables, exhibitions and events and is also in charge of activities training within the video game area39.

AESVI (Italian Videogame Developers Publishers Association) is the trade association representing the industry of video games console manufacturers, publishers and game developers operating in Italy. The association was founded in 2001 by a group of publishers on the Italian territory with the aim to represent, promote and protect the collective interests of the sector in the institutions. In 2003 the three largest manufacturers of hardware for video games: Sony Computer Entertainment, Nintendo and Microsoft became part of the Association. Allowing AESVI to comprehensible represent the target market.

39 For further information visit the web site http://www.aiomi.it/
AESVI was established with the strategic goal of giving an identity to the Italian gaming industry. The Association aims to:

- represent, promote and protect the interests of its members in all appropriate form;
- develop and disseminate, with the support of third-party research firm, statistical data on the relevant market;
- promote the dissemination of the culture of the game, including the organization of conferences, exhibitions and communication initiatives;
- promoting the study of any legal, technological or economic related development, production and marketing of the game;
- provide users with the information necessary to promote proper use of reference products;
- promote all activities useful to the prevention and combating of piracy games.\(^{100}\)
- Each year AESVI publish its annual report on the state of the gaming industry in Italy, to take stock of the size of the video game market from Italy.

In addition to the two mentioned organizations, who act primarily at a national level. At a regional level there are some organizations playing an important role in business support; more details are available in the summary stakeholder table, but it is nevertheless important to mention Turin’s Chamber of Commerce and trade associations such as CAN and API which support small and medium enterprises.

An important role is also played by university incubators and in particular Treatabit, the incubator of the Polytechnic of Turin dedicated to start-ups in the digital field.

An important role in the acceleration of enterprises and in technology transfer is also played by CSP, by Torino Wireless and Top-ix. These structures are not specifically dedicated to support the games industry. However, they do provide broader support for the ICT and/or the creative industries sector.

4. Game related enterprise or organisation

In Italy the video games industry is still emerging. There are some excellent companies operating in the field of video games and individual developers who work on video games both for Italian and foreign markets. There are also some companies working in the field of interaction design or in the field of ICT that are opening up to video games and in particular to apps for smart phones and to social games on the web. There are some excellent cases who are working on serious games and educational games. However, it is not possible to identify a production row, a real economic sector or an enterprise clusters devoted to implementing the game industry in the region.

5. Others: Festivals/Conferences

The Italian Videogame Developers Conference is the only Italian Congress for game developers and is organized by AIOMI, the ‘Italian Association for Interactive Multimedia’. It is a two day event and is free. Main topics include the game development, game design software.\(^{101}\)

In addition to the Italian Videogame Developers Conference, it is important to note that another famous conference on these issues takes place in Piedmont, in Turin. Currently in its twelfth edition, View Conference is the premiere international event in Italy about Computer Graphics, Interactive Techniques, Digital Cinema, 2D/3D Animation, Gaming and VFX.

This conference focusses on exploring the increasingly fluid boundary between the real and the digital worlds. Through lectures, meetings, tributes, exhibits, screenings and demo presentations, VIEW will reveal the new digital frontier sweeping from cinema to architecture, from automotive design to advertisement, from medicine to videogames.

The main stakeholders of the region that could be involved in the development of a video game industry are summarized below. In Piedmont, there are many diversified and complex activities linked to the creative industry and ICT. It is a very rich system, a rich soil for incoming sector development and for research themes. The video game sector is included in the creative industries but not a specific sector, because is still developing.

The proposed list of potential stakeholder is not intended as a complete one, but as a good starting point to summarize, in a glance, the Creative Sector in Piedmont

Some creative industries are moving to video games but until now there are only a few examples. The list has been updated for the BOO Games project, from a deliverable of the CReATE Project.\(^ {102}\)

\(^{100}\) http://www.aesvi.it/

\(^{101}\) For further information visit the web site http://www.ivdconf.it/

BOO-Games Regional Analysis Report, January 2013, Appendix A, p. 45
Table 15. Stakeholders in Piedmont that could be involved in the development of a video game industry

<table>
<thead>
<tr>
<th>Player, organisation, enterprise name</th>
<th>Short description</th>
<th>Why stakeholder type</th>
<th>type</th>
<th>Web</th>
<th>Public, Private, Edu,tech org</th>
</tr>
</thead>
<tbody>
<tr>
<td>AIE- Associazione Italiana Editori</td>
<td>The “Associazione Italiana Editori” is the trade association for Italian publishers - and for foreign publishers operating in Italy - of books, magazines and digital products.</td>
<td>Representative of SMEs, doing research and studies as the Annual Report on the state of publishing in Italy</td>
<td>3</td>
<td><a href="http://www.aie.it">www.aie.it</a></td>
<td>Private</td>
</tr>
<tr>
<td>API TORINO- Associazione Piccole e Medie Imprese di Torino e Provincia</td>
<td>It is the association of small and medium enterprises based in the Provincia of Torino</td>
<td>It represents SMEs</td>
<td>3</td>
<td><a href="http://www.apito.it">www.apito.it</a></td>
<td>Private</td>
</tr>
<tr>
<td>ARS MEDIA</td>
<td>It is a company working on graphic design, interactive multimedia, video, film and advanced software solutions</td>
<td>This agency could offer an interesting point of view because it is working both for the private and the public sector and in particular with some institution such the Cinema Museum and the International book fair of Turin</td>
<td>4</td>
<td><a href="http://www.ars-media.it">www.ars-media.it</a></td>
<td>Private</td>
</tr>
<tr>
<td>ASIFA – Associazione Italiana Film d’Animazione</td>
<td>It is the Italian Association of authors and producers of animation movies</td>
<td>Representative of SMEs of animation, promoting workshop, contact and exchange of experience between animation artists all over the world. The ASIFA Italian section was founded in Turin</td>
<td>3</td>
<td><a href="http://www.asifaitalia.org">www.asifaitalia.org</a></td>
<td>Non-profit</td>
</tr>
<tr>
<td>CAMER DI COMMERCIO DI TORINO</td>
<td>It is the Chamber of Commerce with jurisdiction on the territory of the Turino Province.</td>
<td>It fosters the growth of local economy and enhances it through effective and targeted initiatives. Particular attention to SMEs.</td>
<td>3</td>
<td><a href="http://www.to.cam.com.it">www.to.cam.com.it</a></td>
<td>Public</td>
</tr>
<tr>
<td>CINEMA &amp; AUDIOVISUAL EUROPEAN DAYS. TORINO CO-PRODUCTION FORUM</td>
<td>Devoted to independent film production, the Cinema and Audiovisual European Days features the principal Co-production Forum in Italy, with recognition and support from the EU’s MEDIA Programme. The event goal is to encourage European project development for cinema, TV and new media (fiction, documentaries, animation), by a networking event open to producers, authors, regional and national funds, film commissions, broadcasters and distributors from all over Europe, to search out for new partners for high potential international co-productions.</td>
<td>It connects artists and enterprises with the production and helps them to connect with European productions as well.</td>
<td>5</td>
<td><a href="http://www.europeandays.eu">www.europeandays.eu</a></td>
<td>Private</td>
</tr>
</tbody>
</table>

103 1 = Policy-maker/public Agency, 2 = Educational Organisations/ Research Organisations, 3 = Enterprise Support Organization, 4 = Game related enterprise or organisation, 5 = Others: Festivals/Conferences
<table>
<thead>
<tr>
<th><strong>CINEMA AND MEDIA ENGINEERING DEGREE at POLITECNICO DI TORINO</strong></th>
<th>It is a very specialist university course, that combines engineering knowledge and the knowledge of Information &amp; Communication Technologies with cultural and aesthetic ones.</th>
<th>It proposes very specialized courses related to creative industries and ICT</th>
<th>2</th>
<th><a href="http://www.polito.it">www.polito.it</a></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CINEPORTO</strong></td>
<td>Cineporto is a service and business centre, addressed to all film and TV productions that have chosen Torino and the surroundings as set for a video production. It is a project by Film Commission Torino Piemonte together with Città di Torino and Regione Piemonte</td>
<td>A part of the Cineporto is meant for qualified sector companies which thus will have the opportunity to interact with guest production.</td>
<td>3</td>
<td><a href="http://www.fctp.it">www.fctp.it</a></td>
</tr>
<tr>
<td><strong>CNA</strong></td>
<td>National Confederation of craftsmanship and SMEs</td>
<td>Representative of SMEs and doing research on creative industries</td>
<td>3</td>
<td><a href="http://www.cna.to.it">www.cna.to.it</a></td>
</tr>
<tr>
<td><strong>COMPAGNIA DI SAN PAOLO</strong></td>
<td>Bank foundation</td>
<td>It finances, among several public interest initiatives, also projects focused on ICT and creative industries.</td>
<td>2</td>
<td><a href="http://www.compagnia.turin.it">www.compagnia.turin.it</a></td>
</tr>
<tr>
<td><strong>CRIT - Centro Ricerche e Innovazione Tecnologica</strong></td>
<td>CRIT is the research centre of the RAI Group, the Italian public TV broadcaster</td>
<td>The Centre contributes to the evolution of the broadcasting and multimedia system and supports the RAI Group in its choices in the technological field and the phases of experiment and introduction of new products and systems.</td>
<td>2</td>
<td><a href="http://www.crit.rai.it">www.crit.rai.it</a></td>
</tr>
<tr>
<td><strong>CSP - Innovazione nelle ICT</strong></td>
<td>CSP is a research and technological transfer agency working on ICT for local PAs.</td>
<td>It works on cutting edge research on ICT, on technological transfer towards SMEs, on supporting local Pas in policy making in the ICT field</td>
<td>2</td>
<td><a href="http://www.csp.it">www.csp.it</a>, rd.csp.it/dtvlab</td>
</tr>
<tr>
<td><strong>DAMS, DEGREE, SCIENCE OF COMMUNICATION DEGREE, COMPUTER SCIENCE DEGREE at the UNIVERSITA DI TORINO</strong></td>
<td>These are very specialist university courses related, from different points of view to ICT and creative industries.</td>
<td>2</td>
<td>//dams.campusunet.unito.it, <a href="http://www.scidecom.unito.it">www.scidecom.unito.it</a>, <a href="http://www.educ.di.unito.it">www.educ.di.unito.it</a></td>
<td></td>
</tr>
<tr>
<td><strong>DE AGOSTINI</strong></td>
<td>DE AGOSTINI is a relevant traditional and multimedia publisher</td>
<td>An important and innovative company in the publishing sector, with a department working on digital publishing, including Internet, digital television and mobile platforms</td>
<td>4</td>
<td><a href="http://www.deagostinieditore.com">www.deagostinieditore.com</a></td>
</tr>
<tr>
<td><strong>EASYBIT</strong></td>
<td>It is a web agency based in Torino, working on web design, interaction design, web services</td>
<td>Representative agency of creative industries, actively taking part to association as, for example, TURIN</td>
<td>4</td>
<td><a href="http://www.easybit.it">www.easybit.it</a></td>
</tr>
<tr>
<td><strong>ENARMONIA AND ENANIMATION</strong></td>
<td>It is a company acting as a producer of 3D animation movies and TV series for children</td>
<td>One of the most famous in Turin, certificated and awarded, growing every day. The company already operates in international marketplace and its CEO acts also as representative of the Piemonte animation cluster.</td>
<td>4</td>
<td><a href="http://www.enarnoniapictures.it">www.enarnoniapictures.it</a></td>
</tr>
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<td></td>
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</tr>
<tr>
<td><strong>FABERMEETING</strong></td>
<td>FABER is a networking event, addressed to support the development of ideas and opportunities for creative firms. It consists of an award and of workshops on audiovisual arts, animation cinema, 3D modelling and web/graphic design</td>
<td>FABER has a good view and knowledge of the local creative professional pattern.</td>
<td>5</td>
<td><a href="http://www.fabermeeing.it">www.fabermeeing.it</a></td>
</tr>
<tr>
<td><strong>FINPIEMONTE</strong></td>
<td>It is the financial body of the Regional Government</td>
<td>It manages from financial point of view, the regional strategy, policy and founds, with a particular attention to enterprises</td>
<td>1</td>
<td><a href="http://www.finPiemont.it">www.finPiemont.it</a></td>
</tr>
<tr>
<td><strong>FONDAZIONE CRT</strong></td>
<td>Bank foundation</td>
<td>It finances, among several public interest initiatives, also projects focused on ICT and creative industries.</td>
<td>2</td>
<td><a href="http://www.fondazioneCRT.it">www.fondazioneCRT.it</a></td>
</tr>
<tr>
<td><strong>FONDAZIONE TONINO WIRELESS</strong></td>
<td>The Torino Wireless Foundation promotes the growth of the ICT District in Piemonte, in synergy with the other local players. Main activities in the district are: R&amp;D activities enhancement, applied research, intellectual property valorisation, enterprise acceleration also through innovative financial instruments, networking between SMEs, internationalization, training, competences attraction.</td>
<td>It works out the strategic guidelines of the District and fosters synergies among the different players in development, granting coherence and integration to the ICT development policies of the local area, providing central coordination in order to dialogue constantly and coherently with other districts in the world.</td>
<td>3</td>
<td><a href="http://www.torinowireless.it">www.torinowireless.it</a></td>
</tr>
<tr>
<td><strong>I3P- INCUBATORE IMPRESE INNOVATIVE DEL POLITECNICO DI TORINO</strong></td>
<td>It is the incubator for innovative enterprises of the Politecnico di Torino.</td>
<td>Support enterprise creation and firms spin-off, building on the innovative potential developed in research and academia bodies across the territory, with a particular focus on young talents and potential entrepreneurs coming from the Politecnico di Torino.</td>
<td>3</td>
<td><a href="http://www.i3p.it">www.i3p.it</a></td>
</tr>
<tr>
<td><strong>IAAD- Istituto d'Arte Applicata e Design</strong></td>
<td>The IAAD Torino, born in 1978 in the capital city of industrial design, is a reference point in design for training and industry.</td>
<td>Very specialized design school and courses.</td>
<td>2</td>
<td><a href="http://www.iaad.it">www.iaad.it</a></td>
</tr>
<tr>
<td><strong>IAL</strong></td>
<td>It is a no profit cultural institute for professional training.</td>
<td>It proposes, among many other subjects, very specialized courses related to creative industries and ICT.</td>
<td>2</td>
<td><a href="http://www.ialPiedmont.it">www.ialPiedmont.it</a></td>
</tr>
<tr>
<td><strong>IED- Istituto Europeo di Design di Torino</strong></td>
<td>It is a high level training institute proposing courses on design and creativity.</td>
<td>It proposes very specialized courses related to creative industries and ICT.</td>
<td>2</td>
<td><a href="http://www.ied.it">www.ied.it</a></td>
</tr>
<tr>
<td><strong>ISMB- Istituto Superiore Mario Boella</strong></td>
<td>ISMB is an applied research centre in wireless technologies and networks, satellite positioning systems, radiomobile technologies for multimedia systems and RFId (Radio Frequency Identifiers).</td>
<td>ISMB is active in crucial research areas for creative industries, such as ICT &amp; society, technology and education, knowledge and territorial development.</td>
<td>2</td>
<td><a href="http://www.ismb.it">www.ismb.it</a></td>
</tr>
</tbody>
</table>
### Innovation Pole for creativity and multimedia

The innovation poles are conceived as a significant group of enterprises – innovative start up, small-medium-large enterprises - as well as research institutes involved in a specific sector or territorial area with The innovation poles are set up as coordination structure among the different actors of the process for innovation, and the provision of services and infrastructure.

The aim of the polo is supporting innovation through interaction, a joint use of infrastructure and high added value services, the exchange of knowledge and experiences as well as an effective technology transfer, networking activities and the provision of information to the enterprises of the innovation poles.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Description</th>
<th>Website</th>
<th>Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>LASTERGO E TESTA</td>
<td>It is a company acting as a producer of 3D animation movies and TV series for children</td>
<td><a href="http://www.lastegoeutesta.it">www.lastegoeutesta.it</a></td>
<td>Private</td>
</tr>
<tr>
<td>MIP- METTERSI IN PROPRIO</td>
<td>MIP is the enterprises incubator initiative by the Provincia di Torino Government of Turin</td>
<td><a href="http://www.mettersinproprio.it">www.mettersinproprio.it</a></td>
<td>Public</td>
</tr>
<tr>
<td>National government</td>
<td>Ministry of innovation and Ministry of cultural heritage are the most relevant ones in this field.</td>
<td><a href="http://www.innovazione.gov.it">www.innovazione.gov.it</a>, <a href="http://www.beniculturali.gov.it">www.beniculturali.gov.it</a></td>
<td>Public</td>
</tr>
<tr>
<td>NEXA</td>
<td>NEXA is a centre for the study of Internet and society born within the Politecnico of Torino. It has a multidisciplinary perspective (technical, legal and economic) and it works on subjects such as peer-to-peer networks, inexpensive digital devices, open source software, user friendly editing tools, cheap storage, affordable bandwidth.</td>
<td>//nexa.polito.it</td>
<td>Public</td>
</tr>
<tr>
<td>OSSERVATORIO REGIONALE ICT</td>
<td>The Osservatorio is a research organism directed by IRES, with Piemonte Region, CSI, CSP and Polytechnic, targeted to monitor ICT and broadband development and impact in the Piemonte society and territory, with an analytical focus on citizens, PAs, enterprises. Beside the general overview, it is approaching in 2009 also the field ICT and creative industries.</td>
<td><a href="http://www.sistemapiedmont.it/osservatoriolCT">www.sistemapiedmont.it/osservatoriolCT</a></td>
<td>Public</td>
</tr>
<tr>
<td>REDOMINO</td>
<td>It is a web agency working on design and web, with a direct and continue contact with the Open Source world.</td>
<td><a href="http://www.redomino.it">www.redomino.it</a></td>
<td>Private</td>
</tr>
<tr>
<td>Regional government of Piemonte</td>
<td>Most relevant department for this field are: o Department of innovation, research and university o Department of education o Department of culture o Department of industry They define policy and strategies, (co)fund activities, enterprises, research. Moreover they have an observatory on education and university</td>
<td><a href="http://www.regione.piemonte.it">www.regione.piemonte.it</a></td>
<td>Public</td>
</tr>
<tr>
<td>SCUOLA NAZIONALE DI CINEMA - CORSO DI ANIMAZIONE at the FONDAZIONE CENTRO SPERIMENTALE DI CINEMATOGRAFIA</td>
<td>The (SCUOLA NAZIONALE DI CINEMA - CORSO DI ANIMAZIONE), or school of specialisation in animation arts is an advanced and specialist school in animation and cinema It proposes very specialized courses related to creative industries and ICT</td>
<td><a href="http://www.snc.it">www.snc.it</a></td>
<td>Public</td>
</tr>
<tr>
<td>TO DO</td>
<td>ToDo defines itself &quot;a next-gen design studio&quot;, working on interaction and media design and the integration of ideas, interactivity and technology. TODO &quot;designs for a demographics who have thoroughly integrated digitalness into their lives&quot;, “dealing with identity and strategy in the age of the mobile web, social networks, physical and pervasive computing.</td>
<td>It is a very active agency doing research, dissemination, production and events with ICT not only in Piemonte</td>
<td>4</td>
</tr>
<tr>
<td>TOP-IX</td>
<td>TOP-IX is a geographically distributed internet exchange point for north-west Italy. It mainly develops and manages the network infrastructure to provide Internet Exchange services.</td>
<td>TO-PIX Development Program (DP) makes available an open innovation environment to foster new business creation.</td>
<td>3</td>
</tr>
<tr>
<td>TORINO PIEMONTE ANIMATION CLUSTER</td>
<td>The cluster gathers main companies and producers of digital animation in Piemonte. It gathers Enarmonia, Motus, Lastego &amp; Testa, VRMM Park, Lumiq Studios</td>
<td>It promotes, at a local, national and international level Piemonte digital animation players and experts. Moreover, it helps the sector form the inside in developing new business models and new markets. Finally, it knows very well the local sector needs, capabilities, strengths, weaknesses.</td>
<td>3</td>
</tr>
<tr>
<td>UNIONE INDUSTRIALE TORINO</td>
<td>The Employers’ Association of Turin, is a voluntary association of companies, at a regional level, which aims to represent, protect, promote and develop member companies and their interests.</td>
<td>It represents, gathers and provides services to most the regional entrepreneurs. It boosts also a well-active study and documentation department.</td>
<td>3</td>
</tr>
<tr>
<td>VIEW CONFERENCE</td>
<td>It is an international computer graphics conference, hosting videogame developers, computer graphic masters and representatives of the main companies in the sector. The conference program includes the VIEWFEST dedicated to digital cinema.</td>
<td>This kind of events is an important opportunity for local artist and creative to keep themselves updated and network at an international level.</td>
<td>5</td>
</tr>
<tr>
<td>VRMMP- Virtual Reality and Multimedia Park</td>
<td>A scientific and technological park supported by local and regional institutions and European Union, working on virtual reality and multimedia. It leads the newborn (2009) regional innovation pole on creativity and multimedia. Moreover, it has a training department, providing very specialized courses on virtual reality and multimedia.</td>
<td>Promote research and development of innovative applications for audiovisual and multimedia sectors. Leading the innovation area for creative industries. Providing very specialized training opportunities in the audiovisual and multimedia sectors</td>
<td>1,2,3</td>
</tr>
</tbody>
</table>

Main players and stakeholders in Asturias, Spain (national)

Following in the national context some relevant actors operating in the Spanish Game Industry have been identified.

The political context in Spain is organized under a map of a central government and 17 autonomous communities. These regional governments are responsible for the administration of the main competences in economic development, education or health. It is well known that there are diverse ways in which the video games industry can be referred to, so at national context the Spanish overview of the gaming industry is marked by the difficulty of formally defining this sector as either cultural or industrial.

The fifth most searched word on Google in Spain is “games”. This reflects the huge success of this form of entertainment and excellent positioning of the online leisure.

Some relevant national actors operating in the Spanish Game Industry have been identified.

GAMELAB

GAMELAB started as an event promoted in 2004 by Iván Fernández- Lobo, initially as a lecture series organized in the framework of the Laboratory of videogames of the University of Oviedo-Asturias, and developed in Asturias, although moved from Gijón to Barcelona for the VII 2011 edition. Traditionally supported by IDEPA Regional Development Agency, the 2011 edition is supported by the Ministry of Education, Culture and other Foundations and Sponsorships.

Therefore GAMELAB is the pioneer and oldest organization, father of other initiatives such as: GAMELAB Barcelona Conference, Trade & Show, The Spanish Association of Video Games Developers and Entertainment Software (DEV), the Academy of Interactive Arts and Sciences and the National Video Game Awards, as well as The National Video Games Awards.

GAMELAB is undoubtedly a success case that shows how a regional initiative, originally promoted within the university, can cross the educational field and position a sector in national and international industry markets. Today is an important benchmark place for boosting the industry and encouraging future professionals in an international context. During three days thousands of visitors can enjoy lectures, exhibitions and networking activities with the presence of the leading developers and publishers on a national and international level.

The projection of the event in the Spanish mainstream media and the focussed traffic generated by the consumer show, make GAMELAB the most powerful and effective communication platform to introduce new entertainment products to the Spanish market.

Among the participants are: development studios, publishers, stores, distributors, service providers and localization testing, investors, software tools manufacturers, software and hardware manufacturers, hardware and software platforms manufacturers, payment providers, specialized media, telecoms, audiovisual companies, public institutions and regional development agencies, industry associations, universities or even training centres.

The Spanish Association of Video Games Developers and Entertainmet Software (DEV)

Given the increasing importance of the games production sector and the lack of a clear representative, the most important companies of the Spanish production of interactive entertainment software agreed in 2008 to establish this new association to defend their interests and promote the development of this industry in Spain.

Some of the company’s members involved are: Revisitronic, Digital Legends Entertainment, Virtual Toys or FX interactive among others.

The objectives of the association are:

- Represent the economic, cultural, social and professional undertakings producing Spanish entertainment software against representative organizations and forum, both national and international
- To protect intellectual property rights of companies and to bring together the creativity and talent that we have in our country so that companies do not have to look outside of Spain for the provision of services.
- Retain and promote the talent in Spain, contributing to a larger video game sector, avoiding the “brain drain”
- Establish the basis for the development of new business models and distribution to those who go to support the marketing of interactive content and services
- Promote a “denomination of origin” synonymous with quality and innovation as a way to internationalize and promote our culture. Disseminate experience and internationalization of business partners to facilitate the export of products developed by these companies.

Academy of the Interactive Arts & Sciences

This Academy is made up of professionals from all areas involved in the creation of video games and interactive digital entertainment: producers, project managers, concept artists, 3D modelers, animators, programmers, level designers, musicians, etc. It is currently supported by the Ministry of Education and Culture.
The main objective of the institution is to support game creators’ interests, and promote the technical and artistic development of all disciplines in which they practice.

One of the activities carried out by the Academy is the **Video Game Awards**, which aims to reward projects, leading professionals, and companies in the Spanish sector, of the past year.

**The Spanish Association of Publishers and Distributors Entertainment Software (ADESE)**

The Association was founded in Madrid in 1997 and now includes companies whose business is the production, editing, import and/or distribution of video games in all media and formats, representing over 90% of consumption in the Spanish market. Some of the associated members are Disney Interactive, Electronic Arts, Sony, Warner Interactive, Microsoft Ibérica or Nintendo.

It is important to clarify that the association only involved international product distributors in Spain, not including any Spanish company, therefore the information provided by this association may be somewhat biased. ADESE works to achieve the following strategic objectives, acting as a representative association and voice of the sector to government, institutions, media and general public opinion:

- Project the strength, leadership and future prospects of the industry.
- Encourage the development of a domestic industry, promoting the role of the gaming industry in the so-called innovation economy.
- To defend the strategic interests of the industry on issues such as intellectual property protection or digital piracy.
- Contribute to reinforcing a positive perception of the video game industry among the public and strengthen the image of digital games as the current main choice of leisure among more and more sectors of the population.

Annually ADESE presents its activity report to the media, a document considered in the sector as the main source of information on the Spanish games industry regarding “box products”.

**AMETIC, The Multisectorial Trade Association for Electronics, Information and Communications Technologies, Telecommunications and Digital Content Industries**

AMETIC is a national and regional organization that represents and defends the interests of its member companies and associations against Spanish and international institutions –both public and private. AMETIC comprises and represents over five thousand members, a group that includes over four hundred and fifty individual companies, along with a variety of business groups and organizations involved in the electronics, information and telecommunications technologies and digital content sectors. This organisation includes the seven sub-sectors traditionally regarded in Spain as segments of the digital content industry (video games, music, audiovisual, publishing, advertising, film and mobile content) in order to analyze its economic contributions.

**Visibility of video games sector through events and other initiatives**

Video games are undoubtedly an industry with an increasing visibility: new opportunities for networking between game companies, main players and stakeholders are emerging in the national panorama.

The video games industry is increasingly more visible. In fact, each year the Spanish video game industry continues celebrating major professional meetings, forums and video games fairs. These scenarios serve as a showcase to present new developments of the season as well as the latest consumer trends.

On a national and international cultural context, it is significant that this year Japan’s Shigeru Miyamoto, considered the father of the modern video game, has been awarded Spain’s Prince of Asturias Award for Communication and Humanities, promoted by The Prince of Asturias Foundation.

The Prince of Asturias Foundation was founded in the city of Oviedo on 24th September 1980 at a formal ceremony presided over by His Royal Highness the Prince of Asturias, heir to the throne of Spain, who was accompanied by his parents, their Majesties the King and Queen of Spain.

The essential aims of the Foundation are to consolidate links between the Principality and the Prince of Asturias, and to contribute to encouraging and promoting scientific, cultural and humanistic values that form part of mankind’s universal heritage.

In this sense, the Prince of Asturias Award rewards Miyamoto for converting the video game into a social revolution and popularizing it among a sector of the population that had not previously accessed this kind of entertainment, while also making it a medium capable of bringing people together regardless of sex, age or social or cultural status.
Table 16. Key video game industry forums in Spain

<table>
<thead>
<tr>
<th>Key video game industry forums</th>
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<tbody>
<tr>
<td>GAMELAB</td>
<td></td>
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<tr>
<td>FUN &amp; SERIOUS GAME FESTIVAL</td>
<td></td>
</tr>
<tr>
<td>GAMEFEST</td>
<td></td>
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<tr>
<td>CAMPUS PARTY</td>
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</tbody>
</table>

**GAMELAB BARCELONA: Conference, Trade & Show.**
This is the current name for the already mentioned GAMELAB initiative, promoted in the framework of the University of Oviedo. Today it is an important meeting point for boosting the industry and encouraging future professionals in a broader international context.

It includes five days of lectures, exhibitions, networking activities and recently, supports aimed to make the sector more international. The target audience is: development studios, publishers, stores, distributors, service providers and localization testers, investors, software tool manufacturers, software and hardware manufacturers, hardware and software platform manufacturers, payment providers, specialized media, telecoms, audiovisual companies, public institutions and regional development agencies, industry associations, universities, training centres and the wider public. It is also a big European event involving influential media figures.

**FUN & SERIOUS GAME FESTIVAL**
The Fun & Serious Game Festival was established in 2011 in Bilbao with the aim of boosting the visibility and media presence of the video games sector, by recognising the best fun and serious games and, and through them, the work of artists, developers, directors, producers, and all the professionals in the video game industry. In addition to lectures and presentations, the best European fun and serious games are awarded. With a regional approach, the official sponsor is the Government of the Basque Country and Bilbao Town Hall.

**GAMEFEST**
Under an Electronic Entertainment Expo-Ex format, the event is promoted by the distributor chain GAMES and is a trade fare where the video games sector can show their latest works and announce their upcoming titles to the wider public. It was established in 2010 and celebrated in Madrid. The usual products showcased are those sold by GAMES stores and among the brands presenting at GAMEFEST stands are Sega, Nintendo or Electronic Arts. 2012. Although GAMEFEST 2011 edition closed with around 60.000 visitors, the GAMEFEST next edition, initially planned to be celebrated in 2012, is supposed to be celebrated in 2013 due to the current economic situation.

**CAMPUS PARTY**
Campus Party is an annual week-long, 24-hours-a-day "LAN party" where thousands of young people "campusers" (hackers, developers, gamers and geeks) equipped with laptops camp on-site and immerse themselves in a truly unique environment. Campus Party was created in 1995 by EnRED youth association and
Currently is recognized as the biggest electronic online-entertainment event in the world, linking youth to technology and science under the idea that the “Internet is not a network of computers, it’s a network of people.”

Since its inception in 2000, the Spanish public and private enterprises have actively participated and supported Campus Party: corporate sponsors like the Ministry of Science and Technology of Spain, Ministry of Industry, Tourism and Trade of Spain, the Youth Institute (Youth Institute of Spain) or Valencia Town Hall among others. There are also editions celebrated in other countries like Germany, Mexico or Brazil.

The event includes scheduled presentations, debates, workshops, competitions and hackathons related to science, innovation, digital entertainment and creativity. Campus party 2012 edition is officially cancelled. Despite the interest created by this event and the large number of followers that this event used to have, the Campus party 2012 editions is cancelled due to budget constraints.

Main players and stakeholders in Asturias, Spain (regional)

In Spain, the National Government has transferred the management of the main competences such as Educations, Health, Environment, etc to the Autonomous Communities. This management model ensures that Asturias is a region with a wide range of supporting bodies, initiatives and programmes linked to regional development:

1. Policy-maker/public Agency

After the hard years of industrial decline in Asturias, which saw unemployment increase significantly and a substantial reduction in production in the traditional sectors of activity, the turn of the century has marked a turning point and the beginning of recovery, moving gradually towards a more productive economy. This situation has given a relevant role for SMEs seeing them as the main source of economic support. This dynamism is the natural consequence of the active regional economic policy focusing on the promotion of SMEs and the current situation in Asturias involved in the creation and consolidation of business forms as part of strategic economic policy in the region.

At a national level, the lead role for the promotion of entrepreneurship in Spain depends on sites with the Ministry of Industry, in the General Directorate of Industry and SMEs. However, the decentralised management model of Spain, involves that the Regional administrations have the main competences in economic development. Therefore in Asturias is the Regional Ministry of Economy and Employment, through the General Directorate of Trade and Tourism who has the lead role in promoting entrepreneurship. Therefore the Regional Ministry of Economy and Employment in the Principality of Asturias, assumes the competences in business promotion, trade and employment support, and the design and development of promotion policies and support for self employment and social economy, as well as industrial and energy policies.

The Asturian government’s commitment to supporting entrepreneurs has been expressed in recent years by the implementation of various instruments, programmes, and grants to aid them in the complex task of defining, designing and creating their own businesses.

For this purpose, a range of initiatives, measures and programmes have been developed during the last years and after the First Program for the Promotion of Entrepreneurial Culture 2005-2008, during those years several public and private entities have joined this aim until setting up a complete network which has been consolidated in the Second Program for the Promotion of Entrepreneurial Culture 2009-2012.

At the same time IDEPA - Economic Development Agency of the Principality of Asturias is the Public Body, dependent on the Asturian Regional Administration. IDEPA’s mission is to enhance the sustainable economic development of the Principality of Asturias through the creation and consolidation of a diversified, modern and competitive Asturian business network.

IDEPA has programmes and actions covering the following areas: Financing, Industrial Infrastructures, Capturing Investments, Internationalization, Business Information, Cooperation, Innovation and Entrepreneurs.

CEEI Asturias - Centro Europeo de Empresas e Innovación del Principado de Asturias.

CEEI Asturias provides business support services acting as incubator and Bioincubator of the Technological Park of Asturias with a regional approach. The CEEI Asturias was created to encourage and consolidate innovative business in Asturias. CEEI Asturias offers global support for innovative entrepreneurs and businesses: dissemination activities for promoting entrepreneurship, business advice, support in searching for finance, spaces in the incubator and bioincubator for the development of the projects, setting up of companies by means of telematic system and support for growth and consolidation.

It is remarkable to see the activity developed by CEEI Asturias during the last years, being the unique business centre involved in supporting the creative sector. Through the European Project Interreg Creative Growth (2008-2011) aimed at supporting creative sector, CEEI Asturias worked on the regional report The ICT Tools in creative sector in Asturias as well as in benchmarking on business support services and solutions through exchange of experiences on topics such as access to finance, support structures, cluster development, incubator facilities etc.
The result of this project was to design a Creative Office in Asturias focused on the improvement and fostering of creative companies on a regional level. In April 2011 CEEI Asturias was awarded the EBN Award, in Toulon, sponsored by the EBN network that includes more than 250 partners in Europe, in the category "High-impact awareness for shaking the ecosystem". This award is the BIC Asturias international recognition of not only the high level of ICT implementation in the organisation but also the support strategies provided to the creative and digital sector.

2. Educational Organisations/ Research Organisations

Education, Research and Technology Centres

Regarding higher public education, there is one University in the region, the University of Oviedo located in several campuses, covering the majority of humanistic and scientific disciplines with a population of more than 25,000 students. The university of Oviedo offers Graduate Studies, Diplomas and Engineering (e.g. Diploma in Computer Management Engineering (Oviedo) or Diploma in Computer Systems Engineering (Oviedo), Masters (e.g. Soft Computing and Intelligent Data Analysis, Mobile Network and Communication Technologies (Mnict) and Undergraduate Studies, like Degree in Computer Science - Software Engineering-, or Degree in Informatics Engineering in Information Technology. However there is no official specialized studies on video games.

There is also an important Secondary Education with some Centres qualified as Integrated Centres of Professional Training and covering the majority of disciplines, some of them focused on ICT sector.

Finally, regarding private education, the ESNE- University School of Design and Innovation- has recently started to offer undergraduate studies (e.g. videogames design and development).

On the other hand there are some technology centres linked to innovation who can affect or develop technology lines affecting to the sector.

CTIC Foundation is the Information & Telecommunications Technology Centre, which is especially active as a driving force for the ICT sector. The main goal of the CTIC Foundation is to promote and stimulate activities related to the development of Information and Communication Technologies in all fields of economic and social life in order to lead the impulse and strengthening of the Information Society.

Regarding videogames some initiatives involving video games and children can be found in CTIC Foundation. Some of them includes roundtables, summer camps – The Fantastic Park- aimed at children to encourage their initiation in gaming programming on computers, or the days like the „Scratch even“ organised in 2012, where school children had the opportunity to present their created video games based on the „scratch“ free software tool.

Another Tech Center is the European Centre for the Soft Computing. It is a research and development centre promoted by the Foundation for the Advancement of Soft Computing, targeted to carry out basic and applied research in the field of Soft Computing as well as to transfer technology to industrial applications of intelligent systems to solve real-world problems. At the moment they are developing some initiatives linked to simulation which is very close to the games sector. They are currently looking for some 7FP opportunities with the Serious Games Institute of the University of Coventry as a result of a contact provided by CEEI Asturias in the framework of the BOO-GAMES project.

Finally PRODINTEC, the Tech Center for manufacturing and industrial design also believes that some technologies such as rapid manufacturing and the manufacturing of short series of products and characters, could have some links with gaming activities.

3. Enterprise Support Organisation

As any other region, Asturias has Chambers of Commerce in the main cities, Business Centers, associations or foundations specialised with specific services under limited- duration programmes but not related to the gaming sector.

The Principality of Asturias has 78 municipalities and their Town Councils are the administrative bodies closest to inhabitants. The local governments provides support to entrepreneurs through the Local Development Agencies and business centres.

All the business support services are collected annually in the "Map of resources to promote entrepreneurship in Asturias", grouped in function of the business support offered from start-up to consolidation.

The business centres support entrepreneurs on the basis of different services, although only CEEI Asturias is involved specifically in the creative sector and videogames industry.
There are also some clustering initiatives, some of them could be linked to the sector as Clustertic, Knowledge Cluster or even Audiovisual Cluster. However, none of these organizations provide services, programmes or an approach oriented to the games sector.

**Cluster TIC** is a private non-profit organization created in 2003, whose main purpose is to improve the competitiveness of the Information Technologies and Communications (ICT) in the Principality of Asturias and contribute to finding solutions to increase productivity and business efficiency. At present, consists of 69 companies representing about 2,500 employees. As a cluster its activity is aimed at encouraging industry growth through cooperation, exchange of experiences, training and professional expertise in order to achieve greater business involvement in national and international technology projects aimed at the modernization of traditional sectors but it does not have any specific project or initiative involving video games.

The **Knowledge Cluster**, supported by IDEPA and led by ICT associations and Technology Centre, involves a concentration of ICT and communication businesses which act together in promoting business relationships and interconnections beyond those of the strictly contractual, thereby managing improvements in individual competitiveness. The ICT Cluster was created in December 2003 and they involve 73 companies now as well as other agents. One of the services provided is a technology observatory whose information is monthly collected via bulletin, and one of the four priority focus of interest are applications and Mobility services.

**4. Game related enterprise or organisation**

There are no Asturian companies operating as main platforms, mobile platforms, console and handheld games platforms, publishers, distributors or traditional distributors and retailers. There are important department stores, distributions stores and supermarkets distributing video game products.

<table>
<thead>
<tr>
<th>Regional Value Chain quantitative &amp; qualitative mapping</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Game developers: Milkstone, as a pure game developer, CrazyBits and Virtway.</td>
</tr>
<tr>
<td>• Business to Business: Angel García Voces, Jacobo Villar, Martín Bosque, [Q]interactiva, Virtway y CrazyBits.</td>
</tr>
</tbody>
</table>

**5. Others: Festivals/Conferences**

**GAMELAB**

As mentioned earlier, GAMELAB is one of the biggest interactive leisure events in Europe. GAMELAB, was promoted in 2004 by Iván Fernández-Lobo (professor of the University of Oviedo- Asturias), initially as a lecture series organized in the framework of the Laboratory of video games of this University, around the video games thematic, targeted to university students. From 2004 to 2008, several editions were held at the University of Oviedo. Later, in 2008, with a regional approach, GAMELAB celebrated a first edition in Gijón (Asturias), under a format of a singular and pioneer event on electronic leisure, far from being an Electronic Entertainment Expo-E3.

In the 2011 edition its usual location, Asturias was moved to Barcelona, and today is a meeting point for the video games sector in the framework of one of the most influential events. An annual meeting point for all the Spanish video games companies, and other companies from Latin America, offering them a platform to connect with new business and network opportunities with regional and/or international partners.

GAMELAB involves exhibitions, lectures, roundtables, presentations and specific spaces around the video games industry, with international and national professionals and prestigious companies of the sector. It also involves networking activities, so the visitor can network with other professionals and entrepreneurs in the video games industry.

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106 Source: Gamelab 2012
GAMELAB ACADEMY DAY

Gamelab Academy is a project founded by Gamelab in collaboration with the Spanish Academy of Interactive Arts and Sciences, and other organizations such as CEEI Asturias. Its main objective is to show to young people all the opportunities offered by the world of video game creation. In the framework of Gamelab Academy a special day –GAMELAB ACADEMY DAY- will take part on the 26th of October 2012 in Gijón, with around 200 expected participants. It is a place to find guidance as well as to understand the most important keys of the video games sector from the leading professionals and companies at a national and international level.

INTERREGIONAL SEMINAR BOO GAMES

Organized in the framework of BOO GAMES European project, promoted by CEEI Asturias, and with the presence of the Regional Ministry of Economy and Employment, this Interregional Seminar aimed at entrepreneurs, businesses and other stakeholders, had a programme of relevant national and international speakers discussing the topic “Business support to SMEs and entrepreneurs of the games industry”. More than one hundred participants were present.

A TRIBUTE TO THE VIDEO GAME

In the framework of a special event under the name “Tribute to the video game” that has taken place on the 25th of October 2012 in Gijon, Shigeru Miyamoto, who is 2012 Prince of Asturias Award for Communication and Humanities, and considered the father of the modern video game, will provide a lecture on his experience as a video game creator. Undoubtedly this will be a singular participation that will take part the day before the Prince of Asturias Awards ceremony where Shigeru will collect his Award.
## Main players and stakeholders in Sofia, Bulgaria (national & regional)

### Table 18. Digital gaming related companies and other stakeholders in Bulgaria

<table>
<thead>
<tr>
<th>Name</th>
<th>Type of Platform</th>
<th>Description</th>
</tr>
</thead>
</table>
| Haemimont Games     | PC, XBOX 360     | "Haemimont Games is a team of approximately 50 talented game developers brought together by a common passion to create truly outstanding games. We design and create all aspects of our games, from concept to graphics and programming. Haemimont Games uses its own internally developed 3D graphics engines.

We strive for perfection in three key areas:

- A shared creative impulse that pushes the frontiers of imagination and game design;
- An outstanding production process featuring a streamlined asset pipeline, quick turnaround for new features and always up-to-date working game versions;
- Technology excellence incorporating the latest breakthroughs in game technology coupled with a rock solid, reusable code base and industry standard third-party tools.

Located in Sofia, Bulgaria, Haemimont Games is one of the country's premier employers with the ability to attract and retain the best talent in the region."


| 4Friends Studio     | iPad             | "The team at 4 Friends Studio is experienced in game creation, newest mobile technologies and children's psychology and has many creative ideas to offer."

Retrieved from on June 30th, 2012: [http://www.4friendsstudio.com/about.php](http://www.4friendsstudio.com/about.php)

| Masthead Studios    | PC               | "Masthead Studios is an independent game development studio focusing on innovative and quality games bringing its fans enjoyable entertainment experience. The company was founded in 2005 with focus on the MMORPG genre. The primary goal of the studio has grown into making high quality, original and fun games for various platforms. The team consists of highly experienced and dedicated talents with fresh ideas. The headquarters of Masthead Studios are in the emerging technology hub of Sofia, Bulgaria."

Retrieved from on June 30th, 2012: [http://www.mastheadstudios.com/about.html](http://www.mastheadstudios.com/about.html)

| Ubisoft Sofia       |                  | "We have worked on almost every possible video game platform: PS2, Xbox, Xbox 360, PS3, PC, 3DS, DS/Dsi, PSP have no more secrets to us! We’re also poised to remain on the very edge of technology – eagerly looking forward to the new generation of consoles.

We have worked on world-renowned game IPs: Prince of Persia, Ghost Recon, Raving Rabbids, Chessmaster, Imagine and CSI.

With our games, we have brought fun and entertainment to hardcore players and family audiences alike.

And of course, while we’re at it, we try to have fun ourselves - be it at work, be it outside.

Having fun in Sofia is easy, as it offers not only all the attractions of a metropolis, but also the charms of a tourist destination. If you want to visit, you will find us in Polygraphia business center, opposite Borisova Gradina, in the outskirts of the city center."


| Crytek Black Sea    |                  | A game development studio that was founded in Sofia in 2001 and was purchased by the German computer game company Crytek in 2008.

| Imperia Online      | Browser Games    | Bulgarian developer of massively multiplayer online games.

| Bon Art Studio      |                  | "Bon Art Studio has a team of 25 full time people - 3D and 2D artists, animators, producers and developers. This is a diverse mix of long-time industry veterans, many..."
with years of service at our company. Others are young talents we have very selectively recruited among the top recent graduates in their respective fields.

Each of the members of the 3D team is specialized in certain aspects of our work – character modeling and rigging, environment modeling and rendering, animation, training new team members, concept drawings. Bon Art Studio also has a team of 2D graphic and flash artists specialized in 2D art and Flash development.

All artists and animators at BAS are top talents, classically trained in multiple areas of study including fine art, animation and movie production.<sup>112</sup>.

<table>
<thead>
<tr>
<th>GameCraft</th>
<th>Various (gamification of real-life activities)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game Craft is a Bulgarian start-up company focusing on the service of “gamification”, or, creating games from real-life activities, like events, trainings, marketing campaigns, workflow, by making them more engaging for the participants. The company works closely with another partner organization, which is creating the actual games. Game Craft rather focuses on the concept and design of the game. The company consists of 6 persons.</td>
<td></td>
</tr>
</tbody>
</table>

Ivent mobile Ivent focuses on producing downloadable games. The company works on game development, as well as games publishing and marketing. The company has worked with Sony, which uploaded Ivent’s game on their game platform. |

Mena Software "Founded in 2011, MENA Software is one of the leading entertainment publishers in the Middle East and North Africa region. We specialize in browser, client and social games publishing. Our business partners include software & game developers and distributors from all over the world.

Our team consists of highly skilled Developers, Designers, Marketing & Business Development Managers and Native Community Managers.

We have valuable experience in online gaming thanks to our IT background, real interest in playing all kinds of games, native speaking abilities and our ability to produce solutions to even the toughest problem we encounter."<sup>113</sup>.

Game Rill "Game Rill is a game publishing company. Our mission is to provide interesting games to the right audience by working with targeted internet sites.

The company is based in Sofia, Bulgaria. We have proved our ability to manage large masses of users and deliver interesting games.

The variety of games, our unique technology for affiliate marketing, our sustainable partnerships and team of professionals are premises for successful growth."<sup>114</sup>.

Egmont Bulgaria Ltd. "Egmont” is among the most influential media groups in Scandinavia. Its work includes weekly newspapers, magazines, comic books, television programs and channels, feature films, music, interactive games and other digital products, game consoles."<sup>115</sup>

Yacuba Games PC Yacuba Games is a publisher of free-to-play online games with a focus on Massively Multiplayer Online Games. |

Pulsar "Pulsar Company Ltd is the market for entertainment software in Bulgaria for more than 20 years. During this time we managed to attract the attention of most of the largest publishers of computer and video games worldwide. Currently Pulsar Ltd. is representative of Electronic Arts, NCSoft, Konami, Namco Bandai, UbiSoft, Disney Interactive Studios, Haemimont Games and more. In our distribution catalog includes titles and blockbuster franchises such as Half Life, HL: Counter Strike, The Sims, Diablo, World of Warcraft, Colin McRae Rally, FIFA, Need For Speed, Metal Gear Solid and many others. Total in our stores now you can find over 300 current titles in PC format and 200 in the PlayStation 2, PlayStation 3, PSP formats."<sup>116</sup>.

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<sup>112</sup> Retrieved from on June 30<sup>th</sup>, 2012: http://www.bonartstudio.com/bonart_studio_team.html

<sup>113</sup> Retrieved from on June 30<sup>th</sup>, 2012: http://menasoftware.com/

<sup>114</sup> Retrieved from on June 30<sup>th</sup>, 2012: http://www.gamerill.com/en/company

<sup>115</sup> Retrieved from on June 30<sup>th</sup>, 2012: http://egmontbulgaria.com/information/za-egmont-balgarija-4/

<sup>116</sup> http://pulsar.bg/about_us.php
**Transfer Group, Ltd.**

*Transfer Ltd. Plovdiv is one of the firms that contributed most to the establishment and the development of the computer game business in Bulgaria. In 1990, with the sale of the first “SEGA”, Transfer Group sets the beginning of the home-played games mania. Moreover “Transfer” is a leader in production and maintenance of professional game slot-machines for children.

The game industry expansion and the coming into the market of new manufacturers such as “Nintendo”, “3DO” and “Sony Playstation”, contribute to the popularization of the games and the strengthening of the positions of Transfer Group at the Bulgarian market. The new technologies minister to the computer improvement and thus their owners become major game consumers. Enterprising businessmen start modern cybercafe businesses which turn into an avalanche of constantly opened new cybercafes.*

**XS Software**

*XS Software, with its headquarters in Sofia, Bulgaria is expanding worldwide and conquering the international market. Our games are being played around the world and the Internet makes it possible: XS Software games can be played anywhere. Potential language barriers don't stand a chance: the international community of gamers is already profiting from numerous translations of individual games as well as the game portal madmoo.com

Currently, our portfolio covers six online games and our gaming portal madmoo.com. The company has more than 100 employees and it operates in more than 80 countries. We are dedicated to providing a level of services to our customers that makes us a leader in browser gaming industry today. Our goal is to provide a quality experience to each of our customers by continuously developing our products, partners, and skills. Therefore we strive to have the highest level of professionalism exemplified through our services by improving our games, supporting and consulting our selection of internationally experienced media partners and maintaining a highly qualified workforce.*

**Omniage Ltd.**

*Omniage is a game and software localization company located in Sofia Bulgaria.*

**Ministry of Culture**

*Main activities - carries out control on keeping the Law on copyright and neighbouring rights and the Enactment of the Council of Ministers № 87/1996 on using subjects to copyright and neighbouring rights, as well as licensing of the producers of matrices of compact discs.*

**SME Policy Directorate in the Ministry of Economy, Energy and Tourism.**

*Currently, two main priorities: 1) adaptation of the SMEs programme in order for it to be in line with the Small Business Act, according to which Bulgaria is on 22nd place among all 27 EU MS. There are different criteria according to which the performance of all MS is measured. Bulgaria scores high on finances (which includes access to risk capital, availability of credits to SMEs etc). It has really low scores according to the innovation (last MS) and internationalisation criteria (26 place); 2) development of strategy for the creative industries.*

**Bulgarian Federation of Electronic Sports**

*The Federation is a registered non-governmental youth non-profit organisation. The main objective ahead of BFES is the institutionalization of e-sport in Bulgaria. It helps young people who are seeking opportunities for development, organises a wide range of activities for the home e-sports scene, works on a number of socially significant projects and works closely with the Bulgarian authorities, international organisations and private sector partners.*

**Sofia University**

*Bulgaria’s oldest university, located in Sofia, offering courses in a wide array of disciplines.*

**New Bulgarian University**

*A private university in Sofia, offering courses in a number of disciplines, including graphic design and 3D modelling.*

**The National Academy of Arts**

*This is the oldest and highest profile academy of arts in Bulgaria. It is located in the capital, Sofia.*

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117 [http://transfer.bg/front/index.php](http://transfer.bg/front/index.php)

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BOO-Games Regional Analysis Report, January 2013, Appendix A, p. 60
Main players and stakeholders in Baden-Württemberg, Germany (national)

1. Policy-maker/public Agency

There is not a single policy for the games industry on a national level as Germany is a Federal Republic. Each state has its own public agency and supporting institutions and thus regional funding instruments to sustain the industry. In general the support of the games industry belongs to the wider media support which is done at state level.

Over the sixteen States of Germany it is possible to identify those who are actively promoting the development of games.

In Berlin the Medienboard Berlin-Brandenburg GmbH provides funding for media-related projects in the region. A specific games funding is also foreseen, Berlin-Brandenburg is one of the most important locations for games in Germany. The regional games industry has almost 200 companies and one of the strongest growth in the country with an annual turnover of over € 1.4 billion in the software and games industry.

In Lower Saxony and Bremen the nordmedia - the Media Company for Niedersachsen/Bremen and their affiliate nordmedia Fonds were established to strengthen the media industry. As public agencies, they have the mission to support film and media funding. Nordmedia is not just a provider of funding but also a partner in all phases of realization of creative projects. Nordmedia awarded grants for script and project development, production, distribution, copying and sales.

In Bayern the FilmFernsehFonds Bayern GmbH funds and supports the development of games. In Nordrhein-Westfalen this is the task of the Filmbistitung Nordrhein-Westfalen GmbH, which among other funding has a specific public support for the development of innovative digital media content in the games field.

A slightly different approach is seen in Hamburg where there are no public agencies providing support to the games industry but a public private initiative named Gamecity:Hamburg. The initiative does not provide public funding but rather works to improve local conditions for Hamburg-based digital gaming companies and assists them in establishing cooperation projects and developing new business areas.

2. Educational Organisations/ Research Organisations

Universities and knowledge institutions
To provide a skilled workforce for this field, several universities have started game related courses. Already ten years ago the first private game academies started to appear; nowadays there are several public universities which offer game related courses or interactive media degree programme.

Below is a short and not exhaustive list of Universities offering game related courses in different German regions:

<table>
<thead>
<tr>
<th>REGION</th>
<th>UNIVERSITY</th>
<th>COURSE / DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-Württemberg</td>
<td>University Hohenheim</td>
<td>Bachelor degree in &quot;Interactive Media and Online Communication&quot;</td>
</tr>
<tr>
<td></td>
<td>University of applied science of Karlsruhe</td>
<td>Bachelor degree in &quot;Media- and Communication Informatics&quot; including game programming as compulsory subject.</td>
</tr>
<tr>
<td></td>
<td>SRH Heidelberg (private)</td>
<td>Bachelor degree in &quot;Virtual worlds&quot;</td>
</tr>
<tr>
<td></td>
<td>Macromedia Hochschule für Medien und Kommunikation in Stuttgart</td>
<td>Bachelor degree in &quot;Games Design&quot;</td>
</tr>
<tr>
<td></td>
<td>Hochschule der Medien Stuttgart</td>
<td>Bachelor degree on &quot;Mobile Media&quot;</td>
</tr>
<tr>
<td></td>
<td>Filmakademie Baden- Wuerttemberg</td>
<td>Degree in Interactive Media with a specialisation for Games Producer, Games Artist and Game Director</td>
</tr>
<tr>
<td>Bayern</td>
<td>Media Design HochschuleMunchen</td>
<td>Master degree in &quot;Game Design&quot;</td>
</tr>
<tr>
<td></td>
<td>Macromedia Hochschule für Medien und Kommunikation in München</td>
<td>Bachelor of arts in Game Design</td>
</tr>
<tr>
<td></td>
<td>Fachhochschule Augsburg (University of applied science)</td>
<td>Master degree in &quot;Interactive Media systems&quot; with three possible specialization: Animation, Mobile Experience and Game Development</td>
</tr>
<tr>
<td></td>
<td>Hochschule für Angewandte Wissenschaften Kempten</td>
<td>Bachelor degree in &quot;Information&quot; with a focus on game engineering, particularly addressing people wishing to work as software developers for the game industry</td>
</tr>
<tr>
<td>Berlin</td>
<td>Media Design Hochschule Berlin</td>
<td>Master degree in &quot;Game Design&quot;</td>
</tr>
<tr>
<td></td>
<td>Berliner Technische Kunsthochschule</td>
<td>Bachelor degree in &quot;Interaction Design&quot;</td>
</tr>
</tbody>
</table>
Nonetheless to promote the positioning of Germany as a games development location more targeted education opportunities have to be offered according to market requests. A more specific attunement among universities and the games market is therefore desirable.

### 3. Enterprise Support Organization

**Games Network and Association**

On the national level there are two main networks that bring together the relevant stakeholders of the industry: the German Association of Developers of Computer Games Developers and the German Association of Interactive Entertainment Software.

The G.A.M.E. Bundesverband der Entwickler von Computerspielen e.V. (German Association of Computer Games Developers) was founded in 2004 with the aim of strengthening the position of Germany as a game development location. The Association has now more than 100 members and it is committed to lobby to: 1) improve the regulatory conditions that rule the German games market and, 2) improve the support and funding instruments which sustain the industry.

The BIU Bundesverband Interaktive Unterhaltungssoftware V. (German Association of Interactive Entertainment Software), BIU is the community of interests of providers and producers of entertainment software in Germany. With 13 members, the association affirms to cover 80% of the market for games in Germany and it is both a contact point for political and social institutions, and a media outlet for all issues related to the games industry. The association is also committed to promote the social and cultural acceptance of games and to strengthen the international positioning of Germany as a game development location.

In autumn 2012 the two associations (G.A.M.E. and BIU) announced a possible fusion, justified by the fact that both are pursuing the same objective, namely the promotion of Germany as a game location and strengthening the German games industry. Members of both associations will be therefore asked to vote on this point. Should they decide for the fusion, a new stronger association bringing together developers and publishers will from now on represent the interest of the industry on the national level. If this model will be approved it is likely to set a new standard in Europe, as usually association of games developers and publishers are still separated.

### 4. Game related enterprise or organisation

The Games Industry constitutes an important part of the cultural and creative industries in Germany, giving jobs to 10,000 people in the whole country. 750 companies are working in this field: 275 of them are engaged in the development or publishing of games (BIU).

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120[http://www.game-bundesverband.de/](http://www.game-bundesverband.de/)
Seventy percent of these companies are small or micro enterprises employing less than 15 people. Only 10% of them have more than 50 employees.

Germany is currently one of the most important locations for the production of online and browser games which are responsible for 10% of the overall industry’s turnover. Some German companies (such as Gameforge, Bigpoint etc.) are now internationally recognized and exporting their products in more than 50 countries worldwide (Walz, Siebert, 31).

The presence of these companies has a positive effect on the labour market: besides game designers, skilled personal in the field of web programming and server development is particularly requested.

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121 BIU/GfK, “About 10,000 employees in the German games industries”.
122 Walz, Seibert, 31
5. Others: Festivals/Conferences

On a national level there are already some major events within the games industry which attract a high number of stakeholders of the industry as well as interested parties. The GamesCon in Cologne is the world's largest annual trade fair and event highlight for interactive games and entertainment, which in August attracts more than 250,000 visitors to Cologne. The Games Developers Conference Europe (GDC Europe) is the largest professionals-only game industry event in Europe. The GDC Europe is a platform for learning and networking for the creators of computer, console, mobile, social, and online games. Different target groups are addressed by the several panels of the conference: Business Development Managers & Venture Capitalists; Game Designers & Visual Artists; Executive Producers and Programmers. Another important meeting point for the German games community is the DGT - Deutsche Gamestage (German Games days). The DGT is a cross-industry communication and networking platform for game developers. The event was initiated by Medienboard Berlin-Brandenburg which still is the coordinator of the umbrella brand and sponsor of many individual events like the "Quo Vadis", the award shows "Deutscher Computerspielpreis/LARA" and the "A MAZE. Indie Connect" Festival.

Within the annual German Games Days that take place in April in Berlin, many different events are organized. Among them the Quo Vadis, the Developers Conference, which in the last years has become Germany's largest conference for topics related to the video game industry. In workshops, panel discussions and lectures Quo Vadis provide participants an overview of the last trends of the industry and a platform to exchange ideas and do business networking. Another event organized during the DGT is A MAZE. Indie Connect. The event brings together international indie developers and creatives in Berlin. A MAZE has also started to organize the A MAZE. Indie Games Award for Most Amazing Indie Game. Also worth mentioning is the Browser Game Forum near Frankfurt and the FMX, the Conference on Animation, Effects, Games and Transmedia in Stuttgart.

Main players and stakeholders in Baden-Württemberg, Germany (regional)

1. Policy-maker/public Agency

There are mainly two public institutions in the region which are engaging their selves to support und sustain the regional games industry: MFGBaden-Württemberg and the City of Karlsruhe Economic Development. On one hand the MFG Baden-Württemberg, as regional public innovation agency for ICT and media, is committed to support the development of the regional games community and to boostBaden-Württembergs games location.

MFG aims to strengthen Baden-Württemberg as a business location for IT, media and creative industries and to improve its innovation and competitiveness potential. Its focus is on the support of successful entrepreneurship especially in small and medium-sized companies in the media and IT field, also connecting them with application-oriented research and public funding programmes.

MFG Baden-Württemberg is responsible for organising and running of the Digital Content Funding (DCF) programme, a public funding programme which supports entrepreneurs in the development and production of interactive media application. This work includes marketing for the calls, application consultancy, assessment of applications and accomplishment of funding in cooperation with L-Bank Baden-Württemberg.

124 http://www.gdceurope.com/
125 http://www.die-entwicklerkonferenz.de
126 http://www.amaze-festival.de/
2. Educational Organisations/ Research Organisations

Table 20. Educational/Research Organisations in Baden-Württemberg

<table>
<thead>
<tr>
<th>REGION</th>
<th>UNIVERSITY</th>
<th>COURSE / DEGREE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden- Württemberg</td>
<td>University Hohenheim</td>
<td>Bachelor degree in “Interactive Media and Online Communication”</td>
</tr>
<tr>
<td></td>
<td>University of applied science of Karlsruhe</td>
<td>Bachelor degree in “Media- and Communication Informatics” including game programming as compulsory subject.</td>
</tr>
<tr>
<td></td>
<td>SRH Heidelberg (private)</td>
<td>Bachelor degree in “Virtual worlds”</td>
</tr>
<tr>
<td></td>
<td>Macromediahochschule für Medien und Kommunikation in Stuttgart</td>
<td>Bachelor degree in “Games Design”</td>
</tr>
<tr>
<td></td>
<td>Hochschule der Medien Stuttgart</td>
<td>Bachelor degree on “Mobile Media”</td>
</tr>
<tr>
<td></td>
<td>Filmakademie Baden- Württemberg</td>
<td>Degree in Interactive Media with a specialisation for Games Producer, Games Artist and Game Director</td>
</tr>
</tbody>
</table>

3. Enterprise Support Organization

Please refer to institutes under the policy-maker/public agency sector.

4. Game related enterprise or organisation

In the specific case of Baden-Württemberg several games companies were founded already in the 90s, but it was then just in the 2000s that the number of foundations significantly started to rise (Walz, Seibert, 53). Particularly the region of Karlsruhe registers a high concentration of game companies, counting among them also some big players such as Gameforge.

Since the study there have been some changes in the landscape of the game companies in Baden- Württemberg and Germany: A big change was that Gameforge AG has bought Frogster in Berlin and merged the companies – with about 650 people headcount altogether and the headquarter in Karlsruhe. Gameforge has set up new business fields (mobile gaming) and is pushing the publisher business model successfully.

In 2011 a new company specialized in mobile gaming was founded in Karlsruhe – flaregames has more than 30 people and an international staff with English as the main language used in the company. Until now, the young company has acquired more than 8 Million Euros of venture capital.

Kr3m Media GmbH has been growing to a headcount of 40 people, with 25 employees concentrating in the development of social games due to the status as a Preferred Marketing Developer (one of the 8 companies in Germany) for Facebook. Spellbound in Kehl was insolvent and had a new start as Black Forest Games in 2012.

A big change in the German games landscape is the fact that the PRO 7 Media Group is now functioning as a publisher in the games sector – this fact makes Munich to one of the top games locations in Germany.
Following the result of a survey conducted in 2009 in the whole region of Baden-Württemberg (Walz, Siebert)\(^\text{127}\), most of the companies working in the games industry count on own financing or on cash-flow to start and run their business.

\(^{127}\) Walz, Seibert, 47
5. Others: Festivals/Conferences

The most important events for the games industry in Baden-Württemberg is the **FMX, the Conference on Animation, Effects, Games and Transmedia** which in 2012 has reached its 17th edition. Initiated as an event for students in 1994, the FMX has rapidly grown into an international event that every year attracts more than 3000 professionals, experts, creatives and students from over 50 countries. FMX is an event by Filmakademie Baden-Württemberg, organized by the Filmakademie's Institute of Animation, Visual Effects and Digital Postproduction. The Conference is funded by the Ministry of Science, Research and the Arts and the Ministry for Finance and Economic Affairs of the State of Baden-Württemberg, the MFG Film Funding and the FFA German Federal Film Board.

Some private universities which offer specific courses on games have also started to organize some events. For instance the Macromedia Hochschule in Stuttgart organizes the **Games & Simulation Day**, an event were academics and experts of the field discuss the new trends of the industry.

Also the MFG Baden-Württemberg is willing to support **periodical meeting of the regional games community** and to foster the exchange of games developers with representative of other industries in order to encourage a cross-industry collaboration. In that respect, the Innovation Agency for ICT and Media is committed to organized cross-industry speed dating as well as workshop and events, where the games community can have the chance to meet and exchange with other industries.

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128 Statistisches Landesamt Baden-Württemberg, 2007
Main players and stakeholders in Malta (national & regional)

1. Policy-maker/public Agency

The Maltese industry comprises various players and stakeholders which altogether contribute to the development of the games sector. Some of the main policy-makers/public Agencies in Malta related to the games sector are Malta Enterprises, the Ministry of Finance, the Malta Council for Science and Technology, St Martin’s Institute of IT and the Creative Economy Group. Conscious of the exponential growth potential in digital game production, Malta Enterprise, together with the Malta Council for Science and Technology (MCST), the University of Malta, the Creative Economy Working Group (in the Ministry of Finance) and a host of other local and foreign institutes have teamed up to harness the local digital games industry through a targeted strategy for Malta.

Support from government and local development agencies has an important role to play in the creation of a digital gaming initiative, and appeals for support are mirrored elsewhere; the UK’s Games industry association Tiga has proposed a creative content fund (CCF) to encourage new studio production. MCST has also provided funding support through the National Research and Innovation Programme.

The University of Malta and iMovo Ltd. have been awarded €171,332 in funds for their joint project entitled “Digital Gaming Clouds for Mobile Users”. The project aims to provide a platform enabling popular personal computer games to be available on smartphones. This project is being led by project co-ordinator Saviour Zammit, technical co-ordinator Adrian Muscat, both from the Department of Communications and Computer Engineering, and managing director of iMovo Pierre Mallia.

Efforts by policy makers to facilitate the uptake of digital game production are important but depend on the extent to which investors and digital games companies abroad are convinced of Malta’s potential in this sector. The signs are positive with the recent news that TRC Family Entertainment Ltd will be investing $6 million to develop digital games in Malta and create 100 new jobs. Clearly such developments need to be given priority and the appointment of Chris Deering, chairman of TRC Family Entertainment Ltd as the Special Envoy for Digital Gaming Industry in Malta is an important step in the right direction.

Similarly parents need to understand the job opportunities in the digital game industry. Initiatives such as the Gamezing game development competition, targeting students and teachers/lecturers encourage the diversification and exploration of local and international fora. Launched in 2010, Gamezing attracted nine teams, three teams in the Microsoft Kodu section and six teams in the senior Microsoft XNA competition. A Junior College team won the Microsoft Kodu competition for basic game development, whilst two teams from St Martin’s Institute of IT clinched the winning and runner up prizes for the XNA game development platforms.

Gamezing 2011 competition which is being jointly sponsored by the University of Malta, the Malta Council of Science and Technology, Malta Enterprise and St Martin’s Institute of IT, is aimed at enhancing the profile of digital game development amongst students, teaching institutions, and parents, and the potential of this field for future employment.

2. Educational Organisations/ Research Organisations

Malta’s prime resource is its skilled workforce. Thus, in order for the island to evolve economically and commercially, education is major concern on the island. Maltese education is therefore comparable with other European countries at all levels. However, there are some limitations related to the local education and these related to little or no offerings in a number of specialised areas. This is understandable when one considers the small population and GDP of the country.

In relation to this, there are lack of artistic and creative courses, particularly at University level. This is particularly lacking when it comes to the creative digital arts but is common also to more traditional visual arts. Nevertheless, the current gap is currently being address by new courses introduced at the University of Malta, St. Martins Institute, and MCAST Art and Design. When it comes to game-specific education, there are no established, dedicated programmes at the time of writing, but a number of courses at various levels are being established by various institutions.

More information is to be found under access to knowledge section.

The University of Malta, MCAST Art and Design, MCAST Institute of Information and Communication Technology, St Martin’s Institute of IT, Holistic Institute of Technologies, STC Training

References:

129 http://www.um.edu.mt/
130 http://www.mcast.edu.mt/
131 http://www.stmartins.edu/
133 http://www.stcmalta.com/
An aim is to improve Maltese education provision by adding new specialised courses, to bring recruits for overseas and start-up games companies across technology, art and production.

3. Enterprise Support Organization

Malta Enterprise (ME) is one of the main players which have the ability to involve companies interested in setting up their businesses in Malta. Malta Enterprise’s strong history of enticing large scale bilateral investment deals to the benefit of many sectors Malta.

4. Game related enterprise or organisation

In recent years, Malta has been progressively moving to a differentiated higher value added economy ambitious to deliver supervisory and fiscal frameworks that are both attractive for investment in new economic sectors.

At present, the island has a strong games industry which encompasses small, early stage companies operating in the gaming games sector. Many of the local businesses apply for EU grants and local financial incentives which therefore help to support their progress. Only just recently the IT industry expanded to over 200 operations on the island providing comprehensive and developed skills relevant to the growth of experienced technical staff. It is important to note that, several local institutions also deliver short training courses for specific talent gaps.

Some of the best areas in Malta to focus on are the following ones: Mobile, Tablet, PC, Console-Downloadable (e.g. Xbox-Live / Playstation Network), Casual, Flash and other browser games which necessitate reduced teams. The browser games include areas of Freemium and Microtransaction games. In Malta, there are a number of existing expertise in player behaviour especially in the iGaming industry and since there is a worldwide demand for these player analytics skills this can be viewed as constructive and could help entice foreign companies to locate in Malta.

Video Games Companies in Malta

As regards to the games industry, Malta has under 40 games staff and only two companies operating on a full-time basis with a permanent team of developers. One of the biggest companies operating in Malta is Bigpoint International. The company is a division of the large German browser based, free-to-play game provider Bigpoint. The other local developer is AV Technologies, founded by Ingo Mesche.

In relation to this, another company within this field operates in casual/mobile games and its team comprises of 5 employees. The company is called Mighty Box Games and its current employees are set to launch their first game in the near future. Aside from these there are two single-person operations, Volo Media and Software Prodigy. Below is a more detailed explanation of each company.

Table 21. Game related companies in Malta

<table>
<thead>
<tr>
<th>Company Name</th>
<th>No. of employees</th>
<th>Game Genres Focused On</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bigpoint International</td>
<td>10</td>
<td>Browser Based MMOGs</td>
<td>Developed the highly successful browser based MMO Battlestar Galactica. Most of development outsourced outside Malta</td>
</tr>
<tr>
<td>AV Technologies</td>
<td>11</td>
<td>Casual Games and Hardware Development</td>
<td>All development done locally</td>
</tr>
<tr>
<td>Volo Media</td>
<td>1</td>
<td>Facebook Games, Browser Based Board Games</td>
<td>Most development outsourced outside of Malta</td>
</tr>
<tr>
<td>Mighty Box Games</td>
<td>5 (part time)</td>
<td>iPhone/iPad/Android, Browser based games</td>
<td>High-end team in the process of establishing the company in the near future. First game launching at end of the year.</td>
</tr>
<tr>
<td>Software Prodigy</td>
<td>1</td>
<td>iPhone/iPad games</td>
<td>Art outsourced outside of Malta - Part time project</td>
</tr>
</tbody>
</table>

Bigpoint International\textsuperscript{136}

Bigpoint is a major player in the browser-based, free-to-play area, attracting over 200 million registered users since its formation in 2002. The company publishes, develops and acts as a content provider for a varied portfolio of web-based games. In addition to its headquarters in Germany (Hamburg), Bigpoint has more than 600 employees located across its four subsidiary branches in the USA (San Francisco), Brazil (São Paulo), Germany (Berlin) and Malta (Ta’Xbiex). The Malta branch, Bigpoint International, was established in 2009.

For the past year and a half Bigpoint International produced Battlestar Galactica Online. The free-to-play online game is based on the 2004 remake of the television series Battlestar Galactica and, since its release in 2011, has surpassed more than one million registered users. The success of Battlestar Galactica and Bigpoint’s other free-to-play browser and client downloadable games, which also include Online Manager Games, Strategy and Sports Games, has seen the company establish itself as a top competitor in the digital games market.

Bigpoint considered Malta an attractive location for a subsidiary branch due to its good quality of life, low expenses and beautiful surroundings. The country also has good connectivity, meaning the required physical infrastructure was already in place to start an online game company. However, according to Nick Porsche, Producer / Creative Director of Bigpoint International, a significant reason for choosing Malta was its appealing tax incentives. Malta’s 5\% effective tax (on dividends paid to foreign shareholders) is advantageous for investors because paying less tax results in a bigger profit margin. This, in effect, is beneficial for developers (although not always directly) as they appear more attractive to investors and publishers alike. If this was not the case a developer would need to have a company elsewhere and re-route profits outside of Malta to benefit from the tax incentive.\textsuperscript{137}

While the low effective tax rate is a big drawcard for Malta, Porsche has an underlying concern that without additional training and relevant initiatives Malta lacks local talent to service an incoming games industry immediately. Bigpoint International brought in from abroad the majority of their staff, with the exception of the Maltese CFO, and outsourced the Coding and Art work of Battlestar Galactica Online to Russia (Tvar) and Norway (Oslo) respectively. However, Porsche said hiring experienced foreigners for the planning, design and management stages of the online game was a very easy task. In two weeks Porsche received 50 relevant, qualified applications for the game design and producer jobs. The salaries offered were moderate (€30K) and all applicants had five to 10 years’ experience.

Porsche confronted no major challenges while setting up Bigpoint International and believes capacity to recruit locally can be built within five years. He has therefore decided to stay in Malta and open his own business despite Bigpoint moving most of its local operation to the USA. Porsche intends to make games that follow the same free-to-play, browser-based multi-player pattern as Battlestar Galactica and will import talent for his company and outsourcing work as necessary.

AV Technologies\textsuperscript{136}

Ingo Mesche, Managing Director of AV Technologies, moved to Malta in 1999. Mesche began working in computer graphics in 1984, started making games ten years later, and has designed and published over 90 mini, casual and advergames over the span of his career. He found AV Technologies in 2002 and became the first company to set up and recruit locally in the country. He now operates two main branches within AV Technologies in Malta: software (games) and hardware (3D display) development.

Mesche is one of eleven employees at AV technologies with the other 10 split equally across the two branches. Two grants have been awarded to Mesche since his relocation to Malta, one for a trilogy of hidden object games and another for a 3D display that materialises pixels in mid-air. He has also been approached by publishers including Big Fish about the company’s first completed game, Them: The Summoning. However, despite the grants from Malta Enterprise and the interest he has received for his work, one problem Mesche has found working in Malta is it very difficult to get start-up capital and receive bank loans for AV Technologies.

Mesche has also encountered problems finding adequate creative talent in Malta. During the recruitment process he received a lot of applications for the artistic side of game development but very few were trainable, even for a relatively basic hidden object game. He observed how most of the applicants had a distorted perception of their work, thinking it was of a high standard when it was not. Thus, while Mesche was not confronted with any problems recruiting coders, he has been unable to find any 3D modellers, animation specialists, adequate concept artists or texture artists for AV Technologies.

Living and establishing a company in Malta has worked well for Mesche; despite the lack of creative talent he has met very few obstacles settling in. He intends to continue producing casual games locally, and is interested in offering game-related courses to build up creative talent and eventually employ the better quality, local graduates.

Mighty Box Games

Mighty Box Games is a casual games developer in its formative stages. The company produce iPhone, Android and Browser-Based games, and is comprised of five high-end professionals from related industries. Mighty Box is set to release their first Malta-themed game towards the end of 2011.

Marvin Zammit, Project Manager, said that while Mighty Box is not yet an established company, the team aim to set up the business formally and employ full-time workers. Zammit is one in a team of five highly qualified and

\textsuperscript{136} http://www.bigpoint-international.com/en/contact.html
\textsuperscript{137} http://www.av.com.mt/
experienced individuals who have a background in graphical design, TV, software development and engineering: two members have PhDs in Game Research and Design, Mathematics, and two who have a Master’s degree in IT, Physics and Engineering.

The main market Mighty Box focus on is the casual iPhone, iPad, Android and Browser-Based games. Zammit explained they utilise the development platform Unity for their work and are currently in the process of creating their first game: a Malta-themed platform game due to be released by the end of this year. According to Zammit, the biggest challenge Mighty Box face is securing full-time salaries for at least a few of their qualified team. All development work for Mighty Box is currently done after work hours and during the weekends while they are in the process of establishing their business.

**Volo Media Ltd**

Volo Media Ltd is owned by an independent developer who originally established the company in Belgium in 2005. In 2007 the Director and only employee, Jan De Volder, moved the head office to Malta where he specialises in Facebook apps and online games. De Volder completes all QA, project management and game design himself, but outsources the rest of the development work to other countries because he does not have any contacts locally.

Volo Media originally specialised in Google ads but soon changed to producing two main types of games: Browser Based freemium board games and freemium Facebook games. The company’s top two games are PLAYdiplomacy and Scratchix. PLAYdiplomacy is a multi-player, web-based implementation of the turn based strategy game Diplomacy, where players attempt to conquer Europe. It currently has 60,000 registered users, 4,000 of which are active and 900 who are paying to play. Scratchix, a freemium scratch card game where users can win real cash and prizes, has 80,000 registered users with 4,000 of these active and a variable amount paying to play.

De Volder intends to focus on browser games in the future due a decline in user base per game on Facebook, and is interested in growing his company if funding was available. The warm climate and taxation benefits (Volo Media gets 6/7s rebate on dividends paid to shareholders with no further income tax charged) means De Volder enjoys living and working in Malta, but lack of funding knowledge is not the only issue he has encountered. De Volder settled in the remote town of Mellieha and currently works from his flat, making it difficult for him to network or hire anyone locally. Thus, all of Volo Media’s games are designed by De Volder with most of the development work outsourced to other countries, namely Bangladesh, India, Romania, and most recently Belgium. As an example of the amount of work involved in Facebook game production, De Volder said it includes one to two developers for three to four months, one designer and illustrator for one month each, and three to four months of debugging. De Volder would therefore welcome some kind of forum to network with, and outsource his work to, local contacts. The only other issue De Volder has with running a business in Malta is the expensive flights and expensive electricity, in comparison to the cheap cost of everything else.

**Software Prodigy**

Software Prodigy is a one-man company run by Neville Attard. Software Prodigy has so far launched one game, Buttonia, on the iPhone. The game was designed by a friend of his in paper format and Neville collaborated with the game designer to turn into digital format and distribute it on the App Store. Neville has been working on prototypes for other games, but since he has a full time job on top of the company and family commitments, Software Prodigy has recently taken a back seat in Neville’s life.

**5. Others: Festivals/Conferences**

Please check the following link:
Main players and stakeholders in France (national)

1. Policy-maker/public Agency

Public institutions supporting the industry


Created by the law of 25 October 1946, the CNC is a public administrative organization, set up as a separate and financially independent entity. The centre comes under the authority of the ministry of culture and communication.

The main missions of the CNC are:
- Regulations
- Support for the film, broadcast, video, multimedia and technical industries,
- Promotion of film and television for distribution to all audiences
- Preservation and development of the film heritage

It provides financial support for the creation, production, distribution, broadcasting and promotion of films, audiovisual media and multimedia productions.

Oseo: public investment bank

OSEO, is a public-sector institution dedicated to economic development — and a key source of financing and other support for SMEs.

OSEO is the national agency dedicated to promote and support the industrial development and growth of SMEs through innovation, technological especially, and to contribute to technology transfers.

The subsidiary, Oseo Innovation, merged with the main structure OSEO in December 2010. The aim of the merger is to reinforce the public efforts to promote innovation, especially for SME’s. Via its Innovation Assistance (French acronym AI) programme, OSEO’s objectives for the period 2009-2012 include steering innovation support towards firms with more than 50 employees, targeting 50% of aid granted in 2011; and towards risky projects involving a breakthrough innovation, targeting 60% of aid granted to these projects in 2012.

