

# The Future of Early Stage and Growth Finance in Northern Ireland

Synthesis Report

23 March 2015



**SQW**



## Preface

SQW Ltd (SQW), working alongside academics from Glasgow University and Middlesex University were appointed by the Department for Enterprise, Trade and Investment (DETI) in April 2014 to undertake research into early stage and growth finance in Northern Ireland.

The purpose of the study was to provide guidance on the development of early stage and growth finance, focused particularly on angel investment and venture capital, and drawing on the experience of other 'successful' locations internationally.

This Synthesis Report sets out the key findings and messages from the research, and the guidance – covering a set of principles, strategic recommendations, and specific actions – that should inform the development of early stage and growth finance going forward in Northern Ireland.

The document has been written for policymakers, stakeholders and partners working to develop the early stage and growth finance market in Northern Ireland. It was *not* written to be used as a practical guide for investors and entrepreneurs engaged in specific investments.

# 1. Setting the Scene – Drivers and Purpose

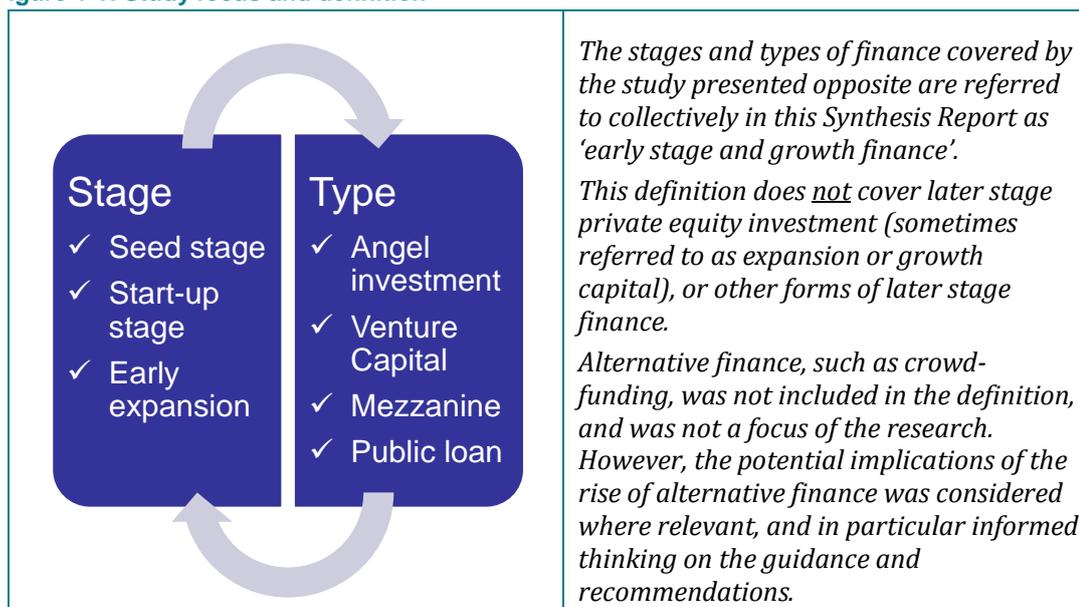
## Study Drivers

- 1.1 Access to equity finance to start-up and scale a business has long been identified as a key policy issue in Northern Ireland. The place is not unique here – the ‘funding escalator’, by which firms are supported through stages of growth, is regarded commonly as having collapsed across many developed economies following the global economic downturn.
- 1.2 In many senses, Northern Ireland’s experience is shared with many other places. But challenges regarding the scale of the private sector and economy in Northern Ireland, and the maturity of the market for equity finance mean that some of the challenges faced in Northern Ireland are more pronounced than elsewhere. Further, given the increasing concentration of equity finance in core regions and economic centres such as London and the Greater South East in a UK context where venture capital funds tend to cluster, issues of access to equity finance are more acute for other locations, like Northern Ireland.
- 1.3 Against this background, the Economic Advisory Group’s (EAG’s) review of access-to-finance in 2013<sup>i</sup> identified evidence of an on-going undersupply of equity finance to young high growth potential businesses in Northern Ireland. It recommended further research to inform future strategy on venture capital and equity finance. This report responds directly to that call.

## Study Purpose and Parameters

- 1.4 In the context of the EAG’s recommendation, the purpose of this study was **to provide evidence and guidance to inform the long-term development of the venture capital and equity market in Northern Ireland**, drawing on the experience of other successful international regions and/or small economies. Importantly, this study was *not* an evaluation of specific interventions supported by Invest NI<sup>ii</sup>, or indeed others.
- 1.5 The focus was on non-bank finance for the launch and early-stage development of growth-oriented firms. This covered equity, mezzanine and publicly-backed loans finance, supporting firms at the seed, start-up, and early expansion stages. Whilst a formal cap in the scale of finance covered was avoided – to reflect the reality of the market – the focus of the work was on principally investment up to £2m, the level covered so far by Invest NI’s Access-to-finance Strategy interventions.
- 1.6 The study focus and definition is set out in Figure 1-1.

Figure 1-1: Study focus and definition

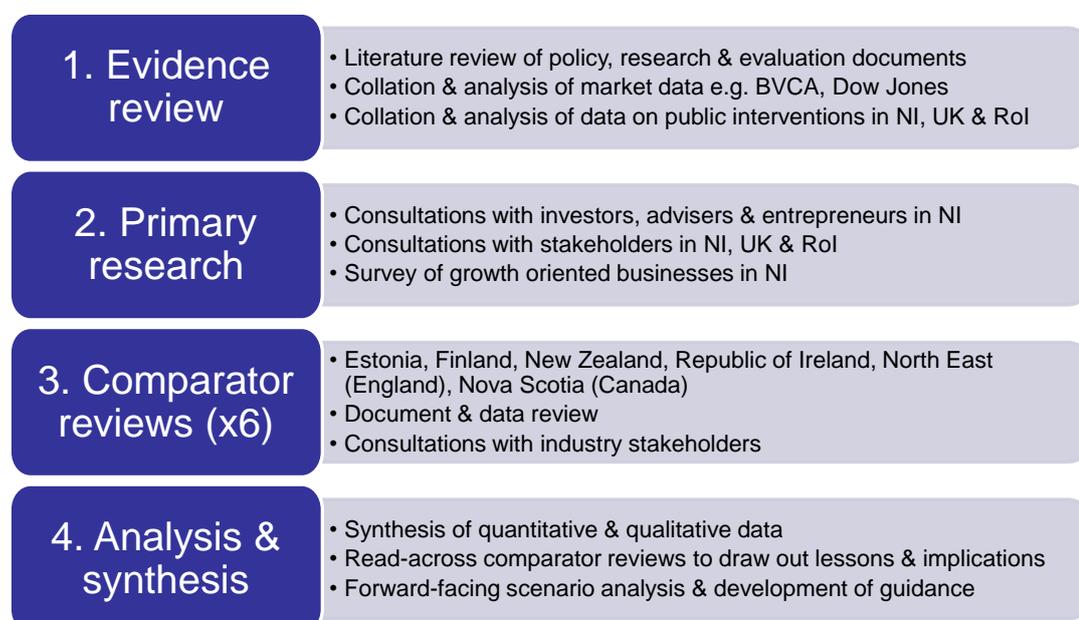


Source: SQW

## Study Process

- 1.7 Undertaken by an expert team led by **SQW Ltd**, with specialist inputs from **Professor Colin Mason**, Professor of Entrepreneurship at Glasgow University, and **Dr Robert Baldock**, Principal Researcher at Middlesex University, the work involved a mixture of desk-based and primary research across four work streams, as summarised in Figure 1-2.

Figure 1-2: Research work streams



Source: SQW

- 1.8 Collectively, **the work drew on the views of over 130 individuals involved in early stage and growth finance in Northern Ireland, the UK and internationally**, as entrepreneurs, investors and fund managers, advisors and policy makers.

- 1.9 The study has been overseen by a senior-level Steering Group, chaired by Dr Bryan Keating, and comprising representatives from DETI, Invest NI, InterTrade Ireland and Northern Ireland Science Park.

## Structure

- 1.10 This Synthesis Report contains the following main sections:
- Section 2: Concepts and Contexts
  - Sections 3 and 4: States of Play – in Northern Ireland and six comparator locations
  - Section 4: Alternative Futures
  - Section 5: The Way Forward.
- 1.11 It is accompanied by a detailed Technical Report that contains further information and data. This includes write-ups of comparator reviews of Estonia, Finland, New Zealand, the Republic of Ireland, North East England and Nova Scotia, findings from the entrepreneur survey and consultations, and market information drawn from a variety of data sources.

## 2. Concepts and Contexts

### Why early stage and growth finance matters ...

- 2.1 Innovation is correlated positively with economic growth, and new knowledge-based firms are core drivers and generators of innovation, as well as providing employment opportunities and attracting and retaining high-skilled people in an economy.
- 2.2 Many of these firms require finance to start-up and grow, but this finance is often not provided through traditional debt finance from banks, owing to the high levels of risk and uncertainty involved where revenue streams are limited or not yet evident, and where value is in intangible intellectual property and assets.
- 2.3 Demand for such finance is, therefore, met by **private venture capitalists, angel investors, and increasingly corporate ventures, who invest in new and early stage firms, particularly in technology and knowledge-based industries in return for equity**. Equity means that financial support, and ideally expertise, expertise and contacts, is provided in return for a share in the business.
- 2.4 Whilst such equity investment represents a small percentage of GDP in developed economies, generally under 0.5% in relative terms, the absolute scale of the market is significant, with approaching \$39bn of venture capital investments in OECD countries in 2013.<sup>iii</sup> The USA, home to Silicon Valley, Boston, and other leading venture capital hotspots, accounted for around three-quarters of this investment. The UK's venture capital market in 2013 was around \$750m, the seventh largest market in the developed world, although UK activity was concentrated heavily in London and the Greater South East.
- 2.5 Further, **while it is possible to grow a successful firm without equity funding, the data indicate that it certainly helps**. For example, nine out of ten of the top companies on the NASDAQ in late 2014 had been venture funded<sup>iv</sup>. Academic research has also identified the link between equity investment and the development of a successful and entrepreneurial economy, as summarised by Josh Lerner below.

