

O digital circle

Leadership and Representation for Software and Digital Content Industries in Northern Ireland

Response to the Inquiry into the Creative Industries undertaken by the Culture, Arts and Leisure (CAL) Committee of the Northern Ireland Assembly.

December 2011

Table of Contents

Introduction	3
Executive Summary4	4
Identify the potential of the creative industries in Northern Ireland, with particular emphasis on the economic benefits!	5
2. Identify the key challenges currently facing the sector;	õ
3. Investigate whether particular gaps exist in current policies, strategies and delivery mechanisms, in areas such as: financial and business support; tax credits; education, training and skills development; leverage into international markets; the protection of intellectual property; and legislative developments;	1
4. Analyse and compare policies, strategies and delivery mechanisms in Northern Ireland with other UK regions and countries, in terms of their effectiveness in supporting the creative industries;	2
5. Examine the extent and effectiveness of the collaboration and co-ordination between industry, government departments and academia, in maximising and harnessing the full potential of the creative industries in Northern Ireland;	1
6. Consider the creative industries at sub-sector level in respect of any funding and support available; and assess the validity of prioritising particular industries within the sector for this support; and	1
7. Report to the Assembly with full findings, conclusions and recommendations for improvements in: policies and delivery mechanisms; and collaboration among all key stakeholders, to further develop and enhance the potential of the creative industries in Northern Ireland.	
Appendix I: The Digital Circle Steering Group1	7
Appendix II: Member Company Responses 18	3

Introduction

Momentum is the ICT Federation for Northern Ireland, established in 1991 and representing 140 companies ranging from multinational FDIs (such as Allstate, Citi and Liberty IT) and globally-focused indigenous companies (such as Singularity, Aepona and TextHelp).

Digital Circle is the Northern Ireland Digital Content Industry Steering Group, formed under the Collaborative Networks Project and funded by Invest Northern Ireland. Digital Circle operates under Momentum, the ICT and Software Trade Industry Federation for Northern Ireland. Established in 2008, the Digital Circle now represents 190 creative businesses ranging from the BBC to digital micro-businesses operating out of a garage.

This work was made possible by Northern Ireland Digital Content Strategy in 2008. The strategy was developed by local industry supported by Invest NI.

Digital Circle includes companies primarily working in Web Design and Development, Mobile App Development, Software, Games Development, E-Learning, Film, Television, Radio, Animation, Post-production and Music but also includes sub areas such as publishing, fashion, advertising and user interfaces design where their inputs and labour are primarily digital.

Evidence published by the Assembly¹ in September 2011 suggests that the creative industries is undergoing rapid growth despite worsening economic conditions. In particular there is explosive growth in Software and Games development limited only by the numbers of qualified graduates produced by our universities. In 2008, at the publishing of the Northern Ireland Digital Content Strategy, there was a single games company in Northern Ireland. Currently, there are seventeen companies, in various stages of development. Digital Circle has witnessed this growth across all sectors.

Northern Ireland is a small region, characterised by a talented and motivated population, and must prioritise investment in those areas which can be seen to further develop the international reputation of the province as well as provide high value jobs and wealth creation for the region. It is our responsibility to provide an environment to enable a new generation of creative and adaptable knowledge workers to realise their ambitions while remaining in Northern Ireland.

Digital Circle is steered by an elected panel of industry representatives. We sit on the Skillset board, on the Consortium for the Arts Council Creative Industries Innovation Fund and provide industry insight to academic, private sector and public sector organisations for the benefit of the digital industry in Northern Ireland.

3

¹ NIAR 412-11 The Creative Industries: background, definitions and recent policy development

Executive Summary

Digital becomes the new norm.

- Northern Ireland Digital Content companies are extremely limited in their capacity to grow in both personnel and to take on additional work by the severe skills shortage in computer programming and design.
- 2. The opportunity for growth in software and digital content has a conservative estimate of 9000 new high-value jobs over the next five years.
- 3. Lack of private investment results in limited options for creation of indigenous intellectual property.
- Foreign Direct Investment in the digital media sector often operates through investment/acquisition of successful local companies with novel IP.
- 5. Government assistance relying on match-funding has a lower than UK average uptake in Northern Ireland due to limited private investment.
- 6. Risk-aware (but not risk-averse) seed funding is essential for a digital creative sector that is capable of winning in the market (as opposed to being simply "competitive")
- 7. Changes in government procurement have an immense positive impact on the local industry. It is vital not to disadvantage our local SMEs in favour of multinationals.
- 8. Open data is a real opportunity for Northern Ireland which has, to date, been ignored.
- 9. The digital content industry moves very rapidly. Without access to seed funds and skilled personnel, the opportunity will desert us.