Ministry of Economy and Finance

Ministry of productive recovery (industry)

2. Educational Organisations/ Research Organisations

There are many types of training courses in France for graphic design, computer graphics or system developers that prepare students for jobs in the video games industry.

Some are already recognized by industry professionals; for others this process is still ongoing.

The National Video Games Association (Syndicat National du Jeu Vidéo – SNJV) certifies training courses that comply with its specifications. Other more traditional engineering or artistic courses may also enable students to apply for internships with companies in the video games industry.

Recent events linked to French schools specialized in video games:

The National Video Game and Digital Interactive Media School (Ecole Nationale du Jeu video et des Médias Interactifs Numériques – ENJMIN) was certified in January 2012 for its Master’s Degree in Video and Interactive Medias by professionals from the video games industry.

Located in the south-western French City of Angoulême, ENJMIN is a state-run higher education and research establishment.

The Creajeux School (L’Ecole Creajeux) in Nîmes, southern France, was also recently certified by industry professionals.

140 www.oseo.fr/
142 www.economie.gouv.fr/
143 www.redressement-productif.gouv.fr/
144 http://www.enjmin.fr/index.php
3. Enterprise Support Organization

Competitiveness Clusters

**Cap digital** (Paris Region): [www.capdigital.com](http://www.capdigital.com/)
Cap Digital is France's innovation cluster for digital content. Located in Paris Region, it supports R&D projects in the video games sector as well as simulators, which use virtual reality for training purposes.

**Imaginove** (ex Lyon Game, Rhone-Alpes): [www.imaginove.fr](http://www.imaginove.fr)
Imaginove is France’s innovation cluster focusing on the moving image (video games, cinema, audiovisual, animation and interactive multimedia), located in the Rhone-Alpes region.

**Lyon**
Second region in France in the Video Game industry with major international actors such as: Namco Bandai (distribution), Electronic Arts (distribution), Eden Games (Atari), Arkane (Zenimax). Lyon also has:

- Around 30 development studios in Rhône-Alpes including Ubisoft in Annecy
- 5 video games publishers
- A large range of middleware and services for video gaming (sound studios, softwares, localization, motion capture, etc.)
- Major animation studios such as Folimage, Pinka, Team To, Les Tanukis, Prelight, Vanilla Seed.
- A wide range of schools and specific training establishments for your needs in Interactive Entertainment, covering skills in engineering, graphics and computer programming:
- The Emile Cohl School of Graphic Arts: innovative training methods in the field of image creation
- Gamagora, the 1st professional university program in France dedicated to Interactive Entertainment in association with Imaginove and companies such as Atari, EA, EdenGames
- Factory Lyon: New images school (Gaming Flash, webdesign, 3D FX, sound, acting, filming & production, etc.)
- ESIA 3D Lyon (3D infographic)
- Gobelins (Annecy), La Poudrière (Valence, dedicated to animated movie)

Networks and associations

**Capital Games**, Paris Region video games cluster (Paris):
More than 60 video game companies members in all video game trade (development, publishing & middleware), all the platforms (home consoles, portable consoles & online gaming), all sectors (AAA, Casual, Serious Games etc.).

**Le Cube**, Issy-les-Moulineaux (Paris Region):
As a centre for creation entirely dedicated to digital technology, Le Cube is a unique experiment in France. Sponsored and initiated by the town of Issy-les-Moulineaux, it opened its doors in 2001 and is part of the Western Greater Paris Urban Community. It is managed and run by the ART3000 association. Open to all, Le Cube’s mission is to inform and educate the public about the artistic and cultural uses of digital technology, to support artistic production by providing efficient means for creation, to devise a programme representing the abundance and diversity of multimedia arts and to facilitate relationships between actors in the fields of digital creation, research and technological innovation.

**Atlangames**, Pays de la Loire Region: the only group of European companies experts in the field of serious gaming and social gaming.

**Bordeaux Games**, Aquitaine Region
Bordeaux Games represent a sector of the creative economy in high growth. Since September 2007 Bordeaux games regroups players from the video game industry in Aquitaine.

- 24 member companies
- 300 employees
- 40 ongoing projects
- Several areas of activity: development studios, middleware providers, authors, etc.

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145 [www.capdigital.com](http://www.capdigital.com/)
146 [www.imaginove.fr](http://www.imaginove.fr)
150 [www.atlangames.com/](http://www.atlangames.com/)
151 [www.bordeauxgames.com/](http://www.bordeauxgames.com/)
Three sectors: consoles and PC games, browser/online and mobile games

**Game In (Game Industry North)**

The Association Game IN (North Game Industry) was born in 2009 from the business combination of the video game industry with offices in the Nord Pas de Calais and in the Euroregion.

Mission: organize, facilitate, strengthen and promote the development of regional actors: development studios, publishers, distributors, accessory suppliers, schools and specialized service providers. Game IN directs its activities towards vocational training, coaching experts, the development of export duties, and the day before the transfer of information, the establishment of Lab playtest.

**Game Sud**

Gamesud aims to bring together the professionals of the video games industry in the region Provence-Alpes-Côte d'Azur around several objectives: facilitate the sharing of skills and resources multiply actions in training and job creation accompany companies in their establishment and their local, national, international facilitate reconciliation with nearby areas (film, 3D animation, mobile telephony, Internet, etc.).

**PixLR**

The association of video game developers and multimedia producers in Languedoc-Roussillon

**Syndicat national du jeu vidéo / National Video Games Association (SNJV)**

The SNJV, founded in 2008 in extension to the Association of Producers of Multimedia Content (APOM), plays an active role throughout the sector to preserve or extend the competitive advantage of video game production companies located in France.

**L’Agence française pour le jeu vidéo (French Agency for Video Games) (AFJV)**

Private organization aiming at helping the industry

**European Games Developer Federation**

European Association for the interests of European video game developers

**Centre National du Cinéma et de l’Image animée - video game and digital creation department**

It supports production of innovative, interactive multimedia content for use on digital media and networks (CDRom, DVD, Internet, game console, mobile telephone) and particularly creation and publishing of video games that benefit from a special aid (Funds to support multimedia publishing, with the ministry of industry). It also supports artistic multimedia creation in the field of digital art (DICREAM, funds shared by the ministry of culture and communication sector directorates and the CNC)

### 4. Game related enterprise or organisation

**Video Games Companies in France (AFJV)**

The list of video game companies in France (developers, publishers, distributors, hardware, middleware, providers, associations, training, press) is available on the websites of:
- the French Association of Video games: www.afjv.com/annuaires_jeux_video.php?d=100,
- the SNFJ: www.snjv.org/fr/membres/ils-sont-adherents.html
- and also on the websites of the competitiveness and business clusters involved in the video games industry.

---

152 www.game-in.org/
153 www.gamesud.org/
154 www.pixlr.fr/
155 www.snjv.org
156 www.egdf.eu/
### Table 22. Video Games Companies in France

<table>
<thead>
<tr>
<th>Main French Regions</th>
<th>Developers</th>
<th>Distributors</th>
<th>Hardware</th>
<th>Publishers</th>
<th>Total</th>
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<tbody>
<tr>
<td>Ile-de-France Region (Paris Region)</td>
<td>102</td>
<td>14</td>
<td>8</td>
<td>37</td>
<td>161</td>
</tr>
<tr>
<td>Rhône-Alpes</td>
<td>19</td>
<td>3</td>
<td></td>
<td>7</td>
<td>29</td>
</tr>
<tr>
<td>Nord-Pas-de-Calais</td>
<td>9</td>
<td>1</td>
<td>1</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Languedoc-Roussillon</td>
<td>12</td>
<td>1</td>
<td></td>
<td></td>
<td>13</td>
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<tr>
<td>Aquitaine</td>
<td>8</td>
<td></td>
<td>1</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Pays de la Loire</td>
<td>4</td>
<td>2</td>
<td></td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Poitou-Charentes</td>
<td>5</td>
<td></td>
<td></td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Provence-Alpes-Côte d'Azur</td>
<td>6</td>
<td>1</td>
<td></td>
<td>1</td>
<td>6</td>
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<tr>
<td>Other French regions</td>
<td>8</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>172</strong></td>
<td><strong>26</strong></td>
<td><strong>11</strong></td>
<td><strong>55</strong></td>
<td><strong>264</strong></td>
</tr>
</tbody>
</table>

Several regions in France (including Paris Region, Rhône-Alpes, Nord-Pas-de-Calais, Languedoc-Roussillon and Aquitaine) have long since promoted support measures and public-private partnerships to boost development in the sector, such as innovation clusters for example.

### 5. Others: Festivals/Conferences

Events regarding Video games industry in France and in Ile-de-France Region (Paris Region)¹⁶⁰

**- August 2012**
  - 27-30ᵗʰ: Ludovia 2012Ax-les-Thermes – France

**- September 2012**
  - 7-9ᵗʰ: Shooting & Games Show 2012, Paris – France
  - 13ᵗʰ: Conférence Jeu Vidéo & Marketing (CJVM), Paris La Défense – France
  - 15/16ᵗʰ: Paris Manga & Sci-Fi Show, Paris – France
  - 20ᵗʰ: Convention E-Learning et Serious Game, Paris – France
  - 28-30ᵗʰ: 7ᵉ Mondial de la simulation, Paris – France

**- October-November-December 2012**
  - 11-13ᵗʰ: Open World Forum 2012, Paris – France
  - 22-23rd: Serious Game Expo, Paris – France
  - 27-30ᵗʰ: Kidexpo, Paris – France
  - 31ᵗʰ-4ᵗʰ.Paris Games Week, Paris – France
  - 31ᵗʰ-4ᵗʰ.Finale ESWC (Electronic Sports World Cup), Paris – France
  - 14-15ᵗʰ: DigiWorld Summit 2012, Montpellier – France
  - 17-18ᵗʰ: Nobuo Uematsu (Final Fantasy) en concert, Paris – France
  - 23-30ᵗʰ. Game Paris, Paris – France
  - 24-25ᵗʰ: Art to Play 2012, Nantes – France
  - 26-27ᵗʰ: ParisFx, Enghien-les-Bains – France
  - 26ᵗʰ Nov– 7ᵗʰ Dec: Concerts Masashi Hamauzu (Final Fantasy), Paris – France
  - 28-30ᵗʰ Nov: Game Connection Europe, Paris – France

More events: www.afjv.com/agenda_jeu_video.php

¹⁶⁰ www.afjv.com/agenda_jeu_video.php
Main players and stakeholders in Ile-de-France / Paris region (regional)

1. Policy-maker/public Agency

Public institutions supporting the industry (national institutions and regional organizations located in Ile-de-France (Paris Region):
The fact that the Paris Region has achieved so much in this hypercompetitive and increasingly global market is thanks in no small measure to the support of some dynamic organizations:

Besides the national institutions supporting the industry already named (The National Center of Cinematography and the Moving Image (Centre national de la Cinématographie et de l’image animée) (CNC); Oseo; Ministry of Economy and Finance; and Ministry of productive recovery (industry), and mostly based in Paris Region, regional institutions supporting the industry include:

Conseil Régional d’Ile-de-France (Ile-de-France Regional Council): Paris Region Regional Council161: The regional council intervenes in numerous fields affecting the daily lives of Ile-de-France (Paris Region) inhabitants. The Region supports competitiveness and business clusters, including Cap Digital and Capital Games, and provides grants for the organization of events (for Game Connection Europe for example or Future en Seine, the digital world Festival ).

It also supports educational projects and grants subsidies to students, aids to the creation, the purchase or the development of companies and supports the work of researches in certain fields of major interest.

City of Paris (Mairie de Paris)162: The City of Paris163 supports competitiveness and business clusters, including Cap Digital and Capital Games, and provides grants for the organization of events (for Game Connection Europe for example or Future en Seine, the digital world Festival ).

The Paris Region Film Commission (Commission du film d’Ile-de-France) promotes the Paris Region cinema and audiovisual industry worldwide.164

The French State in Paris Region/Préfecture de la région d’Ile-de-France165 166; DIRECCTE: The French State (represented by the DIRECCTE)167 supports competitiveness and business clusters, including Cap Digital and Capital Games, and provides grants for the organization of events (such as for Game Connection Europe or Futur en Seine, the digital world Festival).

2. Educational Organisations/ Research Organisations

There are many types of training courses in France (and especially in Ile-de-France (Paris Region) and especially in Paris Region) for graphic design, computer graphics or system developers that prepare students for jobs in the video games industry. Some are already recognized by industry professionals; for others this process is still ongoing.

The Ile-de-France Region (Paris Region) is home to several renowned schools.

The quality of training available is a reason for the concentration of digital companies in the Paris Region. The training and education available in the Region are diverse and cover the graphic arts, audiovisual media, cinema and the new technologies, with particular emphasis on video gaming.

Gobelins, the School of applied arts, print and digital media, and ENJMIN, the Graduate School of Games and Interactive Media France (in Poitou Charentes), have just begun to offer the first Masters program specializing in video gaming and transmedia.

“From our point of view, working in the Paris Region is a guarantee of quality and productivity, because the studio is surrounded by an impressive network of famous-name graduate schools with specialties in math, information technology and 3-D animation”, says Jacquemin Piel, Studio Head at Duran Duboi.168

161 www.iledefrance.fr/english/
163 www.paris.fr
164 www.idf-film.com
166 www.ile-de-france.gouv.fr/
167 www.idf.direccte.gouv.fr
The National Video Games Association (Syndicat National du Jeu Vidéo – SNJV)

Certifies training courses that comply with its specifications. Other more traditional engineering or artistic courses may also enable students to apply for internships with companies in the video games industry.\(^\text{169}\)

**Video Games / Animation training schools**

- ISART Digital School in Paris, a 3D video games and film school that has won 44 prizes in 7 years. Works in partnership with NCC, NCC, School of Japanese Video Game and has developed strong links with the best international studios.\(^\text{170}\)
- LIsaa (L’Institut Supérieur des Arts Appliqués, Higher Institute of Applied Arts)
- Les Gobelins, l’école de l’image (Paris), A school of applied arts, print and digital media
- Creapole, School of creation including a department in animation and video game
- ESRA 3D (Sup’Infograph): a school of animation integrated into a film school in France. Since the release of its first class in 2000, ESRA 3D (Sup’Infograph) enjoys wide recognition in the world of computer graphics and especially the animated film and video game that requires a culture of implementation director (animation).
- EMC, Multimedia, Sound, Film and Television Training
- ICAN (Institut de Création et d’Animation Numérique, Institute for Creation and Digital Animation)
- IUT de Bobigny (communication, web, network, computer graphics and video games)
- Marne-la-Vallée University (Image, Multimedia, Audiovisual and Communication)
- SAE Institute Paris (sound, filmmaking and TV, web design, and 3D animation)\(^\text{171}\)
- Studio Mercier (3D and animation school)
- 3IS, école des métiers du Cinéma et de l’Audiovisuel, des Arts numériques, du Journalisme multimédia et du Spectacle vivant / Vocational School of Cinema, Audiovisual, Digital Arts, Journalism, Multimedia and Live Performance
- Autograph, creative experiences school
- EEMI Ecole Européenne des Métiers du Web (European School of Trades of the Internet)
- Institut BGS: Webmaster, Web designer and Web developer
- In’Tech INFO (computer school)

**Graphic design training schools**

- L’Ecole Multimedia (Multimedia school)
- IESA Multimedia
- IESA Paris (Institut d’Etudes Supérieures des Arts)
- IIM (L’Institut de l’Internet et du Multimedia/ International Institute of Multimedia)
- ITECOM ArtDesign (communication Graphic Arts)
- Vocation Graphique – ESANA Superior School of Digital Arts

**Engineering training schools**

- ESGI (Ecole Supérieure de Génie Informatique / computer school)
- ESIEE (Ecole Supérieure d’Ingénieurs / Engineering school)
- Telecom SudParis, and engineering school and a member of the Telecom Institute (an institute of reference for ICT in France)\(^\text{172}\)
- TELECOM SudParis is expanding beyond its traditional domains and with the GRIN - Graphics and interactive media - team of the ARTEMIS department it is a pioneer in developing solutions for Remote Rendering of 3D Multimedia Applications and Augmented Reality games.

\(^{169}\) Video games, a sector of excellence in France, AFIII, 4/12

\(^{170}\) www.isardigital.com/ and CP Global, Game Jam, Paris 2012

\(^{171}\) www.afiv.com/annuaire_ecoles_jeux_video.php?id=100

3. Enterprise Support Organization

Competitiveness Clusters in Ile-de-France Region (Paris Region):

Cap digital \(^{173}\) (Paris Region): www.capdigital.com/

Cap Digital is France’s innovation cluster for digital content. Located in in Ile-de-France Region (Paris Region), it supports R&D projects in the video games sector as well as simulators which use virtual reality for training purposes.

<table>
<thead>
<tr>
<th>Name</th>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
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<td><a href="http://www.urban-rivals.com">www.urban-rivals.com</a></td>
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<td>AD-INVADERS</td>
<td><a href="http://www.ad-invaders.com">www.ad-invaders.com</a></td>
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<td>Anima Games</td>
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<td>Beyondthepillars SAS</td>
<td><a href="http://www.beyondthepillars.com">www.beyondthepillars.com</a></td>
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<td>Black Sheep Studio</td>
<td><a href="http://www.blacksheep-studio.org/">www.blacksheep-studio.org/</a></td>
</tr>
<tr>
<td>CAPITAL GAMES</td>
<td><a href="http://www.capital-games.org">www.capital-games.org</a></td>
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<td>CERIMES</td>
<td><a href="http://www.cerimes.education.fr/">www.cerimes.education.fr/</a></td>
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<td>CHUGULU Games</td>
<td><a href="http://www.chugulu.biz">www.chugulu.biz</a></td>
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<td>Cyanide</td>
<td><a href="http://www.cyanide-studio.com">www.cyanide-studio.com</a></td>
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<td><a href="http://www.dont-nod.com">www.dont-nod.com</a></td>
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<td>DotEmu</td>
<td><a href="http://www.dotemu.com">www.dotemu.com</a></td>
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<td>EKO SOFTWARE</td>
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<td>ExeQuo</td>
<td><a href="http://www.exequo.com">www.exequo.com</a></td>
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<td>GlobZ</td>
<td><a href="http://www.globz.com">www.globz.com</a></td>
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<td>HLP Technologies</td>
<td><a href="http://www.hlp.f">www.hlp.f</a></td>
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<td>Int13</td>
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<td>Kazago</td>
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<td>KHEOPS STUDIO *</td>
<td><a href="http://www.kheops-studio.fr">www.kheops-studio.fr</a></td>
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<td>Kylotonn</td>
<td><a href="http://www.kylotonn.com">www.kylotonn.com</a></td>
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<td>Legacy of Artists and Developers Inc.</td>
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<td>LEXIS NUMERIQUE</td>
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<td><a href="http://www.e-neko.com">www.e-neko.com</a></td>
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<td>Persistant Studios</td>
<td><a href="http://www.persistant.fr">www.persistant.fr</a></td>
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<td>Playall *</td>
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</tr>
<tr>
<td>PlaySoft</td>
<td><a href="http://www.playsoft.fr">www.playsoft.fr</a></td>
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<td>Quantic Dream</td>
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<td>Santé Digital Interactive</td>
<td><a href="http://www.implicitgames.com">www.implicitgames.com</a></td>
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<td><a href="http://www.speakiplay.com">www.speakiplay.com</a></td>
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<td>TEKNEO SAS</td>
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<td>TETRAEDGE SARL</td>
<td><a href="http://www.tetraedge.com">www.tetraedge.com</a></td>
</tr>
</tbody>
</table>

\(^{173}\) www.snjv.org/fr/menu-haut/links.html and Video games, a sector of excellence in France, AFII, 4/12
Uacari  www.uacari.com
Visual Impact Production  www.viprod.com
Vocally  www.vocally.fr
White Birds Productions  www.whitebirdsproductions.com/
WIZARBOX (Studio)  www.wizarbox.com
XILABS  www.xilabs.fr/

* Members of Capital Games

Other members of Capital Games:

- **Audiogaming**: company developing next generation audio tools for sound designers and video game developers
- **Captive Studio**: A subsidiary of the communications agency Delasource. Captive Studio produces web and mobile games mainly in contexts of marketing campaign
- **Funforge Digital**: a privately held publisher of card and board games. It designs transmedia worlds suited to all interactive platforms and develops new synergies between the traditional and video games markets.
- **Game consulting**: Outsourcing studio. production from Concept or 3D art to FMVs
- **Games Fed**: video game and entertainment focused communication agency

**Figure 3. Capital Games Members**
Networks and associations in the Ile-de-France Region (Paris Region)

Capital Games. Paris Region video games cluster\(^\text{174}\): More than 60 video game companies members in all video game trade (development, publishing & middleware), all the platforms (home consoles, portable consoles & online gaming), all sectors (AAA, Casual, Serious Games etc.).\(^\text{175}\)

Le Cube\(^\text{176}\), Issy-les-Moulineaux (Paris Region): As a centre for creation entirely dedicated to digital technology, Le Cube is a unique experiment in France. Sponsored and initiated by the town of Issy-les-Moulineaux, it opened its doors in 2001 and is part of the Western Greater Paris Urban Community. It is managed and run by the ART3000 association.

Open to all, Le Cube’s mission is to inform and educate the public about the artistic and cultural uses of digital technology, to support artistic production by providing efficient means for creation, to devise a programme representing the abundance and diversity of multimedia arts and to facilitate relationships between actors in the fields of digital creation, research and technological innovation.

4. Game related enterprise or organisation

Table 23. Game related enterprises or organisations in the Ile-de-France Region (Paris Region) by category\(^\text{177}\)

<table>
<thead>
<tr>
<th>Main French Regions</th>
<th>Developers</th>
<th>Distributors</th>
<th>Hardware</th>
<th>Publishers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ile-de-France/Paris Region</td>
<td>102</td>
<td>14</td>
<td>8</td>
<td>37</td>
<td>161</td>
</tr>
<tr>
<td>Total</td>
<td>172</td>
<td>26</td>
<td>11</td>
<td>55</td>
<td>264</td>
</tr>
<tr>
<td>% Paris Region by category / Total Paris Region</td>
<td>63.3</td>
<td>8.7</td>
<td>5</td>
<td>23</td>
<td>100%</td>
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<tr>
<td>% Paris Region / Total France by category</td>
<td>59.3</td>
<td>53.8</td>
<td>72.7</td>
<td>67.3</td>
<td></td>
</tr>
</tbody>
</table>

The games R.U.S.E, Heavy Rain, Soul Bubbles, Trackmania, Gray Matter and In Memoriam are all Paris Region creations.\(^\text{178}\)

Paris Region video games key figures

- 30 years of innovation
- About 100 studios of development, 40 publishers, 15 distributors…
- 3,000 jobs
- 30 specialist-training courses
- Hundreds of productions every year

Table 24. Video Games Companies in the Ile-de-France Region (Paris Region)\(^\text{179}\)

<table>
<thead>
<tr>
<th>Developers</th>
<th>Publishers</th>
<th>Distributors</th>
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<td>Apacabar</td>
<td>Asus</td>
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<td>Ad Invaders * **</td>
<td>Acute (CII Participations)</td>
<td>Acute Games – Boostr * **</td>
<td>Bacata</td>
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<td>Circle</td>
<td>Editions Chrysis</td>
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<td>Ankama Studio</td>
<td>Editions de l’Analogie</td>
<td>Game</td>
<td>Logitech France</td>
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\(^\text{174}\) www.capital-games.org/
\(^\text{175}\) http://capital-games.org/en/nos-membres/
\(^\text{176}\) www.lecube.com/en
\(^\text{177}\) AFJV
\(^\text{178}\) Paris Region Magazine, Issue 13, March 2011
\(^\text{179}\) www.afjv.com/annuaires_jeux_video.php?id=100, Capital Games, Cap Digital
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<th>Game Cash</th>
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<td>Arkane Studios</td>
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<td>Guilleimot Corporation</td>
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<td>Arkedo Studio</td>
<td>Focus Home Interactive *</td>
<td>Ingram Micro</td>
<td>SpawnApps*(Middleware incubated at Creanova)</td>
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<td>Artefacts Studio</td>
<td>Gameloft</td>
<td>Innelec Multimédia</td>
<td>Voxel (Middleware incubated at Creanova)</td>
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<td>Artnumeris</td>
<td>Glu Mobile</td>
<td>MediaWorks</td>
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<td>Assoria</td>
<td>Gravity Europe</td>
<td>Metaboli **</td>
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<td>Asyncron Games</td>
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<td>Atelier 801</td>
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<td>Avantilles</td>
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Upper Byte
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XiLabs **
Yamago *
Yoowalk

- * Members of Capital Games
- ** Members of Cap Digital

5. Others: Festivals/Conferences

The Ile-de-France Region (Paris Region) is home to major events in the video game sector.

Game Paris (B2B event)\(^{180}\)

Game Paris\(^{181}\), the international video game event of the Paris Region, is the new international meeting point for video games professionals. The event, launched for the first time in 2011, continues in 2012, due to the success of the first edition. Public authorities such as the regional council support the event.

Game Paris
Organized by Capital Games, the Paris Region Video Game Business Cluster, Game Paris brings to the French capital, the international B2B video gaming event that it was lacking. As of 2011, this high calibre rendez-vous combines several events into one:

Game Connection Europe \(^{182}\)
The leading business convention in the video games sector brings together all industry professionals in Paris for a three-day exhibition every November to present their productions and establish production agreements, meetings and negotiations, in closed booths, between studios, publishers, distributors, and service providers on a global level.

Technical and management conferences
Master Classes, high level training sessions conducted by internationally renowned personalities. Selected projects, certification denoting innovation and quality of the selected companies by a board of experts. Prestige galas and networking

Game Paris Talents

Game Paris Talents (November 23rd, 2012 – Gaîté Lyrique), conferences on the various professions within the gaming industry and the education courses available to members of the public

\(^{180}\) Rapport d’activité Capital Games 2011
\(^{181}\) www.game-paris.com/en/game-paris/
\(^{182}\) Paris, November 28-30, 2012– Porte de Versailles, Paris
Game Paris PARIS Business Tour

Game Paris PARIS Business Tour (November 27th, 2012), organized in partnership with Paris Region Economic Development Agency, focuses on key players of the regional Video Game industry, by proposing a course of visits to selected international companies.

Game Paris Awards

Game Paris Awards (November 27th, 2012), professional awards conferred by an international jury.

Game Connection

Finally, the Game Connection continues to be the highlight of this week. The famous business convention returns to the heart of Paris (Porte de Versailles) and inaugurate new centres open to marketing and social networks to cover the entire economic chain of production of a video game. This demonstrates the rapid and important changes that the sector faces, but also the value and success of these appointments. (November, 28-30th).

Game Paris is organized with the support of:

the region Ile-de-France / Paris Region

the Mairie de Paris / Paris city Hall

The Ministry of Industry, the European Union and the DATAR.
Futur en Seine, the digital world Festival, organized by Cap Digital

A biennial festival created by Cap Digital in 2009. Futur en Seine became annual in 2012. As an International Festival, during ten days, it annually shows the latest digital innovations to French and international professionals and to the general public. In 2011, Futur en Seine attracted nearly 80,000 visitors. During these 10 days of exhibitions, performances, lectures, workshops and festivities, many innovative devices are presented by their designers to entrepreneurs, designers, and researchers, and allow professionals and the general public to debate on uses of digital technology.

Futur en Seine is an event organized by Cap Digital, the French business cluster for digital content and services in Paris and the Paris Region. Its communities include more than 700 members: 620 SMEs, 20 Business Groups, 50 Public Institutions, Schools and Universities, and 10 Private Equity Firms.

Some events were dedicated to videogames, like “Games for Change Europe” for example, an event presenting 10 European projects and including meetings with the authors, game sessions, and roundtable discussions on the impact of social games.

The Global Game Jam (the world of independent game creators’ meeting)

The aim of The Global Game Jam is simple: to create a new game in just 48 hours. It occurs annually in late January, and brings together thousands of game enthusiasts, participating in hundreds of local jams around the world. The event takes place simultaneously in about 50 countries/170 cities worldwide and involves more than 10,800 jammers, students, gamers and gaming professionals with innovative skills in game design, programming, sound design and graphics.

In Paris, Mekensleep and ISART Digital organize The Global Game Jam jointly. The 2011 event held at the end of January resulted in the creation of 14 games over one weekend on the theme of “Extinction”.

Experimentations

Experimental device “Motivating and Retaining Video Game Teams”

Following its experimental “Capital Games Strategy” that was achieved in 2010, Capital Games developed a new experimental project in 2011. To meet the needs of its members, Capital Games launched a new device, looking at motivation and retention of teams, and its application in the Video Game sector. As part of the agreement contracted between Capital Games and DIRECCTE (Department of Changes in employment and skills in the Employment Policy Department) (Businesses, Employment, Economy), the cluster has established an experimental support to follow a business in this issue.

Agenda of the events regarding Video games industry in Ile-de-France Region (Paris Region)

- September 2012
  - 7-9th: Shooting & Games Show 2012, Paris – France
  - 13th: Conférence Jeu Vidéo & Marketing (CJVM), Paris La Défense – France
  - 15/16th: Paris Manga & Sci-Fi Show, Paris – France
  - 20th: Convention E-Learning et Serious Game, Paris – France
  - 28-30th: 7e Mondial de la simulation, Paris – France

185 Rapport d’activité Capital Games 2011
186 www.afjv.com/agenda_jeu_video.php
- **October-November-December 2012**
  - 11-13th: Open World Forum 2012, Paris – France
  - 22-23rd: Serious Game Expo, Paris – France
  - 27-30th: Kidexpo, Paris – France
  - 31th-4th: Paris Games Week, Paris – France
  - 31th-4th: Finale ESWC (Electronic Sports World Cup), Paris – France
  - 17-18th: Nobuo Uematsu (Final Fantasy) en concert, Paris – France
  - 23-30th: Game Paris, Paris – France
  - 26th Nov– 7th Dec: Concerts Masashi Hamauzu (Final Fantasy), Paris – France
  - 28-30th Nov: Game Connection Europe, Paris – France

Main players and stakeholders in Austria (national & regional)

1. Policy-maker/public Agency

National Level

Federal Ministry of Economy, Family and Youth (BMWFJ)
The BMWFJ creates the best possible framework for enterprises and represents at international levels the interests of Austria as a business location. One of the main objectives is to accelerate structural change by actively supporting research, technology and innovation. A key economic policy objective is to reinforce Austria's position as an attractive business location. By enhancing the creative industry's competitive and innovative capacity via the support programme called "evolve" the ministry acknowledges the increasing significance of the creative industries.

Creativ Wirtschaft Austria
Creativ Wirtschaft Austria (CWA) holds as its remit the interests of the Austrian creative industries, both at a national, European and international level. CWA is an integral part of the Austrian Chamber of Commerce. It is committed to developing the creative industries in Austria and creating linkages with other sectors.

Activities CWA:
- Skills Development - CWA supports the economic success of creative people, regardless of membership in the Chamber of Commerce, through tangible services and networking of companies and intermediaries.
- Representation of Interests - CWA acts as an advocate for the interests of the creative industries and is active in creating a supportive environment.
- Information and Awareness - CWA sees itself as a knowledge hub, commissioning studies into and increasing the visibility of the achievements of the creative sector.

Evolve
Since 2008, CWA, together with the Impulse/Austria business service, has been the sponsor and promoter of Evolve. Evolve is an initiative of the Federal Ministry for Economy, Family and Youth (BMWFJ) to promote innovation in the creative economy. Evolve helps to develop creative ideas right at the start of the creative process and to guide them on to a commercially successful track. The aim is to exploit the high innovation potential of the increasingly important creative industries, not only to secure but also to expand the outstanding innovation development performance of Austria relative to Europe.

Departure
departure, the City of Vienna's agency for the creative industries, was established in 2003 as Austria's first independent business promotion agency and service centre for companies of the creative industries. Today it is considered a successful example of innovation funding on a competitive basis in Europe. departure is a subsidiary company of the Vienna Business Agency and part of the department for Economic Affairs of the City of Vienna. departure funding does not replace any cultural funding or subsidies; and it does not shorten the cultural budget of the City of Vienna.

BuPP Bundesstelle für die Positivprüdkatisierung von Computer- und Konsolenspielen (Federal Office for the Positive Assessment of Computer and Console Games)
The BuPP aims to provide parents and others involved in children's upbringing with guidance on the selection of computer games. It supports the Austrian games industry by convincing the public to overcome prejudices against video and computer games.
On the other hand they exercise a positive influence on the entertainment software market with the aim to increase public awareness of the risks and opportunities of computer games, so that it will lead to the distribution of more well designed games that are not dominated by violence (BuPP 2012). It organizes an annual conference on video and computer games called Future and Reality of Gaming (F.R.O.G.).

SUBOTRON (NGO) is a contact and meeting point for the promotion of theoretical and practical discussion on “digital gaming” in Austria.

Regional level

Regional Government - Land Salzburg
The regional government – Land Salzburg - is shaping the regional innovation and technology related policies and has recently developed a new economic framework programme for future policy measures until 2020. By engaging all relevant stakeholders the Land Salzburg followed a strong bottom-up approach through workshops and meetings within a one-year timespan for developing a new vision for Salzburg, including new strategies and measures focusing on the Creative Industries and Information and Communication Technologies.
2. Educational Organisations/ Research Organisations

Salzburg University of Applied Sciences
In the four disciplines of engineering, business and social sciences, design, media & arts and health studies, the Salzburg University of Applied Sciences offers two game related Study Degree Programmes (Bachelor and Master):

**MultiMediaArt** focuses on creating high-quality, cross-media and creative-artistic innovation projects. The structure of the degree is oriented on the typical project phases – idea development, concept, design, implementation and publication – and helps your personality as a designer to mature, enabling you to design high-quality, well thought-out and highly professional media with your own personal touch.

MultiMediaArt links different disciplines. As well as the creative major subjects of media design, computer animation, film and audio, students can also decide to specialise in control.

**MultiMedia Technology** is a media computer science course of studies that is tailored to the dawning conception age. As well as the hard skills in the area of computer science and media technology, creativity and innovative ability are recognised and promoted as key factors for the development of new digital products. The aim is to train developers who, in times of rapid technological progress, act flexibly and advance creative ideas for worthwhile applications.

Salzburg Research
As the research technology organisation of Land Salzburg Salzburg Research specializes in applied research and development in the field of information and communication technologies (ICT) and New Media. Regional as well as national and international business partners benefit from their high-quality expertise.

With five fields of research, two competence centers, and two competence fields (e-Tourism, e-Health), Salzburg Research covers a vast area of scientific expertise. It's strength lies in a successful interdisciplinary combination of different fields ranging from technological research and development to socio-economic strategy and market research and target-group specific coaching and communication measures.

University of Salzburg / ICT&S Center
As a research center of the University of Salzburg innovation in and for cultural and creative institutions is being encouraged by researching and teaching the application of new information and communication technologies, as well as by studying the implications of innovation for society and democracy. Furthermore, the ICT&S research contributes to shape relationships between humans and technologies towards optimized experiences to solve individual, social as well as societal challenges.

3. Enterprise Support Organization

As the regional innovation agency of the region, **ITG Salzburg** has the mandate from the regional government (Land Salzburg) to develop and implement measures of the regional innovation programme in the field of creative industries. In these regards ITG coordinates the activities of the cross-regional **Network Design & Media** with Upper Austria, has strong experience in managing EU projects and leads a new regional innovation support service for SME’s focusing on innovation and investment consultancy, coaching and technology/ knowledge transfer based on a key-account approach. This service is being offered with the support of Land Salzburg and the **Chamber of Commerce Salzburg**, whose active involvement in ITG’s strengthens the regional network and ensures a dedicated implementation of activities in the field of Creative Industries, by binding a large spectrum of companies and structures for innovative services particularly for creative entrepreneurs and establishing a strong market access in traditional industries.

The **Business Creation Centre Salzburg** has rich experience in special training programmes for young entrepreneurs/start-ups in the creative industries, in business angeling as well in the incubation process. These are valuable assets when time comes to create the necessary awareness and gain the commitment of the business sector for the strategy implementation.

**Network Design & Media**
The Network Design & Media (NDM) is the cooperation-competence center for design and media. In this sense, the network initiates, promotes and supports partnerships, knowledge transfer and networking. The aim is to strengthen the competitiveness and innovative power of companies.
4. Game related enterprise or organisation

Wikitude GmbH are the creators of the world’s first mobile augmented reality (AR) platform and the company behind the internationally renowned Wikitude World Browser for iOS, Android, BlackBerry and Windows Phone devices. The AR platform has been voted “Best Augmented Reality Browser” three years in a row: 2009, 2010 and 2011.

Red Bull Media House is a multi-platform media company with a focus on sports, culture, and lifestyle. As an umbrella brand, it offers a wide range of premium media products and compelling content across media channels as diverse as TV, mobile, digital, audio, and print and gaming applications.

RealNetworks is a leading global provider of digital media services. Broadcasters, media companies, mobile network operators, and other enterprises use our Software as a Service (SaaS) products to manage and deliver digital media to mobile phones, personal computers and other devices. Consumers use our services and software to find, play, purchase, and manage free and premium digital music, games, and videos.

Sony DADC is a leading disc and digital solution provider for the entertainment, education and information industries, offering world-class optical media replication services, digital and physical supply chain solutions and software services.

5. Others: Festivals/Conferences

Schmiede in Salzburg is a producers festival and community, a playground where our ideas come to play. Schmiede is based on three simple Principles: NETWORK, CREATE, PRESENT. Since 2003 annually, Schmiede produces this focussed collective experience in a saline (2000 m2) far off on an island close to the city of Salzburg. Schmiede provides space, time, basic tools, food, events, a heterogeneous group (150+) of participants (Smiths), guests and projects. Schmiede unites to work and connect - genre, origin, tribe, eating habits - it doesn’t matter, motivation, quality and the will to work and engage with others are the core criteria. Depending on the needs and possibilities of its members the SmithNetwork moves along the borders of art, culture, handcraft and creative industries. Schmiede ends with the SchmiedeWorkshow, a grand public exhibition, where the Smith productions of the past ten days are presented to the public and media.

Games Day is a yearly conference of the University of Salzburg focusing on the development of games.
Value Chain

Overview: Value Chain in the Video Game Industry

Value Chain in the Video Game Industry

A value chain indicates various levels in the process of production to consumption. The game industry has different value chains of which the retail driven value chain is the oldest. The most common value chains of the video game industry are presented in the model below.

The most common value chains of video game industry

Most console games are produced by means of the retail driven value chain: the consumer buys a game in a store (retail). The retailers are provided by distributors, who work together with publishers to make sure the game is sold in every store in the country.

However, in the mobile driven value chain model, developers are directly in contact with distributors, who make the game available to consumers. This model not only represents platforms like the iTunes Store, Android Market and Steam, but also Xbox Live Arcade or PlayStation Store.

Lastly there is the online value chain, where the developer can publish the game on his/her own website, making it directly available to the consumer.

The above models of value chains mainly focus on entertainment games. In the case of serious or applied games, the model is slightly different. The game is often assigned, financed and distributed by a client: this is usually a company or a government agency. While serious games sometimes do use the retail driven value chain or the mobile driven value, it is less common, as these games are often aimed at a specific audience.

A model of the serious game value chain is presented below. The blue line represents the value chain of a serious game with a company as the client; the red line represents the value chain of a serious game with a government agency as the client. The client has a central role in the development of a serious game: the client works with the developer, finances the project and distributes the final product. Depending on the project, research institutions can also be part of the value chain. The main actors of the value chain either publish their own developed games or publish games developed by external game companies. Usually the publisher finances the development of the game.
The ABC of the Video Games Industry

**Platform hardware owners.** Developing their activities in an oligopolistic market, both for home and handheld consoles. This actor often acts as game publishers and have their own development studios. This dominant position creates tensions with the complementary need to develop an active community of developers.

**Publishers.** Publishers occupy a position of strength in most types of games development, partly because the production of video games and all digitalised creative content goods is characterised by high fixed costs and low marginal costs. Though the initial financial investment to create the first "copy" is extremely high, once made, the additional copies can be (re)produced (but not necessarily distributed and sold) as at almost zero cost. This creates a need for investment in the early stages that affects power relations in the value chain, and leads to the emergence of the publishers as the financing, and therefore dominant, actors. Some of the publishers are also the platform owners.

**Developers.** Are usually small studios, gathering multidisciplinary teams around the creation of the games. According to the Spanish Association of Publishers and Distributors Entertainment Software (ADESE), in its 2010 annual report, the Spanish video games productions represents only 1% of the total market, in comparison with the European average of 15%.

**Middleware.** In the software production process, the video game software industry needs to work out its position taking into account the central role of middleware, which serves partly as a "game engine", enabling game development, or adding capabilities to games, enabling networking. It allows improved performance or more effective development. Middleware is crucial as it enables portability among platforms and thereby permits platform independency, and allows third parties to develop applications faster and more effectively. It is the access, the modularity, the functionalities and the portability of the middleware that will largely determine a game’s software development and its market potential. Higher level applications, the game itself, are developed on top of these game engines, by the studios and the developer teams.

**Distributors:** suppliers of videogames. It can be tradicional stores or online stores which allow small developers shorten the chain value.

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Table 25. Overview of the Video Games Industry
Serious game value chain by TNO, translated version.¹⁸⁷

Figure 5. Main Actors in the Serious Game Value Chain

West Midlands: Value Chain in the Video Game Industry

The traditional value chain follows the well trodden classical design, source components, manufacturer, wholesale, and retail model which is prevalent in mature industries. The video games industry followed this value chain in the early formative days – and a large part of this value chain is in operation today. The following diagram depicts the traditional value chain:

![Traditional Value Chain Diagram]

**Component Manufacturers**
Console manufacturers from all parts of the world formulate their console designs by sourcing best of breed components. For example the Nintendo Wii is produced by the following components: Korean company Samsung supplies the DRAM memory chip. US companies supply the CPU and accelerator. The controller is provided by an Italian-French joint venture. And the wireless LAN and AC adapters come from Japanese companies.\(^{188}\)

**Console Manufacturers**
Console manufacturers provide platforms that are designed primarily to play games, which come on interchangeable discs. The manufacturers provide software development interface to publishers and game developers and certify the distribution of games\(^{189}\). They license games to be used with their platform on commercial terms and heavily market and promote these games. Of the $67 billion industry, console manufacturers capture $25 billion value.

**Developer**
Software developers are responsible for creating games the consumer will eventually play. The size of developers varies – some are independent while others are very large. Large publishers consolidate development teams of their own and enter contractual agreements with outside developers. The primary role of developers is to enter a cycle of “trying and failing” until they can produce a solidified product. The process is three-phased. Phase one includes conducting research and designing an initial prototype. Phase two is a more practical phase with implementation and testing. The final phase is mastering and forming the product\(^{190}\).

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\(^{189}\) The Video Game Industry: An Analysis from a VC Perspective by Nik Shah, MBA – Tuck School of Business 2005.

\(^{190}\) Ibid.
**Publisher**

Software publishers capture $33 billion value – the most out of any individual component – in the industry’s supply chain. Publishers are the key to linking developers and distributors: they pay for the development of games and through market research; they identify which titles they will pursue and ultimately pass on to distributors.\(^{191}\)

**Distributor**

The focus of the distributor is to compound and create agreements to connect publishers and retailers. Distributors can be in-house (larger publishers typically have in-house publishers) or they can be licensed.

**Retailer**

Console manufacturers and software publishers both distribute their products to different kinds of retailers. Retailers operate both as brick and mortar (Wal-Mart, Target, Radioshack), and virtually (Amazon). Under brick and mortar retailers, specialty stores exist which are organized purely to carry the video game industry’s products. Retailers combine to capture $9 billion value from the supply chain.

---

**Utrecht: Value Chain in the Video Game Industry**

A value chain indicates various levels in the process of production to consumption. The game industry has different value chains of which the retail driven value chain is the oldest. The most common value chains of the video game industry are presented in the model below.

![Image of the most common value chains in the video game industry](image)

**Figure 7. Overview of the Most Common Value Chains in the Video Game Industry**

The Games Monitor 2012\(^ {192}\) a recent study outlining the Dutch gaming industry, discovered that game producers and publishers collectively account for the grand majority of job opportunities in the Dutch game industry in 2011.

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\(^{191}\) SlideShare – Video Game Industry Trends --> [http://www.slideshare.net/Es0/video-game-industry-trends](http://www.slideshare.net/Es0/video-game-industry-trends)

Most console games are produced by means of the retail driven value chain: the consumer buys a game in a store (retail). The retailers are provided by distributors, who work together with publishers to make sure the game is sold in every store in the country.

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---

**Table 26. Number of Jobs in the Value Chain in the Netherlands**

<table>
<thead>
<tr>
<th>Value Chain</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game Producer</td>
<td>1590</td>
</tr>
<tr>
<td>Game Producer/Publisher</td>
<td>360</td>
</tr>
<tr>
<td>Publisher</td>
<td>380</td>
</tr>
<tr>
<td>Distributor</td>
<td>200</td>
</tr>
<tr>
<td>Technological Provider</td>
<td>340</td>
</tr>
<tr>
<td>Service Provider</td>
<td>130</td>
</tr>
</tbody>
</table>

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193 Bartelson, E., Dierckx, M., Boshove, E. & Roso, M. *Dutch Games Industry Survey Enquete uitslagen.* *GAMES MONITOR ’12: De Nederlandse gamesindustrie onderzocht.* Utrecht, the Netherlands. 20 Print.

194 Bartelson, E., Dierckx, M., Boshove, E. & Roso, M. *Dutch Games Industry Survey Enquete uitslagen.* *GAMES MONITOR ’12: De Nederlandse gamesindustrie onderzocht.* Utrecht, the Netherlands. 20 Print.
According to the Games Monitor 2012, the distribution between applied/serious games and entertainment games in the Netherlands is similar (see Figure 17). The number of applied game companies is slightly higher than the number of entertainment companies (see Table 33). Interestingly, the number of jobs is greater for entertainment games than applied games. It is important to note that educational institutions and other clients (e.g., the Ministry of Defence, TNO, Geosystems Delft, in the applied game sector have not been included in this overview). If one would include those additional players, applied games would be greater than the scores indicated in Table 33.
Distribution of Game Producers According to Type of Game and Number of Game Companies

**Figure 10. Distribution of Game Producers According to Type of Game and Number of Game Companies**

<table>
<thead>
<tr>
<th>Type of Games Produced</th>
<th>Site/Companies</th>
<th>Jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entertainment</td>
<td>38%</td>
<td>83</td>
</tr>
<tr>
<td>Applied</td>
<td>44%</td>
<td>95</td>
</tr>
<tr>
<td>Both</td>
<td>13%</td>
<td>28</td>
</tr>
<tr>
<td>Unknown</td>
<td>6%</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>218</td>
<td>1854</td>
</tr>
</tbody>
</table>

Table 27. Inventory of Types of Games Produced and number of Jobs Available

**Main actors of the value chain:**

**Game Publishers Netherlands**

In the Netherlands, publishers either publish their own developed games or publish games developed by external game companies. Usually the publisher finances the development of the game.

<table>
<thead>
<tr>
<th>Name of Publisher</th>
<th>Location</th>
<th>Types of Game Publisher</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denda Games</td>
<td>Oldenzaal</td>
<td>casual games</td>
</tr>
<tr>
<td>Easy Interactive</td>
<td>De Meern</td>
<td>casual games</td>
</tr>
<tr>
<td>Engine Software</td>
<td>Doetinchem</td>
<td>handheld games</td>
</tr>
<tr>
<td>Gameworld Distributie BV</td>
<td>Capelle a/d IJssel</td>
<td>interactive entertainment</td>
</tr>
<tr>
<td>Global Distributie</td>
<td>Hoogvliet</td>
<td>entertainment games</td>
</tr>
<tr>
<td>Game Entertainment Europe</td>
<td>Amsterdam</td>
<td>MMO games for the European market</td>
</tr>
<tr>
<td>Games Factory Online</td>
<td>The Hague</td>
<td></td>
</tr>
<tr>
<td>(shareholder: Games Entertainment Europe)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gamious</td>
<td>Amsterdam</td>
<td>casual games on multiple platforms</td>
</tr>
<tr>
<td>Spill Games East</td>
<td>Hilversum</td>
<td>online games</td>
</tr>
<tr>
<td>United Games (2007)</td>
<td>Wormerveer</td>
<td>core games</td>
</tr>
<tr>
<td>White Bear (1993)</td>
<td>Amersfoort</td>
<td>casual games</td>
</tr>
<tr>
<td>XFORM</td>
<td>Utrecht</td>
<td>online 3D games</td>
</tr>
</tbody>
</table>

*Publishers are listed in alphabetical order. List was collated via an internet search.*

Table 28. Overview of Game Publishers in the Netherlands
Foreign Publishers with Offices in the Netherlands

Thirteen foreign publishers were identified with offices in the Netherlands who publish games are (mentioned in alphabetical order): Activision Blizzard, Atari, Codemasters, Electronic Arts, Microsoft, Mindscape, Nintendo, Sony Playstation, Take Two, THQ, Ubisoft, U-Trax, and Vivendi Universal.

Distributors

Five Dutch distributors were identified. One of the largest games, software and consumer electronics distributors in the Netherlands is Micromedia, situated in Nijmegen. Micromedia works closely with its suppliers and offers suppliers various promotional marketing and PR opportunities for promotion of both the label and product.198

Game World in Capelle aan den IJssel distributes games of large foreign publishers like Electronic Arts, Square Enix and Ubisoft.199

Gametron.nl is an online distributor of PC games. Gametron.nl was launched by Sanoma and offers an easily accessible platform to download recent and old downloadable PC games of publishers like 2K Games, Activision and Iceberg Interactive.200

SOEDESCO is a distributor for games and hardware gaming accessories, delivering games for all platforms.201

Lastly, there is Brizamila Entertainment BV, which distributes games and provide marketing and PR campaigns.202

IP holders

Most IP holders in the retail driven value chain are (foreign) publishers. For instance, even though the Guerilla Games studio is the developer of the KILLZONE franchise, KILLZONE is a registered trademark of Sony Computer Entertainment Europe.

Developers can contact law firm companies like Create Law for assistance in content and technology industries. Create Law provides services in IP (copyright law, trademarks and domain names) and IT law (software contracts and licenses, privacy law, and database rights).203

ICTRecht is a legal consultancy firm which offers a number of game industry focused services on Gamerecht.nl, to help game companies deal with legal issues like Non Disclosure Agreements (NDA) and End User License Agreements (EULA).204

Platform owners

Platform owners such as Apple (iPad, iPhone), Microsoft (Xbox 360), Nintendo (Wii, DS, 3DS, Wii U), and Sony (Playstation 3, PSP, VITA) have a major influence on the development of the games industry in the Netherlands. They are the hardware manufacturers, operating system and middleware providers that enables developers to use their technology to make games.

Micropayment companies

The largest micropayment company in the Netherlands is Spil Games, a company which focuses on social and online games on websites like GirlsGoGames.nl.205 Some of the online games offer virtual goods which are purchased by micropayment transactions.206

International micropayment companies like Sulake (HABBO HOTEL) have offices in the Netherlands as well.

Value Chain in the Video Game Industry

Generally speaking, Utrecht's game companies differ from the traditional retail value chain where developers create games that first have to be accepted by the manufacturers of consoles, then when finished have to be published, distributed and retailed to the consumer.

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Instead, shorter and more direct value chains are more common for Utrecht’s game companies. Mobile driven value chains, where for example Facebook is used as an online publisher, and online value chains, where developers directly deal with their customers, are common.

An interesting case study illustrating new ways of accessing the market is the game company Stolen Couch Games. They funded the development of their game *Kids vs Goblins* by crowd-funding. Making use of the online investment platform CrowdAboutNow, Stolen Couch Games rapidly obtained the needed investment required to develop their game.

Piedmont & Umbria: Value Chain in the Video Game Industry
The value chain of video game consoles in Italy can be reproduced schematically as follows:

![Value Chain of Game Consoles in Italy](image)

The software companies are paid (most often) a fixed amount (production costs plus a fee estimated to be between 10 and 20%) or (more rarely) with guaranteed minimum royalties on the sales (20-25% of the estimated retail price).

In the case of online video game platforms, the value chain is shorter because you avoid intermediate steps between the developer and the market.

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If the same developer/manufacturer can directly introduce the product to the international market, he could receive a higher percentage of the price (which stands at nearly 80%) after deducting the same expenses for the rental of the domain or application. Of course in this case the developer, in order to maintain his market position will have to invest more in marketing and communication.

The production capacity of Italian companies has been around 50 titles in the last 3 years. Most titles are produced for a PC platform or handheld console, due to their lower costs (generally less than 300,000 euros). The self-financed production company can also develop games for mobile phones (whose cost can drop to 20,000 euros), with more opportunities to market outlet and forms of revenue-sharing.

Value Chain in the Video Game Industry
In Umbria, nowadays, we can find only some of the segments of the gaming value chain, specifically we can find small publishers and distributors. The results of the regional analysis confirm that in Umbria there is not a “gaming industry”, however gaming related companies that are interested in approaching this new sector do exist; in fact, most of the interviewed companies would like to have more information at a regional, national and international level on this matter in order to verify the possibility to create clusters/networks aimed at the exchange of information and experiences.

Value Chain in the Video Game Industry
In Italy we talk about a video game industry in development, because the sector is just emerging. One can find some highly advanced enterprises at a national level, but in most cases, they are not video game enterprises but web design companies, interaction design companies or animation companies who are developing new businesses in apps for mobile phones, in social games or serious games.
Asturias: Value Chain in the Video Game Industry

There is no formal source that provides quantitative information about the different actors of the value chain in the Spanish video game industry. Thus, national quantitative information depends on the organisation or association that provide the figures. The Spanish Association of Publishers and Distributors Entertainment Software - ADESE, has registered 12 associated members, such as Electronic Arts, Sony and Nintendo. According to GAMELAB, Spain has grown into a healthy games industry that currently has over 200 companies and 3,000 professionals producing and publishing high quality games for all platforms. The best of them have reached top selling positions around the world working with industry leaders like Sony, EA, Konami, Ubisoft, etc. while many more are also succeeding as independent developers and publishers in almost every available market channel.

Gamelab points out the following figures in the Spanish value chain:

<table>
<thead>
<tr>
<th>The Spanish Value Chain quantitative mapping. Source: Gamelab 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Main platforms</strong>: at a national level PG Games platforms like Minijuegos and Tuenti can be found.</td>
</tr>
<tr>
<td><strong>Mobile platforms</strong>: Movistar and Zed are operating in a national context.</td>
</tr>
<tr>
<td><strong>Traditional distribution retail value chain</strong>: Eroski, El Corte Inglés or Games are distributing at a national level.</td>
</tr>
<tr>
<td><strong>Console and handheld games platforms</strong>: there are no Spanish consoles and handheld games platforms.</td>
</tr>
<tr>
<td><strong>Game developers</strong>: around 80 Spanish companies focussed on game development, around another 80 companies developing without specialization or occasionally with video games.</td>
</tr>
<tr>
<td><strong>Publishers</strong>: companies like FX, Gigigo, Ideateca, RLS can be considered publishers since they make investments in products to channel.</td>
</tr>
<tr>
<td><strong>Distributors</strong>: there are around 10 software and hardware distributors. Regarding only software, there are only 2 Spanish companies distributing, although there are around 8 Spanish branches of foreign companies, distributing multinational products but not generating added value to national developers.</td>
</tr>
<tr>
<td><strong>Business to Business</strong>: there are around 10-15 companies working mainly for the video game industry, but only around 1-2 companies working exclusively for this sector in Spain. This figure can rise to 100 companies working partially or even occasionally for video games.</td>
</tr>
</tbody>
</table>

Table 29. Overview of Main Figures in the Spanish Value Chain

The video game industry is mainly divided into two types of projects. On the one hand, large development projects involving medium-sized development teams, require heavy investment and a major effort in programming and technology tools. This type of project usually maintains a number of common features such as the search for a level of realism which often meets or exceeds the film’s realism. At the same time these projects are oriented to online multiplayer/role playing games. Frequently the platform owners of the large projects are also publishing.

On the other hand, there are small studios working on specialized smaller projects, such as mobile games or casual games, but often need access to a funding source, with evidence of a prototype as a letter of presentation. In both cases, the trend is an increasing presence of online video game and the import of social network characteristics.

Finally in Spain, regarding Software, the Distributors focus generally on multinationals, leaving only a small fee to national distributors. In fact, for the marketing and financing of video games, Spanish developers need the support of a big distributor. In return the distributor requires IPR of the work, and if the game becomes a success, the distributor will have guaranteed income through aftermaths and cheaper versions for different platforms, to the detriment of the developer. Therefore, in this context two of the keys for the future of small developers are online games and mobile games.

The distribution of video game platforms represent a marketing alternative for small developers with the compensation studies of the dependence of the strategic plans of those big platforms.
As an example of a games hub, these are the data for GAMELAB’s HUB

<table>
<thead>
<tr>
<th>2012 Gamelab’s online HUB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developer : 65 companies</td>
</tr>
<tr>
<td>Publisher/Investor : 21 companies</td>
</tr>
<tr>
<td>Software/Tools : 13 companies</td>
</tr>
<tr>
<td>Hardware/Peripherals : 1 companies</td>
</tr>
<tr>
<td>Marketing/Media : 11 companies</td>
</tr>
<tr>
<td>Distributor/Retailer : 3 companies</td>
</tr>
<tr>
<td>Services : 22 companies</td>
</tr>
<tr>
<td>Organization : 6 companies</td>
</tr>
<tr>
<td>Education : 10 companies</td>
</tr>
<tr>
<td>Other : 4 companies</td>
</tr>
</tbody>
</table>

Table 30. Overview of Gamelab’s 2012 Online Hub

The regional context of the video game industry is starting with small development studies, mainly microcompanies and high-qualified sole traders with a high level of ICT implementation, and involved in a shorter value chain.

In comparison with the traditional value chain, small developers see in the online paradigm shift, new opportunities without the support of the large publishers. This new market is forcing small developers to face new competences and areas previously developed by the publisher, such as Marketing, in order to reach the game users.

<table>
<thead>
<tr>
<th>Regional Spanish Value Chain quantitave &amp; qualitative mapping.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: Gamelab 2012</td>
</tr>
<tr>
<td>• Game developers: Milkstone, as a pure game developer, CrazyBits and Virtway.</td>
</tr>
<tr>
<td>• Business to Business: Angel García Voces, Jacobo Villar, Martin Bosque, [Q]interactiva, Virtway y CrazyBits.</td>
</tr>
</tbody>
</table>

There are no Asturian companies who are platform providers for main platforms, mobile platforms, console and handheld games platforms, publishers, distributors or traditional distributors and retailers.

Table 31. Mapping of the Regional Spanish Value Chain
Sofia: Value Chain in the Video Game Industry

Some insights about the value-chain of the digital gaming sector in Bulgaria can be gleaned from the interviews that were conducted. It was mentioned by multiple interviewees that there are three large gaming players in the country which are foreign-owned (Crytek, Ubisoft and Gameloft) and then a number of other Bulgarian owned digital gaming companies (around 15) ranging from 2, to over 100 people. Some interview respondents mentioned that they knew of virtually no digital gaming companies outside of the capital city. One respondent mentioned that at the present time, no AAA game titles are produced in the country. Additionally, one respondent mentioned that while some of the international companies may at least partially produce some of their high-quality titles in the country, this fact is not advertised as it may be perceived to partially devalue the brand.

While some courses are offered at New Bulgarian University related to 3D animation, these are not specific to the gaming sector and all gaming companies reported an insufficiency of experts in the field. There is very little cross-fertilisation between computer science departments at universities and business faculties, perhaps either reflecting or factoring into the relatively weak entrepreneurial culture. One respondent mentioned that a high-tech entrepreneurship programme at Sofia University had been discontinued, presumably due to lack of interest. Big foreign-owned IT companies attract many of the good IT specialists, leaving an insufficient number of good programmers to work in smaller companies. One way of overcoming this, according to one respondent, is to train employees in-house. Additionally, the localisation of foreign games could be further helped along by the provision of public support for training sessions and formal educational courses on the use of localisation software. Despite the inadequate public support, the games industry has been steadily growing in recent years.

Some of the main instruments which are beneficial to the promotion of the generation of value in the sector include attendance at conferences for digital game companies, which allow the development of business partnerships. The market size of the digital gaming industry in Bulgaria is relatively small and many partnerships and cooperative efforts take place informally according to three of the respondents. A formal networking event occurs though an event organised by the Federation of Electronic Sports. Two respondents mentioned that informal networking should be formalised further. This is somewhat contradictory to the reply from another respondent who mentioned that the companies in the sector are not well connected due to the markets they target, and the different ways that they access finance. As such, they do not face common problems. The respondent has mentioned that this has slowly started to change. As the sector currently only consists of a few players in a rapidly growing market (one respondent mentioned that the sector was growing at an annual rate of 20%) there is still a market niche for everyone. This is particularly true given the rapidly increasing demand for various types of browser games.

On this account, two interview respondents mentioned that they were aware of 10 game development companies in Bulgaria (a third mentioned 10-15 companies), employing around 1000 experts, which roughly approximates the results of the desk research conducted by the authors. Exact numbers are hard to pin-down, due to the dynamism of the sector and that no official data is available.

Game development, in contrast to game publishing and distribution, is quite a difficult enterprise for Bulgarian firms as this requires a high initial investment and know-how which are yet ubiquitous in Bulgaria. Also, for this type of activity, seeing returns on investment tends to take longer than it does for other linkages in the value-chain. This, coupled with minimal support options for these types of activities, produce some degree of disincentives for game development. One respondent mentioned that it is important to popularise the industry and its potential for growth, as if the public knew more about its potential and its potential risks, investment would be much easier to obtain.

There is a tendency for the industry in Bulgaria to produce games which do not require intensive human or financial resources. One interviewee mentioned that this was fine as Bulgarian companies can only stay competitive when they focus on smaller projects with which they can successfully manage the risk.
Baden-Württemberg: Value Chain in the Video Game Industry

As previously outlined, Germany is particularly strong in the market of online and browser games. Within the online value chain there are mainly three types of models which are used to generated revenues:

- **Subscription**: in this model providers of online games generate revenues by means of the subscription that users have to pay for a game, a game extension or an episode online
- **Free-to-play**: often used for browser games, in this model revenues are generated by micro-transactions that happen within the game
- **In-Store Download**: users buy the games at an online store and download it onto their device

Each of these models refers to an own business model. What they have in common is that the games need to have a critical mass of users to lead to a return of investment. For example in the free-to-play sector only 1% of the users are willing to invest money to speed up the character development in the game or to get special abilities and items. Game companies have learned that they also have to benefit from the market of game items and characters and offer a marketplace for such requests.

Games companies can also earn their money as publishers: games are bought or licenced in a raw stage and then customized for regional/national markets. The producer of the raw products gets a fixed price and a share out of the actual turnover.

Some large international games publishers have a representation in Germany since many years. This is the case for Sony, Ubisoft and Electronic Arts. These publisher work together with German development companies.

Malta: Value Chain in the Video Game Industry

Very often service companies do not have a value chain per se like other sub-sectors do, as their companies are all intermediaries at widely different points in other value chains. Few have a focus that extends beyond more than one part of these value chains. In relation to this, tools and middleware companies are normally employed at the beginning stage only when payment and fulfilment solutions companies have their own improved stage which few companies outside of payment and fulfilment undertake themselves.

Ile-de-France: Value Chain in the Video Game Industry

France and the Paris Region welcome many players in the value chain of the video games industry.
- Producers
- Developers
- Publishers
- 3D displays
- Games engine research
- Video decompression
- Sound
- Artificial intelligence
- Middleware developers
- Wholesalers
- Dealers

Among the companies based in France, 65% are developers, 20% publishers, 10% distributors, and the rest concerns hardware.

<table>
<thead>
<tr>
<th>Video Games Companies in France by category</th>
<th>Developers</th>
<th>Distributors</th>
<th>Hardware</th>
<th>Publishers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>172</td>
<td>26</td>
<td>11</td>
<td>55</td>
<td>264</td>
</tr>
<tr>
<td>%/Total</td>
<td>65,2</td>
<td>9,8</td>
<td>4,2</td>
<td>20,8</td>
<td>100%</td>
</tr>
</tbody>
</table>

Table 32. Video Games Companies in France by category

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BOO-Games Regional Analysis Report, January 2013, Appendix A, p. 105
Value Chain Types

1. Retail driven value chain:
   Developer ➔ Publisher ➔ Distributors ➔ Retails Consumers

2. Mobile value chain:
   Developer ➔ Publishers / Distributors (sometimes the same) ➔ Consumers

3. Online value chain:
   Developer ➔ Portal (Mediastay, Bigfish, Facebook etc.) ➔ Consumers

These value chains represent the types of distribution models present in France and the Ile-de-France Region. The value chain depends on the type of video games distributed. Online distribution models open attractive opportunities for developers. Online and mobile games development are less cash hungry and thus a number of games can be self-funded by development studios. Also, the shortening of the value chain means developers earn between 70% (distribution through an online shop such as App Store, PSN, and XBLA) and 100% (direct sale to consumers through the developer’s own online shop) of the price paid by the consumer. The online business model is therefore more attractive to private investors.

The “traditional” European development studios were for the most part established in the 1990s in the UK, France, and the Nordic countries. They are today predominantly creating games for the 7th generation of home and portable console systems and derive their incomes mostly from traditional retail business.

Over the years, they have gained considerable know-how (mastering complex production pipelines, creation of international IPs, and development of sophisticated core technologies) in making high-definition games. They have obtained international recognition and created some of the industry’s most recognizable brands and IPs.

Funded predominantly through international publishers, they are preparing themselves for the distribution shift from retail to online, and should be able to position themselves better in the value chain when this shift really reaches its tipping point (today, more than 95% of sales of home and portable console titles still remain retail driven).

As on the national level, the Ile-de-France Region (Paris Region) welcomes all players in the value chain of the video games industry.

Ile-de-France Region (Paris Region) has a particularly rich ecosystem, hosting actors of all sizes, working on all platform and all types of games. More broadly, the video games in Paris region benefit from the highest concentration of other cultural or digital industries, such as cinema, special effects or animation in this region. The dynamics of cross-fertilization are important.

Among the digital gaming companies based in the Paris Region, 63% are developers, 23% publishers, 9% distributors, and the rest are involved in hardware related activities. This generally mirrors the situation in France as a whole. The Paris Region is also particularly active in developing and programming, game design, art and animation and production.

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Salzburg: Value Chain in the Video Game Industry

While the value chain of the production of goods can be clearly described, the mainly inmaterial services of the creative industries cannot be outlined that easily. Within the Austrian Creative Industries Report the following chart demonstrates a general approach and stated that in regards to the value chain it is important to mention that 68% of the customers of creative professionals are companies, while only 30% are private customers – with a volume of such “supplier services” with a value of 6.5 billion. Fifteen percent of the primary services are purchased by the educational system and these services are mainly provided by publishing companies, in the area of software & games, and architects.

**Figure 12. Value Chain of the Creative Industries**

Different value-adding networks within the creative industries contribute to increasing the sector’s output

**Table 33. Value-adding Networks of the Creative Industries**

<table>
<thead>
<tr>
<th>creative industries sector</th>
<th>all enterprises</th>
<th>selected value-adding networks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>advertising</td>
</tr>
<tr>
<td>architecture</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>content</td>
<td>100</td>
<td>22</td>
</tr>
<tr>
<td>design</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td>software &amp; games</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>publishing companies</td>
<td>100</td>
<td>55</td>
</tr>
<tr>
<td>advertising</td>
<td>100</td>
<td>0</td>
</tr>
<tr>
<td>creative industries</td>
<td>100</td>
<td>7</td>
</tr>
</tbody>
</table>

Note: share of enterprises in percent. Data projected onto the population of the survey.
Source: ZEW survey of enterprises of Austria’s creative industries conducted in May/June 2010.
2. REGULATION AND POLICIES

What follows is an overview of the known regulations and policies in the ten regions.
United Kingdom: West Midlands

Existing rules and regulations/policies supporting the games industry in United Kingdom: West Midlands

POLICY & PUBLIC AFFAIRS

The Department for Culture, Media and Sport (DCMS) and The Department for Business, Innovation and Skills (BIS) are jointly responsible for policies in the UK central government which regulate the Video Games sector.

DCMS sponsors the UK computer and video games sector, which makes a valuable contribution to the UK economy. Games made in UK studios generate global sales of around £1.7 billion a year and contribute around £400 million per annum to GDP. They work with the sector to identify the drivers, challenges and opportunities for growth and productivity for individual businesses and for the UK games industry. They work to build strong relationships with major computer and video games companies and their representative bodies, including the two national trade associations – the UK Interactive Entertainment Association (UKIE) and Tiga. They are the voice for the industry in Government, seeking to ensure that Government policies (in the UK and beyond) support the competitiveness of the games sector. They also work with stakeholders to keep them up to date on Government policy developments, and they are responsible for classification issues for media.

In particular DCMS and BIS have Jointly produced The Digital Britain Report that was published in June 2009. Following that report in particular and as stated by Mr Rawlinson, Director General of UKIE, in the House of Commons Scottish Affairs Committee report Video games industry in Scotland, “it is very important for the Committee and Parliament to know that video games are regulated, like films”.

The Digital Economy Act 2010, passed in the previous Parliament, amended the Video Recordings Act 1984, so that “the industry’s self-regulatory system for the age-content classification of video games, which is called PEGI, is enshrined in law”. This is due to be implemented by the spring of 2011 introducing a “stand-alone classification system for video games that makes the classification from 12 upwards mandatory and legally enforceable. It will be the first time that video games are covered by such a benchmark”.

It has been mentioned in several reports that the UK policies framework do not favour in particular the Video Games sector but this latest amendment in terms of video games classification as well as the UK tax relief as described below has been a step forward for UK. NESTA also mentioned that the lack of specific policy instrument should not be an excuse for not performing.

NESTA mentioned in the Video games industry in Scotland report that Video Games are thriving in other countries without generous public support: it is worth bearing in mind that other arguably ‘expensive’ development territories are managing to compete without the sort of subsidies and incentives available in Canada or France. Japan and South Korea remain at the top of global rankings without targeted large-scale support, and German games studios have become a force to be reckoned with in emerging online and mobile markets in spite of a marked lack of government support. Likewise, the Nordic countries and Australia have attracted significant levels of foreign investment without the sort of measures available for their Canadian and French competitors. This suggests that tax credits are not the only explanation for the challenges that the UK video games sector is currently facing.

TIGA, The Independent Game developer Association, plays a crucial role in terms of policies support and lobbying with the UK government.

TIGA's vision is to make the UK the best place in the world to do games business. Their mission is to fight for the interests of game developers. To achieve their vision and mission they focus on the delivery of three strategic objectives: political campaigning, profile raising and helping their members commercially. This means that TIGA members are effectively represented in the corridors of power, their voice is heard in the media and they receive commercial benefits, including a reduction in costs and improved business opportunities.

1. TIGA: Political Campaigning
TIGA campaigns to represent the video game industry’s interests at the highest political levels. TIGA instigated the creation of the All Party Parliamentary Group for the Computer and Video Games Industry in the Westminster Parliament in 2009 and 2010. They are campaigning to persuade policy makers to support the video games industry through: changes to the tax regime; measures to improve access to finance; the provision of prototype funding; help for developers to attend tradeshows; action to further improve education and skills and to promote business and university collaboration; and the provision of flexible migration and employment policies.

They have had major successes. In 2011, TIGA successfully campaigned for changes to the R&D tax credit system. In 2012, TIGA successfully convinced the Coalition Government to introduce a tax break for games production. This is expected to come into effect in 2013 and is estimated by Games Investor Consulting to be worth £96 million for the games industry over five years.

212 Video Games Industry in Scotland http://www.publications.parliament.uk/pa/cm201011/cmselect/cmscotaf/500/500i.pdf
2. TIGA: Profile Raising

TIGA is delivering a positive media campaign about the UK video games industry. Today they are achieving high levels of positive coverage of the UK industry. Over the last few years TIGA has represented the games industry in a wide range of media publications and channels, including the Guardian, the Independent, the Financial Times, the Daily Telegraph, The Sun, The News of the World, BBC News, ITV News, Channel 4 News, Sky News, The Scotsman, The Courier, City AM, The Huffington Post and Radio 5 Live. TIGA is providing effective representation in the national and international media for the UK developer and digital publishing sector.

TIGA engages with Ministers, MPs, MSPs, and other policy makers as part of their campaign to turn the UK into the best place in the world to do games business. There are four dimensions to TIGA’s public and public affairs activities.

Meetings with MPs and civil servants

TIGA representatives regularly meet MPs and civil servants to raise issues of importance to the UK games sector.

All Party Computer and Video Games Industry Group

TIGA instigated the creation of the All Party Computer and Video Games Industry Group in the Westminster Parliament in June 2009. Two meetings of the Group were held before the dissolution of Parliament in March 2010.

Following the 2010 General Election, TIGA instigated the recreation of the All Party Computer and Video Games Industry Group in the Westminster Parliament in June 2010. The Group provides a parliamentary forum to discuss the issues affecting the sector, including Games Tax relief, R&D tax credits and skills and training. The Group is co-chaired by the Culture, Media, Olympics and Sport Select Committee Chair, John Whittingdale OBE MP and the former Labour Minister, Tom Watson MP. The Group’s stated aim is:

‘The Group will provide a forum to discuss business issues affecting video games’ software developers; to develop policies to enhance the sector; and to champion an industry that responsibly creates content for an audience ranging from children to adults.’

The Group members are: John Whittingdale OBE MP (Co-Chair) (Conservative), Phillip Davies MP (Vice-Chair) (Conservative), Lord Inglewood (Conservative), Mark Field MP (Conservative), Nigel Evans MP (Conservative), Chris White MP (Conservative), Dan Rogerson MP (Liberal Democrat), Lord Dykes (Liberal Democrat), John Hemmings MP (Liberal Democrat), Julian Huppert MP (Liberal Democrat); Tom Watson MP (Co-Chair) (Labour), Stewart Hosie MP (Vice-Chair) (SNP), Rt Hon Stephen Timms MP (Labour), Jim McGovern MP (Treasurer) (Labour), Luciana Berger MP (Vice-Chair) (Labour), Lord Puttnam (Labour), Tom Blenkinsop MP (Labour), Ann McKechin MP (Labour), Rob Fiello MP (Labour), and Jonathan Edwards MP (Plaid Cymru).

3. TIGA: Political campaigning

TIGA runs political campaigns to encourage policy makers to adopt policies that will enable the UK video games industry to achieve its potential. TIGA campaigns for measures to improve: the tax system; access to finance; education and skills; migration policy; and export support. At TIGA they have focused their resources in particular on the achievement of Games Tax Relief and enhancements to the R&D tax credits. This is because the achievement of these two measures will make the most material impact on the UK games industry.

They have been successful on both fronts. TIGA campaigned for and helped to achieve an enhanced Small Firms R&D Tax Credit in the March 2011 Budget - worth around an additional £7 million to the UK video games industry per annum. Enhancements to R&D tax credits rebate more money to the games development studios and other high technology businesses.

TIGA has been the only trade association to have consistently campaigned for Games Tax Relief, a sector specific tax break for games production, which substantially reduces the cost of game development in the UK. TIGA secured Games Tax Relief in the March 2010 Budget. This was dropped by the Coalition Government in the June 2010 Budget. TIGA ignored the siren calls to give up and instead continued to wage a vigorous campaign for the introduction of Games Tax Relief.

Finally, TIGA successfully persuaded the Coalition Government in the March 2012 Budget to introduce a tax break for video games development. Tax relief for the video games sector will increase employment, innovation and investment in the UK video games industry and enable us to compete on a level playing field with our overseas competitors. Our research shows that Games Tax Relief should secure 4,660 jobs and £188 million in investment over five years. This is a significant victory for the UK games development and digital publishing sector and will provide a powerful boost to the industry.

As described above, apart from the two official regulations/laws that apply solely to the video game sector, little direct government support has been allocated to the video games industry. The department for Business, Innovation and Skills had published their overall strategy for the coming years and the table below describes their intent. This is not specific to the video games sector but this would englobe the industry amongst others.

BOO-Games Regional Analysis Report, January 2013, Appendix A, p. 110
The Plan for Growth: Ambitions and Measurable Benchmarks

To create the most competitive tax system in the G20
A  The lowest corporate tax rate in the G7 and among the lowest in the G20
B  The best location for corporate headquarters in Europe
C  A simpler, more certain tax system

To make the UK one of the best places in Europe to start, finance and grow a business
D  Improving the UK’s ranking in major international indices of competitiveness
E  A lower domestic regulatory burden
F  More finance for start-ups and business expansion
G  An increase in the proportion of planning applications approved and dealt with on time

To encourage investment and exports as a route to a more balanced economy
H  Ensure the UK remains one of the top destinations for foreign direct investment (FDI)
I  An increase in exports to key target markets
J  An increase in private sector employment, especially in regions outside London and the South East
K  Increased investment in low carbon technologies

To create a more educated workforce that is the most flexible in Europe
L  Supporting more apprenticeships than any previous government
M  Home to more of the world’s top universities than any other country except the USA
N  An increase in the participation of 16-24 year olds in employment or learning
O  Narrowing the educational attainment gap, allowing everyone to meet their potential
N  Lowest burdens from employment regulation in the EU

Table 34. Plan for Growth: Ambitions and Measurable Benchmarks in the United Kingdom
The Netherlands: Utrecht

Existing rules and regulations/policies supporting the games industry in The Netherlands: Utrecht

In the Netherlands, there are no specific rules, laws or policies for supporting the games industry. However, the games industry is supported by the government in other ways. On a national level, the game industry, which is part of the creative industry, is supported through various networks. The government considers the creative industry as one of the nine top sectors of the Netherlands – it is also one of the fastest growing industries in the country.

CLICK
The Topteam Creatieve Industrie aims to make the Netherlands the most creative economy of Europe in 2020.213 Therefore, the creative industry is stimulated by several networks, the major one being CLICK: Creativity, Learning, Innovation, Co-creation, Knowledge. CLICK seeks to translate knowledge to innovation by bringing together knowledge institutions and entrepreneurship. This way, companies and knowledge institutions gain access to relevant innovation networks that enables them to contact potential partners or clients.

GATHER
(Serious) Games are part of CLICK and has its own network called GATHER: GAmes for SafeTy, Health, Education and IndustRy. GATHER mainly focuses on the themes safety, health, education, entertainment and heritage. GATHER aims to strengthen the ecosystem of the Dutch games industry and its international position, and will run from 2012 to 2016.214

CRISP
The CRISP research programme is focused on the design of Product Service Systems, which also incorporates games and playful design. Its objective is to develop the knowledge, tools and methods necessary for designing complex combinations of intelligent products and services, with a high experience factor. CRISP is funded by the Dutch government through FES funding (Fonds Economische Structuurversterking) and a consortium of scientific and industrial partners.215 Among the CRISP projects are G-MOTIV, which researches and applies new approaches to behavioural change based on motivation by game elements, and i-PE (Intelligent Play Environments), which seeks to develop insights for the design of intelligent, playful environments.

General subsidies
Besides research programmes, the Dutch government has several subsidies available to companies to support innovation. These subsidies are not directed towards the game industry but at companies in general. Nevertheless, they indirectly provide support for the game industry.

The WBSO subsidy (Wet Bevordering Speur- en Ontwikkelingswerk) is a fiscal incentive and compensates a portion of the wages of development, research and innovation activities such as the development of new products, machines and devices.216 Any entrepreneur who wants to do technical research or develop new technical products can use the subsidy to finance these wages; the size of the company does not matter. The WBSO subsidy was used to finance Guerrilla Games’s KillZONE 2 for PlayStation 3.217

For other research & development expenses there is the RDA subsidy (Research & Development Aftrek).” This covers investments like rental of equipment, purchase of materials and investments in a laboratory.218 The RDA regulation stimulates innovation and research & development by the Dutch industry by means of a tax benefit in income tax or corporation tax.219

Besides financing development costs, the Dutch government also helps companies with entering new markets by way of the new service Partners for International Business (PIB). The program focuses on groups of companies who want to enter a foreign market together. With economic diplomacy the government can try to take away trade and investment barriers so that entrepreneurs can seize opportunities more easily.220

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European level
The European Commission aims to stimulate the field of ICT with the Digital Agenda for Europe, which intends to stimulate digital markets and high-speed internet access and enhance internet security and digital literacy. However, (violent) video games also cause concern, which has led to measures protecting minors from harmful video games.