#### **The vital role of venture capital and early stage equity investment**

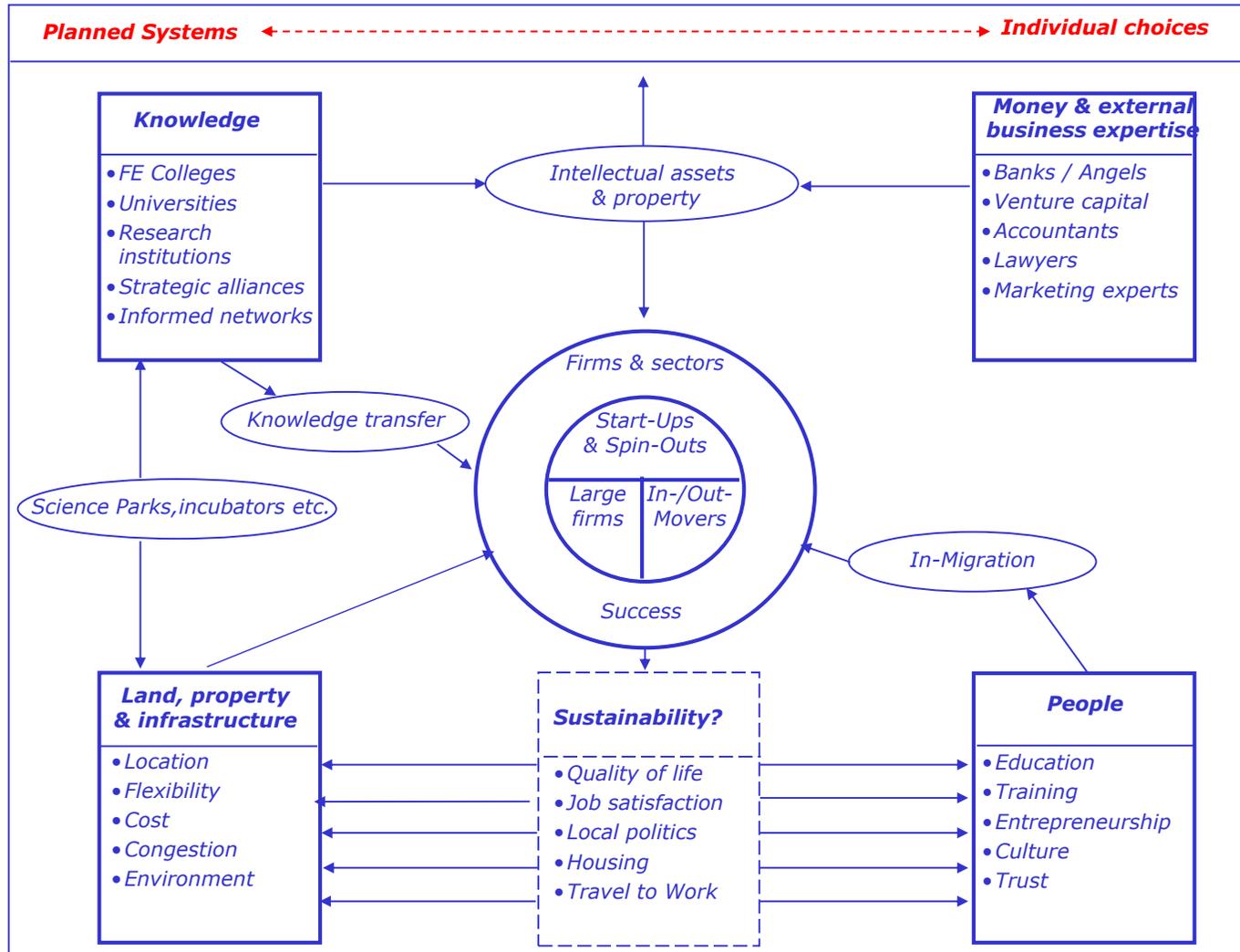
*'Academic research has highlighted the role of entrepreneurship and venture capital in stimulating innovation. These financiers and firms have developed a set of tools that are very well suited to the challenging task of nurturing high-risk but promising new ideas. One study estimates that because of these approaches, a single dollar of venture capital is as powerful in generating innovation as three dollars of traditional corporate research and development. Venture capital and the entrepreneurs they fund will never supplant other wellsprings of innovation ... But in an innovative system, a healthy entrepreneurial sector and venture capital industry will be important contributors.'*

Josh Lerner: Boulevard of Broken Dreams: Innovation Policy and Entrepreneurship<sup>v</sup>

## ... and its role in the wider ecosystem

- 2.6 The establishment of a successful economic development strategy based on nurturing and growing innovative, potential high growth oriented firms requires a holistic approach. An effective system that matches viable entrepreneurs and businesses seeking finance with a suitably fluid external financing (supply) mechanism is necessary; but, it is not sufficient. There is a need for an overarching strategy that covers a range of reinforcing domains to build an effective entrepreneurial ecosystem for business start-up, growth and sustainable development.<sup>vi</sup>
- 2.7 In the UK, and indeed increasingly across the world, much work has been done to try and characterise how and why successful knowledge-based economies and their ecosystems work. One depiction, which builds on SQW's own research in categorising Cambridge's success is given in Figure 2-1. This sets conceptually how the different elements of a successful ecosystem interface with, and reinforce, one another. **Finance, including venture capital and angels are an important element of this system, but only one part of it.**
- 2.8 What the depiction communicates, and what the wider experience of successful economies demonstrates, is that it is the dynamic relations between businesses and entrepreneurs at the core, with money and external expertise, people and their skill sets, land and property infrastructures, and the knowledge base, that makes for long-term economic success, in a city, regional, or national economy.
- 2.9 Practically, this means that in order for the early stage and growth finance market to 'work', it needs to operate alongside a wide range of broader infrastructures and systems in the entrepreneurial ecosystem. For example, education at primary, secondary, further and higher levels needs to provide the technical skills and entrepreneurial cultures in young people required to start-up and run a business. There need to be effective links between, and support for, academia and industry in order for ideas and innovations to be translated from concept to commercialisation (including appropriate finance mechanisms such as proof of concept grants and innovation support programmes). And there needs to be the hard and soft infrastructure in place to support new firms in their growth such as business support programmes, incubators and intermediaries (lawyers, accountants, corporate financial advisors etc.). This entrepreneurial ecosystem also needs to be characterised by an open and outward looking mentality, seeking to attract-in and build skills and investment through 'talent magnets' such as universities and colleges, and a policy mind-set oriented towards building successful global linkages and networks.<sup>vii</sup>
- 2.10 Ultimately, as Figure 2-1 implies, the ecosystem is a holistic and evolutionary system, involving a complex range of actors and policies. Whilst the focus of this work is on early stage and growth finance explicitly, it is important that this wider perspective is not lost.
- 2.11 Crucially, these **wider elements of the entrepreneurial ecosystem are core in generating a pipeline of entrepreneurs and businesses seeking early stage and growth finance – ensuring there are effective linkages and relationships to other elements of the entrepreneurial ecosystem is as important as developing the capacity and resilience of the early stage and growth finance market itself.**

Figure 2-1: The entrepreneurial ecosystem – a depiction based on SQW's experience of Cambridge, UK



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Source: © SQW

## Failures – structural market ones and others – and their challenges

- 2.12 So, early stage and growth finance matters, and plays a crucial role in the wider entrepreneurial ecosystem required for driving growth. However, it is recognised widely in the aftermath of the global downturn that **the traditional ‘funding escalator’, where different sources of finance provide equity finance at different stages in the business development cycle has started to break down**. Said another way, market and other failures have started to present.
- 2.13 These failure issues have been characterised widely in the literature (indeed, see the Literature Review in the Technical Report which accompanies this document). And the consequential ‘funding gaps’ have been the subject of much debate in terms of policy and action. In Northern Ireland’s context, the key issues are as follows:

### *Information failures pushing investors to later stage deals*

- 2.14 The key issue here is the structural failure related to informational asymmetry between businesses and investors. Put simply, the cost of undertaking due diligence does not change by size of investment, and is therefore disproportionately high for smaller investments. This drives funds toward larger deal sizes and larger/less risky firms. As a result, there is an ‘equity gap’, affecting typically deals of up to between £2m-£5m.

### *Private versus Social Returns limiting investment*

- 2.15 Market failure here arises from the difference between private and social returns to equity investment. Investment creates positive externalities (or spill-overs) to the rest of the economy in the form of innovation/knowledge transfer, but these benefits are not taken into account in decision-making by private investors. This means that equity is not put into deals which would be unprofitable to private investors, but would nonetheless generate significant social benefits.
- 2.16 There is also potential tension between an equity fund’s commercial performance and the impact on companies. The two are not necessarily the same, and what constitutes ‘success’ is debateable – is it many companies growing modestly, but from which exit is difficult, or a few superstars that are/will be sold for big multiples? Generally in venture capital, 20% of the investments (or even less) make 80% of the returns. So, the commercial success of a fund might be at the expense of economic development. In this respect, what happens to companies after an exit (i.e. acquisition or Initial Public Offering, IPO) is critical. Ultimately, it is the recycling of wealth and learning from the few ‘winners’, and the demonstration of such, that deliver significant exits for venture capitalists and drive on the development and growth of the ecosystem.

### *Location matters ... disadvantaging non-core economies*

- 2.17 There is a strong relationship between venture capitalists’ location and their investments. From a UK perspective, there is an uneven geographic distribution of venture capital investment across the UK, with London and the South East dominating – deals are simply not spread uniformly across regions. Why? Two points are key:

- London has the largest number of small and medium sized enterprises (SMEs), even when controlling for population, and the disparity of business concentration is naturally reflected in the relative sizes of regional SME finance markets.
- Venture capital funds tend to cluster in a small number of cities, and tend to invest locally as it helps to reduce uncertainties and thereby minimise risk<sup>viii</sup>. Research by Harvard Business School found that investing close to where venture capitalists are based helps with monitoring performance, governance, management recruiting<sup>ix</sup>.

2.18 Although there is a counter-argument that venture capitalists will source the best deals irrespective of location<sup>x</sup>, many commentators consider spatial proximity between investor and investee to play an important role in venture capital. This issue impacts on the scale of markets away from major commercial centres, such as Northern Ireland.

### **Challenges in matching demand and supply**

2.19 There is often a disconnect between matching supply of finance to where it is needed. For places such as Northern Ireland, this reflects in part *'thin markets'* where there are limited numbers of, and, therefore, limited interactions between, investors and entrepreneurial firms. This means there is lack of understanding among those seeking finance of what it takes to attract equity finance (both businesses and their professional advisers), and a lack of insight and knowledge among those seeking to invest on the strengths and opportunities presenting in an area. There are also demand-side factors, including the lack of awareness of finance schemes, and need for education on the usefulness/role of equity finance, including with advisers.

2.20 Further, there is the issue of 'market readiness', which relates to business owners and entrepreneurs being able to identify and present clearly the market opportunities for their business (or its specific project/proposition) i.e. issues around communicating the projects that require funding, and the potential markets that they will be able to target.

### **Early stage investment is a long-term game**

2.21 Equity investment in new and innovative firms is a long-term game, bearing in mind the typical 'J-curve' pattern of expected returns; positive returns to funds are unlikely to be achieved until around five to seven years after the first investment (depending on sector type). Indeed, the British Venture Capital Association (BVCA) advises not to include funds operating for under four years in assessing commercial performance, as there will be insufficient data in terms of returns to investment.

2.22 The patience and time required to generate returns can, therefore, lead to under-investment in funds focused on early stage firms for institutional investors. This results in investment going to sectors/firms with the prospect of more immediate returns, rather than those that require further research and development, even though the latter may ultimately generate greater benefits. The 'J-curve' also means that understanding 'success' in public-sector interventions becomes problematic as policy makers require evidence of impact before fund performance accurately can be judged.

### Evolution of the Informal Market

- 2.23 Business angels have traditionally played a key role in addressing market failures and funding gaps at seed and start-up stages. However, the evolution of the business angel market in the UK, with use increasingly of formal syndicate structures, the use of ‘gatekeepers’ to screen investments, and the introduction of tax incentives all extending the reach of angels. These developments allow angels to operate increasingly at the lower end of the traditional ‘equity gap’ territory of larger investment around £500k to £1m.
- 2.24 However, there are challenges in the business angel market. Information failures are evident on both the demand and supply-side, with a lack of awareness by small firms/entrepreneurs of angel investment as a finance source (demand), and a lack of awareness of the potential benefits of angel investment that prevent wealthy individuals to invest (supply). Given the informal nature of the angel market, there are also challenges in ensuring a good ‘standard’ of angel investment, and ensuring that angels offer more than just finance. Increasingly there is a recognition of the importance of ‘smart angel investment’ where the experience and expertise of angels is as important as the financial contribution.
- 2.25 Timing and exits are also an increasing problem – John Waddell, manager of Archangels (which claims to be the oldest functioning angel group in the world), observed in evidence to a Scottish Parliamentary Committee that *‘in 2005, the average time between investing and exiting for early stage companies was about three years; it is now 10 years or more. . . There has been an exit drought’*.<sup>xi</sup>

### Changing financing and business models

- 2.26 The issues set out above are important contextually for assessing the state of play in Northern Ireland’s early stage and growth finance market. Added to this, however, **finance and business models are changing, with implications for the future**. The following five changes are likely to be particularly noteworthy for Northern Ireland and its economy.

### Emerging Alternative Finance Market and Online Platforms

- 2.27 The alternative finance market has become an increasingly important funding mechanism and source of capital in the UK; this covers finance models such as peer-to-peer (P2P) business lending, P2P consumer lending, equity crowdfunding, rewards crowdfunding, and donation crowdfunding. Equity crowd-funding raised some £84m in equity investment the UK in 2014 (with 4% of fundraisers in Northern Ireland), with the average amount of equity raised around £200k.<sup>xii</sup> Crowdfunding (e.g. Crowdcube and Seedrs) has grown quickly in response to the emergence of online platforms, which connect investors with entrepreneurs, and there are also platforms which only target angel investors to connect with entrepreneurs, such as AngelList.
- 2.28 According to the BVCA (2014) <sup>xiii</sup>, the introduction of both crowdfunding and specific angel platforms indicate that both start-up and seed investments are becoming ‘institutionalised’, making personal contacts and networks increasingly less important. The venture capital industry is not immune to these wider developments and although they are unlikely to replace traditional methods, these alternative financing methods will introduce changes to the way venture capitalists do business. This matters for Northern Ireland.