1. Identify the potential of the creative industries in Northern Ireland, with particular emphasis on the economic benefits.

Over 20,000 people work in the software and digital media industry in Northern Ireland and the demand for skilled workers remains high in both international companies based in the province and local companies seeking to grow rapidly.

With appropriate supports, the digital creative industries can grow much quicker and usher in new opportunities for employment at all levels. Digital Circle supports the Northern Ireland Knowledge Economy Index ²report published in November 2011 by NISP CONNECT as the creative industries in software and digital media represent one of the fastest growing industries in the province.

The end of 2011 saw not only the highest sales of videogames ever³, but also the lowest box office takings for three years⁴, it is our belief that digital media and software will represent an incredible opportunity for Northern Ireland to accelerate the economy.

As a result, Digital Circle members have an urgent need for skilled employees to develop computer games, web apps, interactive media, film and television, visual effects, animation and e-learning. As the console market remains closed, the greatest opportunity has come from the mobile and web sector.

These sectors are primarily engaged in the development of unique and indigenous intellectual property but the time to market is lengthy. This is due to a lack of liquidity in the market resulting in limited funding options. Digital Circle has sought to remedy over the last three years through establishing relationships with public funding bodies and private investors. The Creative Industries Innovation Fund and significant catalyst funding from DCAL has enabled the industry to develop rapidly in skills and capability and reduce time-to-market considerably. Similarly, liquidity afforded by the Northern Ireland Spin Out Fund (NISPO) managed by e-Synergy, has resulted in the seed funding of several start-ups.

5

² http://www.nisp.co.uk/?page_id=302

³ http://www.guardian.co.uk/technology/2011/dec/12/modern-warfare-3-breaks-1bn-barrier

⁴ http://www.bbc.co.uk/news/entertainment-arts-16136732

2. Identify the key challenges currently facing the sector;

Digital Circle, over the last three years, produced research from the membership identifying the following issues:

Skills and Training – digital content businesses in Northern Ireland are often self-taught and possess little qualifications in their industry. There is a requirement for digital creative skills to be promoted at a vocational level as well as an academic level. A lack of appropriate training and high costs mean that local businesses are much more likely to be self-taught in their disciplines.

The local industry has very limited engagement with Sector Skills Councils as a whole.

- Skillset is overly focused on the television broadcast and film industries. Through collaboration with NI Screen and the University of Ulster, there have been some successes with the delivery of courses in 3D modeling and post-production skills.
- Creative & Cultural Skills have been pro-active in promoting design as a separate discipline in Northern Ireland.
- e-Skills have not engaged with Digital Circle but are involved in a postprimary schools STEM project with Momentum. As they currently claim "computer gaming" as within their domain, there should be more opportunity for engagement.

Digital Circle members reported⁵ a lack of deep technical training and a lack of business savvy as serious issues for business development. This, with a question of credibility of local trainers, has left little opportunity for skill gaps to be easily repaired without recourse to international access.

One company, Ecliptic Labs, a senior member of Digital Circle is operating near capacity in the disciplines of design, programming and digital content. Describing massive growth in this sector, they estimate that they have turned down more than 5 enquiries a day due to capacity issues (value in excess of £50,000). This capacity issue is entirely due to a lack of skilled programmers and designers. They also note that every one of the Northern Ireland companies in mobile apps and gaming has the same issue and all of them are having to look outside Northern Ireland to find adequate talent to meet demand.

In their words, "None of the universities or colleges provide programmers with a skillset that we find immediately employable. We would love the opportunity to work with colleges to source smart and motivated engineers who we will help train to our standards."

Digital Circle continues to liaise with local colleges to produce skills development courses supporting the industry by being inexpensive and

-

⁵ Digital Circle Membership Survey 2011

delivered rapidly. As we have no large FDI in the games sector, it becomes much more difficult to lobby for this. There is an urgent need for flexibility as the industry changed and moves and we need to identify the training that is required to support the industry. The demand for software developers, especially in mobile, tablet and gaming is immense and currently unmet. Many of our start-ups in high potential growth areas are constrained by the lack of skills in these areas. FDI opportunities will increase if local companies are able to demonstrate their skills.

Opportunities for local and foreign investment in jobs and wealth creation include the development of skills in games development, visual effects and animation - creating high value employment not constrained to the main cities but that benefits the entire province.

e-Skills UK estimates that, at the current rate⁶, Northern Ireland has a demand for 9000 additional new jobs in software and digital media over the next five years. Our universities currently produce approximately 300 graduates per year indicating the scale of the challenge. There is no programme for the re-skilling of the current workforce.