The European Commission has surveyed all 27 EU Member States regarding age rating systems. As it turns out, 20 out of 27 Member States apply the PEGI (Pan European Games Information) age rating system, developed by the industry. A Code of Conduct for retailers should be drawn up within two years on sales of video games to minors. On a European level, there are several research projects focusing on the games industry.

DGEI
The research project DGEI (Digital Games for Empowerment and Inclusion) aims to better understand the industrial, market, social opportunities and limitations of digital games for users’ empowerment and as a tool for socio-economic inclusion of people at risk of exclusion, such as migrants or the elderly. The research projects also focuses on the challenges of creating this potential and if and how policy actions could address these challenges. The study is co-funded by the European Commissions Information Society Unit of the Joint Research Centre-Institute for Prospective Technological Studies and Directorate General Information Society & Media ICT for Inclusion Unit.

COMPLETE
COMPLETE (COMPetitiveness by Leveraging Emerging Technologies Economically) is a research project produced 6 reports, focused on the future industrial European competitiveness in the following emerging technologies: WEB 2.0, Displays, RFID, Robotics, Video Games Software and Embedded Software in automotive. COMPLETE did a thorough analysis of the European games industry, focusing on competitiveness between companies, business models and market developments. COMPLETE is co-financed by JRC-IPTS and the ENTREPRISE and INDUSTRY Directorate General of the European Commission.

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Italy: Umbria

Existing rules and regulations/policies supporting the games industry in Italy: Umbria

In Italy, the State and the Regions have never encouraged the specific development of video games industry with dedicated financial or political supports which has been done in France and Germany. Italy generally solely focuses on the support of scientific and technological research and innovation of productive sectors. Therefore, these political choices have not directly supported the development of companies with specific a vocation in the game sector.
Italy: Piedmont

Existing rules and regulations/policies supporting the games industry in Italy: Piemont

In Piemont, there are no specific policies to promote the video games industry because they are included in extensive laws and policies promoting the creative industry, a sector closely linked with video games. According to the Italian Constitution (art. 117) the State and the Regions have a concurrent legislative power on subjects related to the scientific and technological research as well as support to innovation for the productive sectors.

Piemont Region has exercised its legislative power in this specific area (scientific and technological research and support to innovation of productive sectors) while finalizing a regional law (r.l. n. 4 dated 30 January 2006 entitled 'Regional system for research and innovation'). The regional law aims at promoting and supporting the overall Regional Research System including the research activities carried out within the universities, enterprises, and research centres both private and public.

In line with article 5 of the mentioned regional law the regional governing body adopted a ‘Triennial research programme’ as a planning instrument of the regional policies for research and innovation of the Region. The mentioned regional law, as well as the regional research programme, are in line with the national and EU policies for innovation and research, and the foreseen actions aim at benefiting from the different funding sources (EU, national and regional).

Actually, the Regional Operative Program ERDF 2007-2013 for Regione Piemonte, that is the main instrument regulating the use of ERDF in the region, outlines as a first priority, the ‘Innovation and productive transition’ with the aim at reinforcing the competitiveness of the regional system through the development of its capacity to produce research and innovation, to attract and transfer new technologies.

The most relevant and innovative aspects of the regional law n. 4/2006 are based on the following:

- The regional research system is recognized as an active and responsible actor within the European Research Area with the aim to achieve the EU goals while using and benefiting from the territorial potentialities of the region.
- The adoption of a unique, local and flexible planning framework with a clear definition of aims, strategic working areas, available funds and evaluation criteria for projects.
- The focus on cooperation among the different actors involved in the field of research and innovation.
- Setting up a fund for research and innovation.
- Special attention to monitoring and evaluation activities and results in order to be able to review and better finalize current and future research and innovation programmes.

The main support instruments and schemes are:

- Innovation poles
- Calls for projects
- Voucher (funding for services towards SMEs)
- Agreements for the valorisation of human resources

Innovation Poles

Regione Piemonte launched in September 2008 a call for the setting up 12 innovation poles within the region. One innovation pole is aimed specifically at creativity and multimedia, another one at ICT. The overall amount for the 12 innovation poles is 60 million euro for the period of 5 years.

The innovation poles are conceived as a significant group of enterprises – innovative start up, small-medium-large enterprises - as well as research institutes involved in a specific sector or territorial area with the aim of supporting innovation through a sound interaction, a joint use of infrastructure and high added value services, the exchange of knowledge and experiences as well as an effective technology transfer, networking activities and the provision of information to the enterprises of the innovation poles.

The innovation poles are set up as coordination structure among the different actors of the process for innovation, and the provision of services and infrastructure.

The aims of the innovation poles are inter alias:

- To stimulate the request for innovation, while promoting the outlining of technological and strategic problems (logistical, planning and marketing ones) to be faced jointly
- To support the exchange of knowledge and the inter-sector technology transfer
- To foster the investments in research infrastructure

• To support the human resources mobilisation among the enterprises, or among the research system and the enterprises including the attraction of highly qualified human resources
• To enhance the participation of enterprises into the international research networks
• To support the access of enterprises, especially the small and medium ones, to the sources of scientific and technological knowledge
• To provide the innovation poles’ enterprises with high added value services
• To support the access of innovation poles’ enterprises to EU funds in the fields of R&D and innovation
• To receipt the training needs of enterprises with the aim to improve their technological and managerial competences
• To support the development of new entrepreneurship
• To foster the process of internationalization through promotion and marketing activities

Focusing on specific sector areas, centres of innovation are made by groups of companies, research organizations and a management entity. The poles, tools synergistic coordination between different actors in the innovation process, are intended to make available facilities and services with high added value, and to interpret the technological needs of companies, to address regional actions in support of research and innovation.

The measure has a budget of 60 million euro’s to the POR-ERDF 2007-2013. With these resources will be financed activities of those operators (6 million) and the requests of the parties aggregated to develop projects and access to services with high added value for research and innovation (54 million).

As a first action, the Regional Council has identified specified technology domains and one or more territorial areas involved in different sectors, the second step was to identify the managers of the Poles and through a call for the establishment, expansion and operation of Centres of Innovation, opened in September 2008 and concluded in November 2008. In this phase the subject’s candidates to become subject managers have submitted a candidature dossier containing also a first team of potential subject’s aggregates and a draft plan of activities of the Pole.
Spain: Asturias

Existing rules and regulations/policies supporting the games industry in Spain: Asturias

Perhaps a good starting point to address this point would be a brief initial consideration on the idea that "games" in Spain still has no clear economic or social recognition because, despite progress in this regard, much of society or the "policy makers" still have a misperception of the concept associated with violence, youth violence and consideration as an unacceptable form of entertainment.

On the other hand, in Spain there are no significant regulations addressed specifically to games industry, sector or product at national, regional or local level. Of course all regulations affecting the business setting-up and management of companies directly affect any entrepreneur or business of the area.

We can however distinguish 3 areas:

1. Horizontal business management regulations
2. Fiscal incentives & capturing foreign investment
3. Content regulations affecting games as “product”

Horizontal business management regulations
Red tape concerning the setting-up of business, licences and labour regulations should be improved and current conditions remain challenging for game companies, the same as for the rest of sectors. Survey results confirm this point.

In transactions involving e-commerce, regard should be had to legislation on distance sales, advertising, standard contract terms, electronic signatures, data protection, intellectual and industrial property, and ecommerce and information society services. Apart from these specific laws, it is also necessary to look to the general legislation on civil and commercial contracts.

Fiscal incentives & capturing foreign investment
Neither Spain nor the region of Asturias has articulated a system of clear and identifiable tax incentives or advantages for the national sector. The Spanish Association of Publishers and Distributors Entertainment Software (ADESE) encourages government to follow the example of other markets like Italy, Canada, France and UK, countries which already are promoting grants and tax breaks for companies that create video games.

Content regulations affecting games as “product”
Although there is not a specific regulation for “games” some areas that directly affects the sector.

Intellectual Property protection vs. Industrial Protection
The Spanish IP system and regulations, opposed to Anglo-Saxon traditions, make a clear distinction between industrial property (patents, marks with commercial or industrial application) and intellectual property. Spanish regulation considers the intellectual property rights as the set of rights corresponding authors and other owners (artists, producers, broadcasters) regarding their works and fruits of their creations.

In addition, Spanish system of patents does not allow software patentability. In fact, Computer-Implemented Inventions (CII) is a hot topic in the patent world. While some countries grant patents for all types of software, the patent practice in Europe is a different matter. Here, developers need to show that their invention actually makes a contribution in a technical field.

The aim of these not infallible mechanisms is to be used to prove ownership of that invention in case of being involved in a lawsuit in court.

The reason for rejecting the qualification as a computer programme is that they contain instructions or data intended for use in a computer system, either to perform a task, or to obtain a specific result, while the predominant game simulation determines media and user interactivity. In common law are usually considered software, no doubt to attract its protection via patent, but in our case it is true that the importance is relative, provided we are clear that some elements do constitute computer programmes, but obviously are not unique.

So, we could have some elements of the games protected under different categories:

- Titles and name of software in itself for commercial purposes, under trademark
- Scripts of games & software under Intellectual property
- Some hardware: patented
<table>
<thead>
<tr>
<th><strong>Industrial rights</strong></th>
<th><strong>Intellectual rights</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Education, Culture and Sport - Directorate General of Intellectual Property</td>
<td>Ministry of Industry</td>
</tr>
<tr>
<td>Spanish Patent Office</td>
<td>The General Registry of Intellectual Property. There is a national central office and there are also branches in each region.</td>
</tr>
<tr>
<td>Inventions with industrial application: Patents, utility models, industrial designs and trademarks</td>
<td>Copyright of all original literary, artistic, or scientific works such as books, musical compositions, audio-visual works, blueprints, drawings, graphs, computer programs and databases. Computer programs are protected by copyright along with documentary information that accompanies them, and are treated, except in rare exceptions, as literary works.</td>
</tr>
<tr>
<td>Registration has &quot;constitutive&quot; effects. The principle of registration prevails: there is no right in an invention (patent), distinctive sign (trademark), industrial design, unless and until it is registered.</td>
<td>Intellectual property arises from the moment of creation, without requiring any registration, which means automatic protection. Registration is in order to obtain stronger evidence in claims against third parties.</td>
</tr>
<tr>
<td>Patents are granted for a period of 20 years from the date of application. Utility models for 10 years. Industrial designs are granted for five years, renewable up to a maximum of 25 years, and trademarks are granted for a term of 10 years, renewable indefinitely.</td>
<td>Protection for copyrights lasts for 70 years from the death of the author if he was a natural person. In cases where legal persons are recognized as the authors, the protection period lasts for 70 years from the 1st of January of the year following the lawful registration of the work or from its creation.</td>
</tr>
</tbody>
</table>

Table 35. Overview of Industrial Rights versus Intellectual Rights

![Figure 18. Awareness campaign and materials 227](image)

**Piracy**  
According to surveys and interviews, piracy is experienced differently in the Spanish and Asturian video game industry. In fact, these experiences are very different from the big developers of traditional "box product" involved in the Spanish Association of Publishers and Distributors Entertainment Software (ADESE).

From the experience of the young video game micro-enterprises, piracy is not the most worrying problem. Young micro-business developers are working in a difficult economic and business context. They have been living with piracy since from the beginning of their work career, and it seems they are successfully avoiding piracy by operating in the online marketplaces.

227 Source: Ministry of Education, Culture and Sport
Although piracy is difficult to eradicate in a global marketplace, young entrepreneurs of the video game industry have confidence in their ability to generate leader innovative technologies. In this sense, online games and mobile games not only involve new business models in themselves, but represent new challenges and opportunities for piracy, in the sense that the contents are only available via download.

A recent milestone in this area was the Forty-Third Final Provision Sustainable Economy Act (known as “Sinde Law”).

According to the Spanish Association of Publishers and Distributors Entertainment Software (ADESE, which has registered 12 associated members, big developers as Electronic Arts, Sony and Nintendo), in its 2010 annual report, the total value of the materials pirated to cultural sectors (films, music, books, games) amounted to 5,562.1 million euro’s in the second half of 2010, nearly four times the legal consumption, on an industry that generated in this period a volume of 1,510.9 million euro’s. In the full 2010 year, the contents pirated were 10,774.5 million euro’s.

Although after the approval in 2011 of the Forty-Third Final Provision Sustainable Economy Act (“Sinde Law”) with the 92% of the support, the U.S. Department of Commerce lowered the pressure on the Spanish government, only a few months later the U.S. Congress again pointed to Spain as one of the five targeted countries in the world, together with China, Ukraine, Canada and Russia for the use of P2P networks. Finally, although in its report the U.S. recognized the positive steps taken in Spain, still described piracy in Spain as “a serious problem that continues causing substantial damage in the American content industry”.

ADESE also remarks the fact that the European Union has taken the Sinde Law as one of the main references, together with the Dutch regulation to develop the new EU anti-piracy. The European authorities are committed to involve Internet operators in the fight when closing not only the illegal download websites, but also those that allow consumption of these contents without any authorization.

In this sense, the new Act in force against piracy is a good incentive to create new expectations, but it is too early to analyse its effectiveness. ADESE recognizes the increasing number of favourable judgments by industry infringement of intellectual property rights, but also claims a policy framework to ensure the integrity of the intellectual property rights in Spain.

Given these data, ADESE stands the urgency of a change in the Spanish current legislative model, but also need for a shift to a new business model based on a quality online offer. In Spain there are around more than 600 sites providing legal contents from cultural sectors and this legal offer tendency is increasing and adapting the profile of the digital user. However, a change in social attitude and a frame regulatory framework will be necessary in order investments can return.

Finally, the quick growth of the video games market and the expected growth in the coming years, make that the structure of this industry is still in process, providing Europe with new opportunities to build a strategy for Europe. It is highly important EU regulatory framework cover some relevant parts such as copyright, data protection, privacy law, consumer protection or e-money.

**Gambling Law “on-line gambling”**

The recent Law 13/2011 of 27 May, Gambling Regulation has recently entered into force on 1 June this year 2012. The first licenses that allow applicants to start their businesses legally provide services related to gambling in our country. It has opened many questions about its application.
Bulgaria: Sofia

Existing rules and regulations/policies supporting the games industry in Bulgaria: Sofia

As of April, 2012, no policy could be identified at any geographic level which was in place to support the digital games industry, nor were there any for the creative industries. This is supported by statements made by municipal authorities themselves. The only policy that could be identified with any cultural focus was the ‘Concept for Leading the Metropolitan Museums’ in improving the status and organisation of museums in the capital in order to promote Sofia as a cultural centre. The only level at which any policies are likely to have had any noticeable effect on the sector are those national level policies aimed at promoting a healthy business environment in general.

These policies include national level policies aiming tax incentives for businesses, e-government actions to reduce administrative burden, and initiatives support to the development of human resources capacity (i.e. language skills, computer literacy, etc.). While there are no specific policies which have been developed to support either the digital gaming industry nor the creative industries in particular, numerous regional and municipal development plans exist which lay out possible paths for cities and regions.

Given Bulgaria’s place as the poorest EU Member State measured in GDP per capita, it may be reasonable to assume that it is general business support (support to all sectors) that should be the focus of national, regional and municipal economic policy. Such support would entail strengthening of infrastructure, the creation and support of a legal and administration system in which starting-up, running, and winding down a business are as streamlined and inexpensive as possible, supporting access to sufficient sources of finance for entrepreneurs, a tax system stimulating companies, and support to an educational system which produces graduates with marketable skills. However, such measures are not enough to create a knowledge economy in the information age where the most economic value is increasingly being generated by creative and highly skilled knowledge workers.

Thus, in the modern world, the question is not one of choosing to focus on supporting the general business environment or specific sectors and fields; rather, specific support mechanisms to knowledge-intensive fields (we are not only speaking about digital games or the creative industries here) are essential and stand upon a robust general business environment. Sofia finds itself in the position of needing to support both, and it has indeed improved its efforts within the traditional activities with the purview of municipal administrations (i.e. schools, roads, public transport, trash collection, and social and health care services).

Other factors which may be of higher importance to creatives than to workers in other fields, such as the maintenance of parks, gardens, and public spaces, and the organisation of cultural events, the creation of designated pedestrian areas and bikes paths (i.e. the beautification of the city), do not appear to be high on the agenda. As seems to have happened time and time again since the collapse of communism, it is Sofia’s citizens and private sector which stepped up to bring the city into the fold of the modern knowledge-economy in creative fields, through the development of co-working spaces, and creative and cultural events including various public and private sector partners.

As the general policy situation has been laid out, and neither specific policies in support of the digital games sector, nor the creative industries have been identified, it remains to dig into the general development and business policies which, through their general nature, will also impact the digital games sector. With respect to the national level, the following strategies and action plans have been identified:

- The Bulgarian Copyright and Related Rights Act
- The National Reform Programme of Bulgaria (2011-2015)
- Action Plan for Achieving the National Target for Reducing Administrative Burden by 20 Per cent by the End of 2013

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The following events were organized by Edno, a leading magazine on art and culture in the country and other co-organizers: Sofia Design Week, Sofia Dance Week, Sofia Architecture Week.


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• Program for 2010-2013, Better Regulation (Update)\(^{239}\)
• Concept for Improvement of Administrative Services in the Context of the "One Stop"\(^{240}\)
• National Strategy for Development of Broadband Access in Bulgaria\(^{241}\)
• National Strategy for Promotion of Small and Medium Enterprises 2007-2013\(^{242}\)
• National Strategy for Lifelong Learning for 2008-2013\(^{243}\)
• Updated Employment Strategy of the Republic of Bulgaria 2008 - 2015\(^{244}\)
• Operational Programme "Competitiveness of Bulgarian Economy 2007 - 2013"\(^{245}\)
• Innovation Strategy of Bulgaria and Measures for its Realisation\(^{246}\)
• Operational Programme "Human Resources" 2007 - 2013\(^{247}\)
• Operational Programme "Administrative Capacity" 2007 - 2013\(^{248}\)
• Strategy for Human Resource Management in Public Administration 2006 - 2013\(^{249}\)
• Strategy for Training Staff in the Administration\(^{250}\)

Needless to say, there are a plethora of national strategies, plans and legislation which have been developed to underpin the economic development of the country. Some of these may have a clearer connection to the creative and cultural industries than others, but analysing them all in-depth would dilute the focus of the current study. As such, a few highlights emerge from them which may have particular relevance for the cultural and creative industries and the digital gaming sector in particular:

**Tax rate**
The corporate tax rate and income tax rates stand at 10%, which are among the lowest in the European Union.

**E-government**
Social security contributions, corporate income tax, and contributions for value added taxes can be submitted online. Bulgaria has adopted a ‘General Strategy for eGovernment in Bulgaria 2011-2015’ aiming to streamline government administration and services for citizens and businesses. The Commercial Register also allows one to register a company electronically and other business related services\(^{251}\).

**Administrative burden**
As a reaction to issues regarding administrative burden, the Bulgarian government has developed the ‘Action Plan for Achieving the National Target for Reducing Administrative Burden by 20 Per cent by the End of 2012’. This aims to address inefficiencies in the provision of services for citizens and businesses. According to the World Bank ‘Doing Business’ Report, Bulgaria is ranked 59\(^{252}\) in terms of ‘ease of doing business’ across a number of indicators. According to this report, starting a business in Bulgaria requires 4 separate procedures, takes an average of 18 days, and costs 1.5 times the average annual salary to start a business, and as a result Bulgaria ranks 49\(^{253}\) among all countries with respect to the ‘starting a business’ indicator.

**Human resources capacity**
With respect to human resources capacity, the quality of educational systems can be an indicative guide here. According to the OECD Programme for International Student Assessment (PISA) from 2009, Bulgaria falls, with a statistically significant margin, below the OECD average on every indicator measuring reading, science and math skills\(^{254}\). With respect to universities in the country, the top five universities are ranked 681 (Sofia University), 1390 (Technical University of Sofia), 1737 (University of Chemical Technology and Metallurgy Sofia), 2346 (New Bulgarian University), and 3197 (Medical university of Sofia) across a number of indicators\(^{255}\). Admittedly, this does not specifically reflect the departments and universities which have a specific bearing on digital gaming but rather gives a picture of the educational system in the country. Additionally, it does not reflect the human resources capacity developed through informal means or student’s obtaining their education abroad, which assuredly makes this educational situation less bleak.

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\(^{239}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=607]

\(^{240}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=606]

\(^{241}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=603]

\(^{242}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=576]

\(^{243}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=481]

\(^{244}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=476]

\(^{245}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=477]

\(^{246}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=429]

\(^{247}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=374]

\(^{248}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=363]

\(^{249}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=410]

\(^{250}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=362]

\(^{251}\) Available in Bulgarian only [http://brra.bg/]

\(^{252}\) Available in Bulgarian only [http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg&Id=362]

\(^{253}\) Available in Bulgarian only [http://www.bgra.bg/]

\(^{254}\) Available in Bulgarian only [http://www.pisa.oecd.org/dataoecd/54/12/46643496.pdf]

\(^{255}\) Available in Bulgarian only [http://www.webometrics.info/rank_by_country.asp?country=bg]
With respect to **regional and Sofia municipal policy**, the following documents were identified as laying the framework for economic development (none however were identified with any specific focus on the creative industries, let alone on digital gaming):

- Regional Development Plan of South-Western Planning Region 2007-2013
- Territorial Development Plan
- Municipal Development Plan
- Programme for the Governance and Development of Sofia Municipality 2008-2011
- Municipal Budget

As policy documents in Bulgaria tend to be more frequent than their realisation, we aimed to look at the municipal budget as a way for seeing which policies and priorities ‘have teeth’ (i.e. budget for their implementation). As such, the highlights of these regional or municipal policies include:

**Sofia Municipal Budget for 2012** – The project budget of Sofia Municipality for 2012 is 1,272,633,454 BGN (approx. €650 million). There is no evidence from the document aiming at providing specific support for identified high growth sectors, let alone the creative industries or the digital gaming sector.

**Hard Factors** – With respect to the activities and services of the municipality in 2012, core municipal functionalities are covered, such as providing and maintaining transport networks, maintaining public areas, the city environment and waste disposal (301,591,690 BGN – €154,195,220), social services (28,785,937 BGN – €13,694,884), defence and security (8,256,152 BGN – €4,221,134), education (227,683,046 BGN – €116,407,841), health services (30,689,806 BGN – €15,690,821), and economic development activities (125,119,000 BGN – €63,969,772).

**Soft Factors** - With respect to the cultural and creative industries (which are, we feel, a mid-ground between its cultural and business support activities) a budget of 22,893,011 BGN is devoted to cultural activities. Of these funds, 5,325,856 BGN are directed towards community centres (3,895,912), the national library (1,205,424 BGN), and the national gallery (502,734 BGN). The remainder, 17,288,941 is directed at the payment of salaries and overhead costs for these facilities. The Municipality also approves and helps to develop the annual cultural calendar, which for 2012 is foreseen to include events such as the Sofia Film Fest, Sofia Theatre Events, Sofia Music Week, European Music Festival, International Festival for Baroque Art, International Folklore Festival ‘Sofia’, Sofia Dance Week and a few others.

To be fair, since there is no designated policy for the support of the cultural and creative industries, it logically follows that there will be no budget allocated to such support. The budget in support of creativity is mainly allocated to maintenance of existing art and culture institutions, with some support (although the exact amounts have eluded us) going to the support of cultural events above, with no support identified to target creative business in particular. The majority of the municipal budget is for the maintenance of the capital. At the present time (April, 2012) a major expansion of the cities metro system is nearing completion.


The Regional Development Strategy for Sofia District contains three main priorities:

1. Competitiveness through knowledge economy.
2. Development and modernisation of the transport and technical infrastructure.
3. Improvement of living conditions and quality of living environment.

The interim evaluation results from 2010 indicate that the best outcomes are visible within priority 2, followed by priority 3, and the least satisfactory progress is within the framework of priority 1. The latter encompasses various guidelines for measuring the progress of the priority such as conditions for the rapid introduction of innovations; transfer, development and introduction of high technologies; education which is in line with the needs and requirements of the labour market; infrastructure development; modern production and warehouse centres; tourist infrastructure; other conditions for attraction of businesses like administrative and judiciary environment and

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254 (Available in Bulgarian only) http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=437
256 sofia.bg/en/documents/Rezume%20OPR%20neg_2010.doc
257 http://www.sofia.bg/programaupkm.asp
258 Sofia 2012 Budget (in Bulgarian) http://www.sofia.bg/picts/budjet12/T1_Doklad.pdf
259 (Available in Bulgarian only) http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=312
260 (Available in Bulgarian only) http://www.strategy.bg/StrategicDocuments/View.aspx?lang=bg-BG&Id=731
provision of services; maintaining high economic growth. Despite the fact that some of these conditions have made satisfactory progress in their development, the overall evaluation of this priority is weak due to the lack of results according to the main indicator i.e. innovations and high technologies.

Priority 2 scores high due to the construction of the new subway lines from Nadejda to bul. Cherni vrach and from Mladost to the airport, the expansion of the ring road as well as the construction of the intermodal terminal. Some other major transport and technical infrastructure projects have been launched as well.

Under the third priority some universities have been renovated and made energy efficient and the major cultural infrastructure in Sofia such as the National gallery, the Historical museum, concert halls and theatres has been rehabilitated as well.

The conclusion of the interim report is that despite the global crisis, Sofia district retains its leading position as the most dynamically developing area in the country with a sustainable economy. The GDP per capita in 2008 was 92% of the average EU-27 with expectation to reach 100% by 2012. **The main problems listed are the lack of investment in R&D activities and the inability to bring back “brains” from abroad.** The recommendation to include one more priority ‘inclusive growth’ to be in line with the Europe 2020 strategic goal for fighting poverty was made. **However, no measures targeted specifically at supporting the creative industries (or the gaming sector) have been proposed or even mentioned.**
Germany: Baden-Württemberg

Existing rules and regulations/policies supporting the games industry in Germany: Baden-Württemberg

A first important step toward a digital media strategy in Baden-Württemberg was done in 2008 within the context of the renewed strategy targeting the film sector named “Filmkonzeption Baden-Württemberg”. This strategy was warmly supported by the local government in those years; a working group collecting experts from the film, media and games industries was put in place for its development. The innovative aspect of the “Filmkonzeption” was the introduction of financial support for computer- and videogames as well as for other kind of interactive media products through the institution of the Digital Content Fund (DCF).

The Digital Content Fund (DCF) supports entrepreneurs and freelancers regarding their realisation of interactive media projects. The aim is to increase value creation and commercialisation by purposeful funding (concept, prototyping, production, distribution) creating incentives for further investors to engage in interactive media projects and enabling entrepreneurs to develop their ideas ready for the market. The focus of the DCF lays in the support of project which can prove a cultural or pedagogical value: eligible for grants are especially projects which are innovative, culturally valuable, scalable and offer market potential. In total 500,000 euro per annum is provided for this development programme. (“Filmkonzeption Baden-Württemberg”, 44). This kind of funding explicitly addresses media application for information, education, science and arts, as an alternative to action games.
Malta

Existing rules and regulations/policies supporting the games industry in Malta

Malta is presently the place where iGaming operators decide to set up their businesses and offer their services internationally. It is interesting to point out that one of the reasons why Malta found itself at the front of the remote gaming industry is the fact that it has a concrete and serious regulatory frameworks based on a set of regulations which guarantee that iGaming is provided in a fair, responsible and transparent manner, free from crime and money laundering.

In 2004, Lottery Gaming Authority (LGA) identified in its regulations that licences and taxation had to be specific to the actual activities and nature of services provided. In its regulations, LGA has recognised four main areas of activity and products provided. The first two types of operators offer B2C (business to customer) services; the first type of operators offer games of chance like casino games and the second type offer the facility to place bets on sporting events etc. The other two categories are of a B2B (business to business) nature, companies that offer services of promotion and assistance for iGaming from Malta and companies which offer hosting services to remote gaming operators (excluding themselves). As regards to taxation, it is important to note that it is also worked out in view of the type of licence that the operator holds. Moreover, the Maltese taxation system has not only attracted remote gaming companies because of its services provided, but also because it offers beneficial rates when contrasted to other EU countries. Malta is also attractive for professional poker players; unlike other EU countries like Sweden and Germany, in Malta there is no withholding tax on the winnings of a player. These benefits are not only applicable to the remote gaming industry but are also prolonged to other categories of direct foreign investment.

Another positive aspect related to the policies and schemes in Malta is that it offers relief from Double Taxation of foreign source income by concluding treaties and agreements with over 40 countries, meaning that tax credit is offered for any tax paid in any of these countries. Nevertheless, if tax is paid in a country with which Malta doesn’t have a treaty, then Malta offers a unilateral form of relief that also applies for foreign tax that is paid by the company on the circulated profits.

As a member of the Commonwealth, Malta also offers income tax relief if the taxes were paid to British Commonwealth countries. In cases where a company cannot apply for any of the above-mentioned instances then it is offered the possibility of benefitting itself of a flat rate of 25% on the amount of overseas income received by the company before any deductions.

Additionally, the island offers tax refunds on the dividends that are paid to company shareholders. This scheme was created in 2004 and it offers an income tax benefit of a base rate of 15% on income that is made or brought into Malta. Moreover, Malta Enterprise (ME) also offers various forms of incentives to support companies and enterprises most notably the investment aid that is offered to companies that are part of specific industries that are being promoted in Malta. Eligible companies have to fall under these specific categories:

a) Manufacturing  
b) Information and Communications Technology (ICT)  
c) Research, Development and Innovation  
d) Eco-innovation, waste treatment and environmental solutions  
e) Bio technology  
f) Facilities for Filming and Audiovisual productions  
g) Provision of Tertiary Education in Science and Technology  
h) Provision of Private Health Care Services  
i) Logistics operations by large undertakings

Digital Games enterprises would fall under categories b) ICT and c) Research, Development and Innovation. This investment aid takes the form of tax credits that are equivalent to a percentage either of the value of capital investment or the value of 24 months of wages of new jobs that have been created by the new investment. This initiative is applicable to investments made from 1st January 2008 till 31st December 2013 when aid activity will be highest but the framework will still be in place beyond 31st December 2013. For more information, please visit the Malta Enterprise website: www.maltaenterprise.com.

This category excludes Remote Gaming (betting) companies and Providers of Telecommunication Services, in other words any companies that fall within the categories NACE rev 2 class 92.0 and NACE rev 2 classes 60.0 and 61.0 respectively.  
http://www.maltaenterprise.com/business_support_measures.aspx
France: Ile-de-France Region (Paris Region)

Existing rules and regulations/policies supporting the games industry in France: Ile-de-France Region (Paris Region)

National level

French video game policy refers to the strategy and a set of measures laid out by France since 2002 to maintain and develop a local video game development industry in order to preserve the European market diversity. Since then, different policies have been developed to sustain the sector.

Government support for the industry

In France, support for the video games sector exists in various forms.

R&D support
- France’s research tax credit enables companies to receive relief on social security contributions for the salaries of employees conducting R&D. The system involves a tax credit which can be deducted each year from the company’s profits, and can cover 30% of the company’s R&D spending (40% in the first year).
- The “Innovative new companies” scheme offers support on a sliding scale towards employer social security contributions for salaries allocated to innovation positions. Eligible companies must be less than eight years old.

Support for video game production
- France’s video game tax credit, a unique measure in Europe, enables companies to save 20% of eligible video game creation expenditure, subject to meeting certain qualifying criteria. A commission of experts using funds from the Ministry for the Economy, Finance and Trade and the National Centre for Cinema and Animation (Centre national du cinéma et de l'image animée – CNC) attribute the tax credit. On April 25, 2012, the European Commission authorized its renewal for six years (until December 2017).
- The video games support fund (FAJV), jointly funded by the Ministry for the Economy, Finance and Trade and the Centre National du Cinema (CNC) and administered by the latter, seeks to support innovation and creativity in the video games sector by providing production grants. Together, these support measures along with the very attractive business ecosystem for start-ups provide a bespoke environment for developing video game production operations in France.
- The National Video Games Association (SNJV) is involved in all areas to preserve or enhance the competitiveness of companies producing video game based in France:
  o Public policies to ensure the international competitiveness of enterprises for creating video games;
  o Regulatory and legislative devices adapted to the sustainable development of the sector;
  o Training;
  o Promotion of French industry of video games in France and abroad;
The SNJV also intervenes in the interest of its members whenever the news requires.

If private mechanisms such as credit banking, Venture capital, or through the Public Financing Oseo, Relief Fund Video Game, Video Game Tax Credit, Research Tax Credit and JEI (Young Innovative Companies) are many, the specificity of the value chain and production of video games, the constraints of markets or the development of trades require also suggests specific mechanisms.
The finance committee of SNJV (The National Video Games Association) has undertaken several actions with the objective of optimizing existing devices but also to develop new mechanisms.

An export plan and a brand of international visibility

The French Videogame Industry adopts an export plan and a brand of international visibility:
- Export Plan
  The Secretary of State for Trade and the President of the National Video Games Association (SNJV) signed in March 2012 the “export Charter of the video game” to coordinate devices of international support

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for companies of the sector and enter the game among the branches of overseas promotion by the state departments.

The Export action plan of French video game brings together all ministries (Foreign and European Affairs, Culture and Communication, Industry, Trade) and relevant government operators (French Institute, CNC National Centre for Cinema and Animation, UBIFRANCE (the French Agency for International Business Development), Invest in France (the French Agency for International Investments), OSEO, Coface and the national Committee of Advisors for Foreign Trade of France).

This Export plan is made to collectively help companies of the sector to gain market share abroad and to better attract foreign investors on French territory.

The Export plan is organized around three themes:
- the prominence of French excellence through a collective brand,
- the development of exportations, by improving access of SMEs to export devices support
- the development of investments in France, by communicating campaigns on the image and the economic attractiveness of France to the video game companies.

On the occasion of the signing of this Export Plan charter, the National Video Games Association (SNJV) has launched a new brand of international visibility of French video game “The Game”, a major instrument of this ambitious collective project.

**Brand with international visibility**

March 2012: Launch of Le Game, the new flagship for France's video game industry that will federate and promote French videogame industry and creativity.

**Funded by the French videogame trade association** (National Video Games Association / Syndicat National du Jeu Vidéo) and partners and backed by the French government, Le Game, as well as their official motto, “Uncompromising Creativity from France.” will facilitate awareness and trade opportunities for French game developers and publishers on the global scale.

This new brand was founded to promote the creativity and know-how of French gaming professionals the world over. Small companies form the backbone of the French industry, and Le Game will help them gain visibility on the international level.

All regional associations are part of the action of Le Game.

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Several regions in France (including Paris region, Nord-Pas-de-Calais, Rhône-Alpes, Aquitaine and Languedoc-Roussillon) have long since promoted support measures and public-private partnerships to boost development in the sector, such as innovation clusters for example.

For example, they offer funding or support programs targeting the audiovisual and games industry, giving grants to competitiveness and business clusters, to the organization of specific events, to support the creation of multimedia products and video games, the development of companies and start-ups, to help the development of schools…

Regional level

Ile-de-France Region (Paris Region) support

The Ile-de-France Regional Council is actively involved in a regional plan to support higher education, research and innovation and as many programmes to support business activities among which:

- Support to competitiveness clusters
  Between 2006 and 2011, the Regional Council provided a total aid of 8.3 million euros to the Paris Region competitiveness clusters’ structures themselves. In addition, 144 million euro was allocated to support 204 R&D projects, regarding 566 partners (mostly public laboratories and SMEs).

- Support to incubators
  Until 2010, the Regional Council supported 7 incubators affiliated to universities or economic development agencies. Each of them was allocated an aid ranging from €3,500 to €12,000 per project. Following the 2011 regional call for project, 16 structures will be supported for 3 years, for a total annual budget of 1.945 million euro. These 16 chosen structures include for instance: Telecom ParisTech Entrepreneurs, PRIL Incubateur, the Descartes incubator, and the Paris Bain and Spine Institute.

- Support to events
  The Regional Council provides funds to organize events related to digital content and video games, for example to Future en Seine, the digital world Festival organized by Cap Digital or to events directly related to video games, like Game Paris, organized by Capital Games.

268 Paris Region: Meet the video games industry leaders, December 2011
Austria: Salzburg

Existing rules and regulations/policies supporting the games industry in Austria: Salzburg

National level

The national level policies are mainly shaped by the Austrian Government. Compared to other countries, the games industry does not have a strong stakeholder on a national level yet. In England, France and Italy national stakeholders of the game industry convinced their governments to support the games industry with significant tax cuts (TIGA 2012, Eurogamer 2012, AESVI 2012). Tax cuts and cuts on the non-wage labour costs are one measure to strengthen the game industry (WKO 2010).

Austrian government programme – Evolve

As a cross-sectoral branch made up by mainly micro-enterprises, the creative industries are marked by a high degree of heterogeneity and highly differing needs. For that reason, the Ministry of Economy, Family and Youth decided in 2008 to create “Evolve” (bmwfj 2012), a scheme to promote innovation in and by means of the creative sector.

The goal of “Evolve” is to make the most of the high potential for innovation in the increasingly vital creative sector in order to secure and even improve Austria’s already excellent innovation performance. Evolve unites under a common roof the services made available at a federal level to companies for the purpose of bolstering the creative economic sector and consolidates them into a comprehensive package.

Evolve’s mission is to support creative entrepreneurs on the basis of a package of measures tailor-made to their individual needs – in all branches, in all of Austria, and at all stages of development. In addition, Evolve’s offerings are available not only to creative but also traditional companies that have recognized the value of creative goods and services and wish to further develop themselves in this direction – whether alone or with partners in the branch.

Besides the direct promotion of companies or projects in the creative sector, “Evolve” aims to raise the level of awareness for the concerns of the creative industries. “Evolve” takes measures to strengthen the public acceptance and awareness of creative goods and services and to raise the visibility of the creative industries on both the national and international level. Impulse, a funding programme, and Creativ Wirtschaft Austria, a platform and stakeholder for the creative industries, are part of the Evolve programme.

Creative Industries Funding programme - departure

departure addresses those creative professionals who consider themselves active participants in business life. With the aim to create an economically sustainable basis for Vienna’s creative professionals departure offers various funding programmes for entrepreneurs and company founders and supports outstanding achievements in the following fields of the creative industries: fashion, music, audio-vision, multimedia, design, publishing, art market and architecture.

departure does not offer funding for purely artistically oriented projects but supports the integration of cultural and creative achievements into the city’s economy in the sense of economic exploitation of innovative and creative work (and not in the sense of mere profit seeking).

Regional level

Regional Government - Land Salzburg

“Salzburg. Standort Zukunft. Wirtschaftsprogramm Salzburg 2020” (=Economic programme)

The regional government – Land Salzburg - is shaping the regional innovation and technology related policies and has recently developed a new economic framework programme for future policy measures until 2020. By engaging all relevant stakeholders the Land Salzburg developed a new vision for Salzburg including new strategies and measures in the field of Creative Industries and Information and Communication Technologies (ICT).

In its economic programme the regional government and partners sketched and analyzed the current situation, stating new strategies and measures for the future of the Land Salzburg. Among them: Building, Wood Products and – Technologies and Life Sciences emphasis is given to the importance of creative industries, ICT as well as digital interactive media and the games industry.

“Challenges for the future will be demographic and social change, growing importance of knowledge (science and technology, information and communication technologies), globalization, climate change, resources and energy. A great interest exists in keeping highly skilled and trained employees and entrepreneurs in the region.”

The competitive environment has intensified, and the development of new support measures for the rapid transition to a knowledge-based economy becomes a main challenge for regional economic policy. Further major challenges which have been considered within the new economic programme are: demographic and social change, scarcity of fossil fuels and climate change or the reduction of greenhouse gas emissions.
“The business location of Salzburg must stand in every respect for quality, progress and excellent living and working conditions. Salzburg wants to be the best and most attractive place to live and work in Europe.”

Creative Services from ICT, new media and creative industries are regarded as important drivers for innovation and economic change, aiming on a stronger linkage between the creative industries and other business fields.

As the regional innovation agency of the region, ITG Salzburg GmbH has the mandate from the regional government (Land Salzburg) to develop and implement measures of the regional innovation programme in the field of creative industries and is coordinating the cross-regional Network Design & Media with Upper Austria.
3. ACCESS TO MARKET
Introduction

Profile of the European Gamer

The Interactive Software Federation of Europe (ISFE) created a profile of European Gamers in 2010. Across the 8 major European nations surveyed, 25.4% of adults have played a video game in the last 6 months. This percentage varies from 38% in France to 17% in Italy and Poland. Using this data we estimate there are 95.2 million adult Video Gamers across all 18 countries covered by the Gamer Survey. Gaming is most popular among the young, however almost 30% of 30-49 year olds play video games. Thirty-one percent of males and 20% of females are Gamers. Thus, unlike what is generally portrayed in the media, females are also avid gamers.

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Table 36. Profile of European Gamers

Gamer Commitment
- Since the launch of the new games consoles there has been a marked increase in the numbers of people enjoying gaming. However, many of these new gamers are less dedicated to gaming and they commit less time and money to gaming
- 68% of all gamers in the 8 countries surveyed are in the three least dedicated gamer groups;

Intermittent, Marginal and Dabbler Gamers
- The most dedicated group, Committed Gamers, makes up less than 7% of all gamers, but they buy many more games and play more hours than other groups
- Male and Younger Gamers are more likely to spend more time and money on gaming

System Use
- Across Europe the PC remains the most used games system; it is the main system for 49% of Gamers aged 16-49
- The Wii and Mobile Phones are the next most popular systems used as main systems for gaming, used by 14% and 10% respectively
- A lot of DS/DS Lite/DSi systems are used as secondary gaming systems and the PS2 still has significant use as a secondary machine (used by 29% and 25% of Gamers)
- Mobile phones are important main systems in all regions outside the UK, France and Germany

Handhelds
- 54% of Gamers are playing a handheld gaming device
- 41% of Gamers mostly play games on handheld consoles at home, 26% mostly play while travelling and 17% mostly when waiting for someone

Multimedia Use
- Watching DVDs, listening to music, and watching films are the most popular secondary uses of games systems with multimedia capabilities
- 36% and 31% of Gamers use the Social networking and online chat services on their consoles

Hours of Gaming
- The inclusion in spring 2010 of all Gamers has led to the identification of Intermittent Gamers who are not playing games regularly every week. 31% Of people who play games do not play regularly for an hour or more each week
- The trend is towards less dedicated patterns of play; overall, 76% of Gamers play for less than 5 hours a week
Games Purchase
- Almost 40% of people playing games have not bought or been given a game for themselves in the last 12 months, they are playing the games others have bought
- 14% of gamers are buying more than 3 games a year; together this group accounts for 56% of all games purchases
- Numbers of purchases are highest in the UFIGS countries, purchases range from 2.7 games each in the UK to 1.4 games each in North Eastern Europe

Online Gaming
The Prevalence of Online Gaming
- 71% of Gamers played some form of Online game in the past 3 months
- Free online games make up a large volume of the online games played; 19% of Gamers are playing paid for Online games, 68% of Gamers are playing free Online games
- Free Games on Games Websites (55%) and Games of Social Network Sites (37%) are the most popular kinds of free games.
- Games you buy and then play free online are the most popular kind of paid for online gaming
United Kingdom: West Midlands

Sales Industry
According to information published by UKIE on 5 January 2012, 2011 was a challenging year for the boxed product video games market in the UK, with annual sales figures of £1.42bn (entertainment software, pc & console games), down 7% over 2010. However, thanks to a strong quarter for the boxed product market was actually slightly ahead of earlier forecasts for a year where consumer spending on leisure activities and leisure goods has been put to the test.

Of the ten best-selling games of 2011 eight were released at the start of or during the key quarter four sales period, meaning that a record 51% of annual revenue was generated in this period. The No1 best-seller for 2011 was Activision’s Call of Duty: Modern Warfare 3, which broke previous records on release by generating £83m in week 45 and 2m units in 5 days.

Total sales of console video game software amounted to £1.35bn, with growth coming from Microsoft’s Xbox 360 and the introduction of Nintendo’s 3DS hand-held. The total revenue for console hardware sales amounted to £646m.

The total value of console/PC gaming accessories was £453m in 2011, a drop of 17%, with total sales reaching 22.4m million units, down 13%. Motion Controller Devices accounted for around 11% of all console gaming accessories (units) in 2011 and a massive 27% by revenue. Traditional console gaming accessories such as joypads, steering wheels, headsets, cases and chargers/docks (excluding motion controller and online time/points cards) revealed a tough time for manufacturers, with overall decline at -23% units / -27% revenue.

2011 was a good year for motion control software using Microsoft’s Kinect, Sony’s PlaystationMove and Nintendo’s MotionPlus devices. The total motion-enabled software share across these three formats rose from just 6.7% in 2010 to 14.5% in 2011. The top-selling motion controlled software titles across these 3 formats in 2011 were Just Dance 3 for Wii, LittleBigPlanet 2 for PS3 and Forza Motorsport 4 for Xbox 360.

Overall, the total gross generated in the UK during the 52 weeks of 2011 from the sale of all entertainment software, console hardware and console/pc gaming accessories, was £2.520 billion, an overall drop of 13%. This equated to 82.0 million units sold all-told in the UK.

Andy Payne, UKIE Chairman, said:

“In a year when overall consumer spending was down, 2011 proved to be a better than expected year for the UK’s boxed-product games market. Helped by the launch of many top quality titles, particularly in quarter four, total software sales of £1.42bn was better than many predicted."

"2011 still saw some remarkable achievements, including the release of Activision Blizzard’s ‘Call of Duty: Modern Warfare 3’, which exploded into UKIE Games Charts in week 45, 2011 generating £83m and 2m units in the UK over the first 5 days. And of course there was the launch of Nintendo’s 3DS hand-held, giving developers and publishers the chance of finding new and innovative ways to engage audiences."

"The industry looks forward to the continued popularity of cloud, mobile and casual platforms in 2012. And we’re also looking forward to the launch of Sony’s new Vita hand-held and the possible UK launch of Nintendo’s Wii U, both of which have the potential to re-ignite the console market, prior to any announcements concerning successors to Microsoft’s Xbox 360 and Sony’s PS3."

Mike Rawlinson, Director General of UKIE, said:

"Despite 2010 being a tough year for the economy, the video games and interactive entertainment industry continues to perform strongly. As the UK’s leading creative industry, these figures demonstrate the increasingly popular position of video games in everyone’s everyday lives, and the strength that the sector has to see it through tough times."

"The UK video games market has something for everyone, with the market expanding into new areas, particularly online, on mobile phones and on other interactive devices. This expansion is coupled with the continued strength of traditional markets, providing consumers with choice and demonstrating the industry’s increasing maturity. Thanks to continued innovation from games publishers and developers games publishers and developers more and more people are playing games. With one in three people now considering themselves gamers, interactive entertainment is increasingly part of everyone’s everyday lives."
Overall, the total gross generated in the UK during the 52 weeks of 2010 from the sale of all entertainment software, console hardware and console/pc gaming accessories, was £2.875 billion. This equated to 93.6 million units sold all-told in the UK.

Indicative of the market’s expansion, figures from IHS Screen Digest suggest that casual gaming has soared in popularity: UK revenue for Social Network Gaming in 2010 was close to $60m

**Total Consumer Spend on the Game Industry**
Current and Future Trends in the Game Industry

UK video games developers are globally renowned for their innovation, creating diverse and eclectic interactive entertainment widely regarded for its excellence by an international audience.

- UK video games studios have a proven track record of developing, publishing and distributing first-class content.
- The UK video games industry contributes some £1 billion to national GDP each year. 2010 VAT receipts generated £577.5 million for the Treasury. 269
- Leading video games such as Elite, Tomb Raider, Grand Theft Auto, RuneScape and Little Big Planet are the brainchildren of UK developers.
- The UK flourishes as a start-up scene for video games developers. Of some 300 games companies currently in the UK, around half are market entrants. 270 216 games companies started up in the UK market between 2008 and 2011. 271
- In 2011, UK studios made up 13 per cent of the Develop 100, an annual ranking of the world’s most bankable games development studios. 272
- 95 per cent of UK games developers export at least some of their products, compared to just one third of SMEs generally.
- Exports of UK-developed boxed video games alone were worth £1.41 billion in 2010.
- On average, 62 per cent of a UK game developer’s turnover is generated from the export of games. 273
- 18 per cent of UK games developers generate 100 per cent of their turnover through exports.
- UK game developers export their products all over the world. The most established markets are the US, the EU, Canada, Japan and non-EU European countries.
- UK games developers are ambitious to succeed on the global stage. 35 per cent want to expand in the US; 31 per cent wish to increase their business in China; 23 per cent are interested in growing in Japan; and 22 per cent have ambitions to expand within the EU.
- UK independent games studios continue to attract international business; all major studios have UK-based developers, including Microsoft, Sony, Disney and Nintendo. These overseas corporations have also established their European headquarters in the UK.
- UK games designers have created new genres, from Massively Multiplayer Online Games to God Simulations, inspiring new industries and the next generation of developers. They also lead in the development of other genres, including Real-Time Strategy, Racing and Role-Playing Games. Examples include Jagex, developer of RuneScape, the most popular free-to-play multiplayer game in the world.
- UK games developers are increasingly taking advantage of the new opportunities offered by self-publishing. 47 per cent of UK developers currently self-publish some of their own games. 274
- 80 per cent of the new UK games businesses that have been set up over the last two years are developing games for online digital distribution.
- The UK games industry actively nurtures innovative new talent. Examples include annual talent competition Dare to Be Digital, whose outcomes feature at major international awards ceremonies around the world.
- In March 2011, the UK Government announced an enhancement of R&D tax credits for the UK games

269 Association for UK Interactive Entertainment (UKIE)
270 Next Gen. Transforming the UK into the world’s leading talent hub for the video games and visual effects industries, NESTA, February 2011
271 TIGA
272 Develop 100, 2011
273 The UK Video Games Industry: An Export Success Story, TIGA, June 2011
274 Game Britain 2011, TIGA
industry, something that could be worth up to an extra £7 million for UK developers. In 2012, this was followed by the announced introduction of corporate tax relief for UK video games companies as of April 2013.

- The UK video games retail market was valued at £3.3 billion in 2010 (all software, hardware and peripherals).
- The UK games sector is projected to grow by 7.5 per cent between 2009 and 2012.
- Around two-thirds of UK games development studios forecast a rise in turnover and company profitability in 2012.
- UK digital video games and content revenue reached £411 million in 2010, an increase of 78 per cent over two years. This figure includes, but is not limited to, large Massively Multiplayer Online Games, social network games, PC casual games, online console games, PC game downloads, mobile games and games on demand.

According to 1000 games here are some statistics about the video games industry in UK

**Types of Technologies Used**

![So what about the money spent in 2011?
Money spent in the UK by platform in pounds sterling:](image)

- Console Games - £1.6bn
- PC/Mac (boxed) - £450m
- MMO Games - £350m
- Social Networks - £210m
- Casual Websites - £400m
- Mobile Devices - £300m
- PC/Mac (download) - £330m

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UK media spend in the video game industry
Despite the huge amount of money spent on games every year, media advertising spend in the sector in 2010 was just £14.4million. Let’s look at how this was distributed:

- 9.6% Fixed in-game advertising
- 36.4% Dynamic in-game advertising
- 36.4% Display advertising

Demographic of Gamers

Who is playing the most games?
Traditionally gaming has always been a past-time for children and teenagers, but the types of gamers in the UK are now changing:

- The UK’s average gamer is around 23 years old, male and has been playing video games for around 10 years. They spend approx 12.6 hours playing video games every week.
- Games have always been considered a boy’s thing, but not anymore. Recent research has shown that 82% of girls living in the UK regularly play games.
- Even older people in the UK are now becoming gamers. 42% of people over 50 spend more time gaming than reading magazines.

A look at how many platforms gamers use
Gamers in the UK don’t just stick to one platform, with the UK average gamer playing on 3.9 different platforms. Let’s look at the number of platforms per gamer in more depth:

- 1 platform: 13%
- 2 platforms: 17%
- 3 platforms: 17%
- 4 platforms: 14%
- 5 platforms: 11%
- 6 platforms: 10%
- 7 platforms: 18%
Xbox360 or PS3?

The two most popular consoles in the UK, fans are constantly arguing over which console is superior. So which one sells the most games in the United Kingdom?

- **Xbox360**
  - £538 million
- **Playstation 3**
  - £414 million

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- **Xbox360**
  - 18.2 million
- **Playstation 3**
  - 13.8 million

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Console game revenue in 2010

Console game units sold in 2010
Netherlands: Utrecht

Sales Industry

As information on solely the region of Utrecht is lacking, this section focuses on the national Dutch game industry. The previously mentioned report of Deloitte (2011) states:

“There are around 160 mostly small Dutch companies active in the games industry (developers, publishers and distributors) employing around 2500 FTEs” (p. 25).  

Together these companies “generate €125-150m in revenues” (p. 28).

“A second tier group of suppliers to the industry […] is estimated at over 100 companies” (p. 5).

“The Dutch games industry is structurally similar to the global industry […]” (p. 5).

<table>
<thead>
<tr>
<th>Economic Sector</th>
<th>Amount of Companies</th>
<th>Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wholesale business and business mediation</td>
<td>46</td>
<td>57000</td>
</tr>
<tr>
<td>Publishers</td>
<td>58</td>
<td>97000</td>
</tr>
<tr>
<td>Film, radio &amp; t.v.</td>
<td>59-60</td>
<td>84000</td>
</tr>
<tr>
<td>IT-service providers</td>
<td>62-63</td>
<td>68000</td>
</tr>
<tr>
<td>Advertisement and market research</td>
<td>73</td>
<td>27000</td>
</tr>
<tr>
<td>Design, photography, translation companies, and other business services</td>
<td>74-75</td>
<td>73000</td>
</tr>
<tr>
<td><strong>Total Economy</strong></td>
<td></td>
<td><strong>62000</strong></td>
</tr>
</tbody>
</table>

Table 37. Overview of the Dutch Economic Sector and Productivity

Total Consumer Spend on the Games Industry

The Dutch games market is estimated at €626m for 2010 and is expected to reach €805 by 2013, with social, mobile and portal gaming making up to €189m. Console hardware is included in this estimation (p. 10).

A relatively small portion of the consumer spending goes to Dutch game companies. Thus the Netherlands is seen as a net importer of game products.

The total (expected) revenues from the Dutch games market can be found in the following table coming from Deloitte’s report:

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278 Ibidem.
279 Ibidem.
280 Ibidem.
282 Ibidem.
283 Ibidem.
284 Ibidem.
When looking at types of games and consumer revenue, it can be seen that console hardware and software are keeping a big portion of the total revenue, but percentage-wise social gaming, mobile devices, (Massively Multiplayer Online games (MMOs), and Portal are becoming more significant each year.

Figures from 2010 show that the biggest turnover in the Netherlands followed from sales: console software (247 million euro), console hardware (181 million euro), portal gaming (76 million euro), PC games (38 million euro), MMO (33 million euro), online PC games (22 million euro), mobile gaming (16 million euro) and social gaming (13 million euro).

Compared to other leading international markets, the Dutch game industry is positioned to profit from a worldwide trend in online and mobile gaming, due to a strong technological infrastructure and governmental support. Portal, mobile and social gaming made a turnover of 115 million euro in 2010.

In these subsegments the biggest growth is expected with 22% for 2012, which would be 155 million euro. The Dutch video game market has a turnover of 626 million euro per year (expected 803 million in 2013).
and with circa 160 companies, relatively limited in extent, with a contribution of 0.0008% to the gross domestic product. Despite these facts, the outlook is positive thanks to the specific expertise in serious gaming and mobile gaming. The Netherlands can leap into the growth and development of these subsectors on an international level.

![Percentage of Gross Domestic Product](image)

**Current and Future Trends in the Game Industry**

Deloitte’s ‘Dutch games industry forecast’ table above shows that revenues of the Dutch game market are expected to grow rapidly. A big growth can especially be seen with social gaming, mobile devices, MMOs, Portal gaming and PC games. Revenues from console software and hardware are also expected to grow, but less so percentage-wise.

Where in 2010 console hardware and software hold 68.4% of the revenue, in 2013 this is expected to decline to 58.6%. Yet, console hardware and software grow in revenue, which partly is because next-generation consoles are expected to launch in 2013 (p. 5).\(^{285}\) If they are not launched by then, growth is expected to be less though, with a revenue in 2013 declining from €805 to €733.\(^ {286}\)

The landscape of the game industry is changing: Mobile devices, increasing network connectivity and social gaming are creating new players in the games industry with new revenue streams and a different business model.\(^ {287}\) Traditional business models change to more dynamic models, as can be seen in the following table:

\(^{285}\) Ibidem.  
\(^{286}\) Ibidem.  
\(^{287}\) Ibidem.
The emergent business model gives more options for developers to create revenue. The need for the traditional publisher diminishes and customers can be approached more directly. Also, development costs are usually lower for mobile and online games compared to traditional games. These new revenue models and lower development costs make it much easier for smaller companies to compete in the game industry. Deloitte states that Dutch companies take advantage of this changing landscape: “Dutch companies generate €125-150m in revenues and most of these companies have benefited from digital distribution, increasing smartphone penetration and education programs in game development” (p. 5).

As stated earlier, game companies in the Utrecht region largely have their focus on digital distribution and mobile platforms such as Facebook, Flash and the App Store. Together with the expected growth of revenue for these categories, this seems to bode well for Utrecht’s game industry.

One of the pitfalls Deloitte recognizes for the Dutch game industry is that “most games companies in the Netherlands are relatively small game development companies which restricts their potential scale advantages” (p. 27).

To overcome this pitfall Deloitte argues that “[…] Dutch game companies need to improve their business models and increase collaboration to create scale advantages” (p. 31).

Clustering of companies is already happening within Utrecht’s DGG. Together with the clustering of education in Utrecht city, the region of Utrecht might be more prepared to gain scale advantages compared to the rest of the Netherlands.
Types of Technologies Used

The Dutch National Gamers Survey 2010 provided by Newzoo gives insights in the types of technologies used:

![Diagram of types of technologies used](boogames-com.png)

This table shows a wide variety of technologies being used to play games. As said previously, the market share of online and mobile platforms is growing at the expense of consoles. Though consoles still are the most important platform of the game industry concerning revenue, the landscape is changing to a more varied one, where games are played on all kinds of platforms. Interestingly, the average gamer plays on 3.2 platforms, of which the most are on online websites, followed by consoles and thirdly by PC/Mac.

Demographic of Gamers

Newzoo’s Dutch National Gamers Survey of June 2011 estimates eight million active gamers in the Netherlands, (which is nearly half of the population), who spend a total of nine million hours per day on playing games. As an example, in 2011, their total expenditure reached €530 million euros.

Table 38. Percentage of the Dutch population playing on a device.

294 Newzoo and TNS NIPO
The table shows that there are gender and age differences concerning preferences of the kind of platforms played on. Besides males, also females can often be found gaming, though in lesser amounts. Interestingly, in contrast to this, online game portals – which include websites – are played, in total, more by females. Concerning age differences, older people are also playing games, but mainly on game portals and PC.

Altogether, the Netherlands is host to a large population of gamers, with a significant amount being female gamers. These gamers play on different platforms, often playing on multiple platforms. Due to this broad demographics of players, it is important for companies who develop games to be aware of their target audience and keep in mind that it is more diverse than once anticipated.

Italy: Umbria

Introduction: The Italian market perspective on Video Games

In Italy, the total videogames industry in 2011 is worth 1,035 billion €. Growth rate in years 2006-2011 has been 9.4% and still traditional platforms (console and PC) have 67% of the total market. Despite the economic downturn, with shrinking family spending, videogames are becoming a reality in Italy which is now ranked 4th in Europe, after UK, Germany and France.

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videogames SW</td>
<td>55.6%</td>
<td>58.2%</td>
<td>60.4%</td>
</tr>
<tr>
<td>Console HW</td>
<td>44.4%</td>
<td>41.8%</td>
<td>39.6%</td>
</tr>
<tr>
<td>Total value</td>
<td>1128.9</td>
<td>1067.5</td>
<td>993.1</td>
</tr>
</tbody>
</table>

Table 39. 2011- Italian Market in Million Euros

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Console</th>
<th>PC Games</th>
</tr>
</thead>
<tbody>
<tr>
<td>-11.7%</td>
<td>-2.8%</td>
<td>-16.1%</td>
</tr>
<tr>
<td>393.6 M€</td>
<td>566.9 M€</td>
<td>32.6 M€</td>
</tr>
</tbody>
</table>

Table 40. (2011-2010) Italian Market by Segments: Trend and Value

Figure 19. EC Video Games Market: Value and Trend

Source: AESVI Annual Report 2011
The growth rates of the game industry are comparable to those of the most innovative segments of the Italian market, particularly those which most use technological innovation (mobile content, Internet advertising, Pay-TV). This growth has affected all European countries and even Italy where pro capita spending on video games (21 € / year in 2008) is the lowest among the 'Big 5'. The UK market is almost 4 times the Italian one, the French market is 2.5 times. Even in the structurally low content spending in Italy, the market still has plenty of room for growth.

In the software segment (where the price differential between home, portable and pc products is less wide), the incidence of games for handheld consoles is growing: in 2005 the value of the sales was 25% compared to home console (80 M € vs. 320), in 2008 half as much (205 M € vs. 410).

In the hardware segment, given the difference in price between home and portable, the proportions between the two segments were stable but the number of units sold has exceeded that of the handheld console versions.

The game, much more comparable to other media such as music and home video, is taking advantage of digital distribution channels such as online and mobile, which now represent over 10% of the content sales (music is 5 %, in home video 0.5%).

The main drivers connected to the growth of the market are:

**DRIVER 1: Ease of use and extension of the market**

Success of video games in the near future passes through the evolution of game controllers (from Wiimote to project Natal) and in the building of an ever more realistic and user-friendly experience. The home console moves increasingly from children's bedrooms to the living room, for the entertainment of the whole family. The growth of video games in recent years has also benefited from the achievement of socio-demographic groups generally not related to the culture of the game.

**DRIVER 2: Diversification and dematerialization of the supply chain**

The game platforms are evolving towards more and more multifunction devices (Blu-ray, media services, video on demand, connectivity). The "total" gaming experience (cloud gaming and social networks) configures the value chain as a "value network" and moves the game towards a model of "game-as-a-service", where the hardware and software are services offered by the provider, and towards a process of "gamification" of social life.

**DRIVER 3: but without losing value and special attention to the billing e.g. Apple model**: a vast library of games for mobile - games representing 2/3 of all applications purchased by users - with a well established payment model.

**Sales Industry**

In 2011, Italy confirmed her presence in the ranking of the 5 most important markets in Europe and is advanced by one compared to 2010, ranking fourth in the ranking by revenue behind Great Britain, Germany and France. The gaming industry in Italy produces a turnover of close to one billion euros (993.1 million euros). Besides, this data does not involve segments of online and mobile, which are becoming increasingly important on the overall value of the field. The evolution of the mode of purchase and consumption is facilitating access to new audiences by making the game become more and more a form of mass entertainment.
Total Consumer Spend on the Game Industry/ Business to Business

The Games Software Market, including video games for consoles and PC, in 2011 achieved a turnover of 599.5 million euros for a total of 16,545,000 units sold, marking a trend of -3.6% in value compared to 2010. As for the hardware market, on the side of the software, purchasing decisions of consumers have rewarded the Italian segment of the Home Console Games, video games console fixed, which represent 81.4% in value and 79.9% in volume compared to console Games portable, portable gaming console, which recorded an 18.6% to 27.1% in value and volume.

Current and Future Trends in the Game Industry

Over the past five years the market for video games has acquired a significant role in comparison with other consumer-entertainment, surpassing in 2010 the consumption of video content, movies and music. It is one area in which strong statement in the period 2012 - 2015 will boast an average global growth of 6.4% and 9% in Asia. The sectors that will drive the market will be the new online and wireless platforms, which represent over 50% of that used by the public.

Types of Technologies Used

The number of Italian families that own a game console is still growing. The level of penetration in the households has increased, in fact, by 2 percentage points compared to 2010, reaching 45.5% or 11,455,800 households. The situation on the PC is similar, which records a penetration rate of 58.8% (14,802,900 households), a +1.3% over the previous year. The console market in 2011 achieved a total turnover of 393.6 million euros, for a total of 2,173,000 platforms sold, representing a value of -11.7% compared to 2010.

This figure reflects some different variable factors involved in respect to last year, including price-cutting policies implemented by the producers and the expectation of new launches of the console fixed. The so-called next-gen console, in fact, were launched between 2005 and 2007 and the arrival of the new version is expected on the market only from 2013, while the laptop has seen one major launch on the Nintendo 3DS, the first console to support 3D technology. In general we can say that the Home Console, representing 60.7% of the market in volume and 67.2% in value, were preferred in purchases compared to the Portable Console, which amounted to 39.3% of the market, 32.8% in volume and value.

Concurrently with the success of video games that include a multiplayer game modes, in 2011, the Gaming Devices segment recorded a turnover. This amounts, in fact, to a 150 million expenditure for the purchase of accessories and game controllers, for a total of 4,876,000 units sold, whereas there was a year-over-year decline amounting to -9.9% in value due to the gradual maturity of the segment.

About the Console Games, it also highlighted the growth of new segments of the card, or prepaid cards sold in retail stores and used by consumers to buy games and additional content through digital platforms of Xbox Live, PlayStation Network and Wii Ware. The segment in 2011 had a turnover of 10.2 million euros, an increase in value year by year of 58%. This result is even more significant considering that in transaction on digital platforms, a portion passes through the purchase of prepaid cards and a portion directly on digital platforms.

Turning to the subject of PC Games, however, 2011 reconfirms the strong decline in sales of so-called video game shelf, products on a physical medium, due to a growing segment of the digitization of PC Games now oriented toward new ways to use them online.

Demographic of Gamers

Sales of video games PEGI age group in 2011 reconfirm a trend now in place for some years that saw the Italian consumers express a preference for titles suitable for everyone's enjoyment: 7 out of 10 video games sold are classified, in fact, with ratings PEGI 3, PEGI 7 and PEGI 12. On the other hand, the growth of 3 percentage points of sales of video games intended for mature audiences (PEGI 18), passing from 15% in 2010 to 18% in 2011, should be reported. In the year under review, there were numerous releases of blockbuster titles of the highly successful franchise, expected and appreciated by the gaming enthusiasts who, even in times of shrinking consumption, did not forget to purchase their favorite titles.
Italy: Piedmont

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297 All data from http://www.aesvi.it/
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Spain: Asturias

According to the Annual Report on Cultural Statistics, by the Ministry of Culture of Education, Culture and Sport, the Spanish household spending on cultural goods and services amounted in 2010 to 15,631.9 million euros and accounts for 3.1% of estimated total expenditure on goods and services. The average household spending on cultural goods and services was 910.4 euros and the average expenditure per person stood at 341.2 euros, the most significant spending being on books, periodical publications periodicals, cultural services, audiovisual equipment and Internet.

At regional level, regarding spending on cultural goods and products the region of Asturias is located above the Spanish average, in third place, following Madrid- at the top of the spending- and Balears Islands.

Sales Industry

According to the Spanish Association of Publishers and Distributors Entertainment Software- ADESE 2011 annual report, the Spanish videogame industry, in 2011, was again the leader of the leisure industry in terms of turnover, reaching a share of consumption in the physical distribution channel of more than 980 million euros, which makes us the fifth European power consumption.

However, this number represents a decrease of 15% when compared with figures obtained at the end of 2010. However, considering that the video game social penetration continues to grow (62% of Spanish children and 24% of the adults are declared regular users), it is expected to return to the path of growth in the sector, once the serious current economic impasse will be overcome.

According to the Spanish Association of video games developers and entertainment software- DEV- Spain remained the seventh country in the world in consumption of video games and the fourth European country. The gaming industry in Spain accounts for 53% of the market of interactive and audiovisual entertainment.

According ADESE, regarding the distribution of sales by product type, 499 million euros (51% of total) are software, 373 million (38%) hardware and 107 million (11%) peripherals.

Total Consumer Spend on the Game Industry/ Business to Business

While video games consumption has experienced a general slowdown, with a decrease of 11.18% on average in Europe, the social penetration of the game continues growing. The video game is still the industry's first interactive audiovisual entertainment with consumer rates that exceed other audiovisual sectors. More than 9,829 million euros in consumption in Europe (physical channel of distribution), of which € 980 million are located in Spain, are significant figures that attest to the enormous size of this sector.

Currently only 2% of the products (physical products) consumed in Spain have been created in this country, but at the same time young entrepreneurs are reversing the situation to take advantage of opportunities to generate wealth and employment in the regions, by running small companies of video games industry.

According to Newzoo, Spain is the 5th on the European market and 7th at national level, with a turnover of around 1,600 M euros in 2011. On a total population of 47 M people, it is estimated there are more than 15 M of Spanish gamers connected on video games, with a spending of around 21 M of hours/day. The Retail, with a 52% of continuous turnover, continues to lead the sales, although it is a gradual market due to the new distribution and online consumption, as follows:
According to DEV, Spain remained the seventh country in the world in consumption of video games and the fourth European country. In Spain software sales in 2009 reached 638 million euros, with an annual growth of 5% between 2005 and 2009. The gaming industry in Spain accounts for 53% of the market of interactive and audiovisual entertainment. It is estimated that the sales of entertainment software in Spain continues to grow steadily, with a growth average of 10% annually until 2012.

The new technological and social scenarios after the consolidation of new gaming platforms such as smart phones or tablets, etc. and the growing number of gamers offer development expectations for the video games sector and new opportunities to attract investment and capital to the regions. At national level there is a lack of a formal or recognized figure from the administration. In addition, according to the Spanish Association of Publishers and Distributors Entertainment Software (ADESE) the Spanish video games production represents only 1% of the total market, a figure that according to ADESE, places the Spanish software development market at the bottom in Europe.

Table 39. Spanish Game Industry Turnover

<table>
<thead>
<tr>
<th>Source: Spanish Association of Publishers and Distributors Entertainment Software (ADESE)</th>
<th>Source: Spanish Association of video games developers and entertainment software – DEV</th>
</tr>
</thead>
</table>
| • Spain 5th in Europe  
• Spanish software sales in 2011: 900 million euros. 400 million euros in hardware. | • Spain 7th country in the world consumption and 4th in Europe  
• Spanish market accounting 53 % of the market  
• +/-200 Spanish video games companies operating  
• +/- 200 professionals involved |

Table 40. Figures Representing Video Games Production in Spain

According to ADESE annual report, the consumer in the video game industry created 980 million euros in 2011. This turnover makes us the fifth largest European consumer. Regarding the distribution of sales by product type, 499 million euros (51% of total) are software, 373 million (38%) hardware and 107 million (11%) go to peripheral. However, it should be highlighted that ADESE represents the subsector of retail, but currently they are the only organization in Spain with figures in the national overview.

In relation to total units sold, the figure stood at a total of 21,912,000 units between software (video games), hardware (consoles) and peripheral. By segment, in 2011, 1.91 million consoles, 14.97 million 5.02 million games and peripherals were sold in Spain.

299 Source: Newzoo
Figure 21. European Market Percentage

Figure 22. Total Market: Video Games, Consoles and Peripherals

Figure 23. Total Market Evolution 2010 and 2011: Video Games, Consoles and Peripherals

ADESE 2011 annual report

ADESE 2011 annual report
Current and Future Trends in the Game Industry

Demand
The video games market is growing in terms of users, audience, and perceived value. The new forms of entertainment through short games and new forms of lifestyle-related games are capturing new age ranges, socio – economic classes and gender.

Convergence
This phenomenon not only affects the video games industry, but also film, video and music industry, mobile communications and the publishing industry as a whole. The new opportunities in entertainment software for use on personal computers, consoles, portable devices and mobile phones increase the number of devices upon which this interactive software may be enjoyed.

As game consoles are equipped with optical and multimedia disc players (DVD, Blue-ray) and at the same time are converging on a central home entertainment, hardware distributors expect to achieve the convergence of the domestic equipments in a single hardware platform through the development of devices such as the game console.

Online and mobile opportunities
The current technological changes and gaming diffusion across ages are changing the market. With the online and mobile opportunities, the relative position of each player (hardware producers, game developers, publishers, software producers) in the value chain is not stable.

Mobile games are challenging the monopolies of existing operating system owners, offering a new distribution channel to developers. The online and mobile opportunities may give the new companies the chance to be intermediaries in the video games value chain, such as online portals, Internet providers, social networks of handset manufacturing companies.

Definitely both trends are contributing to the expansion of the video games industry in terms of supply-side actors, demands, technologies and business models, energizing the ecosystem of the video games industry.

The new business model “free to play” (F2P) and the video games as a service make a viable future event in an environment where there is still no control of illegal downloads. The online games continue growing and increasing its penetration through ever-faster Internet connections at lower price. According to the 2010 Rooter report, the “free to play” business model is consolidating in Europe with more than 30 millions users engaged in these user-based games, browser webs, social games or casual games.

The MMOs (Massive Multiplayer Online Games) allow one to play under a chosen role, playing with other online players, replacing the traditional computer opponent. Within the F2P some games with added value can be found for free (freemium) by paying on a monthly or an annual basis or under a payment of small amounts of extra benefits, called “micro-transaction games.”

According to DEVC more than half of the applications developed for iPhone are games, and they are also the most popular contents. Iphone and Ipad, together with other new devices based on Google Android, open huge opportunities for high demand and low investment game developments.

At the same time the online market has an impact on how other investments are carried out. For instance, traditionally the main investment to advertise video games were on television and in magazines. However, today consumers themselves will become prescribers providing opinion or feedback in the Internet or offline.

Synergies
An increasing amount of consumers are less impressionable to traditional advertising, so brands are becoming more interested in advergaming, regarding video games as a good alternative advertising media. These synergies of the video game industry with the most active segment of the advertising world makes the video game a new channel to deliver advertising to consumers.

On the other hand, other industries such as film, are increasingly interested in joining the game industry, which is positively regarded as a leverage to help the return on investment, by for example, replicating history in a virtual world.

Film producers and filmmakers have the opportunity to use the video games as a platform of distribution for films and make profit from their productions through the video games. Thus, the game becomes a great way of marketing and promotion of any audiovisual content (either film, television series or show, trademark or even soundtrack).

Spanish social networks like Tuenti increasingly will need to incorporate new business models based on social games, like Facebook has already done, being an important channel in the dissemination of games and an important source of revenue for social games developers.

Spanish game developers are the professionals best equipped to develop interactive products in the electronic publishing industry. The effect of migration of the publications to new business models in the electronic mode requires substantial technological adaptations and contents. Regarding this matter the Spanish game developers are highly specialized. Technological synergies that can result from cooperation between game developers and publishers, provide tremendous value to the user in terms of interactivity, quality of graphics or image resolution.
Other cross-sectorial integration
The games industry opens to areas such as medicine, the refinery, defense or education. For instance the video game industry and animation has an extensive experience in the development of applications, systems, 3D technology and ICT, which can be especially useful in some sectors such as oil or the field of defense, video games being an important part in soldiers training through simulation and strategy and war actions games.

It is expected that video games become even more important as a rich source of information, learning, and training, not only for children and adolescents, but also in adult education (e.g. languages) or even when recovering our historical heritage.

New professionals, new training
New challenges are demanding new profiles. The games industry is facing the challenge of adopting roles traditionally led by big publishers, such as product testing or the marketing strategy. As the emerging gaming industry have the ability to edit their own games without a producer, they also need to incorporate in their teams new commercial profiles in charge of the development of marketing plans tailored to the Internet context.

In this sense public universities not only have to provide technical training but also a space for the development of new commercial profiles in charge of the development of marketing plans tailored to the Internet context.

Types of Technologies Used
The study of ICT tools applied to the creative sector in the Principality of Asturias, developed by CTIC Foundation together with CEEI Asturias in the framework of the European Project Creative Growth, identifies four key technology trends that encompass ICT tools with direct involvement to a greater or lesser extent in the creative processes of companies.

Each of these trends are identified and the main technologies (or technologies ‘base’) that include, and are considered applicable to the creative industries in the region are cited. The study also analysed the practical application of the various trends and respective technologies in the business process of companies: Generating ideas, Design and Planning, Development and execution, Marketing and distribution.

According to this study, the following SWOT was created:

<table>
<thead>
<tr>
<th>Weaknesses</th>
<th>Strengths</th>
</tr>
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<tbody>
<tr>
<td>• Poor adaptation to Blue-ray standard.</td>
<td>• Good level of practical application of ICT in the Development and Implementation of products and applications.</td>
</tr>
<tr>
<td>• Low use of 3D Capture systems.</td>
<td>• Quick adaptation to DTT / IPTV / HDTV.</td>
</tr>
<tr>
<td>• Under harnessing the potential of ICT in generating ideas and planning</td>
<td>• Important use of 3D visualization systems.</td>
</tr>
<tr>
<td>• Poor ability to take risks and a heavy dependence on previous analysis of economic viability.</td>
<td>• Use of rapid prototyping.</td>
</tr>
<tr>
<td>• Limited development of user interfaces continuous, except for multi-touch technology.</td>
<td>• Knowledge of much of the area of general market trends.</td>
</tr>
<tr>
<td>• Need sector closer to the gaming industry to provide products and services tailored to their needs.</td>
<td></td>
</tr>
</tbody>
</table>

Table 40. SWOT Matrix concerning the Main Technology Trends

Furthermore, some of the main conclusions are highlighted in the following points:

Creative industries
• Relating the use of new hardware, it seems that the utilization of Blue-ray discs between business does not take off.
• Although the use of screens/3D rooms is still scarce, augmented Reality 3D display technology has the greatest potential.
• The use of collaborative tools such as wikis and/or social networking is frequently used among firms.
• Video cameras and mobile phones are affordable and used widely in businesses.
Games industry

- **Enhanced visual experiences**: The future success of some major projects is the use of 3D at home, such as Microsoft’s Natal, although initially more focused on the game field, it may have applications in a professional and business context. Lower costs could increase the use of these technologies.

- **Tools and 3D visualization technologies**: various Asturian companies use tools and 3D visualization technologies. This potential in the industry in the region could be used, in addition to further projects in the field of games, to investigate and launch new projects in other areas of application of 3D and 3D television, adult games (slot machines, casinos), and marketing or advertising (augmented reality). This could give the industry a competitive creative Asturian advantages in these emerging markets.

- **Continuous User Interfaces**: In this type of technology there is a clear tendency to follow current market patterns, focusing almost exclusively on everything related to the game development industry and multi-touch technology. However, the percentage of companies involved in such projects is not very high and, as pointed out by the market, this technology will be implemented on multiple devices, from consoles to mobile phones.

- **Distributed and open production services**: In the case of collaborative platforms, the positive value given to these collaborative tools in improving communication and workflow between geographically dispersed teams, is relevant. Moreover, it also warns of the potential these technologies have in the field of online games.

To conclude, the analysis of future opportunities by Asturian games companies, from the perspective of trends points to technologies linked to digital distribution, augmented reality, enhanced visual experiences, cloud computing, continuous human and machine interfaces (e.g. haptic) as well as distributed production platforms or augmentation of middleware. It seems that the main sources of information about the used technology regarding these trends are obtained by the companies through technology surveillance, networking events and analysis on competitors, providers and the market.

Demographic of Gamers

It is well known that the gaming industry, by its dynamic nature, evolves significantly year after year. The proliferation of new media and platforms, connectivity and innovative technologies such as motion capture and voice control, have led to the expansion of the video game concept all over Europe. Thus, according to a report by ISFE (Interactive Software Federation of The Europe) at the European level, more and more adults are venturing into the world of video games. The degree of penetration among the adult population in Europe is increasing, reaching 25.4% on average. In Spain, the level is similar (24%).

![Figure 24. Demographic of Gamers in Europe](image)

ADESE 2011 annual report
According to ADESE 2011 annual report, taking into account that the figures provided are referred exclusively to “retail products”, the European Consumer phenomenon is very similar to the Spanish. The GfK consultant developed for ADESE a study on habits and costums of the Spanish gamers that draws the profile of the gamer.

The average age of 15+ game users stands at 32, 52% of whom are married or living with a partner (male or female).

![Figure 25. Lifestyle of Spanish Gamers](image)

In this sense, one of the most important conclusions of this study is that women increasingly become more integrated into the world of digital entertainment, and account for 40% of Spanish gamers.

Moreover, the Spanish gamer profile is far from the cliché. The Spanish gamers are active, like outdoor activities, and their concerns go beyond the console world. Regarding the lifestyle of Spanish gamers, this annual report study highlights that the Spanish gamer player enjoys leisure and recreational activities with other people. In fact, 70% gamers reported walking outdoors in their leisure time, while 84% enjoy going out for drinks with friends and 79% going out for lunch/ dinner. 61% also practise some type of sport. Listening to music is undoubtedly the favorite activity for the Spanish gamer, up to 94% do.