### **The rise of Corporate Venture Capital**

- 2.29 Corporate Venture Capital (CVC) refers to equity investment made by corporations into high growth and high potential private businesses. A diverse range of CVC models and practices exist but they share the same objectives: to develop the strategic capabilities of the parent corporation; and to provide a source of financial return for the parent corporation. Well-known examples of corporate venture capital include Intel Capital and Google Ventures.
- 2.30 Research by BVCA (2013)<sup>xiv</sup> indicates that CVC has been ‘thriving’ despite the economic downturn since 2008 and that it has the ‘potential for significant economic impact’. However, the policy and regulatory landscape is not yet fully attuned to maximising its potential, with changes needed to accounting rules, investment incentives, development of regulations, and enabling a more dynamic investment environment.

### **The growth of Accelerators**

- 2.31 The UK accelerator<sup>xv</sup> and incubator infrastructure has grown substantially over the past five years. Research indicates that there has been a substantial increase in the number of programmes, with over half of UK accelerators and incubators launched since 2012, and the UK now has more start-up programmes than any other European country. <sup>xvi</sup> However, there is a ‘*stubborn regional divide*’, with almost two-thirds of accelerator/incubator assets being based in London.
- 2.32 There are also wider constraints in the development of accelerator models, namely that the limited supply of experienced mentors translates into reduced quality as demand for mentoring builds, that the quality of the business models used by accelerators varies (with different equity stakes and opaque fee structures making it challenging to validate quality), and that accelerator business models remain largely unproven. Interestingly, ‘Y Combinator’ in the USA, the original and to date most successful accelerator which has demonstrated a return, is considered something of an outlier. <sup>xvii</sup>

### **Lean Start-Up and ‘Pivoting’**

- 2.33 The Lean Start-Up model, popularised by Eric Reis<sup>xviii</sup> is an approach for developing a business or product in the most efficient way possible – treating all product and business ideas as assumptions (or hypotheses) that must be validated by rapid experimentation in the marketplace. It moves away from the tech industry’s traditional, linear product development approach, replacing it with more iterative and agile techniques.
- 2.34 The Harvard Business Review (2013)<sup>xix</sup> identifies three key principles of the lean method: the use of a ‘business model canvas’ (a diagram of how a company creates value for itself and its customers) rather than a detailed business plan; the use of customer development to test hypotheses and tailor a product using small changes (‘iterations’) or more substantive ones (‘pivots’) to ideas that are not working; and practicing ‘agile development’ developing products iteratively and incrementally.
- 2.35 The concept has quickly gained profile among technology start-ups (and other ventures) attempting to improve their chances of success by following its principles of failing fast and continually learning. Some major successes, including the cloud-storage company Dropbox and Instagram which used successfully ‘pivoting’ and was eventually sold to Facebook have

helped to popularise the method. This has implications for finance – the method leads potentially to a reduction in demand for seed finance, however, when equity finance is required, the first investment will be larger than expected when seed finance is present. This said, whether or not the concept will pervade more widely the enterprise space (especially those non-IT-based elements) remains to be seen.

### ***The Emergence of ‘Planet Tech’***

- 2.36 Planet Tech refers to the increasing trend of businesses to locate anywhere based on their circumstances and resources, and that they will need to become increasingly mobile.
- 2.37 BVCA<sup>xx</sup> identify multiple factors underpinning this emergence including shared influences through the internet (i.e. technology firms irrespective of their location are likely to be influenced by the same thinkers, media etc.), the growth of on-line financing mechanisms (see above), the reduction in costs for start-ups because of development in cloud-based infrastructure and services, and an increasing focus by venture capitalists in the traditional hot-spots of the West Coast of USA looking to Europe (and elsewhere) for investment opportunities.

### ***Implications***

- 2.38 The implications of these changes in finance and technology models for Northern Ireland are not straightforward or easily predictable. Some, such as crowd-funding, may be positive, widening the pool of investment that firms in Northern Ireland are able to access. Others may be greater downside risks, such as the clustering of accelerators leading to further concentration of venture capital investment in London (notwithstanding DETI’s commitment to create a Northern Ireland based accelerator).
- 2.39 However, these changes in financing and business models need to be ‘on the radar’ of policymakers, and the finance industry more widely. They are likely to impact substantially on the development of the early stage and growth markets in Northern Ireland as elsewhere, over the medium to long terms.

## 3. States of Play – Northern Ireland

### Characterising the historic supply of finance

#### *In scale. . .*

- 3.1 There is no official or comprehensive data source for early stage and growth finance. However, a range of data sources (see Table 3-1) indicate that the average annual value of formal venture capital investment over the past decade in Northern Ireland has been around £4m, although it has been higher substantially in some years. The data also indicate that, on average, eleven firms in Northern Ireland have secured formal venture capital each year.

**Table 3-1: Average number and value of venture capital investments, 2005/13**

Source	Av. number of investments p.a	Av. value of investments p.a (£m)
BVCA	14	5.4
VentureSource	9	4.2
Beauhurst (2012/13)	-	3.2
Median	11	4.2

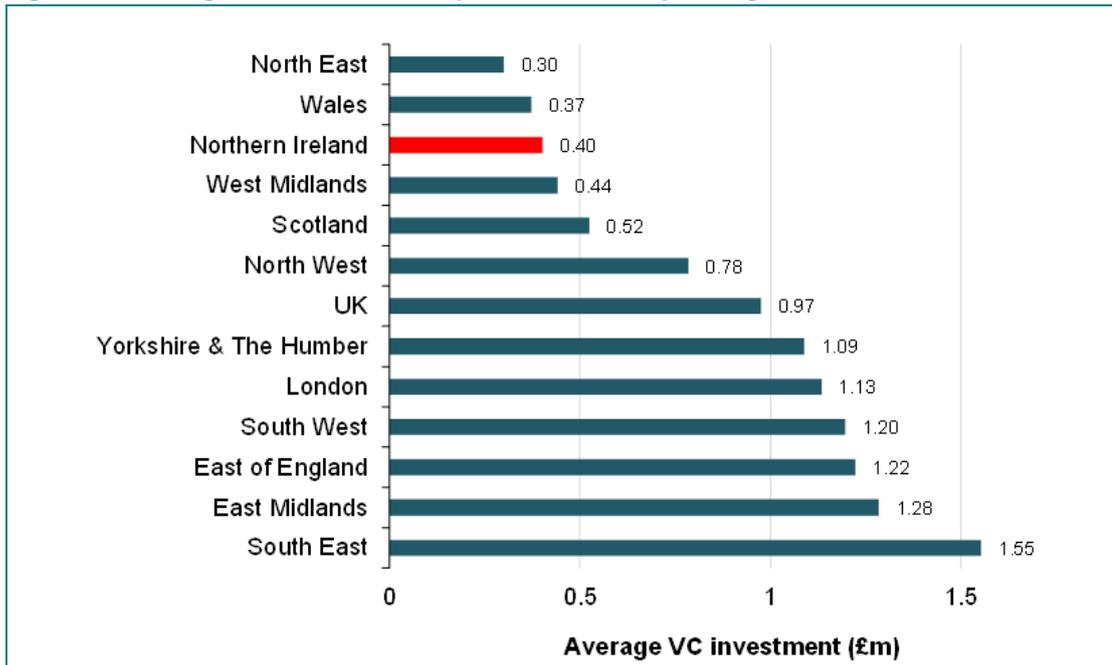
Source: BVCA, VentureSource, and SQW

- 3.2 The data highlight the modest scale relatively of the market for early stage and growth finance in Northern Ireland – accounting for around 1% of the UK total venture capital investment recorded over the 2005/13 period according to the BVCA. This, when the Northern Ireland economy in GVA terms comprises 2.2% of the UK economy.<sup>xxi</sup> The scale of the market has also been largely stable over the 2005/13 period; encouragingly, it has not declined, but then neither has it grown.
- 3.3 However, the data presented above are for formal venture capital only, and do not cover other equity finance, notably formal and informal business angel investment, supported by Halo and the Invest NI Co-Investment Fund. These other sources of equity investment are significant, particularly the Co-Investment Fund which has provided direct and leveraged investment of around £5m per year since 2012 (in total over £15m has been invested through 39 deals), largely in the £250-450k range.
- 3.4 Taking these additional sources of investment into account, it is estimated that **the annual supply of equity finance for early stage and growth finance in Northern Ireland in recent years has been around £10m to £11m.**
- 3.5 Encouragingly, consultations with investors and other stakeholders in Northern Ireland for this study indicated a consistent view that activity has picked up over the past year. The improving macro-economic outlook is judged to be helping to increase demand for finance, allied with the availability of finance particularly at the early stage, though Invest NI interventions.
- 3.6 This optimism has yet to be reflected in the available data sources, and it is not possible to know if this is a short-term trend or reflects a more significant change in the scale of the market. We return to the issue of future demand later in this Section.

... and nature

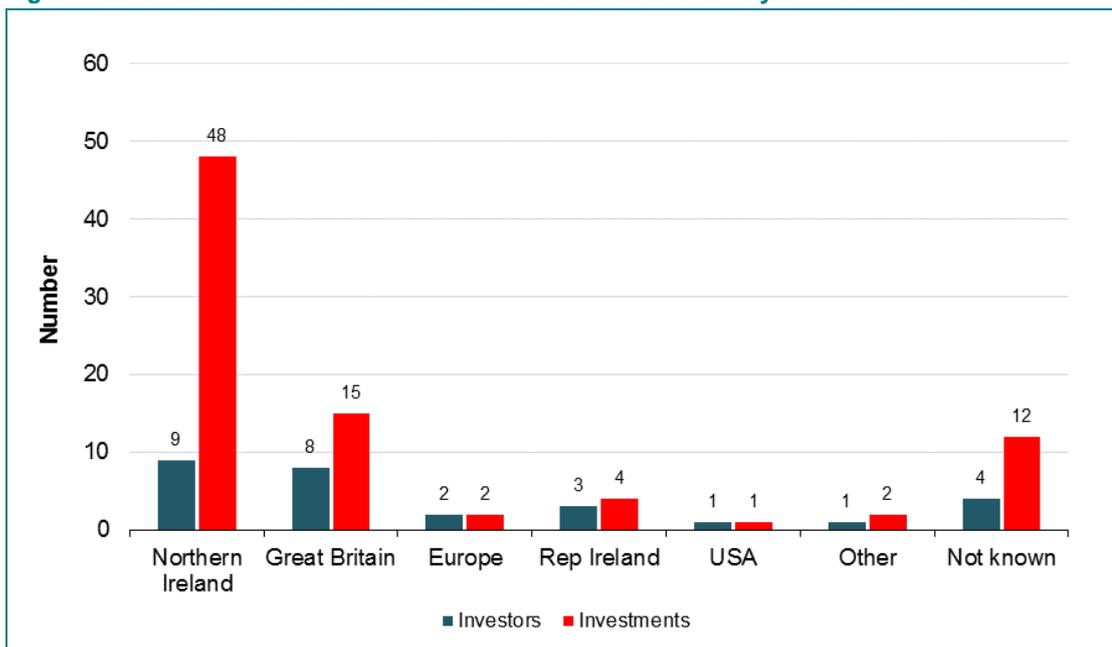
3.7 Two points are noted regarding the nature of historic supply of early stage and growth finance. First, comparable data from BVCA indicate that **the average value of venture capital deals in Northern Ireland is among the lowest of UK regions** (Figure 3-1). This will reflect in part the significant role of the public sector in the market, where funding rules mean deal sizes can be held down compared to what the private sector is willing to invest. Second, **venture capital investment into Northern Ireland has been largely locally-sourced**, with over half of recorded investments sourced from local investors (Figure 3-2), and relatively few from investors based in the rest of the UK or Republic of Ireland.