Northern Ireland urgently needs a skills pipeline, taking digital media practitioners from cradle-to-grave with the latest developments. This would support for the draft Programme for Government in the creation of 25,000 new jobs in the knowledge economy for the duration of the strategy

_

⁶ Excluding any new knowledge economy stimulus interventions.

Investment and Funding – digital content businesses in Northern Ireland are undercapitalized and unable to move rapidly to market. This is because of the dependence of the local economy as a method of bootstrapping a company rather than securing investment. Local media businesses tend to develop their business by securing service-based sales from the local economy and find it hard to break into development of indigenous intellectual property due to the time restraints of a client-led business.

The market in Northern Ireland has improved over the last three years:

- Foreign investment from outside Northern Ireland. This was in addition to (and often in spite of) local investment initiatives.
- Increased knowledge and investment preparedness. Delivered by members of the Northern Ireland diaspora.

Lack of industry savvy is present on both sides of a potential investment with a lack of business intelligence on the side of the investor coupled with naivety caused by inexperience on the side of the local entrepreneur.

Most digital content businesses are too small and/or undercapitalized to be able to participate in European programmes. The opportunity costs for EU-funded projects are often prohibitive for SMEs and microbusinesses operating in a depressed economy.

The opportunity for software and digital media is yet to be recognized in the processes within Invest Northern Ireland though the teams within the organization are committed to proving the value of the industry. A similar issue is recognized within NIScreen as only a very small percentage of the their budget is allocated to digital products (and of that, an even smaller percentage does not go to local television production for the web). Digital Circle has offered to be part of the decision process for the NIScreen Digital Media Fund.

DCAL, working in partnership with Invest NI, has provided the most effective method of injecting seed investment into digital start-ups with the Creative Industries Innovation Fund. This has provided early stage funding to fifty digital projects over the last six months with the intent of funding more over the next three years.

This is closely followed by the SBRI⁷ process pioneered by DETI (with the Northern Ireland Tourist Board) in early 2011. This initiative, which ushered in the first significant open data project in Northern Ireland, proves the concept that a small amount of targeted investment can create a new business as well as provide low-risk products commissioned by government and delivered by the SME sector.

Despite the current economic conditions, Invest NI have supported 76 new Digital Circle members over the last three years indicating the potential for growth in the industry. Invest NI continues to support companies through the Growth Accelerator Programme (and other mainstream programmes) and this support extremely welcome in supporting the indigenous industry.

⁷ Small Business Research Initiative

Internationalisation and Export – digital content businesses in Northern Ireland have been able to take advantage of an excellent range of in-market supports and trade mission supports with assistance from Invest Northern Ireland over the last three years as a result of close work with Digital Circle.

International visits (which may include trade, training or awareness visits) include

- Apple World Wide Developer Conference a week long conference on developing skills for development on iPhone-related platforms, Excellently supported by InvestNI in 2009 and 2010, this conference has proved extremely difficult to attend in 2011 (and likely 2012). Timely response from InvestNI enabled local businesses and academics to develop much-needed skills and support a growing development of an app economy in Northern Ireland.
- SxSW though it as been a trade visit target for the music sector for several years, in 2009 and 2010, the Interactive segment became a target for local digital content businesses. Providing awareness, market intelligence and trade contacts, SxSW remains an important event for the sector in the general education about the industry.
- Mobile World Congress supported for several years by Invest Northern Ireland for our local telecoms and ICT industry and increasingly of interest to our local "apps economy" developers and in particular for content developers.
- Games Developer Conference this conference has been recently supported and is still, for the Northern Ireland industry, in the early stages of engagement as our companies are small, undercapitalized and still in product development.

The local games industry will be submitting a proposal to the InvestNI Collaborative Network Programme to create a virtual 'publisher' entity. This entity will handle the administration of marketing and export for the network of companies and provide collective branding as well as additional market opportunities and representation at international conferences. As a product of the Collaborative Network Programme, Digital Circle believes this is a valid targeted and non-specific support available to companies wishing to export globally.

There is an additional opportunity for the development of solutions for both digital and non-digital creative products in terms of localization and export preparation. Digital Circle would recommend that this export preparation become an essential part of business preparation (whether this is through the Go For It! Programme or other excellent programmes such as CraftNI "Making It!").