When analyzing what are the other channels used by the Spanish gamers for entertainment, television is the first with a use of 53%, followed by communication with friends and family (47%) and communication via social networks (42%).

![Figure 26. Distribution Channels Used for Entertainment](image)

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303 ADESE 2011 annual report
304 ADESE 2011 annual report
Similarly, the cinema, with 61% and Internet with 59%, are placed several points above the average of interest among the rest of Spanish people. But his interests are not limited to matters relating to technology and digital entertainment, since he Spanish gamer also enjoys other activities like traveling (61%), listening to music (56%) and reading (42%)

**Figure 27. Personal Interests of the Spanish Gamer**

This study also emphasizes other habits of Spanish gamers which forms the profile and personality. Among them, food and eating habits are relevant and seem to be some of the issues that most concern them. In fact, 60% of gamers say they care about buying healthy food. Also, 57% of gamers try to avoid fast food and 43% are interested in beneficial health products.
Bulgaria: Sofia

Sales Industry
Specific data about the annual turnover is unavailable.

Total Consumer Spend on the Game Industry/ Business to Business (e.g serious games market)
Specific data about total expenditure on the games industry is unavailable.

Current and Future Trends in the Game Industry

In 2008 and 2009, the Cultural and Creative Industries (CCI) accounted for 4.1% and 3.7% respectively of the Gross Added Value in Bulgaria (European averages tend to range between 2.4%). For the capital city of Sofia in these same years, the Gross Added Value from CCI was 7.5% and 6.6%. Sofia is Bulgaria’s economic centre, and as a result, 77.5% of the Gross Added Value of CCI of the country was generated there. The economic concentration of CCIs in Sofia is particularly striking for both the film industry, where it was estimated that 96.75% of Gross Added Value was created, and software and video games where 90.35% of Gross Added Value was created. The film industry is well developed and has received state support (through the Film Industry Law, although desk research shows that it was not fully implemented as funding often fell short) and a robust 3D animation industry has emerged from it, with implications for the game industry.

The importance of Sofia for the cultural and creative industries is high as it was estimated that Sofia attracts 80-94% of all foreign investments to this area. This is reinforced by the fact that the number employed in the 13 Creative Industries subsectors in 2009 was estimated at 93,323 people, constituting 3.4% of all employed persons in the country. 54,293 (58%) of these were located in Sofia constituting 6.7% of all employed persons in the city.

Weak linkages between universities and industry result in difficulties for the games market as graduates often lack the practical skills that companies seek. Statistics of national average salaries are not representative of computer games related jobs and it is wrong to see Bulgaria as a cheap labour pool in this sector. It was also mentioned that foreign companies believed that they could strong-arm small Bulgarian companies at the negotiating table. Piracy of computer games is a significant problem which results in game studies looking for external markets for their products. Some domestic developers said that this is because games are not priced properly for the domestic market.

The result is a significant informal market for computer games. Bulgarian authorities have made notable efforts to mitigate the damaging economic effects of software piracy such as through the Cyber Crime Unit of the Ministry of the Interior and activities by the Business Software Alliance in Bulgaria. Nevertheless, piracy is still rampant and hinders the creation of a legitimate digital market for creative content from those creative industries most harmed by copyright infringements (i.e. film, music, games, publishing etc.). In 2012, Bulgarian authorities have continued their efforts to shut down websites known for sharing illegal content and in recent years have increased their cooperation with cybercrime experts in the USA.

There is a legal framework in place to combat certain types of cybercrime at the national level, but enforcement needs to be improved. Bulgaria did not ratify the Anti-Counterfeiting Trade Agreement (ACTA) early in 2012 due to concerns about internet freedom and privacy. It has become evident that while efforts are being made to combat piracy, given the scale of the problem, such efforts are unlikely to assuage the concerns of content producers and associations. Further efforts are needed, but legislation which protects the rights of content producers as well as the freedom of individuals to share information and have their right to privacy protected remains elusive.

According to “The Games Industry in Eastern Europe,” the business environment is bureaucratic and a lawyer is needed when establishing and running a local company. The report indicates that registering a company can take a long time although corruption is still prevalent in public institutions. The report also mentions that


Bulgarian gamers prefer first person shooters (FPS) and real-time strategy games and that the popularity of games such as World of Warcraft indicate that legal copies of the games are purchased, as authentication is necessary to play on the company’s, (Blizzard Entertainment) servers. Games typically carry the same prices as they do in Western markets.

Again, the ‘Doing Business’ report prepared by the World Bank is informative. With respect to the indicator on ‘getting credit’, Bulgaria is ranked 8th position. With respect to ‘protecting investors’, it comes in at 46th, ‘paying taxes’ in 69th, ‘trading across borders’ at 91st, and in ‘enforcing contracts’ it comes in 87th (183 economies are ranked in total). Given that Bulgaria ranks better than the median figure for all indicators mentioned, and that for many non-knowledge workers, (i.e. excluding, for example, talented workers in the digital gaming industry and IT professionals) average wages tend to be lower than in Western European or North American countries, as are corporate tax rates, income tax rates and to some extent, property prices, game development in the country does have some distinct advantages.

**Types of Technologies Used**

No information regarding the types of technologies used could be ascertained.

**Demographics of Gamers**

After speaking with a number of digital gaming companies from the Sofia City Region, it appears that many of the smaller gaming companies primarily target young men (this may occur in the form of army/FPS games or racing car games). In some cases it was mentioned that their female player base is growing rapidly. This appears not to necessarily be the case for larger studios that tend to develop games for a wider audience.

310 http://www.doingbusiness.org/data/exploreeconomies/bulgaria
Germany: Baden-Württemberg

Sales Industry

The online market in Germany is one of the most promising and it is one of the major sources of income for companies. In Baden-Württemberg 40% of companies recognize the sale of virtual goods as one of the most important source of income. More the 30% of the turnover of online-downloads is generated through third-party-store (Walz, Siebert, 55).

In comparison, retail sale of games seems to remain significant for just 20% of the companies but many of them already consider this sale channel as minor. More than 50% of the companies in Baden-Württemberg consider internet in all its forms (website, online portal, third-party-store) as the main distribution channel (Walz, Siebert, 56).

Overall in Germany the online sector is growing quite fast. Just in 2011 the turnover generated online amounted to 183 million Euro. On the consumer side, the BIU has estimated that users pay on an average 12.62 Euro monthly for online games, while for browser games this average value is around 7.02 Euro (BIU, "Online und Browser Games”).

But the market which registered the major growth in 2011 is the one of virtual goods: just in comparison with 2010 there has been a raise of 70%, for a total amount of 233 million Euro (BIU, "Virtuelle Zusatzhinhalte"). Virtual goods can be non-physical objects as weapons or new characters purchased within a game or they can be a new level of a game that can be download online.

Turnover on games for PC, consoles and mobile devices in percent

![Turnover Percentage in Games for PC, Consoles and Mobile Devices in Germany](image)

Total Consumer Spend on the Game Industry/ Business to Business

The German market for games registered a positive growth during 2011. The whole industry turnover was of 1.99 billion Euro, an increase of 3.5 % compared to the previous year (BIU, "Marktzahlen"). Starting from 2005 the German market has risen at an average rate of 13% per year (Deloitte, Bitkom, 10). Most of the revenue are still generated by the sale of data devices and from downloads, just these accounted for 1.57 billion euro of revenue in 2011. Nonetheless others markets are increasing their importance, that is specifically the case of online-based business models.

According to the data collected from BundesverbandInteraktiveUnterhaltungssoftware e. V., just in 2011 a circa 183 million Euro turnover was raised by online subscription and premium accounts, while 233 million were generated by the sale of virtual goods (BIU, "Marktvolumen"). In just one year, from 2010 to 2011, the revenue

311 BIU. “Physical Distribution and Download”
generated by subscription and virtual goods increased by 25%. In the same year the number of German users who play online and browser games increased by 7% to 15,5 million (BIU, “Online und Brower Games”).

**Current and Future Trends in the Game Industry**

In 2009 a study done by Deloitte and Bitkom identified 6 trends which are defining the games industry in Germany (Deloitte, Bitkom, 22-28):

1) **Digital distribution**
   - Digital distribution allows reaching the end users in a faster and cheaper way. In the digital environment games can be easily bought online. In this model producers become also publishers and can directly sell their product online, saving in the whole publishing process. Consumers can access demo and free-to-play content online and eventually buy whole episodes or titles without going to a shop or waiting for the delivery.
   - The producer himself saves the costs connected to the offline distribution.

2) **Multi-players games**
   - Multi-players games are becoming more and more important and widespread thanks to console as Nintendo Wii and Xbox Kinect. According to the experts, the raise of such games is generating the involvement of different target users which normally are not attracted by games, such as women and elderly people. This happens because this kind of multi-players game fulfills the need of group entertainment, has low entrance barriers and often reproduces games which are also played in the real world and it is therefore easier to be learnt. Another kind of multi-players games are Mass Multiplayers Online Games (MMO), where different users from all over the world can play together online even if they don’t share the same real place. In this case the social component plays a very different role but the networking effect among the players assures a long affection to the game itself which can be positively connected to a subscription model.

3) **Mobile games**
   - Thanks to the higher penetration of mobile phones, mobile games are becoming more and more popular and are going to play an increasing role in the next years. People that usually are not familiar with games can often make their first experience through mobile consoles which offer easy to play games suitable for each occasion, that can be played also for a short time and have low entrance barriers. This kind of players often prefer free to play games, for this reason even if the mobile market seems to have great potential, an effective monetary model still has to be found in order to make this market more profitable.

4) **In-game advertising**
   - Even if the term serious game is still discussed and not always so well accepted, under this definition different kinds of games and simulations are described. Serious games are games in which the primary scope is not entertainment but the acquisition of knowledge through a playful mechanism. Within this definition fall mind-training, fitness or language courses, which today are available on widely diffused consoles as Nintendo DS. Also different kinds of simulation used in research environments, such as flight simulators, or in the industry are also considered serious games. The technology developed within this field has therefore many possible applications also in the industry and for different kind of institutions.

5) **Cross-selling**
   - In-Game advertising could also constitute a promising sector, even if not everybody agrees on this point. In-Game advertising refers to advertising in videogames: this can be integrated into the game either through a display in the background (as for instance when the game loads), or it can be integrated within the game. In this latter case the advertised product can be, for instance, an important part of the game necessary to go to the next level.

**Types of Technologies Used**

Games developers in Baden-Württemberg are involved in the production of games for different kind of platforms: besides PC and browser, mobile platforms (as iPhone and android phone) are experiencing an increasing development while console still play an important role (Walz, Seibert, 53). In a survey conducted in 2009 most of the games companies interviewed declared to expect growth potential in the online market thanks to Free-to-Play models and the sale of virtual goods (Walz, Seibert, 53).

Games Companies of the region are actively producing games for the global market, just one third of them consider Germany as its main market.

Another important aspect of the game development is the creation of graphics, 3D objects und their animation. Companies which do not develop 3D Games, mostly use software development environment or project management tools as technology.
Demographic of Gamers

There are currently 25 million Germans who are active games players. Surprisingly 44% of them are women, a number that is probably explained by the increasing popularity of social games which are broadly diffused on social network and often played by women (BIU, “Altersverteilung”).

In an international study it appears that German gamers spend less time playing games than gamers in the USA and the UK, but they do play more than the Japanese. Most of the time is reserved for computer games while console are used for the shortest time. (Deloitte, BITKOM, 13) The average games player is 32 years old, but games are played almost at all ages and at all levels of education: ¾ of teen-agers are active gamers but there are also 5 million people over 50 who declare to play several times per month (BIU, “Altersverteilung”).

Games are played more within families than by singles. In general games are widespread in all income groups but a slight majority of people with a higher income tends to play more (BIU, “Haushalte”, “Einkommen”).

Figure 29. Percentage of Men and Women Playing Games in Germany

Figure 30. Age of gamers in Germany

312 Source: BIU/GfK, “Geschlecht der Nutzer”
313 BIU /GfK, “Alter der Nutzer”
Malta

Sales Industry: Total Consumer Spend on the Game Industry/Business to Business

Malta is classified as a smaller sales territory under Italy / Southern Europe, so businesses would be required at the publisher level to get full capitalisation on opportunities with publisher executives at a senior level. Malta’s language span provides further interest and encourages companies to locate themselves on its shores. It is often estimated that over the next five years, Malta’s location near the emerging North African and Middle Eastern markets, particularly for mobile games, could place the island in an attractive marketing / sales support centre location for games publishers for those territories.\(^{114}\)

Although Malta has good internet connections, the specific nature of two categories of gaming: video stream-based games-on-demand (provided by such companies as OnLive and Playcast) and synchronous multiplayer gaming (such as the large scale MMOGs such as World of Warcraft) including limited multiplayer online games, such as Battlefield 2) where games hosting servers need to be very close to centres of high population density, makes these two categories less attractive options for Malta to focus on as hosting centres for servicing Europe.

In terms of market dimensions, the focus is mostly dominated by PC gamers. This is also common for other parts of the world where ‘non gamers’ spend a number of hours per week on casual games. As many are aware, some of the most popular games are the free games offered on Facebook, like Farmville, Mafia Wars and Casino City. These games are viewed by many as the perfect form of relaxation as they do not need particular skills. The captivating issue of these games is the fact that a large number of PC users who do not consider themselves as ‘gamers’ tend to spend a large number of hours on play time and will even adjust their daily routine so as to fit in some game requirements such as crop harvesting in Farmville.

The other most common type of game that is played by a large segment of PC users, who are only casual gamers, are games downloadable or unloadable for free from the internet. Most the times these have classic titles like Pac Man or Space Invaders which have remained very popular. One can also find short games that can be enjoyed in the space of a quick ‘office break’ or ‘study break’. Arguably these same people are also the majority of people that also make use of mobile games and apps.

The number of people who often played MMORPG’s like World of Warcraft have switched to first person shooters because of the investment of time needed for the latter. Many people have found that games like WOW would require too much time and couldn’t afford to do so because of work or study. In Malta, because of the climate and social life, it is unusual for people to spend long hours at home without going out at all, which would eventually limit the time dedicated to game-playing.

A few years ago, LAN cafes were very popular amongst local players, in particular the younger generations. One of the main ideas behind these cafes was the social side, acting as a meeting point for gamers and organizing a series of tournaments throughout the year. The number of these cafes has been decreasing and many have ended their business, the main reasons being the higher costs of maintaining the business (especially electricity and maintenance costs) and the fact that more and more people can afford gaming machines due to more accessible prices in the recent years.

The gaming community is mostly lively in some online leagues but most local players prefer playing in international leagues where the number of players is much higher than in the local ones. There are also Maltese dedicated gaming servers, which were very popular in the past (particularly during the Counter-Strike era), but these are also losing their audience. Most players prefer making use of foreign servers (mainly continental Europe) because there are many more players available to play against and also because they offer a larger selection of mods and game variants.

Gaming has been popular in Malta for a very long time, however recent analysis has indicated that there seems to be a lack of players that have engaged in mod creation. There have been some efforts for some low profile games but in general most players are satisfied with using the available scenarios and mods especially when it comes to more well-liked games like Call of Duty.

Current and Future Trends in the Game Industry

One of the main trends of all times is technology. In Malta as in the rest of the world, the main current and future tendency within the field of game industry is constantly evolving with new types of games and wagering methods being presented by local and international providers to increase a competitive edge. It is therefore vital that many are aware of these fast transformations or ‘step changes’ which could surely have an impact on the market. The main technological advances that would have an important impact on the market are those that:

- Develop the enabling technology supporting Internet gambling (and other types of games), such as broadband access;

\(^{114}\) http://www.cipmalta.com/article.aspx?newsid=172
- Supply new platforms through which individuals can participate, such as mobile technology and digital television. (In this area, the most significant change has been, and will continue to be, smartphone technology.)

**Types of Technologies Used**

Nowadays, gaming is the strongest application sector in both Facebook and iPhone applications – and these sectors of social and mobile gaming represent the fastest growing part of the games industry. Perhaps the most obvious current trend in gaming is the move to online connectivity for the gaming business, both in terms of development methods, and kinds of games.

Local and international companies such as developers and publishers can equip themselves with various hardware and software. Therefore, the technical infrastructure they need from their location is primarily related to connectivity to the internet and a server hosting.

**Internet Service Providers (ISPs)**

It is tempting to treat Internet Service Providers (ISP’s) as a standard utility, like electricity or water since they provide a broadband link between local business structures. As such, these are important connections for all modern business types, and the modern and digital games industry, is strongly dependent on ISP services for day-to-day operations. On the one hand, a typical business will use the internet for email; web browsing; e-commerce both buying and selling, communications including voice/video over IP aka VOIP; file transfers of documents; storage and backup of all sorts of data; and connecting multiple-sites.

On the other hand, a games company will utilize all of the above, with extra requirements, since the particular types of data used by games include intensive audio, video, graphics (2D & 3D) and real-time interaction protocols – all of which can be very demanding for broadband capacity and latency (more on that later). Depending on the specific class of game genre and game company type, the office ISP link maybe used for a) just ‘development purposes’ i.e. more like an isolated R&D operation, where most internet service is about a business-to-business linkage, or b) also ‘publishing services’, i.e. connecting over the internet to thousands or millions of customers, in a business-to-consumer model. The latter publishing model demands much higher service levels from an ISP.

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<thead>
<tr>
<th>Company</th>
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<tr>
<td>Go ISP</td>
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<tr>
<td>Melita ISP</td>
<td><a href="http://www.melita.com/">http://www.melita.com/</a></td>
</tr>
<tr>
<td>Bell Net ISP</td>
<td><a href="http://portal.bell.net.mt/usercheck/">http://portal.bell.net.mt/usercheck/</a></td>
</tr>
<tr>
<td>Vodafone Mobile ISP</td>
<td><a href="https://www.vodafone.com.mt/">https://www.vodafone.com.mt/</a></td>
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</tbody>
</table>

Malta has 3 major land-line ISP’s and 1 major mobile ISP (Vodafone), therefore competition in these sectors is driven crossways in both consumer and business markets, which together encourage investments.

In Malta, the internet access is routed via undersea cable to Sicily, through Italy and onto the European mainline. Multiple choices of providers create price and service competition, but ultimately, with Malta being an island, the link is highly dependent on sub-sea cables to reach the European mainland.

It is important to note that when buying internet connections, some of the main factors are cost and quality of service. The first one is charged according to the bandwidth, and is subjective to huge differences on a global scale. The quality of service is expressed in a service level agreement (SLA) which outlines the contract between the ISP and the client company.
Latency is described as the time that it takes for internet messages to reach their destination, typically measured as ‘ping time’. In relation to this, in internet gaming, latency is experienced as the game ‘lagging’, which can degrade and disturb the game experience, causing players to lose interest. This is important when hosting games servers, because games are interactive. As regards to the genre of game being played, ping times ranging from 30ms (e.g. action games) to 150ms (e.g. strategy/MMO game types) would be acceptable. Some games are strictly turn based, and would run well even with a ping of 300ms (e.g. most Facebook games).

Considering all these specifications, some of the main issues in latency are the following ones: distance, network structure and last but not least hosting overheads. The first and foremost factor – distance establishes latency since signals cannot travel faster than the speed of light, while hops between network routers can slow down a message every time it needs to steer a signal junction. According to analysed data used in the Digital Games Strategy for Malta, test measurements demonstrate that Malta is 40-60ms latency away from central Europe and the Middle East, up to 85ms from Northern Europe/UK. The USA east coast is approximately 200ms away, and the west coast of the USA, Japan and the Far East are 300ms away.

Data Centre Hosting

Data centres are major computing centres connected to high capacity bandwidth onto the internet. The overhaul of renting computing power in these facilities is recognized as ‘hosting’. These rooms are typically full of servers networked together with large storage capacity. The internet connection is key to these, and thus, bandwidth (speed) and latency (lag) are important factors.

Malta is a significant player in remote gaming market and as a result its legal server location can be imperative for data centres, since they frequently host financial transactions. This aspect indicates that there is already a strong server hosting industry in Malta, and many of the skills (e.g. systems administration, Linux, networking, virtualisation) and computing facilities would be functional in the games industry. An important aspect is that current trends in games are changing towards Freemium business models, usually funded by micro-transactions, typically in the €0.50 to €5 range.

The table below presents a selection of some of the hosting companies functioning in Malta.

<table>
<thead>
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<th>Table 42. Selection of Hosting Companies functioning in Malta</th>
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<td>Continent 8</td>
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<tr>
<td>Malta Hosting</td>
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315 Digital Games Strategy: Maltese Internet Latency  
For a games company to be set up in Malta, it could choose from three main aspects related to server hosting needs: self-hosting; Malta-based data centre – buy time on computer servers locally; international hosting – buy remotely from companies, e.g. Amazon, Rackspace. It is significant that each of these aspects will be suitable to various applications and needs.

Last but not least, there are some areas of gaming which are too challenging to consider hosting in neither central Europe nor Malta. One of these is considered to be the extreme of action gaming, which requires multiple servers located very close to the player, who typically chooses the lowest server for the best familiarity. Another up-and-coming gaming skill is cloud gaming, where the game graphics are streamed from the server which runs the game to the consumer’s home.

**Demographic of Gamers in Malta**

**Participation by age**
According to local research, the typical gamers in Malta are mostly men. Internet gambling is cited as one of the top ten activities conducted online, by all age groups, with the 35–44, 45–54 and 65+ age groups citing gambling as their fourth top activity to perform online.

**Participation by gender**
In Malta, various researches indicate that there is a higher participation of men than women in usual regular gaming activities. As regards iGaming, the research implies that the level of participation of men vs women diverges according to the actions carried out. However, the higher participation of men in Internet gambling activities is not unexpected. Historically, men were the early adopters of the use of Internet technology.
France: Ile-de-France Region (Paris Region)

According to the SNJV, (National Video Games Association), in terms of sales figures, it is very difficult to globalize the gaming market, as there are many segments in this "hyper market" and a variety of practices. Each one has its own dynamics, its paradigm and its business models.

For 40 years, the markets for video games show promising results and sustained growth in France and worldwide. If the physical sale of video games has been declining in the last 3 years, and is continuing, the dematerialization at the same time contributes to the growth of the sector.

Sales Industry

The weight of the global industry, and in France 317

In five years, the market of video game software will rise from EUR 41.9 billion in 2011 to almost EUR 60.6 billion in 2015. Two factors explain this performance: the remarkable growth segments of the mobile gaming and online, mainly in Asia / Pacific, specifically China, where these two segments represent EUR 8.6 billion by 2015 as well as the arrival on the market of a new generation of handheld consoles in 2011 and of home consoles in 2012.

Turnover for physical video games in France in 2011: 3,2billion €, a 10% decrease compared to 2010. 73 % of turnover is absorbed by video games for home console and second hand video game 318. Only 41% of the total money spent for video games is devoted to buy new games. 26% is devoted to online games and mobile games.319

Active gamers: 24 000 000 (42% of the population)

Figure 32. Active gamers in France

- Money devoted to video games

![Money spent on games in France](image)

**Figure 33. Money spent on games in France**

- Time spent on video games

![Time spent on Games](image)

**Figure 34. Time spent on games in France**

- Key Figures

![Fun facts](image)

**Figure 35. Key figures on games in France**
Market developments

The decline of the traditional market (16% in France and -21% worldwide) is explained by several phenomena:

- We come to the end of the cycle of console hardware outputs in 2005 and 2006, and consumer expectations are strong about the next generation of consoles.
- The high cost of traditional games on these platforms is, in times of crisis, a major hindrance to the development of sales.
- The consumption patterns of all the players are moving towards paperless, including the games usually bought in stores. They are now buying more and more frequently online.
- Sales of the latest handheld consoles sold by Nintendo and Sony are disappointing, and the combined offer of games does not appeal to consumers.

But the "physical" market may grow in 2013 with the arrival of the next Nintendo consoles (Wii U), followed by Sony and Microsoft in 2014. These consoles designed as real centers of entertainment will offer music, video, Web browsing, e-commerce, TV and Video Games. The traditional market still has a bright future ahead of it and still represents a large proportion (70%) of turnover in the sector.

The strong growth of dematerialized markets

The IDATE predicts that by 2014, 1 out of 2 € of the sector revenue will come from dematerialization. This market has tremendous growth opportunities for the industry. The consumption habits of the players as well as the players themselves have changed: aging and feminization of the players are two important elements of context.

The explosion of dematerialized console

IDATE estimates that by 2015, home consoles will generate EUR 9.5 billion in sales through downloading, i.e. 50.7% of revenues from sales of games on these platforms. The online market is gaining ground over other markets video games. In France, IDATE estimates the growth in the short term, between 2011 and 2012, at 21%. In China, the online market (MMO, casual, social and web game) rose by 32% between 2010 and 2011 and currently represents 6.6 billion dollars. In 2014, this market will represent $ 9.2 million in China (Pearl research study) Handheld consoles will double their dematerialized sales. Handheld consoles dematerialized turnover could rise from 202.2 million EUR in 2011 to 540.8 million EUR in 2012.

The growth of online market

There are two major market segments of online gaming: premium games and Free2Play games. Free2Play games are divided into sub categories: casual games and gamers, massively multi-players free and social. Casual gaming is still widely present in each market segment, primarily online. The massively multi-player free games, accessible in the browser or by downloading and installing client software, represent approximately 30 million paying players late 2011. They compete with premium games, which count almost 150 million paying players by late 2011.

After an explosion in 2010, the games on social networks market segment confirms in 2011 that it is a lasting phenomenon with an ever-growing audience volume. This market represents the new Eldorado of the industry with a worldwide turnover in 2011 of $ 5 million and forecasts for 2012 to $ 6.2 million, i.e a prospective increase of 30% (social gaming study report 2012 - Casual connect association). The Idate sees Facebook as the latest gaming platform.

Video game on smartphones and tablets is one of the fastest growing segments:

It will represent in 2015, according to a recent Superdata study, $ 5.7 million versus 2.7 million in 2012 representing an increase of over 50% in 3 years. In France, the sectors will grow by 20% between 2011 and 2012 according to idate's forecasts. Moreover, according to a Jupiter Research study, video games on tablets have also grown fast. Sales of video games for tablets will increase six-fold by 2014, to $ 3.1 billion versus $ 491 million last year worldwide.

Some sales figures to illustrate this phenomenon:
- Angry Birds space generated $ 10 million in 3 days of sales.
- Minecraft generated $ 80 million in 15 months.
- World of Tanks gathered 24 million players in a year.

Total Consumer Spend on the Game Industry/ Business to Business

Video game on mobile

14.3 million French gamers play on mobile. The number of paying players has increased to 3.5 million players, representing 25% of the total amount of players on mobile devices. French players spend 8 times more for games on iOS than for games on Android.
62% of players play on smartphones and 14% on tablet PCs according to a study Newzoo (April 2012), a specialist in video game industry. The study focuses on trends adopted by players on Android and Apple mobile devices. It appears that IOS (iPad, iPhone and iPod Touch) generates 89% of total revenues from mobile gaming (results based on the revenue of the 200 most popular games on shops iPad, iPhone / iPod App Store and Google PlayStore).

The study focuses on trends adopted by players on Android and Apple mobile devices. It appears that IOS (iPad, iPhone and iPod Touch) generates 89% of total revenues from mobile gaming (results based on the revenue of the 200 most popular games on shops iPad, iPhone / iPod App Store and Google PlayStore).

**Figure 36. Mobile Gaming Figures: France 2012**

**Current and Future Trends in the Game Industry**

The video game market evolves and diversifies its public. The traditional sector sees a very small number of titles capture a very large number of players. The successes are exclusively reserved to licensing or blockbusters. The driving forces for future video games are represented by tablet PCs and smartphones.

**Trends**

**The era of ubiquitous games**

The continual expansion of smartphones and tablet platforms will force publishers and developers to design their games directly on several distribution platforms.

**The emergence of games on connected TV**

With the proliferation of media wishing to host the game: the computer, smartphone, touch pad, connected TV, set-top box, video games still exceed the usual framework of usual platforms.

**The arrival of Cloud Gaming offerings**

Streaming game or Cloud Gaming will face a very high development in the coming months. In a recent study, Gaikaï, one of the actors of the sector, estimated that 73% of undefined users would choose cloud rather than downloading if they had a choice. In France, numerous offers are already available and SFR recently announced a distribution partnership on AAA games from major publishers including French Ubisoft.

**Convergence between smartphones and handhelds effective since the end of 2011**

The mobile phone manufacturers have turned their terminals on video games consoles. The producers of consoles will deliver their consoles with mobile telecommunications features. The producers of consoles will equip their consoles with mobile telecommunications features. Sony Computer Entertainment will offer a WiFi and a 3G version on its next portable console PS Vita. Distribution dematerialization will take off on handheld from 2012.

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320 Syndicat national du jeu vidéo/ National Video Games Association. www.snjv.org
onwards. Dematerialized turnover on handhelds could increase from EUR 202.2 million in 2011 to EUR 540.8 million in 2012.\footnote{322}

<table>
<thead>
<tr>
<th></th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
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<tr>
<td>France</td>
<td>3 103.45</td>
<td>2 938.85</td>
<td>2 771.40</td>
<td>2 744.28</td>
<td>2 786.89</td>
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<td>Home Consoles Hardware Sales</td>
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<td>730.64</td>
<td>552.62</td>
<td>418.65</td>
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<td>977.27</td>
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<td>115.98</td>
<td>161.43</td>
<td>205.61</td>
<td>247.59</td>
</tr>
</tbody>
</table>

Table 43. Breakdown of Sales by Platform in France

**Serious Game: a Fast-growing Paris Region Initiative**\footnote{323}

Serious Game combines education, apprenticeship, training, communication and information with the technologies and entertainment media created by the video gaming industry, and is growing fast in the Paris Region. With applications that range from the military to healthcare and vocational training in industry and communication, Serious Game is set to become the most widespread vocational training channel in 2012. It’s an area where the Paris Region has a real head start, since several of its industry players have already developed solutions for major clients, including Wizarbox for the RATP (Paris public transit authority) and KTM Advance for BNP Paribas bank.

**Types of Technologies Used**

Platform distribution on which French companies are developing their games.

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\footnote{323}{Paris Region Magazine, Issue 13, March 2011}
The Paris Region industry floods all the media of the Video game today. The Parisians are present on consoles (DONTNOD Entertainment and Quantic Dream - published by Sony), on PC (Cyanide Studio, Kheops), on portable consoles (My Baby of Dance hall Dowries) as well as on smartphones and iPad (Bulkypix, Eurocenter, Mando Productions...). Parisians invade the online game and are becoming famous for their dynamism.

The MMO (Equideow by Owlient - recently acquired by Ubisoft, Urban Rivals by Boostr), in the browser game (Ben 10: Game Creator, developed by Yamago, Globulos by Globz), in the social game (Treasure Madness de zSlide, Totally Spies: Trendy Agents by Ouat Entertainment, My Shops by Pretty Simple Games), or in the dematerialized game (Pixel Series by Arkedo and Pastagames! Faery by Spiders Games).

Parisian’s developers became famous for their sense of innovation, by proposing revolutionary middleware tools (vocal engine of Voxler, spawner of applications of Spawn Apps) or by investigating new segments as Serious Game (Tekneo, Ad invaders, Wizarbox).

Demography of Gamers

In France, 28 million people play video games, representing 65% of French with an online business on the Internet and over 40% of the population. The “core gamers” or “hardcore gamers” represent only 4 million of all players, meaning that the player’s profile is sociologically deep in evolution. The video game is a hobby practiced by all people, irrespective of social strata.

Video games are placed in the heart of the favorite pastimes of young people including the Internet and television.

Young men 13 to 19 years old spend as much time at their various leisure times, playing an average of about 9 hours per week. Although over 60% of girls play video games, they spend less time on it than boys. Indeed, 95% of boys aged 8 to 12 play video games and spend six hours a week, which increases in duration from ages 13 to 19, reaching nine hours of play per week, against 10 for television and 11:30 for Internet.

Women play more, they represent 52% of total players, the average age of players is increasing and is currently 33 years.

63% of French people aged 10 and older have played video games. Only 16.5% of players are under 18.

83.5% of players are over the age of 18.
16.6% of players are under the age of 18.

48% are men
52% are women

73% of gamers play online.

In France, 5.7 million gamers play video games by paying on the internet and 12.8 million gamers play on mobile phones.

Figure 37. Breakdown of Gamers in France

324 Paris Region: Meet the video games industry leaders, December 2011
325 “French and Entertainment” by GfK (2/11)
326 Syndicat national du jeu vidéo/ National Video Games Association. www.snjv.org
327 Syndicat national du jeu vidéo/ National Video Games Association. www.snjv.org
- Gamers per Platform:

![Gamers per Platform in France](image-url)

**Figure 38. Gamers per Platform in France**

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Austria: Salzburg

There is no quantitative analysis available specifically for the digital interactive media and games industry in Salzburg, but there is data about the creative industries in Austria (Creativ Wirtschaft Austria 2010) and there are some specific figures about the situation in Salzburg.

Introduction: Creative industries in Austria

Austria’s creative industries may be subdivided into nine areas, architecture, design, music, books & arts, radio & TV, software & games, publishing companies, video & film, advertising, libraries and museums as well as botanical and zoological gardens. In software and games, the games industry can be attributed to. The economic significance of the creative industries is ever growing – and with it, the awareness of its significance. Creative enterprises constitute an important field of growth in a modern, knowledge-based society.

The number of enterprises and employees in Austria’s creative industries increased by more than ten percent between 2004 and 2008, while the turnover increased by as much as 25 percent. In the year 2008, one in ten enterprises in Austria belonged to the creative industries. More than 127 000 people (including self-employed persons) worked in the approximately 36 100 creative enterprises, 92 400 of which were gainfully employed. Vienna is the creative heartland of Austria. In 2008, almost 40 percent of all Austrian creative enterprises were located in Vienna. 15 % of the creative enterprises are located in Lower Austria, while only about ten percent are located in Upper Austria. The number of employees is higher in Upper Austria though.

With view to the employment rates in the cultural and creative sectors, Vienna and Salzburg, however, are among the leading locations in Europe. The development of the number of employees in the cultural and creative sectors in Austria is better than in any other European country.

In 2009, more than 8% of the Salzburg-based enterprises can be attributed to the creative industries. The nearly 2 400 companies in the creative industries located in Salzburg employed almost 7 900 persons. The companies in the creative industries are on average smaller than those of other fields - more than 60% are single-person companies.

![Figure 39. Regional Structure of Creative Industries in Salzburg, in size](image)

In 2009, the Salzburg creative industry achieved sales of approximately € 833 million and a gross value of approximately € 357 million.
A comparison of the creative industries with other sectors of the economy shows the importance of this sector for the economy of Salzburg. In 2009 there were more companies in Salzburg in the creative industries (about 2,400) than, for example, the hospitality or construction sector (2,500). A comparison with the Austrian creative industry shows that in 2009 7% of home-grown creative companies are based in Salzburg. The proportion of employees working in Salzburg, was also at 7%. This corresponds roughly to the proportion of the Salzburg Economy to those of Austria.

In 2009 Music, book and artistic activities and advertising were within the Salzburg Creative industries, the largest sector followed by the field of software and games. In terms of the number of companies dominates the field of music, written and artistic activities with a share of one third the most. Most areas of the creative economy, are one person companies with approx. 75% of the field of music, books and artistic activities. The publishing of computer games and other software, programming and IT consulting services are mapped in the sector of software and games. This sector (which is very much characterized by software companies) has a focus on the primary products and capital goods industries and in various knowledge-intensive services (telecommunications, banking & insurance, software & computers). Therefore it is hard to estimate actual figures for the game industry in Salzburg.

Games and digital interactive media industry

The figures presented may lead to the assumption that the games industry is distributed evenly throughout Austria, which is not the case. The majority of all Austrian game enterprises are located in Vienna, which is the heart of the Austrian games industry. Companies in Salzburg mainly produce casual games for the online and mobile market. There are no dedicated game development companies. Companies that develop games are working in the media, 3d animation & postproduction or software and web development field. Examples of companies can be found in the stakeholder list.

Though there is no in-depth analysis available on a regional level, there is data on the national level, which gives insight about the market conditions in Austria. The economic significance of the creative industries is ever growing – and with it, the awareness of this significance. An increasing number of studies deal with this topic, and political decision makers have come to understand its relevance. Creative enterprises constitute an
important field of growth in a modern, knowledge-based society. In Austria, the increase in the number of employees in the creative industries between 2001 and 2006 was higher than that in the overall economy.

The creative industries report (creativ wirtschaft austria 2010) attributes the content industry and the field of software and games to be especially active in export, while architects, designers and publishers have low export quotas.

“Austria’s creative industries produce a turnover which is as large as that of tourism, their exports are strong, and they are important suppliers for other sectors.”

According to recent studies, the statement “Austria is a country of tourism” may well be amended by “Austria is a country of creative industries” – at least when overall revenues are considered. The creative industries clearly emerge as the winners from the comparison of tourism and creative industries. In 2008, the 36,000 creative enterprises recorded a turnover of EUR 18.5 billion, i.e. 2.6 percent of the overall economic turnover. The turnover in the area of the tourist accommodation and food service industries amounts to a share of 2.0 percent.

“Enterprises that belong to the creative industries are comparatively smaller; their number of cooperations with business partners, however, is above average.”

![Figure 40. Distribution of Creative Enterprises among the Austrian Federal Provinces in 2008](chart_25.png)

The following figures (ÖVUS 2011) are estimated by the Österreichischen Verbandes für Unterhaltungssoftware based on the data of the media control (media control GfK 2012), which only contains the figures from physical distribution.

In 2010 7.1 million units of games and hardware were sold, which is an increase of 5.8% compared to 2009. The turnover was € 287 million. There were 5.8 million units of games sold, which is an increase of 7.51% compared to the previous year. In 2008 ÖVUS released some figures on the turnover separated by platform and areas of business.

The data lacks figures from digital distribution, which becomes increasingly interesting as it offers new business models, especially for smaller and independent game developers, and changes the market conditions. There are online game platforms (e.g. Steam for Windows and Mac, Xbox LIVE or PlayStation®Network), games played online in the browsers (casual games, dedicated browser games and games on social network sites like facebook) and on the mobile phones and tablet PCs (e.g. Apple App Store, Google Play Store or Amazon Appstore for Android).
There is no Salzburg/Austria specific demographic data about gamers available. In an ISFE report (ISFE 2010) the Austrian market profile is said to be comparable to the market profile of Netherlands, Belgium and Switzerland.

Further demographic data is available from:

- ISFE - Interactive Software Federation of Europe\footnote{http://www.isfe.eu}
- GameVision\footnote{http://www.gamevisioneurope.eu}
- ESA\footnote{http://www.theesa.com} - Entertainment Software Association, (demographic data of gamers for the US,
- EEDAR\footnote{http://www.eedar.com}

The order situation of the areas of software & games and advertising was the best within the creative sector in Austria:
4. ACCESS TO FINANCE
Introduction

This chapter will look at main support instruments concerning access to supportive financial provisions available per region.

Creative and cultural industries (CCIs), included games industries, are one of the best opportunities to improve economies in European regions while being facilitators of innovation and employment. The actions at a EU level should be focused on the creation of a suitable framework. To do this, it is important for CCIs to become more attractive for investors. The creation of a comparable and competitive regional brand is an opportunity to provide added value and wealth for Europe.

A set of principles guide the EU policies, such as to adapt public policy tools to SME needs, create a friendly environment for SMEs, develop a legal and business environment supportive to timely payments in commercial transactions and facilitate SMEs’ access to finance: risk capital, micro-credit and mezzanine finance.

The E.C. Green Paper, 3.3. Access to Funding, highlights the need to improve the key access to finance for CCIs, especially for small business, as key to enabling the sector to flourish and to contribute to sustainable and inclusive growth.

At a EU level, access to finance for SMEs is of major concern to European institutions. Programmes such as the Competitiveness and Innovation Programme333 and institutions such as the European Investment Bank334 and the European Investment Fund335 run several schemes to promote SMEs. However, these are very rarely used by creative sector companies. This has been recognised in the Green Paper on Creative Industries336. It has also been addressed in several studies on the sector’s potentials.

While so far comparably little has been achieved in terms of making major public investments available for the sector at EU level (next to established schemes such as MEDIA337), the currently launched European Creative Industries Alliance will support a pilot project on access to finance in the creative industries338. The Creative Growth recommendations should be considered in this pilot project.

The State of Art: SWOT about Access to finance for creative industries

Since games and creative companies are a key for European Economies, it is relevant to create an approach examining supply and demand of finance, analysing the existing and potential lines of funding for the creative sector, as well as the financial system and the business advice process aimed to get funds.

CEEI Asturias was the leader of the Working Group Access to Finance for CCIs in the Creative Growth Project, where it was concluded that creative companies have difficulties in accessing financial support. It was also found that these companies have difficulties in getting information about financing sources, and in the development of business plans.

In addition, Immaterial assets of creative industries have no recognised value in balance sheets and investors and banks need to be aware of the economic value and potential of creative industries.

In the framework of the Working Group Access to Finance in the Creative Growth Project, a SWOT was developed in order to clarify opportunities, needs and requirements to get funds for CCIs.

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333 CIP Financial Instruments are listed here: http://bit.ly/mUgle9
334 EIB SME investment opportunities can be found here: http://bit.ly/iW0yB0
335 EIF schemes for SMEs are listed here: http://www.eif.org/
336 Green Paper page 11 section 3.3 Access to Funding. ibid
338 Call documents for the different ECIA strands as well as further information on the access to finance project to be set up can be found here: http://bit.ly/gJWNVW
### SWOT – Access to Finance TWG

<table>
<thead>
<tr>
<th>Strengths of the financial system</th>
<th>Weaknesses of the financial system</th>
</tr>
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<tbody>
<tr>
<td>- Clear financing system, well known rules</td>
<td>- Difficulties making a Business Plan</td>
</tr>
<tr>
<td>- Strong Financing system</td>
<td>- It is necessary a link to innovation</td>
</tr>
<tr>
<td>- Experience (business advisor background…)</td>
<td>- Lack of information about creative sector opportunities</td>
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<tr>
<td>- Mentoring</td>
<td>- No big hopes to have a big Return of investment (ROI)</td>
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<tr>
<th>Strengths of the creative entrepreneur</th>
<th>Weaknesses of the creative entrepreneur</th>
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<tbody>
<tr>
<td>- The creative entrepreneur has expertise: entrepreneur is a master of what he does</td>
<td>- Lack of support for creative entrepreneurs</td>
</tr>
<tr>
<td>- The creative entrepreneur is able to change because he usually is a SME</td>
<td>- Lack of money/guarantees</td>
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<tr>
<td>- The creative entrepreneur has a big network</td>
<td>- Competitive/damaging market, difficulties when accessing to market</td>
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<td></td>
<td>- Lack of “business view”: Lack of realism</td>
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<td></td>
<td>- Discover the trends before the financial system</td>
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<tr>
<th>Opportunities</th>
<th>Threats</th>
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<td><strong>Opportunities of the financial system</strong></td>
<td><strong>Threats of the financial system</strong></td>
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<tr>
<td>- Opportunities at regional level</td>
<td>- Seed period</td>
</tr>
<tr>
<td>- New market opportunities</td>
<td>- Trends</td>
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<tr>
<td>- National level banks</td>
<td>- Lack of money</td>
</tr>
<tr>
<td>- EU Programmes</td>
<td>- Business reality</td>
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<tr>
<td>- Vision clearly expressed</td>
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<tr>
<td>- Innovation</td>
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<thead>
<tr>
<th>Opportunities of the creative entrepreneur</th>
<th>Threats of the creative entrepreneur</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Plus value: added value of the cultural/artistic projects</td>
<td>- Fear of bankruptcy’s risk</td>
</tr>
<tr>
<td>- Flexibility of the project</td>
<td>- Longer harvest time</td>
</tr>
<tr>
<td>- Sustainability at economic, environmental level…</td>
<td>- Curly mind vs. straight mind of the bankers/ lack of understanding</td>
</tr>
<tr>
<td>- Preferential loan conditions for start ups</td>
<td>- Vulnerability in financial crisis</td>
</tr>
<tr>
<td>- Niche market: make that new ideas happen</td>
<td>- Difficulties measuring incomes</td>
</tr>
</tbody>
</table>

**Table 45. SWOT Matrix Access to Finance**

The above SWOT analysis developed by CEEI Asturias provides a comprehensive overview of the difficulties in obtaining finance for CCIs. The result of the SWOT-analysis from the point of view of one creative entrepreneur and from the financial system show us:

- the real need to provide high quality business support services focused on creative entrepreneurs so they can acquire a deeply entrepreneurial vision and are able to get funds for their business

- the necessity to define or adapt financial lines to the creative sector

Below a description of the main support instruments concerning access to finance available to support the game industry in each region. Regions have also mentioned whether there are national support mechanisms concerning access to finance for the gaming industry. Some regions have also listed the available support initiatives in other regions in their count.
**United Kingdom: West Midlands**

The Creative England Business Investment fund has been launched to support the growth strategies of ambitious, non-London-based, creative companies, which plan to grow through the development and commercialisation of innovative content and cross-platform applications. It is targeted at companies with demonstrable high-growth potential, which want to make a change in their development. The Business Investment Fund will support the recruitment of talent, infrastructure and/or resources. This is a private sector-led scheme designed to stimulate the development of creative and digital businesses working in cross-platform content and services. It is especially interested in investing in companies which plan to exploit commercial opportunities in one or more of these areas:

- Cross Platform TV development
- Healthcare
- Government Services
- Games and Interactive Entertainment
- Business To Business
- E-Learning
- Mobile applications

The Business Investment Fund totals £1,000,000, and will be made available via interest-free loans between £50,000 and £100,000 per application.

An Innovation Voucher[^339] provides funding so that your business can work with an external expert for the first time, gaining new knowledge to help your business innovate, develop and grow. Help from an expert could include advice on an innovative idea, learning more about using design within your business or the management and use of intellectual property.

The Technology Strategy Board's national Innovation Voucher scheme enables your business to obtain help from a range of expert suppliers - universities, further education colleges, research & technology organisations, technical consultancies and Catapult centres, design advisers and intellectual property advisers.

Innovation Vouchers are allocated following a draw from all applications, and if successful, your business will be awarded an innovation Voucher of up to £5,000 to work with an expert supplier of your choice. You can spend more if you wish with the supplier, but the Technology Strategy Board will only reimburse up to the £5,000 level.

**Applying for an Innovation Voucher**

The application process is online, through the Technology Strategy Board website. You can apply anytime, with around 100 vouchers being issued once every three months - October, January, April and July each year (with around 400 being issued in the first round starting in September 2012). The process should take around 30 minutes to complete provided you are clear on what you want to do in advance. The process will also ask you about the size of your business and any public support you may have received in the last three years so that you can check that you meet the eligibility rules.

**Innovation Vouchers have five key criteria**

- you need to be a start-up, micro, small or medium-sized business located in the UK
- this should be the first time that you have worked with this type of knowledge supplier
- the idea that you want help with should be a challenge for your business that means you need to look for specialist help
- your idea should be applicable to one of the priority themes
- you have not had an Innovation Voucher from the Technology Strategy Board before.

If you are successful, and have passed our eligibility check, you will be asked to confirm you accept the terms and conditions within 10 working days. You can then select a supplier of your choice, not having worked with that supplier before, to obtain knowledge to help your business innovate.

Once the work is completed and you are satisfied with what you have received from the supplier, you ask them for a short report and pay their invoice. You then redeem your Innovation Voucher with the Technology Strategy Board for up to £5000 (net of VAT) and provide a summary of what you have purchased with the Innovation Voucher and how it will benefit your business in the longer term.

The Innovation Voucher has to be used and the money claimed from the Technology Strategy Board within a 6 month period (for the first round in September 2012 this will be 5 months). Please make sure you can complete on time before you apply.

[^339]: https://vouchers.innovateuk.org/about-innovation-vouchers
Once you have been offered and accepted an Innovation Voucher from Technology Strategy Board you cannot receive another Innovation Voucher from the same scheme.

**Digital R&D Fund**

The £7 million Digital R&D Fund for the Arts is a partnership between the Arts Council England, the Arts and Humanities Research Council (AHRC) and Nesta.

Following on from the success of the pilot Digital R&D Fund for Arts and Culture, the new Fund with £7 million available to the sector, offers new organisations with arts projects and those who applied last year, many of whom had fantastic projects the opportunity to apply again to receive project funding.

We are looking for research and development projects that use digital technology to enhance audience reach and/or explore new business models for organisations with arts projects.

The Fund is open for application 2012-15. Organisations with arts projects based in England, Technology providers and Researchers or research teams are invited to form collaborative relationships and make joint funding applications.

The Fund itself will involve a range of projects - small and large - however, no one project will receive more than £125,000 including research services, VAT [on services i.e. technology or research services], contingency of 5%, travel and participation in two-three programme networking events over the lifetime of their project.  

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Netherlands: Utrecht

There are several support instruments to help bridge the gap between game companies and the business world.

Government (funded) institutes, as well as the European Union, play a role by giving grants or subsidies. These grants and subsidies are needed and appreciated. Nevertheless, obtaining these funds remains challenging. According to a recent study, The Entrepreneurial Dimensions of the Cultural and Creative Industries, "responses from experts suggest that public initiatives seem unable to meet the expectations and needs of CC [cultural and creative] entrepreneurs because they are complicated to understand and often detached from the territory in which the company operates" (117). 341

Grants and subsidies can be hard to obtain even though government (funded) institutes are able to give support in gaining access to finance. This is facilitated by regional network enterprises.

Gamefonds342 provides subsidies which are directly provid to (starting) game companies. Gamefonds is made possible by the Dutch Ministry of Education, Culture and Science, by Mediafonds, and by The Netherlands Architecture Fund.

Business angels also provide access to finance. Business Angels Netwerken Nederland (BAN Nederland)

A main intermediary body providing access to finance for the cultural and creative industries in the Netherlands is CultuurInvest346, whom for example give loans with low interest.

More regionally, UtrechtInc346 is an example of a group of investors willing to finance game companies with a focus on start-ups. Such groups of investors can be found throughout the Netherlands.

Nederlandse Organisatie voor wetenschappelijk Onderzoek (NWO) and STW providing funding for scientific game research.

Task Force Innovation (TFI) organises events to get game companies and financiers together 347.

The Dutch Game Garden (DGG), among other activities, serves as an incubator for game companies. They offer incubated game companies a wide variety of services. One of these services is to provide courses to realize financing as an intermediary body. The DGG organises events, such as workshops specifically catered to the Dutch game companies. For instance, an upcoming workshop will be held to provide tips and information to start-ups about fiscal measures, rules and regulations and subsidies, and information about how to set-up a sound business administration.348

The DGG states they have strict requirements that companies looking for incubation have to abide by.349 Five companies are currently incubated and thirty-seven companies use facilities such as office space and a meeting place.350 Taking into account the amount of game companies located in Utrecht, obtaining access to finance is still an issue for the majority of game companies. The role of the DGG can be deemed significant, as some of the incubated companies might not have been able to sustain themselves without extra support.

Control Magazine recently published ‘The Money Issue: 7 methoden om aan geld te komen’ (translation: 7 ways to obtain money), aimed at game company start-ups and those interested in knowing more about the opportunities available to obtain funds.351

As seen by Stolen Couch Games, getting access to finance can also be done by crowdfunding. This is an uncharted area however, of which the possibilities need to be explored more.

**Festivals** are also a good place for game companies to meet with business people. The **NLGD foundation** hosts festivals such as The Festival of Games, with the aim to bring potential and current stakeholders together with a role in the games industry – developers, financers, suppliers, and so forth. This can be seen as a good example of connecting the (creative) game companies with the business world.

The regional **Kamer van Koophandel** (Chamber of Commerce) offers some general (free) courses focussed on starting up a company and how to deal with taxes. Companies specifically getting involved in the game-industry can use the Chamber’s website to analyse their direct competition in the area or find suitable partners for cooperation.

**The Utrecht School of the Arts**[^352] as well as **Utrecht University** also provides student projects featuring companies in the serious game market where students are introduced to entrepreneurship.[^353]

[^352]: http://www.hku.nl/web/Faculteiten/KunstEnEconomie/Onderwijs.htm [01-07-2012]

[^353]: "Utrechtse studenten leren duurzaam ondernemen in serious game" [Utrecht University website](http://www.uu.nl/NL/Actueel/Pages/Utrechtsestudentenlerenduurzaamondernemeninseriousgame.aspx) [04-09-2012]
Italy: Piedmont

Nationally, there are no instruments in Italy with the objective of financing games. The only document that refers generally to the development of digital is the digital agenda. At a regional level, the main access to finance are the innovation poles (creativity and multimedia and the ICT pole). The overall amount for the 12 innovation poles is of 60 M Euro for the period of 5 years. The innovation poles are conceived as a significant group of enterprises – innovative start up, small-medium-large enterprises - as well as research institutes involved in a specific sector or territorial area with the aim of supporting innovation through a sound interaction, a joint use of infrastructure and high added value services, the exchange of knowledge and experiences as well as an effective technology transfer, networking activities and the provision of information to the enterprises of the innovation poles.

The innovation poles are set up as coordination structure among the different actors of the process for innovation, and the provision of services and infrastructure.

The only other instrument that refers explicitly to video games is the regional call for digital creativity aimed at small and medium enterprises and professionals under 35, that will probably sort out in June 2012. The call is aimed at both micro and associations of enterprises for a total of 2 million euros. Among the initiatives are mentioned both mobile apps and serious games. The call is based on the research done during the project CReATE which Piedmont and CSP have also participated in.

At a local and regional level, the means of access to finance are already mentioned in the innovation poles (creativity and multimedia and the ICT pole). The only instrument that refers explicitly to video games is the regional call for digital creativity aimed at small and medium enterprises and professionals under 35, that will probably sort out in June 2012. The call is aimed at both micro and associations of enterprises for a total of 2 million euros. Among the initiatives are mentioned both mobile apps and serious games. The call is based on the research done during the project CReATE which Piedmont and CSP have also participated in.

Italy: Umbria

In Umbria, as almost elsewhere in Italy, the available financial resources have been mostly directed to support manufacturing SME (in particular, to financially support investments in machinery, training, industrial warehouses and R&D). The latter has anyway always been linked to the amount of the overall investment, of which it has always been a percentage.

So, although for Research and innovation, significant resources have been allocated under the European funding, with dedicated measures directly managed by the Region, its impact on SMEs has always been very low.

In order to have a specific Regional Agency facing the financial problems of SME, the Region has, through Sviluppumbrà, created Gepafin. GEPAFIN Spa is a public financial agency that manages specific measures to strengthen SMEs (in general, with no specific measure dedicated to the gaming sector) and the funds dedicated to research and innovation of EU through a specific joint venture, called ATI PRISMA.

Gepafin has also created a venture capital fund designed to invest in innovative companies in the region of Umbria. It is also equipped with instruments to finance start-ups by young entrepreneurs (Microcredit and LR 12/95) and vocational training courses aimed at spreading the culture of enterprise.

Other resources have been directed to the financing of innovative spin-offs, not only the faculty of engineering but also in mathematics and physics and other research centres and public-private mixed capital.

354 For further information visit http://www.agenda-digitale.it/agenda_digitale/
Spain: Asturias

Access to finance for game industries in Spain and Asturias

It is important to mention that neither the region of Asturias nor the country of Spain has put in place any clear recognizable mechanism for video game entrepreneurs or companies. However, the current overview of private and public funding lines is available and we would concentrate our analysis in those lines that are potentially available and appropriate for the sector.

Subsidies for game industries.

At national context there are some public subsidies than video game companies can apply for, promoted by the Ministry of Industry (Plan Avanza) for the ICT promotion, Ministry of Culture, (through the General Directorate for the Cultural Industries and Policies) with a line of subsidies aimed at promoting the legal offer of contents in the Internet, and ICEX with a cross-sectorial plan for video games.

Other financing lines

Access to finance is one of the main pivots in the creation and consolidation of business. Below is a comprehensive overview of funding lines (business creation and consolidation) for the region of Asturias. The role of CEEI Asturias is, rather than acting as a direct financing entity, it acts as a ‘bridge to’ or ‘facilitator’.

As such, CEEI Asturias has one of its main services focussed on access to finance for entrepreneurs and innovative companies. It plays, in collaboration with different regional financing entities, the role of formal ‘quality validator’ of projects, through successful methodology to support the entrepreneurs and business when searching for finance.

Its long and broad experience of past years gives CEEI Asturias a privileged situation to describe, analyze and have a current overview of: employment creation, new technology-based companies’ creation and other instruments such as micro credits, guarantees through reciprocal guarantee firms, participating loans, risk capital or even funding of innovative projects through the Asturian Business Angels Network- ASBAN.

![Figure 43. Overview of Funding Lines including Examples of Subsidies](image-url)

Lines of Funding

- Small microcredits
- Small shared loans
- Subsidies for new technology-based companies
- Risk Capital (shared loans)
- Business Angels
- Guarantees

CEEI Asturias led the Working Group “Access to Finance for creative industries” in the framework of the European project Creative Growth\(^\text{357}\). Creative sector companies and entrepreneurs face difficulties in accessing finance – both private and public – in order to start-up or grow. The multi-layered reasons for this have been analysed and discussed by thematic working group “Access to Finance”\(^\text{358}\). It established that obstacles to access to finance can be found on the side of the creative industries as well as on the side of financiers.

Next to being structurally challenged, creative sector companies lack knowledge about existing financial instruments and skills in attracting investors. They also often fail to articulate the growth potential of their ideas, products and services vis-à-vis investors.

The financial community as well as certain public entities, on the other hand, lack the ability to identify and evaluate the intangible assets that often reside within creative sector companies and their projects. They also find it difficult to assess the risks related to investing in creative projects.


\(^{358}\) See Creative Growth Thematic Working Group Report “Access to Finance”
The thematic working group report identifies certain investment schemes in the Creative Growth participant regions, which can also be used to help creative businesses. On the other hand, it also identifies a range of areas where business support organisations can help creative entrepreneurs to become ‘investment ready’.

At a regional level, some innovative public intermediaries have set up creative industries funds – often with the assistance of regional banks. Moreover, intermediaries sometimes provide a multitude of related services such as coaching, mentoring, networking and business training schemes which are meant to increase creative sector companies’ ‘investment readiness’\(^{359}\). However, these kinds of interventions remain scarce and more exchange of experience and knowledge between regions on the issue would be beneficial.

\(^{359}\) The state-owned investment bank of Berlin runs a Venture Capital fund focussing on creative industries: http://bit.ly/plFg8w. Furthermore, project ImMediaTe, supported by DG Enterprise (CIP), aims to increase the investor readiness of creative industry entrepreneurs: http://bit.ly/g8Aliu
**Bulgaria: Sofia**

It is notable that the sector has grown, as it has in recent years, with no tailored support from public authorities which the research team could identify. There are some grants and funds available from private, non-profit sources for the mobility and training of those in the cultural and creative industries, but none of these were specifically geared towards the digital gaming sector. As such, the only real metrics that we can use in order to assess the access to finance are those which apply to business finance in general. Therefore it is important to note that given the different dynamics of digital gaming companies and companies in the creative industries from businesses in general, it is not possible to easily generalise from these figures.

The European Commission’s SME Performance Review consists of an annual report used to assess performance of Member States in implementing to Small Business Act of the European Commission. The review includes a composite metric ‘access to finance’ which falls at around the EU average.

The following table illustrates some relevant data:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Bulgaria</th>
<th>EU-27 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share of bank loan applications by SMEs that were not successful 2009</td>
<td>14%</td>
<td>23%</td>
</tr>
<tr>
<td>Access to public financial support including guarantees (% that indicated a deterioration) 2009</td>
<td>24%</td>
<td>22%</td>
</tr>
<tr>
<td>Willingness of banks to provide a loan (% share that indicated a deterioration) 2009</td>
<td>18%</td>
<td>30%</td>
</tr>
<tr>
<td>Relative difference in interest rate levels between loans below EUR 1 million and loans above EUR 1 million 2010</td>
<td>26.37%</td>
<td>23.98%</td>
</tr>
<tr>
<td>Venture capital investments - early stage (% of GDP) 2009</td>
<td>.0012%</td>
<td>.0014%</td>
</tr>
<tr>
<td>Strength of legal rights 2011</td>
<td>8</td>
<td>6.81</td>
</tr>
<tr>
<td>Depth of credit information index, 2011</td>
<td>6</td>
<td>4.47</td>
</tr>
<tr>
<td>EU Structural Funds dedicated to stimulating entrepreneurship and SMEs in 2007-2013 (% of total allocation by MS), 2011;</td>
<td>4.8%</td>
<td>22%</td>
</tr>
<tr>
<td>EAFRD dedicated to Support for business creation and development in 2007-2013 (% of total allocation), 2011;</td>
<td>4.1%</td>
<td>2.29%</td>
</tr>
</tbody>
</table>

**Table 46. Relevant Data Concerning Bulgaria**

While the majority of the metrics hover around the EU average, the most positive metric includes the ‘willingness of banks to provide a loan (% share that indicated deterioration). The most negative metric was ‘EU Structural Funds dedicated to stimulating entrepreneurship and SMEs in 2007-2013 (% of total allocation by MS)’, which equals about 20% of the EU-27 average.

The yellow indicates where Bulgaria is above average and the red indicates where it is below average. These are, in some sense, corroborated by the ‘Doing Business’ report already mentioned above as Bulgaria was ranked 8th out of 183 countries in terms of ‘getting credit’ although with respect to legal protections the ‘Doing Business’ report ranks Bulgaria as 46th with respect to ‘protecting investors’ and 87th in ‘enforcing contracts’.

Regarding access to finance for the creative industries, some of the main barriers to accessing finance for companies in the cultural and creative industries are their size and lack/low level of tangible assets. In Bulgaria, we find that with respect to the number of enterprises, 99.7% conform to the European Commission’s definition of SME, whereas this figure if 99.8% for the EU-27.

Also, with respect to value added from each type of company, 59.2% of value added is generated by these SMEs compared to 58.4% for the EU-27. Figures do slightly diverge, however, when it comes to employment percentages, where 73.5% of all employed persons work at SMEs whereas this figure is 66.9% for the EU-27.

According to estimates for 2010, there were 250,818 micro enterprises; 22,960 small enterprises; 4,491 medium-sized enterprises and 715 large enterprises.

It was also estimated that in 2009, there were 20,139 enterprises working in the fields of the cultural and creative industries and that 14,721 of them employ up to 2 persons. For large companies less than 2 percent of them are part of the creative economy and are usually in the fields of media or have multiple units.

The most popular types of companies registered included Sole Proprietor, which is relatively easy to establish but through which obtaining credit is difficult and they are unstable on the market. In the cultural and

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360 [https://www.howtogrow.eu/system/pg/grants_competitions_view?gfid=118]
361 [https://www.howtogrow.eu/system/pg/grants_competitions_view?gfid=59]
362 [https://www.howtogrow.eu/system/pg/grants_competitions_view?gfid=65]
creative industries the most popular types of registration include EOOD (Single Person Limited Liability Company) and OOD (Limited Liability Company) which are more attractive to investors and banks\textsuperscript{365}.

However, with respect to the digital games sector it remains to be determined what the business landscape looks like. Despite this, it is clear - considering the number of micro, small and medium-sized enterprises in the country, and their contribution to employment, coupled with the high levels of growth expected both in Europe and worldwide in the coming years - that financial instruments are needed to take advantage of this trend and incubate and strengthen the sector. The report mentions that in Sofia, a special strategy, backed by finance should be put in place to support the cultural and creative industries and should be coordinated with the Agency on Small and Medium-Sized Enterprises, as well as with the National Employment Agency\textsuperscript{366}.


\textsuperscript{366} Ibid. p. 7
Germany: Baden-Württemberg

In Germany a few different support instruments to sustain the games industry have already been put into place. It is possible to identify at least 5 regions which offer funding or support program targeting the audio-visual and games industry. These are listed below.

Access to Finance in other German Regions

In the region of Niedersachsen / Bremen the media agency Nordmedia (Normedia, “Gamesförderung”) supports developers and publishers from the conception till the development of market ready games. A specific games fund offers a financial support that can cover up to 50% of the costs, with different amounts according to what will be financed.

In the capital city Berlin the support instruments targeting the games industry are part of the broader strategy to support the development of innovative audio-visual content which is coordinated by the Medienboard Berlin-Brandenburg (Medienboard Berlin-Brandenburg GmbH, “Innovative AudiovisuelleInhalte”). The whole fund amounts to 1 million Euro, specific games content can be submitted under the category “Development and Production”.

In the region of Bayern as well as in Nord-RheinWestfalen a specific game support programme is offered by the regional Film Funding agencies, a fact that corroborate a trend diffuse in the visual and digital strategy of most of the regions of the Bundesrepublik.

In the specific case of Bayern, the FilmFernsehFond Bayern GmbH (BayerischeStaatsregierung, “Computerspielförderung”) supports the development of high qualitative, pedagogic and cultural computer games. Even in this case a strong focus is set on the development of products which have a clear cultural and pedagogic value, almost implicitly excluding games aiming at pure entertainment. There are three phases of game development that can obtain finance: concept, prototype and production phase.

Starting from 2011, the Filmstiftung Nordrhein-Westfalen GmbH (FilmstiftungNordrhein-Westfalen, “Förderung”) offers some support programmes targeting the games industry. As in the case of other regions, these have to be found within a broader programme to support the development of innovative and interactive application, which can fall under games, internet, mobile or multimedia projects. Each project can be financed with a maximum amount of 100.000 Euro. The support programme targets young developers and start-ups with the aim of helping them to develop a product which is ready for the market.

Access to Finance in Baden-Württemberg

In Baden-Württembergtwo are currently two different funds that support the games industry: the Digital Content Funding (DCF) and the Digital Interaction Technology Fund (DITEC)\footnote{The Digital Interaction Technology Fund is still in development phase while this study is being drafting.}.

The Digital Content Fund (DCF) supports entrepreneurs and freelancers regarding their realisation of interactive media projects. The aim is to increase value creation and commercialisation by purposeful funding (concept, prototyping, production, distribution) creating incentives for further investors to engage in interactive media projects and enabling entrepreneurs to develop their ideas ready for the market. The focus of the DCF lays in the support of projects with a proven cultural or pedagogical value: projects eligible for grants are those which are especially innovative, culturally valuable, scalable and offer market potential. In total, 500.000 Euros per annum is provided for this development programme. (Filmkonzeption Baden-Württemberg”, 44). MFG Baden-Württemberg is responsible for organising and running the Digital Content Funding (DCF) programme.

The Digital Interaction Technology Fund (DITEC) is a support programme for small companies and new entrepreneurs in the ICT sector. The MFG Baden-Württemberg will administer the programme and allocate 500.000 Euros per annum to it. Small companies and start-ups in Baden-Württemberg are supported in the development and production of innovative and interactive IT technologies.

Both the conceptualization and the realization of these concepts into prototypes at a later stage are co-financed. A jury of experts selects the most promising projects and decide on the financial support. As the focus of financial support lies on ITC technologies and infrastructure, it complements the existing Digital Content Funding (DCF) with its focus on digital content.

Still in Baden-Württemberg, the City of Karlsruhe offers venture capital to companies in different stages of the companies' development. This capital is not fixed on a special segment of industries but it may depend on the company’s business plan and concept. One of the Karlsruhe games companies has received the support of 120.000 Euros by this funding.

The possibility to access venture capital for games companies of Baden-Württemberg, as well as in other part of Germany, is still limited. There are almost no VC companies specialised in games. Venture capitalists usually prefer to invest in end products or technology with solid business models, strong market potential and a good marketing concept. As is the case in many other regions, the game industry is perceived as risky and can therefore not so easily get financed. Nonetheless the raise of online business models to generate profit within the game industry is welcomed by VCs who are more likely to invest in businesses connected to the internet.
Malta

Malta’s corporate tax regime has developed over the years into a complicated system which combines an attractive merge of corporate taxation together with a series of favourable tax credit schemes. Currently, Maltese companies have one of the most tax-advantageous corporate structures within the European Union because Malta operates a full attribution system on tax. Therefore, this permits no further tax to be due by non-resident shareholders on receipt of dividends distributed out of profits of a company.

Some Tax Highlights
- **Residence:** A company incorporated in Malta is considered to be resident and domiciled in Malta. A company incorporated outside of Malta is considered to be resident in Malta only if the management and control of its business is exercised in Malta.

- **Rates of tax:** The standard rate of tax on income and chargeable gains is 35% (in line with the highest personal tax rate) - flat rates of tax are payable, by way of exception, on certain categories of income such as investment income, certain transfers of immovable property in Malta. The amount of tax payable by a company may be reduced via various forms of double tax relief, such as the Flat-Rate Foreign Tax Credit providing relief at a rate of 25%.

- **Malta operates a full imputation system of taxation:** When a company distributes dividends out of profits on which it had paid tax, no further tax is due by the shareholders and a credit for the tax paid by the distributing company is available to the shareholders.

- **Allocation of profits:** Companies are to allocate distributable profits to one or more of 5 tax accounts, depending on the nature/source of the profits: Foreign Income Account (FIA), Maltese Taxed Account (MTA), Final Tax Account (FTA), Immovable Property Account (IPA), and Untaxed Account (UA).

- **Tax refunds:** Distributions of profits from either of the FIA or the MTA trigger refunds of Malta tax paid by the company. The effective tax rate after refund will generally range from 0% to 10%. The standard refund (e.g. generally for business profits) is 6/7 of the Malta tax (grossed up with any relieved foreign tax – subject to certain conditions – in relation to the MTA), going up to 100% in the case of profits derived from a participating holding and down to 5/7 on profits derived from passive interest and royalties (income from royalties are tax free). Where the company has claimed double tax relief on profits allocated to the FIA, a tax refund of 2/3 of the Malta tax paid (grossed up with any relieved foreign tax – subject to certain conditions) on the distributed profits may be claimed. Tax refunds are Malta tax exempt and payable within a statutory 14 days.

- **Non-resident companies’ branches:** A non-resident company with a Maltese branch may allocate the profits from the branch activities to the various tax accounts, thus enabling the company’s shareholders to operate the tax refund regime.

- **Participation Exemption:** Income deriving from a participating holding (generally a 10% equity holding or partnership interest – there are alternative tests) in a non-resident entity or from the disposal thereof are exempt from tax (alternatively they may be taxed at 35% and the shareholder may, following distribution, claim a full refund of the Malta tax paid by the company) - subject to certain anti-abuse provisions being satisfied. Similarly, where a two-tier Malta corporate structure availed of, any gains realised upon the disposal of the underlying entity may likewise benefit from the Participation Exemption. Malta’s holding company regime may thus offer an effective Malta tax rate of 0% either through the workings of the tax refund regime or, alternatively, at the level of the holding company through the Participation Exemption.

- **Withholding tax (WHT):** There is no WHT on outbound dividends and no WHT on interest or royalties payable to non-residents (subject to certain conditions being satisfied).

- **Anti-avoidance rules:** There are some general anti-abuse provisions. There are currently no thin capitalisation, transfer pricing or controlled foreign companies rules in force.

- **General:** (a) no duty/tax is levied on the issue of shares; (b) duty exemptions relative to transfers of marketable securities may be obtained; (c) there are no wealth or capital taxes in force.

- **Personal taxation
  - Basis of taxation:** Persons ordinarily resident and domiciled in Malta are subject to income tax in Malta on their worldwide income and some chargeable gains. Persons who are resident or domiciled but not ordinarily resident and domiciled in Malta are chargeable to tax in Malta on (a) income and chargeable gains arising in Malta, (b) income arising outside Malta and remitted to Malta.
- **Double tax treaties**: Malta has entered into in excess of 50 (largely OECD based) double tax treaties including with most major European trading nations, the US, Canada and China.

- **Rates of tax**: Individuals are charged to tax at progressive rates of 0%-35%. A reduced flat 15% rate on remitted foreign sourced income (capital gains being exempt) is available to certain residence permit holders. This flat rate of 15% income tax is being extended to a specified, yet wide, selection of roles within the game industry including game industry managers, programmers, designers and quality assurance, among others. This extension has been approved in the 2011 budget and is being implemented at time of writing.

- **Participating Holding Tax Regime**

  - The Participating Holding tax regime, first introduced in the mid-1990s, has evolved over time and is an EU approved regime. It is available to a resident holding company in relation to equity holdings or partnership interested – which need not be held by the holding company by way of investment primarily in non-resident entities with respect to:

    a) An equity holding in a non-resident company and an interest in a non-resident partnership akin to the Maltese partnership en nom commandite, the capital of which is divided into shares.

    b) An interest in a non-resident body of persons of a nature similar to the Maltese partnership en nom commandite, the capital of which is not divided into shares, where the interest so held entitles the holding company to a right to votes, to profits available for distribution and to assets available for distribution upon the winding up of the body of persons concerned.

    - The ‘holding’ should grant the holding company any 2 of 3 rights, namely a) a right to vote, b) a right to profits available for distribution, c) a right to assets available for distribution on winding up of that entity, c) a right to assets available for distribution on winding up of that entity.

    - The equity holding or partnership interest in the non-resident entity concerned must satisfy at least 1 of the 6 tests set out in the definition of ‘participating holding’ in the Income Tax Act (Chapter 123 of the laws of Malta – the ‘ITA’):

      (i) having a direct holding of at least 10% of the equity; or

      (ii) having a holding of equity combined with an option to acquire the balance of the shares; or

      (iii) having a holding of equity combined with a right of first refusal in relation to a proposed disposal, redemption or cancellation of shares; or

      (iv) having a holding of equity combined with a right to sit on that entity’s board or nominate a person to sit on said board; or

      (v) having a holding of equity by way of an investment of at least €1,164,000, where that investment is held for an uninterrupted period of at least 183 days; or

      (vi) having a holding of equity for the furthurance of its own business and where said holding is not held as trading stock (in practice, rarely availed of).

    - With effect from 1 January 2007, the Participating Holding regime is only available with respect to dividends (including partnership distributions) derived by the non-resident entity from a participating holding if at least one of 4 ‘safe harbours’ are satisfied:

      (i) if the non-resident company / partnership is incorporated or resident in another EU Member State; or

      (ii) if the non-resident company / partnership is subject to any foreign tax of at least 15%; or

      (iii) if the non-resident company / partnership has less than 50% of its income derived from passive interest or royalties e.g. engaged in business or deriving dividend income or gains; or

      (iv) if the holding in the non-resident company / partnership is not a portfolio investment, where the non-resident company / partnership or its passive interest or royalties have been subject to any foreign tax of at least 5%.

- **Tax refunds – Option 1**: Distributions of profits by resident holding company from either of the FIA or the MTA trigger refunds of Malta tax paid by the resident holding company (‘MaltaCo’). The refund in the case of a distribution of profits derived from a participating holding shall be equivalent to 100% of the Malta tax paid by MaltaCo on the profits in question. Accordingly, following a full distribution of taxed profits deriving from a participating holding, the effective Malta tax rate after refund in relation to profits derived from a participating holding may be reduced to 0%. Tax refunds are Malta tax exempt.

  - They are payable in the same currency as that in which the share capital of MaltaCo is designated and they are payable within a statutory deadline of a few weeks. No withholding taxes shall be levied by MaltaCo on any dividends so distributed. Said dividends shall not be subject to any further Malta tax (subject to certain conditions).

- **Participation Exemption – Option 2**: Income in the form of dividends or capital gains derived by MaltaCo from a participating holding are, at the option of MaltaCo, exempt from tax in Malta in MaltaCo’s hands. It is important to note that as from 2010, where a two-tiered Maltese company structure is in
place, any gains realised upon a disposal of the underlying company may also benefit from the Participation Exemption.
- These exempt profits shall be allocated to another tax account of MaltaCo, namely the Final Tax Account. Subject to certain conditions, no withholding taxes shall be levied by MaltaCo on any dividends distributed from its Untaxed Account and said dividends shall not be subject to any further Malta tax.

- **Tax Exemption on Royalty Income from Patents**
  - Malta Enterprise is currently managing the fiscal incentive dealing with royalty income from Patents, enacted in 2010 under the Income Tax Act (Cap 123 of the Laws of Malta which is the parent Act).
  - The incentive extends the rule on exemption from income tax, under Article 12 of the Income Tax Act. Royalties and similar income derived from patents in respect of inventions, whether in the course of a trade, business, profession or vocation or otherwise, are exempt from income tax, subject to conditions establishing minimums etc.
  - The person applying for the exemption must have carried out, either solely or together with another person or persons, research, planning, processing, experimenting, testing, devising, designing, developing or other similar activity leading to the invention which is the subject of the qualifying patent.
  - This applies to ‘qualifying patents’ which are patents, registered in Malta or elsewhere, in relation to which the research, planning, processing, experimenting, testing, devising, designing, developing or similar activity leading to the relevant invention was carried out in Malta or elsewhere.
  - The incentives cover ‘royalties and similar income’ which include any sum paid for the grant of a licence to exercise rights under a qualifying patent.
  - Where any income which is so exempt from income tax is derived by a company, the distribution of the particular profits by way of dividend by such company shall also be exempt from tax in the hands of the shareholders. Where the person in receipt of such dividend is itself a company (‘the second company’), any dividend paid to the members of the second company shall, to the extent that such dividend is paid out of profits which are exempt in terms of this incentive, not be charged to tax under the Income Tax Act, and where a member of the second company is again a company, this shall apply as though references to the second company were references to that member.
  - When applying to Malta Enterprise to benefit from this incentive, an applicant must confirm that:
    i. the income is generated under market conditions and at arm’s length when related undertakings are involved;
    ii. the licensor paying royalty fees is using the licensed knowledge in a productive economic activity;
    iii. the patented knowledge/invention was the result of research;
    iv. the applicant is not defaulting on VAT, Income Tax, Social Security and rent payments to the Government.

- **Research and Development – Tax Credits**
  Malta Enterprise is an Intermediate Body (IB)1 responsible for administering six European Regional Development Fund (ERDF) Grant Schemes under the 2007 – 2013 programming period. These include:
  i. International Competitiveness – to support enterprises in their market penetration efforts;
  ii. Innovation Actions Grant Scheme (Innovation) – to support SMEs develop innovative processes, products and services;
  iii. Innovation Actions Grant Scheme (Environment) – to assist SMEs improve their environmental performance;
  iv. Small Start-up Grant Scheme – to facilitate the setting up and growth of small start-up enterprises;
  v. e-Business Development Grant Scheme – to assist SMEs propagate the use of ICT in their daily business operations;
  vi. R & D Grants – to assist enterprises invest in industry driven research projects to be in a better position to develop new products and processes.
  - The R&D incentive provides grants to enterprises carrying out Industrial Research and Experiential Development activities leading to the development of new or significantly improved products, processes or services. Experiential Development means acquiring, combining, shaping and using of existing scientific, technological, business and other relevant knowledge and skills for the purpose of producing plans and arrangements or designs for new, altered or improved products, processes or services.

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Costs are eligible as long as they are incurred in relation to an approved project. Such eligible costs would be:

i. Personnel costs – wages of researchers and technicians are eligible;

ii. Instruments and equipment – cost of new instruments and new equipment;

iii. Contractual research, technical knowledge and patents – cost of contractual research, technical knowledge and patents bought or licensed from outside sources at market prices, consultancy costs. These costs may not exceed 25% of the total project cost;

iv. Material, supplies and similar products – bought specifically for the project and incurred directly as a result of the research activity.

- Supported R & D projects cannot exceed 36 months to be completed and all eligible costs must be incurred within this timeframe. For an application to be considered for co-funding, a minimum project value (based on eligible expenses) of at least Euro 60,000 is required.

- The guidelines are active until the 31st December 2013. The guidelines state that assistance under this scheme shall not be provided to undertakings engaged in the gaming industry, however it is interpreted this would not apply to video game development, but instead to iGaming.

- **Registration of Intellectual Property Tax Credit for SMEs**

  Another Malta Enterprise incentive, this is aimed at Small and Medium sized Enterprises who have already conducted an approved Industrial Research or Experimental Development project. The tax credit covers costs incurred in the 24 months after the previous project has been completed and takes into consideration:

i. Costs preceding the grant of the intellectual property right relating to application;

ii. Translation costs in other jurisdictions;

iii. Costs incurred in defending the validity of the right during the application procedure.

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France: Ile-de-France Region (Paris Region)

Companies consider crowdsourcing, tax incentives and self-financing the most relevant instruments for the development of the game sector according to information obtained through surveys and interviews. Among the points raised during the interviews, the main problem of video game companies is to access to finance in this sector, either by capitalization or by borrowing/loans, to finance the necessary investments. Developers and publishers of video games often complain about having to work short-term for financial reasons. Actions to encourage private investment in the sector would favour their innovation as well as their international development strategy.