Figure 3-1: Average value of venture capital investment by UK region, 2005-13



Source: BVCA

Figure 3-2: VC investors/investments into Northern Ireland by location 2005-13

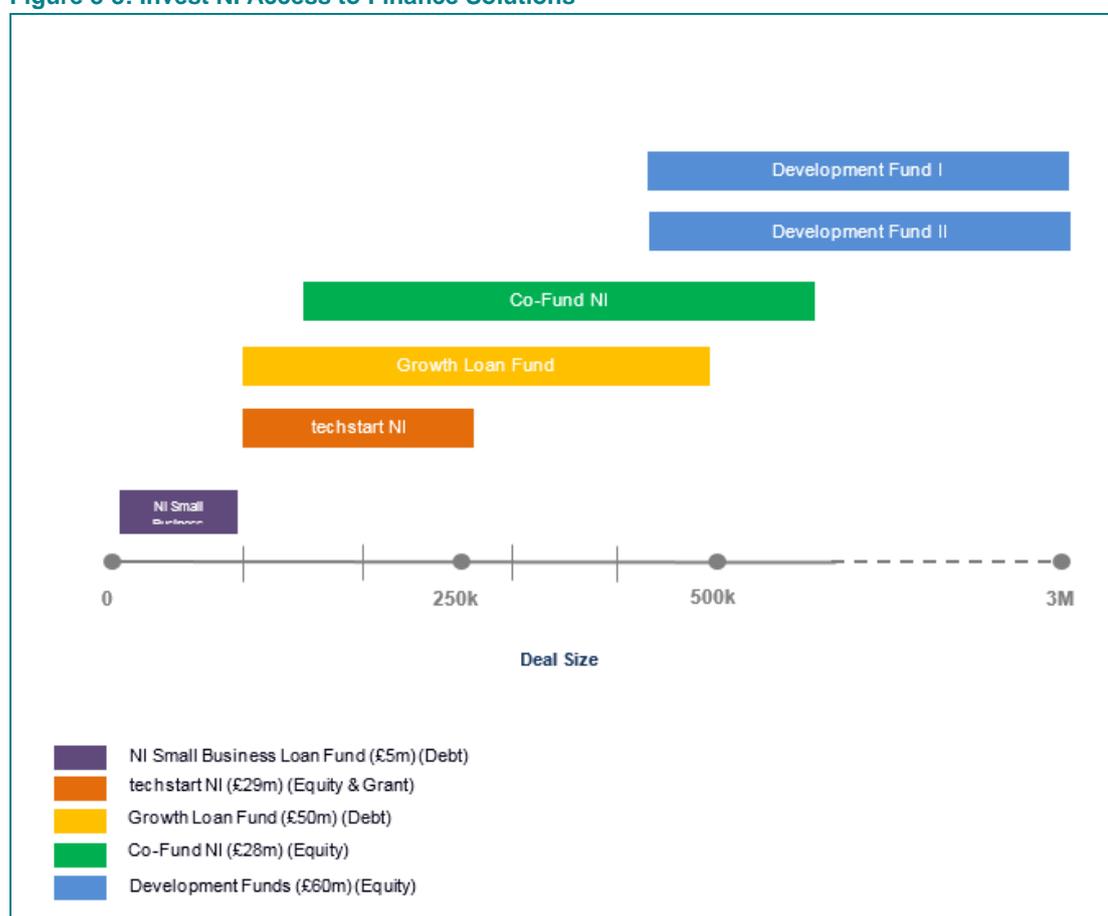


Source: VentureSource Note: the data represent the location of the fund/organisation investing into Northern Ireland

## Market conditions and challenges

- 3.8 So, the scale of the early stage and growth finance market in Northern Ireland has been, and remains, modest, but there is considerable optimism regarding recent performance and future growth. Indeed, the second half of 2014 saw a number of major investments. These included Kernel's £1.25m investment in DisplayNote Technologies, techstart NI investments in Inflyte and Brewbot, a number of Co-Fund investments, and Sophia securing finance from the UK Angel Co-Fund (the first Angel Co-Fund investment in Northern Ireland).
- 3.9 Further, the research indicates that **there has been a marked improvement in recent years in the supply of early stage and growth finance**, with the suite of interventions under Invest NI's Access-to-Finance Strategy, notably the Co-Fund and Development Funds, playing a key role here. The continuum of relevant access to finance solutions currently offered by Invest NI is set out in Figure 3-3.

Figure 3-3: Invest NI Access to Finance Solutions



Source: Invest NI

- 3.10 This improvement in the supply-side was noted explicitly by stakeholders, consultees, and evidenced in our survey of growth-oriented entrepreneurs, where a majority of the respondents that had sought finance in the past three years reported they secured all or some of the finance sought across a range of finance types and values.<sup>xxii</sup>
- 3.11 However, the documents reviewed, data analysed and stakeholders consulted, indicate that despite these improvements the early stage and growth finance market in Northern Ireland it

continues to face considerable challenges, structural, spatial, and in terms of demand and supply-side dynamics. These are discussed below.

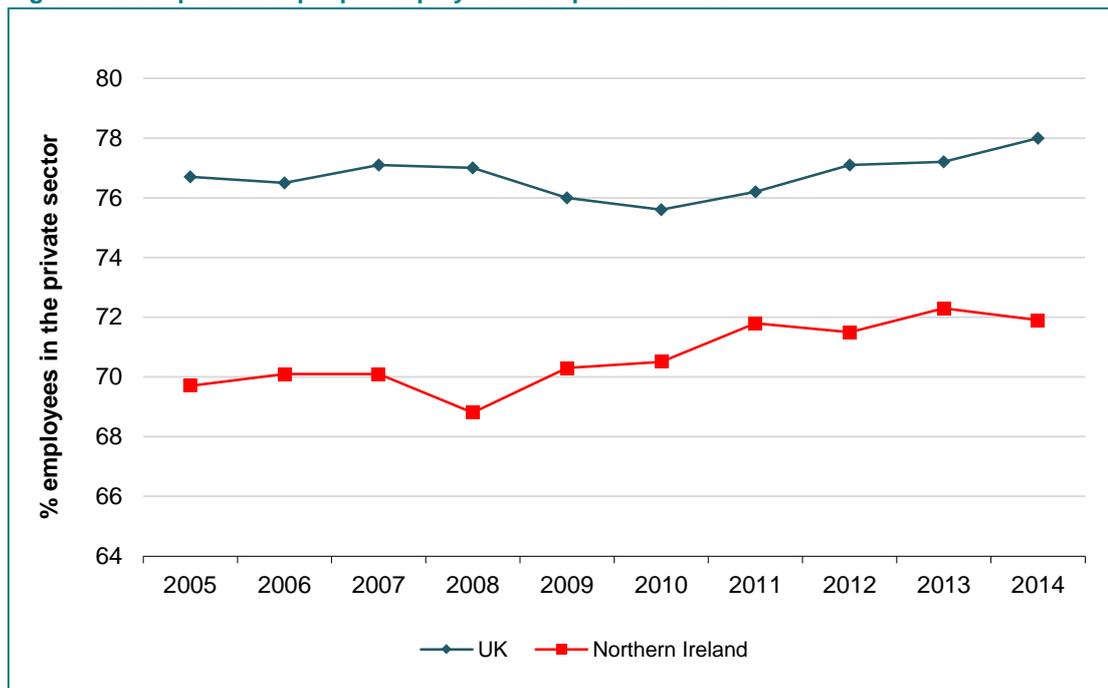
### **Structural and spatial challenges**

- 3.12 Challenges in the early stage and growth finance market are linked to, and emerge from, the structure of the local business base and traditional approaches to finance in Northern Ireland. Specifically, consultations identified an on-going aversion to equity as a source of finance across the business base (in part owing to the high proportion of family-owned businesses) and a related reliance on bank finance and grant support from the public sector to support growth. This feedback is consistent with previous analysis and evidence, as stated in an earlier report on this area:

*'Northern Ireland business owners especially those of SMEs tend to be conservative and prefer bank finance to equity capital. This is demonstrated in the interim evaluation of the Co-Investment fund which states that companies still view equity investment as a risk as it is perceived as giving away part of the business.'* <sup>xxiii</sup>

- 3.13 The early stage and growth finance market in Northern Ireland also faces challenges because of its scale or, as we referred to elsewhere in the report a 'thin' market. Put simply, **the volume of potential opportunities for investment in Northern Ireland means that it is not attractive to external investors at scale**, and this also serves as a barrier to obtaining investment into Northern Ireland from UK and European providers.
- 3.14 The nature of the economy, as well as its size, is also important. Northern Ireland has traditionally, and continues to, rely more on public sector employment than elsewhere; as indicated in Figure 3-4, in 2014, 72% of all persons employed in Northern Ireland were in the private sector, compared to 78% in the UK as a whole. This means that the scale of the private sector base, and its wealth creation potential, is lower than elsewhere – with implications for the scale of investment opportunities for early stage and growth finance.
- 3.15 Further, **Northern Ireland suffers from its (relative) distance from the main networks of venture capital in the UK**. As noted above, despite technology reducing the importance of proximity, location and the face-to-face engagement this enables, these issues continue to matter for venture capital. The fact that Northern Ireland is distant spatially and economically from London and the Greater South East limits its potential to attract investment from funds and investors based in these areas; there may also be a perception of a lack of good investment opportunities because there is limited evidence and awareness of successful exit activity on the ground.
- 3.16 The 'two-tier' nature of the UK's venture capital market (i.e. London and the Greater South East on the one hand, and other regions on the other), could in a Northern Ireland context be offset by links to the Republic of Ireland. However, as indicated above, levels of recorded investment into Northern Ireland by Republic of Ireland based investors have, historically, been relatively modest. Notwithstanding this, there does appear a logical and proximate opportunity south of the Border.

Figure 3-4: Proportion of people employed in the private sector



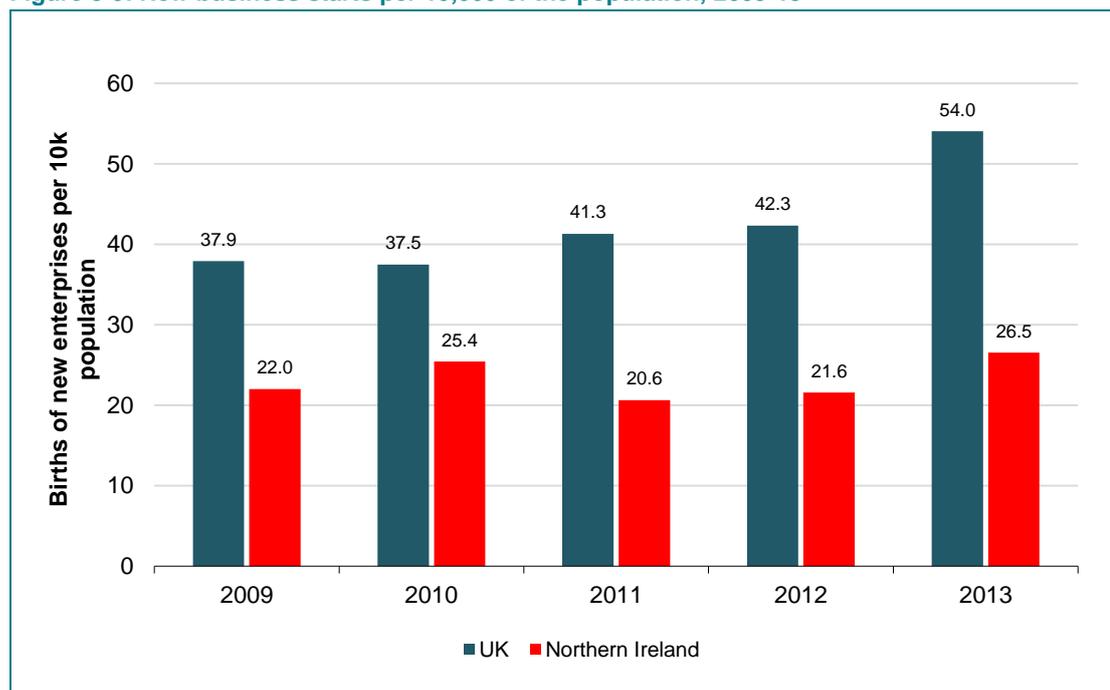
Source: Annual Population Survey

### Wider demand and supply-side issues

3.17 Further to the structural and spatial challenges, other issues on the demand and supply-side identified in the research (discussed more fully in the Technical Report) include:

- **A perceived lack of entrepreneurship development in Northern Ireland**, with few entrepreneurial role models, and an insufficient pipeline of investable propositions to generate interest of a sufficient number of private sector investors to the area. A related issue here is the need for a better relationship between the research base and the early stage and growth finance market. This is consistent with data that indicate the rate of business start-ups in Northern Ireland has been and remains well below the UK level (see Figure 3-5 overleaf).
- **Insufficient skills and knowledge, among those seeking finance**, on the role and value of equity finance, with a need to develop the quality of investment propositions to attract more investors, and wider business development topics such as management, leadership, and marketing.
- **Information failures on the demand-side**, where entrepreneurs cite the need for more coherent, and less fragmented, provision of information on the sources of finance that are available to them.

