

SUBMISSION FROM PROFESSOR GERGOR WHITE, ABERTAY UNIVERSITY

**Evidence for the enquiry into the Economic impact of Scotland's creative industries.**

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**Recommendations**

1. Pre start-up is an essential part of the games sector and should be better supported by public agencies.
  2. Public support agencies should align to offer differentiated support to different stages of pre-start up and company development.
  3. Start up investment in company formation is risky, expensive and laborious; access to funding is complex and heavily regulated. Consideration should be given to lowering the barriers to investment for early stage activities.
  4. Public sector investment in the pre-start up communities benefits the whole sector. Investment in this community should be recognised as an investment in the long-term health of the sector as a whole.
  5. Proximity to support services, networks and events has contributed to the success of the games sector. Hubs, clusters and geographical location should be developed to support capacity building.
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**Introduction**

Following on from oral evidence given by Professor Gregor White at the Economy, Energy and Tourism Committee on 19<sup>th</sup> November 2014 the summary and supporting evidence below seeks to present a case to recognise an emerging community of video games practitioners who are undertaking informal Research and Development in the sector and to highlight ways that supporting this activity represents a low cost investment in the health and vitality of the sector as a whole.

The video games sector in Scotland is a diverse and multifaceted economy that in many ways is a microcosm of the wider industry, representing roughly 10% of the UK industry both in employment and value. Scotland's scale and the geographical clustering of the games industry offer an opportunity to increase the impact of public sector intervention more effectively than UK wide initiatives.

Despite seeming to provide support to start-up and enterprise activities, public sector support often fails to recognise that at different stages of development the sector needs differentiated support and creates barriers to success by channelling pre-start up activities into business support too quickly. In order to support a healthy ecosystem that is rich in creative as well as technological innovation we must recognise the value and potential of pre-start up activity.

There are a number of reasons to treat the pre-start up environment as a culture rather than an economy. Primarily, current support aimed at establishing start-up companies has the effect of inhibiting innovative and experimental approaches to games development by fixing company formation, business planning and IP ownership at a point well in advance of the market. While these activities are essential for business development they often conflict with activities that are characteristic of innovative communities and create a structural barrier to innovation.

### **Existing Sector Support**

Of the 35 or so organisations and agencies who identify innovation and sector support in their remit ten can be identified that offer material support to early-stage product development, R&D or innovation. Of the organisations and schemes listed below all listed eligibility criteria that exclude pre-start up activities from the support.

While proper governance, accountability and risk management is essential in the distribution of public funds this situation demonstrates the complexity of the support infrastructure for established companies, and the failure to support innovation activity that is located in the part of the sector best placed to undertake it.

Cultural Enterprise Office – Starter for 6 <sup>1</sup>

- *You must be a creative business that has an innovative idea, product or service. Innovation is the exploitation of new ideas.*
- *You must own or control the intellectual property rights for your innovative idea, product or service. Intellectual property refers to the non-physical assets that arise from creativity.*

Scottish Enterprise - Research and Development Grant <sup>2</sup>

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<sup>1</sup> <http://www.culturalenterpriseoffice.co.uk/programmes/starter-for-6/>

<sup>2</sup> <http://www.scottish-enterprise.com/services/develop-new-products-and-services/rd-grant/overview>

- *Financial assistance under the R&D grant is essential, and both the project and the business are financially viable*

SMART: SCOTLAND - R&D projects and feasibility studies <sup>3</sup>

- *That you own, or have rights to exploit, the intellectual property required to undertake, and arising from, the project*
- *That both the project and the business are financially viable*

Interactive Scotland <sup>4</sup>

- *Surgeries, Connections Brokerage, Market Intelligence, Events and Workshops, Newsletter. All of these services require your company details in the application.*

The Scottish EDGE <sup>5</sup>

- *You embody innovation and are keen to export your business; where necessary your IP is en route to protection or already there*
- *And the boring bits: incorporated in the last five years, you have less than 24 employees, have a business bank account and are capable of employing at least five more people over the next 3 years*