Support for the video games sector exists in various forms in France:

- France’s video game tax credit

- The video games support fund (FAJV) encompasses 3 types of subsidies.
  - Pre-production subsidy: the grant does not exceed 35% of pre-production expenses and the prototype realization
  - Intellectual property’s aid: the aid does not exceed 50% of the total project’s cost and it is smaller or equal to 200 000€
  - Collective operations subsidies (L’aide aux opérations à caractère collectif); this aid is devoted to events that promote nationally or internationally video game profession. The aid does not exceed 50% of the total project’s cost.

- The National Video Games Association (SNJV) is involved in all areas to preserve or enhance the competitiveness of companies producing video games based in France:
  - Public policies to ensure the international competitiveness of enterprises for creating video games;
  - Regulatory and legislative devices adapted to the sustainable development of the sector;
  - Training;
  - Promotion of French industry of video games in France and abroad;

The SNJV also intervenes in the interest of its members depending on the subjects raised in the news.

The National Video Games Association (SNJV) has worked with the implementation of public programmes such as Video Game Tax Credit (CIJV) and the Fund for Aid to Video Game (FAJV), and contributes to the optimization of these dedicated tools or more general (the Research Tax Credit (CIR) in particular.

- Innovation in audiovisual and multimedia network (Le réseau recherche et innovation en audiovisuel et multimédia (RIAM)) has been created in 2001 by the CNC and the Research and Innovation Ministry in order support SME’s innovation projects. Since 2007, the CNC and Oseo are associated to manage the project. The RIAM is intended to support innovation projects of firms (in the areas of production, processing, distribution and publication of images and sounds) and leading to new services or new products.

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373 National Video Games Association (SNJV) : www.snjv.org
374 www.cnc.fr/web/fr/riam
Austria: Salzburg

"Under-financing is a huge barrier to the development and implementation of new ideas and raises the risks involved. It is hard for start-ups in the games industry in Salzburg to acquire funding or venture capital." (young entrepreneur in Salzburg)

Funding on a national level
Embedded in national and regional policy initiatives to promote the creative industries (CI), certain measures such as funding programmes and networks have been developed in order to support the games industry as part of the CIs.

As diverse as the creative branch is, the problems it is confronted with are just as diverse: in addition to problems of financing, issues like lack of networking, weaknesses in translating ideas into economic activities, insufficient legal and business knowledge, or management deficits play a big role.

For this reason the creative industries support programme evolve was developed by the Ministry of Economics, Family and Youth. It does not offer a solution that is meant to assist in all areas of life, but rather, a "box-of-bricks" of services. The palette presented covers the areas of financial support, basic and advanced training, service and consulting, as well as networking. The common element in these services and offerings are that each of them approach the special needs of the branch.

Impulse – Creative Industries Funding
Impulse (impulse/aws 2012), offered by the Austria Economic Service (aws), is the first national promotion program for the creative industries in Austria. Impulse is part of "evolve," the innovation promotion program for the creative industry initiated by the Federal Ministry of Economy, Family and Youth. Impulse was tailor-made within the framework of evolve to meet the needs of the creative industries, and it supports innovations whose creation of value predominantly, or completely, is the result of products or services from the creative industries.

There are three lines of funding available, depending upon the maturity and type of project:

- impulse XS helps projects in the development phase to assess their viability in terms of content and commercial usability.
- impulse XL supports projects in stages of development, implementation and first market replication whose economic viability and market orientation can already be plausibly and concretely demonstrated.
- impulse LEAD sponsors pilot projects that go beyond just single companies and have a “best-practice character”. Through their diffusing and disseminating effect, they contribute to increasing the view of the creative industries as value creators and thus to improving the international position of Austria as a creative location.

Funding on a regional level
As in most regions in Austria (except Vienna) there are no specific monetary funding instruments for the gaming industry in Salzburg.

Salzburg is one of four pilot regions in the EU, which is testing innovative voucher models (€5,000.) for interlinking SMEs of all branches with the innovation-driver creative industries. In the past few years intensive efforts have been made to demonstrate the meaning of creative services for innovative projects in all branches and to support such cooperation accordingly.

VINCI “Vouchers in Creative Industries” is a project financed by the EU as well as by the Austrian Federal Ministry of Economy, Family and Youth and is being implemented by Austria Wirtschaftsservice GmbH (aws). The VINCI project aims to promote the innovation process of SMEs via integration of creative services (e.g. from the gaming industry) and thus strengthening the cross-sectoral cooperation, which is important for innovations. VINCI supports and strengthens the cooperation between enterprises of creative industries and other branches and should serve as a best-practice model for the development and the implementation of a nationwide creative industries voucher.

Departure (Vienna)
departure (departure 2012), the City of Vienna’s agency for the creative industries, was established in 2003 as Austria’s first independent business promotion agency and service center for companies of the creative industries. Today it is considered a successful example of innovation funding on a competitive basis in Europe. departure is a subsidiary company of the Vienna Business Agency and part of the department for economic affairs of the City of Vienna.

departure offers Viennese companies and company founders of the creative industries four funding programs tailor-made to the various requirements of the applicants both as regards contents and from an economic point of view.

- departure classic and departure focus: These two classic funding programs address established Viennese companies and company founders.
departure pioneer: departure has tailored this program to the needs of company founders and young entrepreneurs who have established a company no longer than 12 months prior to the date of submission or who plan to do so within 6 months from the date of submission.

departure experts: This program allows growing companies to profit from the cooperation with qualified experts. Funding is granted for specific projects and for initiatives to enhance the growth of the company, which are implemented with the help of experts.

Crowdsourcing
Crowdsourcing is a new buzz-word in the games industry, especially after well-known game studios raised millions of dollars for their games via the crowdsourcing platform Kickstarter\textsuperscript{376}. For a successful fundraising you need a convincing presentation, good marketing and it makes it much easier if you are already well-known for your games. Start-ups usually lack most or all of these prerequisites.

Gambitious (IN BETA) Professional crowdfunding exclusively for the game industry
Gambitious\textsuperscript{377} is established to help independent game developers and even publishers to attract the funding they need to complete their projects and bring them to market. Indie developers pitch their projects to a large group of game savvy investors. Investors, gamers and fans directly invest in game projects from both renowned developers and up-and-coming indies.

\textsuperscript{376} http://www.kickstarter.com/
\textsuperscript{377} http://gambitious.com/
5. ACCESS TO KNOWLEDGE

Main support instruments concerning access to knowledge in terms of the creation and diffusion of knowledge including R&D and tech, available to support the game industry in the region.
United Kingdom: West Midlands

The main channels for knowledge exchange are incubators such as SGI, science parks, as well as Universities with their dedicated research teams. Please refer to the stakeholder section with the list of incubator, science parks and universities.

The main channels for knowledge exchange are incubators such as SGI, science parks, as well as Universities with their dedicated research teams. In the West Midlands, since the regional Development Agencies were dissolved, there is not an official cluster for the creative industry. Saying this, the reional stakeholders are trying their best to keep the sector together and a series of business support activities and networks are accessible for the Video Games sector too.

Most of the Science Parks and technology park in the region offer incubation but in particular the Serious Games Institute is one of the rare dedicated incubator for the sector. The knowledge is also very much embedded in short courses, degrees and professional training that is provided by the universities and higher education in the West Midlands. Trade associations as well as creative networks play an important role in educating and supporting any kind of enterprises in the sector.

SGI

The Serious Games Institute (SGI) is based in Coventry University's Technology Park. The Serious Games Institute is a global thought leader in smart spaces. They enable and facilitate the growth of serious games, virtual worlds and connected industry specialists by supporting research and development into the use and effects of these products, platforms and technologies.

They exhibit and showcase the products and services of our community of companies and academics. We provide business support and facilities to encourage, promote and grow businesses in this sector.

The Institute provides a close interface between high-level applied academic research at Coventry University and leading edge technology companies in the field of game-based learning.

The SGI will have a particular focus on 3D collaborative multi-user environments and other games development platforms which can be harnessed for non-entertainment purposes.

The Serious Games Institute has developed an exciting and innovative study programme that can be tailored to particular requirements.

MSc (PgCert/PgDip) in Serious Games and Digital Contents

PhD in Serious Games & Virtual Worlds

The courses have been designed to fully engage and interactive allowing each student the opportunity to combine home study with classroom based learning in the SGI. Indeed the SGI training rooms offer students the very latest in ICT technology, including full Wi-Fi access, access to PCs, laptops, virtual worlds, video conference and mobile technology (all IT hardware and software is provided for each learner for the duration of each course).

The courses have not been designed to be over technical and are aimed at learners with a basic knowledge of IT who are keen to explore ways in which such technology could be exploited for business benefit.

The SGI limit numbers on each course to 20 and incorporate both internal SGI and external teaching staff, including special visiting lecturers from large industrial partners such as BT, O2, Apple, Cisco and HP.

According to the Skillset Computer Games Sector – Labour Market Intelligence Digest here are the main provider of specific courses/degrees for the video games sector:

In Higher Education: 4,619 Content for Computer Games relevant courses exist across the UK and these courses were being studied by 90,360 students in 2008/09. A below average proportion of these learners are female (24%), whilst 19% are BAME and 9% had an identified disability. In 2008/09 27,815 individuals attained a Games related qualification (consisting of 7,165 Postgraduate, 16,178 first degrees, 792 foundation degrees and 3,667 other undergraduate qualifications).

In Further Education: we have identified 56 learning aims that are in some way relevant to the Games sector and these account for 2,037 learners in England in 2008/09. 51% of these learners are female, 17% are BAME and 14% had an identified disability.

In the private sector: Of the 7 providers supplying usable information regarding provision to the Games sector a total of 53 courses were identified. These courses most commonly covered development of online games and architectural product visualisation. Specific skills covered commonly included compositing, 3D Animation for Games, writer training and compositing and modelling.

UK Video Games association or networks also provide knowledge on the industry and information that would be relevant for companies in general:

378 www.seriousgamesinstitute.co.uk


BOO-Games Regional Analysis Report, January 2013, Appendix A, p. 200
TIGA
TIGA is the trade association representing the UK’s games industry.

Their vision is to make the UK the best place in the world to do games business. Their mission is to fight for the interests of game developers. To achieve their vision and mission they focus on the delivery of three strategic objectives: effective political representation, profile raising and helping their members commercially. This means that TIGA members are effectively represented in the corridors of power, their voice is heard in the media and they receive benefits that make a material difference to their businesses, including a reduction in costs and improved commercial opportunities.

The majority of their members are either independent games developers or in-house publisher owned developers. They also have games publishers, outsourcing companies, technology businesses and universities amongst their membership. TIGA was awarded ‘Trade Association of the Year’ and the ‘Member Recruitment Award’ at the Trade Association Forum Best Practice Awards 2010. In 2011, TIGA won a further four awards at the Trade Association Forum Best Practice Awards, including ‘Trade Association of the Year’ for the second consecutive year.

TIGA has been voted a finalist in the CMI Management and Leadership Awards 2011 in the ‘Outstanding Organisation (SME)’ category. Dr Richard Wilson, TIGA CEO, has been voted a finalist in the ‘Outstanding Leader’ category. TIGA was also named as a finalist in the 2010 Chartered Management Institute (CMI) National Management and Leadership Awards in the category of ‘The Outstanding Organisation of the Year Award (SME)’. TIGA is an ‘Investors in People’ accredited organisation.

UKIE
UKIE is the only trade body for the UK’s wider interactive entertainment industry. They exist to champion the interests, needs and positive image of the videogames and interactive entertainment industry whose companies make up their membership.

There here to help ensure that our members from the videogames and wider interactive entertainment industry have the right economic, political and social environment needed for this expanding industry to thrive. They provide a range of services to meet the shared needs of our members and to further the interests of the interactive entertainment industry as a whole:

They build strong working relationships with parliamentarians and policymakers to ensure industry needs are met through appropriate Government support.

Their dedicated intellectual Property Crime Unit seeks to minimise the damage caused by intellectual property theft and catch those responsible for this criminal activity.

They act as a public information resource, to help consumers and the media better understand gaming.

They provide advice to budding IP creators and sellers on how best to pursue careers in the industry.

They work with our European partners, ISFE to ensure our members are aware of key EU developments and to promote the priorities and interests of the industry in Europe.

Creative Skillset
Creative Skillset is the Creative Industries’ Sector Skills Council (SSC) which comprises TV, film, radio, interactive media, animation, computer games, facilities, photo imaging, publishing, advertising and fashion and textiles.

Their aim is to support the productivity of the industry to ensure that it remains globally competitive. They do this by influencing and leading; developing skills, training and education policy; and through opening up the industries to the UK’s pool of diverse talent.

They conduct consultation work with industry, publish research and strategic documents, run funding schemes and project work, and provide information about the challenges that face the industry and what we need to do to overcome them.

They also provide impartial Creative Industries careers resources for those looking for a route in, as well as for established industry professionals online and over the phone. Whether you are a freelancer looking for training information, a student furthering your knowledge of industries or a public agency partner, they aim to provide you with easy access to the information you require.

Creative England
Creative England opened for business on 1 October 2011, with the core purpose of supporting the sustainable growth of independent creative businesses, and the talent that feeds them, in every part of England outside London. They are the first agency to provide dedicated support to Film, Television, Games and Digital & Creative Services in the English regions outside London.

381 www.tiga.org
382 www.ukie.info
383 http://www.creativeskillset.org/
384 http://www.creativeengland.co.uk/
The Netherlands: Utrecht

Incubators

Dutch Game Garden
The Dutch Game Garden (DGG) is the main incubator and business center for game companies in the region. It is located centrally in the city of Utrecht, at the Neude square. The DGG provides wide-range support for starting and established game developers. They recently moved into a new building right in downtown Utrecht. The Developers Club brings together students of the various game design, media, arts and programming courses to collaborate, innovate and develop new business (currently over 400 active members). The Game Incubator supports young entrepreneurs seeking to set up game development studios or game-related businesses. The Game Development Business Centers provide facilities for existing and growing game companies in the Netherlands. The Netherlands: Utrecht

Education
The region of Utrecht offers several study programmes on different educational levels, teaching various aspects of game design and development. This ranges from theoretical programs (Utrecht University) to more practical skills (Grafisch Lyceum Utrecht).

Utrecht School of the Arts (HKU)
The Utrecht School of the Arts (HKU) offers several game related programmes. The game programmes (4 years) that the HKU offers are:

- Game Design & Development
  Here students learn to work in multidisciplinary design teams and get a broad range of courses like game design, level design, programming, modeling etc.
- Game Art
  Focuses on the graphical aspect of designing and developing games. Courses include modeling, character design, concept art and animation.
- Interactive Performance Design & Games
  Teaches to design for a crossover between games and theater. Courses include painting, drawing, programming.
- Master of Arts for Creative Design for Digital Cultures: Game Design & Development
  The MA CDDC Game Design and Development program addresses the possibilities of practice, experiment and innovative development in the context of computer games.

Programmes at the HKU that in adjacent subjects, are:

- Interaction Design
- Interactive Toy Design

Hogeschool Utrecht (HU)
The Hogeschool Utrecht (University of Applied Sciences Utrecht) does not offer a specific game study programme, but does offer programmes in related subjects:

- Software engineering / information engineering (Informatica)
  Teaches to design and develop software products. Includes computer systems, Internet technology, Programming in JAVA & C, Robotics, Gaming.

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Utrecht University (UU)
Utrecht University (UU) offers a bachelor and a master programme about game technology:

- BSc Game Technology (faculty of Science). As part of the bachelor Computer Science, Game Technology focuses on developing new techniques to make innovative games. 392
- MSc Game and Media Technology (faculty of Science). The Game and Media Technology Master’s programme focuses on the technological aspects of gaming and multimedia in the context of computer science. 393

The UU also offers a master degree in an umbrella subject:
- Master program New Media & Digital Culture (faculty of Humanities) offers a stimulating environment in which students develop an extensive vocabulary on the meaning and impact of digital technologies, and are guided to become the critical citizens, journalists, researchers, teachers, writers, and policy-makers of the future. 394

Grafisch Lyceum Utrecht
This vocational education offers two specific game related programmes:
- Game Artist: teaches graphical aspects of game design. Students learn how to work in teams and do 2D and 3D modeling and animation.
- Game Developer: teaches technical/programming skills. Students learn how to build games and work for clients. 395

Grafisch Lyceum Utrecht also offers a related programme:
- Interactive Design 396

Networks

SETUP
SETUP is a centre in Utrecht that is concerned with creation and innovation in the field of digital media. SETUP organizes events like seminars, workshops, exhibitions and parties. The target audience is broad as long as it has to do with new/digital media. Their activities include organizing so called Gamestorms, in which professionals from different contexts brainstorm together with game designers for game concepts that could solve problems. SETUP is enabled by, amongst others, the province of Utrecht and the municipality of Utrecht. 397

Dutch Games Association
On a national level there is the DGA, the organization that supports the Dutch games sector. Not only enterprises, but also schools/universities, research institutes and events/festivals are members of this organization. Amongst these members there are many organizations from the region of Utrecht.

TFI
Also in the region of Utrecht, Task Force Innovatie Utrecht (TFI) serves as a network. TFI’s aim is to bring research institutes, government and businesses together and provides a stimulus for businesses, small and medium-sized enterprises (SMEs) in particular, to innovate with their product, service or process. 398 One of TFI’s focus areas is Utrecht’s game industry, with the goal of increasing the added value of this cluster.

Italy: Umbria

In Umbria, there are some tools to support the creation and development of enterprises, but they don't have a specific orientation towards the gaming industry. As an example, in Umbria there are three different incubators, which now are directly owned and managed by Sviluppumbria. They are dedicated to local services (location, administrative, tech support etc.) towards SMEs, but this tool is not specific to gaming. There is also a regional innovation agency, whose purpose is to facilitate the technology transfer between enterprises. This agency is going to be incorporated in Sviluppumbria within the end of this year. Finally, there are two Universities: the University of Perugia and the University for Foreigners, but, as stated before, they do not offer specific courses related to gaming. There are no other support tools for the creation and development of enterprises.

Italy: Piedmont

The system of the Research and Innovation in Piedmont is very rich and diversified and includes a set of players. Some institutions perform only research, while others have also access to knowledge, to finance and to managerial skills.

Regional institutions that deal with and manage the public support of research and innovation are:

- Piedmont region, with the Department for Research and Innovation, and the Regional Directorate 13 "Innovation, Research and Universities"
- Finpiemonte, which manages the processes of funding for research and innovation established by the Region of Piedmont;
- The universities, whose research staff is organized simultaneously in centres of higher education (faculties) and research (departments);
- Research centres, public, private or hybrid, that statutory mission to coordinate, promote and carry out research on issues of jurisdiction. Among the research that could be interested in developing the gaming industry, as well as CSP, is important to mention Top-ix and Torino Wireless.
- The science and technology parks or centres of excellence for the setting up of technology businesses in the area. The park that could be interested by video game sector is the already mentioned Virtual Reality & Multimedia Park.
- The incubators where innovative ideas and projects turn into business realities.
- The banking institutions, which act as lender of research of different subjects, in a complementary manner in public.
- The research foundations.
- Other entities engaged in research and technology transfer.

It is important to underline that there are no specific tools related to the world of video games. 399

399 For a complete overview on research institutions visit the dedicated section on the Piedmont's website: http://www.regione.piemonte.it/innovazione/ricerca/attori.html
Spain: Asturias

Regarding higher public education, there is one University in the region, the University of Oviedo, covering the majority of humanistic and scientific disciplines and more than 25,000 students are located in several campus. The university of Oviedo offers Graduate Studies, Diplomas and Engineering (e.g. Diploma in Computer Management Engineering (Oviedo) or Diploma in Computer Systems Engineering (Oviedo), Masters (e.g. Soft Computing and Intelligent Data Analysis, Mobile Network and Communication Technologies (Mnict) and Undergraduate Studies, like Degree in Computer Science -Software Engineering-, or Degree in Informatics Engineering in Information Technology. However there is no official specialized studies on video games.

There is also an important Secondary Education with some Centres qualified as Integrated Centres of Professional Training and covering the majority of disciplines, some of them focused on ICT sector.

Regarding private education, the ESNE -University School of Design and Innovation- has recently started to offer undergratuated studies (e.g. Videogames design and development).

On the other hand there are some technology centres linked to innovation who can affect or develop technology lines affecting to the sector.

**CTIC Foundation** is the Information & Telecommunications Technology Centre, which is especially active as driving force for the ICT sector. The main goal of the CTIC Foundation is to promote and stimulate activities related to the development of Information and Communication Technologies in all fields of economic and social life in order to lead the impulse and strengthening of the Information Society. Regarding video games some initiatives involving video games and children can be found in CTIC Foundation. Some of them include roundtables, summer camps - The Fantastic Park- aimed at children to encourage their initiation in gaming programming on computers, or the days like the „Scratch even” organised in 2012, in which the schoolchildren had the opportunity to present their created video games based on the „scratch” free software tool.

Other Tech Center is the European Centre for the Soft Computing is a research and development centre promoted by the Foundation for the Advancement of Soft Computing, targeted to carry out basic and applied research in the field of Soft Computing as well as to transfer technology to industrial applications of intelligent systems to solve real-world problems. At the moment they are developing some initiatives linked to simulation and very close to the games sector.

**PRODINTEC**, the Tech Center for manufacturing and industrial design also believes that some technologies as rapid manufacturing and the manufacturing of short series of products, characters, could have some links with gaming activities.

Finally there are two Scientific Parks in Asturias. The Technology Park of Asturias, located in Llanera, was firstly inaugurated in 1991, and is founding partner of the Association of Science and Technology Parks of Spain–APTE. Today is a consolidated business enclave which CEEI Asturias is the Incubator.
Bulgaria: Sofia

We refer to general business indicators relating to skills and innovation, which paints a rather dismal picture for Bulgaria:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Bulgaria</th>
<th>EU-27 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMEs introducing product or process innovations (% of SMEs), 2008</td>
<td>20.72%</td>
<td>34.18%</td>
</tr>
<tr>
<td>SMEs introducing marketing or organizational innovations (% of SMEs), 2008</td>
<td>17.35%</td>
<td>39.09%</td>
</tr>
<tr>
<td>SMEs innovating in-house (% of SMEs) 2008</td>
<td>17.09%</td>
<td>30.25%</td>
</tr>
<tr>
<td>Innovative SMEs collaborating with others (% of SMEs), 2008</td>
<td>3.5%</td>
<td>11.16%</td>
</tr>
<tr>
<td>Sales of new to market and new to firm innovations (% of turnover), 2008</td>
<td>14.2%</td>
<td>13.26%</td>
</tr>
<tr>
<td>SMEs participating in EU funded research (number per 100,000 SMEs), 2010</td>
<td>5.25</td>
<td>20.95</td>
</tr>
<tr>
<td>SMEs selling online (% of SMEs) 2010</td>
<td>4%</td>
<td>13%</td>
</tr>
<tr>
<td>SMEs purchasing online (% of SMEs) 2010</td>
<td>4%</td>
<td>28%</td>
</tr>
<tr>
<td>Training enterprises (% of all enterprises), 2005</td>
<td>29%</td>
<td>58.48%</td>
</tr>
<tr>
<td>Employees’ participation rate in education and training (% of total no of employees in microfirms), 2009</td>
<td>2.5%</td>
<td>12.62%</td>
</tr>
</tbody>
</table>

Table 47. General Business Indicators in Bulgaria

It is clear after looking at this table that Bulgaria has much work to do in increasing the share of innovation, collaboration, and training in SMEs. There are probably multiple factors at play here, the most prominent of which includes minimal collaboration between business and academia, lack of potential for the improvement of business skills and entrepreneurship education at Bulgarian universities, and brain drain, which is still a problem in the country as many ambitious entrepreneurs and innovators go abroad to work.

Nevertheless, some recent developments aimed at addressing these deficiencies have occurred, including some grant schemes funded through the EU Structural Funds Operational Programme: ‘Development of the Competitiveness of the Bulgarian Economy 2007-2013’, including ‘Support for the Transfer of Knowledge to Enterprises’, ‘Development of Start-up Innovative Enterprises through Support for Introduction of Innovative Products Processes and Services’, and ‘Support for clusters development’.

Additionally, there is a Serious Games Living Lab at Sofia University, which aims to ‘make a link between developers and game designers, companies’ marketing and human resource departments and educational organisations, lecturers, researchers, learners, end-users and testers’400. As such, these, and other types of university initiatives like them in other sectors, if activated, can help to bring Bulgaria up to EU averages with respect to the indicators above.

There are some clusters and associations in Bulgaria in the fields of ICT and software (i.e. Bulgarian Association of Software Companies (BASSCOM)401 and the Bulgarian ICT Cluster402) but there are none specifically dedicated to digital gaming. In a more general sense, the Enterprise Europe Network, a business networking initiative of the European Commission, does facilitate the formation of partnerships and the internationalisation of companies. This is particularly important for Bulgaria given the low levels of SMEs collaborating with others and the fact that the internationalisation of Bulgarian SMEs falls below EU averages in nearly every indicator for this metric in the European Commission’s SME Performance Review country report for Bulgaria403.

400 http://seriousgame.it.uni-sofia.bg/content/about-us
401 http://www.basscom.org/
402 http://www.ictalent.org/
Germany: Baden-Württemberg

As previously underlined, in Germany there are two main networks aiming to support the games industry. Nonetheless a specific regional network in Baden-Württemberg is still missing. Already in the study conducted in 2009 many stakeholders have expressed the need for the development of such a network able to represent and lobby the need of the industry also at the regional politic level (Walz, Seibert, 57-58).

The main source of knowledge within the games industry remains universities which offer games related courses. In Baden-Württemberg it is possible to identify at least five degree courses which are connected to the games topic.

The University Hohenheim has built up a GameLab\(^{404}\) within the Faculty of Communication Science which allows the observation of natural game situations but also the creation of specific experimental conditions which enable the research in the field of computer and videogames. The University Hohenheim offers also a bachelor degree in "Interactive Media and Online Communication" which provides input on games related subjects.

Also some private universities offer specific games degree: the SRH Heidelberg has a bachelor degree in "Virtual worlds"\(^{405}\), while the macromedia hochschule für medien und kommunikation\(^{406}\) in Stuttgart offers a specific bachelor degree in games design.

\(^{404}\)https://sofoga.uni-hohenheim.de/83373
\(^{405}\)www.fh-heidelberg.de/de/studium/bachelorstudium/virtuelle-realitaeten/
\(^{406}\)www.macromedia-fachhochschule.de/studiengaenge/digitale-medienproduktion/studienrichtungen/gamedesign.html
Malta

Education

The main resource in Malta is its skilled workforce. In order to develop economically, Malta must remain commercially competitive and economically progressive. The key to this constant evolution is the need for a highly skilled, educated and talented workforce. In this respect, education is a major concern on the island.

As regards to this, Maltese education shares similarities to other European countries at all levels. One of the limitations that the local education has, particularly at a tertiary level is that due to the small size of the country there are a number of fields for which there are not dedicated programmes available. Moreover, these tend to be more focused areas rather than whole fields.

Some of the gaps in the Maltese educational system are at a University level and particularly courses that develop artistic and creative abilities. Furthermore, there is a lack of specialised courses in the field of the creative digital arts and also the traditional visual arts.

In recent years, this gap has been diminished by introducing new courses at the University of Malta and games courses at St. Martins Institute and the programmes offered by MCAST Art and Design. However due to the lack of high standard courses and programmes in the past, there is a lack of a critical mass of an experienced talent pool with a fine arts education that can teach such courses.

When it comes to game-specific education, there are no established, dedicated programmes at the time of writing, but a number of courses at various levels are being recognized by various entities. One can see below a brief introduction with respect to the main education structures/bodies existing on the island.

The University of Malta

The University of Malta is the only tertiary institution offering both undergraduate and postgraduate degrees. It is a publicly funded university, open to all who have the requisite qualifications. As a signatory to the Bologna Agreement, the University has reviewed its structures to match those of other European Universities allowing greater flexibility for its students and those of other European countries to consider exchange possibilities with the Erasmus framework. Academic work is on par with European and American institutions with which the University shares numerous faculty and student exchanges.

The University caters for over 10,000 students enrolled in 13 different Faculties and a number of institutes. Just fewer than 10% of the students are foreign students from over 60 countries. All instructions are in English except in foreign language classes where usually instruction are held in the language being taught.

Many look for employment in the local market while an ever-increasing number look for overseas employment opportunities availing themselves of European mobility. The university also manages the Junior College, a pre-university college with a population of around 3,000 students.

Technical Courses Offered

The Maltese University offers a comprehensive range of courses benefiting the establishment of a digital-games industry.

The Faculty of Economics, Management and Accountancy (FEMA) offers undergraduate and postgraduate programmes allowing students to take management and financial roles.

The Faculty of Information and Communication Technology (ICT) offers computer programming to students who could be employed in the digital games industry.

The Faculty of Media and Knowledge Sciences (MaKS) currently offers media production and design courses that could be brought together for the provision of content. Although project managers are not offered game-specific courses (as of yet), students reading for an MBA or Management Studies diploma have the background skills required to adapt to a specific job in this field.

The Faculty of Information and Communication Technology currently offers a number of courses such as the M.Sc. in Integrated Product Development, or in Information and Communications Technology.

The focus or practical applicability of such courses is yet to be ascertained, but on the basis of interviews with software developers it is clear that there are sufficient graduates that could work in the digital game industry provided a degree of re-training is provided. Furthermore, the University is willing to work with industry at enhancing local human resources with short programmes to meet emerging demands.

Potential Game specific technical courses

The University is planning to offer game-specific technical courses to students at the time of writing. A number of courses are planned by the Faculty of Information and Communication Technology as having game-relevant content and game-contextualisation, forming a game-specialisation stream. Although not a dedicated games course this sort of contextualisation is a good first step in addressing the needs of the digital-game industry.

A number of study-units in the Bachelor of Communications degree programme provide teaching and training in digital design tools and concepts but these are of limited scope and do not provide a dedicated specialisation.

http://www.um.edu.mt/
The Faculty of Media and Knowledge Sciences (MaKS), is further improving its choice with two new post-graduate programmes. Starting in October 2011, a new programme in Digital Arts will shore up the University's offering in digital media skills.

Another post-graduate programme in Digital Game Development will be offered in collaboration with the Faculty of Information and Communication Technologies (ICT) and a European Institution specializing in game research and education. This new digital-games production Masters, starting in October 2012, will address higher-end jobs in the game industry such as game designers, game directors, producers and project managers.

**MCAST Art and Design**

MCAST Art and Design has in the past years acknowledged the changing nature of the contemporary art world and the artistic skills that are required by the industry. Although the MCAST Art and Design centre still offer courses in Fine Arts it is moving further towards digital media. This (in progress) change is proving to be a big success and is clearly illustrated by the rising numbers of new intakes. The 2010/2011 Academic year saw a record intake of 635 students (a rise of over 220% from 2008) and numbers are expected to rise further for the 2011/2012 Academic year to an estimated 800 students.

MCAST is popular with students because of the high rate of employability that can be found amongst those who graduate. MCAST Art and Design has successfully established various partnerships with the private sector and other institutions thus creating more widespread opportunities for its graduates. MCAST Art and Design’s track record in addressing needs in the local job market make it a potential source of raw talent provision to an incoming games industry. Although MCAST Art and Design does not currently offer courses in game production; a glance at its prospectus shows that many credits and courses contribute to the artistic side of the games industry.

A possible collaboration between MCAST Art and Design and the University of Malta could offer a course that would provide a good range of the necessary skills needed for the artistic side of game development. MCAST offers a hands-on approach to necessary technical skills whereas the University is strong on the conceptual side of the creative arts and critical thinking, all three of which are necessary in the game industry.

The approach taken by MCAST Art and Design is to offer courses at various levels; this allows a student to start from basic, foundational skills and continue to further their education and specialise in a creative field without the necessity of leaving the institution. MCAST Art and Design offers 6 Higher National Diplomas amongst which we can find 3D Design and Graphic Design. All courses offer the same set of theoretical core credits but then each course provides the necessary specialised credits, most of which are practical in nature.

**MCAST Institute of Information and Communication Technology**

*To provide universally accessible vocational and professional education and training with an international dimension, responsive to the needs of the individual and the economy*

MCAST Mission Statement

Recent Maltese legislation has proposed and put into action a strategy to align the Maltese educational system with the requirements of the contemporary work-place. As part of this initiative the government of Malta identified economic sectors where there was a shortage of a trained workforce. Following this the government directed educational institutions to own the role of providing forward looking education designed to meet the future needs of industry. The MCAST Institutes are part of this strategy. Each individual institute aims to adapt their courses to the current needs of the industries they cater for resulting in training that is more driven by the needs of the workplace than academic concerns.

In Malta’s bid towards becoming an ICT Centre of Excellence, one major obstacle was the lack of a broad pool of ICT workers. Since Malta has been trying to attract foreign ICT companies to set up in Malta, this talent gap proved to be problematic. Therefore one of the major tasks was that of developing a public education forum that would train students for the ICT industry.

MCAST ICT was one of the institutions that took up this role and nowadays is offering a selection of courses that are designed to prepare students for a career in IT. The only way for MCAST ICT to be able to offer more useful courses to the Game Industry is by (a) designing and offering its own independent courses, possibly in conjunction with the University of Malta and (b) apply more stringent entry requirements, at least for its higher diploma courses.

**St Martin’s Institute of IT**

St Martin’s Institute of IT started operations in 1997 and is now a recognized provider of tertiary education in Malta. This institute offers a number of courses in the fields of business and management and in Information Technology. St Martin’s Institute of IT is an Affiliate Institute of the University of London offering a portfolio of undergraduate diploma and degree programmes conferred by the University of London.

It is important to note that the institute provides a number of courses in IT that range from diplomas to a possible MSc. All the courses that are on offer provide the necessary knowledge and skills to anyone who wishes to join the world of ICT. Particularly relevant to game development is the Creative Computing BSc. The new

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408 http://www.mcast.edu.mt/
409 http://www.stmartins.edu/
Creative Computing BSc (Hons) degree which was introduced by Goldsmiths, the lead College of the University of London in 2006 is an example of some of the courses the Institute offers. Students learn in-depth creative aspects of computing and new methods of creative interaction between user and machine.

The main focus of the creative computing degree is versatility. Students are therefore encouraged to build up original solutions to creative works and hand these in as part of their final thesis. This allows each student an aspect of freedom to specialize his or her studies in main areas of personal interest.

The Institute is expanding its existing entertainment technology centre with the acquisition of both hardware such as a Sony PSP development kits, Xbox with Kinect console kits, as well as licenses for games development engines such as Crytek and Unity Development platform.

St Martin’s vision is to be a boutique university that delivers high quality courses to small groups of students oriented towards the latter’s need in the domain of ICT. Its current offering aims to provide an educated and trained workforce in ICT and the creative sciences that addresses both the needs of incoming industry as well as fostering local game companies to establish themselves with the aid of the mentoring provided during the Gamedev Challenge.

**Holistic Institute of Technologies**

Holistic Institute Of Technologies has been in operation since 1995. It offers a variety of I.T. courses at diploma level ranging from ECDL Core, ECDL Advanced, Web Design, Web Programming, PC Technician, Programming languages (Java, C++, C#, SQL, ASP).

**Game Related Courses Offered**

In these last 3 years Holistic has also launched courses in robotics and games development. Simon Bonanno, the director of Holistic Institute of Technologies, found a gap in the range of courses offered locally in the form of video game education. Holistic thus partnered with TIGA and launched a set of game courses aimed at various levels. For the younger cohort of students, Holistic offers a Kodu course. Kodu is a new visual programming language made specifically for creating games. It is designed to be accessible for children, but can be enjoyed by anyone. The programming environment runs on PC and Xbox, allowing rapid design iteration using only a game controller for input. Holistic embarked on launching these courses since it felt such skills would be in demand in the near future.

Holistic also offers *Microsoft XNA courses*. XNA Game Studio 4.0 is a programming environment that allows students to use a Visual Studio to create games for Windows Phone, the Xbox 360 console, and Windows-based computers. XNA Game Studio includes the XNA Framework, which is a set of managed libraries designed for game development based on Microsoft .NET Framework.

The last course offered is the TIGA designed *Train2Game course*. This course is delivered mostly online with students working with professionals in the game industry selected by TIGA while having local access to toolkits and resources required by the suite of courses. The diploma has been designed with game industry professionals and is meant to be very practical in nature, thus preparing students for entry level game industry jobs.

**STC Training**

STC started off as a training centre for large IT projects primarily servicing MITA. It was owned by the Maltese Government, HSBC and BOV along with other shareholders, but eventually the latter bought out the rest and STC became independent.

It currently offers a BSc from Middlesex University and a number of diploma and vendor courses. STC is looking at expanding its collaboration with Middlesex University in the near future. STC currently has 420 students enrolled in its various programmes.

The courses offered by STC are mostly geared towards industry and the majority of teachers have industry experience or are still industry professionals.

CEO, Patrick Pullicino, explained how STC Training has always been in close contact with the industry in order to respond to rising needs in the supporting educational infrastructure. Patrick explains how 82% of STC students find employment after 1 year of graduating and 86% find employment thereafter.

Following a considerable demand from students for game courses, STC is going to offer a number of standalone modules at diploma and 1st year undergraduate level in game related subjects including: digital design and illustration, sound production and game development. All these are going to be given with games in mind.

All courses offered in conjunction with Middlesex University are designed and audited by Middlesex University. STC is working with Middlesex University to establish a branch of Middlesex locally which will service primarily British students enrolling at Middlesex UK directly.

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411 [http://www.stcmalta.com](http://www.stcmalta.com)

412 Originally founded as the Management Systems Unit (MSU)
France: Ile-de-France Region (Paris Region)

Access to knowledge available to support the gaming industry in the region is in particular through clusters established in the video game industry and through the creation of incubators dedicated to the sector. Access to knowledge is also provided through the various research collaborations and R&D programmes.

Networks, business clusters
The Ile-de-France Region is home to two clusters partly or completely dedicated to video games:

Cap digital 413 (Paris Region): www.capdigital.com/

Cap Digital is France’s innovation cluster for digital content, working with nine member communities: Image, Sound and Interactivity, Video Games, Knowledge Engineering, Culture, Press, and Media, e-Learning and e-Training, Collaborative Technology & Intelligence, Mobile Lifestyle & Services, Robotics and Communicating Objects, and Digital Design.

Located in the Paris Region, it supports R&D projects in the video games sector as well as simulators, which use virtual reality for training purposes.

Capital Games, Paris Region video games cluster: www.capital-games.org/ 414

Capital Game is a cluster for video games in Paris Region, certified business cluster (“grappe d’entreprises” by DATAR in 2011. It’s a non-profit organization (association 1901), created in 2003, Capital Games FEDERE

CAPITAL GAMES federates all Paris Region video game professionals, gathering more than 60 independent member companies:
- all video game fields (developers, publishers, middleware, training institutes)
- all platforms (home consoles, portable consoles & online gaming: PS3, Xbox, digital distribution networks, 3DS, Wii, PSVita, iOS, smartphones, web & social networks)
- all types (Casual, hardcore, serious, social gaming and advergaming)

CAPITAL GAMES acts for and in cooperation with the Video Game professionals of Paris Region. The business cluster accompanies its members in the short and medium term (exports, financing advice, support during the economic crisis, pooled investments at trade shows, etc). It also helps towards structuring the industry in the long run (defining job and skills profiles, collective agreements, lobbying etc.).

The values upheld by Capital Games are: collaboration, entrepreneurship, creativity and exchange. In order to reach its goals, Capital Games has structured its activity around 5 axes, which corresponds to the realities of the sector and the daily running of SMEs:

- Networking (Workshops, Members private meeting, General Assembly & Co, National and International Events, GAME PARIS)
- Research and Development
- Exports and international market
- Human resources
- Financing

Capital Games is perceived as a place for exchange and a partner that accompanies, advises and helps projects to get realized. Hence, Capital Games acts as:

- a network that promote exchange between professionals with same problems
- an adviser, a board that directs its members to callers and appropriate mechanisms to carry out their various projects
- a network that promotes exchange between professionals with similar problems
- the advice of a board that directs its members to callers and appropriate mechanisms to carry out their various projects
- a partner who acts in a concrete way to help and accompany companies for their projects
- a resource centre that encourages collaboration and enables scale economy
- a voice that renders the industry more visible to the public authorities, to the professional market and to the public.

CAPITAL GAMES undertakes all its actions working closely with its public partners, among whom are the Paris City Hall, the Paris Region, the Ministry of Industry, the Ministry of Labour, the DATAR and the European Union. The support by these authorities is proof of their strong commitment to the industry.

413 www.snv.org/fr/menu-haut/links.html and Video games, a sector of excellence in France, AFII, 4/12
414 Rapport d’activité Capital Games 2011
CAPITAL GAMES works with other regional/national Video Game associations and digital content representatives: the National Video Games Association, Cap Digital and other local and international associations:

- Video Game Cluster Aquitaine
- Video Game Cluster PACA
- Video Game Content Cluster Région Rhône-Alpes
- Video Game Cluster Languedoc-Roussillon
- Video Game Cluster Pays de la Loire
- Video Game Cluster Nord, du Pas de Calais et de la Belgique
- Video Game Cluster Nord, du Nord Pas de Calais et de la Belgique

Gaité Lyrique

La Gaité Lyrique is a resource centre, which has opened and devoted a space for video games. Freely open to the public, La Gaité Lyric aims at giving an insight into the unsuspected richness of the video games universe. The 9,500-m² venues are devoted to digital culture in all its forms, with particular focus on graphics, video gaming and music. The video games proposed at La Gaité Lyrique depend on current cultural events.

La Gaité lyrique adopts an interdisciplinary approach to all these creative fields (film-making, animation, film-making, theatre, dance, circus, music, visual arts, design, graphic design, motion design, musical film, architecture, computer programming, software art, web, games, fashion, etc), helping to foster connections and relationships between them.

La Gaité lyrique regularly organizes campaigns and events to create awareness and cultural open-mindedness towards new forms of media, which is part of its mission. These introductions aim to help the young and old discover the informational and artistic potential of technological tools.

Incubators

Paris Region Innovation Nord Express (PRINE), which includes Paris Video Games incubator

The first European incubator dedicated to video games, Paris Incubators is coordinating a network of organizations dedicated to welcoming and supporting innovative start-ups in the Paris Region. A new structure of 2700m² specialized in supporting start-up has opened in the Paris Region Innovation North Pole Express, located 110/122 rue des Poissonniers in the 18th arrondissement.

Entrepreneurs of the video games industry need premises and services which are adapted to the structure of their company, so that more time can be dedicated to the core part of their business activity. Entrepreneurs of the video games industry need premises and services of accompaniment adapted to the structure of their company, in order to be able to concentrate on their business.

A strong networking

The Paris Region is very active on this sector, in particular via the actions of institutions as Capital Games, SNJV, Cap Digital, etc. At the same time, Paris Incubators bring their know-how in terms of incubation to 90 companies every year, and has already accompanied about ten start-ups in the sector of educational games.

Accommodation and mutualized services

Privative offices from 37 to 140 sqm and general services: fully equipped conference room, cafeteria, and terrace, etc.

Customized accompaniment

- Regular meetings to follow-up, get in touch with experts and the advice of management teams, etc.
- Collective animations AND Integration within a community of start-ups
- Connections to networks and to video game actors
- Access to the Paris Innovation seed money fund

Paris Digital Media Incubator

Fields of expertise:

- Production of innovative digital contents
- New technologies and services related with digital contents and the Internet
- Innovative video games
An all-inclusive solution:
- Housing and logistics
- All the services of a business centre
- Individualized advice
- A complete programme of animations
- Integration within an active community of enterprises from the digital sector
- Insertion in the heart of Innovation networks

Key figures:
- Total area: 2 200 m²
- Work space area: from 44 to 106 m²
- Number of housed enterprises: 20
- Number of permanent jobs: 175
- Cumulated web audience: 10M of unique visitors/month
- Cumulated turnover (2008): € 5,2 millions
- Conducted fund raisings (2008) : € 8,5 millions
- Received public aids (2008) : € 2,3 millions

Paris Incubator Digital Technologies
Located in the new Paris Rive Gauche (Left Bank) district, the Technologies Numériques (Digital Technologies) incubator, which opened in 2001, currently hosts 90 companies. By virtue of that number, it has become the setting for a genuine synergy, taking place between the incubator's companies as they combine their technology and their know-how. The companies have succeeded in raising in excess of €25M in private funding, in addition to €10M in public funds. Among the site's many success stories, we find To Luna, Sequans Communication, Exalead, Qosmos, Wedia and others. The members of the incubator are given favoured access to the Paris Innovation Amorçage fund, which grants €50,000 to €100,000 in refundable advances. It provides a favoured access to the Paris Innovation Amorçage fund, which grants €50,000 to €100,000 in refundable advances.

Research System
France offers a pool of highly qualified researchers; research centres are strengthening their links with businesses; and government incentives designed to stimulate public-private partnerships. France’s 71 innovation clusters (competitiveness clusters) unite researchers and manufacturers from the same industry in a region and showcase the diversity of France’s key sectors.

In the video games industry, Paris Region counts 1 innovation clusters: Cap Digital and one specialized cluster on video games: Capital Games.

Capital Games, Paris Region video games’ cluster, and Cap Digital, Paris Region competitiveness cluster in digital contents, gather together video games’ actors and help them face four major challenges:

- **Technological Leadership**
  Every two years, video games experience radical changes in their hardware and software technology. In R&D, the industry is at the top of many programming fields including artificial intelligence, real-time 3D image management, the management of hundreds of thousands of connected players, etc. Technological leadership, or at least having a notable lead, is usually enough to facilitate having a dominant market position. It is vital for video game companies to be well positioned in the worldwide technological competition.

- **Worldwide Cultural Production**
  Before all else, making a video game requires coming up with a story and an interactivity that will engage a very diverse public around the world. More and more games are being developed for a worldwide market, much like American films. Video games constitute an important branch of cultural exchanges.

- **Internet**
  Internet revolutionizes both the use and distribution of video games. An entirely new branch has appeared with persistent worlds or massively multiplayer online videogames, and they are thriving. Several million of players spread around the planet are connected in real-time 3D games and have subscriptions to fully enjoy the gaming experience.

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418 Paris Region, meet the video game industry leaders, 12/11 - www.parisincubateurs.com/programme/37
- **Industrial and Financial Concentration**

  The video game industry is still quite recent. Now in full expansion after several structural crises, in the early ‘80s and mid ‘90s, the major players in the market carry out buy-outs and fusions. (Namco-Bandaï in 2005). For many analysts, this movement is far from over and could eventually entail alliances between communication powerhouses and video game industry leaders.\(^{420}\)

Capital Games, Cap Digital and the Paris Region Innovation Centre (Centre Francilien de l’Innovation) organize information meetings to inform companies on financing, and promote exchange and collaboration within the framework of collaborative R&D.


Cap Digital, Paris Region innovation cluster for digital content, supports R&D projects in the video games sector as well as simulators, which use virtual reality for training purposes.

**Ongoing projects including R&D in the video game industry in Paris Region**\(^{421}\)

- **ADN T-R**
  Agence de Doublures Numériques Temps-Réel
  Call: FUI / FUI 11
  **Partners**: ADN - Agence de Doublures Numériques (75), Vocally (93), CNRS (91), Institut Mines-Télécom (91)
  **Summary**: Creation, management and exploitation of audio-visual Digital Doubles of celebrities for the video-games industry.

- **Camille 3D sensoriel**
  Cabine d’essayage pour l’habillement, miroir magique, e-shop et outils de design pour les transports
  Call: FUI / FUI 12
  **Partners**: ID Group (59), ENSAIT (59), Université Pierre et Marie Curie (75), Visteon (62), Audiogaming (75), Damart (59), Telmat Industries (68), Idées-3Com (59), InStore (59), Université de Lille 1 (59)
  **Summary**: The project aims at improving the design of soft materials and the quality perception: create a virtual fitting-room enhancing the perception of the users in well-being situations; develop tools (evaluation methods, software, textile data bases) enabling to master the implementation of sensory specifications based on vision and touch; to predict consumers satisfaction for items produced with existing textiles; to design products while controlling the visual and tactile interactions and offer new feelings.

- **COGNILEGO**
  Indexation par intégration cognitive de manuscrits
  Call: ANR 2010 / CONTINT
  **Partners**: Université du Sud Toulon - Var (83), A2IA (75), Université de Provence Aix-Marseille (13)
  **Summary**: The aim of the current project is to develop and test a word recognition model, called the Cogni-Lego. Our cognition-oriented proposals are original and state-of-the-art. After three years of research in the ANR blanche ANCL project, we propose to now integrate our findings with hand-writing recognition models.

- **Dynam’it !**
  Call: FUI / FUI 13
  **Partners**: TeamTo (75), Artefacts Studio (69), INRIA (26)
  **Summary**: The Dynam’it! project purpose is to make it possible to use animation driven by physics in 3d TV shows and in the gameplay of a video game. It is based on the uses of the SOFA engine.

- **E-THERAPIES**
  Call: FEDER / FEDER 5
  **Partners**: TEKNEO (75), Voxler (75), Ecole normale supérieure (75), CNRS (75), LIMSI - CNRS (75)
  **Summary**: Immersive, ecological, disruptive and mobile with therapeutic purpose serious Games: to fight against the communicative disorders: phobias and language.

- **Generic SG**
  Plateforme d’édition générique de serious games pour les Universités Numériques Thématiques et l’enseignement supérieur
  Call: Investissements d’Avenir 2011 / E-EDUC 1

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**Partners:**  Lavoisier (75), Aunège (92), Kokopelli (75), Strass Production (75), UNF3S (59), Unisciel (59), UNIT (60), UNJF (75), UOH (67), UVED (69)

**Summary:** GENERIC-SG is a research and development programme devoted to developing a publishing platform for generic production of serious games for the Thematic Digital Universities and higher education characterized by a rapid and automated generation of thematic serious games, a low manufacturing cost per unit and a response to new educational needs of higher education.

- **INGREDIBLE**
  Interaction Gestuelle Crédible
  **Call:** ANR 2012 / CONTINT
  **Partners:** Lab-STICC - CNRS (29), LIMSI - CNRS (91), IRISA (35), Virtualys (29)
  **Summary:** The goal of the INGREDIBLE project is to propose a prototype of an autonomous virtual actor. The main focus is on the dynamics of the coupling of gestures to improve the feeling of the "presence of the other" in V.R.

- **MASSAI**
  Mesure et Maîtrise du Stress en Situation d'Apprentissage Informatisé
  **Call:** FUI / FUI 11
  **Partners:** Scientific Brain Training (SBT) (69), CORYS T.E.S.S. (38), Laboratoire LIG/MULTICOM (38), QOVEO SAS (69), CNRS (75)
  **Summary:** The aim of MASSAI is to produce a dual system consisting of a composite stress measurement tool (using both physiological and subjective measures) and a serious game designed to help users control stress. The purpose of this system is to lead a learner to an emotional and physical state which is relevant for a particular learning.

- **NIMAR (DUALO)**
  Nouvel Instrument de musique à apprentissage rapide
  **Call:** Oséo CNC
  **Partners:** Dualo (93)
  **Summary:** Dualo designs innovative musical instruments based on a new layout of keys, original and patented, which provides a faster understanding and practice of music. The instrument will come with an interactive and fun interface.

- **OpenVIBE 2**
  **Call:** ANR 2009 / CONTINT
  **Partners:** INRIA (35), Black Sheep Studio (75), Capital Games (75), CEA (91), Clarre (53), INSERM (69), Kylotonn (75), Ubisoft (93), Université de Grenoble 1 (38), Université Paris 8 Vincennes Saint-Denis (75)
  **Summary:** OpenVIBE2 is a project on Brain-Computer Interfaces (ICO) and video games. The ICO can measure brain activity using electrode helmets. The electrical activity emitted by the brain is analyzed in real time and transmitted to a computer or video game. The electrical activity emitted by the brain is analyzed in real time and translated into commands for a computer or video game. It can guide a cursor to the right or left, simply by imagining moving one’s left or right hand. In OpenVIBE2 the objective is to improve the current capacity of ICO and test their use and potential in the field of video games. OpenVIBE2 proposes to use the ICO in addition to traditional game interfaces (mouse, gamepad).

- **PANIC**
  Proactivité des Audiences et Numérisation des Industries Culturelles
  **Call:** ANR 2009 / CONTINT
  **Partners:** Institut Mines-Télécom (75), CNAM (75), France TELECOM (92), CNRS (93)
  **Summary:** The PANIC project focusses on transformations, from the digital business models and creative forms in four cultural industries: book, music, audio-visual and video games.

- **The POLYMATHIC Machine**
  **Call:** Investissements d’Avenir 2011 / NUM 1
  **Partners:** Bulkypix (78), CNAM (75), Cyanide (92), Mocaplab (75), The Polymathic Project SAS (75), Xedix (75)
  **Summary:** professional platform of graphics data valorization for video games (business leader: Bulkypix).

- **TOPOPHONIE**
  **Call:** ANR 2009 / CONTINT
  **Partners:** ENSCI (75), LIMSI - CNRS (91), IRCAM (75), NAVIDIS (92), ORBE (75), USERSTUDIO (75)
  **Summary:** The research project Topophonie proposes lines of research and innovative developments for sound and visual navigation in audiographic clusters.

- **Voice 4 Games**
  **Call:** FEDER / FEDER 5
  **Partners:** ExeQuo (75), Voxler (75), Cyanide (92), IRCAM (75)
Summary: The aim behind Voice 4 Games is to develop a set of tools for vocal signals, to put the human voice at the centre of the interaction process in video games. These tools will apply to singing and spoken voices.

Other examples of R&D programmes in the Paris Region

A lot of national and regional universities, schools, R&D organizations, companies have programmes linked to R&D as seen in the ongoing projects lead by Cap Digital including R&D in the video game industry.

Cap Digital also works with the Laboratoire des Usages en Technologies d'Information Numérique (LUTIN). UMS-CNRS 2809. LUTIN is a Userlab, a platform for usability observations and experiences located within the biggest Science Museum in Europe, la "Cité des Sciences et de l'Industrie", La Villette.

LUTIN has been recently labelled a “Living Lab” by the European Network of Living Labs (ENOLL). With the video game consortium of industries Capital Game, LUTIN directed the ANR funded project LUTIN-GameLab, about Gameplay for which they adapted HCI ergonomic methods, as well as coupling eye-tracking and physiological methods to measure playability.

Other activities and main research areas are:

- Cognitive Robotics for learning
- Brain Computing
- Serious Games for learning
- Presence as embodiment to increase learning through HD Videogame and HDTV
- 3D simulation and Tele-operation for problem solving, learning and creation
- Mobiles, nomadic services and user experience
- HCI and Cognitive Ergonomics

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422 Laboratoire des Usages en Techniques d’Information Numériques” (LUTIN), www.lutin-userlab.fr/site/_pages/english/
Austria: Salzburg

As previously underlined, in Austria there are national and regional networks aiming to support the Creative Industries including the games industry: Network Design & Media (Upper-Austria, Salzburg), creativ wirtschaft Austria (nationwide), Ars Electronica Center (Upper-Austria with strong cooperation with Salzburg), International Center for New Media (Salzburg), etc. Nonetheless there is no specific network for the gaming industry:

In the field of digital interactive media and games there are already several R&D Labs working on innovation and the future of media formats and technology.

Salzburg University of Applied Sciences

Centre for Advances in Digital Entertainment Technologies (CADET)
How do human bodies become avatars in virtual worlds? How can artificial intelligence cast natural behavior and empathy on 3D characters? Which technologies will allow the entertainment industry to create even more vivid impressions and deep feelings, providing more realistic situations to bring together the real and digital world? These issues are addressed in the research fields of CADET: “Mixed Reality,” “Full Body Interaction and Representation,” “Affective Computing” and “Technologies for Immersive Experiences.” The basis for a lot of applications is the real-time interaction framework “2IReal”, which is developed by CADET. It uses affordable consumer electronics (game consoles, range image cameras, brain computing and biosignal interfaces, etc.) for the creation and controlling of avatars, mixed reality computer games and new innovative products in a diverse field of applications.

CADET is a cooperation between the Salzburg University of Applied Sciences and the Ars Electronica Futurelab. The former has established the two graduate programs MultiMediaTechnology and MultiMediaArt, which have an expertise in Web, Social Communities, Game, Augmented Reality and Design. The latter is a media art R&D lab that has been working at the nexus of art, science, society, business and technology for many years.

Pervasive Experience Lab Salzburg (PELS)
PELS aims to explore and develop future entertainment formats and applications of pervasive experiences. Pervasive Computing, Mixed and Augmented Reality provide us with new visions, how experiences, entertainment and video game can intuitively be embedded into our everyday life. One goal of the project is to make the city and province of Salzburg become a digital stage, which enables visitors and residents alike to experience and explore it in potentially new, exciting and playful ways.

PELS creates games, playful interactive experiences and a software tools for creating those interactive experiences. Their LinkedDots tracking application can use live video or a videofile (for testing) as input, extract and track the people and sending the data via the OSC protocol.

Salzburg Research

The research technology organisation Salzburg Research specializes in applied research and development in the field of information and communication technologies (ICT) and New Media. Regional as well as national and international business partners benefit from the high-quality expertise our team of interdisciplinary and globally renowned experts has to offer.

With five fields of research, two competence centres, and two competence fields (e-Tourism, e-Health), Salzburg Research covers a vast area of scientific expertise. Our strength lies in a successful interdisciplinary combination of different fields ranging from technological research and development to socio-economic strategy and market research and target-group specific coaching and communication measures.

With its broad range of topics dealing with key technologies in the field of ICT, Salzburg Research offers various services for the economy and developed various applications related to gaming.

Technological research, development and consulting:

Software technology research

- Conceptionalisation, design and development of software prototypes
- Consulting and coaching service for software systems
- Modeling, testing and engineering of IP networks
- Evaluation of software systems

http://www.cadet.at/
http://www.pels.at/
Socio-economic (ICT) research

- Studies and consulting services in the field of ICT
- Trend research, market analyses and development of roadmaps
- Innovation management
- ICT consulting

Transfer and training

- Organisation of conferences and workshops
- Co-supervision of diploma theses, dissertations and internships

ICT & S Center
The centre encourages innovation in and for cultural and creative institutions by researching and teaching the application of new information and communication technologies, as well as by studying the implications of innovation for society and democracy. Furthermore, their research contributes to shape relationships between humans and technologies towards optimized experiences to solve individual, social as well as societal challenges.

Network Design & Media
The Network Design & Media (NDM) is the cooperation-competence centre for design and media. In this sense, the network initiates, promotes and supports partnerships, knowledge transfer and networking. The aim is to strengthen the competitiveness and innovative power of companies.

ITG Salzburg (ITG)
As a regional development agency of the land, Salzburg ITG’s associated stakeholders cover all relevant innovation related bodies in the region of Salzburg. Aiming on innovation and technology transfer, ITG picks up trends and challenges and concentrates on further developing the region in major business fields of high economic importance, and supports regional enterprises with a specific innovation service to successfully develop and implement innovative projects.
6. ACCESS TO BUSINESS SKILLS

The main support instruments concerning access to business available to support the game industry in per region have been identified in this section.
United Kingdom: West Midlands

Main support instruments concerning access to business available to support the game industry in the West Midlands are identified below.

**Universities West Midlands** is a not-for-profit membership association of the 12 Universities and University Colleges in the West Midlands. The Universities West Midlands Strategic Board of the 12 regional Vice Chancellors and Principals sets the strategic direction. This group meets bi-monthly as a board followed by an in depth meeting with invited guests representing national and regional strategic bodies. The current chair is Professor David Eastwood, Vice Chancellor of the University of Birmingham. The secretariat, Executive and Communications Officer, works on behalf of the board to implement the strategic priorities.

In two key areas Universities West Midlands has standing committees to progress the strategy; these are:

- Employer and Business Engagement
- Healthcare

In all other areas Task and Finish groups are formed from the leading players in the field. The universities/colleges members:

- Aston University
- University of Birmingham
- Birmingham City University
- University College Birmingham
- Coventry University
- Harper Adams University College
- Keele University
- Newman University College
- Staffordshire University
- University of Warwick
- University of Wolverhampton
- University of Worcester

**SGI**

The **Serious Games Institute** (SGI) is based in Coventry University’s Technology Park. The Serious Games Institute is a global thought leader in smart spaces. They enable and facilitate the growth of serious games, virtual worlds and connected industry specialists by supporting research and development into the use and effects of these products, platforms and technologies. They exhibit and showcase the products and services of our community of companies and academics. We provide business support and facilities to encourage, promote and grow businesses in this sector.

The Institute provides a close interface between high-level applied academic research at Coventry University and leading edge technology companies in the field of game-based learning. The SGI will have a particular focus on 3D collaborative multi-user environments and other games development platforms which can be harnessed for non-entertainment purposes.

The Serious Games Institute has developed an exciting and innovative study programme that can be tailored to your particular requirements.

**MSc (PgCert/PgDip) in Serious Games and Digital Contents**

**PhD in Serious Games & Virtual Worlds**

The courses have been designed to by fully engaging and interactive allowing each student the opportunity to combine home study with classroom based learning in the SGI. Indeed the SGI training rooms offer students the very latest in ICT technology, including full WiFi access, access to PCs, laptops, virtual worlds, video conference and mobile technology (all IT hardware and software is provided for each learner for the duration of each course).

The courses have not been designed to be over technical and are aimed at learners with a basic knowledge of IT who are keen to explore ways in which such technology could be exploited for business benefit.

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425 www.universitieswm.co.uk
The SGI limit numbers on each course to 20 and incorporate both internal SGI and external teaching staff, including special visiting lecturers from large industrial partners such as BT, O2, Apple, Cisco and HP.  

Science Parks and UKSPA Affiliates

The mission of UKSPA is to be the authoritative body on the planning, development and the creation of Science Parks that are facilitating the development and management of innovative, high growth, knowledge-based organisations.

A Science Park is a business support and technology transfer initiative that:

- encourages and supports the start up and incubation of innovation-led, high-growth, knowledge-based businesses.
- provides an environment where larger and international businesses can develop specific and close interactions with a particular centre of knowledge creation for their mutual benefit.
- has formal and operational links with centres of knowledge creation such as universities, higher education institutes and research organisations.

The UKSPA Strategic Plan:

UKSPA developed a strategic business plan for 2004-07 which was agreed by the UKSPA Board in March 2004. This plan was developed by taking into consideration the findings and recommendations of the report Evaluation of the Past and Future Economic Contribution of the UK Science Park Movement and the subsequent actions agreed at the UKSPA Members’ Meetings.

Birmingham Research Park

- Birmingham Science Park Aston
- Coventry University Technology Park
- Keele University Science & Business Park
- Longbridge Technology Park
- Malvern Hills Science Park
- MIRA Technology Park
- University of Warwick Science Park
- Wolverhampton Science Park

UK Video Games association or networks:

TIGA

TIGA is the trade association representing the UK’s games industry.

Their vision is to make the UK the best place in the world to do games business. Their mission is to fight for the interests of game developers. To achieve their vision and mission they focus on the delivery of three strategic objectives: effective political representation, profile raising and helping their members commercially. This means that TIGA members are effectively represented in the corridors of power, their voice is heard in the media and they receive benefits that make a material difference to their businesses, including a reduction in costs and improved commercial opportunities.

The majority of their members are either independent games developers or in-house publisher owned developers. They also have games publishers, outsourcing companies, technology businesses and universities amongst their membership. TIGA was awarded ‘Trade Association of the Year’ and the ‘Member Recruitment Award’ at the Trade Association Forum Best Practice Awards 2010. In 2011, TIGA won a further four awards at the Trade Association Forum Best Practice Awards, including ‘Trade Association of the Year’ for the second consecutive year.

TIGA has been voted a finalist in the CMI Management and Leadership Awards 2011 in the ‘Outstanding Organisation (SME)’ category. Dr Richard Wilson, TIGA CEO, has been voted a finalist in the ‘Outstanding Leader’ category. TIGA was also named as a finalist in the 2010 Chartered Management Institute (CMI) National Management and Leadership Awards in the category of ‘The Outstanding Organisation of the Year Award (SME)’. TIGA is an ‘Investors in People’ accredited organisation.

426 www.seriousgamesinstitute.co.uk
427 www.brpl.bham.ac.uk
428 www.bspa-a.com
429 www.coventry.ac.uk/culp
430 www.kusp.co.uk
431 www.longbridgetechnologypark.co.uk
432 www.mhsp.co.uk
433 www.mira.co.uk
434 www.warwicksceincepark.co.uk
435 www.wolverhamptonsp.co.uk
436 www.tiga.org
UKIE

UKIE is the only trade body for the UK’s wider interactive entertainment industry. They exist to champion the interests, needs and positive image of the videogames and interactive entertainment industry whose companies make up their membership.

There here to help ensure that our members from the videogames and wider interactive entertainment industry have the right economic, political and social environment needed for this expanding industry to thrive.

They provide a range of services to meet the shared needs of our members and to further the interests of the interactive entertainment industry as a whole:

They build strong working relationships with parliamentarians and policymakers to ensure industry needs are met through appropriate Government support.

Their dedicated intellectual Property Crime Unit seeks to minimise the damage caused by intellectual property theft and catch those responsible for this criminal activity.

They act as a public information resource, to help consumers and the media better understand gaming. They provide advice to budding IP creators and sellers on how best to pursue careers in the industry. They work with our European partners, ISFE to ensure our members are aware of key EU developments and to promote the priorities and interests of the industry in Europe.437

Creative Skillset438
http://www.creativeskillset.org/

Creative Skillset is the Creative Industries’ Sector Skills Council (SSC) which comprises TV, film, radio, interactive media, animation, computer games, facilities, photo imaging, publishing, advertising and fashion and textiles.

Their aim is to support the productivity of the industry to ensure that it remains globally competitive. They do this by influencing and leading; developing skills, training and education policy; and through opening up the industries to the UK’s pool of diverse talent.

They conduct consultation work with industry, publish research and strategic documents, run funding schemes and project work, and provide information about the challenges that face the industry and what we need to do to overcome them.

They also provide impartial Creative Industries careers resources for those looking for a route in, as well as for established industry professionals online and over the phone. Whether you are a freelancer looking for training information, a student furthering your knowledge of industries or a public agency partner, they aim to provide you with easy access to the information you require.

Creative England439

Creative England opened for business on 1 October 2011, with the core purpose of supporting the sustainable growth of independent creative businesses, and the talent that feeds them, in every part of England outside London. They are the first agency to provide dedicated support to Film, Television, Games and Digital & Creative Services in the English regions outside London.

UKTI

UK Trade & Investment (UKTI) works with UK-based businesses to ensure their success in international markets, and encourage the best overseas companies to look to the UK as their global partner of choice. UKTI has a customer commitment to helping its UK and international customers by providing a range of services, to a high standard and improve customer service by listening to customer feedback. We also have a co-ordination role across government to establish a more systematic approach to relationships with companies which are the most economically significant investors and exporters.

TSB440

The Technology Strategy Board (TSB) is all about driving innovation. Their role is to stimulate technology-enabled innovation in the areas which offer the greatest scope for boosting UK growth and productivity. They promote, support and invest in technology research, development and commercialisation. They spread knowledge, bringing people together to solve problems or make new advances.

They advise Government on how to remove barriers to innovation and accelerate the exploitation of new technologies. And they work in areas where there is a clear potential business benefit, helping today's emerging technologies become the growth sectors of tomorrow.

Their vision: For the UK to be a global leader in innovation and a magnet for innovative businesses, who can apply technology rapidly, effectively, and sustainably to create wealth and enhance quality of life.

The Technology Strategy Board is an executive non-departmental public body (NDPB), established by the Government in 2007 and sponsored by the Department for Business, Innovation and Skills (BIS). The

437 www.ukie.info
438 www.ukti.gov.uk
439 http://www.creativeengland.co.uk/
440 http://www.innovateuk.org
activities of the Technology Strategy Board are jointly supported and funded by BIS and other government departments, the devolved administrations, regional development agencies and research councils.

**WMCC**

The **West Midlands Chambers of Commerce LLP** (WMCC) provides a single point of contact and contracting on behalf of the seven Chambers in the West Midlands region. The WMCC now holds substantial contracts for the delivery of core government services across the region such as UK Trade and Investment and also regional programmes on behalf of Advantage West Midlands and Business Link West Midlands.

Our ambition is to be the first choice partner for the delivery of specialised and targeted front line business support. Because our infrastructure of seven local Chambers and staff is firmly established, we can provide a truly unique proposition in terms of our ability to respond quickly, to keep overheads low and to effectively access all or targeted segments of the 250,000 West Midlands businesses.

By offering a single regional point of contact, a consistent local approach to delivery and a huge market reach, the WMCC\(^{441}\) is the ideal model for the delivery of dependable specialist regional business support at a local level.

Examples of services they can provide programme owners:

- Programme design – advice on business needs and market intelligence. Chambers continuously gather information on business trends and needs - they know what business wants.
- Programme development – they have a vast experience of running programmes and can advise and support the detailed development of new initiatives.
- Programme launch and recruitment of participants – they have resources to cover all aspects of programme marketing and administration. Our local presence and the Chamber brand provide the market reach and credibility to meet recruitment, enrolment or engagement targets.
- Programme implementation – their team of administrators, project managers, specialist advisers, trainers and support staff ensure programmes work effectively and meet targets.

In general the same organisation which provide access to knowledge, are able to provide business support as well. Again this was reinforced after the Regional Development Agencies were dissolved.

**The Creative Business Mentor Network** was set up to nurture creative companies with an appetite for growth. The Network gives creative companies the rare opportunity of one-to-one mentoring with some of the most successful business people in the creative sector. The Mentors are passionate about the sector and volunteer their time as a way of giving something back. They share practical advice on overcoming the challenges of running a creative business and have helped a variety of creative companies build business success.

The Network is now in its third year and we have found business mentoring can benefit creative companies in a number of ways:

- improve business planning
- encourage better communication
- improve financial management
- improve decision making
- increase confidence
- identify new markets

Together with our partners Nesta\(^ {442}\) is launching another year of the Creative Business Mentor Network. Creative companies that meet our eligibility criteria can apply for the chance to work with the industry's most successful business leaders.

As part of the Network you will receive:

- One-to-one business mentoring in the form of ten, two-hour sessions over a 6-12 month period.
- An induction workshop at the start of the programme to get the most out of your mentoring sessions.
- Workshops and events designed to meet other members of the Network
- Coaching support - in addition to mentoring support mentees will have access to an executive coach.

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\(^{441}\) [www.wmchambers.co.uk](http://www.wmchambers.co.uk)

The Netherlands: Utrecht

Main support instruments concerning access to business available to support the game industry in Utrecht are identified below.

**Dutch Game Garden**
The abovementioned incubator Dutch Game Garden offers coaching and advice on different aspects of working in the game industry. It also offers training on entrepreneurship and supports doing business abroad by means of their government connections.443

**Chamber of Commerce**
The regional Kamer van Koophandel (Chamber of Commerce) offers some general (free) courses in starting up a company and how to deal with taxes. However, no game specific training is offered.444 Courses such as social media and OPR catered to the creative industries are available.

For an overview of courses please visit this site: http://www.kvk.nl/bijeenkomsten/onderwerp/netwerken/page-2/

**Syntens**
The national Innovation Centre Syntens (governmental organization) also has an office in the province of Utrecht (Nieuwegein). Syntens offers, amongst many other things, the Ondernemersplein (Entrepreneurs’ square) that offers a network for entrepreneurs.445

**Xpert CMKB**
An initiative of the Utrecht School of the Arts (HKU), Xpert CMKB aims to support the creative sector in the region of Utrecht. Xpert CMKB stimulates entrepreneurship, innovation and the formation of networks. Xpert CMKB has officially finished in 2011, but continues to exist as an online platform and knowledge center.446

#### Italy: Umbria

In Umbria, main support instruments concerning access to business available to support the game industry in Umbria there are some structures (Chamber of Commerce, trade associations, professional training companies) that offer courses aimed at the dissemination of basic skills to start a new company and its management. These courses, however, are not aimed at the creation of companies in the gaming industry.

#### Italy: Piedmont

In Piedmont, main support instruments concerning access to business available to support the game industry is an incubator and the ‘Mettersi in Propio’ initiative.

Among the incubators in Piedmont, the current incubator which may be more interested in game development is the incubator of the Politecnico di Torino Treatabit, devoted to digital projects. This project offers dedicated spaces, consulting services and networking events with the aim of supporting the creation of aspiring start-ups, their application development team, the acquisition of entrepreneurial skills and research funding447.

Mettersi in proprio is a free service of the Province of Turin, funded by the European Union (European Social Fund), the Italian State (Labour, Health and Social Policy Ministry) and the Piedmont Region, in the framework of the 2007-2013 ESF Regional Operational Programme, "Regional Competitiveness and Employment" objective, within the Measure "Adaptability" and the Activity "Integrated paths to enterprise creation". Mettersi in proprio proposes three types of actions, provided by the Province of Turin: Entrepreneurship Support, Consultancy and Mentoring. With the hepl of Region Piemonte, through its financial institution Finpiemonte, Mettersi in proprio help also entreprises providing financial support to the new enterprises whose project has been previously approved by the Province of Turin. Conditions for allocation of this funding will be subsequently established through specific regional acts.

447 http://www.treatabit.com / section / about
Spain: Asturias

Main support instruments concerning access to business available to support the game industry in the region are described below. Video games companies are valued in terms of innovation and technology. The main support in the region concerning access to business is available through CEEI Asturias, as CEEI Asturias is a regional reference supporting innovative and technology-based companies. The organization offers a range of high-quality services covering information, training, assessment and financing or premises to help entrepreneurs throughout the set up process of successful business initiatives. Thereby the support from CEEI Asturias is well perceived by starting entrepreneurs. Entrepreneurs who have benefitted from CEEI services whilst setting-up the company, remain linked to CEEI Asturias, even when creating new business projects in the area. CEEI Asturias is currently recognized as knowledgeable in this field due also, to the participation in the Creative Growth Project.

In any case, the analysis about business support services provided in the region is, in general well valued, although they are obviously interested in specific actions on instruments focussed on the games sector. They consider that incubators in the region offer a good orientation for starts-ups, as they explain that incubators are best placed to offer courses and coaching on necessary skills, such as through training ICT tools or knowledge management systems, among others, in collaboration with other stakeholders.

The lack of contacts and networks is also remarkable since these professionals are highly interested in specialization and cooperation with other companies to address larger complex projects outside the region. Initiatives such as GAMELAB give added value to the video games sector by promoting its visibility and potential to regional and national economies.

Bulgaria: Sofia

Main support instruments concerning access to business available to support the game industry in Sofia are identified below.

The quality of entrepreneurship and business skills and education have yet to approach European averages. In order to address this situation, an initiative was started by the Ministry of Education, Youth and Science in 2010, which aimed to pilot the introduction of entrepreneurship curricula and teacher training into 100 schools. This is clearly needed considering the following metrics:

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Bulgaria</th>
<th>EU-27 Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entrepreneurship rate (% of adults who have started a business or are taking the steps to start one), 2009</td>
<td>10%</td>
<td>12%</td>
</tr>
<tr>
<td>Opportunity-driven entrepreneurship (% of entrepreneurs), 2009</td>
<td>38%</td>
<td>55%</td>
</tr>
<tr>
<td>Preference for self-employment (% of respondents who would prefer to be self-employed), 2009</td>
<td>50.3%</td>
<td>45%</td>
</tr>
<tr>
<td>Feasibility of becoming self-employed (% of respondents who think it is feasible for them to become self-employed), 2009</td>
<td>21%</td>
<td>28.3%</td>
</tr>
<tr>
<td>Share of adults who agree that school education helped them develop an entrepreneurial attitude, 2009</td>
<td>47%</td>
<td>49%</td>
</tr>
</tbody>
</table>

Table 48. Performance Review Analysis Bulgaria

In addition to the above mentioned initiative of the Ministry of Education, Youth and Science, there is also a programme entitled ‘I Can More 449’, financed by the Operational Programme ‘Development of Human Resources’ and implemented by the National Employment Agency. The programme offers free courses in the English language and digital competencies, accounting, e-commerce, construction, economics and management, word processing and the organisation of tourism. Such programmes will, it is hoped, address concerns by employers that many recent graduates and job applicants do not have the practical technical and business skills that they seek as higher education appears to be overly theoretical and academic. This is to some extent a chicken and egg problem, as universities sometimes take the position that industry does not provide guidance on what their requirements are for graduates450. However, as to how closely this describes the situation in the digital game sector, we cannot be wholly certain, considering the tendency towards information education (i.e. self-taught) among highly talented individuals in the digital gaming sector.

449 http://ezoaopoveche.com/za-programata
Germany: Baden- Württemberg

Main support instruments concerning access to business available to support the game industry in Baden-Württemberg are identified below.

The Chamber of Commerce of Stuttgart in Baden-Württemberg offers a wide range of different training, information material and consultancy for people willing to set up a business and in need for orientation.

Particularly the Chamber of Commerce of Stuttgart is focusses on:

- systematic and independent corporate planning
- business registrations and required permits
- legal forms and company names
- taxes, social insurance and accounting obligations
- capital requirements and procurement, grants and subsidies, public funding and advice assistance
- databases, seminars
- contact with the foreign citizens authority in arranging permits for applicants from non-EU countries (foreign citizens applications)
- information and advice on the areas ownership succession and financing

Connected e.v

Connected e.v., or bwcon for short, the top business initiative promoting Baden-Württemberg as a high-tech location, offers consultancy and start-ups support, especially in the ICT and High Tech field. Sector Experts can help founders in setting up a strong business plan and give advice during the start up phase.

Bwcon is also offering a Coaching group where top-level entrepreneurs and top-notch managers offer the knowledge gained in the course of their successful careers to young and medium-sized companies. These active or former executives and managers in the high-tech sector possess a combination of experience and know-how which is of great value for young and medium-sized companies. Their services focus on the evaluation of business concepts, project-related coaching, support in the acquisition of funding and temporary management functions.

Together with bwcon and the L-Bank – the State Bank of Baden-Württemberg, MFG is also promoting a Consultation Day for (potential) founders and start-ups of the creative industries. Within this initiative, creative entrepreneurs can receive consultancy on the following topics: Funding opportunities, a business plan, procedure for the start-up of companies and professional development opportunities.
Malta

Main support instruments concerning access to business available to support the game industry in Malta are identified below.

The government of Malta is currently trying to exert a pull on private investment towards Malta by creating clear guidelines, regulations and frameworks. In this respect, one of the Government’s primary goals has been to set up a business system which is favourable to entrepreneurship. One of the main signs in relation to this is to guarantee that there is a limitation of administrative and bureaucratic burdens faced by new start-ups.

Currently, the government is proposing a single venue - a centre, where all these operational actions are being implemented. The proposal therefore to set up a Business Facilitation Centre was endorsed by Cabinet and highlighted in the 2007 Budget and Business First is now launched and is fully operational and fulfilling this role. Malta Enterprise has assumed the responsibility of setting up a Business Support Centre (BSC) for enterprise in Malta, which BusinessFirst has been established to do. The BSC is to serve as a central contact point for businesses, in some cases acting as an intermediary between the business and the different Governmental bodies. Most formalities and procedures for the setting up of a business can be conducted within the BSC. Based on what has been outlined, the Business Support Centre (BSC) will therefore encompass three important functions:

**Act as a centre for business start-ups**
The BSC will provide the initial information that someone setting up a business would require. Such information would include fees, application forms that need to be compiled, documentation and information required and an indication as to which Government body is responsible for the issuance of the relevant license and/or permit. The BSC will also act as a single venue through which a person setting up a business may obtain all the necessary services for setting up the business required including company registration, VAT and Inland Revenue registration, employment registration, filing for the required licences and/or permits to operate the business.

**Act as a business support centre which offers holistic support to business**
Malta Enterprise offers a wide array of services, incentives and schemes based on the business activity and the legal entity in question. The BSC will therefore be offering these services to promote business generation in Malta, whilst providing support in business management for the expansion and internationalisation of their business activities.

**Act as a point of single contact, an EU requirement under the Services Directive**
The objective of the Services Directive was to release the untapped growth potential of services markets in Europe by removing legal and administrative barriers to trade in the services sector. The Directive requires each Member State to simplify procedures and formalities that service providers need to comply with. In particular, it requires Member States to remove unjustified and disproportionate burdens and to substantially facilitate (a) the establishment of business or where a natural or legal person wants to set up a permanent establishment in a Member State, and (b) the cross-border provision of services or where a business wants to supply services across borders in other Member States, without setting up an establishment there.