Figure 3-5: New business starts per 10,000 of the population, 2009-13



Source: Business Demography and Population Estimates

- **The quality of the advisor network.** Whilst anecdotal, consultations for this study indicated a general perception that the quality of the advisor network for smaller firms operating at early stage and lower end of venture capital market in Northern Ireland is weaker relative to the rest of the UK (particularly London and the Greater South East). This matters, given the important role that these professionals (financial advisors, accountants, lawyers etc.), play in the entrepreneurial ecosystem. The point here is not that the inherent quality or skills of the individuals engaged in corporate finance advice is lower here than elsewhere, but that because venture capital is a less common financing option, advisors are less familiar with it, and do not have the linkages to venture capitalists (outside of Northern Ireland) that is required i.e. a vicious circle is in play.
- **The scope and sophistication of the investor community,** with the scale of the market opportunity in Northern Ireland meaning that there is limited competition between funds for investment, generally few links to and knowledge of funds outside of Northern Ireland (particularly UK-wide funds). Feedback from some entrepreneurs responding to this study's survey points to a remaining preference for 'quick returns' in the investment community, which is not aligned well with the longer-term time horizons of knowledge-rich and IP-based businesses.

3.18 Further, despite improvements on the supply-side in terms of seed and start-up finance, there remain funding gaps particularly at the Series A level with firms seeking up to £2m of equity finance. This is similar to the finance gap across the UK, but is accentuated by the small market in Northern Ireland. And, increasingly, the challenge for Northern Ireland is to ensure that there is sufficient later stage investment for those firms that have been supported in the Series A space.

- 3.19 Some of these challenges may reflect 'legacy issues', and it is important to recognise the good work already underway to tackle these. This includes, for example:
- Invest NI's new £16m 'techstart NI' fund (which is focused explicitly on supporting technology firms)
  - The UK Angel Co-Fund (which made its first investment in Northern Ireland in late 2014)
  - Work currently underway between the Northern Ireland Science Park and Queen's University Belfast to develop a 'map' of finance sources for use by firms/entrepreneurs.
- 3.20 This said, overall, the evidence indicates a need to develop the quality, scope and concentration of the market, drawing on local, national, and cross-border opportunities. This finding is not new, and the need to address these issues is well known across the finance community in Northern Ireland; the imperative for partners is to ensure that the case for change identified in this study is reflected in practical and concerted action going forward.
- 3.21 One final point here is important: while there is a recognition among stakeholders of the considerable investment and activity in this space in recent years, **the policy and strategic landscape has been less well developed**, both on the early stage and finance market itself, and how this interacts with wider policy agendas. Addressing this 'policy gap' is important.

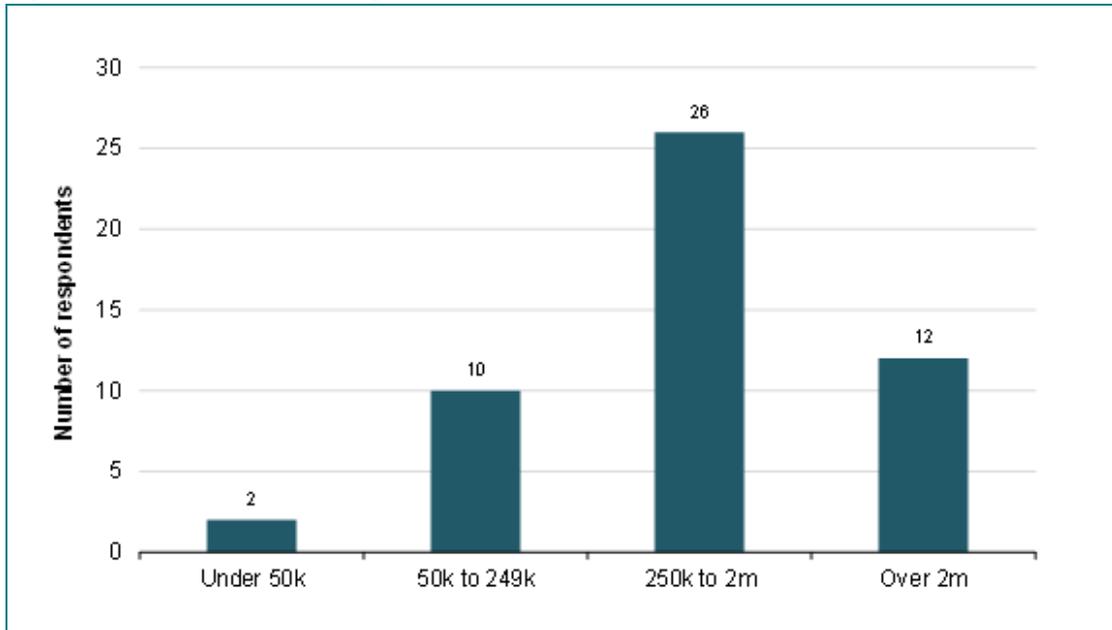
## Estimating future demand

### *Demand for finance ...*

- 3.22 Against this quite intricate and fluid background, evidencing demand for early stage and growth finance is challenging. The available data take us so far, but there are three key challenges with the quantitative information:
- Large-scale surveys are either irregular or partial, and do not have the scale to accurately measure the true extent of demand for this type of finance typically associated with a very small proportion of the business population
  - Demand for early stage and growth finance often comes from entrepreneurs that are not currently trading, as well as from established firms, meaning that estimating the true population of those may potentially be seeking finance is uncertain, demand will also not capture firms that failed, or failed to start, because they could not access finance. i.e. there is no audit trail of this source of demand
  - The issue of so-called 'discouraged' entrepreneurs/firms, that is those who need finance, but do not apply owing to the belief they will be turned down or because of other factors such as the time required to seek finance. Indeed, around ten percent of the entrepreneurs responding to this study's survey reported that they needed, but did not try to obtain, early stage and growth finance in the last three years. Whilst equity finance is 'not for everyone, and it may have been appropriate that some of these firms did not seek finance, the data suggest some discouraged demand historically.

3.23 These are important limitations. This said, our survey of entrepreneurs and growth-oriented businesses does provide some evidence of potential demand. Of the 72 respondents to the survey, around three quarters (55) stated that they would be seeking early stage and growth finance during the next three years, most commonly equity finance from angel investment and/or formal venture capital. The scale of investment that will be sought is summarised in Figure 3-6. Note that a majority reported seeking investment locally and elsewhere.

Figure 3-6: Scale of finance sought by respondents in the next three years



Source: Online survey Note: Invest NI is currently restricted to a maximum deal size of £2m

3.24 Whilst this represents the scale of finance that survey respondents expected to be seeking, not definite demand or necessarily viable investment propositions, and respondents will be looking to investors in other locations, the data suggest a significant level of demand from the survey cohort. This is consistent with wider feedback gathered by the study that the pipeline of demand for finance is improving in Northern Ireland, albeit there is still scope to do more.

### ... and support

3.25 The survey of entrepreneurs and growth-oriented businesses also provides evidence on the support requirements to help firms access finance. Those respondents to the study's survey seeking finance were asked if there is a case for new or enhanced support to those seeking finance. Issues related to information – of what finance is available, and what investors look for in making decisions – were the most commonly identified (Table 3-2).

**Table 3-2: Areas of support needed**

Support area	Respondents
Better understanding of different types of finance available	35
Better understanding on what growth funders look for in business plans/applications	22
Improving your wider personal investment-readiness skills	23
Wider help with developing the resilience of the business	22
Follow-on support after successful/unsuccessful finance applications	24
Better understanding of the downside of taking new external finance, as well as the benefits	21
Better understanding of the time associated with accessing external finance	20
Other	9

Source: Online survey

- 3.26 Consistent broadly with the perspective of stakeholders, entrepreneurs and growth-oriented businesses reported further the need for a more coherent, and less fragmented, provision of information on what finance is available, improvements in the scale, breadth, and sophistication of the investment community, and for Northern Ireland to be more open and connected to attract and help leverage investment from elsewhere, in the UK and internationally.

**Feedback from the survey of entrepreneurs and growth-oriented businesses**

*'The real issue in Northern Ireland is the lack of angel investors and real VCs. The financial grants that are available are brilliant, but when it comes time to seek private investment things get difficult. Most investors in NI are only willing to put in £10-20k, meaning if you want to raise a meaningful round you need to secure 10-20 investors which is next to impossible.'*

*'There is too much 'short-term' thinking, with investors more interested in making a x10 return in a few years and exiting as quickly as they can. This is especially problematic in our sector, namely pharma, when clinical trials and product stability can take years. Why invest in a pharmaceutical product with its associated protracted regulatory approval processes, etc., when you can invest in a piece in iPhone software! There needs to be a bigger pool of people who have the ability to invest in the long-term and an interest in doing so.'*

*'Need more connections to angels/VCs outside the province. Being a small place, the range of specialist knowledge of angels/VCs covers some areas of business, but doesn't include others. NI businesses shouldn't be limited by the question of luck – does a NI-based angel happen to have interest/knowledge in your particular area. Should be able to cast net wider.'*

*'Somehow the angel community need to gain a better understanding of new technologies and markets so that their natural 'safe zone' of investment doesn't reside only in older native industries, e.g. property, retail and manufacture.'*

## So, summarising the current ‘state of play’ in Northern Ireland

- 3.27 The early stage and growth finance market in Northern Ireland remains modest in scale, relatively ‘closed’ in operation, and facing considerable challenges, on both the demand and supply-sides. Crucially, while there have been recognised improvements in the availability and supply of finance, largely driven by public intervention, the pipeline of quality investment propositions is likely to remain lower than it needs to be given information and co-ordination failures, and wider structural failures in the entrepreneurial ecosystem.
- 3.28 This said, despite the challenges faced, there is considerable optimism and a consistent view among stakeholders that Northern Ireland should be ambitious in looking forward in the development of its early stage and growth finance market. In doing so, it needs to learn from elsewhere, from places that have faced similar issues and challenges. It is to these lessons from elsewhere that this report now turns.

## 4. States of Play – Comparators

### The Comparators – overview and context

- 4.1 A core strand of the study’s work was to undertake reviews of the development of early stage and growth finance markets internationally, and to provide evidence and instructive lessons for Northern Ireland. Six comparator areas were identified; these are introduced in Table 4-1, together with their populations, an indicative assessment of the time of the ‘starting-point’ in the development of the market, and data on its scale.