Research and Development -

Investment in research and development in the digital creative industries has only been supported in any volume by the Creative Industries Innovation Fund. Other development funds, such as the Invest NI Fund for R & D & I and R&D Tax Credits, need to be closer aligned to the needs of digital content companies. UK government policy restricts the support under R & D & I for digital content development. As the creative industries is a priority under Northern Ireland's draft Programme for Government, we would welcome a review of policy.

The PWC Outlook report for 2011-2015 states:

Digital becomes the new norm.

It is clear now—as it was then—that the coming five years will see digital technologies progressively increase their influence across the industry and that rapid change in technologies and consumer behaviors will continue.

While the pace of progress still varies by country and segment, these trends will see worldwide digital spending grow at 11.4 percent compounded annually through 2015, compared with a compound annual growth rate of just 3.3 percent for nondigital spending.

In our view, this reflects the fact that the industry has crossed a psychological and behavioral tipping point by moving from the old normal— of essentially traditional business with a growing digital element—to a new normal, wherein digital is acknowledged as the central driver of future operating models, consumer relationships, and revenue growth.

While digital currently accounts for just over a quarter of total industry revenues, it will account for 58.7 percent of all growth in spending during the next five years.

3. Investigate whether particular gaps exist in current policies, strategies and delivery mechanisms, in areas such as: financial and business support; tax credits; education, training and skills development; leverage into international markets; the protection of intellectual property; and legislative developments;

Northern Ireland has a poor record⁸ for supporting small-to-medium enterprises, despite the economy being dominated (98% of the private sector) by these types of companies.

For the digital media sector, we would welcome a review of rapid response programmes suiting the needs of the industry. This is particularly valid in skills development.

Digital Circle members report difficulty in accessing early-stage private funding which limits access to government-funded programmes.⁹

Similarly, due to UK government policy, the Invest NI R & D & I programme does not currently cover the development of content and design.

Schemes operated by DEL for apprenticeships and employment bridges are extremely limited when dealing with small companies. As Northern Ireland is primarily an SME economy (and arguably, large companies do not require the assistance), this represents a considerable gap in provision.

The skills gap (and the poor suitability of the ICT curriculum and qualifications in schools) has led to a massive demand for school leavers with a grasp of computers and media development. A reduction in funding for specialist schools in Northern Ireland also represents a retrograde step.

While the protection of intellectual property is to en encouraged for intercompany licensing, for the consumer market, it is a process remaining beyond most of the companies in digital in Northern Ireland. Only if the infringement is on a massive scale would it be considered a criminal matter.

Protecting copyright or trademark infringement is a civil matter and actions brought against a perpetrator must be the result of individual intervention. The costs of civil cases will likely be prohibitive. Digital Circle would encourage the best way to protect intellectual property is in the successful exploitation and reduction of time-to-market.

-

⁸ Digital Circle Membership Survey 2011

⁹ http://www.detini.gov.uk/northern_ireland_economic_strategy_-_initial_consultation_paper__priorities_for_sustainable_growth_and_prosperity.pdf - Pt 3.16

4. Analyse and compare policies, strategies and delivery mechanisms in Northern Ireland with other UK regions and countries, in terms of their effectiveness in supporting the creative industries;

The awareness of the digital creative industries in the rest of the UK is much higher due to the activity of NESTA, the TSB, PACT and TIGA. This has seen the industry work to secure funding and investments, support for skills development, research grants and public trials. It is important that Northern Ireland, despite our small size, does not get left out of these developments.

While the situation is not ideal, Northern Ireland has taken some positive steps towards promotion of the digital creative industries.

- Invest NI supported the industry in the development of the Northern Ireland Digital Content Strategy following 18 months of consultation with industry and wider stakeholders.
- Invest NI Trade initiatives have been extremely supportive of the industry in providing trade and best practice visits to world class industry events.
- Invest NI funded the Digital Circle from August 2008 to October 2011 to employ a single facilitator and a small events budget.
- DCAL funded the Creative Industries Innovation Fund (and the sequel, CIIF 2).
- DCAL separately funded several pilot projects in games, cultural tourism and public space broadcasting
- DEL funded games development and mobile apps development courses. More of this is essential.
- DETI has pursued both Tourism and Open data projects and funded developments in both (with NITB).

This is in addition to supports for film and television in Northern Ireland which have delivered "A Game of Thrones", "Hunger", "City of Ember" and "Your Highness". Through collaboration with the universities and FE colleges (and engagement with primary and post-primary education), Northern Ireland can build upon our recent successes and develop new opportunities. This includes the development of visual effects, post-production, computergenerated imagery skills and facilities. The digital sector currently employs over ten times the number of people in film/television.