Through L.N. 495 of 2010, Malta Enterprise was also given responsibility to address parts of the EU Services Directive in im

451 http://www.timesofmalta.com/articles/view/20100519/local/gozo-to-have-business-support-centre.308048
France: Ile-de-France Region (Paris Region)

The Paris Region has tools to give access to business skills to video game companies, through the existence of competitiveness and business clusters (Cap Digital and Capital Games), of specialized incubators (Paris Video Games incubator, Paris Digital Media Incubator, Paris Incubator Digital Technologies).

Game Paris (B2B event)

Game Paris, the international video game event of the Paris Region, is the new international meeting point for video games professionals. The event, launched for the first time in 2011, continues in 2012, due to the success of the first edition. Public authorities such as the regional council support the event.

Game Paris482
Organized by Capital Games, the Paris Region Video Game Business Cluster, Game Paris brings to the French capital, the international B2B video gaming event that it was lacking. As of 2011, this high calibre rendez-vous combines several events into one:


The leading business convention in the video games sector brings together all industry professionals in Paris for a three-day exhibition every November to present their productions and establish production agreements, meetings and negotiations, in closed booths, between studios, publishers, distributors, and service providers on a global level.

Technical and management conferences
Master Classes, high level training sessions conducted by internationally renowned personalities. Selected projects, certification denoting innovation and quality of the selected companies by a board of experts. Prestige galas and networking

Game Paris Talents

Game Paris Talents (November 23rd – Gaîté Lyrique), conferences on the various professions within the gaming industry and the education courses available to members of the public

Game Paris PARIS Business Tour

Game Paris PARIS Business Tour (November 27th), organized in partnership with Paris Region Economic Development Agency, focuses on key players of the regional Video Game industry, by proposing a course of visits to selected international companies.

Game Paris Awards

Game Paris Awards (November 27th), professional awards conferred by an international jury

Game Connection

482 www.game-paris.com/en/game-paris/
Finally, the Game Connection continues to be the highlight of this week. The famous business convention returns to the heart of Paris (Porte de Versailles) and inaugurate new centres open to marketing and social networks to cover the entire economic chain of production of a video game. This demonstrates the rapid and important changes that the sector faces, but also the value and success of these appointments. (November, 28-30th).

Game Paris is organized with the support of:

- **Île-de-France**
  - the region Île-de-France / Paris Region

- **Mairie de Paris**
  - the Mairie de Paris / Paris city Hall

- The Ministry of Industry, the European Union and the DATA

**Futur en Seine, the digital world Festival**, organized by Cap Digital

A biennial festival created by Cap Digital in 2009, Futur en Seine became annual in 2012. As an International Festival, during ten days, it annually shows the latest digital innovations to French and international professionals and to the general public. In 2011, Futur en Seine attracted nearly 80,000 visitors.

During these 10 days of exhibitions, performances, lectures, workshops and festivities, many innovative devices are presented by their designers to entrepreneurs, designers, and researchers, and allow professionals and the general public to debate on uses of digital technology.

Futur en Seine is an event organized by Cap Digital, the French business cluster for digital content and services in Paris and the Paris Region. Its communities include more than 700 members: 620 SMEs, 20 Business Groups, 50 Public Institutions, Schools and Universities, and 10 Private Equity Firms.

Some events were dedicated to videogames, like “Games for Change Europe” for example, an event presenting 10 European projects and including meetings with the authors, game sessions, and roundtable discussions on the impact of social games.

**Experimentations**

Experimental device "Motivating and Retaining Video Game Teams". Following its experimental "Capital Games Strategy" that was achieved in 2010, Capital Games developed a new experimental project in 2011. To meet the needs of its members, Capital Games launched a new device, looking at motivation and retention of teams, and its application in the Video Game sector.

As part of the agreement contracted between Capital Games and DIRECCTE (Department of Changes in employment and skills in the Employment Policy Department) (Businesses, Employment, Economy), the cluster has established a support measures for businesses. 454

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454 Rapport d’activité Capital Games 2011

BOO-Games Regional Analysis Report, January 2013, Appendix A, p. 229
Austria: Salzburg

Main support instruments concerning access to business available to support the game industry in Salzburg are identified below.

BCCS
As an incubation centre The "Business Creation Centre Salzburg" (BCCS) supports innovative business ideas for academic start-ups (spin-offs), and supports as such, start-up projects within the field of gaming by providing infrastructure, consulting services and monetary support.

WE-Workshops for entrepreneurs
We-Workshops is a training programme for entrepreneurs in the creative industries. Under the guidance of successful experts, the participants will find everything they need to know to turn their ideas into successful products and services. The thematic focus are on the fields of media, design and architecture. The best of the creative industries will answer questions, discuss how an idea can be turned successfully into a business concept and give practical insights and talk about hits and misses.

"We" is organised by the Austria Wirtschaftsservice (aws) in various regions of Austria. In Salzburg it is implemented in cooperation with the Land Salzburg, BCCS and ITG Salzburg to be held on two consecutive weekends. The first module focuses on basic entrepreneurial knowledge and on how to successfully develop an idea to become a business concept. Furthermore the programme deals with legal and tax issues and potential marketing and distribution strategies. In the second module, successful entrepreneurs and industry experts are invited for talks and discussions..

C Hoch 3 – Coaching-Workshops for entrepreneurs
C Hoch 3 has been developed by the creativ wirtschaft Austria and is being implemented with regional partners such as ITG in Salzburg.
For creative professionals, networks and entrepreneurship are a prerequisite for their business success. At C Hoch 3, 20 creative professionals have the possibility to work in the group on their entrepreneurial personality and achieve necessary business skills.
Over several months, 6 workshop days are held to develop self-selected cooperation projects. In addition, there are regular meetings and peer group gatherings.
7. OTHER SUPPORT MECHANISMS (national & regional)

Introduction
The main support instruments available to support the game industry in France and in the region have been developed in sections: 2.1.1. Existing rules and regulations/policies supporting the games industry, 4.1.1. Main support instruments concerning access to finance available to support the game industry in the region/country, and 5.1.1. Main support instruments concerning access to knowledge available to support the game industry in the region.

Below are examples of other support mechanisms available in each region. Certain support mechanisms are national with an impact on the region, whereas others are specific to the region.
United Kingdom: West Midlands

The GAMES Consortium
NESTA is piloting an initiative that will help developers to publish their games directly to the market through a games consortium. Following a call for developer members, the consortium has now been formed. Six developers have come together to form a publishing platform.

AppyNation, which is being led by CEO Andy Payne, is a revolution in digital games publishing that favours independence and collaboration between developers and publisher.

It will focus on, but is not limited to iOS and Android social games. Born out of an idea from NESTA along with developers Finblade, Proper Games, Niffler, Onteca, Supersonic and Lightning Fish, AppyNation gives the developers freedom over the games they choose to develop for iOS, Android, PC, Xbox Live Arcade, PlayStation Network and Facebook whilst maintaining complete control and ownership over their IP. AppyNation takes the worry and time-consuming work of marketing, PR and communication away from developers. This gives developers more time to improve games they already have published as well as the time needed to develop new and exciting games to add to their portfolio.

KTP Knowledge Transfer Partnership
Knowledge Transfer Partnerships is a UK-wide programme helping businesses to improve their competitiveness and productivity through the better use of knowledge, technology and skills that reside within the UK Knowledge Base.

A Knowledge Transfer Partnership serves to meet a core strategic need and to identify innovative solutions to help that business grow. KTP often delivers significant increased profitability for business partners as a direct result of the partnership through improved quality and operations, increased sales and access to new markets. Social enterprises see improved results, too.

There are three principle players within a partnership:

- Company partner - this is usually a company (including not-for-profit) but in some cases it can be a health or education organisation or Local Authority. KTP supports a broad cross-section of UK firms, regardless of size
- Knowledge-base partner - this is a higher education institution (e.g. university ), college or research organisation (public or privately funded)
- KTP Associates – Each partnership employs one or more high calibre Associates (recently qualified people), transferring the knowledge the company is seeking into the business via a strategic project

Rationale for Knowledge Transfer Partnerships
Effective innovation (the successful commercial exploitation of new ideas) involves knowledge, technology, skills and adaptability to implement it, which is not always embodied in equipment or codified in an easily transferable form.

People embody the skills and often the real know-how to effect innovative change in businesses. Knowledge developed or improved in academic institutions (knowledge base) may need extensive or intensive adaptation to particular business applications. A qualified person with a direct link to the academic source is the ideal transfer agent.

Outcomes

- There are over 1,000 Partnerships running at any one time and over 1,100 Associate projects
- For every £1m of government spented money, the average benefits to the company amounted to a £4.25m annual increase in profit before tax, £3.25m investment in plant and machinery with 112 new jobs created and 214 company staff trained as a direct result of the project
- For the knowledge base partner (higher education institution mainly), on average, each KTP Associate project produces 3.6 new research projects and 2 research papers
- For the Associate 60% are offered and accept a post in their host company on completion of their KTP project. 41% register for a higher degree and 67% of these were awarded a higher degree

The Serious Games Studio offers structured support to West Midlands based companies in order to develop a demo/proof of concept for their product. The scheme provides an element of consultancy with the project team and a limited amount of technical 'build' time in the SGS development lab. This proof of concept activity offers few days of free consultancy in order to develop the prototype mobile applications for the client. This permits a better understanding of what the full application could provide as a service. This initiative is currently available as a pilot in the West Midlands and might be extended in the future.
Netherlands: Utrecht

In the above mentioned sections many regional and national supporting mechanisms have been elaborated upon (e.g. TFI, DGG, DGA, educational institutes and festivals and network events).

GATHER

On a national level, the government recently identified the Creative Industries as one of nine ‘top sectors’. The government considers these sectors as particularly strong in the Netherlands and wants to keep competing in these domains on an international level.⁴⁵⁵ The plan that has been written for the Creative Industries aims at more and better collaboration between the industry and knowledge institutes. (Serious) Gaming is one of the interest areas within the Creative Industries sector. The network that was formed for this is called GATHER, standing for GAmes for SafeTy, Health, Education and IndustRy – Empowering people and change through games. GATHER aims to strengthen the ecosystem of the Dutch games industry and its international position, and will run from 2012 to 2016.⁴⁵⁶

CCAA

Also nationally, there is the initiative Creative Cities Amsterdam Area. Amersfoort and Utrecht are two of seven cities involved in this project, which is set up to strengthen and stimulate the creative industries, by offering support to starting and existing enterprises. The game industry is one of the domains. CCAA runs from 2007 and is a collaboration between sixteen partners.⁴⁵⁷

Italy: Umbria

Other support instruments are Universities, Research centres (such as ISRIM), and private education structures.

Italy: Piedmont

Innovation Pole for creativity and multimedia

The Innovation Pole might be the appropriate place to develop political support for the gaming industry, since they are working on the field of digital creativity. The innovation poles are conceived as a significant group of enterprises – innovative start up, small-medium-large enterprises - as well as research institutes involved in a specific sector or territorial area with The innovation poles are set up as coordination structure among the different actors of the process for innovation, and the provision of services and infrastructure.

The aim of the polo is supporting innovation through interaction, a joint use of infrastructure and high added value services, the exchange of knowledge and experiences as well as an effective technology transfer, networking activities and the provision of information to the enterprises of the innovation poles.

Also the ICT Innovation Cluster, very active at a regional level, could be a starting point to develop a regional videogame industry. The ICT Innovation Cluster is a network of excellence that has 127 members (by June 2011), coordinated by the Torino Wireless Foundation as managing authority.

The members belong to three different categories: the companies, with the presence of both large reference organizations for the ICT sector and the territory, and medium and small companies, able to express innovative liveliness and interest in investing in development paths; the universities and research institutes, with the direct participation of all the Piedmontese universities and private research Institutes of reference for ICT technologies; the key players in supporting innovation in the ICT sector, from the creation of technological enterprises to technologies and infrastructures for data transfer and processing. As a steering organization, Torino Wireless promotes company collaboration on innovative projects, analyses company needs in terms of specific innovation services, and organizes networking activities to define the Pole’s strategic agenda and yearly plan of activities to be approved and financed by the Regional Government of Piedmont⁴⁵⁸.
Spain: Asturias

No clear support mechanisms besides CEEI Asturias' support as an Incubator is perceived for the game industry, due to the lack of programmes and instruments addressed specifically to the sector but not really to the lack of general instruments.

Although in Spain there is no Incubators specialized in video games it seems that video game sector, as a part of creative and digital industries, agree that Incubators should lead the support to these entrepreneurs. This perception is as a result of the strong feeling that the position of the games sector could primarily (but not uniquely) be based on give young entrepreneurs, professionals and companies the role of as revitalizing of economic context and leverage to SMEs creation.

Anyway initiatives such as GAMELAB give add value to video games sector by promoting its visibility and potential to regional and national economies.

Bulgaria: Sofia

The Enterprise Europe Network (also under main support instruments), a business networking initiative of the European Commission, does facilitate the formation of partnerships and the internationalisation of companies. This is particularly important for Bulgaria given the low levels of SMEs collaborating with others and the fact that the internationalisation of Bulgarian SMEs falls below EU averages in nearly every indicator for this metric in the European Commission’s SME Performance Review country report for Bulgaria 459.

A recent project entitled BCreative 460, in which the Bulgarian partner in BOO-Games was involved, aimed to streamline business support services for small and medium-sized enterprises in the creative industries. It provides online support such as methods of obtaining finance, building business networks, and gaining knowledge on different subjects of interest to those in the creative industries including the digital gaming sector.

Germany: Baden-Württemberg

Local support: Hamburg

Since 2003 Gamecity: Hamburg, (Hamburg@work) a public-private initiative, supports the local games industry, promoting Hamburg as a game development location. Particularly, the initiative aims at providing the best condition for games companies wishing to settle down in Hamburg and support them in finding collaboration and business opportunities. This is realized through different means as industry’s events, fairs, affordable office facilities and start-up consulting. Within this initiative, some specific activities have been also developed: Games City Lab and Games City Port. Game City Lab (Hamburg@work) is an initiative managed by two faculties of the Hamburg University of Applied Science and offers a place where games companies can meet students and together develop new collaborative projects, keep up to date with new technologies and trends and create new contacts.

Game City Port (steg Hamburg) offers instead affordable office facilities for games companies. This kind of support responds to the need of such companies which are mostly small, subject to changes and which rely on network to expand their business. A building dedicated to the industry offers of course excellent networking opportunities. Besides, the office have different sizes which are suitable to micro and small companies and the contracts are not only favourable but also flexible in the duration. This offers some advantages to game companies which often work on projects, for which a constant changes in the number of human resources employed is required and that can therefore rely only on a certain amount of money related to the project’s duration.

460 https://www.howtogrow.eu/system/pg/home/
Malta

Translation Services

Because of its position and history Malta’s population is either bilingual or multilingual. This quality has been developed further because of Malta’s dependence on Tourism and partially by the growth of EFL (English as a Foreign Language) teaching as a new service industry. One of the reasons why Malta has been popular with the organization of foreign companies on the island is this availability of a local workforce with a multilingual capacity.

After Malta joined the EU in 2004, Maltese became one of the official languages of the EU, which meant that all official documents and texts issued by EU institutions had to be translated in Maltese too. This meant that there was the need for a high demand in translation services and that more and more people had to be employed in this growing industry.

Just as these companies have managed to target some of the newly established industries that are developing in Malta, this could repeat itself with the establishment of new business ventures like digital games production.

Customer Support Centres

Call Centres and Customer Support services started moving to Malta in 2005 and Malta Enterprise understood the potential of this new business and by 2006 was working hard to attract even more companies to Malta. Malta’s main selling points were its geographical positioning, its EU membership and most importantly its human resources. Very few countries can offer a labour force that is largely bilingual and in most cases multilingual. Malta Enterprise had identified that 88% of Maltese people were fluent in English, 66% in Italian and 17% in French. We must also add that 68% of the population can have a conversation in 2 foreign languages and 23% in 3 foreign languages. Apart from these aspects Malta also offered various tax incentives and financial benefits to attract these businesses.

The biggest Call Centre and also the biggest success for Malta is the HSBC Call Centre in Swatar which employs over 500 employees (mostly full timers). The HSBC Call Centre has registered a steady growth in business since it started its operations in Malta and it also offers competing and advantageous remuneration and benefits to its employees.

The remote gaming industry in Malta employs over 2,000 people mostly employed in customer support or help desk. Fluency in a language is not considered enough of a requisite. It is important to note that most customer complaints come through e-mail; many companies make use of translating software as a means of communicating with their clientele.

Most people who work in customer support roles prefer the remote gaming industry against other industries because of the higher remuneration and because the nature of the job itself is preferred. In a Call Centre environment most complaints and problems are tackled over the phone whilst in remote gaming these are done through emails, it is obviously much easier to deal with problem clients the latter way.

Legal Services

Malta has a high share of lawyers per capita which means that professional legal services are highly accessible and that there is a large selection of legal firms. In the past, legal firms were small, family-run firms that would often concentrate on the criminal and civil courts. Nowadays, the nature of legal services has changed and there is a growing demand in other aspects of law: European, financial, corporate and new aspects like e-commerce.

Many legal firms give advise on intellectual property law and art law; this is happening to fulfil the needs of the growing creative industries in Malta and abroad. Any foreign company that would be interested in opening an office in Malta can easily find all the legal services it would need from the same firm.

Accountancy Firms

Accountancy firms in Malta are legislated and regulated through the Accountancy Board which is part of the Ministry of Finance, the Economy and Investment. The Accountancy Board was founded in 1979 through the adoption of the Accountancy Profession Act, Chapter 281 of the Laws of Malta. This board is responsible for:

- The issue of accountants’ warrants and auditors’ practising certificates after making their recommendations to the Minister of Finance, the Economy and Investment;
- The registration of partnerships of accountants and auditors;
- Keeping a register of the above;
- Dealing with cases leading to the suspension or withdrawal of warrants or practising certificates;
- Advising or making recommendations and expressing its views to the Minister; and
- Such other functions arising from any law or as may be delegated to it by the Minister under the Accountancy Profession Act.

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Amongst a large number of local accountancy firms, Malta also hosts a number of international companies (or members) that may rely on the expertise of both local and foreign offices and consultants.

**Web Developers**

Many locally based web developing companies have identified the need to offer more than just a website to their customers. Enterprises view a website as only part of a marketing and promotional package that is needed if they want to be successful. SMEs and even larger organisations will therefore need the services of a company that can create that package and offer them the ability to create a specialised branding product that would be difficult to create on their own.

Web Developing companies today offer all types of web solutions as part of the services they render, but also offer the possibility of a one-stop-shop for all branding and promotional material. Some of these companies also offer other services such as web hosting, server hosting and data centres.

**France: Ile-de-France Region (Paris Region)**

The main actors involved in national and regional support instruments are:

- **The National Video Games Association** (SNJV, Syndicat national du jeu vidéo)
- **The French Agency for Video Games** (AFJV, Agence française pour le jeu vidéo)
- **The National Centre of Cinematography and the Moving Image** (CNC, Centre national de la Cinématographie et de l’image animée)
- **The Ministries of Economy and Industry**
- **Competitiveness clusters:**
  - Cap Digital (digital content cluster) in Paris Region and Imaginove (moving image cluster) in Rhône-Alpes.
- **Business clusters:**
  - Capital Games, Paris Region video games cluster,
  - and the other regional clusters: Atlangames (Pays de la Loire), Bordeaux Games (Aquitaine Region), Game In (Game Industry North), Gamesud (Provence-Alpe Côte d’Azur Region), PixLR (Languedoc-Roussillon Region).
- **The Ile-de-France Regional Council** (Conseil Régional d’Ile-de-France)
- **The City of Paris** (Mairie de Paris)

However, other organizations, either in France or in the Paris Region, could be involved in this sector. Examples of potential stakeholders are mentioned below.

**In France**

- **Centre national du numérique**: France’s Conseil National du Numérique (national digital council) was established by a 29 April 2011 presidential decree to enlighten the government and contribute to public debates about digital issues.
- **UBIFRANCE**: in order to help SMEs to export: more information on export plan in part 2.1.1. Existing rules and regulations/policies supporting the games industry

**In the Ile-de-France Region (Paris Region):**

- **L’agence du numérique: la fonderie**

La fonderie, the Paris Region digital agency, is an associate organization the Ile-de-France Regional Council.

Their objectives are to:

- Participate in the development of digital economy in Paris Region
- Take all actions relevant to the emergence of new themes in computer and Internet
- Encourage the expansion and technological innovation in the Paris region,
- Reflect the new cultural and social issues brought about by digita economy
- Foreshadow the policy relevant to the ICT sector
- Adjust, sustain and expand the response mechanisms that underly the Digital Policy of the Ile-de-France Regional Council.

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463 Quoted from the Ministry of Finance, the Economy and Investment website; http://finance.gov.mt/page.aspx?site=mfin&page=ab
464 www.cnnumerique.fr
465 www.lafonderie-idf.fr/projets
The Paris Region network of Chambers of Commerce and Industry (CCIs)

La plaine commune (in Paris Region) 467
Plaine Commune has the reputation of being a foyer of creation with artistic effervescence which is why it was chosen to develop a creative cluster, with an international aim in the Grand Paris project framework. Boosting creating and developing industries

Austria: Salzburg

Other support instruments available to support the game industry in the region

EU: Networks and Associations

There are several networks and association active on a national and EU-wide level.

IG Computergrafik is an association for the promotion, organization, networking, structuring, and representation of the interests of Austrian computer and video games, computer animation and the film industry.

European Creative Industries Alliance (ECIA)
ECIA was initiated by the EU-Commission, DG Enterprise to promote innovation within creative industries and the benefit of creative industries for other economic sectors.

ÖVUS
The Austrian Association for Entertainment Software (ÖVUS) is the interest group representing the industry and suppliers, producers, distributors and media creators of entertainment software in Austria. ÖVUS is a member of the ISFE.

On an EU-wide level there are the ISFE 468 and EDGF 469 The former represents interactive software trade associations, while the latter represents the European game developers.

National Support Mechanisms: conferences and awards

On national level there are several conferences and awards. Most of them take place in Vienna. PIXEL 470 is an annual conference on computer graphics and animation. It is organized by volunteers from the Austrian cg community. It features talks and workshops by international computer graphics and animation professionals. During the PIXEL conference the Austrian CG Award 471 is presented by the IG-Computergrafik 472.

As already mentioned the BuPP organizes an annual conference called Future and Reality of Gaming.

Vienna’s annual Games Conference offers an open and international platform for leading game studies researchers and scholars, game designers, researchers and scholars from various other fields, education professionals, and gamers from around the world.

Regional Support

On a regional level, the GamesDay at the Salzburg University of Applied Sciences is the most ambitious event focussing on specific topics of the games industry. International experts are invited to give lectures and present their projects to students, researchers and people interested in the topic. This format has potential to inform a wider public, companies and policy-makers about the potential of the games industry for Salzburg.

Initiatives

Regional associations and initiatives originated by the lively games industry in Vienna. SUBOTRON 473 and the IGDA Vienna Chapter 474 organize lecture series dealing with hot-topics of the games industry, both on a theoretical and practical level.

467 www.plainecommune.fr/page/p-503/art_id/
468 http://www.isfe.eu
469 http://www.egdf.eu/
470 http://www.pixelvienna.com
471 http://www.acga.at
472 http://www.igcomputergrafik.at/
473 http://subotron.com/
474 http://igda.at/
8. PERCEIVED NEEDS

Perceived needs have been extrapolated from desk research, insights gathered during interviews and answers to questions from the Boo Games questionnaire. The following section is an overview of research regions have identified as examples of perceived needs for the sector, in particular to support and grow the sector. Identifying these needs will help in pinpointing knowledge gaps in each region and how to eventually overcome these.
United Kingdom: West Midlands

Examples of the perceived needs for the sector

A study done by skillset, highlighted the skills gap prevalent in the games industry:

The need for creating awareness of the added value of the games industry was mentioned, as exposure is needed and the right contacts are crucial when developers or companies in general want to grow, collaborate or simply generate income.

The access to new markets internationally as well as new cross-sector collaboration, is key to the growth of the games sector. Not being part of the network but also lack of creation of the right to cater specifically to the game industry, would make their efforts useless.

Access to finance remains important but companies have found ways to access money. Hence other priorities that are mentioned above are much more crucial to the growth of the sector.

Skills Shortages

Skills shortages were prevalent for computer programmers (mentioned 52% of the times), followed by artists (13%), designers (10%) and management personnel (7%). It is particularly difficult to find programmers and animators with skills in online development. There are also constraints in the supply of personnel with the right mix of technical and artistic skills and artists proficient in 3D. 475

Skills shortages are having a real impact on video game employers’ business. This was indicated by three out of then respondents (31%) of NESTA's Video Games Employer Survey Skills. Skill shortages include: delays and quality issues (mentioned by 13% of respondents), difficulties expanding, and loss of business (both 7%). The situation is worse within larger companies with 35% reporting that shortages are leading to delays and quality issues and 17% are recruiting from overseas to fill vacancies. 476

Computer Games employers also highlighted a number of skills that they found difficult to find in applicants coming directly from school or university. Broad skills areas most commonly cited are leadership and management (41%), creative talent (23%), multi-tasking (14%) and skills in using sector specific software packages (14%).

Skills needs amongst applicants coming directly from school or university were also highlighted in NESTA’s Next Gen report. Close to three fifths (58%) of all respondents reported that there are positions where it is particularly difficult to find recruits straight from school with the required skills.

The hardest positions to fill were: computer programmers (43%) followed by designers (16%), artistic roles and project management roles (both around 7%). Many employers recruiting from education, stress important shortcomings in university applicants, with particular emphasis around the lack of expertise with the gaming platforms they target, technical skills in areas ranging from maths to programming and management skills.

Consistent with this, almost 35% of respondents to NESTA’s Talent Survey working in the video games industry, reported that they now know that their course lacked industry relevant skills. In addition, 68% of graduates complain that their course was weak in equipping them with commercial skills and just over half (51%) say the same about project management skills.

The proportion of graduates in the UK developer population is slowly increasing. However, only 18% of games specific graduates in 2007 succeeded in gaining jobs in the industry. The quality of undergraduate programmes seems to be key: graduates from courses accredited by Skillset are nearly three times more likely to get a job in the Content for Computer Games sector than those from a non-accredited course.

UK Games companies also recruit from those with traditional degrees in computer science, maths, visual arts and general science courses. However, the predicted gradual decline in UK games development staff numbers over the next five years is expected to reduce the intensity of the skills shortage, with a predicted move to the need for cross platform skills, android development and self-publishing with online micro-transaction capability.

475 NESTA (2011) Next Gen Review. Transforming the UK into the world’s leading talent hub for the video games and visual effects industries.

476 NESTA (2011) Next Gen Review. Transforming the UK into the world’s leading talent hub for the video games and visual effects industries.
## Identification of Gaps in knowledge/support

A list of recommendations tackling the needs of future creative professionals is listed below from NESTA report Next Gen. Review.\(^{477}\)

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<th>Twenty recommendations across the talent pipeline</th>
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<td>Recommendation 1.  Bring computer science into the National Curriculum as an essential discipline.</td>
<td>Government</td>
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<td>Recommendation 2.  Sign up the best teachers to teach computer science through Initial Teacher Training bursaries and ‘Golden Hollos’.</td>
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<td>Recommendation 3.  Use video games and visual effects at school to draw greater numbers of young people into STEM and computer science.</td>
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<td>Recommendation 4.  Set up a one-stop online repository and community site for teachers for video games and visual effects educational resources.</td>
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<td>Recommendation 5.  Include art and computer science in the English Baccalaureate.</td>
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<td>Recommendation 7.  Build a network of STEMNET and Teach First video games and visual effects Ambassadors.</td>
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<td>Recommendation 8.  Introduce a new National Video Games Development and Animation Schools Competition.</td>
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<td>Recommendation 10. Provide online careers-related resources for teachers, careers advisers and young people.</td>
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<td><strong>Universities, Colleges and Vocational education</strong></td>
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<td>Recommendation 11. Develop kitemarking schemes, building on Skillset accreditation, which allow the best specialist HE courses to differentiate themselves from less industry-relevant courses.</td>
<td>Industry and Skillset</td>
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<td>Recommendation 12. HEFCE should include industry-accredited specialist courses in their list of ‘Strategically Important and Vulnerable’ subjects that merit targeted funding. Industry commits to these courses through industrial scholarships and support for CPD for lecturers.</td>
<td>HEFCE and Industry</td>
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<td>Recommendation 13. Raise awareness of the video games and visual effects industries in the eyes of STEM and arts graduates.</td>
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<td>Recommendation 14. Give prospective university applicants access to meaningful information about employment prospects for different courses.</td>
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Netherlands: Utrecht

For more in depth information, please refer to the Interview Results in Appendix B and Questionnaire Results in Appendix C.

Examples of the perceived needs for the sector

Access to finance and lack of entrepreneurial skills were seen as the main obstacles faced by game companies. Another aspect mentioned by those interviewed was the importance of being aware of how the gaming industry and the main players work.

A stakeholder identified the biggest challenges faced by game enterprises as follows: i) for entertainment companies, funding and access to publishers, ii) for serious game companies, finding clients to spend money on a game and creating something which fits the needs of the company, iii) for start-ups, having entrepreneurial skills within the company is still an issue. This is tackled by making companies aware of the added value of such skills and looking into how a match can be found between game designers and people interested in marketing and business management. This still needs attention. Obtaining the right people and how to obtain funding are seen as two major challenges in the game industry by another stakeholder.

Questionnaire results indicated that the main obstacles for creating or sustaining the games industry in the Utrecht region are: **access to finance** (80.8%, N = 21), **access to market** and **access to knowledge** (both 38.5%, N = 10), closely followed by **access to business support** (34.6%, N = 9). This also reflects the results obtained via the interviews.

Identification of Gaps in knowledge/support

As indicated above under ‘perceived needs’, access to finance and entrepreneurial skills are seen as very important. **Access to finance** is seen as the main important action point for the region. Respondent stated that “less red tape” and “tax breaks could be of significant help to compete internationally”. A respondent also stated that “luckily in my region (Utrecht) there are a lot of things in place already, although the demand is higher than the supply. In the end, financing is and will always be the biggest problem”.

A **networking/cluster development is essential**, according to many interviewees, as well as **creating and sustaining research and educational programmes**. **Working in an interdisciplinary context** was also mentioned several times. For instance, one interviewee mentioned that access to capital and working together across disciplines helped the gaming industry in Hamburg, Germany to grow, compared to Utrecht, the Netherlands; Due to Hamburg's initial lack of educational institutes focusing on games, Hamburg was forced to think outside the box. The respondent indicated that one of the reasons for their growth is access to capital and teams working across disciplines.

Interviewees also mention **creating awareness of the added value of the games industry** as an important action point. For instance, one respondent stated the importance of having "more national and international promotion of Utrecht as the gaming capital of the Netherlands (to attract (inter)national business and talent)".
Italy

The big current challenge is to help Italy in not only being a big video games spender but also developer. So far very few Italian companies can be mentioned among the EU video games developers and publishers, maybe only Milestone, established in 1996 in Milan, and today representing the biggest Italian developer of PC and Console games in the racing sector, both on- and off-road.

Umbria

Examples of the perceived needs for the sector

One of the most important needs that most of the companies interviewed mentioned in the Umbrian regional analysis, is to have a specific structure within the regional territory, where companies operating in the gaming industry or related to the industry, can settle down, find specific support and technical assistance. The dedicated environment would allow for the exchange of ideas, the comparison of individual professional experiences and cooperation. The Assistance should also include the business training aspects.

With regard to existing incubators in the region, respondents are appreciative about the level of service and guidance provided for start-ups, however these are not directly aimed at the video game industry. Many argue that it would be desirable to have better technical support and "mentoring" specifically targeted to the gaming industry.

The questionnaire also identified the need to increase awareness among local authorities, chambers of commerce and trade associations in the development of more targeted policies for the gaming industry. At the same time, given the Umbrian market characteristics, one also must consider the risk of gaming specific policies for such a small region such as Umbria. The solution could instead be to develop network projects dealing with gaming related companies, using the existing financial instruments in order to support them.

Identification of Gaps in knowledge/support

During the interviews, many identified also the need for public support in organizing events dealing specifically with the game sector, and recommended these in order to help improve intersector connections, in order to better highlight and promote the potential of the game sector.

Piedmont

Examples of the perceived needs for the sector

The recognition of the sector from an institutional perspective is an important condition for promoting the development of the gaming industry at the national level, including a successful public-private alliance. It is important to underline the relevance of the video game industry from a cultural, educational and employment perspective, so that Italy may emerge as a land of game developers, entrepreneurs and creatives.

The problem is cultural: creativity in Italy is not yet considered fully as something that one can use to create leverage for economic growth. Large national companies should think about moving more into foreign markets, investing more heavily in content, involving independent producers, enabling companies to save their already small profit margins throughout the supply chain to ensure a return of the investments made. If creativity is not used in the industry to achieve these objectives, an entire market dies with it.

A second perspective that might be interesting for the growth of the game sector is to look into applied games, in other contexts such as education, healthcare or social services. The combination of serious games and simulation is probably the most promising in Italy.
Identification of Gaps in knowledge/support

The Region aims to develop competencies within the video game sector. Competences involved are those enhancing global innovation by accessing SMEs into a broad competences system and research structure:

- setting up of communities for integrated planning activities on specific technology issues
- Technology foresight, technological road mapping to explore strategic and development opportunities
- communication and marketing skills
- Competences for having access to EU funds
- project planning and management skills
- knowledge transfer skills
- Competences to develop and implement some instruments such as business analysis, coaching for innovation, technical and economic feasibility studies, actions supporting the interaction between enterprises and research centres, and inter-sector technology transfer
- Competences for networking and clustering while developing collaborations among different actors (enterprises, enterprises and research centres, universities) at different levels (regional, national and trans-national)
Spain: Asturias

Examples of the Perceived needs for the sector

Apart from a demand for a specialized offer of degrees and courses on video games by the University of Oviedo, one of the main perceived needs are linked to *specialized qualification of games human resources as well as the entrepreneurial and business skills* for games business promoters. More concretely to the video game entrepreneur’s *skills needed to access to finance or manage a company*. The *need for networking activities* in order to push the video game sector, through business cooperation and the support of a community of public and private stakeholders is remarkable.

Identification of gaps in knowledge/support

Asturias already has consolidated business support services. Some of the gaps detected in knowledge point to:

- access to finance,
- access to market
- commercial and business kills
- business strategy
- R&D and technology
- networking/connection with other professionals to develop new ideas.
Examples of the Perceived needs for the sector

Based on desk research regarding the Bulgarian business environment, the status of business support for the cultural and creative industries and the digital gaming sector, the following perceived needs have emerged:

- A games fund providing financing, grants, and/or tax credits to companies seeking to develop new products (i.e. experimentation with new types of game pay models which will allow game companies to experiment with new types of revenue streams for games such as free-to-play models with revenue generated through advertisements or the purchase of in-game items (micro transaction and freemium games) and services. Possibilities for the co-financing of the social insurance payments employers need to make to the state, leasing of equipment and office space.
- Capping of taxes on the salaries of digital game directors and games designer salaries.
- The development of a Digital Strategy for the Sofia Region and/or a Creative Industries Strategy for the country, including specific goals and a roadmap for their implementation. There has been an explosion in browser, mobile, tablet, flash and other browser games and online social games in recent years, and smaller teams are required to produce these types of games in comparison to leading console boxed games, which require huge teams and budgets to produce. As such, countries with emerging gaming sectors have an opportunity to take advantage of this emerging area in the gaming industry to bolster the strength of their digital gaming sector.
- The need for increased internationalisation assistance for digital gaming companies through public support for attendance at international events (including consortia of Bulgarian digital gaming companies), research has indicated that the internationalisation of SME’s in Bulgaria is quite low.
- Linkages between industry and educational institutions should be strengthened. The Serious Games Living Lab at Sofia University is a step in the right direction with respect to this need. This necessitates the development of specific educational programmes to create qualified graduates for employment in the sector. In this regard, early exposure to digital media and related technologies among students at the high school level and prior should be encouraged.
- Unique experience and lifestyle environment and good infrastructure, schools and hospitals and cultural scene. Notable and significant inroads have been made by the Sofia Municipality in improving the general environment of the capital region as a number of major infrastructure modernisation projects are underway. These are highlighted in the Interim Evaluation of the Regional Development Strategy for Sofia District 2005-2015.
- Furthermore, according to the United Nations Development Programme Human Development Report for 2011 (measuring life expectancy, number of years of education, and gross national income (PPP)), Bulgaria was ranked 55th out of 187 countries. Given the considerable dichotomy visible in the country between the Sofia Region and the rest of the country, and the persistently low costs of office support staff, and a relatively high level of IT experts, there are appealing advantages for digital gaming companies in the country.

Identification of Gaps in knowledge/support

As mentioned in previous sections, gaps range from the educational, to the financial, and to the political/regulatory level. An overall strategy for the digital economy is needed at the national, regional and municipal levels, with adequate budget outlays and priorities to see them implemented. The development of targeted tax credits and grants for the development of new products and services, potentially with the aid of innovation vouchers, would be valuable.

New innovative ways of doing business in this rapidly growing and changing sector are needed and would be helped by such schemes including public support for the development of partnerships and deeper penetration into foreign markets.

Finally, the creation of educational programmes and improvement of their linkages with the sector would serve as a way of incubating talent and gearing the educational programming towards the needs of the dynamic sector would help to overcome a human resources gap.

478 Malta has recently introduced the ‘Malta Games Fund’ which is in the spirit of this need. Media coverage of this fund is available here: http://www.timesofmalta.com/articles/view/20111114/budget-2012/schemes-to-encourage-investment-in-digital-games.39360
479 According to the Maltese BOO-Games partner Foundation Temi Zammit and desk research Malta has begun to experiment with such types of initiatives.
Germany: Baden-Württemberg

For more in depth information, please refer to the Interview Results in Appendix B and Questionnaire Results in Appendix C.

Examples of the perceived needs for the sector

According to the Boo Games questionnaire, the main obstacle for creating or sustaining the games industry in Baden-Württemberg is – according to the 86.7% of respondents - access to finance. On a second stage another barrier is represented by the access to business support which is considered a problem by the 40%. Of less influence are the presence of a supportive regulatory framework (26.7%) as well as access to market (26.7%).

Identification of Gaps in knowledge/support

Finally, participants to this survey seem not to be concerned about access to knowledge, which is regarded just by the 13.3% as a possible obstacle for the success of games companies. Neither are they worried about the access to R&D and technology; no one in fact indicated this as an obstacle for the games industry. However a challenge does remain for game companies to be aware of the constantly changing games environment and to market their products according to the upcoming trends and multitude of platforms.
Malta

Examples of the perceived needs for the sector

Can-do business attitude of Maltese regulators
According to the recently Digital Games Strategy, one of the most important advantages Malta has to offer, as one can see from the gambling industry scenario, is the speed and adaptability it can deploy when reacting to existing opportunities for growth. The government has earmarked the video game industry as a priority area for the country and thus its bodies are very willing to listen to proposals for legislative changes, incentives packages and other changes. Although an indirect benefit this openness from government and the country’s adaptability should not be taken for granted as it is a promising sign of ability to change and adapt. A tangible fruit of this attitude from government is the new legislation on tax refunds on dividends to foreign shareholders.

Fiscal Schemes
Malta Enterprise offers various fiscal incentives that an incoming company might be interested in. A 15% tax capping extension to the digital gaming directors and designers salaries has now been accepted, which add to the existing set of incentives.

Proven Location for Game Development
Although few game companies exist on the island so far, Bigpoint, Crytologic and Connexo, have proven that it is possible to run a development operation from Malta and gather the benefits of the generous tax rebate. The Bigpoint 2010 release of Battlestar Galactica was followed up with great success, gathering over a million users.

Language and Localisation
English, together with Maltese, is Malta’s official language. The common use of English on the island and the high level of proficiency in most educated people, along with an education that is carried out almost entirely in English makes it easier for companies to conduct business and work with academic institutions. It also makes it easier for incoming employees to be integrated into the society since no language barrier exists as is the case with continental Europe.

Technology-driven and Technology-Neutral Legislation
Maltese laws deal with issues of net neutrality, the introduction of the right to internet access, further rules relating to data privacy as well as spectrum and broadband reforms. In 2009 the Maltese regulator published laws whereby every operator of an international internet gateway has to ensure continuity in international connectivity at all times. Legislation is also increasingly directed towards the production of e-commerce and the creative industries as is the case with, for example, the CREATE scheme specifically targets the Creative Industries and the R&D Grant.

Identification of Gaps in knowledge/support
The strategic objective is to provide a third eco-system component, a strong flow of graduates from generic and games-specific degree courses to supply the requirements of both incoming and start-up games companies.

Educational stimulation needs/requirements
i. A range of improvements are recommended to Malta’s current courses, such as adding new categories of class and courses, adding dedicated games courses at a BSc and BA level, enhancing existing courses to bring them up to date with current industry requirements and adding a Masters-level course.
ii. Salaries for Art, Modelling, Animation and Design instructors for courses linked to Computer games and animation at MCAST need to be uprated to bring them in line with average salaries for such tutors at other European and American universities and enable MCAST to attract top quality instructors to move to Malta to help reverse the deficit in the raw talent pool for art, animation and design.
iii. Grants should be provided to allow universities to source foreign experts in novel subjects (for instance, HTML5, LLVM or Flash 11 development, social games design, games analytics, new commercial models) to teach short courses at Maltese universities.
iv. Subsidised distance learning initiatives (such as that provided by Train2Game) could prepare generalist students for games production.
v. A university twinning scheme that links Maltese universities with best-of-breed games degree courses (such as Abertay University or DigiPen) could raise standards via student and faculty swaps.
vi. A team of students could be funded to enter Dare to be Digital\(^{481}\) or Global Game Jam, which will give valuable team production experience under time pressure.

vii. Malta Enterprise should expand support of the Game Dev Challenge (run by St Martin’s) or Gamezing competition (run by University of Malta) and expand sponsorship each year by offering a financial prize such as a year’s worth of funding worth €25,000 for the winning entry to enable the winner to build out, commercialise and distribute the game.

viii. Subsidise internships between games degree students and local games companies, such as commonly found in UK and US games degrees.

\(^{481}\) [http://daretobedigital.com/](http://daretobedigital.com/)
France: Ile-de-France Region (Paris Region)

Examples of the perceived needs for the sector

The gaming sector is a dynamic sector in the region and represents more than 70% of total jobs on the national level\(^{482}\). The French industry is the second producer of video games just behind the United States\(^{483}\). The French industry is already focused on export. In 2011, 70% of the industry benefit came from export. Apart from some big companies (such as Ubisoft, Kobojo, Sony, Nintendo, etc.), the industry is essentially composed of SMEs and modest size companies\(^{484}\).

Identification of Gaps in knowledge/support

Access to knowledge to R&D and technology do not represent an obstacle in the region. To grow the sector, economic actors ask for a supportive regulatory framework, access to finance and access to business support, which are considered to be the main obstacles, if not avalaible, for creating or sustaining the games industry in the region.

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\(^{482}\) [www.iledefrance.fr/actualite/economie-emploi/economie/jeu-video-ile-de-france-aux-manettes/](www.iledefrance.fr/actualite/economie-emploi/economie/jeu-video-ile-de-france-aux-manettes/)


\(^{484}\) [www.lemonde.fr/jeux-video/article/2012/03/02/operation-promotion-du-jeu-video-francais-a-l-étranger_1651125_1616924.html](www.lemonde.fr/jeux-video/article/2012/03/02/operation-promotion-du-jeu-video-francais-a-l-étranger_1651125_1616924.html)
Austria: Salzburg

Examples of the perceived needs for the sector

Based on desk research and interviews regarding the perceived needs of the sector, the status of business support for the creative industries and the digital, interactive sector (including gaming), the following needs have emerged:

- Establish new innovative funding measures for the games industry to be competitive. (e.g. Monetary and non-monetary measures like local events regarding the games industry.
- Development of financial support measures like thematical calls for digital interactive media and games.)
- Making use of crowdsourcing for local game developers and publishers. Support local game industry in the process of fundraising via these new platforms.
- Develop an overarching strategy for Creative Industries, focusing on digital interactive media
- Create a regional hub in gaming
- Strengthen Linkages between enterprises and research, educational institutions
- New specific support measures for founders meeting needs of creative entrepreneurs
- Raise awareness and trans regional visibility
- Regional/national quantitative/qualitative analysis of the games industry (number of companies, employees, turnover, market share, type of games, platforms, distribution channels, developers, publishers, distributors), collect data from the digital distribution, collect regional and national demographic figures.
Below is an inventory of needs extracted from the information provided by each region in the previous sections of the desk research.

**Table 49. Global Inventory of Needs**

Global Inventory of Needs

**Awareness of the added value of the games industry**
- Increase awareness among local authorities, chambers of commerce and trade associations
- Increase the recognition of the sector
- Raise trans-regional visibility
- Develop more targeted policies for the gaming industry
- Regional/national quantitative/qualitative analysis of the games industry

**Regulatory framework**
- Develop a Digital Strategy for the each Region and/or a Creative Industries Strategy for the country, including specific goals and a roadmap for their implementation
- Develop an overarching strategy for Creative Industries, focusing on digital interactive media
- **Need for public support in organizing events dealing specifically with the game sector**
- Technology foresight, technological road mapping to explore strategic and development opportunities

**Networking**
- Develop collaborations among different actors: enterprises, enterprises, research centres, and universities
- Develop collaboration across different levels: regional, national and trans-national
- Actions supporting the interaction between enterprises and research centres and inter-sector technology transfer
- Create public-private alliances
- Network and connect with other professionals to develop new ideas
- Obtain public financial support to attend international events
- Strengthen Linkages between industry and educational institutions
- Develop network projects dealing with gaming related companies
- Increase expertise in networking and clustering
- Set up of communities for integrated planning activities on specific technology issues
- Create new specific support measures for start-ups meeting the needs of creative entrepreneurs.
- Set up of communities for integrated planning activities on specific technology issues
- Increase internationalisation assistance for digital gaming companies
- Use the existing financial instruments to support these network projects

**Incubators/Hubs**
- Create a regional gaming hub
- Have service and guidance provided to start-ups directly aimed at the video game industry

**Access to New Markets**
- Large national companies with small profit margins need to ensure a return on investments made.
- Look into the potential of applied games
- Move business into foreign markets
- Invest more heavily in content involving independent producers

**Access to Knowledge**
- Access to R&D and technology
- Access to technical assistance
- Need for cross platform skills, android development and self-publishing with online micro-transaction capability.
- Encourage early exposure to digital media and related technologies among students during secondary education

**Access to Knowledge: Entrepreneurial skills**
- Entrepreneurial and business skills for games business promoters
- Knowledge on how to access to finance
- Management Skills
- Project Planning Skills
- Communication and marketing skills
- Knowing how to access EU funds
- Knowledge transfer skills
- Business analysis
- Business strategy Skills
- Coaching for innovation
- Technical and economic feasibility studies
- Technical skills in areas ranging from maths to programming and management skills
- Have a high quality of undergraduate programmes and accredited Courses

**Access to Finance**

- Capping of taxes on the salaries of digital game directors and games designer salaries.
- Establish new innovative funding measures for the games industry to be competitive: monetary and non-monetary measures like local events regarding the games industry
- Develop financial support measures like thematical calls for digital interactive media and games.
- Make use of crowdsourcing for local game developers and publishers
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1. REGIONAL OVERVIEW OF THE GAMING INDUSTRY
United Kingdom: West Midlands

1. To help grow the games sector, who are the main stakeholders/actors?

According to the responses received in the interviews, respondent felt that the main actors to accelerate the growth of the sector in the region are diverse. There are a multitude of actors that are crucial to the sector but they would in particular think that Education and universities have a very important role in providing the adequate skills needed to develop the right workforce.

2. How would you describe the games industry in this region?

The interviewees thought that the games sector has always played an important part in the West Midlands as we have large international players, in particular Video Game developers. It was also described as vibrant, as 20% of the UK games industry is located around the West Midlands. The region has always been second after the London region. In recent years there has been a lot of interest within the sector and in particular in the serious games sector which is ever growing and attracting a demand for training and virtual environment based for virtual goods and shops.

The sector, even though present in the region, has seen a skill gap between the professionals needed and the actual graduate pool. Some work with the support of the public sector should be done in order to sensitise schools and children at a younger age by introducing computer science but also design/development that is needed for the game sector.

Current business base chambers of commerce as well as business support dedicated to the sector such as incubators, should be equipped to support the growing demand. And last but not least the government (LEPs in our region) as well as games associations (TIGA) should support Marketing for the sector and promote the potential in growth.

The university in the West Midlands has also been very active in supporting the sector with its academic research, but also its science or Technology Park. A series of dedicated departments or institutes have also been developed such as the Serious Game institute at Coventry University, Birmingham Science Park, BCU's Gamer Camp, Wolverhampton's games dept, Birmingham University's Digital Hub and HIT Team.

3. How well connected are games enterprises in your region?

The respondents did mention that since the disappearance of the regional development agency, no public sector agency has been able to follow on officially with the creative cluster. We cannot say that the West Midlands, even though quite active in the video games sector, has an official cluster or network dedicated to the video games sector.

Current business bases such as the chambers of commerce as well as business support dedicated to the sector such as incubators, should be equipped to support the growing demand. The government (LEPs in our region) as well as games associations (TIGA) should support Marketing for the sector and promote the potential in growth.

The sector, even though present in the region, has seen a skill gap between the professionals needed and the actual graduate pool. Some work should be done with the support of the public sector in order to sensitise schools and children at a younger age by introducing computer science but also design/development also needed for the game sector.

The universities in the West Midlands have also been very active in supporting the sector with its academic research and its science or Technology Park. A series of dedicated departments and institutes have also been developed such as the Serious Game institute at Coventry University, Birmingham Science Park, BCU's Gamer Camp, Wolverhampton's games dept, Birmingham University's Digital Hub and the HIT Team.

4. Which types of games are produced in your region?

The region originally focussed mainly on console development (with a particular strength in racing games), but most recently it has seen a growth in casual, serious and mobile game development.

As mentioned previously, the region has always been very active in the sector. This makes for a big variety and diversity of games. In the entertainment array, some of the most popular games produced in our region are games such as Lara Croft, Harry Potter, Doctor Who, Formula 1, SpongeBob Square pants and other simulation games.

It has been noted that Nintendo has made a loss last year whereas Apple keeps increasing their profit. This presents a shift in the type of games that are produced. It gives a very good chance for SME and smaller developers to compete against larger players and for them to prosper by developing mobile/digital games for example.
5. Do organisations in your region focus on serious games?

According to Tim Luft, Director of Serious Games International Limited, the region is very strong in the sector. Coventry University has recognised the future impact of serious games at a very early stage and has developed the first institute and incubator dedicated to serious games. As a result we have a lot of SMEs and small enterprises working on 2-3 products simultaneously. There is a tremendous potential in terms of serious games and nowadays a cross sectorial approach is a must. In particular, sectors such as the National Health Services, Services forces, and public administration definitely have become aware of the opportunities created by serious games.

6. How would you rate the public perception of the gaming industry?

In the West Midlands region, because of the economic growth and the impact of the sector on the region with elements mentioned before, the public perception has always been good. The Developers are big players around the area which bring economic growth which helps the reputation of the sector. In particular in the serious game sector, which is our speciality in the region, we are one of the pioneers in Europe. The public sector in particular is now becoming aware of the possibilities that are offered using the games technologies to cater to their needs.

The public perception has definitely improved over the last few years due to a number of initiatives, but most of the public does not know of the strength and economic impact of the local sector. The public sector perception is rather positive but the larger public is not aware of the potential impact of the video games sector.
Netherlands: Utrecht

7. To help grow the games sector, who do are the main stakeholders/actors?

Ideas on how to help the game industry grow vary between the interviewees. Some mention the Dutch Game Garden, Taskforce or Dutch Game Association as main actors or stakeholders in the local game industry. Others describe how the game industry ideally should change to improve growth. A recurring aspect is educating other industries about the possibilities of (serious) games, potentially creating a new audience and new clients: "what you need is not so much the main stakeholders but you need new stakeholders and you need to align them with other stakeholders like the government, or the regional development office. And then create a platform that did not exist yet, which we call ecosystem, and show them how they could contribute or benefit from that collaboration."

Other interviewees mentioned the government to provide the right climate by inducing tax breaks, a main office for all large publishers in the world or a person with a vision, like a Steve Jobs of the game industry.

8. How would you describe the games industry in this region?

When asked to describe the games industry in Utrecht, the following aspects were mentioned. The games industry in the Utrecht region has a lot of small start-up game companies, who are well connected to each other. It is a young industry that started growing around ten years ago and it continues to grow. The incubator Dutch Game Garden has played a major role in the growth of the games industry in Utrecht: it has helped build the ecosystem and it has stimulated and still stimulates the Utrecht game industry as a whole. The presence of many young start-ups and freelancers are there because of educational institutions in the region such as HKU (Utrecht School of the Arts) and Utrecht University. Graduates often stay in the region and start their own companies. For the industry to keep growing, it needs to professionalize, especially in terms of the development of entrepreneurial skills.

9. How well connected are games enterprises in your region?

The games enterprises in the Utrecht region are quite well connected and also seem to have an open and collaborative way of working together. A respondent described the gaming scene as, "it's a very open scene and because it's dominated by young people, and I think the game industry as a whole is a lot more open than other sectors. There is a lot of sharing of information and knowledge."

Another respondent also mentioned the collaborative working approach of start-ups and SMEs, however also mentioned that educational institutions, even though they do collaborate together, are not as connected as they could be. This might be due to a sense of competition between the institutions.

The Dutch Game Garden facilitates connections between game enterprises. Monthly lunches are also organized and open to the public where game enterprises, students and people interested in the gaming industry can play the latest game or app developed. It is also a networking opportunity. Both the Dutch Game Garden (regional) and the Dutch Game Association (national) were mentioned as facilitators in connecting people. A lesson learned was also mentioned: the Dutch Game Association is an organization catered to the sectors rather than a branch which makes it more accessible to all interested parties. What was also mentioned is that there is a lack of awareness of game enterprises about the EU subsidies and why access to finance is given to educational institutions rather than directly to entrepreneurs.

Control, the game-related magazine, is also an example of a great and easy way to connect people. It is easily accessible to the target group.

Facilitating communication channels and minimizing red tape for organized events such as game jams was also mentioned.

10. Which types of games are produced in your region?

The majority of the people interviewed described the kinds of games produced in Utrecht as very diverse. Casual, online and mobile games were mentioned by almost all interviewees, as well as serious games. Big-budget console games are least represented in Utrecht, mostly due to the size of the companies. Some interviewees mentioned indie games as being particularly common in Utrecht, other types of games mentioned were: board games, pervasive games, advergames, downloadable games (Xbox Live) and interactive design.
Organizations also focus on serious games in the Utrecht region: "in Utrecht it is mainly the advergames and educational games that are being developed. Not so much the medical games. So it's more serious light games, or light-serious games. Whereas we usually call them applied games".

Some companies are specialized in serious games whereas others do a mixture of both serious and educational. Examples of companies making serious games in the Utrecht region are Monkey Business, Fourcelabs, Shapers and Bright Alley. The definition of what a serious game is differs. However awareness about the usefulness of serious games is already apparent. Examples of serious games are published in newspapers and press releases, and the Dutch government has put the gaming industry on their agenda under the 'top sector creative industries'.

12. How would you rate the public perception of the gaming industry?

Interviews with ten stakeholders representing the main stakeholder categories, were asked about the current perception of the gaming industry in Utrecht. Reactions were varied. Among the interviewees, there is general agreement that the public perception about the games industry in the Utrecht region has changed and become more positive within the past years. However opinions differ, as some state that public perception of the gaming industry is positive, whereas others find that others find that the public perception is still biased.

Some respondents states that it is still difficult to explain that you work in the games industry: "Public perception of the games industry correlates with the public perception of games. This is still not as it should be, it lacks nuance and keeps focusing too much on violence and addiction."

Nevertheless all ten respondents indicate that public perception has become much more positive in the last 5-7 years:

Quote 1: “Gaming is very much associated with innovation, new type of games, Dutch design, a young industry, very creative”.  
Quote 2: “The public perception of the gaming industry is neutral to positive, and getting better. It has highly improved the last 5/6 years because of organisations like the Dutch Game Garden, Task Force Innovation Utrecht, and the Festival and Games NLGD, increasing the attention for applied (serious) games also helps with public perception".

Quotes 3: "Organizing information evening about games for local politicians help, as for instance a politician from the Christen Unie said, 'before this meeting I thought games were just evil and now I understand it is just interesting and useful'".

This shift in public perception is interesting, as it can open up new opportunities for the regional, national and international gaming industry. The awareness that educating the public about the added value of games, as it is still a relatively young industry, is still mentioned as important when talking to different sectors. The government has become aware of this as the gaming industry is currently on the national agenda and examples of applied games are breaking into mainstream media outlets.

Public promotion of the gaming industry is still something which is needed, as "within the Netherlands, Utrecht as a region has a good reputation qua games industry. But internationally, Utrecht has to be promoted more".
Italy: Piedmont

13. To help grow the games sector, who are the main stakeholders/actors?

To help grow the game sector, according to the interviewees, the most important actors involved are those already identified in previous phases of this research. Most important stakeholders are the public sector, private sector and the research sector.

In particular, the importance of the lack of investors and venture capitalists was highlighted, as, unlike other countries, Italy does not seem to have a clear perception of the economic implications which game development could have on a regional level. Research should be focussing on the economic side of these types of industries such as, for examples, the creation of new business models. Bank foundations are also mentioned as potential actors who could have a central role in the development of this industry, with a focus on the serious games industry and educational games. The most important ones at a regional level are: Compagnia di San Paolo (http://www.compagnia.torino.it/) and CRT (http://www.fondazioneCRT.it/).

Almost all respondents would like to see action on all levels: a lobbying action is necessary on the public sector and private and research sectors with practical actions as a specific call.

Finally, also the University is mentioned, in order to create R & D and to introduce students to video game development. Last but not least there are the independent developers, who, while not connected in a network, play an important part in the video game sector.

14. How would you describe the games industry in this region?

Respondents, asked to describe the video game industry in the region, define it as emerging or potential. The most promising field seems to be serious games in particular applied to the field of health and rehabilitation, education and city marketing. Some respondents also mention the presence of indie developers working individually but there are neither national nor international products.

The market, in fact, is changing dramatically, especially in games and in mobile devices and there are many new users who have never touched a computer but now play games on Facebook or by using smart phones. In a few years there may be small working groups that will develop small products and may be indifferent to where they fall geographically: there is no relationship between the product and the place where is realized, with little labour investment in face of strong earning potential. Some of the respondents do not agree with those who say that you have to make big investments for video games, this only applies to traditional games.

Mobile phones and mobile devices are dramatically changing the way we play games. There are new types of games and many games that did not exist before. Apple has changed the market considerably. Mobile devices like the iPad will likely change everything in a few years, for example in education. In addition to individual developers, there are also some small companies, selling to bigger companies, or these small companies can create small games and sell them directly to the user groups.

Companies work in different stages of production and can work on only a portion of the value chain. For example, only graphics. The market is very interesting and in development and is going to change quickly with the increase of the distribution of games on the Internet and the increase of online stores like Apple, Android and Microsoft.

All respondents clearly identified a cluster of creative industries where there are definitely industries that are developing applications for video games. The presence of such a creative hub is identified by many of the interviewed people as the ideal ground for developing a video game industry.

15. How well connected are games enterprises in your region?

All respondents clearly identified a cluster of creative industries that develop applications for video games. The presence of such a creative hub is mentioned as an ideal ground for developing a video game industry. With regard to connections within the games enterprises in Piedmont, the majority of respondents declared that there are no connections, except for companies that are involved in one of the regional innovation clusters who also have that function.

Hence, a cluster dedicated to gaming seems to be necessary. The Region and the public institutions in general should create a hub and invest money in it. Regional best practices should be collected, especially in the field of disability and/or educational games and produced in this hub.

As of now, the only setting identified as similar to an informal hub is View Conference, an annual meeting between local industry experts and many worldwide experts who work in the world of video games. During this conference local industries usual informally meet and exchange experience about their work in the video game industries.

Another experience mentioned as a potential hub, is the incubator of the Politecnico di Torino called Treatabit, which is dedicated exclusively to Internet projects. The incubator provides co-working spaces,
opportunities for training and networking. Some small companies are emerging who create games for mobile and social networks.

Almost all respondents would like to see concrete actions to promote the video game industries on all levels: a lobbying action catering to the public (e.g. research) and private sector resulting in practical actions such as a specific call.

Finally, also the University is mentioned, in order to make R & D and to introduce students to video game development. Last but not least there are the independent developers, who, while not connected in a network, play an important part in the video game sector.

16. Which types of games are produced in your region?

The video game industry in the region is perceived as emerging or potential. The most promising field seems to be serious games applied to the field of health and rehabilitation, education and culture. It is worth mentioning that the most common scope of activities for creative digital companies in the region that are dealing with games are serious games (learning, persuasive, well-being and health).

17. Do organisations in your region focus on serious games?

There are some good practices which exist. Some companies have recognized the potential of serious games and are already working in this field but there are, at the moment, only some isolated cases. We cannot speak yet of a full-blown industry dedicated to serious games but about a good start that must be deepened and organized in a network or in a cluster.

18. How would you rate the public perception of the gaming industry?

There is a general perception both by the public and decision-makers and from organizations that support entrepreneurship, of the economic potential of the video game industry, but it is a very partial feeling. Policies to support the game industry other than the pole of innovation and research law, were not discussed further in these interviews.

According to the interviews in the public sector, there is also a perception of the economic potential of the mobile game industries but, at the moment, there are no defined actions to stimulate the market but only individual cases of excellence developed in individual companies. To stimulate the growth of the games industry and to focus the public perception of the game industry, it is important to enforce the culture of games as a key component for the development of other productive sectors and to equalize gaming with other creative and cultural sectors.
Italy: Umbria

19. To help grow the games sector, who are the main stakeholders/actors?

According to the respondents, the main actors involved in accelerating the growth of the sector in the region are: the public sector, whose role is very important in helping to promote the gaming sector (organizing events, helping the cross sector relationships, introducing support instruments such as tax reduction, etc), Universities and Incubators, which also have a very important role in providing the adequate skills needed to develop the right workforce.

20. How would you describe the games industry in this region?

Companies that have been interviewed by the questionnaire have confirmed that they are involved in activities related to the gaming sector such as animation, communication, design, web development, graphics and publishing. These companies state that they already have the necessary skills to produce games for smart phones and tablets.

Companies surveyed have an average of less than 24 employees with a 1.500.000 euros annual turnover. The main distribution channels used are direct (retail). Entrepreneurs have underlined that they think the professional growth of their employees to be a key factor and absolutely necessary in order to compete in a rapidly expanding global market.

Besides, due to the fact that there are no specific training centres dedicated to the game sector in Umbria, interviewees pointed out that it could be appropriate to create specific University courses on the subject.

In Umbria there are many companies involved in gaming related sectors (ICT, video, multimedia, web, etc.). People interviewed are part of these sectors (biggest have been chosen) and showed great interest in the potential of gaming. All of the respondents have expressed doubts about the possibility of creating, in the mid-term, from scratch, a game sector in Umbria like those existing, for example, in England, France or Canada, but most of them have instead identified the huge potential in the field of Serious Games. This area, in fact, requires less capital and a relatively lower level of technical skills; companies having this skillset can be found fairly easily in our region. (e-learning?) serious games can be more difficult due to the different stakeholders involved and the added impetus that one creates with a specific goal in addition to that of entertainment.

21. How well connected are games enterprises in your region?

As far as educational facilities are concerned, although Umbria can be considered “well structured” from a general point of view, (University of Perugia, Faculty of engineering, economics, physics, mathematics, art, design, etc.), there are no specific courses for the gaming industry.

Many respondents pointed out, moreover, the potential of cross-sector relationships, with, for example, tourism, the medical sector and education sector. Most of the people interviewed, underlined also the need to strengthen these interrelationships because the development of products in the Serious Gaming sector requires a close and intense collaboration between different sectors.

During the interviews, the current lack of interrelationships between companies and Universities has also been underlined. There is also a weak presence of the public sector in terms of investment and the absence of media support in promoting the potential of the gaming industry.

22. Which types of games are produced in your region?

As deduced from interviews, the majority of the most creative companies in Umbria is aware of the fact that the market of gaming appears to be a booming one, thanks to the widespread availability of Internet connectivity and the pervasiveness of a ‘mobile’ world, especially with the widespread diffusion of mobile phones and tablets that are replacing traditional notebooks.

Games are considered to have the greatest potential for development are those based on mobile (serious games and entertainment centre), social games and serious games. The latter, in particular, with the possibility of cross-connections, can constitute an important market opportunity in Umbria.

In the region Umbria, and in Italy, as evidenced by the companies that have been interviewed, there are no particular restrictions on the market regarding the gaming industry.
24. How would you rate the public perception of the gaming industry?

Unfortunately there is not a widespread awareness of the potential of the gaming industry. This is due, as previously mentioned, on the one hand to the absence of operational realities in this field in our region, on the other hand to the lack of networks with similar intersectional characteristics. The results of the questionnaire in this regard, in fact, show a serious gap to be filled through the activation of special tools, not only financial, specially prepared by a series of institutional entities to ease the contacts. In this context, these functions may be performed by regional public agencies whose impartiality may be an element of neutrality that is often crucial in ensuring the success of these approaches.
25. To help grow the games sector, who are the main stakeholders/actors?

In Spain there are no Incubators specialized in video games. However as the video game sector is part of the creative and digital industries, respondents agree that such Incubators should also take the lead in supporting these entrepreneurs.

In Asturias, according to the survey and interviews, to help grow the games sector, the majority of stakeholders agree that providing support instruments should be led by CEEI Asturias as an Incubator, with the help of other stakeholders. There is a strong feeling that the structuring of the games sector could primarily (but not uniquely) rely on entrepreneurs and young professionals and companies. Structuring the games sector could help revitalize the economic context and create leverage for establishing SMEs. Initiatives such as GAMELAB provide an added value to the video games sector as they increase the sector's visibility and create awareness concerning the its potential for regional and national economies.

26. How would you describe the games industry in this region?

As a new sector, till now there are not many game companies in the region. There is support in the region focussed on business services, incubators, finance (grants, easy loans, etc.) but it is not the most relevant sector in the region. The Gamelab event has been a key element in increasing the awareness of the added value of this sector as well as for the visibility of the sector, however there is still a need to support activities aimed to boost talent and avoid the brain drain of start-ups and SMEs from the region.

The companies in this sector invest permanently in R&D, new platforms, etc. and they should be competitive on an international level, as it is not easy to find human resources with specific skills and competences to cover their employment needs.

However, the volume of turnover and employment show this is a good sector for future investment and mainly linked to other sectors. According to their opportunities and needs, the actual role of policy makers and public organizations providing new mechanisms and instruments, will determine the success or failure of this sector in the future.

27. How well connected are games enterprises in your region?

The majority of respondents believe that the games industry is not the most relevant sector in the region. The Asturian enterprises working on the games sector are really young and the majority of them collaborate with national level companies in order to develop or sell their products. It is interesting to note that there seem to be more games companies in the region than the respondents think, so networking events are very relevant in order to showcase the opportunities for the sector as well as create mutual collaboration.

Accordingly, the role of organizations such as CEEI Asturias, provide enterprises business support services such as information on how to access finance, and help on setting up a company, from the beginning till the growth or consolidation phase.

Other networking actions in the framework of Boo Games or other projects are of high relevance to connect all games companies in the region in the best way possible, simultaneously providing visibility for the sector.

However, the majority of respondents mention the University and educational system should also provide appropriate qualifications and skills to cover the professional/workforce gaps in this sector.

28. Which types of games are produced in your region?

The games industry is composed of micro companies with a high level of ICT implementation, producing mainly mobile games and serious games for single players and multiplayers. There are also some companies focused on simulation, action/shooter, social games, rendering and advergaming.

However, other relevant regional economy fields see an opportunity for the emergence of a serious games, where they can diversify their business activity and distribute new products and services through cross-sectorial cooperation. According to this, and as they have explained in their interviews and online surveys, Asturias game companies have recently focussed on serious games, mainly linked to health and training fields, recognizing this new opportunity. Regional organizations have begun to understand the relevance of serious games to foster other traditional sectors existing in the region.
30. How would you rate the public perception of the gaming industry?

Those interviewed agreed that this sector is not well recognised on a national and regional level, due to games companies traditionally being linked to leisure activities. In spite of the fact that games companies invest a lot of their resources on research and development and IP rights and they involve various levels of qualified staff working on developing the game, the perception has as of yet, not changed a lot. Furthermore, there are also some initiatives involving cross-sectorial applications which are part of the video games industry, but not perceived by society as part of this industry.

In any case, the new products offered by games companies during the last years are much more oriented on serious games services. This trend is one step in showing the public the how serious games can be highly relevant and also linked to other sectors in the not too distant future.
Bulgaria: Sofia

31. To help grow the games sector, who are the main stakeholders/actors?

According to discussions which took place during the interviews, a number of stakeholders and partners were identified which have the potential to accelerate the growth of the digital gaming industry in the country. This includes the National Academy of Arts which has some courses related to game design and art. It was mentioned by some game experts that a closer relationship with academic institutions such as this one is needed in order to create better synergies between academia and industry. Representatives of game companies mentioned their willingness to engage in dialogues with academic institutions, but had doubts about the willingness of academia to meet them halfway in these discussions.

Other interviewees mentioned that a large stakeholder group are the parents of grammar school aged children. When parents open up to the idea of learning through gaming, they deepen the market for educational games and, when conversing with teachers and school directors, can induce a shift away from out-dated teaching models to new interactive ones. In this sense, the Ministry of Education has a role as well in encouraging new innovative teaching methods in public schools. The need to improve interactivity in the classroom was mentioned as well by a policy-maker at the Ministry of Economy, Energy and Tourism.

Mainly, interviewees mentioned that public authorities play a major role in the creation of a favourable business environment and should focus primarily on the provision of efficient procedures and infrastructure. Outside of the Sofia region, according to the interviewees, there are effectively no stakeholders which could have an appreciable impact in supporting the digital gaming industry.

32. How would you describe the games industry in this region?

Some insights about the value-chain of the digital gaming sector in Bulgaria can be gleaned from the interviews that were conducted. It was mentioned by multiple interviewees that there are three large gaming players in the country which are foreign-owned (Crytek, Ubisoft and Gameloft) and then a number of other Bulgarian owned digital gaming companies (around 15) ranging from 2, to over 100 people.

Some interview respondents mentioned that they knew of virtually no digital gaming companies outside of the capital city. One respondent mentioned that at the present time, no AAA game titles are produced in the country. Additionally, one respondent mentioned that while some of the international companies may at least partially produce some of their high-quality titles in the country, this fact is not advertised as it may be perceived to partially devalue the brand.

While some courses are offered at the New Bulgarian University related to 3D animation, these are not specific to the gaming sector and all gaming companies reported an insufficiency of experts in the field. There is very little cross-fertilisation between computer science departments at universities and business faculties, perhaps either reflecting or factoring into the relatively weak entrepreneurial culture.

One respondent mentioned that a high-tech entrepreneurship programme at Sofia University had been discontinued, presumably due to lack of interest. Big foreign-owned IT companies attract many of the good IT specialists, leaving an insufficient number of good programmers to work in smaller companies. One way of overcoming this, according to one respondent, is to train employees in-house. Additionally, the localisation of foreign games could be further helped along by the provision of public support for training sessions and formal educational courses on the use of localisation software. Despite the inadequate public support, the games industry has been steadily growing in recent years.

33. How well connected are games enterprises in your region?

Some of the main instruments which are beneficial to the promotion of the generation of value in the sector, include attendance at conferences for digital game companies, which allow the development of business partnerships. The market size of the digital gaming industry in Bulgaria is relatively small and many partnerships and cooperative efforts take place informally according to three of the respondents.

A formal networking event occurs though an event organised by the Federation of Electronic Sports. Two respondents mentioned that informal networking should be formalised further. This is somewhat contradictory to the reply from another respondent who mentioned that the companies in the sector are not well connected due to the markets they target, and the different ways that they access finance. As such, they do not face common problems. The respondent has mentioned that this has slowly started to change.
34. Which types of games are produced in your region?

35. Do organisations in your region focus on serious games?

As the sector currently only consists of a few players in a rapidly growing market (one respondent mentioned that the sector was growing at an annual rate of 20%) there is still a market niche for everyone. This is particularly true given the rapidly increasing demand for various types of browser games. On this account, two interview respondents mentioned that they were aware of 10 game development companies in Bulgaria (a third mentioned 10-15 companies), employing around 1000 experts, which roughly approximates the results of the desk research conducted by the authors. Exact numbers are hard to pin-down, due to the dynamism of the sector and that no official data is available.

Game development, in contrast to game publishing and distribution, is quite a difficult enterprise for Bulgarian firms as this requires a high initial investment and know-how which are yet ubiquitous in Bulgaria. Also, for this type of activity, seeing returns on investment tends to take longer than it does for other linkages in the value-chain. This, coupled with minimal support options for these types of activities, produce some degree of disincentives for game development.

One respondent mentioned that it is important to popularise the industry and its potential for growth, as if the public knew more about its potential and its potential risks, investment would be much easier to obtain. There is a tendency for the industry in Bulgaria to produce games which do not require intensive human or financial resources. One interviewee mentioned that this was fine as Bulgarian companies can only stay competitive when they focus on smaller projects with which they can successfully manage the risk.

36. How would you rate the public perception of the gaming industry?

A commonly recurring theme among the interview respondents was that public perception, as well as the perception among policy-makers about the existence of the potential of the gaming industry, is essentially non-existent. There is a need to change this and to highlight the potential economic contribution of the sector to the Bulgarian economy in order to develop supporting policies which can help exploit the full potential of the sector in terms of economic growth and job creation.
37. To help grow the games sector, who are the main stakeholders/actors?

The stakeholders interviewed in the framework of the Boo-Games study identify different actors that could help to growth the game sector. Some believe that research and education institutions can play a crucial role in that respect.

According to Birgit Roth\(^1\), former CEO of the G.A.M.E. Bundesverband der Entwickler von Computerspielen e.V.

On top of the list are for sure Universities. The games sector needs indeed qualified employees in different field as programming and graphics. In Germany we have for sure a skill shortage, we do miss skilled personnel and companies need level designer as well as community manager.

Of the same opinion is Gunnar Lott, Director marketing & Communication Flaregames GmbH.

We have a perfect background of universities & research in the region but I wonder why none of the public high schools is offering a “Games Academy”. Here there is a strong need for skilled workforce and of course a vital labour market but at this point we have to recruit new staff world-wide.

At the same time other stakeholders do not identify a unique actor that could boost the industry, so Martin Nerurkar, Sharkbomb Game Design Services.

I don’t believe that there are specific actors that can help grow the industry, I would rather talk about platform and networking opportunities as one of the thing that the public sector could offer to the industry.

Markus Herkersdorf co-founder of TriCat.

Really that is not an easy question. Of course there are some efforts to bring the industry ahead but at the moment that it is only region based. Berlin tries it own, Baden-Württemberg tries it own and there is not a combined effort to really put the topic in the interest of major companies. Normal gaming, also gaming that is in the field of ‘edutainment’ needs many people. Serious gaming needs companies as buyers, a very different business model. We do not need to reach 100,000 people playing your game. You need the Daimlers, the Siemens and all the other large companies (as customers). Which does not exclude that we can not do something that is for everybody.

38. How would you describe the games industry in this region?

Not everybody has the same opinion about the games industry in Baden-Württemberg. Most stakeholders agree that even if some informal connections among games companies exist, a real network is missing. Many regard the industry in the region as too scattered and dominated by one big player. Some also identify a gap in targeted education opportunities which should train the new generation of games developers. All in all, the games location Baden-Württemberg is still perceived as technologically advanced and with a potential that still has to be fully deployed.

Axel Schmidt, Director Corporate Communication of Gameforge AG states:

From a technology point of view, the game location Baden-Württemberg can be regarded as advanced. There is a perfect cluster surrounding but a games network is missing. What is also missing is a games academy.

Of a similar opinion is Gunnar Lott, Director Press & Marketing of Flaregames.

In Baden-Württemberg there is a funny mixture of one Big Player, some smaller developers and one publisher. The Industry is scattered in the whole region – there is no real centre for the games sector neither a focus in policies.

Birgit Roth, former CEO of the G.A.M.E. Bundesverband der Entwickler von Computerspielen e.V., makes a predication for the industry:

The games sector is very dynamic all over Germany, there is a growing number of start-ups. I believe companies are entering a phase of consolidation; each region should therefore observe the activities of its enterprises and support them in this phase since the market has

\(^1\) Birgit Roth was still CEO of the G.A.M.E. Bundesverband der Entwickler von Computerspielen e.V. at the time the interview was done.
changed a lot in the last years and it is becoming really competitive. India and China are increasingly becoming important competitors in the industry.

39. How well connected are games enterprises in your region?

As emerged also in the online survey, also the role of networking events seems to be crucial to boost the games sector in Baden-Württemberg. Jan Reichert founder and CEO of kr3media mentions that according to his experience:

Besides education we need to have a vital exchange and network of people in the sector. I would also appreciate an annual big gaming event or trade fair for the region including a regional games award. This could be helpful for young companies.

Axel Schmidt, Director of Corporate Communication of the Gameforge AG has a different perception:

Due to the High Schools of Art, the Centre for Arts and Media, the Karlsruhe Institute of Technology and many of the other high schools the setting to be innovation leader is pretty good. What I miss is a crosslink to the other related industries like comic art, film, animation – which I know from my background in Berlin can contribute very good to the development and innovations in the game sector.

40. Which types of games are produced in your region?

According to Birgit Roth the most produced genres of games in Germany are browser games. However casual and mobile games are also becoming increasingly important and are engaging new target groups such as women.

In Baden-Württemberg the focus seems to be on online and mobile games. These types of games are the core business of the biggest player of the region, Gameforge, and of many smaller companies. They are mostly based on a free to play base. All stakeholders interviewed seem to agree on this point.

41. Do organisations in your region focus on serious games?

Serious games instead seem not to be the focus of many companies in the region. Most stakeholders believe there are no organisations developing serious games in Baden-Württemberg. In general, the whole serious game field still represents a niche in Germany.

42. How would you rate the public perception of the gaming industry?

The overall perception of the game industry seems to have improved over the years. Some years ago, games in Germany were often associated with violence, because of the easy link among shooter game and violent episodes among teenagers. This image was a disadvantage for the industry, especially in obtaining public support. Nowadays things have changed and the industry is increasingly considered as an important economic factor also from the viewpoint of politicians.

According to Birgit Roth this change in the perception of the games industry is due to the fact the games are now recognized as part of the entertainment industry:

The public perception of the games industry all over Germany is definitely improving. [...] This is because the game sector is now associated with entertainment, a fact which represents a great advantage for companies working in this field, i.e. in getting financing.

Nonetheless, some interviewed stakeholders believe that in the wider public perception, not many people are aware of the existence of this industry and of its economic importance. So Martin Nerurkar of Sharkbomb Game Design Services:

I don’t believe that there is by now a strong perception of the game industry in Baden-Württemberg. There are maybe some players such as Gameforge who are known since they have been doing some advertisement as well, otherwise I don’t think that people really know much about this industry. I would even say that in the public perception people are not even aware of the existence of this sector.

Of a different opinion is Axel Schmidt Director Corporate Communication of Gameforge, who thinks it is possible to identify a growing public interest for the industry and a widespread recognition that the sector is becoming an important economic factor. Still, Schmidt admits that what is missing in Baden-Württemberg in comparison to Berlin is a direct link to politicians.
Throughout the interviews with the stakeholders, it was clearly emphasized that Malta needs seamless actions in terms of digital games and their development. According to Malta Enterprise (ME) for the moment, the Maltese Games industry must be broken into two parts: the well-developed i-gaming sector and the fledgling games. On the other hand the general games development sector has 6 firms and is being focused on by Malta Enterprise for growth.

Moreover, throughout the interviews with representatives from the Ministry of Culture, the international interest in Malta is growing with a number of companies setting up or considering setting up their businesses in Malta during the past two years, plus a number of already established companies working in related fields considering shifting from their current line of business to focus on digital games.