**Table 4-1: The Comparators**

Comparator	Population	Business base	Point at which market first developed	Indicative scale of the market
Estonia	1.3m	76k	Mid 2000s	€9m in 2012
Finland	5.4m	291k	Mid-1980s	€135m in 2013
New Zealand	4.5m	469k	Early 2000s	€35m in 2013
North East England	2.6m	64k	Early 2000s	€20m in 2012
Nova Scotia	0.9m	54k	Mid/late 2000s	€15m in 2013
Republic of Ireland	4.6m	186k	Early-1990s	€275m (av. past 5 yrs)

Source: SQW

- 4.2 The comparators were selected because they share similar contexts to Northern Ireland and, as such, face similar challenges. All are small in terms of population and business base – as such they generally have a low volume of investment opportunities, and limited indigenous sources of capital. All are also peripheral, either in global or continental terms (Estonia, Finland, Republic of Ireland, New Zealand) or in terms of their national economy (North East England, Nova Scotia); this creates challenges in view of the geographical concentration of investment in major technology clusters around the world. The combination of small size and peripherality has meant that these areas have been largely ignored by international investors (with the exception of the Republic of Ireland), and have therefore been more reliant on domestic public sector intervention.
- 4.3 Further, again with the exception of the Republic of Ireland (where the scale of public intervention has remained very significant), all of the comparators have experienced a decline in early stage and growth finance investment since the onset of the global financial crisis. This reflects the wider structural pressures in play, notably on venture capital, which originated in the Dotcom boom and bust and have driven down returns, making it harder for fund managers to raise new funds, and the switch by investors to later stage private equity deals.
- 4.4 Three other contextual factors are important, where the comparators align to Northern Ireland:
- The early stage and growth finance market in all comparators remains underpinned by substantial government-backed finance. The scale and intensity of government support varies across the locations, and it remains ‘more important’ relatively in some (e.g. North East England), than others (e.g. Ireland). Importantly, however, even in

those comparators regarded generally as being ‘successful’ in developing their market, the public sector remains a major player in terms of providing capital for equity and other early stage finance.

- The trend is for government intervention in the venture capital market to become increasingly arms-length, with decisions taken on commercial terms, and managed by private sector fund managers, who are also likely to have ‘skin in the game’ and whose objective is to make a commercial return (as in Northern Ireland). Again, the specific role of government varies across the comparators, but in all cases it is now ‘doing less’ in terms of direct intervention and management, albeit continuing to provide underpinning capital resource. This said the role of the public sector has caused difficulties, such as in Nova Scotia where the public sector was seen as being too involved in investment decisions, and not enabling sufficiently commercially-led fund management.
- All comparator locations have set a goal of seeking to increase their number of high growth firms, and regard the development of knowledge/innovation based businesses as core to economic success, with early stage and growth finance seen as a core element of this.

4.5 It is worth noting that there are also lessons to be drawn from other places more generally, notably those commonly regarded as representing highly successful and mature locations for venture capital e.g. Silicon Valley, Israel, Singapore, and London. However, these lessons are well documented elsewhere in the literature<sup>xxiv</sup>, and they do not share the combination of scale, peripherality, and market development that characterise the chosen comparators, which was a required intent of the study.

### **Seven Key Themes ...**

4.6 The detailed comparator write-ups are provided in the accompanying Technical Report. Across this detail, seven key themes emerge with direct applicability to Northern Ireland.

#### *Theme 1 – An international mind- and action-set*

4.7 Comparator regions are increasingly seeking to attract international investment, and expertise. Generally, seed and early stage capital investing is undertaken by investors with ‘boots on the ground’ – locally based investors are more likely to identify investable deals, and such investments require frequent and intensive interaction between investor and investee which favours geographical proximity. However, proximity is less important in later stage deals. Indeed, the value-added from non-local investors often derives from the fact that they are based elsewhere – typically Silicon Valley – and are able to assist the company with its market expansion.

4.8 Comparators are therefore developing ‘pipelines’ to investors in other regions and countries, involving the development of links between local VCs and VCs in other locations, initiatives to attract VCs to the location (for example the Innovation Fund Ireland), and events/activities that bring non-local venture capitalists into the region (for example to pitching events).

**An international mind-set in New Zealand...**

*New Zealand has adopted a consistently 'external facing' approach in the design and development of its early stage and growth finance market. This includes establishing a joint fund with Taiwan, importing expertise and knowledge from Israel and the USA to help develop the market in venture capital and angel investment, and developing international linkages between New Zealand venture capital and angel investors and venture capital agencies in the USA and Asia*

**... and Finland**

*Finland's innovation policy seeks to assist globally facing new businesses – 'born global businesses'. To this end it has established a global network of technology and financing centres, with strong links in North America and Asia. On the supply-side, a common criticism is that, despite considerable government investment, venture capital funds in Finland remain too small; one way this is being addressed is by stimulating international venture capital funds to invest in Finnish firms. Finland's developing global market approach also allows public backed venture capital funds to invest outside of the country, where this can be seen to be widening and strengthening portfolios and encouraging further foreign investment.*

- 4.9 A further example of how an international perspective has been important include Estonia locating a government office in Silicon Valley to promote innovation exchange between Berkeley and Stanford Universities and Tallinn Tech University, allowing pre-seed entrepreneurs the opportunity to learn what US accelerators are seeking. Over time, this led to Estonian entrepreneurs enrolling in US and UK accelerator programmes and reciprocal US and UK VC investments into Estonian businesses. Put simply, the development of an international mind-set, and the actions that go along side this (or, at least, the recognition that one is needed), are evident in all comparators as part of the response to addressing scale and peripherality issues.

*Theme 2 – Focused demand-side stimulation*

- 4.10 It is recognised, particularly in those comparator locations that have been successful in growing their market, that simply increasing the supply of finance is insufficient. Without complementary demand side initiatives, there is a high risk that the increased finance will be invested in businesses that lack the potential to use it productively, hence driving down returns. Consequently, new initiatives to increase the supply of venture capital must be accompanied by interventions to increase the demand for risk capital. This takes us back to the arguments in Chapter 2 about the need for ecosystem-wide thinking and perspectives.
- 4.11 At its most basic, this comprises investment readiness programmes to address misunderstandings concerning venture capital and how to approach investors. However, this is not enough. Broader efforts have been made to increase entrepreneurial activity, both in technology start-ups and growth businesses. Finance initiatives need to be aligned with business support measures, notably export supports and activities to stimulate demand.

**Demand stimulation in Finland ...**

*Finland has traditionally suffered from a lack of entrepreneurial culture, with traditional leanings towards public sector and professional work. Interventions adopted to improve the demand side entrepreneurial competence gap include competence building of start-ups through an investment readiness programme, the introduction of tax incentives for business angels' investments, and the merger of three universities into Aalto University, as an explicitly innovation-focused institution, and entrepreneurial cultural catalyst centre.*

**... and the Republic of Ireland**

*Central to the success of the venture capital market in the Republic of Ireland in the past 10-15 years has been the significant growth in the number of incubators and accelerators programmes that have helped to develop a pipeline of young knowledge/technology based firms seeking investment at seed and early stage. Demand has also been driven by Ireland's emergence as a major centre for knowledge/technology multinationals, developing the enterprise ecosystem, and acting as a source of spin-outs and start-ups of firms requiring investment.*

- 4.12 Some comparator locations have gone further, seeing the need to develop their wider entrepreneurial ecosystems. With this perspective, and consistent with the thinking set out in Section 2, developing the early stage and growth finance market is only one component in a much more comprehensive set of initiatives that include incubators/accelerators, mentoring schemes, events and competitions and the development of 'entrepreneurial campuses'.

*Theme 3 – regional, rather than local, funding models*

- 4.13 Scale is a major issue for regions/countries like Northern Ireland, and the six comparators. Whilst operating in different contexts, some comparators have sought to adopt new funding models operating at spatial scales larger than the relevant region/country itself, this to alleviate the issue of scale, and attract additional investment into the finance market.

**Involvement in regional and cross-border funds by Estonia**

*The Baltic Innovation Fund (BIF) is a €100m Fund-of-Funds initiative launched by the EIF in 2012 with the three Baltic States (Estonia, Lithuania, and Latvia) to boost equity investments into Baltic SMEs with high growth potential. BIF will invest €100m into PE/VC funds focusing on the Baltic States over four years from January 2013, through a 'fund-of-funds' process to attract additional private finance and implement the best market standards for equity investing in businesses.*

- 4.14 Examples of 'regional' approaches to funds across the comparators include Estonia collaborating with the other Baltic States through the Baltic Innovation Fund, and Nova Scotia collaborating with the three other provinces in the Atlantic Region, sometimes in conjunction with Canadian federal agencies (for example through the Build Ventures Fund established in 2012 and invests across the four provinces in Atlantic Canada, including Nova Scotia). A further example is New Zealand's recent link with Taiwan's National Development Fund, establishing a fund-of-funds of up to \$200m that will invest in companies in both jurisdictions.

#### Theme 4 – Exit-centric approaches to market development

- 4.15 The comparator reviews highlight that the amount of money invested is often not an appropriate metric with which to measure the success (or otherwise) of early stage and growth finance initiatives, particularly venture capital funds. Indeed, many – possibly most – investments by business angels and venture capital funds are not successful commercially. Either the businesses fail, or they survive as ‘living dead’ investments, which may generate sufficient revenue to survive but will not grow and will not attract a buyer. It is, therefore, essential that some investments lead to demonstrable and significant exits, involving the acquisition of the company or, less likely, through a formal IPO.
- 4.16 Arguably, it is only those investments that are successful commercially that will generate economic benefits, from their growth, the recycling of wealth and expertise by their shareholders, and their ‘signalling effect’, both as role models to potential entrepreneurs in the domestic market, and to non-local investors. Indeed, the Estonia, Nova Scotia and New Zealand comparators all emphasise the impact that ‘block-buster’ and major exits can have on the local market, and its sense of ‘can-do’.

##### **The catalytic effects of ‘blockbuster’ exits in Estonia ...**

*The catalytic impact of the ‘Skype Four’ on the development of the venture capital market in Finland cannot be overestimated. The ‘Skype Four’ were software programmers responsible for Skype’s development who received a large share of the \$2.6bn sale to EBay in 2005, and then set up their own VC fund Ambient Sound Investments. This success helped establish the nation’s private VC market and provided a role model which has inspired a generation of tech entrepreneurs, and influenced the public sector to establish the Estonian Development Fund in 2008 with a public managed co-investment fund.*

- 4.17 Whilst it is not possible to ‘decide’ simply to create firms with this potential, the implication is that markets and investors need to adopt an exit-centric approach to making investments. Policy makers also need to recognise that it is ultimately significant exits (which can often take time to be realised) that will be key to long-term success and the creation of a functioning and sustainable local market. Exits are key both directly through the investment they create to be re-cycled in the local market, and indirectly by providing a demonstrator effect to others both internally and externally.

#### Theme 5 – A functioning finance pipeline

- 4.18 Across the comparators, there is broad recognition that the main funding gap is in the £500k-£3m range. Addressing this is critical for the emergence of high growth firms. £500k is about the top of the range that can be raised from personal sources, grants and angel funding, while £3m is increasingly the bottom-end of the venture capital market. Co-investment funds have proved effective in closing the lower end of this gap, as for example in New Zealand. However, it is important to recognise that funding is a pipeline, hence gaps earlier in the funding escalator will have knock-on effects. In this context, the example of Atlantic Canada’s Build Ventures Fund is illustrative. It was intended to fill the gap in Series A funding (\$1-\$3m). However, weaknesses in the supply of seed and start-up funding meant that the deal flow was not large enough, and the fund has had, therefore, to make progressively earlier-stage

investments. This has also been identified as an issue in Finland, where the shortage of early stage funding has limited the effectiveness of Series A funds.

#### **The persistent funding gap in the North East England**

*The North East has experienced some success its early stage and growth finance market: the approach to a JEREMIE fund and sustained investment over the past decade led to an increase in the scale of deals and investment in the region, with elements of the design of the JEREMIE Fund such as holding back 10 per cent of the value to allocate on the basis of need and fund manager performance recognised as innovative and effective. However, the North East region has experienced challenges in attracting national funds and a review of the finance market found that an equity gap up to £3m persists, and that the scale of the funding gap may in fact have increased over time.*

- 4.19 It is, therefore, essential that in focusing on the £500k-£3m gap the R&D/commercialisation and seed stages have adequate supply. Moreover, it is important to recognise that venture capital is not necessarily the appropriate source of finance at all stages. Sources of non-dilutive finance (e.g. conventional loans and appropriate grants) can be particularly important for businesses at the pre-commercial stage.