Prince's Trust - Youth Business Scotland <sup>6</sup>

- *have a trade which they would like to develop into a business are looking to develop a business which was previously funded by the Prince's Scottish Youth Business Trust*

NESTA – Creative Business Mentor Network<sup>7</sup>

- *registered company in the UK*
- *minimum of three years trading*

### **Pre-start up Innovation**

Models for public sector intervention in other areas of the creative and cultural industries focus more on developing novel ideas and exposure to opportunity may be more appropriate to this section of the games industry.

Typically newly qualified graduates from creative and technology courses and early career professionals this community are curious, experimental, and able and willing to take creative risks. Technological advances and platform

<sup>3</sup> <http://www.scottish-enterprise.com/services/develop-new-products-and-services/smart-scotland/overview>

<sup>4</sup> <http://www.interactivescotland.com/services>

<sup>5</sup> <http://www.scotedge.com/>

<sup>6</sup> <http://www.princes-trust.org.uk/default.aspx?page=9405>

<sup>7</sup> <http://www.nesta.org.uk/project/creative-business-mentor-network/full-details>

availability have reduced both the structural barriers to the market and the resource overheads of production.

The result is a range of opportunities for the pre-start up community to experiment with novel ideas, collaborations, new technologies and business models in a relatively risk-free environment. This can result in new IP, new application areas for technologies and content, and ultimately a more diverse and sustainable sector in Scotland.

*“Academic research over decades has shown that innovation happens within a system that includes the talent that generates, recombines and experiments with new ideas, the lenders and investors that support these ideas, and the markets where these ideas are tested.”*<sup>8</sup> (Edquist, 2001)

In this context, the pre-start up community can be seen as the R&D wing of the commercial sector. Where R&D practices and support in the UK have been led and defined by manufacturing and pharmaceutical industries, the model for R&D in the creative industries varies significantly as a result of iterative and non-linear production processes. Consequently much of the R&D activity that occurs in the creative economy is difficult to quantify as a proportion of the production cycle, and therefore difficult to support or incentivise.

This is a challenge familiar to universities which are familiar with the challenges of defining research and knowledge exchange activities in the Arts and Humanities under a research agenda set by science and engineering. In recognising the limitations of current R&D policy in the creative industries, the public sector has an opportunity to reimagine support mechanisms that are more appropriate to the sector and re-focus investment into the parts of the sector best placed to undertake R&D activities that benefit the sector as a whole.

*“Research and development (R&D) is an umbrella term for the investments made to create the new knowledge embodied in innovation – including upstream, riskier basic research as well as less open-ended, more applied activities... This knowledge has some features of what economists call ‘public goods’, which means that ‘first to market’ innovators will generally be unable to capture all the returns from their original investments in R&D.”*<sup>9</sup> (NESTA, 2014)

By investing in pre-start up activities the public sector must accept that there may not be a tangible or quantifiable link between investment and return but that it represents an investment in the innovation infrastructure that will be of long-term value to the health and vitality of the industry.

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<sup>8</sup> Edquist, C. (2001) ‘The Systems of Innovation Approach and Innovation Policy: An account of the state of the art.’ Lead paper presented at the DRUID conference, Aalborg, June 12-15, 2001. See:

<http://folk.uio.no/ivai/ESST/Outline%20V05/edquist02.pdf>

<sup>9</sup> A Manifesto for the Creative Economy (NESTA) <http://www.nesta.org.uk/sites/default/files/a-manifesto-for-the-creative-economy-april13.pdf>

An essential element of such investment is the facilitation of dissemination of new ideas and products into the established industry sector where investment and commercialisation opportunities exist. This is best located in existing hubs and clusters where the full ecosystem of the sector exists.