The most important for Malta are access to market and other opportunities along with networking and cluster development. According to the Ministry of Culture, some of the top action points for the region are networking/cluster development and access to finance.

The Ministry of Culture emphasized that the Creative Economy Working Group has commissioned and successfully launched a Digital Games Strategy for Malta in April 2012. International interest in Malta is growing with a number of companies setting up or are considering setting up shop here during the past two years, plus a number of already established companies working in related fields considering shifting from their current line of business to focus on digital games.

43. To help grow the games sector, who are the main stakeholders/actors?

One respondent cited the Government, Educational institutions, locally based services providers, Regulatory Authorities, Malta Enterprise, Companies located here, and Companies interested in opening in Malta as the main actors in the games sector.

Another respondent also cited educational institutions, including the higher education institutions for the arts; and the enterprise support agencies both in the field on fiscal and investment support as well as in terms of creative industry hubs and managed incubators as main actors in the games sector.

44. How would you describe the games industry in this region?

For the moment the Maltese Games industry must be broken into two parts: the well developed i-gaming sector and the fledgling games development sector. The local i-gaming sector represents 10% of the world market with over 250 license holders based here. On the other hand the general games development sector has 6 firms and is focussed on by Malta Enterprise for growth.

A second respondent states that the games industry in Malta is still in its infancy. Malta is currently involved in a strategy group for digital games, having members from Malta Enterprise, the Malta Council for Science and Technology, the University of Malta and the Creative Economy Working Group.

The strategy group has commissioned and successfully launched a Digital Games Strategy for Malta in April 2012. International interest in Malta is growing with a number of companies setting up or considering setting up shop here during the past two years, plus a number of already established companies working in related fields consider shifting from their current line of business to focus on digital games.

45. How well connected are games enterprises in your region?

The first respondent mentioned that i-gaming companies in Malta are well connected. The concentration of companies into one geographic area been beneficial to this. Games Development was seen as a global business. The abundance of conferences and fairs has led to well developed networks. Currently, locally the companies know each other well, having had the opportunity to meet at networking events organised by Malta Enterprise.

Furthermore, another respondent indicated that a number of players are very well connected locally and internationally, with key personnel having worked for or with international projects in the wider audio-visual, digital media and entertainment business. New start-ups are also setting up, some of them having contacts while others are still finding their way around the sector. Malta has also established its local chapter of the International Game Developers Association (IGDA).

46. Which types of games are produced in your region?

It is still too early in the sector’s evolution in Malta to divide digital games production by typology. The strategic direction resulting from the Strategy is mainly focussed on servicing international games developers while building an indigenous industry working on Mobile, Tablet, PC, Console-Downloadable (e.g. Xbox-
Live/Playstation Network), Casual, Flash and other browser games which require smaller teams. Another respondent did mention the production of MMO, Social Games, Freemium Games, Point-and-Click Adventure Games.

47. Do organisations in your region focus on serious games?

Regarding serious games, one respondent stated that some work is being done at the University on Games as a medium for teaching. Another respondent indicated that organisations, as of yet, do not focus on serious games. However the Digital Games Strategy does consider serious gaming as a potential area of entry for current and new operators in Malta.

48. How would you rate the public perception of the gaming industry?

According to the responses, public perception as regards to gaming in Malta is very positive. Games are now perceived in a different way. As regards to the survey there should be more awareness about games among the public sector as the development of the games sector is still in its infancy.

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France: Ile-de-France Region (Paris Region)

49. To help grow the games sector, who are the main stakeholders/actors?

To help grow the games sector in the Paris Region, support for the video game industry has to go through a balance between different dimensions: funding (via the video game tax credit or general devices such as the research tax credit), the necessary R&D to remain competitive at a time when the pace of innovation in the world is particularly dense (via a cluster such as Cap Digital), strategic animation to promote the exchange and interaction of actors around major issues (eg. Capital Games, cloud gaming), and representation towards other sectors and the government (especially via the national association of video games SNJV). A problem faced by the video game industry linked to under-capitalization of companies was also pointed out. But over all, the most important way to help grow the games sector was the current and future market and the quality of the games created by Paris Region actors.

50. How would you describe the games industry in this region?

The Paris Region is a region with a high density of video game production, hosting actors of all sizes, working on all platforms and all types of games. It has a particularly rich ecosystem, both in the economic fabric (over a hundred developers and publishers of video games consisting of 3,000 jobs) and training (thirty schools). More broadly, video games in the Paris region benefit from the highest concentration of other cultural or digital industries, such as cinema, special effects or animation in this region. The dynamics of cross-fertilization are important.

51. How well connected are games enterprises in your region?

Companies are well connected thanks to:
- professional organizations such as SNJV (Syndicat National du Jeu Video) and AFJV, (Agence française pour le jeu vidéo)
- business clusters Capital Games (animating the network, including through the organization of events such as the Game Connection), Cap Digital (R&D and cross-fertilization with other digital industries)
- Trade shows,
- Schools,
- public organizations such as CNC (for the financing of contents),
- private initiatives, such as the creation of a co-working spaces dedicated to video games by Bulkypix, which is taking larger premises than its own needs to accommodate the specific needs of small teams with punctual needs. This co-working space will commence in 2013, with about 10 to 15 workstations. Bulkypix has announced the creation of a 3 million dollar budget dedicated to independent studios. The aim of the budget is to provide 3 years of support for the development of multi-platform games developed by independent studios.

52. Which types of games are produced in your region?

Consoles, mobile games, social games and serious games are produced in the Ile-de-France region.

53. Do organisations in your region focus on serious games?

Games of all types, on all platforms are developed in Ile-de-France Region. The production range is various and is based both on great games known worldwide for console (eg Heavy Rain developed by Quantic Dream), MMOG (Urban Rivals by Acute Games/Boostr, which is a great international success) mobile games (Bulkypix), social games (Kobojo) or serious games (Wizarbox, KTM Advance).

There are no specific organizations in Ile-de-France especially focused on serious games but this video game segment, as well as advertgaming, is also well covered in the region by Wizarbox, or KTM Advance for example.

54. How would you rate the public perception of the gaming industry?

Video games in the Ile-de-France Region can be seen as an area of excellence both in terms of creativity and technology. However the public is not necessarily aware that their favourite games may be designed next door since games are often directly designed for the global market, with a less important local colour than for other cultural industries such as film. The public perception can then be probably rated as low, except perhaps when it comes to the organization of the consumer show, Paris Games Week.
Austria: Salzburg

55. To help grow the games sector, who are the main stakeholders/actors?

In Salzburg there are no specific networks or incubators specialized in gaming. However, as a part of the creative industries there are a few supporting stakeholders such as the Business Creation Center Salzburg, Network Design & Media/ ITG Salzburg or the Platform Digital Media Salzburg as well as an Interactive Media Producers Festival “Schmiede”.

As ITG Salzburg appears as a regional coordinator in the field of creative industries, with a strong linkage towards the related regional and national public partners as well as research and educational institutions and innovative entrepreneurs from various branches, it’s ITG’s mandate to develop and implement support measures in the field of creative industries in Salzburg.

56. How would you describe the games industry in this region?

As “gaming” is a relatively new sector in Salzburg, the regional games industry mainly consists of software developers, web designers and interactive media designers. These are relatively small in size, apart from a few internationally oriented companies such as RedBull Mediahouse, Sony DADC or RealNetworks. Interviewees believe that there is a big potential in Salzburg concerning the development of serious or applied games, and mobile and online games.

57. How well connected are games enterprises in your region?

In Salzburg, no specific supporting network exists and game enterprises are connected on a random basis. However, the regional development agency’s role is to coordinate a network in the field of design & media as well as being a strong coordinator for regional actions and instruments in the field of the creative industries. As such, ITG focuses on the regional potential of cross-sectoral partnerships (e.g. in the fields of tourism, health and education). Cross-sectoral partnerships need to be unlocked by further awareness raising and networking measures. Based upon the activities of the University of Applied Sciences Salzburg, such as the “GamesDay”, the relatively small number of gaming companies, researchers and SME’s from various branches shall be further connected.

58. Which types of games are produced in your region?

In Salzburg, mobile, online, pervasive and serious/applied games are being produced.

59. Do organisations in your region focus on serious games?

The University of Applied Sciences developed a specific focus on serious gaming and implements specific research projects with international experts such as Pam Kato, or ars electronica centre in Upper-Austria (e.g. Centre for Advances in Digital Entertainment Technologies, Pervasive Experience Lab Salzburg (PELS)).

60. How would you rate the public perception of the gaming industry?

The gaming industry is not well recognised on a regional level, but as there are already a number of actions and organisations about gaming on a national level, there is a good chance that the regional public perception of gaming will be increased in the close future. Furthermore, regional activities such as “Games Day” of the University of Applied Sciences, received more and more public attention.

In any case, there is a good chance to raise awareness and interest public stakeholders by demonstrating the cross-border potential of gaming technologies and applications in traditional business fields, as well as showing its educational and serious usage.
2. REGULATION AND POLICIES
United Kingdom: West Midlands

Through the focus group and the interviews results, the main feeling of the respondents was that even though efforts have been made by policy makers in recent years, the policy framework is not especially supporting the sector.

Development support through the Technology Strategy Board, Creative England, Serious Games Institute and a new tax-break that is being negotiated with the UK department for Business, Innovation and Skills is due to be available early 2013. Policies such as the Tax break in UK have been put in place in order to stop/reduce the brain drain when developers and games companies would relocate to Canada for example where they could grow quicker.

Policies also around Education have been put in place in order to introduce coding for school age children. Skillset in particular have made efforts to highlight the needs of the sector and to support the development or improvement of the current academic system.

In general participants felt that there always has been and will be a divide between the support for the sector in London and the rest of the country. Being the Capital city, organisations have a better support and access to initiatives that other region do not have. There is an effort made by the government to try and stop this disparity and more attention has been put on offering a better support across the territory.

Netherlands: Utrecht

According to the interviewees, there policies that specifically support the game industry in Utrecht are few. However, there are many opportunities for starting companies to get money in broader funds, which for instance support innovative ideas in general, or new/digital media initiatives: “basically, the [support] instruments are designed for much more than gaming, […] they weren’t designed for gaming development at all, but they fit the bills, it works”.

There are also tax cuts for entrepreneurs. Moreover, in Utrecht policy-makers believe in the potential of games and the game industry. This helps to obtain support.

Currently the City of Utrecht supports the games industry by 1) the Ministry of Economic Affairs with minimum funds available but open to help acquiring European funds which are of a bigger scale, 2) the Cultural Department.

A new supporting policy is the Top Sector Creative Industries that has (Serious) Games as one of the focus areas. The CLICK network GATHER was established to support games: “the creative industries just became a top sector, so the current policies are based on the other top sectors - which have another structure. […] We will not be able to change these policies so we need to somehow find a way to function within the current system, meaning that if you want to make sure you grow, so you are able to change the policy”.

Many of the interviewees would like to see more flexibility and diversity in funding, such as crowd funding, funds for start-ups and tax breaks.

Some of the interviewees would also like to “become a really professional and established ecosystem so that it becomes even easier to get investors and whoever has money to invest in this industry to attract them to Utrecht. There should be more business-oriented people that can really help out those creative companies to make a sustainable business.”

More collaboration between experts, knowledge institutions and stakeholders was also mentioned as a initiative that could support the growth of the games industry.

Italy: Umbria

During the interviews, it was pointed out that, in Umbria, a well-defined gaming sector or cluster does not, as of yet, exist. In fact, although there are a number of different incentives available for companies who wants to start or to invest, ranging from location, to employment, to finance, these are essentially aimed at companies in general; the only incentives which are specifically targeted are those in favour of young entrepreneurs and/or women entrepreneurship. Besides, there are no tax incentives in favour of the gaming sector, even at a national level. There is only a recent proposed law (named “Proposal for Incentives in the creative sector”) that could provide some tax benefits, but it is still just a proposal.

Italy: Piedmont

Policies to support the gaming industry are not highlighted, apart from the centres of innovation and the research law. To stimulate the growth of the gaming industry, some suggestions that emerged from the interviews are listed below:

- Teaching people about the video game culture can show the potential of the video game world.
- Creating an innovation hub dedicated to video games
- Promote specific calls and contests for video games
- Promotion of regional development agencies
- Dissemination about economic productivity of the gaming industry and pressing for economic intervention by the public sector
- The creation of the network, a special incubator, especially to bring out the experiences in place, connect them.
- A dissemination action and encouragement of the potential of video games in areas such as health, public services and education, the potential market and promotion of a cultural type of game.
- The potential market and promotion of a cultural type of game.
- Strengthen existing clusters and incubators in the video games sector.

Spain: Asturias

According to survey and interviews, piracy is experienced differently in the Spanish and Asturian video game industry. From the experience of the young video game micro-enterprises, piracy is not the most worrying problem. Young micro-business developers are born in a difficult economic and business context. They are living with piracy from the beginning, and it seems they are successfully avoiding piracy by operating in the online marketplaces.

Since piracy is difficult to eradicate in a global marketplace, young entrepreneurs of the video game industry have confidence in their ability to generate leading innovative technologies. In this sense, online games and mobile games do not only involve new business models, but also represent new challenges and opportunities for piracy, in the sense that the contents are only available via download.

Thinking about how to improve this sector, the following points should be crucial: Regulations concerning access to foreign markets, facilitating bureaucracy and registration regulations, promoting tax break facilities, as well as the managing of IPR and patents as an important part of succeeding in the games industry, not only through its regulation but also with a major knowledge about this topic for companies.

Bulgaria: Sofia

The interviews conducted with digital gaming stakeholders have revealed that they are not aware of any policies which specifically support the digital gaming industry. This was confirmed by a policy-maker at the Ministry of Culture who stated that financial support from the Ministry goes to film production, theatres and opera houses. There is a widely felt need among stakeholders for policies which strengthen the links between business and universities. One respondent mentioned that this could occur through such activities as digital competitions, where students could present their work and ideas to digital gaming companies. This could include a job fair component and a discussion on the future of the digital gaming sector in order to better understand what skills should be taught in universities in order to create employable graduates. Other respondents have mentioned that there is a need for a governmental support measures to popularise the potential of this business. Public policies which help affect the industry include the flat rate taxation that is in effect, as well as the recently introduced streamlined procedures to form a business (these have been greatly improved within the past 5 years). Additionally, business angels and the JEREMIE initiative are appropriate instruments for further financing of the gaming industry.

Other respondents stated that tax relief for game developers should be introduced (such as a policy in China to relieve game developers from paying taxes on the profit in the first year of their establishment) as game development is quite expensive and risky, and during the first year of production the company is likely to have almost no revenue. It was also noted that there is a need to reform the secondary education system in order to have more quality education in Science, Technology, Education and Mathematics and to popularise the idea among the youth of becoming scientists or technicians. It was noted that universities do not provide relevant skills to IT specialists. It would also be helpful to have more active pre-commercial procurement for digital games which might deliver public services. An example of this, which was mentioned, was Korea University which has a virtual campus in second life. Others respondents mentioned the need for specific policies and actions to be targeted at the improvement of the overall business environment, rather than just at gaming specifically. An example of such infrastructure would be business parks and reduced rent officers as well as tax incentives for starting a digital gaming company. Taking into consideration the high added value of networking events in the industry, public policies to support small companies to be able to participate in such events abroad and on a national level would be very useful. These events are useful mostly because of the know-how companies exchange among each other, and because of the partners they can find. In terms of taxing, the flat rate tax is a good policy measure, which allows more finance for reinvestment and development of the businesses.

Most experts in the field are mostly self-thought and/or trained by some of the big companies in the sector, which organise academies for training of specialists. The main problems at the universities include a lack of appropriate modern infrastructure to teach specialists in IT and a lack of teaching staff with up-to-date knowledge in the field. Another respondent mentioned that considering that the initial financial investment in order to start a business in this field is not large, firms do not face significant financial constraints when establishing a business in the IT sector. Yet, financial constraints emerge as they begin to develop games, because companies work on projects (during which period companies have expenses for labour) and get the revenue at the end when the
project is finished and the product is sold. Financial support in these initial stages of development of a company would be helpful for the businesses.

The lack of policy was again officially confirmed by the government. According to a policy-maker at the Ministry of Economy, Energy and Tourism, there are no specific policies for the games industry. The policy-maker mentioned that gaming companies may use JEREMIE’s measures that have been launched in order to finance their activities as the objective of JEREMIE is to fill in the existing financial gap which cannot be done by banks. The programme’s financial resources are around BGN 1.7 billion (€850 mil.) and cover the whole life cycle of a company from the day it was founded. Some other potential funding instruments include: Eleven Accelerator Venture Fund and LAUNCHub (for start-up capital); Neveq (for risk investment); Access capital (growth fund), managed by the manager of Empower; Roslin (for mezzanine capital); and guarantee funds which will cooperate with several banks in Bulgaria such as Reiffeisen bank as well as business angels. Gaming companies might also use priority Axis 1 of Operational Programme Competitiveness in order to receive financial aid for their innovative projects. Measures within the ‘Strategy for Creative Industries’, which is under development within the Ministry, could also be targeted at the games industry. The Ministry of Economy, Energy and Tourism started collaboration with the National Art Academy in Sofia in order to introduce entrepreneurship courses for their students, because some of them pursue jobs as designers, games developers etc., but do not have the necessary entrepreneurship skills. Also, even when they have good ideas, they do not know how to realise them in practice. Such courses have been already introduced in four technical universities across Bulgaria. According to the representative of the ministry, there is an idea to establish an Entrepreneurship Centre in every university in the country in order to support young people who are willing to start their own business.

Another respondent mentioned that a non-governmental organisation, with sufficient potential to attract finance, and enthusiasm to promote the industry is needed. Its main role would be to promote connections between the academy, the industry and the public institutions. The potential for growth of the industry needs appropriate environment to be created for its realisation. This NGO should be working with all relevant stakeholders.

One respondent indicated that while no policies supporting the gaming industry exist, it is not necessary to have them either. The challenges gaming companies face are basically the same as the obstacles which other types of businesses have. Hence, the improvement of the overall business environment benefits the gaming sector as well. For example, the flat tax of 10% had a positive influence on all businesses in the country, including the gaming sector. However, games development has some very specific aspects which are not understood by tax authorities and banks and because of that some gaming companies face challenges when they have to interact with the former, while the latter are not prone to give loans to game developers, since they believe this is a high risk investment.

Another respondent mentioned that the small industries need an agency/organisation helping them with red tape and administration work. This applies for dealing with finance, applying for sponsorship/programmes. Most small companies do not have staff dealing with the administration because they are too small to afford the cost of keeping an administrator working full time. In Bulgaria, the respondent noted, there are enough investors and there is enough money to be invested in start-up businesses, but the issue is a lack of good-quality projects to invest in.

Germany: Baden-Württemberg

From the interviews some interesting views on policy and regulations targeting the Games Industry in Germany emerged. Birgit Roth, former CEO of the German Association of Computer Games Developers underlines an important characteristic affecting the industry in a federal Republic as Germany:

The problem is that games are classified under culture, a subject which is the responsibility of each single region, therefore we have different cases: some regions which are quite active on the topic, and other which are not engaging themselves. The regulation that we mostly have is the one regarding youth production, data protection, a legislation which is constantly doing some step forward. But we are still missing some policies specifically targeting the games industry, that’s also the reason why there are associations such as ours.
Malta

The Maltese government offers tax credits on employment and capital investment, assistance with accessing finance and employment and training subsidies. Malta Enterprise in conjunction with the Malta Council for Science and Technology and the University of Malta has commissioned a strategy document which gives a roadmap of steps needed to foster a critical mass of games development companies. The Digital Games Strategy is focussed on developing the sector to be sustainable within the wider international trends and developments in the field.

As identified in the Digital Strategy Document areas for change include:

1. Adjustment of the existing supports to better suit requirements of games companies.
2. Wider promotion of supports available to the games industry
3. Maltese representation at games conferences
4. Support of Maltese games start-ups
5. Enhancement of Education for Games
6. Targeting of niche areas within the Games industry

The support for the Games industry emanates from a number of policy and strategic documents. The National Cultural Policy speaks of the need to maximise the social and economic benefits from cultural and creative industries through professionalization, improved access to finance and internationalisation. The Creative Economy Strategy considers Digital Games as an important sector to be developed and supported within the wider framework of cultural and creative industry development.

Primarily, incentives need to focus on: (a) increased awareness, especially in the educational sector, of the employment and career potential that digital games offer; (b) increased higher education paths for specializations by students; (c) dedicated hubs/incubators, supported through a package of investment and mentorship facilities, for start-up and university graduated in digital games, which would also serve as a talent pool for partnerships with international projects; (d) focused FDI, investment and export support for large operators.

Ile-de-France Region (Paris Region)

Aids and subsidies are mainly on a national level. However, institutions and main players in the game industry are located in the Paris Region. This proximity is the major instrument that helps access to business in the region. Interviewees are aware of the existence of policies in France to support the gaming industry.

There are global policies and various supports to innovation or industrial development such as: the research tax credit and subsidies for R&D through various calls for proposals such as OSEO, ANR (National Agency for Research, FUI (Single Inter-ministerial Fund), and investment for the future, and European projects (ERDF, etc.). Specific policies also exist such as the video game tax credit, or the aid for intellectual property.

There are also different starting services (CFI Paris Region Innovation Center, OSEO) and incubation through the Paris region or the city of Paris.

To help grow the games sector in the Paris Region, those interviewed stated that support for the video game industry has to go through a balance between different dimensions mentioned above:

- funding (via the video game tax credit or general devices such as the research tax credit),
- the necessary R&D to remain competitive at a time when the pace of innovation in the world is particularly dense (via a cluster such as Cap Digital),
- strategic animation to promote the exchange and interaction of actors around major issues (eg. Capital Games, cloud gaming), and
- representation towards other sectors and the government (especially via the national association of video games SNJV).

The problem faced by the video game industry linked to the under-capitalization of companies was also pointed out. But overall, for interviewees, the most important way in which to help the games sector grow is the market and the quality of the games created by Paris Region actors.
Austria: Salzburg

In Austria, game-related monetary funding programmes are mainly offered on a national level. However, all interviewees raised the importance of regional non-monetary support measures, such as coaching, specific support for start-ups, etc. As a cross-sectorial branch made up by mainly micro-enterprises, the creative industries are marked by a high degree of heterogeneity and highly differing needs. For this reason, support shall be offered to creative entrepreneurs but also to traditional companies that have recognised the value of creative goods and services and wish to further develop themselves in this direction. Furthermore, it has been stated that awareness for creative goods and services shall be raised and the visibility of the creative industries on both the national and international level strengthened.

The regional government – Land Salzburg - is shaping the regional innovation and technology-related policies and has recently developed a new economic framework programme for future policy measures until 2020, including new strategies and measures in the field of Creative Industries and Information and Communication Technologies (ICT).

"Challenges for the future will be demographic and social change, growing importance of knowledge (science and technology, information and communication technologies), globalization, climate change, resources and energy. A great interest exists in keeping highly skilled and trained employees and entrepreneurs in the region."

The competitive environment has intensified, and the development of new support measures for the rapid transition to a knowledge-based economy becomes a main challenge for regional economic policy. Further major challenges which have been considered within the new economic programme are the demographic and social change, scarcity of fossil fuels and climate change or the reduction of greenhouse gas emissions.

"The business location of Salzburg must stand in every respect for quality, progress and excellent living and working conditions. Salzburg wants to be the best and most attractive place to live and work in Europe."

Creative Services from ICT, new media and creative industries, are regarded as important drivers for innovation and economic change, aiming at a stronger linkage between the creative industries and other business fields. Measures that will be taken in relation to the creative industries are: the creation of co-working spaces, support for business formation, an incubator programme, a design forum and related conferences, talks and exhibitions.
3. WHERE IS EACH REGION SITUATED? INNOVATION SCOREBOARD
United Kingdom

National
According to the Innovation Union Scoreboard, innovation followers perform relatively well in open, excellent and attractive research systems and linkages & entrepreneurship.

In particular, The United Kingdom is one of the innovation followers with an above average performance. Relative strengths are in: human resources, open, excellent and attractive research systems, finance and support and linkages & entrepreneurship. Relative weaknesses are in: firm investments, intellectual assets and innovators.

High growth is observed for Innovative SMEs collaborating with others. A strong decline is observed for sales of new products. Growth performance in human resources, open, excellent and attractive research systems, firm investments and linkages & entrepreneurship is well above average.

The video games and visual effects industries play to the UK’s twin strengths in creativity and technology. British ingenuity has given us a head start in two sectors that have rapidly become ubiquitous in our lives, from mobile phone games to 3D film blockbusters. At over £2 billion in global sales, the UK’s video games sector is bigger than either its film or music industries, and visual effects, the fastest growing component of the UK’s film industry, grew at an explosive 16.8 per cent between 2006 and 2008. High-tech, knowledge-intensive sectors and, in the case of video games, major generators of intellectual property, these industries have all the attributes the UK needs to succeed in the 21st century.

Regional
The West Midlands region was the first region in Europe to develop a serious games institute and as a result we are seen as a leader in Europe. Compared to the video games sector in general, UK has always been in the top 3 in Europe, with Germany and France.

Utrecht

Regional
According to the Innovation Union Scoreboard (IUS) by the European Commission, the Netherlands is an innovation follower.

Looking specifically at the region of Utrecht and its game industry the same score can be given. Utrecht’s game companies are relatively small, restricting scale advantages. However, Utrecht is the second largest region (behind Amsterdam), if one looks at the amount of game companies which have settled in the region. Together with the positive climate of education and research on games, and the availability of educated employees, Utrecht can be seen as innovation followers.

Nevertheless, it can also be argued that the applied/serious gaming industry of Utrecht can be graded as an innovation leader. At least twelve of the thirty-three game related enterprises in Utrecht are involved with applied game design. Applied games are a relatively new and upcoming sector of the game industry. Besides this, there also is a considerable amount of education and research focussed on applied/serious games.

Interviews: Innovation
The majority of the people interviewed described the Utrecht region as an innovation leader in terms of the games developed and the mind-set involved. Some placed the region between an innovation follower and leader as they mentioned the region as still being relatively young and now needing to maintain its innovative mind-set:

“Utrecht needs to keep innovating, but so far it has been quite on the forefront of establishing such a culture, such an ecosystem, and really developing an industry that […] is also paying back, at least starting to pay back in terms of creating jobs, creating internships for the local educations”.

It was also mentioned that creating a game is, in its nature, a discipline that requires an adaptive skillset where ideas are quickly implemented into a game paradigm. This was not necessarily seen as innovative.

Creating a healthy ecosystem with an exchange between different stakeholders was also seen as important and an example of innovation.

Challenges to innovation were different definitions of what was seen as innovative, and the importance of communication and being aware of the international market as well as the regional and national one.
**Piedmont**

According to the interviews, Piedmont is perceived as an innovator in many fields. In particular in the field of ICT and the creative industries. In the field of education the course in cinema engineering is mentioned as an example of the Pole of Creativity. The experience of Innovation Poles is unique in Italy.

According to the Innovation union Scoreboard (IUS 2011) Italy is a *moderate innovator*, and the game industry in Italy, as well as in Piedmont, is in development. Piedmont's video game producers are typically software houses or working in the field of interactive design that also open up their business to video games or apps.

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In the field of education, a course mentioned was cinema engineering. The creation of Innovation Poles are unique in Italy. Piedmont is one of the first regions in Europe to promote the use of open source data with the backing of a regional law. The region is perceived as fertile, an example of this is Arduino created in Piedmont, but more widely known in New York.

Other excellent examples mentioned can be for which we refer to the relevant links are Ultramundum and Hospital Play.

Ultramundum is a non-profit Foundation working in 3D computer graphics who developed a game for the Ferrero Holding.

Hospital Play is an educational game for the health sector released in 2006. It is an innovative educational tool aimed at children who are coping with hospitalization. Through texts, images, movies, games and animations, teenagers become the protagonists of a journey into the children's hospital: departments, professionals, diagnostic tests, treatment and prevention are presented in a complete and comprehensive way, taking into account the jargon and perspective of young adults.

Play Hospital was realized by: ITER, the Municipality of Turin, in collaboration with the Hospital Infantile Regina Margherita, OIRM Sant'Anna Hospital Association and the Parigi, a non-profit organization, with the financial support of the Compagnia di San Paolo, a bank Foundation. It is a cd - rom and is not available as an on-line version.

**Umbria**

**National**

According to the Innovation Union Scoreboard-IUS, which includes innovation indicators and trend analyses for the EU27 Member States, as well as for Croatia, Iceland, the Former Yugoslav Republic of Macedonia, Norway, Serbia, Switzerland and Turkey, as well as a comparison between countries, on the basis on different indicators and innovation dimensions, the performance of Italy is located in the *moderate Innovators* category, together with Czech Republic, Greece, Hungary, Spain, Malta, Poland, Portugal, Slovakia, below that of the EU27 average.

**Regional**

The Regional Gaming Industry, as the national one, can be situated in the *moderate innovators* category, as the regional context is a reflection of the national context. In particular, interviews with Umbrian SMEs has shown that innovation in this region has been and still is, strictly connected and related to regional policies (and subsequent calls). Up to now main innovations have mainly been carried out by medium sized enterprises. Umbria is now aware of the potential of innovative companies and the region is planning to create a specific innovation cluster which can help companies to get in touch with each other to share costs and collaborate in projects.

Interviews with Umbrian SMEs has shown that innovation in this region has been and still is, strictly connected and related to regional policies (and subsequent calls). Up to now main innovations have been carried out by medium sized enterprises. Umbria is now aware of the potential of innovative companies and the region is planning to create a specific innovation cluster which can help companies to get in touch with each other to share costs and collaborate in projects.

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4 Further info: http://www.regione.piemonte.it/innovazione/poli-di-innovazione

5 Further info: http://www.dati.piemonte.it

6 Further info: http://www.arduino.cc/

7 Further information http://www.ultramundum.it/italia/projects/index.htm

8 Further information can be found here http://www.oirmsantanna.piemonte.it/site/index.php?option=com_content&view=article&id=609&Itemid=242
Asturias

National
According to the Innovation Union Scoreboard- IUS, which includes innovation indicators and trend analyses for the EU27 Member States, as well as for Croatia, Iceland, the Former Yugoslav Republic of Macedonia, Norway, Serbia, Switzerland and Turkey, as well as a comparison between countries, on the basis on different indicators and innovation dimensions, the performance of Spain is located in the **moderate innovators** category, together with Czech Republic, Greece, Hungary, Italy, Malta, Poland, Portugal, Slovakia, below that of the EU27 average.

Regional
The regional context is a reflection of the national context, where according the Innovation Union Scoreboard- IUS Spain can be located in the **moderate innovators** category. Interviewed respondents highlighted that the region of Asturias has done relevant efforts during the last years to support and foster innovation in order to capitalize the innovation through the creation of innovative companies. In this sense, CEEI Asturias, together with technology centres, research departments, clusters and other innovation actors work really hard and focus on the set-up and consolidation of technology-base companies in the region. This organization located in the Technology Park of Asturias, is a member of the National Association of European Business and Innovation Centre (ANCES) and of the European Business and Innovation Centres Network (EBN).

Regarding to Creative and cultural industries in Asturias, they have being promoted on a regional level during these last years thanks to the actions from CEEI Asturias in the European Project Creative Growth, whose aim was to contribute to regional economic growth developing the creative sector as a new business sector. In the framework of this project CEEI Asturias worked on the **Regional Mapping of the Creative Sector in Asturias** based on a joint set of standards and a joint interregional analysis, which was the first reference to data and figures from this sector in Asturias. This regional study confirms the enormous potential of the ICT sector in the Asturian economy, which is considered an essential prerequisite - already achieved - for the development of the gaming industry in the region.

Since video games companies are considered innovative in Asturias, they are being appropriately supported, mainly by CEEI Asturias.

Sofia

National
According to the 2011 Innovation Union Scoreboard, Bulgaria is classified as a **modest innovator**, the least innovative category, along with Latvia, Lithuania, and Romania\(^9\). A ‘modest innovator’ innovates less than 50% of the EU-27 average according to the 8 main types of indicators and 8 innovation dimensions (making up the 24 indicators forming the composite innovation index).

Annually, the Bulgarian BOO-Games partner publishes the *Innovation.bg* report, which describes the innovation performance of the country\(^10\). The opening statement of this report states that "Bulgaria entered the second decade of the 21st century at one of the lowest levels of its innovation potential and competitiveness in Europe\(^11\)." This is, in the opinion of the authors, fairly self-evident of the situation that currently exists in the country.

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\(^11\) Ibid. pg. 7.
Baden-Württemberg

National
Following the Innovation Union Scoreboard (IUS) Germany is usually considered an innovation leader. With regards to the game industry it is more likely to regard Germany as an innovation leader concerning new technologies, new engines, drivers & structures of the servers being used in the background for online gaming. Business models have also been set up in Germany for the benefit of the whole industry. A good part of the game companies can also be considered as innovation followers having the focus on the game design and content - not on the technologies used.

Regional
The regional game industry in Baden-Württemberg is often regarded from its own stakeholders as an innovation follower or a moderate innovator. Most of the actors interviewed do not believe that the region of the south-west of Germany is currently leading in innovation in the games sector. Some good measures have already been introduced however some more steps need to be done in this direction. Birgit Roth, Director of Public Affairs of BIGPOINT:

I would say that Baden-Württemberg is doing well but it is still not among the most innovative. The good thing is that the region has already got public funding but there is still too much focus on animation and film.

Axel Schmidt, Director of Corporate Communication of the Gameforge AG has a different perception: Due to the High Schools of Art, the Centre for Arts and Media, the Karlsruhe Institute of Technology and many of the other high schools, the setting to be innovation leader is pretty good. What I miss is a cross-link to the other related industries like comic book art, film, animation – which I know from my background in Berlin can contribute very well to the development and innovation in the game sector.

Markus Herkersdorf co-founder of TriCat says in regards to BW’s innovation: Yes, Baden-Württemberg has some innovative companies and I would say we are one of them. We have started something, which did not exist before developing a training environment for the state police. They are developing with us a simulation to train police officers.

The overall perception of the game industry has improved in Germany over the years. Previously the industry was often underestimated or associated with violence because of the development of shooter games. Nowadays it is mostly recognized that the industry constitutes an important economic factor as the game industry is now fully identified as an important part of the entertainment industry. This fact makes it easier for games companies to obtain access to finance and receive public support. However, in Baden-Württemberg it still seems that the general public is still often not aware of the existence of a games industry in the region.

Malta
Malta is listed under moderate innovators in the Innovation Union Scoreboard (IUS). As regards to the innovation policy trends, the preparation of the new National Reform Programme (NRP) 2011-2020 can be seen as a major improvement since 2009. The NRP 2011-2020 thereby discourses the challenges that came about as a result of the conclusions stemming from the European Flagship Initiative (EFI) and the Europe 2020 Strategy. It is hoped, that this new National Reform Programme will positively inspire the new Research and Innovation Strategy 2011-2020 that is currently being drafted and which is expected to be published in the last quarter of 2011.

The Maltese government showed an improvement with regards to the innovation policy budget. In relation to this, the investment of €1.1m in the Research & Innovation Programme 2011, highlights the augmented importance that the government is attributing to this sector. At the same time, the major expenditures for Research & Innovation policies and schemes still stem from European level support such as the Structural Funds of which Malta is still largely dependent despite its recent upgrade into the group of “moderate innovators’ of the Innovation Union Scoreboard 2010.

According to the results of the 2010 European Innovation Scoreboard (EIS) which were published in February 2011, Malta’s innovation performance slightly increased again now indicating a 'Summary Innovation Index (SII)' of 0.351 compared to 0.340 in 2009. This suggests that Malta has secured its position in the group of ‘moderate innovators’ which it achieved in 2009, even though its overall presentation is still below the EU27 average (SII=0.516 in 2010). At the same time Malta has achieved one of the highest innovation growth rates (6.42 %) in the EU27 (EU27 average: 0.85%). Similar to the 2009 results, Malta’s relative strengths in 2010 that enabled it to join the group of ‘Innovation Growth Leaders’, are in providing open, excellent and attractive research and intellectual assets. At the same time Malta’s relative weaknesses remains the limitation in human resources, finance and support, linkages & entrepreneurship and innovators. A respondent mentioned that as the country has moved from a manufacturing to a services based economy Malta is witnessing more noticeable innovations. From regulatory innovations fuelling the boom in
financial services and i-gaming to a recently publicised Maltese finalist participating in a global science competition run by Google.

The Strategy speaks of a can-do attitude by Malta’s business community as one of its strengths: “One of the most important advantages Malta has to offer, as one can see from the gambling industry scenario, is the speed and adaptability it can deploy when reacting to existing opportunities for growth. The government has earmarked the video game industry as a priority area for the country and thus its bodies are very willing to listen to suggestions for legislative changes, incentives packages and other changes.

Another respondent stated that the small size of the island and resultant accessibility to policy makers along with a blank slate in terms of established industry makes it easier for incoming industry to shape the sector and receive support from government. “Regulators have consistently aimed to deliver a fair, quick and efficient service, approachable and building good relationships with service providers. They have also continuously strived to better the service they offer and cater for new developments to render their services more efficient.”

Ile-de-France (Paris Region)

According to the Innovation Scoreboard, Ile de France is mentioned as an innovation follower. However, the Paris Region is the leading region in France regarding the gaming industry; the region has most of the actors in the industry. The Paris Region can be considered as an innovation leader in the sector. Several sources mention Paris as a leading place for innovation in the gaming industry.

According to the interviews, Ile-de-France Region is very advanced in innovation, at least at French and European levels. Private actors work in partnership with other private and/or public actors. The competitiveness cluster Cap Digital works on around fifty R&D projects linked to video games, with companies, R&D centres, schools and universities.

For example, BulkyPix, a publisher and developer of games on smartphones and tablets, was announced as a leader of the R & D project: THE MACHINE POLYMATHIC. This project is a partnership with three companies Kylotonn, MocapLab, XediX, and the National Conservatory of Arts and Crafts. This innovative project, approved by the Competitiveness cluster Cap Digital, has been selected from the call for projects “scanning technology and enhancement of cultural, scientific and educational” under the Investment for the Future plan. The technical monitoring progress of the project is provided by the General Direction for Competitiveness, Industry and Services.

The POLYMATHIC Research and innovative development project aims to create a web platform to archive and exchange graphical datas, based on the cloud and incorporating a market place for buying and selling. This platform is designed especially for artists and teams of video game development, serious games or applications. The POLYMATHIC platform will be open to commercialisation and allow marketing and exchanges between different market segments such as video games, film, and 3D VFX, BtoB applications, architecture, etc.

The Paris Region Video games industry is seen as particularly innovative, due to the high concentration of video games and cultural industry players in the Ile-de-France Region and of the actors mentioned above. However, the pace of innovation found in the world (e.g. regular arrival of new generations of consoles on the market, new markets for TV, etc) requires a high level of innovation to survive and thrive in the international scene. This makes R&D devices especially important for companies.

Salzburg

According to the Innovation Union Scoreboard (IUS) Austria is mentioned as an innovation follower in Europe. Austria performed relatively well as an open, excellent and attractive research system with firm investments, intellectual assets and strong linkages & entrepreneurship. With a GDP of €19.8bn in 2009, Salzburg accounts for 7.2% of the Austrian GDP. Its regional product/ inhabitant of €37,500 lies above the Austrian and the EU-27 average.

According to the interviews, the Economic Vision Salzburg is seen as an important improvement in responding to modified framework conditions, meeting economic trends (e.g. gaming) and supporting innovation. It is a basis for a future-oriented economic policy for the region, aiming to further strengthen the regional economy, coordinate measures and strategies of different areas and thus support future development, including new strategies and measures in the field of Creative Industries and Information and Communication Technologies (ICT) – including digital, interactive media and gaming. In addition to providing a basis for policy decision-making, the document aims to enhance coordination between the actors concerned.

As creative services from ICT, new media and creative industries are regarded as important drivers for innovation and economic change in this programme. Interviewees welcomed these goals and raised the importance of aiming at a stronger linkage between the creative industries (e.g. gaming) and other business fields.

13 www.iledefrance.fr/lactualite/economie-emploi/economie/jeu-video-ille-de-france-aux-manettes/
4. ACCESS TO KNOWLEDGE
United Kingdom: West Midlands

As mentioned in other sections, the West Midlands possess a multitude of higher education, further education and other agencies to support the sector. This would permit younger generation to be able to address in particular the skills shortage in UK. Even though a supply of such courses exist, **specific attention to promoting the potential of the gaming industry and informing schools about future job opportunities in this sector, is not currently happening.** The main challenge here is to be able to inform new future talented graduates on the opportunities that the sector can offer as well as making sure that the adequate supply of courses are set up in schools, universities and professional training agencies.

Through the focus group, participants also mentioned the difficulty in accessing the correct business skills needed in order to become a video games entrepreneur. Too often, a great video games developer would know how to make a great game and develop a brilliant design etc., but this person does not know how to transfer this one game into a business, protect the IPR and see this as a viable business. Respondents felt that a lot of efforts need to be made in order to support the sector which needs a different approach to other sectors.

Netherlands: Utrecht

A challenge faced by game companies is **access to entrepreneurial skills.** This can have a direct influence on access to finance and was a recurring theme mentioned in the interviews held by stakeholders within the gaming industry. Game companies need to ‘professionalize’: they need to focus more on the business part of their company, not only on the creative part of making a game.

For instance, Seth van der Meer, founder of the NLGD foundation, who says about Dutch game companies:

“They have to make sure they’re not only producing beautiful games or beautiful whatever, but that they have to hire people, or at least consult people, that can help them with these financial markets and educate them on how to structure a company, how to write your business plan, how to do your marketing. So it [the recession] made many of the creative people more aware of the fact that in the end it’s a business world, not a creative world, that they have to compete in.”

JP van Seventer from the Dutch Game Garden states that for start-ups, having entrepreneurial skills within the company is still an issue. This is tackled by making companies aware of the added value of such skills and looking into how a match can be found between game designers and people interested in marketing and business management:

“So one of the things we’re now trying to do is influence the start of companies, so we try to see if we can get more people from management schools to become friends or connected to development. And by the time they decide to start a company together that they’ve included someone who actually likes doing business, who thinks it’s fun and not a necessary evil. So that’s the big challenge, I think. And with the companies who are already here, who have already founded their team and have already decided on who’s a member, trying to help them, still convince them, either to train them to being better or to find someone who will take that”.

In sum, challenges identified in growing the business was a lack of entrepreneurial skills and connecting people with complementary skillsets. It was also mentioned that sustaining growth in a company was difficult due to financing but also primarily due to the lack of focus on business skills and emerging as a ‘serious’ business.

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**Italy: Umbria**

Regarding the **support to business creation and to the development of entrepreneurial skills**, the region has different organizations already working in this subject, although with tools that are not directly related to the gaming industry.

Besides, the entrepreneurs interviewed **did not attribute great importance to entrepreneurial and managerial education**. They **considered personal training and empirical methodology to be more important than education**. This different approach can be also justified by the fact that the upgrading of skills required by people working in the gaming industry are provided by the web and the new communication systems such as social networks, rather than schools or universities.

In sum, companies belonging to the gaming sector should provide a greater development of entrepreneurial skills and specific training for the staff of this type of business. Business aspects should also be included and the importance of these acquired skills should also be emphasized.

With regard to **incubators in the region**, the interviewees expressed appreciation for the level of service and guidance and support that is already provided for businesses start-ups. This type of support does not directly address the video game industry. Many of them argue, however, that **technical support and ‘mentoring’ for this type of business could be a great help**.

In Umbria, as in the rest of Italy, the gaming industry is, as of yet not developed nor structured. Support mechanisms aimed at increasing awareness about the potential of the gaming industry have not been activated. If activated, these would be able to provide innovative solutions for companies operating in different sectors, or to provide innovative applications in various fields under the form of interactive games: from tourism to learning or from rehabilitation after an injury to a therapy for certain types of neurological disorders. The solution could be to develop network projects dealing with gaming related companies, using the existing financial instruments in order to support them.

Media, unless they are specialized magazines or online media sources, do not give large space to the representation of the potentiality or information directly targeted to this specific sector. From the survey carried out, the need to increase awareness among local authorities, Chambers of Commerce and trade associations in the development of more targeted policies for the gaming industry, has been highlighted.

The other proposal/request by the interviewed companies is to create a landmark, even thought as a physical space for settlement, with many common areas (coffee shop, catering, etc.) where the exchange of experiences, sharing of knowledge and the circulation of ideas and problems can occur continuously, in line with what already exists in other European countries like Germany. It would also be important to find, in the same site, support and on-going assistance to make it easier to access services such as credit, investors, networks, etc.

In other words, create an incubator that performs as a link among universities, research centres, institutions, companies and investors, where the free movement and the exchange of ideas is fundamental and where it is possible to turn these into business and structured firms.

In addition, many of the respondents reported **a lack of facilities** specifically dedicated to the game sector and **training courses** dedicated to this area. Many have recognized that having specific game related incentives, (both financial and tax incentives) could be very useful and that they also need training courses specifically structured to support this matter; many also **asked for a dedicated incubator**, where it should be possible to find logistical support and consultancy. The totality of respondents expressed the desire to **be more informed about the regional, national and EU initiatives** in relation to the Game Sector and to be aware of the experiences of other countries in order to identify the possibility of translating these experiences, even with all due changes, in Umbria.

**Italy: Piedmont**

The **main weaknesses of game enterprise start-ups are the lack of managerial skills and the lack of economic financing competence**. Advice and support about business skills is mainly available from a personal network and interviewed people gain their entrepreneurial skills by personal knowledge. **Entrepreneurship seems not to be sufficiently addressed in the educational system in the region**.

Respondents interviewed are neutral about incubators in the region and the offer of orientation for start-ups. Most people agree that Universities offering games related courses should also provide more courses on business and entrepreneurial skills and **most people agree that games clusters and incubators are best placed to offer courses and coaching on necessary skills**.
Spain: Asturias

Based on surveys, interviews and focus groups, support given by CEEI Asturias as an incubator of high quality level on the overall business support services provided, is well perceived by entrepreneurs. Those entrepreneurs, who have counted on the support from CEEI whilst setting-up their companies remain working with the professionals of CEEI Asturias for their growth/consolidation process, diversification of their business activities, or even for the establishment of new business projects in the area.

The majority of those interviewed highlighted that the professionals of games sector have a high self-learning ability. On the one hand, they consider that specialised degrees and courses on the video games sector should be provided on a regional level, and some of them mention the University of Oviedo as the main actor to solve this gap and achieve the appropriate knowledge and skills on games of the human resources. On the other hand, they sustain that managerial and entrepreneurial skills should still be provided by incubators and regional business support agents, not only through advice services but also with training courses.

According to the Boo Games questionnaire, the most relevant weakness for start-ups in this area is the lack of economic and financing competences (77.3%), followed by lack of commercial competence (68.2%), lack of entrepreneurial skills (63.6%) and managerial skills (50.0%). The lack of contacts and networks is in the fifth position with a total of 45.5% of respondents.

Concerning business supports services provided in the region, the business support is generally well valued although they are obviously interested in specific actions or instruments focused on the games sector. Consequently, they consider incubators in the region to offer a good orientation for start-ups (60.8%) and they explain that incubators are best placed to offer courses and the coaching of necessary skills.

Bulgaria: Sofia

The most cited weaknesses of game enterprise start-ups, include lack of managerial and financing competence. Nearly all respondents agreed that game enterprises should do more to support the development of business skills of their staff, and universities should offer more courses on business and entrepreneurial skills.

A measure which has the potential to address this challenge was mentioned by a policy-maker at the Ministry of Economy, Energy and Tourism which is enlarging the scope of the “Centre of Training Firms”, supported by the Ministry of Education, Youth and Science to include work with art schools in the country. The centre helps to support the development of entrepreneurial skills of students. The issue with this is that art schools are supervised by the Ministry of Culture and not by the Ministry of Education, so cross-ministerial work would need to be done to ensure a productive outcome with respect to this issue.

Germany: Baden-Württemberg

When asked about good practice on how to acquire business and entrepreneurial skills, the respondents provide 3 main suggestions that can be interpreted as advice to people willing to build their own start-ups:

1) it is advisable to “look for a veteran person with real influence” in the sector, that can be contacted for advice and suggestions, a kind of mentor: “go and make him your Sensei”;
2) before starting an own company it is better to “go out and learn on the job at several developers/publishers”;
3) if no formal entrepreneurial education is provided, “reading books and trying out what works” can be an option.

Malta

According to some of the interviews and discussions with the main stakeholders, one of the main resources in Malta is its skilled workforce. In order to develop economically, Malta must remain commercially competitive and economically progressive. The key to this constant evolvement is the need for a highly skilled, educated and talented work-force. In this respect, education is a major concern on the island.

As regards to this, Maltese education shares similarities to other European countries at all levels. One of the limitations that the local education has, particularly at a tertiary level, is that due to the small size of the country there are a number of areas with little or no offerings. These tend to be specific areas rather than whole fields of knowledge.
France: Ile-de-France (Paris Region)

Companies identified the *lack of competences and the lack of contacts and networks* as the weakness in the competence field for the games sector. Aids and subsidies are mainly on a national level. However, institutions and main players in the game industry are located in the Paris Region. This proximity is the major instrument that helps access to business in the region.

Austria: Salzburg

According to some of the interviews with the main stakeholders, one of the main resources in Salzburg is its *highly skilled workforce from the Universities and Research Institutions in the field of digital, interactive media (Gaming)*. With specific qualification measures (e.g. qualification programme We-Workshops, coaching workshops C Hoch 3), creative entrepreneurs are being addressed and further qualified. The most relevant weaknesses entrepreneurs (e.g. start-ups) face in their early stage of business development is the *lack of business competences and entrepreneurial and managerial skills*.

However, there are related business support services publicly funded (e.g. incubator programme, Innovation Service and Coaching, Awareness and Qualification measures), which are highly valued by the interviewees. Concerns exist as there are *no specific tailor made actions focused on the digital, interactive media/ games sector*.

“Beside regulations and policies, financial funding and knowledge transfer events such as conferences and awards a new platform to meet, connect, share experiences, inform the public and potential partners and foster cooperation, while networks, associations and initiatives would be great new way to group and bundle efforts.”
5. PERCEIVED NEEDS
Question: 'What are the biggest challenges in growing your business/faced by the games enterprise'.

Here are the main answers received per region.

61. West Midlands

Setting up your own business in the games sector is challenging for non specialists, as well as having easy access to an existing network that they could be brought into.

It would be interesting to have access to international markets by having customers signing up, thus converting a real interest into money.

The main challenges are: entering the international market and taking advantage of opportunities, lack of support or business skills, lack of access to research or innovation. Commercial knowledge, access to talent and access to finance are much needed in this field.

62. Utrecht

Access to finance and lack of entrepreneurial skills were seen as the main obstacles faced by game companies: many of the interviewees added that "you need a company that doesn't just work with a couple of creative people together, you need the business vehicle as well".

More important than a set of skills is the mind-set of designers: "the entrepreneurial mind-set is more important than the entrepreneurial skills, so just teach the students skills, they think oh it's just making up a communication plan and someone else will do it, whereas if it’s part of your mind-set it becomes part of you as a designer".

Other aspects mentioned were the lack of specific tax exemptions and the importance of having a long-term vision and awareness of the ecosystem: “it is for the investors very difficult to determine whether something is a success or will be a success or has the chance to be a success”. Communication and the ability to generate ideas were also seen as challenges.

63. Umbria

According to respondents, the biggest obstacles and challenges in growing their business or faced by game enterprises in general, are listed below:

- Lack of specific financial support. Existing financial instruments are not sector dedicated; entrepreneurs suggest to use the existing ones in order to save time and to dedicate a part of the money (reserve) or give additional points in the evaluation phase to game related companies.
- Lack of business support. Another big need highlighted during the interviews is the fact of not having a dedicated University course or specific training about business.
- Lack of a specific policy aimed at promoting and supporting the game sector. There are currently no specific policies or promoting initiatives in the games sector; these would be very important in order to help understand the opportunities related to this sector.
- More streamlined procedures. Red tape is an important problem while managing a company; Italy has still a lot of work to be done within this aspect.
- Dedicated incubator/cluster. Many of the interviewed underlined the fact that having a dedicated cluster or incubator could speed up the growth of the game sector.
- Lack of IPM support. Intellectual property management support is another important need that came out from the interviews.

64. Piedmont

According to respondents of the interview, the biggest challenges in growing their business or faced by game enterprises in general, are listed below:

- The change in attitude and culture towards video games. It could be important to work more on the concept of edutainment and try to explore areas with video games such as environmental sustainability and health. Also cultural heritage and city marketing could benefit from the use of video games, as well as from multimedia in general. There are many museums and galleries of modern and contemporary art located in Piedmont where interaction and game design could be used for: learning, creating educational games and promotion of the region and its cultural heritage.
- Technological scouting for skills, and how to redirect them. Research agencies have a key role and need to make a comparison between the different skills available and ensure a constant communication between them.
- Lack of venture capital
International market access is needed, and we must qualify as potential partners on these issues, perhaps representing the country rather than a region only. The Virtual Reality and Multi Media Park could benefit from pursuing this path, notably trying to intercept the European funds.

Interviewees know that there are a variety of financial support initiatives available in the region. Financial support is most necessary for the creation of products and for introducing the innovation process. Most useful types of support are probably support during the application process and financing the prototype phase. Most think that tax benefits for private investors to invest in the creative sector would be useful for the games industry. In addition, programmes to help enterprises to become ‘investment-ready’ would also be beneficial.

65. Asturias

The majority of respondents highlighted the relevance of support services about business strategy and implementation of new access to finance instruments for consolidation in order to maintain their business and employment in the region. Talking about access to finance, they mention venture equity funds, crowd funding or the Business Angels Network as the type of finance which is most relevant for this sector.

They recognized that for the development of current and future development of this sector actions focused on technology vigilance are crucial as the market is changing continuously. Thinking about the appropriate skills and human resources qualifications needed to work in these companies, it is necessary to have permanent training from the University or educational system. Furthermore, actions to create awareness about the added value of the games industry in the region and networking should be improved and implemented.

66. Sofia

Interviews with experts in the sector in Bulgaria have allowed us to drill down deeper in determining the biggest challenges and bottlenecks faced by the games sector in the region. As evidenced by the desk research and by the online survey, access to finance tops the list of those challenges mentioned by game enterprises. During the interviews, it was noted that public financial support for attendance of individual gaming companies (or consortia of gaming companies) to attend international events, may prove to be very beneficial to the sector.

According to one respondent, crowd-funding might work for some smaller scale projects, but given a weak culture of donations in Bulgaria the potential here seems limited, at least from domestic crowd-funders. There appears to be a general lack of statistical information about the sector and resultantly, a lack of awareness about its potential.

University education remains somewhat distant from practical applications. As a result of this, experts with professional experience are much more valued to employers than university graduates without experience. Consequently, the availability of qualified human resources is limited and is largely dependent on individuals who are self-taught.

Across the board, respondents noted that there are very good IT experts in the country, but it is difficult to find them and attract them to the gaming sector, which limits the potential for expansion in the industry.

One respondent mentioned that he was not aware of any appropriate programmes within universities to teach experts in the sector (painting, design, digital technologies, game development, etc.). It was widely felt that entrepreneurial skills of young people should be encouraged through trainings, competitions and courses, and that, within the universities, there is not enough teaching staff that is qualified enough to engage in such education on the scale needed for the sector.

There is a huge potential for these programmes and the demand for them would be high because of the attractiveness of gaming for young people and strong gaming culture among the young.

To respond to this gap in the system, most of the companies create their own training sessions and teach potential employees, many of whom are later on employed by the company. The qualified experts from the companies in the sector, however, are not allowed to teach in the universities because they do not possess a PhD degree, which is a requirement for the academic staff in universities.

Once again, respondents mention that weaknesses include finding qualified experts in the field, which is the biggest issue within the sector. As universities do not offer game-related specialisations, the companies train their employees at their own costs. The other issue is that Bulgarian companies have not yet established their reputation on the international gaming market, which makes it sometimes hard to attract international clients and partners.

Also, one challenge is that weaknesses between business and universities result from the fact that people who do not have access to university professors through personal contacts are excluded from opportunities to work with academia. Quality assurance of education in Bulgaria is also quite a large problem.

It was mentioned that not only is there a lack of game-related programmes, but also there is lack of good education in the basic courses, such as computer graphics, programming, etc. Regarding the education in game-specific courses, it was again mentioned that the issue is an insufficiency of qualified teaching staff. Given this constraint, one respondent said that higher education should be strengthened in the classical degrees, which are relevant for game development, such as arts and computer related fields. Currently, there is high inconsistency of what the business needs and the skills the graduates acquire during their studies. To a certain
extent, this respondent said, companies train their own staff, but many do not have the resources/motivation to spend resources on training potential employees.

One way of helping the demand and supply for specialists in the field to match, and also to popularise the industry as a whole, is to organise state-sponsored mentorship/traineeship programmes within companies. The companies could benefit from it because youngsters will bring new fresh ideas to the sector, and young people will benefit as they will get an idea about what game development is about. However, in order to provide incentives for the companies to invest in the development of young specialists without any contractual agreement requiring the trainee to stay and work in the company for the period after the traineeship, the programmes should be partially state-sponsored.

Bulgaria is known as being a country that is problematic for IPR infringement. Further steps need to be taken to ensure that this is not harmful for companies in the cultural and creative industries. Also, red tape can be another limitation to the industry which needs to be addressed. The industry is a dynamic one and access to finance needs to be more responsive to this dynamism.

67. Baden-Württemberg

In the framework of the regional analysis on the game industry run in 2009 (Walz, Seibert), different experts of the industry were asked about their opinion concerning Baden-Württemberg as a games location. During these interviews it emerged that, despite the presence of a good number of companies working in the games industry, most of the stakeholders of the sector still considered Baden-Württemberg as an inadequate game location.

This has different reasons: at the time the interview was done, no specific regional funding for the game industry was still available. Besides, many reported a shortage of talents due to the lack of specific games degree available in the region despite the very good research infrastructure and the innovation potential which is one of the highest in all of Germany. Some also underlined some location disadvantages as high rent costs, when compare to other game locations in the country such as Berlin or Hamburg.

The interviews also indicated that companies working in the field still do not recognize the presence of a real game industry in the region. Some reported the lack of a network infrastructure that could bring together the different stakeholders, facilitate the exchange of experience and the promotion of the need of the industry at a political level. Also, the offer of conferences and events on the topic was still considered insufficient, despite the presence of some major event as the FMX -the Conference on Animation, Effects, Games and Transmedia, which has now been established as one of the most important event in the sector. Also, the lack of professional development opportunities and of regular exchanges among the stakeholders was lamented.

Finally, companies expressed the need for a stronger support coming from the political level to foster the development of the games industry.

It is significant to compare the results of 2009 with the one of the survey run in 2012 in the framework of the Boo-Games project. Following the results of this last survey, the main obstacle for creating or sustaining the games industry in Baden-Württemberg is – according to the 86.7% of respondents - access to finance. On a second stage another barrier is represented by the access to business support which is considered a problem by the 40%. Of less influence are the presence of a supportive regulatory framework (26.7%) as well as access to market (26.7%).

Finally, participants to this survey seem not to be concerned about access to knowledge, which is regarded just by the 13.3% as a possible obstacle for the success of games companies. Neither are they worried about the access to R&D and technology: no one in fact indicated this as an obstacle for the games industry.

The challenges that games entrepreneurs have to face in growing their business follow some of the ones already identified.

For instance, access to finance and skill shortage. Martin Nerurkar states:

A big challenge is currently the skill shortage. It’s really difficult to get talented people which already have some job experience to come to Baden-Württemberg. City such as Karlsruhe and Stuttgart are not that known outside Germany. Berlin is for sure better known and more attractive, that is why it is really difficult to get talented people coming from abroad that are willing to work in Baden-Württemberg.

But there are also some other challenges connected to the constantly developing environment in which games are produced. According to Birgit Roth:

Companies have now to cover the online/browser game field, in this sense a challenge for companies is to cover different kind of platforms. For the future they will need to increasingly do cross-media programming [...].

Another problem for start-ups is that many grow also relatively fast but they don’t implement any structure or process management. It happens often that start-ups grow from 5 to 20 employees, but the structure of the organisation does not grow together.
68. Malta

A respondent mentioned that a number of challenges faced by Malta in supporting the games industry, have been identified in Digital Games Strategy. The key challenges relate to the speed and the intensity with which all the efforts relating to professionalization of the sector are taken up. This relates especially to the quality and speed with which the educational sector builds the capacity to provide the training for the future operators.

Another respondent mentioned “locating finance, finding people, and keeping people” as the main challenge that Malta has to face.

Ile-de-France Region (Paris region)

In interviews with stakeholders, companies estimate that there is a need to stimulate partnership between business and public institution and the games sector. They particularly identified needs to enable companies to grow and especially to grow internationally. In order to allow the sector to grow, it would be advisable to connect para-public and public institutions and help companies in their export process.

An “Export plan” has been signed in March 2012 with the National Video Games Association (SNJV) and a representative from the Ministry of International Trade. To accompany this Export plan, since the beginning of 2012, all institutional stakeholders in video gaming as well as the National Video Games Association, have launched a joint approach, called “Le Game” (www.le-game.net) in order to promote French expertise and talent, notably at the leading trade shows and meetings throughout the world. Respondents also consider that there is a need to finance projects and game production.

69. Salzburg

Interviewees discussed ideas for new support measures for the gaming industry. Interviewees discussed ideas for new support measures for the gaming industry. What is needed in Salzburg is:

- to establish new innovative funding measures for the games industry to be competitive, (e.g. Monetary and non-monetary measures like local events regarding the games industry. Analyze the installation of a regional grant or award for digital interactive media and games.).
- to make use of crowdfunding for local game developers and publishers. Support local game industry in the process of fundraising via these new platforms and by pitching workshops.
- to develop an overarching strategy for the Creative Industries, focusing on digital interactive media.
- to create a regional hub in gaming.
- to create new measures for founders.
- to raise awareness and trans-regional visibility.

16 www.lemonde.fr/jeux-video/article/2012/03/02/operation-promotion-du-jeu-video-francais-a-l-etranger_1651125_1616924.html
Question: 'What are the most important action points for your region. "

Results per Region: Summary of Action Points Identified

Question: What are the most important action points for your region. Please choose three in order of priority:

a) creating awareness of the added value of the games industry
b) creating policies and regulations catered to the game industry
c) access to market and other opportunities
d) access to finance
e) networking/cluster development
f) creating and sustaining research & educational programmes.

70. West Midlands

Based on the responses gathered through interviews the respondents felt that there was a need for creating and sustaining research and educational initiatives. All respondents highlighted that further efforts should be made in that direction as the skills gap is ever present in the region. The talent pool exists but unfortunately more effort should be taken at a national level from the Ministry of Education in order to transform the graduates of tomorrow. The education system should incorporate more tailored courses and awareness should be raised as technologies are now permitting access to knowledge. But unless these measures are introduced by the government and supported by policy makers, it may be impossible to increase skills and find specific courses which are tailored to the video games sector.

The second and third priorities for action are interlinked. Interviewees felt that creating policies and regulations catered to the game industry should be one of the priorities on the agenda in order to boost the sector. On the one hand the government has to support the sector by recognising the potential growth of the sector but also the tremendous opportunities that the video games sector could bring to other sectors.

The next priority should be to create awareness of the added value of the games industry as stated before. This would promote a cross sectorial approach. The government should also support this approach by incorporating video games into the educational system, by for instance, introducing serious games into the public sector. As an example, the National Health Service has been adopting serious games for training purposes and such case studies should be show-cased to demonstrate a concrete example to the public and to entrepreneurs on how to create growth. The policy makers would be leading by example and create something similar to a video games campaign for the general public, through case studies.

Through the focus group, access to finance as well as access to market and opportunities were also mentioned. By creating a campaign for video games as stated before, other priorities could also be addressed. Raising awareness of the sector would obviously create interest for external and international opportunities, but also permit investors to see the potential in investing their money into a sector with high growth potential.

71. Utrecht

Among all interviewees, access to finance is seen as an important action point for the region. Especially smaller companies need the finance to grow, as “we don’t have a lot of good investments, we don’t have a lot of good investors who know how to invest in the games industry”.

A networking/cluster development is essential, according to many interviewees, as well as creating and sustaining research and educational programmes: “knowledge institutions are at this stage vital to provide the support to create a R&D environment WITH companies to make sure the industry can grow and prosper. They won’t get that from clients”.

Some of the interviewees also mention creating awareness of the added value of the games industry as an important action point, as “[it] has worked in the past and continues to work. So time and effort put in there, if at the right places, it pays back itself”.

72. Piedmont

According to the interviews, the most important factors (ranked in order of priority) to boost the regional gaming industry, are: access to finance, creating awareness for the added value of the games industry, access to market and other opportunities and networking/cluster development (tied in third place), creating and sustaining research & educational programmes.

73. Umbria

According to the interviews, the most important factors (ranked in order of priority) to boost the regional gaming industry, are: access to finance, access to market, business education, creation of dedicated cluster/incubators, creating awareness for the added value of the games industry, creation of inter-sector connections, creating and sustaining research.
74. Asturias

According to the interview and focus groups, responses are divided into: a) *creating awareness for the added value of the games industry*, c) *access to market and other opportunities*, e) *networking/cluster development*, and f) *creating and sustaining research & educational programmes*. Special emphasis was put on networking activities either linked to or independent of the establishment of a specific cluster but with the idea of creating new business opportunities through cooperation for businesses and also a community of public and private stakeholders who could push the sector.

75. Sofia

During the interviews, respondents were asked about the most important action areas to help support the digital gaming industry. While the two most cited replies to this are not surprising and are likely to apply to almost all sectors in the country (*access to finance* and *creating and sustaining research and educational programmes*), the need for *creating awareness for the added value of the games industry* was mentioned very forcefully by those who selected this option.

This is likely a necessary precursor to many of the other action points in the list and a key factor in ensuring that there is a will amongst policy-makers to provide targeted support (financial, educational, business support) to the sector. Given that a number of interviewees mentioned that the digital games sector is growing very rapidly (one respondent spoke about a 20% current annual growth rate) and that there was still room for market entrants, the sector would seem, at least from this information, as low-hanging economic fruit (i.e. a small amount of public support could leverage much bigger returns in the mid-term).

76. Baden-Württemberg

The stakeholders personally interviewed in the early summer of 2012 also express an order of priority about the actions that should be put in to place to sustain the sector in Baden-Württemberg. At the first place, according to the most of the experts interviewed, there is the need of creating awareness of the added value of the games industry. This should be followed by the creation of a network or a cluster to bring the actor of the regional industry together in order to allow an exchange of experience. Many regards also as important to create and sustain research and educational programmes. In that respect Birgit Roth adds that “this is also to be understood in relation to enterprises as a possibility for companies to get strategic consultancy or development chances for their business”. Of course, access to finance still remain an open problem for the industry not only in Baden-Württemberg.

As a result of this study and of the personal conversations held with expert of the industry in the region, it is possible to affirm that the economic impact of the games sector is sometimes still underestimated. The same could be said with regard to the effect that a stronger political support of the topic would offer to companies. It is crucial to create adequate conditions for companies in the region to avoid a brain drain towards other regions which support the sector in a more active way.

It is also clear that several actors in Baden-Württemberg wish the creation of a specialized network for the sector. In that respect the City of Karlsruhe will use the results of the study to set up a regional games network with the support of the interviewed people as multiplayers bringing in their private networks to come to a critical mass of participants.

77. Malta

According to the two respondents interviewed, both ranked creating awareness of the added value of the gaming industry as the most important action point, followed both by access to finance. The third order of priority differed, as one respondent was cited network and cluster development, whereas the other was more prone to sustaining and creating research and educational programmes. No further explanation was given concerning their choices.

78. Ile-de-France

According to the interviews, the most important action points for the Paris region are: access to market and other opportunities, access to finance and creating and sustaining research & educational programmes.

79. Salzburg

As a result of the interviews the most important action points to boost the regional games industry in Salzburg are: to create awareness of the added value of the games industry, to create/apply policies and regulations catered to the games industry and to organise and establish networking activities, focusing on cross-sectoral business relationships.
6. INTERVIEW TEMPLATE

INTERVIEW TEMPLATE BOO GAMES for INTERVIEWER

Introduction to the interview:

Boo Games (Boosting European Games Industry) is looking at how to boost the regional gaming industry in nine EU regions. This initiative focuses on innovation and knowledge transfer through a regional analysis and seminars.

Based on your expertise and your experience we would like to ask you these questions. Of course if you have any additional comments we would be more than happy include them. The interview should take no more than one hour.

Note to the interviewer: An asterix (*) indicates prompts for the interviewer or an explanation of why this question is asked.

Interview Questions

1. Could you tell me about your organisation and your role?

2. How would you describe the games industry in this region?
   * We are interested in obtaining an expert assessment of the current situation.

3. How well connected are games enterprises in your region?
   * If needed, add some prompts for the interviewee such as:
     type of connections via incubators, hubs, network organisations, educational institutions, alumni, business to business activities, etc. & strength of connections.

4. How would you rate the public perception of the gaming industry in your region?

5. Which types of games are produced in your region?
   * Prompt if needed, games can be: single player, multi-player, action/shooter, role-playing, strategy games, puzzle games, sport games, social games, mobile games, serious games, simulation, advergaming)
6. Do organisations in your region focus on serious games?
* Serious or applied games are (digital) games used for purposes other than mere entertainment and can be applied to many contexts such as healthcare, military, education, government, corporate.

7. To help grow the games sector, who do you think are the main stakeholders/actors?
* prompt: for instance policy-maker/public agency, education or research organisation, enterprise support organisation, game related enterprise or organisation.

8. How innovative do you think your region is and can you give some examples?
* You can mention the Innovation Scoreboard here: innovation leader, innovation follower, moderate innovation, modest innovation.
Examples of innovation illustrate best cases.

9a. Which policies are in place to support the games industry?

9b. What initiatives, policies or actions are needed to stimulate growth in the games sector?

10. What are the biggest challenges in growing your business/faced by game enterprises?
* Prompt, only if needed, challenges could be finance, access to regional and international market and opportunities, lack of support or business skills, lack of access to research or innovation, etc.

11. What are the most important action points for your region. Please choose three in order of priority:
   a) creating awareness of the added value of the games industry
   b) creating policies and regulations catered to the game industry
   c) access to market and other opportunities
   d) access to finance
   e) networking/cluster development
   f) creating and sustaining research & educational programmes

12. Do you have any examples/suggestions of good practices/initiatives which support the games industry in the region?

13. What else would you like to add?

Thank you for taking part in the interview.
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1. OVERALL QUESTIONNAIRE RESULTS
REGIONAL OVERVIEW OF THE GAMING INDUSTRY: "About the Game Enterprises"

This section will focus on obtaining an overview of the gaming sector in all the regions who obtained answers from the questionnaires. These are: the West Midlands, Utrecht, Umbria, Piedmont, Asturias, Sofia, Baden-Württemberg, Salzburg and Ile-de -France.

Information was obtained about the main stakeholders across regions (Figure 1). Respondents were asked to give their opinion on statements pertaining to the regional gaming industry concerning: size of game-related enterprises or organisations (Figure 2 & 3), annual turnover (figure 4), types of games created in the region (Figure 5), types of products produced by the enterprise (Figure 6), type of revenue models used (Figure 7), and value chain placement (Figure 8).

Respondents who identified themselves as belonging to a game-related enterprise were asked to fill in information about their own enterprise. All other respondents belonging to other stakeholder categories were asked to answer the same questions. The question was worded differently to take into account the occupational background of the respondent.

As already stated above, please also note that the number of responses differ due to: this division of questions in stakeholder types, questions left unanswered, and certain multiple-choice questions where more than one answer could be selected.

![Figure 1. Inventory of Stakeholder Types: 1) policy maker/public agency, 2) education or research organisation 3) enterprise support organisation, 4) Game related enterprise or organisation, or 5) other.]

Figure 1 provides an inventory of the stakeholder types. The majority of the respondents represent the “game related enterprise or organization” (33.5%) or “education or research organization” (26.4%). Followed by “enterprise support organization” (13%), “others” (17.7%) and “policy maker/public agency” (9.4%). 
As shown in the Figure 2, the majority of the enterprises working in the game sector are **start-ups** or **SMEs** (small and medium sized enterprises); Seventy-nine percent of the respondents were employed in enterprises consisting of less than 25 employees. Citing the responses ranging from highest to lowest, 25% work in enterprises with "less than 5 employees", 24% between "5-9 employees", 19% of the respondents work in a "one man business or as a freelancer", and 11% work in an enterprise with "10-24 employees".

The remaining 21% of the respondents work in enterprises with "more than 25 employees".

Similarly, the average size of the game sector companies in each region, is **less than 25 employees** (75%); 24.5% are in the range of "10-24 employees", 29.1% are between "5-9 employees", 16.3% have "less than 5 employees" and, 5.1% are a "one man business or freelancers".

Hence, in general, it can be stated that within the regions surveyed, the game sector is mostly characterized by SMEs.
Regarding, the annual turnover, the majority of respondents (67%) had a turnover “under 200,000 euro”. Seven percent declared to be in the “200-500,000 euro” range, another 7% declared to have “more than 1M euro” turnover, 3% “more than 2M euro”. Seventeen percent preferred not to reveal/”rather not say” their annual turnover. This coincides with the previous results concerning type of enterprise. Turnover of the majority of enterprises falls below the 200,000 euro range, illustrating that respondents are mainly people working in SMEs.

Figure 5 portrays the types of games created by companies in the Region. For a more detailed look at types of games produced in each region, please refer to the regional results, interview results in Appendix B: Interview Results section 1, and the regional analysis in Appendix A: Desk Research section 1). Figure 5 provides a cumulative overview of the region.

In total, the number of companies involved in “entertainment” games was the greatest, (N= 115), followed closely by “serious games – learning” (71), “serious games – persuasive” and “well-being and health” (both 37), and “location-based games” (30). Forty-three respondents were unaware of the types of games created in the region (“don’t know”). Interestingly the total amount of responses who chose serious games (learning, persuasive or well-being & health) was 145. This indicates an already present market for serious games, as they are being made by many companies and have even surpassed the production of entertainment games (N = 115).
Figure 6. Types of Products Produced by the Enterprise (N = 211)

Figure 6 indicates the type of products focused on by the enterprise. The majority of the respondents are mainly focused on "single player" products (N= 35), "multiplayer" (N= 26), "serious games" (N= 26), "mobile games" (N= 21) and "simulation" (N= 24).

As indicated in figures 17 and 18, when dealing with "the genres of games that will generate the biggest revenues in the future", the results shown above are quite different from the forecasted future ones. In particular, the role of mobile, social and multiplayer games will become even more relevant.

Figure 7. Type of Revenue Models Used (N = 150)

Examining the revenue models used, most of the respondents used the "B2C (business to consumer)" (N= 30) and "B2B (business to business)" (N= 42) model, followed by the "online download" ("own website" (N= 26), and online download "other platform" (N= 31) Total online models = 57). Respondents also mentioned that in the near future business models such as "virtual goods" can open up new interesting market opportunities.

In sum, online models and B2C and B2B are the types or revenue models most used.
Figure 8. Value Chain: Which level is your business active? (N = 271)

Figure 8 shows that, of the sample of 271 respondents, businesses are active at all levels of the games value chain. Enterprises are mostly involved in "development and programming" (N = 51), "game design" (N= 44) and "art and animation" (N= 37). These skills make it possible to foster the growth of the gaming sector also in regions which are less developed. To know more about how these skills are acquired, please refer to 'Appendix A: Desk Research, Section 5 Access to Knowledge', 'Appendix B: Interview Results, Section 4 Access to Knowledge'. "Production" (N= 31), "publishing" (N= 18), "business and marketing" (N = 14) and "community management" (N= 14), "audio" (N= 13), "quality assurance" (N= 12) and "middleware" (N =10) are in the middle range.

Game-related enterprises seem to be the least active in "console and platform making" (N= 3), "retailing" (N= 5), and "distributing" (N= 8).
REGIONAL OVERVIEW OF THE GAMING INDUSTRY: About the games sector in your region

This section gives an overview of the gaming sector. Information was asked about: whether gaming-related education was available in the region (Figure 9), the availability of a games cluster or incubator in the region (Figure 10), and whether respondents would find such a games cluster or incubator useful (Figure 11). Information was also asked about access to information about the gaming industry (Figure 12 & Figure 13). Results are described below.

Only half of the respondents (50%) stated that there was a University offering specific courses focusing on games in their region. For more information on the availability of courses in the region, 'Appendix A: Desk Research, Section 5 Access to Knowledge'.

On the other hand, 13% of the respondents did not know whether game-based education was available. This highlights an overall information gap in the sector.

Similarly, 40 % of the respondents asserted that a game cluster/incubator exists in the region; 43% declared not to have one and 15% did not know whether an incubator or games cluster existed.
Once they were requested to express their opinion on the need of a game cluster/incubator, the majority of the respondents (83%) agreed that having an incubator would be useful for their business. A small minority were unsure about the added benefits of a cluster (15% = "don't know", 2% = "no").

As was confirmed during the interviews, such structures could help the development of the game sector.

Regarding the fact of being well informed about the games industry in their regions, 43.9% of the respondents declared to be "well informed about the games industry in their region": 27% answered "not to be well informed" and 28.8% chose "neutral". The information gap is also present concerning information about the gaming industry in the region.
REGULATION AND POLICIES

This section will focus on information pertaining to regulation and policies. Information was asked to discern whether respondents felt the need for more information about policy measures (Figure 13). Respondents were also asked whether support measures are available in their region (Figure 14) and if and what types of support measures would help the games industry in their region (Figure 15).

![Figure 13. Access to Information about Policy and Support](image)

Sixty-eight percent of the respondents affirmed by indicating that they "strongly agree" and "agree" with the statement that they “need to know more about policy and support in their region” (Figure 13). Respondents were also interested in knowing more about national and international policy and support measures: 21.9% chose "neutral", and the remaining 9.9% answered that they don't need to know (“disagree”, 7.8% and “strongly disagree” 2.1%).

![Figure 14. Availability of Support Measures for the games industry such as tax incentives and price controls in the region](image)

Around half of the respondents (53.3%) indicated that tax incentives or price controls have not been implemented in order to support the gaming industry. A further 37.1%, were neutral about this statement. This could be partially due to their lack of information on the subject. Only 9.5% of the respondents declared that their region tax incentives or price controls are implemented in order to support the game industry.
Of the eight support measures (IPR, eCommerce, data protection, tax breaks, labour regulations, licenses, removing red tape and setting up), it is interesting to note that all options were selected by respondents. The three most important areas to improve in order to help the game sector are “setting up” (N = 94), “IPR management” (N = 89) and “removing red tape” (N = 81). These are followed by “tax breaks” (N = 78), “ecommerce” (N = 56), “licenses” (N = 51), “labour regulations” (N = 44) and “data protection” (N = 38).
ACCESS TO MARKET: “About markets and opportunities”

This section will focus on access to market opportunities. Respondents were asked whether market conditions are favourable for the establishment and maintenance of the regional games industry (Figure 16) and were also asked to provide an inventory of future trends concerning the games industry (Figure 17 & 18).

![Figure 16. Favourability of Market Conditions in the establishment and maintenance of the Games Industry](image)

Only 35% of the respondents declared that in their region market conditions are favourable for the establishment and maintenance of the games industry; 23% of the respondents cited that this was not the case in their region.

Almost 42% of the respondents who answered chose the “neutral” option. This either indicates that they are not aware of the market conditions in their regions or that they do not find this issue important enough to comment on. The former is probably more likely, as respondents did indicate that they were interested in obtaining more information of policy measures (see Figure 13).

![Figure 17. Future Trends: Game Genres and Revenue (N = 655)](image)
The genres of games that are considered to be generating the biggest revenues in the future are: “mobile games” (N = 115), “social games” (N = 103), “multiplayer” (N = 98), “serious games” (N = 86) and “simulation” (N = 43).

This is the same result that came out from the interviews during which most of the interviewed stated that “due to the huge spreading of devices such as smartphones, tablets, notebook and so on ..mobile is the future..” and “.. the games will go towards multiplayer … which allows people to match and play with other people.”

![Figure 18. Inventory of Future Trends of the Games Sector (N = 354)](image)

When asked to choose which are the most important trends for the games sector, respondents have mainly chosen “digital distribution” (N = 101) and “cloud computing” (N = 82), which represent the major trends of these last years. Both modes of distribution minimize costs and raise the efficiency level. Companies can keep track of pirated software (digital distribution) and access data, programmes, and user profiles, from everywhere in the world (cloud computing).