#### *Theme 6 – Effective business angels networks*

- 4.20 Related to the previous theme is the importance of a strong business angel community. This is a particular feature of Finland and New Zealand; and where the angel network is less strong (for example in North East England, and arguably the Republic of Ireland), this is recognised as an important barrier to the development of the wider equity finance market.
- 4.21 Angel networks can enhance information flows, making it easier for angels and entrepreneurs seeking finance to find one another in what has been traditionally an invisible market. However, angels are organising themselves increasingly in managed angel groups which, on account of their deeper pockets, are able to make larger, and follow-on, investments.
- 4.22 Angel groups are also becoming increasingly the key partners of government co-investment funds (e.g. New Zealand, Nova Scotia). However, the value of business angels is reduced if they are simply a source of finance; business angels need to be sources of ‘smart’ money, that is being able to offer mentoring and advice to the entrepreneurs that they invest in. This has been identified as a problem in Nova Scotia, where despite strong growth in the volume and value of angel investments the added-value in terms of experience and expertise has traditionally been regarded as low. The ‘best’ kind of business angels are those who have recently been in senior management positions in entrepreneurial businesses; the acquisition of local businesses is, therefore, a major boost to local angel investing.

#### **The evolving nature of angel investment in Nova Scotia**

*Nova Scotia is not a wealthy province, and there are relatively few self-made high net worth individuals with the potential to become business angels, and who can offer expertise and experience, as well as money. But the angel market is changing – a number of recent large exits has provided a significant boost to angel*

*investing in Nova Scotia, and the wider Atlantic Canada area. Although investors in these companies have generally been external, the founders and other shareholders have remained and re-invested locally. As such while start-ups in Nova Scotia have limited access to 'smart money' (i.e. angels who bring expertise and contacts as well as capital), this is changing for the better as 'cashed out' entrepreneurs with expertise in growing tech companies recycle their wealth.*

- 4.23 New Zealand's performance in developing its business angel base is also instructive here. Whilst the emergence of over 15 angel networks (a large number, relative to the size of the country) appears to have been largely 'organic', policy has played an important role through a focused supply-side capacity development intent, both through a co-investment fund and more broadly developing a suite of materials and systems (e.g. protocols, advice notes, resources), that help to develop the capacity and discipline of the angel investment process. There may be opportunities for Northern Ireland to emulate these approaches.

*Theme 7 – Dedicated institutions and agencies in immature markets*

- 4.24 The comparators cover a range of institutional contexts which reflect the maturity and development of the early stage and growth finance market. However, where the market is less mature, for example in New Zealand, North East England and Nova Scotia, dedicated and focused venture capital and access-to-finance agencies have been important, playing wider policy and advocacy roles than simply the management/distribution of finance.

**The strategic role of NZVIF in New Zealand ...**

*The New Zealand Venture Investment Fund (NZVIF) has played a central role in the development of the sector in New Zealand, leading on the delivery of a Venture Capital Fund and Seed Co-investment Fund. It has also played a wider role in policy advocacy and market development that have helped to maintain the momentum of industry development, providing a consistent focus on building the capability of the investor community as the key to creating a sustainable market.*

**... and the effective 'division of labour' in North East England**

*The North East of England has benefited from well-established and consistent agencies taking a lead on developing the market – North East Access to Finance as the 'policy' lead, and North East Finance as the 'delivery' lead, acting as the Holding Fund manager for JEREMIE. This model has operated effectively and created a credible fund management and policy infrastructure. Whilst the scale of the market in the region remains small, in process terms, the North East of England has made significant progress, with its model for managing existing funds and positioning for the future recognised at the national level as distinctive.*

- 4.25 Such core agency models may not be appropriate in all cases – and the Republic of Ireland, for example, has been successful without a sole-purpose vehicle. However, when the market is small, the networks are not fully formed, and significant public investment is required, they can help to provide policy stability, delivery capacity, and advocacy and direction for market growth.

## Positioning Northern Ireland

4.26 How, then, in the light of the comparative reviews does Northern Ireland compare? The relevance of the themes identified above, and the potential implications for Northern Ireland as it looks to develop its early stage and growth finance market are summarised in Table 4-2. For each of the seven comparative themes above, a Red/Amber/Green (RAG) assessment is provided that indicates the current 'performance' of Northern Ireland against the theme in question, where:

- Red means that Northern Ireland has not historically exhibited, and is not exhibiting, the characteristics or activities of the comparators in this area
- Amber means that Northern Ireland has historically exhibited, and is currently exhibiting some, but not all, of the characteristics or activities of the comparators in this area
- Green means that Northern Ireland has historically exhibited and is currently exhibiting the characteristics or activities of the comparators in this area.

Table 4-2: Northern Ireland’s performance against Comparator Themes and Implications

Theme	RAG	Implications for Northern Ireland
<i>International mind- and action-set</i>	<b>Amber</b>	<ul style="list-style-type: none"> <li>The need for a more international mind-set to import investment, talent and expertise has emerged as a common theme in the evidence review, including the need for better links to GB, Republic of Ireland as well as the international investment community</li> <li>There are examples of existing interventions that can be built on, for example, the US-NI Mentorship Programme, and recent trade missions by Northern Ireland firms and leaders to California, as well as existing cross-border interventions through InterTrade Ireland.</li> <li>However, the level of internalisation both through specific interventions and broader relationships and networks is an area where Northern Ireland appears to be well behind a number of the more successful comparators such as the Republic of Ireland, Finland and New Zealand</li> </ul>
<i>Focused demand-side stimulation</i>	<b>Amber</b>	<ul style="list-style-type: none"> <li>Demand-side stimulation covers a wide range of areas from education and research investment, to incubators, accelerators and mentoring, and on to international linkages and relationships. Northern Ireland is clearly ‘doing some’ of this, with a wide range of interventions by Invest NI, universities and others to support the establishment of new firms and create an entrepreneurial culture to generate demand for early stage and growth finance</li> <li>However, a consistent message from the evidence review, and assessment of the interventions and actions adopted by comparators indicates that there is scope to further develop the range of activities to scale-up and improve the quality of demand, if a critical mass of investment is to be achieved to support a sustainable and growing market.</li> </ul>
<i>Regional, rather than local, funding models</i>	<b>Red</b>	<ul style="list-style-type: none"> <li>Northern Ireland is not involved in any cross-border funds on the island of Ireland, although there are non-financial cross-border access-to-finance interventions led by InterTrade Ireland. Firms in Northern Ireland also appear to have had limited exposure to funds supported by the British Business Bank, although the situation is improving with engagement between DETI, Invest NI and the British Business Bank to ensure UK-wide initiatives are tailored to, and promoted in, Northern Ireland.</li> <li>Given the scale of the market in Northern Ireland, and with proximate areas facing similar challenges (for example regions in GB), the development of supra-regional funds would be directly relevant to Northern Ireland, and the experience of comparators indicates they can play an important role in developing levels of competition, sophistication, and the availability of finance.</li> <li>The concept of all-island funds has been considered previously, and there are practical challenges related to public investment rules and conceptual issues with such a model, especially at the seed early stage.</li> <li>There is scope, working with other regions in the UK, and/or the Republic of Ireland to consider developing cross-regional collaborative funds, utilising EIF or other sources e.g. British Business Bank.</li> </ul>

Theme	RAG	Implications for Northern Ireland
<i>Exit-centric approach to market development</i>	<b>Amber</b>	<ul style="list-style-type: none"> <li>Mixed messages emerged from the evidence review on the extent to which Northern Ireland has embedded an understanding on the importance of an exit-centric approach to investment, rather than a focus on inputs and investment.</li> <li>However, there does appear to be scope going forward to foster further an early stage and growth finance market in Northern Ireland in which: <ul style="list-style-type: none"> <li>investors adopt an exit-centric approach to making investments (especially where public money is invested and the ability to the public sector to influence fund incentives and performance criteria)</li> <li>the potential of major exits are maximised, both directly by ensuring that the investment is recycled as far as practical into the local start-ups, and indirectly by leveraging the networks, profile and experience of those involved in exits in the enterprise ecosystem in Northern Ireland.</li> </ul> </li> </ul>
<i>Functioning finance pipeline</i>	<b>Green</b>	<ul style="list-style-type: none"> <li>Market failures and gaps continue to be present in all of the comparators, particularly in £500k-£3m range</li> <li>The suite of support mechanisms in Northern Ireland covering proof-of-concept, through to early expansion is consistent in general terms (although different in the detail as would be expected) to the comparators. This does not mean that the Northern Ireland pipeline is necessarily working perfectly – the on-going need for public investment indicates that it is not – but that the funding framework is in place to help address them and ensure access to investment (where it is justified).</li> <li>There is a need to watch that supply of seed and start-up funding is appropriate to ensure deal flow for Series A and avoid mission creep to later stage investments that have been experienced elsewhere (this study has not evaluated fund performance and does not comment on this in reference to Northern Ireland)</li> </ul>
<i>Effective business angels networks</i>	<b>Amber</b>	<ul style="list-style-type: none"> <li>Halo is an active business angel network – with over 50 investments since 2009. But, there is generally (and the perception of), a low level of angel investment in Northern Ireland and a need to develop angel networks and linkages, likely through syndication</li> <li>The focus needs to be on promoting ‘smart’ angel investment, the ‘best’ kind of business angels are therefore those who have recently been in senior management positions in entrepreneurial businesses</li> </ul>
<i>Dedicated institutions and agencies in immature markets</i>	<b>Amber</b>	<ul style="list-style-type: none"> <li>A number of organisations in Northern Ireland have with responsibility for delivery, notably Invest NI and NISP Connect, although there is no equivalent body to those witnesses in selected comparators with a specific focus on access-to-finance only</li> <li>A new organisation may not be appropriate, and the existing capacity should be utilised as far as practical, but there may be scope to consider the extent to which the institutional landscape in Northern Ireland is set up to optimise the development of the early stage and growth finance market including capacity development, networks, knowledge and information.</li> </ul>

Source: SQW

## 5. Alternative Futures

### Context

- 5.1 Predicting with any confidence the scale of demand for early stage and growth finance, the required supply, and how these interact over the long-term is challenging given the dynamic nature of the market, interactions with the wider entrepreneurial ecosystem, and broader economic drivers. Further, as noted in the recent evaluation of Invest NI's Fund-of-funds model, as three of the five funds are at an early stage of their investment period, it is too soon to know whether the quantum of supply (£160m when the two Development Funds are fully capitalised) needs to be changed.
- 5.2 Added to this, the relationships between early stage and growth finance market and other drivers of economic performance (such as innovation) are not always linear. For example, while London has accounted for a quarter of all venture capital investment in the UK over the past decade, its performance on innovation rankings (as identified by the UK Innovation Survey) is poor, ranked tenth out of twelve in the latest data; interestingly, Northern Ireland ranked twelfth.<sup>xxv</sup>
- 5.3 However, as indicated in Table 5-1 there does appear to be a link between the value of venture capital investment and the number of knowledge-economy businesses in regional economies, both absolutely and relatively. Put simply, where there are more knowledge-based businesses, there tends to be more venture capital. Northern Ireland had the lowest aggregate venture capital investment over the 2005-13 period of all UK regions, and had the fewest knowledge economy businesses and start-ups in 2013.