Digital Circle would be very keen to provide industry insight to the Executive on the steps needed to deliver a vibrant and enterprising digital sector capable of competing on a global scale. Compared to the funding for film and television, Northern Irelands digital sector has received little and achieved amazing recognition for their efforts. Digital Circle offers this insight to any organisations, public or private, which can see the opportunity for digital in the future of Northern Irelands economy.

Scotland has carved a reputation for games on the back of several successful engagements between FDI and academia. Though successful, this position is precarious as it is reported that Scotland is now the second most expensive place in the world to develop computer games. ¹⁰ The opportunity for Northern Ireland if the skills can be developed is to establish positive relationships through the demonstration of excellence in indigenous companies.

Wales has established a successful dominance with the BBC surrounding the Doctor Who franchise and spin offs such as Torchwood and Sarah Jane Adventures. This resulted in a global transmedia phenomenon as a mothballed TV series was turned into a successful franchise with games, cards, toys, posters and lunchboxes have been developed to help monetize the intellectual property. The opportunity for Northern Ireland is in the serious examination of intellectual property and the development of a home-grown transmedia television series which can be developed in partnership with the BBC in Northern Ireland for the development of dramas.

Westminster has established ¹¹Data.gov.uk - data should be open by default

The effects of open data cannot be ignored in the development of new business models and promoting innovation. Even just the opening of public transport data by TfL (Transport for London) has resulted in several businesses being developed on the provision of passenger and travel information. In comparison, the refusal of Translink to open public transportation timetable and route data, in addition to poor records of open data and transparency within the Departments, has left Northern Ireland with a very poor score-card on the global stage.

This single example highlights a single example of an initiative where Northern Ireland is failing to deliver on something with great benefits for both the citizen and the tourist.

.

¹⁰ Pers. Corr NESTA

 $^{^{11} \} http://data.gov.uk/sites/default/files/Open\%20Data\%20consultation\%20August\%202011.pdf$

5. Examine the extent and effectiveness of the collaboration and co-ordination between industry, government departments and academia, in maximising and harnessing the full potential of the creative industries in Northern Ireland;

Digital Circle enjoys an extremely positive relationship with the University of Ulster across four campuses based on mutual benefit and co-operative delivery. This is echoed in our relationship with Belfast Metropolitan College and, to a lesser degree, the other regional colleges. In the past, we have found it difficult to engage with Queens University Belfast though through the establishment of the new Faculty of Creative Arts earlier this year, we hope to develop these relationships further.

We recognize and thank our primary funder, Invest NI, for the first three years of our existence. The industry would like to work more closely with Invest NI to ensure that future programmes are developed with the digital content industry in mind.

While we are very happy with our relationship with DETI and DCAL in the delivery of the NITB SBRI and the Creative Industries Innovation Funds, we recognize this is the start of the relationship and not the end. Digital Circle looks forward to continuing this relationship and helping to deliver industry focused initiatives with the support of DETI and DCAL.

DETI, in particular, has been championing innovation in procurement as the Northern Ireland Executive and Civil Service, even with considerable cuts on the horizon, represents a significant customer to Northern Ireland-domiciled SMEs. Procurement which is currently being delivered to international companies, not domiciled in Northern Ireland.

Open Data is an opportunity for the Northern Ireland economy and the potential benefits far outweigh the costs. Digital Circle would welcome engagement with DFP, DRD and the local Councils to develop Northern Irelands open data assets. The opportunity presented by the Titanic Anniversary and City of Culture will have positive effects on the local economy and we cannot ignore the benefits to tourism of a freely available public transport information API enabling citizens and tourists to travel around Northern Ireland with greater ease.

6. Consider the creative industries at sub-sector level in respect of any funding and support available; and assess the validity of prioritising particular industries within the sector for this support; and

Digital Circle is involved in the representation of the digital content industry in Northern Ireland and has provided evidence of the opportunity for Northern Ireland as a result of the rapid growth of the sector.

This is not necessarily at the expense of other subsectors within Northern Irelands Creative Industries but rather a call to arms in the recognition that many traditional creative industries sectors now have a digital component.

- Newspapers and book publishing are now created digitally and there
 is a move towards e-Newspapers and e-Books where the traditional
 skills of writing, design and layout are preserved even though the
 medium of delivery is different. This can also create opportunity as the
 distribution of e-publishing formats can be much wider as the market
 becomes global when your product is digital rather than paper.
- Fashion and textile design are primarily developed digitally and sent for manufacture over the internet. Jewelry design is developed at low cost using Computer Aided Design and 3D modeling software before it is committed to a time-consuming and expensive manufacturing process.