The games sector in Dundee benefits from a critical mass of companies spanning a number of highly dynamic micro-SMEs to more established studios. Other essential features of a healthy cluster include a supportive local administration, a leading university supplying the local talent pool with a range of relevant skills and expertise, a wider cultural sector that is supportive of less traditional expressions of games culture and a large informal community of interest groups and relevant events.

*It is well known that innovation has an important geographical dimension; that ideas move more quickly and easily between companies that are located close to one another...Knowledge is often circulated through personal networks, or when individuals move between companies, or start new ones. [...] Together with the fact that a critical mass of companies within an industry tends to attract skilled labour, as well as specialist suppliers and investors (what economists call 'agglomeration economies') these innovation spillovers generate 'clusters' – highly productive, innovative, fast-growing and potentially resilient concentrations of companies.<sup>10</sup>*

### **Innovation Cultures**

Support for pre-start up innovation in the games sector (and the creative and cultural industries) depends on a vibrant informal community of practitioners and a strong network of local cultural organisations committed to supporting creative projects and offering venues for cultural networking activities.

*Social activity...includes mediation activities that connect incubatees both to each other and to partners and actors in the outside world. The main aims of these connections are stimulation of informal learning by exchanging new knowledge, information and best practices, and networking activities that may result in forms of co-creation.<sup>11</sup>*

Successful game hubs have emerged in cities as diverse as Austin (Texas), Brighton, Buenos Aires, Copenhagen, Los Angeles, Montreal, Melbourne, Nottingham and Tampere (Finland). Certain common themes emerge in the success of these hubs. Among them are the role of game education institutions in providing a centre of gravity for game-related cultural activity, including lectures, arts events, and mentorship opportunities. Institutions such as USC in Los Angeles and the IT University in Copenhagen generate student-created studios which remain in the region, creating lateral networks of employment and collaboration.

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<sup>10</sup> *ibid*

<sup>11</sup> [http://www.incompassproject.eu/documents/sv\\_medway/SV\\_report\\_medway.pdf](http://www.incompassproject.eu/documents/sv_medway/SV_report_medway.pdf)

In certain cases, arts events and cultural festivals which showcase innovation and new ideas anchor local creative hubs, attracting capital and talent into a region, and creating a persistent cycle of activity. Examples include Austin's South by South West<sup>12</sup>, Los Angeles' IndieCade<sup>13</sup>, and Helsinki's Slush<sup>14</sup>. Scotland Dare to be Digital and Dare ProtoPlay are well-established examples of these activities.<sup>15</sup>

## **Conclusions**

In order to support each subsector of the games industry there needs to be recognition that different stages of pre-start up and company development require differentiated support.

There are significantly different challenges involved in developing businesses and developing a creative community. Where Scottish Enterprise have expertise and structure in the former perhaps Creative Scotland as an Arts and Culture support organisation could draw upon existing expertise of working with diverse and dispersed creative communities to offer support to pre-start up creative media communities.

For pre-start up entities investment in company formation is risky, expensive and laborious; access to funding is complex and heavily regulated, resulting in support mechanisms in reality acting as barriers to enterprise and innovation.

The public sector should recognise that investment in the pre-start up communities benefits the whole sector and recognises investment in this community as an investment in the long-term health of the sector as a whole. In this context return on investment is not directly linked to individual company success or failure but to the health of the sector and is returned through tax receipts.

Hubs, clusters and geographical location play a significant role to this approach to sector support through community building. Proximity to support services, networks and events has contributed to the success of the games sector in Dundee and contributes significantly to the health and vibrancy of the city.

Investment in the pre-start up community in Dundee would contribute to the growing cultural community and build on other significant investments in its cultural infrastructure.

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<sup>12</sup> <http://sxsw.co.uk/>

<sup>13</sup> <http://www.indiecade.com/>

<sup>14</sup> <https://www.slush.org>

<sup>15</sup> [http://www.daretobedigital.com/42\\_Dare-ProtoPlay.html](http://www.daretobedigital.com/42_Dare-ProtoPlay.html)