This is followed by “augmented reality and enhanced visual” (N = 55), “continuous human and machine interface” (N = 49), “distributed production platform” (N = 43) and, finally, “augmentation of middleware” (N = 24).
ACCESS TO FINANCE

This section will focus on access to finance. More specifically, which financial instruments are the most relevant to support the games sector (Figure 19). Of these financial instruments, which ones are available (Figure 20) and which types of support is the most useful (Figure 21) for people working in the regional gaming industry. Results are described below.

![Figure 19. Financial Instruments that Support the Games Sector (N = 634)](image)

![Figure 20. Availability of Financial Support Initiatives in the Region (N = 622)](image)

The responses of Figures 19 and 20 are described below. Concerning "which financial instruments are most relevant for the development of the games sector", the most important financial instruments are considered to be: "self

When asked “which of the following financial support initiatives are available in your region”, (Figure 20), “self financing” (N = 105), “bank loans” (N = 84) “public subsidies” (N = 71), “venture and equity funds” (N = 55), “private financing” (N = 52), “business angels” (N= 48) and “tax incentives” (N = 27) were mentioned.

Hence, the answers coincide. The financial instruments which are deemed the most relevant for the development of the games sector are also those which are available in regions. Nevertheless, if access to these instruments is available in the region, it seems to be difficult to access them.

![Figure 21. Ranking of Usefulness of Types of Support (N = 502)](image)

When asked which type of support is the most useful for game enterprises, respondents chose in order of relevance: “financing of the prototype phase” (N = 108), followed by “developing business models” (N = 65), “financing the concept phase” (N = 62), “coaching/support before the application process” (N = 59), “support during the application process” (N = 58) and “financing the other items” (N = 58), “support from game experts” (N = 48), and finally “evaluating market potential of a product/service” (N = 44).

These results indicate that obtaining finance for a prototype is seen as challenging due to the investment needed.
ACCESS TO KNOWLEDGE: “About business skills”

This section will focus on access to knowledge, particularly about business skills. Questions were asked concerning the main weaknesses of start-ups (Figure 23), where one can obtain advice and support about business skills (Figure 24), and pinpointing where entrepreneurial skills are acquired (Figure 25). Results are described below.

As can be seen in Figure 23, the main identified weakness is “lack of economic financing competence” (N = 101), then “lack of managerial skills” (N = 90), “lack of commercial competence” (N = 75), “lack of entrepreneurial skills” (N = 73), “lack of contacts and networks” (N = 53), “lack of communication skills” (N = 27), and “lack of language competence” (N = 18).

These results highlights a problem that often characterizes most of the SME Game companies: they have good ideas, even potentially good products but they lack business/management skills, so the company often fails, or closes, in part due to this skills gap.

A more specific education and training on these subject are needed in order to avoid companies failing in the market. This need was also confirmed by game related companies during the interviews (see Appendix B: Interview Results, Perceived Needs Section).

Similarly, most declare that start-ups in the games sector generally do not have sufficient entrepreneurial skills and that there is not sufficient advice and support available on business skills for those who want to start a game enterprise.

The companies were asked to identify where they can obtain advice and support. As highlighted by Figure 24, advice and support about business skills are mostly available from “consultants” (N = 68), “sectoral organizations or associations” (N = 64), “personal networks” (N = 63), and “educational /research institutes” (N = 55). “Promotion agencies” (N = 36), “other business support organizations” (N = 36) and “banks” (N = 1) were mentioned the least.
When asked about how they acquired their entrepreneurial skills, respondents answered "personal knowledge" (N = 80) and "trial and error" (N = 69); The majority of respondents learn entrepreneurial skills on the job. This was also previously mentioned as one of the main weaknesses of start-ups (see Figure 25). Combining personal knowledge and trial and error with extra educational or vocational courses, contacts and specialised SME advice centres, could decrease the attrition rate of fledgling companies.

“Educational or vocational institutes” (N = 44), “contacts and networks” (N = 40), “life long learning projects” (N = 36) and “Specialised SME advice centres” (N = 28). The lower level of results obtained from the “educational or vocational institutions” and “specialised SME advice centres” confirms that there is a strong need to raise the level and the intensity of education dedicated to gaming and gaming related companies.
PERCEIVED NEEDS

This section will focus on identifying the perceived needs of the regional gaming sector. The main question asked was, "what is the main obstacle for creating or sustaining the games industry in your region". Overall results are described below.

![Figure 26. Main Regional Obstacles for the Games Industry (N = 340)](image)

The main obstacles for creating and sustaining the games industry are: **access to finance** (N = 107), **access to market** (N = 52), **access to business support** (N = 49), followed by a **supportive regulatory framework** and **access to knowledge** (both 45), and **“access to R&D and technology”** (N = 42).

The most important obstacle is **“access to finance”**, which is mentioned twice as many times as the other options. This indicates the strong need within the regions to have dedicated financial instruments, which could be activated by modifying the already established financial instruments and giving specific reserves of money to game related projects when in the prototype phase.
2. REGIONAL QUESTIONNAIRE RESULTS
Utrecht (THE NETHERLANDS)

RESPONSE RATES & STAKEHOLDER TYPES

Utrecht’s response rate for the online questionnaire was 62. Stakeholder types were as follows: 27 were Game related enterprise or organization (57.4%), 17 were an Education or research organization (36%), 1 Policy maker (2%), 2 other (4%). Sixteen respondents did not include this information.

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: About the Game Enterprises

1. Ninety percent of the respondents who filled in the questionnaire had less than 9 employees.

2. The annual turnover ranges between less than 200,000€ (75%) and 200,000-500,000€ (10%). Forty-six respondents chose not to declare their annual turnover.

3. Companies state to be mainly focused on: single player (73%), mobile games (42%), multiplayer (42%), and social games (37%).

4. A majority of respondents use the business to business model (62%) and online download model (62%).

5. Eighty percent of the companies are active in the following areas: “game design” (80%), “development and programming” (65%), “art and animation” (60%) and "production” (55%).

6. Only 35% of the companies offer professional in-house development opportunities.

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: About the games sector in your region

1. The Utrecht region has a University which offers courses focusing on games (90%).

2. Ninety-five percent of the respondents know that there is a game cluster/incubator in Utrecht.

3. Many (43%) agree that the presence of a game cluster is a useful factor for business.

4. Around half the respondents (47%) find that Utrecht supports cross border trading opportunities.

5. Most respondents (72%) think they are well informed about the games industry in their region.

6. More than half of the respondents (65%) declare to be well informed about the measures being taken to stimulate the games industry in the region.

7. The majority of respondents (93%) rated the average size of game companies to be in the range of less than 9 employees.

8. The majority of respondents (85%) indicate that the most common scope of activities for game companies in their region is: entertainment and serious games (learning and persuasive, well-being and health).

9. The majority of respondents (85%) find that the games industry has not reached its full potential yet.

10. Around half of the respondents (55%) consider that innovation through game based knowledge is high on the regional agenda.
REGULATION AND POLICIES

1. Forty percent of those who filled in the questionnaire is interested in knowing more about policy and support in the region, country and other countries.

2. Twenty-four percent of the respondents state that no tax incentives or price controls have been implemented in the region in order to support the gaming industry.

3. Red tape and registration regulations seem to be a problem for only a minority of respondents (32%).

4. Managing IPR is considered an important part of succeeding in the gaming industry by 39% of the respondents.

5. The most important areas to improve in order to sustain the regional gaming industry are: setting up (63%), tax breaks (63%), IPR (44%), and removing red tape (43%).

ACCESS TO MARKET: “About markets and opportunities”

1. The market for the games sector is mostly national (56%), followed by international (53%) and European (9%).

2. More than half (58%) declare that the market conditions are favourable for the establishment and maintenance of the games industry in the region.

3. Around half of the respondents (46%) state that the general awareness in other sectors about the potential of the games industry is not present.

4. More than 73% are convinced that there is a need to stimulate partnerships between businesses, public institutions and the games sector.

5. Thirty-nine percent agrees that public sector investment is not sufficient to establish or sustain the games industry in the region.

6. The majority of respondents (86%) declare that networks are in place to promote the games industry in the region.

7. Eighty-two percent agree that new business models such as virtual goods, web-based gaming and crowdsourcing will open new market opportunities.

8. The genres that are considered to be generating the biggest revenues in the future are: social games (73%), mobile games (64%), serious games (64%), and multiplayer games (55%).

ACCESS TO FINANCE

1. Financial instruments that are considered to be most relevant for the development of the games sector are: self-financing (71%), public subsidies (65%), crowdsourcing (55%), and publisher funding (48%).

2. Of the above instruments, the ones mostly available in the region are: self financing (89%), public subsidies (74%), crowdsourcing (70%), and private financing and bank loans (52%).

3. Financial support is mostly necessary for the production (58%) of a product/service, its promotion (55%), and creation (48%).

4. The type of support which is considered to be the most useful is: financing of other items (71%), financing of the prototype phase (64%), and the development of business models (64%).

5. Tax benefits for private investors are considered useful for the games industry by 63% of the companies.

6. Venture capital is not seen as the most effective support instrument for the games sector by less than half (46%) of the respondents.

7. Sixty-four percent of the respondents agreed that having an excellent business model is needed to gain venture capital support.
ACCESS TO KNOWLEDGE & WORKING TOGETHER

1. The most important trends for the game sector are considered to be digital distribution (89%) and cloud computing (43%).

2. The main sources of information regarding these trends are: internet (93%), networking events (59%) and educational/research organizations (52%).

3. Joint projects with other enterprises and education/research institutes are considered vital for keeping up with recent trends and innovations by 72% of those surveyed.

4. A majority of respondents (76%) find that there are strong links with regional educational and/or research institutes.

5. Game-related courses are offered in Utrecht. Courses offered are: game design (100%), programming (100%), computer science (97%), graphic design (100%) and interaction design (100%).

6. Fifty-nine percent of the respondents find that existing educational programmes produce graduates with the necessary skills to start their own enterprise.

7. The majority of respondents (72%) agree that initiatives are in place which boost research and development within the games sector in the region.

8. Fifty-nine percent of the respondents declare that the region encourages multidisciplinary clusters and sectorial networks based around the games sector.

ACCESS TO KNOWLEDGE: “About business skills”

1. Identified weaknesses of the game enterprise start-ups are: the lack of economic/financial competence (81%), commercial competence (77%), managerial skills and (65%), and lack of entrepreneurial skills (58%).

2. Sixty-nine percent of the respondents agree that start-ups in the games sector do not have sufficient entrepreneurial skills.

3. Less than half (46%) find that, for those who want to start a game enterprise, there is sufficient advice and support available on business skills.

4. Concerning where to obtain this type of support, advice and support about business skills are mostly available from: personal networks (85%), sectorial organizations (69%), educational/research institutes (54%) and other business support organization (46%).

5. Entrepreneurial skills were gained by trial and error (74%), personal knowledge (68%), and contacts and networks (68%).

6. Fifty-seven percent state that entrepreneurship is not sufficiently addressed in the educational system in the region.

7. Sixty-five percent of the respondents think that incubators offer a good orientation for start-ups (65%).

8. Even more (85%) find that incubators should offer specific coaching for start-ups in the games sector.

9. Sixty-five percent of the respondents also think that universities should provide more courses on business and entrepreneurial skills.

10. More than 60% say that games clusters and incubators are best placed to offer courses and coaching on necessary skills.

11. Seventy-seven percent find that support mechanisms are in place to increase the general awareness of the games industry in the region.

12. Sixty-four percent of the respondents agree that the games industry should be connected to other sectors where games can provide innovative solutions to societal problems.

13. Around half of the respondents (54%) find that media are not providing a comprehensive overview of the games industry.
14. A majority (61%) of the respondents agree that events in the region focused on introducing and boosting the games sector are sufficient.

15. The provision of a creative district for game enterprises with affordable office rent and related service is considered to be a good alternative to traditional support mechanisms by about half of the respondents (53%).

16. Eighty-seven percent of the respondents state that coaching and mentoring specifically tailored to game enterprises should be provided in incubators.

**PERCEIVED NEEDS**

1. The main obstacles for creating and sustaining the games industry are: access to finance (81%), access to market (39%), access to knowledge (39%), and access to business support (35%).

2. Twelve respondents answered the question, "Can you describe what else you need to boost your games enterprise or to boost the games sector in your region?"

<table>
<thead>
<tr>
<th>Table 1. Inventory of the Respondents Needs in Utrecht.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved network with other businesses.</td>
</tr>
<tr>
<td>Fostering sustainable growth and proof of concept of applied gaming in other sectors.</td>
</tr>
<tr>
<td>More emphasis in education on business, commerce, starting up your own business.</td>
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<tr>
<td>More national and international promotion of Utrecht as the gaming capital of the Netherlands (to attract (inter)national business and talent).</td>
</tr>
<tr>
<td>Tax breaks could be of significant help to compete internationally.</td>
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<tr>
<td>Focus on serious/professional gaming.</td>
</tr>
<tr>
<td>Perseverance, skills and balls. Too many companies are started without daring to really make something awesome, and/or without awesome skills on the development team.</td>
</tr>
<tr>
<td>More skilled people!</td>
</tr>
<tr>
<td>Less red tape.</td>
</tr>
<tr>
<td>Public relations.</td>
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<tr>
<td>Luckily in my region there are a lot of things in place already, although the demand is higher than the supply. In the end, financing is and will always be the biggest problem.</td>
</tr>
<tr>
<td>A bit more time.</td>
</tr>
</tbody>
</table>
Piedmont (ITALY)

RESPONSE RATES & STAKEHOLDER TYPES

Piedmont obtained 63 responses in their survey. Among these, 6 were Game related enterprise or organizations, 22 Education or research organizations, 6 other, 8 policy maker/public agency, and 6 enterprise support organizations.

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: About the Game Enterprises

1. Half of the respondents stated that they worked as a one-man business or freelancer, or in a company with less than 5 employees. Half of the respondents worked in companies between 5 and 25 employees.

2. The annual turnover for thirty-three percent of the respondents is greater than 200,000 € and for another thirty-three respondents, turnover ranges between 200-500,000 €. The remaining respondents have chosen not to mention their annual turnover.

3. All Companies are focused on single player, multi-player, action/shooter and mobile games. Half of the companies are focused on serious games.

4. All respondents use online download models (other platform). Half of the respondents use online download own website (50%), and half of the respondents use business to consumer (B2C) revenue models (50%).

5. All companies are active in “development and programming”, “game design”, “art and animation” and “audio”. Half of the respondents also work in retailing, distributing, and publishing.

6. All companies state that they offer professional development opportunities.

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: “About the games sector in your region”

1. Piedmont does not have a University offering courses focusing on games.

2. Piedmont does not have a games cluster/incubator.

3. All respondents agreed that a game cluster would be a useful factor for business.

4. When asked about the average size of companies, 16% stated that there were companies greater than 5 employees, 8% between 5-9 employees, 13% between 10-24 employees, and 63% do not know about the size of companies in their region.

5. Respondents have declared that the most common scope of activities for game companies in their region are: serious games (50%), entertainment (21%), and location-based games, (8%).

6. Half of the respondents (50%) find that they are well informed about the games industry in the region.

7. Fifty-nine percent of the respondents find that the games industry has not reached its full potential yet.

8. Half (50%) of the respondents consider that innovation through game based knowledge is not high on the regional agenda.
REGULATION AND POLICIES

1. Eighty percent of those who filled in the questionnaire were interested in knowing more about policy and support in the region, country and other countries.

2. Forty-eight percent state that no tax incentives or price controls have been implemented in the Piedmont in order to support the gaming industry.

3. Half of the respondents (51%) find that red tape and registration regulations seem to be a problem.

4. Managing IPR is considered an important part of succeeding in the gaming industry by 50% of the respondents.

5. The 3 most important areas to improve are: “removing red tape”, IPR (55%), “setting up” (32%), and “licenses” (22%).

ACCESS TO MARKET: “About markets and opportunities”

1. The market for the games sector is mostly international (45%), followed by regional (40%) and national (30%).

2. More than half of the respondents (60%) state that a general awareness in other sectors about the potential of the games industry is lacking.

3. The majority of the respondents (82%) also find that there is a need to stimulate partnerships between businesses, public institutions and the games sector.

4. Eighty percent of the respondents finds that there is insufficient public sector investment to establish or sustain the games industry in the region.

5. Many respondents (70%) declare that there are networks in place to promote the games industry in the region.

6. Seventy-two percent of the respondents agree that new business models such as virtual goods and web-based gaming and crowdsourcing will open new market opportunities.

7. The genres that are considered to be generating the biggest revenues in the future are: multi-player (84%), mobile games (69%), social games (61.5%), and serious games (61%).

ACCESS TO FINANCE

1. Financial instruments considered the most relevant for the development of the games sector are: venture & equity funds (44%), business angels (36%), private financing (36%), public funding (36%), innovation vouchers (36%), and self-financing (28%).

2. Respondents are aware of the following financial instruments available in Piedmont: bank loans (60%), self financing and public funds (50%), innovation vouchers (45%), venture & equity funds (30%), private financing (25%), and business angels (20%).

3. Financial support is mostly necessary for: the production of a product/service (46%), the creation of a product/service (50%), its distribution (31%) and promotion (35%).

4. The type of support which is considered to be the most useful is: support before and during the application process (90%), financing the prototype phase (58%), and financing the concept phase (11%).

5. Tax benefits for private investors are considered useful for the games industry by 76% of the respondents.

ACCESS TO KNOWLEDGE & WORKING TOGETHER

1. The most important trends for the games sector are considered to be: cloud computing (58%), continuous human and machine interfaces (54%), augmented reality (46%), and digital distribution (33%).
2. The main sources of information regarding these trends are: the internet (96%), networking events (42%), and educational/research organizations (42%).

3. Joint projects with other enterprises and education/research institutes are considered as vital for keeping up with recent trends and innovations by 76% of the respondents.

4. Less than half of the respondents find that there are strong links (40%) with regional educational and/or research institutes.

5. Respondents are aware of the following game-related courses offered in Piedmont: programming (81%), graphic design (76%), computer science (68%), interaction design (52%), sound design (29%), game design (24%), and Human-Computer Interaction (19%).

6. Forty-four percent of the respondents find that existing educational programmes produce graduates with the necessary skills to start their own enterprise.

7. Only 19% of the respondents state that initiatives are available to boost research and development within the games sector in the region.

8. Only 20% of the respondents think that Piedmont encourages multidisciplinary clusters and sectoral networks based around the games sector.

ACCESS TO KNOWLEDGE: “About business skills”

1. Main weaknesses of the game enterprise start-ups are the lack of: managerial skills (61%), economic/financial competence (61%), commercial contacts & networks (43.5%), and entrepreneurial skills (31%).

2. Advice and support concerning business skills are mostly available from: personal networks (73%), sectoral organizations (50%), and other business support organizations (45%).

3. Entrepreneurial skills were gained by: personal knowledge (80%), contacts and networks (40%), trial and error (30%), and educational organizations (30%).

4. A minority of respondents (30%) find that Incubators do not offer good orientation for start-ups.

5. A further 65% of the respondents agree that incubators should offer specific coaching for start-ups in the games sector.

6. Seventy-seven percent of the respondents think that universities should provide more courses on business and entrepreneurial skills.

7. A minority of the respondents (38%) agree that the games industry in Piedmont is not connected to other sectors where games can provide innovative solutions to societal problems.

8. More than half of the respondents (68%) agree that the media is not providing a comprehensive overview of the games industry.

9. Half (50%) of the respondents also agree that currently there are not enough events in Piedmont focused on introducing and boosting the games sector.

10. A little less than half of the respondents (47%) find that the provision of a creative district for game enterprises with affordable office rent and related service, is a good alternative to traditional support mechanisms.

11. Seventy-one percent of the respondents agree with the statement that coaching and mentoring which is specifically tailored to game enterprises, should be provided in incubators.

PERCEIVED NEEDS

1. The main obstacles for creating and sustaining the games industry are: access to finance (71%), access to R&D and technology (62%), a supportive regulatory framework (29%), access to market (33%), and access to knowledge (25%).
Umbria (ITALY)

RESPONSE RATES & STAKEHOLDER TYPES

Umbria obtained 27 responses. Among these, 14 were “game related enterprises”, 3 “policy maker/public agency”, 2 “enterprise support organizations”, 1 “education or research organization”, 3 belonged to the “other” category and 4 did not answer the question.

Note: The gaming sector is still in its infancy in Umbria. Sviluppumbria used the questionnaire as a template to directly interview current and potential stakeholders in the field such as game related enterprises (ICT companies, multimedia companies, high tech companies) and universities, regional agencies, and policy-makers.

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: About the Game Enterprises

Note: In Umbria the game sector has not been developed as of yet. These percentages should be read in terms of future aims and potential.

1. The average size of the gaming-related companies in Umbria is less than 24 employees (71.5%), followed by respondents who state that their companies are in the range of more than 25 employees (28.6%). These figures correspond to the average size of Umbrian companies; there are round 80,000 companies with a total population of around 1 million inhabitants. These companies are mostly SMEs.

2. The annual turnover figures were as follows: greater than 1M euro (36%), greater than 2M euro (29%), 200-500,000 euro (14%). The remaining percentage of respondents chose not to declare their annual turnover.

3. In the future, companies would like to focus on serious games (91%), mobile game (45%) and simulation games (36%).

4. Most of the respondents use the business to business (B2B) model (93%), followed by online downloads (50%), and the business to consumer model B2C (33%).

5. Eighty-six percent of the interviewed companies would like to be active in “development and programming”, “production” (43%), “art & animation” (29%), “game design” (21%), and “publishing” (21%).

6. Most respondents (86%) offer professional development opportunities to their employees.

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: “About the games sector in your region”

1. Umbria does not have a University that offers courses focusing on games.

2. Umbria also lacks a specific game cluster/incubator. However, incubators do exist in Umbria; Sviluppumbria directly manages 3 incubators dedicated to these themes: medical, hi-tech, and culture.

3. All respondents agreed that having a game cluster/dedicated incubator would be a useful factor for business.

4. The majority of respondents (71%) find that Umbria supports cross border trading opportunities. They mentioned that there are certain specific measures that allow companies to get specific grants in order to make it easier for them to trade outside the region.

5. Respondents are not well informed about the games industry in the region. This is not surprising as Umbria’s gaming industry is still in its infancy, and there are no initiatives in Umbria dealing with the games sector.

6. Most (73%) of the respondents predict that the most common scope of activities for game companies in their region would be: “serious games” (learning & education) (59%), “location based games” (45%), “serious games” (well-being and health), and “entertainment games” (23%).

Respondents find serious games the most interesting, as they are beginning to become aware of the possibilities linked to creating serious games. Serious games seem not to require high-level coding and graphics, which is currently unavailable in Umbria. Serious games are created via working together across sectors. This is relatively easy to establish in Umbria, as it is a small region with networks already in place.
7. Indeed, the majority of respondents (73%) think that the games industry in Umbria has not reached its full potential yet.

8. Round half of the respondents (48%) also agree with the statement that innovation through game based knowledge is not high on the regional agenda.

REGULATION AND POLICIES

1. Companies are highly interested in the opportunities connected to the game sector: more than 90% declare to be interested in knowing more about policy and support for the games industry in the region, country and other countries.

2. Eighty-six percent of the respondents are aware of the fact that tax incentives or price controls have not been implemented in Umbria in order to support the gaming industry.

3. What remains challenging for companies who want to enter the game sector is red tape and registration regulations (87%).

4. Managing IPR is considered an important factor in order to succeed in the games industry by the vast majority of respondents (95%).

5. The most important areas to improve are: removing red tape (74%), setting up (65%), intellectual property management and data protection (50%), tax breaks (48%), and labour regulation (40%).

6. Almost all the respondents (95%) state that general awareness in other sectors about the potential of the games industry is currently lacking.

7. Seventy-three percent of the respondents recognise that the role of public agencies, which can act as an intermediary between the games sector and other sectors, could be important.

ACCESS TO MARKET: “About markets and opportunities”

1. The potential market for the games sector is considered to be mostly: international (70%), followed by national (65%) and European (61%).

2. Market conditions are considered to be favourable for the establishment and maintenance of the games industry in the region by only 17% of the respondents.

3. Ninety-nine percent of the respondents find that there is a strong need to stimulate partnerships between businesses, public institutions and the games sector.

4. In particular, sixty-nine percent of the respondents find that Umbria lacks public sector investment to establish or sustain the games industry in the region.

5. Many (78%) also notice that networks are lacking to promote the games industry in the region.

6. More than 90% agree that new business models such as virtual goods and web-based gaming and crowdsourcing will open new market opportunities.

7. The main genres that are considered to be generating the biggest revenues in the future are: mobile games (78%), serious games (78%), multi-player games (78%), and social games (48%).

8. Seventy percent of the respondents find that Umbria does not have any specific market restrictions that could affect the games industry.

9. Eighty-two percent of the respondents find that tools are available in Umbria in order to promote and disseminate information about cross-sectoral and cross-border market opportunities in the region.

10. However the same percentage of respondents (82%) find that these tools are, as of yet, not used.
ACCESS TO FINANCE

1. Financial instruments considered as the most relevant for the development of the games sector are: self-financing (87%), public subsidies (65%), venture capital & equity funds (43%), bank loans (48%), credit loans and guaranties (48%), and micro-credit mechanisms (48%).

2. Respondents are aware of the following financial instruments available in Umbria: credit loans & guaranties (91%), micro-credit mechanisms (91%), public subsidies (82.6%), self financing (82.6%) and bank loans (82.6%), and venture & equity funds (69%).

3. Financial support is deemed most necessary in order to: create (96%) and produce (83%) a product/service.

4. The type of support considered the most useful is: financing the prototype phase (91%), support before the application process (74%) and after the application process (70 %), and financing the concept phase (56%).

5. Another kind of support could be represented by tax benefits, which are considered useful for the games industry by 95% of the respondents.

These results lead us to conclude that business angels, equity and venture funds, tax incentives, government grants, and vouchers for innovation are financial instruments that could be considered most suitable for developing and supporting the gaming industry in Umbria. Traditional financial instruments such as: bank loans, bank incentives, loans and guarantees, and micro-credit, are available in Umbria. However they do not meet the full needs of the gaming industry.

Currently, the traditional financial instruments mentioned above mostly support capital investment and do not cover the high cost of human resources. The product also needs to be promoted and distributed. Respondents stated that this type of support is essential in order to create a product for console and platform games.

Financial support should be dedicated to financing the planning, development and finalization of the concept phase as well as the prototype phase, which does not necessarily lead to the production phase.

Venture capital could be a good tool to support gaming enterprises as it helps enterprises at the development stage, investing in start-ups and innovative ideas. There is a high operational risk, as it is not yet clear whether the company will have a market for their products. There is also a high financial risk as the investor does not know if he will be able to recover the capital invested.

The respondents would like institutions to take part in reshaping the actual financial instruments, mixing the needs of different sectors in order to create targeted interventions where possible.

ACCESS TO KNOWLEDGE & WORKING TOGETHER

1. The most important trends for the game sector are: digital distribution (87%) and cloud computing (82%).

2. The main sources of information regarding these trends are: internet (100%), networking events (100%), clients & providers (70%) and competition analysis (47%).

3. Joint projects with other enterprises and education/research institutes are considered vital for keeping up with recent trends and innovations by all of the respondents.

4. Forty-three percent of the respondents agree with the statement that strong links with educational and/or research institutes in Umbria, are lacking.

5. In the region the main courses offered by universities, dealing with the game sector, are: computer science (96%), programming (96%), design (48%) and graphic design (48%).
ACCESS TO KNOWLEDGE: “About business skills”

1. Main weaknesses of game enterprise start-ups are mainly identified as the lack of: managerial skills (91%), economic/financing competence (68%), and commercial competence (36%).

2. Advice and support about business skills are mostly available from: promotion agencies (82%), sectoral organizations (72%), personal networks (54%), and other business support organizations (45%).

3. Entrepreneurial skills were gained by: personal knowledge (90%), trial and error (76%), educational or vocational institutions (47%), and contacts and networks (43%).

4. Sixty-three percent of the respondents agree that Incubators offer good orientation for start-ups (63%).

5. Eighty-one percent of the respondents agree that Incubators should also offer start-ups specific coaching in the games sector (81%).

6. All of the respondents agree that universities should also provide more courses on business and entrepreneurial skills.

7. Eighty-two percent of the respondents find that a games cluster and/or incubators are best placed to offer courses and coaching on necessary skills.

8. Eighty-five percent of the respondents agree with the statement that the media in Umbria and in Italy, are not providing a comprehensive overview of the games industry.

9. Ninety-four percent find that there are not enough events in Umbria focused on introducing and boosting the games sector.

10. The provision of a creative district with affordable office rent and related services is considered to be a good alternative to traditional support mechanisms by only 32% of the respondents.

11. The majority of respondents (95%) would like incubators to provide specifically tailored coaching and mentoring to game enterprise start-ups.

PERCEIVED NEEDS

1. The main obstacles for creating and sustaining the game industry in the region are: access to finance (73%), a supportive regulatory framework (68%) and access to business support (32%).
Asturias (SPAIN)

RESPONSE RATES & STAKEHOLDER TYPES

Asturias obtained 45 responses to the questionnaire. Stakeholder types were as follows: 8 were Education or research organizations, 9 Enterprise support organizations, 8 Game related enterprise or organization, and 10 were Other (undisclosed).

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: About the Game Enterprises

1. The size of the companies are in the range of one-man businesses/freelancers and SMEs, as 44% of the respondents who filled in the questionnaire have 5-9 employees, 22% less than 5 employees, and 22% are a one man business or freelancer.

2. The annual turnover for the companies who answered the questionnaire is: <200,000 euros (more than 44%) and 200,000-500,000 euros (33%). The remaining percentage of respondents did not declare their annual turnover.

3. Companies are mainly focused on: mobile games, social games, single player and multiplayer games (50% each).

4. Most of the companies use the business to consumer model (B2B) (63%) and online download models (63% own website and 50% other platform).

5. The majority of the respondents (88%) stated that they are active in the following areas: “development and programming”, “game design” (75%) and “art and animation” (62%).

6. Close to half (43%) of the companies offer professional development opportunities.

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: “About the games sector in your region”

1. Half of the respondents are aware of the fact that Asturias has a University offering courses focusing on games.

2. Asturias does not have a game cluster/incubator.

3. The majority of respondents (88%) agree that a game cluster is a useful factor for business.

4. Thirty-four percent of the respondents find themselves well informed about the games industry in Asturias.

5. More than half of the respondents (63%) agree that Asturias supports cross border trading opportunities.

6. Sixty-eight percent of the respondents state that entertainment (45%) games and serious games are the most common scope of activities for game companies in their region.

7. Sixty-eight percent of the respondents stated that they are not well informed about the measures being taken to stimulate the games industry in the region.

8. The vast majority of respondents (87%) find that the games industry has not yet reached its full potential.

9. More than half (55%) consider that innovation through game based knowledge is not high on the regional agenda.

10. Half of the respondents (50%) find that the games sector in Asturias has a strong European and international focus.
REGULATION AND POLICIES

1. Seventy percent of the respondents are interested in knowing more about policy and support in the region, country and other countries.

2. More than half of the respondents (63%) state that tax incentives have not been implemented in the region in order to support the gaming industry.

3. Red tape and registration regulations remain challenging for game companies for about half of the respondents (46%).

4. Managing IPR is considered an important part of succeeding in the gaming industry by 46% of the respondents.

5. The 3 most important areas to improve in order to help the games sector are: “setting up” (64%), “IPR” (61%), “tax breaks” (46%), and “removing red tape” (43%).

ACCESS TO MARKET: “About markets and opportunities”

1. The market for the games sector is mostly: international (50%), national (46%) and European (19%).

2. Only 26% of the respondents agree that the market conditions are favourable for the establishment and maintenance of the games industry in Asturias.

3. Moreover, 61% state that general awareness in other sectors about the potential of the games industry, is lacking.

4. More than 89% are convinced that there is the need to stimulate partnerships between businesses, public institutions and the games sector.

5. Seventy-two percent find public sector investment to establish or sustain the games industry in the region insufficient.

6. Half of the respondents (50%) find that networks to promote the games industry in the region are currently lacking.

7. The majority of respondents (85%) agree that new business models such as virtual goods and web-based gaming and crowdsourcing will open up new market opportunities.

8. The genres that are considered to be generating the biggest revenues in the future are: mobile games (82%), multiplayer games (79%), and social games (68%).

9. Sixty-one percent of the respondents think that public agencies do not act as an intermediary between games industry and other sectors.

ACCESS TO FINANCE

1. Financial instruments that are the most relevant for the development of the games sector are: venture & equity funds (58%), private financing (54%), business angels (50%), and self-financing (42%).

2. Of the above instruments, those mostly available in Asturias are: self financing (76%), bank loans (57%), business angels (57%), and credit loans and guarantees (38%).

3. Financial support is mostly necessary for the creation of a product/service (63%), its promotion (56%) and production (48%).

4. The type of support considered to be the most useful is: financing the prototype phase (64%), evaluation of the market (50%), and financing the concept phase (46%).

5. Tax benefits for private investors are considered useful for the games industry by 75% of the respondents.

6. Sixty-eight percent of the respondents find that programmes that help enterprises to become ‘investment ready’, would be useful.
7. Eighty-five percent of the respondents agree that having an excellent business model is needed to gain venture capital support.

ACCESS TO KNOWLEDGE & WORKING TOGETHER

1. The most important trends for the game sector are: digital distribution (64%), augmented reality (52%), and cloud computing (44%).

2. The main sources of information regarding these trends are: internet (92%) and networking events (58%).

3. Sixty-five percent of the respondents find joint projects with other enterprises and education/research institutes vital for keeping up with recent trends and innovations.

4. Forty-four percent of the respondents find that Asturias does not have strong links with educational and/or research institutes in the region.

5. Asturias offers the following game-related courses: programming (87%), graphic design (83%), computer science (74%), entrepreneurship/business skills (61%), and game design (39%).

6. Fifty-four percent of the respondents find that existing educational programmes do not produce graduates with the necessary skills to start their own enterprise.

7. Thirty-nine percent of the respondents state that initiatives that boost research and development within the games sector in the region, are available.

8. Forty-two percent of the respondents agree that Asturias encourages multidisciplinary clusters and sectoral networks based around the games sector.

ACCESS TO KNOWLEDGE: “About business skills”

1. The main weaknesses of game enterprise start-ups are the lack of: economic/financial competence (77%), commercial competence (68%), managerial skills (50%), and contacts and network (46%).

2. More than half of the respondents (64%) agree that start-ups in the games sector lack sufficient entrepreneurial skills.

3. Less than half of the respondents (42%) find that advice and support for those who want to start a games enterprise on business skills, is lacking.

4. When advice and support about business skills is available, it seems to be found mostly in: promotion agencies (48%), other business support organisations (48%), followed by personal networks (39%) and sectoral organisations (39%).

5. Entrepreneurial skills were obtained by: trial and error (73%), personal knowledge (67%), followed by contacts and networks (40%).

6. Eighty-eight percent of the respondents state that entrepreneurship is not sufficiently addressed in the educational system in Asturias.

7. The majority of respondents agree that Incubators offer good orientation for start-ups (61%).

8. Sixty-five percent of the respondents agree that Incubators should offer specific coaching for start-ups in the games sector.

8. The majority of respondents (71%) agree that universities should provide more courses on business and entrepreneurial skills.

9. Fifty-nine percent of the respondents agree that games clusters and incubators are best placed to offer courses and coaching on necessary skills.

10. More than half of the respondents (57%) find that support mechanisms are in place to increase the general awareness of the games industry in the region.

11. Sixty-five percent of the respondents agree that the games industry is not connected to other sectors where games can provide innovative solutions to societal problems.
12. More than half of the respondents (61%) find that the media does not provide a comprehensive overview of the games industry.

13. The majority of respondents (75%) agree with the statement that there are not enough events in the region which are focused on introducing and boosting the games sector.

14. Sixty-two percent of the respondents find that the provision of a creative district for game enterprises with affordable office rent and related service is not a good alternative to traditional support mechanisms.

15. Seventy-nine percent of the respondents think that access to affordable professional development programmes for game enterprises is a good alternative to traditional support mechanisms.

16. More than 70% of those questioned state that coaching and mentoring specifically tailored to game enterprises should be provided in incubators.

**PERCEIVED NEEDS**

1. The main obstacles for creating and sustaining the games industry are: access to finance (86%), access to market (43%), access to business support (38%), and access to knowledge (38%).
Baden-Württemberg (GERMANY)

RESPONSE RATES & STAKEHOLDER TYPES

Baden-Württemberg obtained 43 responses to the questionnaire. Among these, 9 were Game related enterprise or organizations, 8 Education or research organizations, 4 Policy maker/public agency, and 7 Other. Fifteen respondents did not mention their category.

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: About the Game Enterprises

1. Most the gaming companies are one-man businesses or freelancer or less than 5 employees (57%). Forty-three percent of the game-enterprises have less than 25 employees.

2. The annual turnover is: <200,000 euros (43%), above 1M euros (14%) or above 2M euros (14%). The remaining respondents chose not to declare their annual turnover.

3. Companies are mainly focused on: mobile games (83%), single player games (83%), followed by multi player, and action/shooter games (68%).

4. The majority of respondents (71%) use the B2C revenue model; 57% use B2B, online download, and virtual goods models.

5. Companies are active in: “development and programming” (86%), “game design” (86%), “art and animation” (57%), and “production” (57%).

6. Most of the companies offer professional development opportunities (43%).

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: “About the games sector in your region”

1. Baden-Württemberg has a University which offers courses focusing on games. However only 42.9 percent of the respondents agreed with this statement in the questionnaire. This result reflects companies' perception of the availability of game-related courses offered in the region: Four respondents declare that courses focusing on games are not offered in the local universities, while three respondents are of the opposite opinion. This difference in opinion is probably due to the kind of courses currently offered in Baden-Württemberg; even though some game-related courses are available, a complete degree course dedicated to game design and game development is still missing in public universities.

2. There is no game cluster/incubator in Baden-Württemberg.

3. Everybody agrees on the need to have a game cluster as a useful factor for business.

4. Most respondents (76%) are well informed about the games industry in Baden-Württemberg.

5. Respondents think that the average size of the company is in the range of 5-9 employees (38%) or 10-24 employees (19%).

6. Seventy-six percent of the respondents find that the most common scope of activities for game companies in their region is entertainment, whilst 33% percent are active in serious games, and 19% in location-based games.

7. Although declaring to well informed about the games industry in the region, only 33% state that they know of measures being taken to stimulate the games industry in the region.

8. The majority of respondents (76%) find that the games industry has not reached its full potential yet.

9. Half of the respondents (52%) consider that innovation through game based knowledge is not high on the regional agenda.

10. Fifty-two percent of the respondents agree that the games sector has a strong European and international focus.
REGULATION AND POLICIES

1. The majority of respondents (71%) who filled in the questionnaire is interested in knowing more about policy and support in the region, country and other countries.

2. Sixty-one percent of the respondents find that no tax incentives or price controls have been implemented in Baden-Württemberg in order to support the gaming industry.

3. On the other side, 78% of the respondents agree that red tape and registration regulations does not seem to be a problem.

4. IPR managing is considered an important part of succeeding in the gaming industry by 71% of the respondents.

5. The three most important areas to improve are: “setting up”, “removing red tape”, “IPR” and “licenses”.

ACCESS TO MARKET: “About markets and opportunities”

1. The market for the games sector is mostly international (61%), then national (39%) and regional (17%).

2. Moreover, 39% state that the general awareness in other sectors about the potential of the games industry is lacking.

3. The need to stimulate partnerships between businesses, public institutions and the games sector is felt by the majority of respondents (72%).

4. More than half of the respondents (55%) agrees that public sector investment is not sufficient to establish or sustain the games industry in Baden-Württemberg.

5. Half of the respondents (50%) declare that networks are in place to promote the games industry in the region.

6. Eighty-nine percent of the respondents agree on that new business models such as virtual goods and web-based gaming and crowdsourcing will open new market opportunities.

7. The genres that are considered to be generating the biggest revenues in the future are: mobile games, multi-player games, and social games.

ACCESS TO FINANCE

1. Financial instruments that are considered to be most relevant for the development of games sector are: self-financing (72%), venture & equity funds (50%), business angels and crowdsourcing (39%).

2. Of the above instruments, respondents indicated that those mostly available in Baden-Württemberg are: self financing (61%) and bank loans (50%), then business angels (39%) and venture & equity funds.

3. Financial support is mostly necessary for the production of a product/service (70%), the creation of a product/service (52%), and its distribution (41%).

4. The type of support considered to be the most useful is financing the prototype phase (69%) and financing the concept phase (50%).

5. Tax benefits for private investors are considered useful for the games industry by 67% of the respondents.
ACCESS TO KNOWLEDGE & WORKING TOGETHER

1. The most important trends for the game sector are: digital distribution (71%), augmented reality (41%) and cloud computing (35%).

2. The main sources of information regarding these trends are: internet (77%) and networking events (53%).

3. Joint projects with other enterprises and education/research institutes are considered to be vital for keeping up with recent trends and innovations by 65% of those surveyed.

4. Less than half of the respondents (43%) find that there are strong links with educational and/or research institutes in Baden-Württemberg.

5. Baden-Württemberg offers most of the main courses dealing with the game sector: graphic design (88%), programming (75%), computer science (69%), game design (56%), interaction design (38%), and HCI (19%).

6. Around half of the respondents (53%) agree that existing educational programmes produce graduates with the necessary skills to start their own enterprise.

7. Only 19% of the respondents state that initiatives boosting research and development within the games sector in the region are available.

8. A minority of respondents (33%) declare that the region encourages multidisciplinary clusters and sectorial networks based around the games sector.

ACCESS TO KNOWLEDGE: “About business skills”

1. Weaknesses of the game enterprise start-ups are: a lack of managerial skills and economic/financial competence (both 79%), followed by a lack of entrepreneurial skills (50%).

2. Advice and support about business skills are mostly available from: personal networks (82%), sectorial organizations (47%), and other business support organizations (29%).

3. Entrepreneurial skills were gained by: trial and error (50%), personal knowledge (75%), and contacts and networks (58%).

4. The minority of respondents (29%) find that incubators offer good orientation for the start-ups.

5. The majority of respondents (76%) agree that Incubators should offer specific coaching for the games sector.

6. The majority of respondents (73%) also agree that universities should provide more courses on business and entrepreneurial skills

7. Thirty-eight percent of the respondents find that the games industry is not connected to other sectors where games can provide innovative solutions to societal problems.

8. Media are not providing a comprehensive overview of the games industry (83%).

9. More than half of the respondents (56%) find that events in the region which are focused on introducing and boosting the games sector are not sufficient.

10. Around half of the respondents (47%) agree that the provision of a creative district for game enterprises with affordable office rent and related service is a good alternative to traditional support mechanisms.

11. The majority of respondents (81%) state that coaching and mentoring specifically tailored to game enterprises should be provided in Incubators.

PERCEIVED NEEDS

1. The main obstacles for creating and sustaining the games industry are: access to finance (88%), access to business support (44%), and a supportive regulatory framework (31%).
Sofia (BULGARIA)

RESPONSE RATES & STAKEHOLDER TYPES

Sofia obtained 80 responses to the questionnaire. Stakeholder types were as follows: 6 Policy maker/Public agency, 5 Education or research organizations, 14 Enterprise support organizations, 12 Game related enterprise or organizations, 14 other (undeclared category).

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: About the Game Enterprises

1. Half of the respondents (50%) have "more than 25 employees" in their company, 25% of the companies are in the "5-10 employees" range, and 25% in the "less than 5 employees" category.

2. Respondents mentioned that their annual turnover is <200,000€ (43%) and above 2M€ (20%). The remaining percentage did not mention their annual turnover.

3. Companies state to be focused mainly on mobile games (100%) and social games (75%).

4. Half of the respondents use the B2C revenue model (50%), virtual goods and online download models (50%).

5. Sixty percent of the companies are active in: “development & programming”, “game design”, “art and animation”, and “publishing”.

6. Most of the companies offer professional development opportunities (60%).

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: “About the games sector in your region”

1. Sofia does not have a University which offers courses focusing on games.

2. Sofia does not have a games cluster or incubator.

3. All respondents agree that a game cluster or incubator could be a useful factor for business.

4. The majority of respondents (60%) agree that Sofia supports cross border trading opportunities.

5. More than half of the respondents (56%) declared to be well informed about the games industry in Sofia.

6. Respondents indicated that the average size of the game companies are in the range of 10-24 employees (50%) and 5-9 employees (26%).

7. Almost all respondents (90%) indicate that the most common scope of activities for game companies in their region are entertainment games and location-based games.

8. Around 80% of the respondents find that they are not well informed about the measures being taken to stimulate the games industry in the Sofia.

9. The vast majority of respondents (90%) agree that the games industry has not reached its full potential yet.

10. More than half of the respondents (60%) consider that innovation through game based knowledge is not high on the regional agenda.

11. Sixty percent of those surveyed agree that the games sector has a strong European and international focus.
REGULATION AND POLICIES

1. Seventy-one percent of those who filled in the questionnaire are interested in knowing more about policy and support in the region, country and other countries.

2. Sixty-four percent of the respondents find that tax incentives or price controls have not been implemented in the region in order to support the gaming industry.

3. Red tape and registration regulations seem to be a problem for around half of the respondents (51%).

4. Managing IPR is considered an important part of succeeding in the gaming industry by 55% of the respondents.

5. The most important areas to improve are: “setting up”, “removing red tape”, “e-commerce”, “tax breaks” and “IPR”.

ACCESS TO MARKET: “About markets and opportunities”

1. The market for the games sector is mostly international (90%) and European (55%).

2. Moreover, 55% of the respondents find that state the general awareness in other sectors about the potential of the games industry is lacking.

3. More than 70% are convinced that there is a need to stimulate partnerships between businesses, public institutions, and the games sector.

4. Sixty-three percent of the respondents agree that public sector investment to establish or sustain the games industry in the region, is not sufficient.

5. Many (more than 50%) declare that networks are in place to promote the games industry in the Sofia.

6. Eighty-five percent of the respondents agree that new business models such as virtual goods, web-based gaming, and crowdsourcing will open up new market opportunities.

7. The genres that are considered to be generating the biggest revenues in the future are: mobile and social games (more than 80%) and multiplayer (87%).

8. Sixty-five percent of the respondents find that public agencies do not act as an intermediary between the games industry and other sectors.

ACCESS TO FINANCE

1. Financial instruments that are considered to be most relevant for the development of the games sector are: self-financing (65%), business angels (64%), and venture & equity funds (55%).

2. Respondents think that, of the above instruments, those mostly available in Sofia, are: self financing (95%), bank loans (70%), private financing (62%), and credit loans & guarantees (40%).

3. Financial support is mostly necessary for the promotion of a product/service (80%), the creation of a product/service (42%), and then distribution (38%).

4. The majority of respondents (68%) find that the type of support considered to be the most useful is: financing of the prototype phase (68%) and support from game experts (40%).

5. Tax benefits for private investors are considered useful for the games industry by 52% of the respondents.

6. Thirty-eight percent of the respondents agree that venture capital is the most effective support instrument.

7. Respondents find that characteristics needed by a games enterprise to gain venture capital support are: an excellent business model (70%) and highly qualified employees (60%).
ACCESS TO KNOWLEDGE & WORKING TOGETHER

1. Seventy percent of the respondents find that the most important trends for the game sector are digital distribution and cloud computing.

2. The main sources of information regarding trends in the games sector are: internet (100%) and networking events (35%).

3. Joint projects with other enterprises and education/research institutes are considered to be vital for keeping up with recent trends and innovations by 60% of those surveyed.

4. The majority of respondents (60%) agree that strong links with educational and/or research institutes of the region are lacking.

5. Respondents think that the following game-related courses are offered in Sofia: programming (100%), computer science (100%), graphic design (80%) and entrepreneurship/business skills (65%), and game design (35%).

6. Half of the respondents (50%) find that existing educational programmes do not produce graduates with the necessary skills to start their own enterprise.

7. Sixty percent of the respondents state that initiatives that boost research and development within the games sector in the region are lacking.

8. Sixty percent find that the region does not encourage multidisciplinary clusters and sectoral networks based around the games sector.

ACCESS TO KNOWLEDGE: “About business skills”

1. Weaknesses of the game enterprise start-ups are mainly identified in the lack of managerial skills (80%) and economic/financial competence (80%), followed by the lack of commercial competence (60%), the lack of contacts and network (70%), and lack of entrepreneurial skills (48%).

2. Sixty percent of the respondents find that start-ups in the games sector lack sufficient entrepreneurial skills.

3. Respondents also find that advice and support available on business skills for those who want to start a game enterprise is not sufficient.

4. Respondents noted that advice and support about business skills are mostly available from: personal networks (85%), education/research institutes and promotion agencies (45%), and consultants (40%).

5. Entrepreneurial skills were gained by trial and error and personal knowledge (around 75% each), and contacts & networks (60%).

6. More than 80% state that entrepreneurship is not sufficiently addressed in the educational system in the region.

7. Around half of the respondents (53%) find that Incubators do not offer good orientation for start-ups.

8. Eighty percent of the respondents agree that Incubators should offer specific coaching for game enterprises in the games sector.

9. Likewise, 80% of the respondents agree that universities should provide more courses on business and entrepreneurial skills.

10. More than 50% of the respondents find that game clusters and incubators are best placed to offer courses and coaching on necessary skills.

11. There’re not support mechanism in place to increase the general awareness of the games industry in the region.

12. Only a minority of respondents (25%) find that the Chamber of Commerce does not provide services that are helpful for the game industry.

13. Forty-five percent of the respondents find that the games industry is not connected to other sectors where games can provide innovative solutions to societal problems.
12. Media are not providing a comprehensive overview of the games industry (70%).

13. The majority of respondents (80%) agree that events in the region which are focused on introducing and boosting the games sector are not sufficient.

14. The majority of respondents (67%) find that the provision of a creative district for game enterprises with affordable office rent and related service is not a good alternative to traditional support mechanisms.

15. More than 80% of the respondents state that coaching and mentoring specifically tailored to game enterprises should be provided in incubators.

PERCEIVED NEEDS

1. The main obstacles for creating and sustaining the games industry are: access to finance (80%), access to business support (54%), and a supportive regulatory framework (35%).
Ile-de-France (Paris Region) (FRANCE)

RESPONSE RATES & STAKEHOLDER TYPES

Note: Respondents have skipped some of the questions. The following results have been obtained by the answers provided and from the data included in the Ile-de-France Paris regional analysis.

The Ile-de-France (Paris Region) obtained 13 responses to the questionnaire. Among these, 7 were Game related enterprise or organizations, 1 other, 1 policy maker/public agency, and 4 (no category).

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: About the Game Enterprises

1. Concerning the size of their enterprises, all respondents were a “one man business or freelancer”.
2. Respondents are mainly focused on: mobile games (67%), single player games (67%), and multiplayer games and action/shooter games (33%).
3. Most of the respondents use the B2C revenue model (83%), followed by online download models (67%), and virtual goods (33%).
4. All companies are active in “development & programming”, “game design”, “art & animation” and “production”.
5. Most of the companies offer professional development opportunities (67%).

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: “About the games sector in your region”

1. Only ten percent stated that in the Paris Region University offers courses focusing on games.
2. A minority of respondents are aware that there is a game cluster/incubator.

Bear in mind that the sample size is small, which makes these results difficult to generalize.

3. The majority of respondents (70%) are well informed about the games industry in the Ile-de-France Paris region.
4. Respondents indicate that the average size of game companies is in the range of 5-9 employees (12%) and 10-24 employees (62%).
5. Seventy-five percent of the respondents state that the most common scope of activities for game companies in their region is: entertainment and serious games.
6. Forty percent of the respondents find themselves well informed about the games industry in the region.
7. Sixty-three percent of the respondents know the measures being taken to stimulate the games industry in Sofia.
8. The majority of respondents (75%) agree that the games industry has not reached its full potential yet.
9. The majority of respondents (75%) consider that innovation through game based knowledge is not high on the regional agenda.
10. More than half of the respondents (57%) agree that the games sector has a strong European and international focus.
REGULATION AND POLICIES

1. Between 40-50% of those who filled in the questionnaire are interested in knowing more about policy and support in the region, country and other countries.

2. Seventy-five percent of the respondents agree that tax incentives or price controls have not been implemented in the region in order to support the gaming industry.

3. The majority of respondents (67%) do not find red tape and registration regulations to be a problem.

4. Managing IPR is considered an important part of succeeding in the gaming industry by 80% of the respondents.

5. The most important areas to improve are: intellectual property management (100%), tax breaks (60%), “labour regulation” and “removing red tape” (40%).

ACCESS TO MARKET: “About markets and opportunities”

1. Respondents think that the market for the games sector is: international (67%), European (50%), and then national (33%).

2. Only 34% agree that general awareness in other sectors about the potential of the games industry is apparent.

3. The majority of respondents (67%) agree that there is a need to stimulate partnerships between businesses, public institutions and the games sector.

4. The majority of respondents (67%) agree that public sector investment to establish or sustain the games industry in the region is not sufficient.

5. Seventy percent of the respondents find that networks are in place to promote the games industry in the region.

6. Eighty-four percent of the respondents agree that new business models such as virtual goods, web-based gaming and crowdsourcing will open up new market opportunities.

7. The genres that are considered to be generating the biggest revenues in the future are: mobile games, social games, multi-player games, and social games.

ACCESS TO FINANCE

1. Financial instruments considered to be most relevant for the development of games sector are: public subsidies (100%), tax incentives, venture & equity funds (60%), business angels, self-financing (40%), and crowdsourcing (60%).

2. Of the above instruments, respondents think that those mostly available in the region are: public subsidies (100%), tax incentives (60%), venture & equity funds, and self-financing (40%).

3. Financial support is deemed mostly necessary for the production of a product/service (67%), the creation of a product/service (67%), and general enterprise support (50%).

4. All respondents find that the type of support considered to be the most useful is: financing the prototype phase and financing the concept phase.

5. Tax benefits for private investors are considered useful for the games industry by all of the respondents.
ACCESS TO KNOWLEDGE & WORKING TOGETHER

1. Respondents find the most important trends for the game sector are: digital distribution (100%) and cloud computing (50%).

2. The main sources of information regarding these trends are: internet, networking events, clients & providers, and competition analysis.

3. Joint projects with other enterprises and education/research institutes are considered to be vital for keeping up with recent trends and innovations by half of the respondents.

4. The majority of respondents (75%) find that strong links are available with educational and/or research institutes in the Ile-de-France Paris region.

5. Respondents find that the main game-related courses available in the Ile-de-France Paris region are: game design (100%), programming (100%), graphic design (100%), sound design (75%), computer science (50%), and interaction design (25%).

6. Half of the respondents finds that existing educational programmes produce graduates with the necessary skills to start their own enterprise.

7. The majority of respondents (75%) agree that initiatives are in place to boost research and development within the games sector in the region.

8. Ninety percent of the respondents agree that the region encourages multidisciplinary clusters and sectoral networks based around the games sector.

ACCESS TO KNOWLEDGE: “About business skills”

1. The weaknesses of the game enterprise start-ups are the lack of: commercial competence (100%), economic/financial competence (75%), followed by the lack of entrepreneurial skills (50%).

2. Advice and support about business skills are mostly available from sectoral organizations (67%), personal networks (33%), and other business support organizations (33%).

3. Entrepreneurial skills were gained by trial and error, contacts and networks, and personal knowledge.

4. Half of the respondents find that Incubators offer good orientation for start-ups.

5. Half of the respondents also find that Incubators should offer specific coaching in the games sector.

5. Half of the respondents agree that universities should provide more courses on business and entrepreneurial skills.

6. Half of the respondents also find that the games industry is connected to other sectors where games can provide innovative solutions to societal problems.

7. Half of the respondents agree that the media are not providing a comprehensive overview of the games industry.

8. Half of the respondents also find that events in the region which are focused on introducing and boosting the games sector are not sufficient.

PERCEIVED NEEDS

1. The main obstacle for creating or sustaining the game industry is: access to business support, access to finance, and a supportive regulatory framework.
Salzburg (AUSTRIA)

RESPONSE RATES & STAKEHOLDER TYPES

Many of the survey questions have been skipped, so the following considerations are taken by the answers given and from the data of the Salzburg regional analysis.

Salzburg obtained 5 responses to their questionnaire. Among these, 3 were Education or research organizations, 1 policy maker/public agency and 1 a game related enterprise.

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: About the Game Enterprises

1. The average size of the gaming companies comes is less than 5 employees.
2. Most of respondents state that they are well informed about the games industry in their Salzburg.

REGIONAL OVERVIEW OF THE GAMING INDUSTRY: “About the games sector in your region”

1. Seventy-five percent of the respondents state that the most common scope of activities for game companies in their region is entertainment. The remaining 25% are active in serious games and location-based games.
2. Although the majority state that they are informed about the gaming industry, 75% state that they do not know the measures being taken to stimulate the games industry in Salzburg.
3. All respondents agree that the games industry has not reached its full potential yet.
4. The majority of respondents (75%) consider that innovation through games-based knowledge is not high on the regional agenda.

REGULATION AND POLICIES

1. Seventy-five percent of those who filled in the questionnaire are interested in knowing more about policy and support in the region, country and other countries.
2. No tax incentives or price controls have been implemented in the region in order to support the gaming industry.
3. The majority of respondents (75%) indicate that red tape and registration regulations are not a problem.
4. Managing IPR is considered an important part of succeeding in the gaming industry by 50% of the respondents.
5. The 3 most important areas to improve are: “setting up”, IPR, and tax breaks.

ACCESS TO MARKET: “About markets and opportunities”

1. The market for the games sector is mostly regional (50%), then national (25%) and European (25%).
2. Most respondents (75%) are neutral about the statement indicating that market conditions are favourable for the establishment and maintenance of the games industry in the region.
3. All respondents find that a general awareness in other sectors about the potential of the games industry is lacking.
4. Respondents also find that there is a need to stimulate partnerships between businesses, public institutions and the games sector.

4. All respondents agree that public sector investment to establish or sustain the games industry in the region is not sufficient.

5. The majority of respondents (75%) find that that networks are lacking to promote the games industry in the Salzburg.

6. All respondents agree that new business models such as virtual goods, web-based gaming, and crowdsourcing will open up new market opportunities.

7. The genres that are considered to be generating the biggest revenues in the future are: mobile and social games (75%), and serious games & multi-player games (50%).

8. It appears that there are no market restrictions affecting the games industry in Salzburg.

**ACCESS TO FINANCE**

1. Financial instruments that are considered to be most relevant for the development of games sector are: business angels, venture & equity funds, public subsidies and innovation vouchers (each 75%), followed by publisher fundings (50%), tax incentives (50%), self-financing, bank loans, crowdsourcing, credit loans and guarantees (each 25%).

2. Of the above instruments, respondents think that those mostly available in Salzburg are: self financing (100%), bank loans (100%), private financing & innovation vouchers (75%), venture & equity funds, public subsidies (50%) and microcredit mechanisms (25%).

3. Financial support is mostly necessary for the production of a product/service (100%), the creation of a product/service (75%), and its promotion (50%).

4. All respondents indicate that the type of support considered to be the most useful is financing the prototype phase and financing other items.

**ACCESS TO KNOWLEDGE & WORKING TOGETHER**

1. The most important trends for the game sector are considered to be: digital distribution, cloud computing and continuous human and machine interface (75% each).

2. The main sources of information regarding these trends are: internet (100%) and educational/research organizations (75%).

3. Joint projects with other enterprises and education/research institutes are considered to be vital for keeping up with recent trends and innovations by 75% of the respondents.

4. All respondents find that strong links are available with educational and/or research institutes in Salzburg.

5. All respondents indicate that the main courses dealing with the game sector in Salzburg are: game design, programming, computer science, graphic design, interaction design, and HCI (all 100%).

6. All respondents find that existing educational programmes provide graduates with the necessary skills to start their own enterprise.

7. Half of the respondent agree that the region encourages multidisciplinary clusters and sectoral networks based around the games sector.
ACCESS TO KNOWLEDGE: “About business skills”

1. Weaknesses of the game enterprise start-ups are: the lack of economic and financial competence (100%), the lack of commercial competence and entrepreneurial skills (75%), and lack of contacts/networks and managerial skills (50%).

2. Respondents find that advice and support about business skills are mostly available from educations/research institutes (100%), and sectoral organizations or associations and promotion agencies (50%).

3. Entrepreneurial skills were gained by trial and error (100%), personal knowledge and contacts and networks (50% each).

4. Half of the respondents find that Incubators offer poor orientation for start-ups.

5. All respondents find that Incubators should offer specific coaching in the games sector.

5. Half of the respondents also find that universities should provide more courses on business and entrepreneurial skills.

6. The majority of respondents (75%) find that the games industry are not connected to other sectors where games can provide innovative solutions to societal problems.

7. The majority of respondents (75%) find that media are not providing a comprehensive overview of the games industry.

8. Respondents agree that there are not enough events in the region which are focused on introducing and boosting the games sector.

PERCEIVED NEEDS

1. The main obstacles for creating and sustaining the games industry are: access to finance, access to markets, and access to business support (all 75%).
3. COPY OF THE QUESTIONNAIRE
**BOO GAMES SURVEY**

1. **Welcome. In which region are you based?**
   - Benvenuti! In quale regione vi trovate?
   - Bienvenido. ¿En qué región se ubican?
   - Bienvenue. Dans quelle région êtes-vous basé?
   - Добре дошли! В кой район работите?
   - West Midlands, United Kingdom
   - Utrecht, Nederland
   - Umbria, Italia
   - Piedmont, Italia
   - Asturias, Espana
   - Sofia, Bulgaria
   - Deutschland
   - Malta, Malta
   - Île de France, France
   - Salzburg, Austria
   - Other (please specify)

2. **Which language would you like to use?**
   - Quale lingua volete utilizzare?
   - ¿Qué idioma te gustaría usar?
   - Quelle langue aimeriez-vous utiliser?
   - Кой език предпочитате да използвате?
   - English
   - French
   - Spanish
   - Italian
   - Bulgarian - Български
**BOO Games Survey of the Regional Games Sector**

**BOO Games Project Questionnaire**

Welcome to the BOO Games questionnaire. The BOO Games project is trying to find the best ways to boost the games sector in Europe.

We are now gathering information about the games sector in your region. Our aim is to find out the current situation in your area from your perspective and to compare the information found in the 10 regions across Europe participating in the project.

Thank you for taking the time to complete the questionnaire (91 questions). We estimate it will take about 15 minutes.

**3. Please add your name and email address below**

<table>
<thead>
<tr>
<th>Name</th>
<th>Email</th>
</tr>
</thead>
</table>

**4. Would you like to receive information about the results of the questionnaire?**

- [ ] Yes
- [ ] No

**5. Would you be prepared to be interviewed further on these issues?**

- [ ] Yes
- [ ] No
BOO Games Survey of the Regional Games Sector

About your enterprise

We would like to ask a few questions about your enterprise. All information will be handled anonymously.

7. How many people work in your business?
   - One man business
   - Less than 5
   - 5-9
   - 10-24
   - More than 25
   - Other (please specify)

8. Your annual turnover is:
   - Under 200,000 euro
   - Between 200-500,000 euro
   - More than 500,000 euro
   - More than 1m euro
   - More than 2m euro
   - Rather not say
   - Other (please specify)

9. Upon which genres of products does your company focus?
   (You may answer more than once)
   - Single player
   - Multi-player
   - Action / shooter
   - Role-playing games
   - Strategy games
   - Sport games
   - Social games
   - Mobile games
   - Serious games
   - Simulation
   - Rendering
   - Advergaming
   - Other (please specify)
10. What are the three most important distribution channels for your company?
1. 
2. 
3. 

11. Which revenue models does your company use?
(You may answer more than once)
- B2C (business-to-consumer, eg retail sales)
- B2B (business to business)
- online download (own website)
- online download (other platform)
- subscription
- virtual goods
- pay-per-play
- Other (please specify)

12. At which levels of the games value chain is your business active?
(You may answer more than once)
- development and programming
- game design
- art and animation
- audio
- production
- community management
- middleware
- console and platform making
- retailing
- distributing
- publishing
- business and marketing
- quality assurance (eg playtesting, usability testing)
- administration
- Other (please specify)
BOO Games Survey of the Regional Games Sector

13. Does your company offer professional development opportunities?
   - Yes
   - No
   - Don't know
   If yes, please specify:

14. Does your region have a University which offers courses focusing on games?
   - Yes
   - No
   - Don't know
   If yes, please specify:

15. Which disciplines do you feel are still missing in the educational offers in your region?

16. Does your region have something like a games cluster or incubator?
   - Yes
   - No
   - Don't know
   Additional comments:

17. If not, would such a games cluster be useful for your business?
   - Yes
   - No
   - Don't know
   Additional comments:
BOO Games Survey of the Regional Games Sector

18. Does your region support cross-border trading opportunities?

- Yes
- No
- Don't know

If yes, please specify:

[Blank space]
### BOO Games Survey of the Regional Games Sector

#### About the Games sector in your region

Now a few questions about the games industry in your region.

19. I consider myself to be well-informed about the games industry in my region
   - [ ] strongly disagree
   - [ ] disagree
   - [ ] neutral
   - [ ] agree
   - [ ] strongly agree

20. What is the average size of game companies in your region?
   - [ ] one-man businesses or freelancers
   - [ ] less than 5 employees
   - [ ] 5-9 employees
   - [ ] 10-24 employees
   - [ ] 25+ employees
   - [ ] don't know

21. What is the most common scope of activities for game companies in your region? (You may choose more than one answer)
   - [ ] entertainment
   - [ ] serious games (learning)
   - [ ] serious games (persuasive)
   - [ ] serious games (well-being and health)
   - [ ] location-based games
   - [ ] don't know

Other (please specify)

22. The measures being taken to stimulate the games industry in my region are well-known
   - [ ] strongly disagree
   - [ ] disagree
   - [ ] neutral
   - [ ] agree
   - [ ] strongly agree

23. In my region the games industry has reached its full potential
   - [ ] strongly disagree
   - [ ] disagree
   - [ ] neutral
   - [ ] agree
   - [ ] strongly agree

24. Innovation through game-based knowledge is high on the agenda in my region
   - [ ] strongly disagree
   - [ ] disagree
   - [ ] neutral
   - [ ] agree
   - [ ] strongly agree
BOO Games Survey of the Regional Games Sector

25. In my region there is a good competitive balance in the games sector?
- strongly disagree  - disagree  - neutral  - agree  - strongly agree

Additional comments: ____________________________

26. In my region the games sector has a strong European and International focus
- strongly disagree  - disagree  - neutral  - agree  - strongly agree

Additional comments: ____________________________

27. I need to know more about policy and support for the games industry in my region
- strongly disagree  - disagree  - neutral  - agree  - strongly agree

28. I need to know more about the games industry in other regions in my country
- strongly disagree  - disagree  - neutral  - agree  - strongly agree

29. I need to know more about the games industry in other regions in other countries
- strongly disagree  - disagree  - neutral  - agree  - strongly agree
BOO Games Survey of the Regional Games Sector

About policies and regulations

There are many policies and regulations at a national and regional level and we would like to know which ones are relevant for you.

30. Regulations concerning access to foreign markets are favourable to the games industry
   ○ strongly disagree ○ disagree ○ neutral ○ agree ○ strongly agree
   Additional comments:

31. Tax incentives and price controls have been implemented in your region to support the games industry
   ○ strongly disagree ○ disagree ○ neutral ○ agree ○ strongly agree
   Additional comments:

32. Registration regulations and “red tape” remain challenging for game companies
   ○ strongly disagree ○ disagree ○ neutral ○ agree ○ strongly agree
   Additional comments:

33. Managing IPR is an important part of succeeding in the games industry
   ○ strongly disagree ○ disagree ○ neutral ○ agree ○ strongly agree
   Additional comments:
BOO Games Survey of the Regional Games Sector

34. Do you think improvements in any of the following areas could help the games sector?
(You may give more than one answer)

- setting-up
- removing red-tape
- licences
- labour regulations
- tax breaks
- data protection
- eCommerce
- Intellectual property management

Additional comments:

35. What kind of regulations or policies are needed to support the games industry in your region?
BOO Games Survey of the Regional Games Sector

About markets and opportunities

Here we would like to know about market conditions in your region and how they can be improved.

36. Is the market for the games sector in your region mainly:
- [ ] local
- [ ] regional
- [ ] national
- [ ] European
- [ ] international

Additional comments:

37. The market conditions are favourable for the establishment and maintenance of the games industry in my region
- [ ] strongly disagree
- [ ] disagree
- [ ] neutral
- [ ] agree
- [ ] strongly agree

Additional comments:

38. There is general awareness in other sectors about the potential of the games industry
- [ ] strongly disagree
- [ ] disagree
- [ ] neutral
- [ ] agree
- [ ] strongly agree

Additional comments:

39. Public agencies act as an intermediary between the games industry and other sectors
- [ ] strongly disagree
- [ ] disagree
- [ ] neutral
- [ ] agree
- [ ] strongly agree

Additional comments:

40. There is a need to stimulate partnership between businesses, public institutions and the games sector
- [ ] strongly disagree
- [ ] disagree
- [ ] neutral
- [ ] agree
- [ ] strongly agree

Additional comments:
### BOO Games Survey of the Regional Games Sector

<table>
<thead>
<tr>
<th>Question</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>41. The regional games industry has the potential to access international markets</strong></td>
<td>Strongly disagree, disagree, neutral, agree, strongly agree</td>
</tr>
<tr>
<td><strong>42. There is sufficient public sector investment to establish or sustain the games industry in my region</strong></td>
<td>Strongly disagree, disagree, neutral, agree, strongly agree</td>
</tr>
<tr>
<td><strong>43. Lack of competition is hindering the growth of the games sector.</strong></td>
<td>Strongly disagree, disagree, neutral, agree, strongly agree</td>
</tr>
<tr>
<td><strong>44. There are networks in place to promote the games industry in my region</strong></td>
<td>Strongly disagree, disagree, neutral, agree, strongly agree</td>
</tr>
<tr>
<td><strong>45. Regions already have the tools to promote and disseminate information about cross-sectoral and cross-border market opportunities.</strong></td>
<td>Strongly disagree, disagree, neutral, agree, strongly agree, No opinion</td>
</tr>
<tr>
<td><strong>46. Educational knowledge institutions with access to the games market are hindering the growth in my region</strong></td>
<td>Strongly disagree, disagree, neutral, agree, strongly agree</td>
</tr>
<tr>
<td><strong>47. New business models such as virtual goods and web-based gaming and crowdsourcing, will open new market opportunities</strong></td>
<td>Strongly disagree, disagree, neutral, agree, strongly agree</td>
</tr>
</tbody>
</table>
BOO Games Survey of the Regional Games Sector

48. Which genres of games do you think will generate the biggest revenues in the future?
(You may answer more than once)

- single player
- multi-player
- action / shooter
- role playing
- strategy games
- puzzle games
- sport games
- social games
- mobile games
- serious games
- simulation
- rendering
- edgaming

Other (please specify)

49. Are there market restrictions affecting the games industry in your region?

- Yes
- No
- Don't know

If yes, please specify:
Access to financing is always an important issue and we would like to know how this can be improved.

50. Which financial instruments are most relevant for the development of the games sector?
(You may answer more than once)

- self-financing
- bank loans
- private financing
- business angels
- venture & equity funds
- tax incentives
- public subsidies
- publisher funding
- crowdsourcing
- micro-credit mechanisms
- innovation vouchers
- credit loans and guarantees

Other (please specify)
BOO Games Survey of the Regional Games Sector

51. Which of the following financial support initiatives are available in your region? (You may answer more than once)

☐ self financing
☐ bank loans
☐ private financing
☐ business angels
☐ venture & equity funds
☐ tax incentives
☐ public subsidies
☐ publisher funding
☐ crowdsourcing
☐ micro-credit mechanisms
☐ innovation vouchers
☐ credit loan and guarantees

Other (please specify)

52. For which purpose is the financial support most necessary? (You may answer more than once)

☐ creation of a product/service
☐ production of a product/service
☐ distribution of a product/service
☐ promotion of a product/service
☐ general enterprise support
☐ introducing innovation processes

Other (please specify)
53. Which type of support is most useful? (You may answer more than once)

- coaching/support before the application process
- support during the application process
- support from games experts
- financing the concept phase
- financing the prototype phase
- financing other items (e.g., affordable office space)
- evaluating market potential of a product/service
- developing business models

Other (please specify):

54. Do you think that tax benefits for private investors to invest in the creative sector would be useful for the games industry?

- Yes
- No
- Don’t know

If yes, please specify:

55. Do you think that programmes to help enterprises to become 'investment-ready' would be useful for the games sector?

- Yes
- No
- Don’t know

If yes, please specify:

56. The most effective support instrument for the games sector is venture capital.

- strongly disagree
- disagree
- neutral
- agree
- strongly agree

Additional comments:
BOO Games Survey of the Regional Games Sector

57. Which characteristics are needed by a games enterprise to gain venture capital support?
(You may answer more than once)

☐ excellent business model
☐ highly qualified employees
☐ proven market success
☐ orientation towards online and social games

Other (please specify)

58. Can you describe an example of good practice on access to finance for the games sector?


BOO Games Survey of the Regional Games Sector

About knowledge and working together

Keeping up with the most recent developments is always important and we would like to know how this is done.

59. What do you think are the most important trends for the games sector?
(You may answer more than once)

☐ digital distribution
☐ cloud computing
☐ augmented reality and enhanced visual experiences
☐ continuous human and machine interfaces (eg haptic)
☐ distributed production platforms
☐ augmentation of middleware

Other (please specify)

60. What are your main sources of information regarding these trends?
(You may answer more than once)

☐ internet
☐ clients and providers
☐ staff
☐ customers
☐ competition analysis
☐ networking events
☐ educational/research organisations

Other (please specify)

61. Joint projects with other enterprises or with educational/research institutes are vital for keeping up with recent trends and innovation.

☐ strongly disagree  ☐ disagree  ☐ neutral  ☐ agree  ☐ strongly agree

Additional comments:

62. There are strong links with educational and/or research institutes in my region.

☐ strongly disagree  ☐ disagree  ☐ neutral  ☐ agree  ☐ strongly agree

Additional comments:
BOO Games Survey of the Regional Games Sector

63. Which of the following courses are offered in your region?
(You may answer more than once)

☐ game design
☐ programming
☐ computer science
☐ graphic design
☐ sound design
☐ interaction design
☐ HCI
☐ entrepreneurship / business skills

Other (please specify):

64. Educational programmes produce graduates who are capable of innovating and transforming the games sector.

☐ strongly disagree  ☐ disagree  ☐ neutral  ☐ agree  ☐ strongly agree

Additional comments:

65. Existing educational programmes provide graduates with the necessary skills to start their own enterprises.

☐ strongly disagree  ☐ disagree  ☐ neutral  ☐ agree  ☐ strongly agree

Additional comments:

66. Existing educational programmes have strong and mutually rewarding links to the regional games sector.

☐ strongly disagree  ☐ disagree  ☐ neutral  ☐ agree  ☐ strongly agree

Additional comments:

67. Are there initiatives in place which boost research and development within the games sector in your region?

☐ Yes
☐ No
☐ Don't know

If yes, please specify:

Page 20
68. The region encourages multi-disciplinary clusters and sectoral networks based around the games sector.

☐ strongly disagree  ☐ disagree  ☐ neutral  ☐ agree  ☐ strongly agree

Additional comments:

69. Can you describe an example of good practice in supporting access to knowledge for the games sector in your region?
### BOO Games Survey of the Regional Games Sector

#### About business skills

Sustaining a skilled workforce is a prerequisite for success and we would like to know how this is done in your region.

**70. What are the main weaknesses of game enterprise start-ups?**
*(You may answer more than once)*

- [ ] lack of managerial skills
- [ ] lack of economic financing competence
- [ ] lack of commercial competence
- [ ] lack of contacts and networks
- [ ] lack of language competence
- [ ] lack of communication skills
- [ ] lack of entrepreneurial skills

Other (please specify)

---

**71. Start-ups in the games sector generally have sufficient entrepreneurial skills.**

- [ ] strongly disagree
- [ ] disagree
- [ ] neutral
- [ ] agree
- [ ] strongly agree

Additional comments:

---

**72. Sufficient advice and support is available on business skills for those who want to start a games enterprise.**

- [ ] strongly disagree
- [ ] disagree
- [ ] neutral
- [ ] agree
- [ ] strongly agree

Additional comments:
BOO Games Survey of the Regional Games Sector

73. Advice and support about business skills is available from the following places
(You may answer more than once)

☐ personal networks
☐ education/research institutes
☐ sectoral organisations or associations
☐ promotion agencies
☐ other business support organizations
☐ banks
☐ consultants

Other (please specify)

74. How did you gain your entrepreneurial skills?
(Please skip this question if not relevant)

☐ personal knowledge
☐ trial and error
☐ educational or vocational institutions
☐ life-long learning projects
☐ Specialised SME advice centres
☐ contacts and networks

Other (please specify)

75. Would you agree that entrepreneurship is sufficiently addressed in the educational system in your region?

☐ Yes
☐ No
☐ Don't know

If yes, please specify:

76. Incubators in my region offer poor orientation for start-ups.

☐ strongly disagree ☐ disagree ☐ neutral ☐ agree ☐ strongly agree

Additional comments:
BOO Games Survey of the Regional Games Sector

77. Incubators should offer specific coaching for start-ups in the games sector.

☐ strongly disagree  ☐ disagree  ☐ neutral  ☐ agree  ☐ strongly agree

Additional comments:

78. Games enterprises should better support the development of business skills of their staff.

☐ strongly disagree  ☐ disagree  ☐ neutral  ☐ agree  ☐ strongly agree

Additional comments:

79. Universities offering games related courses should also provide more courses on business and entrepreneurial skills.

☐ strongly disagree  ☐ disagree  ☐ neutral  ☐ agree  ☐ strongly agree

Additional comments:

80. Games clusters and incubators are best placed to offer courses and coaching on necessary skills.

☐ strongly disagree  ☐ disagree  ☐ neutral  ☐ agree  ☐ strongly agree

Additional comments:

81. Can you describe an example of good practice on how to acquire business and entrepreneurial skills?

...
BOO Games Survey of the Regional Games Sector

About help and support

We would like to know about other help and support that is available in your region.

82. Support mechanisms are in place to increase the general awareness of the games industry in my region.

- strongly disagree  - disagree  - neutral  - agree  - strongly agree

Additional comments:

83. The Chamber of Commerce doesn't provide services which are helpful for the games industry

- Strongly disagree
- Disagree
- Neutral
- Agree
- Strongly Agree

Additional comments:

84. The games industry in my region is not connected to other sectors where games can provide innovative solutions to societal problems.

- strongly disagree  - disagree  - neutral  - agree  - strongly agree

Additional comments:

85. The media provides a comprehensive overview of the games industry in my region.

- strongly disagree  - disagree  - neutral  - agree  - strongly agree

Additional comments:

86. There are not enough events in my region which focus on introducing and boosting the games sector.

- strongly disagree  - disagree  - neutral  - agree  - strongly agree

Additional comments:
**BOO Games Survey of the Regional Games Sector**

**87. The provision of a creative district for game enterprises with affordable office rent and related services is not a good alternative to traditional support mechanisms.**

- [ ] strongly disagree
- [ ] disagree
- [ ] neutral
- [ ] agree
- [ ] strongly agree

Additional comments:

---

**88. Access to affordable professional development programmes for game enterprises is a good alternative to traditional support mechanisms.**

- [ ] strongly disagree
- [ ] disagree
- [ ] neutral
- [ ] agree
- [ ] strongly agree

Additional comments:

---

**89. Coaching and mentoring which is specifically tailored to game enterprise start-ups should be provided in incubators.**

- [ ] strongly disagree
- [ ] disagree
- [ ] neutral
- [ ] agree
- [ ] strongly agree

Additional comments:
# BOO Games Survey of the Regional Games Sector

## About the things you need

After answering all these questions, now is your chance to let us know what else you think is really needed to improve the games industry in your region.

### 90. What is the main obstacle for creating or sustaining the games industry in your region?
*(You can answer more than once)*

- [ ] a supportive regulatory framework
- [ ] access to R&D and technology
- [ ] access to knowledge
- [ ] access to finance
- [ ] access to market
- [ ] access to business support

Other (please specify)

### 91. Can you describe what else you need to boost your games enterprise or to boost the games sector in your region?