As a small region, we must allocate our resources strategically and make investments in the areas of the industry with the greatest potential for growth.

Digital Circle has achieved much for the budget it has (£250,000 over three years) but the opportunity is much larger than this funding can realise.

We would ask that funding for Digital Circle be continued and scaled appropriately to the demand that is placed on the industry. This is to include catalytic programmes to facilitate collaboration between digital and non-digital sectors of the creative industries and substantial programmes to reduce time-to-market for digital products.

7. Report to the Assembly with full findings, conclusions and recommendations for improvements in: policies and delivery mechanisms; and collaboration among all key stakeholders, to further develop and enhance the potential of the creative industries in Northern Ireland.

Digital Circle would be very willing to represent the industry and give evidence to the Assembly in the support of this inquiry.

Northern Ireland is currently not meeting the current demands we have for practitioners in digital media and software in the face of double-digit growth of the industry. The need for intervention has become urgent as the rate of growth of the industry increases and we are in danger of being left further and further behind.

Appendix I: The Digital Circle Steering Group

Digital Circle is steered by an elected panel of industry representative and co-opted individuals who have been asked to serve on the Steering Group due to individual contributions from the industry.

Chair: Mary McKenna, Learning Pool. "Fastest Growing Technology Company in Northern Ireland – Deloitte Fast 500"

Ryan Adams, BBC

Alan Anderson, BlueTube Design

Ian Sayers, Giant Associates

Mark Nagurski, Digital Derry (co-opt)

Dr Ian Graham, Momentum (co-opt)

Rory Campbell, FordeCampbell (co-opt)

Steven Morrow, Loughshore Investments (co-opt)

Digital Circle is hosted by Momentum (the Software and ICT industry trade federation). Momentum provides project administration and employs the Digital Circle Collaborative Network Facilitator, Matt Johnston.

Appendix II: Member Company Responses.

Digital Circle represents more than 190 companies across Northern Ireland. During our consultation, some of the companies felt they were compelled to add personal testimony to their responses.

Mary McKenna, Learning Pool, "Fastest Growing Technology Company in Northern Ireland - Deloitte Fast 500"

"This document from Digital Circle is a timely, accurate and succinct response to the digital challenge in Northern Ireland. I believe that government is serious about nurturing a creative digital industry in Northern Ireland but my experience at Learning Pool has been that the challenges facing burgeoning companies are substantial, and despite its best efforts, governments response does not always provide the support that it should. At Learning Pool we have proven that it is possible to take a digital idea from concept to reality and onto profitability in months not years and to sustain growth over the medium term. Our challenges have been around finding talent, accessing finance and entering international markets and this response deals with each of these in a thorough and sensible way. I believe that many more companies like Learning Pool can be created here with a relatively modest amount of government support and this response provides a framework in which this can happen.

I am pleased that DCAL have had the vision to conduct this inquiry and I look forward to outcomes that address the very real challenge and opportunity before us. "

Ryan Adams, BBC

As one of the largest employers (if not the largest) in the Creative sector in Northern Ireland, BBC Northern Ireland has a part to play in the development of our industry. As BBC NI's representative on Digital Circle, and a Development Lead for BBC Future Media, I can agree wholeheartedly with the response as provided by Digital Circle.

The BBC has committed to spend at least 25% of eligible spend externally. In order to do this there needs to be a vibrant and active industry capable of delivering quality products and good value for money. The issues I have faced when receiving digital services from local businesses have been well expressed in this document. Lack of skills and capacity to deliver have previously resulted in BBC Northern Ireland looking to digital suppliers across the water. Our current open tendering process would require potential Northern Irish suppliers to be competitive with suppliers across the UK. Very few if any Digital Circle companies currently act as suppliers to any other part of the BBC.

The opportunity for growth in digital companies is exciting, the potential benefits to the economy can not be underestimated. Digital Circle provides an extremely viable channel for fostering that growth, and has clearly expressed the needs of the industry as I see them.

Adrian Campbell, Managing Director, The Design Zoo

Great representation of the current state of the digital sector in NI and massive agreement on our side regarding many areas of discussion. Most importantly for us is the lack of employment potential for us and the massive reliance on service based work in the local economy **massively restricting our opportunities in creating our own IP**, especially games.

Regarding employment, we feel there have been strides in the right direction regarding web design, where talent is improving but still hard to discover. For us skilled web developers are the biggest restriction for our growth. They have huge lack of understanding of the creative sector, opportunities and technologies, I believe mainly due to computing courses such as computer science at queens being so heavily focused on employment in mainstream software companies such as Citibank, Allstate, Kainos etc. The modules are also hugely biased towards these areas of computing.

