Examples of international strategies for growing these sectors.

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### Recommendations

- 1. Carry out a needs assessment of Game Companies in Scotland.
- 2. Investigate the viability of setting up Game Development Hubs centred around existing areas of strength in Dundee, Edinburgh and Glasgow. This should bring together National & Local Government, Industry and Academia.
- 3. Address the perceived skills-gap in financial & entrepreneurial skills.
- 4. Manage the Tax Break initiative so that it adapts with the changing climate in the Video Games Industry.

## Regions

### **Europe & Scandinavia**

### Background

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<sup>1</sup>

The Boo-Games Regional Analysis Report investigated 10 regions including Utrecht(Netherland), West Midlands(UK), Paris(France), Asturias(Spain), Malta(Malta), Sofia(Bulgaria). The regions selected consisted of established Game Development regions and other that are new to the Games sector. The report was to examine the current state of the region's game industry.

The report has the following conclusions

- Games Companies are generally SMEs with less than 25 employees.
- Gaming is emerging as a main player in the creative industries.

<sup>&</sup>lt;sup>1</sup> Boo-Games. (2013). Boo-Games Regional Analysis Report.

- Policies are available that target the creative industries, **specific policies** supporting the **Games Industry** are scarce.
- Access to market is one of the main obstacles for sustaining the Games Industry.
- All regions find that the **public sector investment** in order to establish or maintain the video games industry, **is not sufficient.**
- There is a need to **stimulate partnership** between **businesses**, **public institutions** and the **games sector**.
- Access to finance is one of the main obstacles
  - Venture Capital is limited due to the size of the game enterprises and the lack of/low level of tangible assets.
- In order of priority the following financial instruments are the most relevant, self-financing, public subsidies, venture and equity funds, private financing, business angels, tax incentives, and bank loans.
- Access to knowledge is seen as great importance, Educational Courses seem to be successful in teaching game design and development. However there is a skills gap when it come to financial know-how and entrepreneurial skills for video game SMEs.
- All regions underline the importance of having a dedicated cluster or incubator.
- Have an overarching strategy for for the Creative Industries, focusing on the gaming industry.

#### **Good Practices**

The output from the Regional Analysis was fed into a Good Practice guide<sup>2</sup>, the goal of guide is to highlight good practices in EU regions and offer suggestions how these practices could be adopted.

#### Examples

# GeeLab <sup>3</sup>Europe Games And Experiential Entertainment Lab(Karlsruhe, DE):

GeeLab Europe is an R&D lab which is the EU branch of RMIT(Melbourne University). It was established with research and development between the City of Karlsruhe and the RMIT. It's goals is to foster international collaboration between Melbourne and Karlsruhe, exchange and transfer research and competence, run yearly events.

# Malata Digital Games Fund<sup>4</sup>(Malta):

<sup>&</sup>lt;sup>2</sup> Boo-Games,(2014). BOO-Games Good Practice Guide.

<sup>&</sup>lt;sup>3</sup> http://www.geelab.rmit.edu.au/content/about-geelab-playing-out-what-games-could-be

MDGF is a national funding measure which specifically address the games sector. This was put in place the Malta National Government as part of a wider National Strategy for the Cultural and Creative Industries. The goals of this fund is to encourage the growth of indigenous games developed by small teams, to support Matese and Malta-based talent that demonstrates long term potential, strengthen games sector as a cultural and creative product, attract foreign game companies and talent to relocate to Malta, grow Malta as a hub of digital creativity.

# **Dutch Game Garden**<sup>5</sup>(Utrecht, Netherlands):

The DGG is an incubator for promising talent, a business centre and a meeting point for the Utrecht's Games Industry. Started in 2008 with a dozen companies and as of 2013-14 there are 40 hosted companies. The DGG offers the following services; **Business Centre** with affordable and flexible office space, with a mix of start-up and experienced developers. **Incubator** which helps graduates and startups to launch their own game company, **Developer Club** is an initiative which promotes cooperation between students and game industry professionals, **Networking** which allows developers to show of Game prototypes and receive feedback.

#### **North America**

### Background

The Video Games industry in the United States contributes more than \$6.2 billion to the economy and employs more than 42,000 people<sup>6</sup>. In Canada the Video Games Industry contributes \$2.3 billion to the economy and employs more than 27,000 people<sup>7</sup>

#### **Good Practices**

### **Tax Breaks**(Various Provinces, Canada):

The Canadian Video Games Industry has benefited from generous Tax Breaks from Provincial Governments. These tax breaks usually take the form of rebates on labour expenditures and tend to have some requirement or maximum, for example Manitoba has 40% of the remuneration paid to resident of Manitoba up the maximum tax credit of \$500,000.8

These Tax Breaks have led to a remarkable growth in the Canadian Video Games Industry, between 2008 to 2010, there was a 33% growth in the workforce, supported in large part by generous tax breaks and financial incentive schemes (37.5% of labour costs in Quebec. 40% in Ontario, including support for marketing.). Over this period

<sup>&</sup>lt;sup>4</sup> http://www.creativemalta.gov.mt/route-to-market/direct-public-investments/Malta-Digital-Games-Fund

<sup>&</sup>lt;sup>5</sup> http://www.dutchgamegarden.nl/english/about-dutch-game-garden/

<sup>&</sup>lt;sup>6</sup> Siwek, S. E. (2014). Video Games in the 21st Century.

<sup>&</sup>lt;sup>7</sup> ESA Canada. (2014). 2014 Essential Facts About the Canadian Video Games Industry.