Because of this when we employ developers, it places huge pressure on both the company and staff member within the initial year to train the developer into a more creative way of thinking and self-learning. This places undue pressure on the employee and ourselves, the financial implications of this for us is huge. The training costs we occur through our own time and in project work has had massive impact in both business and restricted our growth in business development, export and developing new internal ventures. This also includes turning down work. Aside from this, the stress on the employee also increases the likelihood of resignation for those unused to the time pressures of our sector, which has occurred recently for ourselves, moving back our growth by months in trying to gain new employees to meet demand and having to retrain. The alternative is to have an inflated salary for the employee whose skills may be good but not relative to the creative sector where multiplatform project skills, and flexibility is paramount in companies with low employee numbers but have high specialisms. E.g gaming, mobile.

We are also on the road to applying for R&D funding with Invest NI and are working with them to meet the specifications.

The document is a great review and reflection of our industry and a personal reflection of our company and thoughts. I wish you all the best with it and if you need anymore from me, just give me a shout.

Cheers Adrian

Donal Phillips, Managing Director, Dphisound

"I agree with all of it, just from my perspective things you have mentioned but I would stress are;

- Their is a lack of awareness and participation among students, graduates and creatives of various levels of experience, I seem to meet a regular flow of people who are oblivious to the opportunities available and are waiting for large scale FDI. This mindset needs to be altered for the local digital content sector to build momentum
- The greatest success of the CIIF 2 funding has been the emphasis on collaboration. Encouraging people to work together is possibly the best method to seed the formations of loose teams that can then go on to attract investment and publisher backing
- Within the game sector there is a growing number of content creators such as artists and coders that are capable of producing high quality games which is going to continue as more graduates come through the various college courses. What seems to be lacking is more business and marketing focused individuals who can contribute and getting involved who can support the gaming sector
- Mentoring services from more experience and established local business from within or outside of the creative sector leaders to support individual companies and as a sector."

Gary Gallagher, Director, Paperbag Ltd

"I read the response and I agree with all points raised and Digital Circles suggestions on how to face and overcome these challenges.

In particular, skill shortage is a big issue for us. Until now we have had to source freelance designers and software developers from outside Northern Ireland due to the lack of personnel and the people we came across were not skilled enough.

We are planning to hire two junior developers in Belfast in February. Having spoke with other companies in a similar situation and having been sourcing CV's over the past few weeks it is going to be somewhat of a challenge to find the right people for us. There just isn't enough skilled software developer in Northern Ireland to service the vacancies at this present time."

Craig Turner, Partner, Lost Number

"Today, every business that creates requires at least a digital component. When setting up a new small business it is foolhardy to ignore this. Whatever your business wishes to create, consumers will find your product through a digital medium.

More than this (and continuing a well documented trend) digital products are experiencing continued growth worldwide. Digital Circle helps guide those of us who wish to create digital products in Northern Ireland. Digital Circle speaks our language and knows what we have to overcome.

It's no surprise then, that **Digital Circle's response to the NI Assembly's inquiry into the creative industries is something I wholeheartedly agree with.** "

Martin Neil, CEO, AirPOS

Seed Capital

While there is availability of Seed Capital from private investors it is undermined by a lack of confidence and the worsening reputation of the government-backed funds. There is a job of work to be done in ensuring that Angel Investors have the confidence to enter into deals. A great start would be a standardised term sheet that would set a clear path for both the entrepreneurs and also the Angel investors when investing alongside government funds. That said the government funds are still a key component of larger funding rounds but it is counter-productive if these funds are slow to move and do not have the backing of the essential private money, this could be damaging to the companies in the long term.

Outside of NI there is greater access to capital, in particular from the US and the lines of communication are open. There needs to be improvement here in engaging with the diaspora, through a dedicated and independent resource, or greater support should be provided to the entrepreneurs who are already engaged and building these relationships that could be key to NIs long term future in the digital space.

'Digital Hub'

NI is unique in its lack of a digital hub. Areas like the Digital Hub in Dublin and the revived and reborn Shoreditch area of London and the Silicon Roundabout bring focus and access to the start up culture in a centralised way. If NI is serious about being a great location for digital growth the investment into this is essential as it cuts across all of the areas that are lacking and need work. Also an incubator for high potential start ups is essential and sorely lacking. Agencies are talking about these things, but they must engage with the industry to ensure they get what is needed and not a notional gesture. Thus far, this engagement is lacking.