<sup>&</sup>lt;sup>8</sup> http://www.gov.mb.ca/jec/busdev/sibd/idm\_taxcredit.html

there was a significant drop in the workforce in the UK, with many of the lost jobs moving to Canada.9

Observant of this success, many US states have introduced their own tax breaks and incentives, and there is now a wide range of schemes to support game development across North America<sup>10</sup>.

# Indie Cade<sup>11</sup>(California & New York, USA):

IndieCade is dedicated to the discovery, development and Independent Artists and Developers from around the World. IndieCade has two main events, the IndieCade Festival which is held in Los Angeles and IndieCade East which is held in New York. The Festival includes a professional conference, business networking, social events, tournaments and entertainment. IndieCade East consists of three days of talks, panels, workshops, exhibits and games. Both events are open to the public and professionals alike.

# Glass Lab<sup>12</sup>(California, USA):

Glass Lab is exploring the potential of commercially successful to serve as a learning environment and real-time assessments of student learning. The lab is a collaboration between Industry, Trade Bodies and Academia including Electronic Arts, Pearsons, Entertainment Software Association and the Institute of Play.

The lab is not only looking at existing games as potential learning environments but it is also creating original mini-games.

#### Asia

### **Background**

Asia is a diverse region, with a mix of established Video Game sector(Japan and South Korea) and emerging sector(China, Singapore and Malaysia). For the purposes of this evidence we will focus on the emerging areas as this provides the greatest challenge to the Scottish Video Game Sector.

Singapore's game sector comprises of over 60 game development, publishing and service companies<sup>13</sup> which will employ an estimated 11,000 workers and contribute \$1.5 billion to economy by 2016.<sup>14</sup>

<sup>&</sup>lt;sup>9</sup> Making Games in the UK Today, TIGA, January, 2012

<sup>&</sup>lt;sup>10</sup> http://www.gamesindustry.biz/articles/2013-05-22-gaming-tax-credits-a-developers-guide-to-free-money

<sup>11</sup> http://www.indiecade.com/

<sup>12</sup> http://www.instituteofplay.org/work/projects/glasslab/

http://www.mda.gov.sg/IndustryDevelopment/IndustrySectors/Pages/Games.aspx

http://www.edb.gov.sg/content/edb/en/industries/industries/media-and-entertainment.html

The Malaysian Creative sector has an annual growth of 9-10% over the last 6 years with companies' revenue reaching RM7(£1.3) billion in 2012<sup>15</sup>. The industry at the moment mainly comprises of contracted or outsourced work, but there are initiatives in place to grow the home grown sector.

#### **Good Practices**

# MyGameDev2020<sup>16</sup>(Petaling Jaya, Malaysia):

MyGameDev2020 is an initiative to make Malaysia a leading Game Development centre in the region, it consists of a partnership between educational institutions and the industry sector with support from the National Government. One of the main goals of the initiative is to address the Talent Development issue in Malaysia, this includes KDU University College adopting Codemasters Studios(UK) benchmarking and standards for curriculum and assessment methods.

# **Singapore Game Box**<sup>17</sup>(Singapore):

SGGB is an initiative by the Media Development Authority of Singapore and managed by Nanyang Polytechnic in paternship with Autodesk, HP Singapore and Sony Computer Entertainment Europe. SGGB is a one stop resource centre for Game SMEs to develop and prototype their games, this also provides a portal for the Singapore Games Industry to showcase the output of the sector.

#### Conclusion

A real danger that if we don't find the needs of the Scottish Game Industry we may be left behind developing centres of Games Development in Asia and Europe. The examples of Tax Breaks in North America shows that these are only the start and a whole package of measures are needed in order to support the Industry. In particular, with competitive tax breaks on offer in many territories world-wide, the ability of these to drive growth through inward investment alone must be questioned - but without some form of competitive tax break, risks remain of indigenous businesses relocating to more tax friendly regions. One other note of caution regarding Tax Breaks, is that the Video Games Industry evolves fairly quickly and any system in place to support the Video Games Industry should evolve to meet changes in business models.

Measures to support new start SMEs and individuals can exploit one of Scotland's resource strengths: talented graduates. The HE sector includes many of the most well established games programmes in the UK, as well as producing significant numbers of graduates in computing, technology, art, design and other related areas. If we can reduce the number of these graduates leaving Scotland to work in the games industry elsewhere in the UK (or abroad).

http://www.mscmalaysia.my/creative\_multimediahttp://gamedev.kdu.edu.my/mygamedev2020/

<sup>17</sup> http://www.singaporegamebox.com/about\_us

There are numerous example of Good Practice in Scotland such as Dare to Be Digital IndieFest<sup>18</sup> which fulfils some of the same functions as IndieCade, as it allows developers to showcase their work to the public and the wider Games Development Community in Scotland. We also have a well developed HE sector which takes an active research interest in Video Games(Abertay Games Lab<sup>19</sup> & GCU Emotion Lab<sup>20</sup>) and Serious Games(Digital Design Studio GSA<sup>21</sup>) in particular. All these good practices should be identified and strengthed in order to support the Games Industry in Scotland. We also propose that a study should be carried out in Scotland to find out the needs of the Game Sector, using the results of this we should not only attempt to replicate good International good practices but also put in place solutions that fit the Scottish Industry in current states and also develop future talent and SMEs that is coming into the Sector from Higher and Further Education.

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<sup>&</sup>lt;sup>18</sup> http://www.daretobedigital.com/221 Dare-Indie-Fest-2014-Games-Showcase-Registration.html

<sup>19</sup> http://www.abertay.ac.uk/studentlife/schools/amg/

http://www.gcu.ac.uk/creates/creativecentres/emotionlab/

<sup>21</sup> http://www.gsa.ac.uk/research/research-centres/digital-design-studio/