Skills

The universities are not producing 'production-ready' graduates and are incapable of keeping up with the rapid changes in technologies and disciplines that the industry requires. This is not necessary a criticism of the universities but rather a feature of the industry. This leaves little choice for the young people who wish to be on the cutting edge of tech, meaning that they either drop out of education of fall behind in getting qualifications. I would suggest that some scheme is required similar to the vocational qualifications of old, where practical experience can be gained for young people without feeling like drop outs or risking their futures on degrees that aren't relevant.

Ciaran Murray, Founder, Fresh Made Media

"We greatly appreciate the work Digital Circle does in the Northern Ireland creative/digital sector & fully support their response to CAL's inquiry. As a young bootstrapped business we know first-hand the difficulties of trying to develop genuine and innovative intellectual property whilst almost solely relying on income generated by the service side of our business. The assertions made by Digital Circle throughout are excellent, informed and insightful. Better mechanisms to promote successful enterprise from the digital sector are vital, now more than ever, and Digital Circle are uniquely positioned to assist and enable government to achieve that."

John Girvin, Managing Director, Six Echo Studios

"To whom it may concern:

I write to express my support for the response to the Department of Culture, Arts and Leisure (DCAL) "Inquiry into the Creative Industries" that has been prepared by Digital Circle. I find myself in agreement with the facts and points it raises.

Further to point (1) in the Executive Summary, it has been my experience that the majority of skilled computer programming and design graduates produced by local universities tend to find employment in the larger multinationals operating within Northern Ireland, at the expense of local companies.

Further to section (6), I have witnessed first-hand the excellent work carried out by Digital Circle during the past three years in developing and promoting local creative industries. In particular, Six Echo Studios would not exist was it not for their encouragement and support. I believe it would be highly beneficial to the local economy if the funding that drives Digital Circle was to be continued and increased (and highly detrimental should it be stopped) and I would therefore strongly recommend the Department to do so."

Paul Kavanagh, Economic Development Officer, Craigavon Borough Council

"A thorough and detailed response, we agree with all the points made and fully support the collaborative engagement approach of Digital Circle.

Armagh, Banbridge, Craigavon and Newry & Mourne will invest more than £1.5 million in the next 3 years in a range of innovative initiatives to encourage new creative business development and the expansion of existing creative businesses. We look forward to working closely with Digital Circle to bring relevant and meaningful projects to the sector.

The Assembly's Programme for Government has an aim to create 25,000 new jobs over the next four years and there is a real opportunity to grow many of these in the Creative Industries. Our education system is not prepared for this; therefore it is likely that we will have an imbalance between businesses with vacancies and young people without the necessary skills to fill them.

Structures must urgently be put in place at secondary level education to actively encourage preparation for work in the digital world. Follow through into appropriate courses at third level that are both relevant and up to date is essential. Several other European regions (such as Kemi-Tornio in Finland and Vasterboten in Sweden) are already working hard to balance students' skills with employers needs. Without urgent action Northern Ireland is in danger of missing the digital revolution boat."

Simon Hamilton, CEO, Rumble Labs

"This response outlines well the key successes of Digital Circle as well as the gaps in Government support for certain areas of our industry. Digital Circle has been key to our recent successes, connecting Startups with companies like Rumble Labs, and helping startups achieve funding to develop their web-based applications.

But it is apparent that as a creative company ourselves, it is practically impossible for us to get support to develop our own ideas in-house. This seems particularly backward for creative industry companies.

Digital Circle is our ONLY "goto" for support, networking and connections, and opportunities. I can't imagine our industry in NI not having Digital Circle."

Chris McClelland, Managing Director, Ecliptic Labs Ltd.

Over the last couple of years Digital Circle has had a very positive impact on the digital content industry in Northern Ireland. We have seen a huge growth and a new age of web and mobile companies emerging thanks to the work of Digital Circle.

However it has been highlighted by member companies that there have been opportunities missed due to the lack of skills, support, and investment culture.

We agree and support Digital Circle's response to the NI Assembly's inquiry. We believe there is a huge opportunity in digital content that Northern Ireland has the ability to capitalise on, and we believe that the Digital Circle network, albeit at a larger scale, would be central to it's success.

We would also like to emphasise and note:

- That the industry strives to create original IP.
- Support of conferences and events based in Northern Ireland in order to establish international recognition for Northern Ireland in this area.
- Continue to showcase our work on an international stage such as at WWDC and SxSW through support of International visits.
- Universities get involved in investments and change policies on IP in order to encourage students and staff to commercialise research and spin off companies.
- Mentoring and advisors are highly experienced individuals, especially from the US.
- Processes and support behind investment and financial support is speedy before opportunity is passed.