**Table 5-1: Regional ranking of VC investment and knowledge economy indicators**

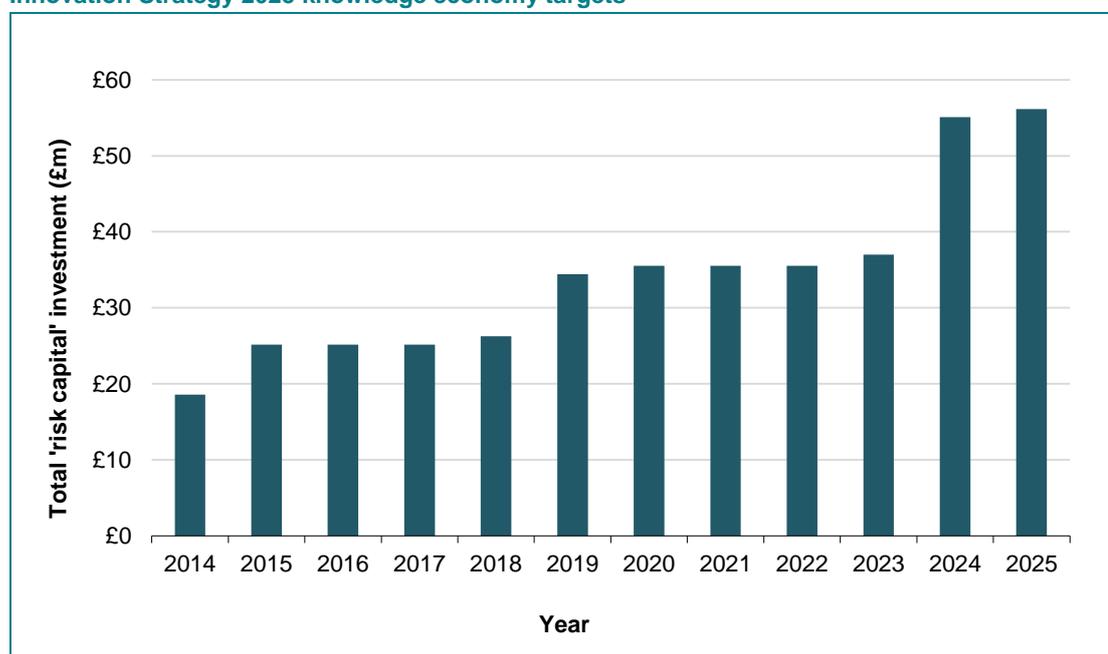
Region	Aggregate VC 2005-13 – Rank (1=most)	Knowledge economy firms as % all in 2013 – Rank (1=highest %)	Knowledge Economy starts in 2013 – Rank (1=most)
South East	1	2	2
London	2	1	1
East of England	3	3	3
South West	4	4	5
East Midlands	5	9	9
North West	6	7	4
Yorkshire/Humber	7	10	8
West Midlands	8	6	7
Scotland	9	5	6
North East	10	8	10
Wales	11	11	11
Northern Ireland	12	12	12

Source: NISP Connect Knowledge Economy Index and BVCA

## Knowledge Economy targets in the Innovation Strategy

- 5.4 it is within this context that the Innovation Strategy for Northern Ireland established a target of 54,000 employees in high-value knowledge sectors by 2025 (compared to 34,000 currently), based on targets established by NISP Connect as part of its broader target for the knowledge economy. These broader targets includes the scale of venture capital and other early stage risk investment expected to be required to meet the knowledge economy employment targets.
- 5.5 Specifically, by 2025, NISP Connect estimates that c.£56m pa of venture capital and other early stage investment will be required to meet the knowledge economy employment target. This includes a mix of proof-of-concept grants and equity, from Northern Ireland sources and funds elsewhere. The majority of the estimated required investment, c.£48m, is equity.

**Figure 5-1: NISP Connect targets for the scale of risk capital investment required pa to meet the Innovation Strategy 2025 knowledge economy targets**



Source: NISP Connect

- 5.6 These data are identified by NISP Connect as stretching. Two further points are noted:
- The target assumes a baseline of c.£19m in 2014, (of which at least £15m is equity). As set out in Section 2, the published data suggest that equity investment in 2013 in Northern Ireland was around £10m; even accounting for proof-of-concept grants, the £19m target figure looks demanding.
  - Even allowing for this high base, the growth rate required in the NISP Connect targets is ambitious, with an estimated average increase in the market of £3m pa over 2014/25 required to meet the knowledge economy targets. While the level of investment will be driven ultimately by demand, the evidence is that while demand is expected to increase, it may not be at this pace or scale.
- 5.7 The NISP Connect target aligned to the Innovation Strategy therefore provides a helpful 'best case scenario', and is already playing a useful role in sensitising stakeholders to the potential scale of the challenge ahead. By contrast, the evidence from this study, drawing on different

sources to those used in the NISP Connect work and developed bottom-up from the study's survey evidence, points to a lower (albeit still growth-oriented) scale of early stage and growth finance market in Northern Ireland. The components and assumptions of this alternative scenario are set out below.

- 5.8 In reviewing this material, it is important not to fall in to the trap of seeing scenarios as 'wrong' or 'right'. Both the NISP Connect scenario, and that alternative depiction flowing from this study are each, in their own ways, defensible and valid. They differ primarily in the input data sources that they are using, and the assumptions that then been applied to these. As such, both have real value in providing possible views of the future.

### An alternative 'growth' scenario

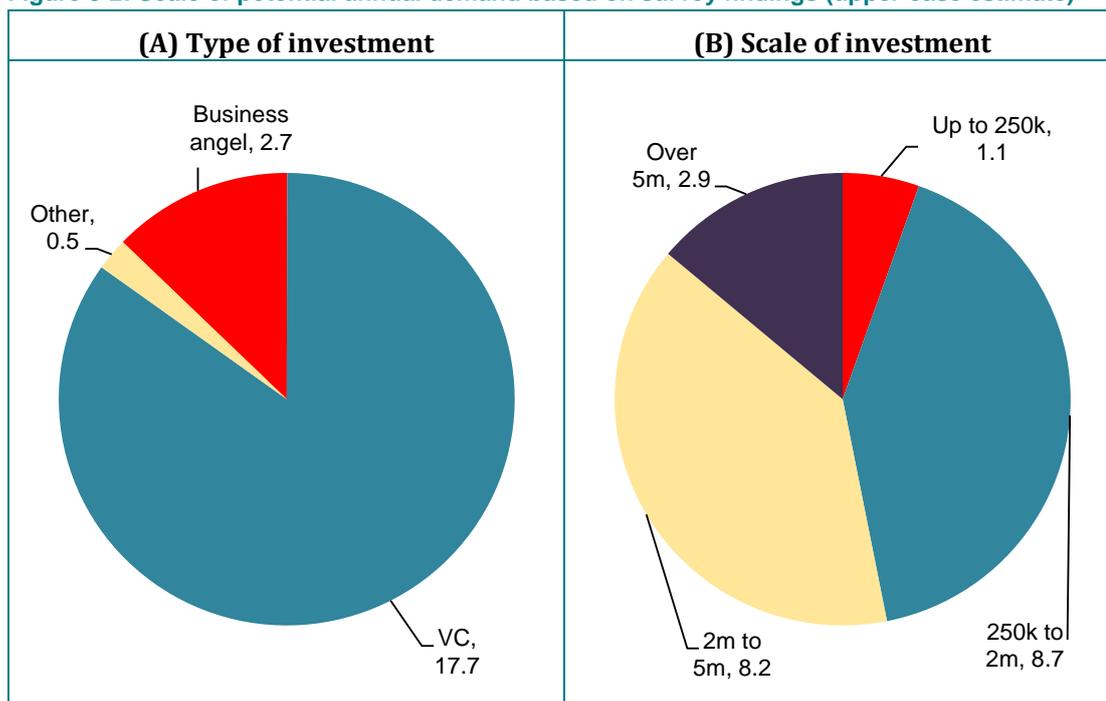
- 5.9 The alternative scenario flowing out of this study has been developed drawing on the findings of the survey of growth-oriented firms and entrepreneurs. As indicated in Section 2, the survey indicated strong demand. This data has been grossed-up to the scale of the business base likely to be seeking early stage and growth finance to provide an indicative scale of demand in coming years, using two perspectives:

- Based on the assumption that 1% of SMEs in relevant sectors seek equity finance, as evidenced in research from Northern Ireland the UK more widely
- Based on the assumption that 30% of knowledge-based new businesses start-ups seek equity finance. <sup>xxvi</sup>

- 5.10 The analysis indicates an upper-estimate of *potential investable* annual demand for equity-based early stage and growth finance in the next three years at between £20m and £21.5m, with an average of £21m.<sup>xxvii</sup> As set out in Figure 5-2(A), the majority of this demand is for venture capital, on average around £18m, with demand from business angels of around £2.5m, and £0.5m from other forms of equity, for example crowd-funding.<sup>xxviii</sup> It is important to note that while the absolute value of angel investment is modest compared to venture capital, angels play a vital role in 'seeding' future investment opportunities. Further, as noted above, there is an increasing 'blurring of the lines' between angel and venture capital investment, with angel syndicates investing at higher levels than 'traditional' individual angels.

- 5.11 In terms of scale, the majority of *potential investable* annual demand is expected to be in the £250k to £2m, and £2m to £5m range, as set out in Figure 5-2(B) under the upper-case estimate.

Figure 5-2: Scale of potential annual demand based on survey findings (upper-case estimate)



Source: SQW analysis

- 5.12 This estimated c.£21m pa of potential investable annual demand flowing from this study's work is consistent broadly with the NISP Connect/Innovation Strategy data, which estimate c.£25m investment pa will be required over 2015-17. However, although the general demand picture is encouraging, the longer term scale of demand anticipated in the NISP Connect/Innovation Strategy is very significant, for example assuming that the number of knowledge economy start-ups will increase to 400 by 2025, compared to 295 in 2013, an increase of more than a third. By the end of 2025, the NISP Connect target is assuming an annual target demand of £56m.
- 5.13 Taking the primary demand evidence from this study, augmented by the proof-of-concept grant values anticipated in the NISP Connect work<sup>xxix</sup>, and reality-checking the total against the experience of the comparator locations reviewed, **a target of £25m to £30m pa by 2025** is the overall value of early stage and growth finance that this study estimates going forward. To be clear, these numbers are not based on econometric modelling; rather, they draw on the quantitative and qualitative evidence collected through the research work. However, given that the current scale of the market is around £10m-£11m pa, achieving this target over the next decade will still require a substantive change in the early stage and growth finance landscape in Northern Ireland. It will also be reliant on other elements of the wider entrepreneurial ecosystem working more effectively to stimulate and drive forward demand.
- 5.14 The proposed principles by which this change can catalysed, and the actions to ensure Northern Ireland is well placed to progress to and achieve this target, are set out in the Final Section of this report.

## 6. The Way Forward

### Framework

6.1 Based on the findings and conclusions of this study a proposed framework for the way forward for the early stage and growth finance market in Northern Ireland is recommended, with three re-enforcing components:

- **Principles:** Setting high-level ways of thinking and doing that should characterise policy and intervention approaches going forward in Northern Ireland
- **Strategic Recommendations:** Headline objectives for the development of the market in Northern Ireland, providing explicit goals for partners to deliver against
- **Actions:** Specific potential activities to be delivered to realise the intents of the Strategic Recommendations.

### Principles

6.2 Going forward, the future development of early stage and growth finance, which is in Northern Ireland should be based around five key guiding principles. These principles flow logically from the evidence on what, and does not, work in Northern Ireland, the evidence from the comparators, and recognition that a well-functioning early-stage and growth finance market is core to a successful and entrepreneurial economy.

6.3 The principles are as follows:

- **P1. A connected, integrated, and influencing policy and market approach:** focused on maximising linkages between finance and other domains, and the development of the wider entrepreneurial ecosystem
- **P2. Internationally networked and engaged:** focused on forming and leveraging links to expertise, investment, and networks from elsewhere
- **P3. Committed to sustained, but sustainable, market growth:** focused on developing a market over the medium-term with annual equity investment in early stage and growth finance of £25 to £30m by 2025, but flexible in aspirations to reflect varying demand
- **P4. Private-sector led, but public-sector enabled:** recognising the Task/Finish role of the public sector in addressing structural and spatial market failure – working via commercially-led funds, delivering capacity support to stimulate and develop the private sector, and addressing aversion to loan finance and equity-release through the use of repayable/recyclable (not grant) funding mechanisms
- **P5. Savvy about market/technology change and risk:** ensuring that the knowledge and insight is present in Northern Ireland to capitalise on the opportunities and mitigate the risks of an increasingly complex finance market, and changing business models and technologies.

- 6.4 Commitment to these principles should cover and influence all those actors involved in the early stage and growth finance arena be these in the public and private sector, and from investors and advisers to policy makers and entrepreneurs.

## Strategic Recommendations and underpinning actions

- 6.5 Consistent with this overall approach and mind-set, five strategic recommendations are proposed. These then flow into a set of actions that cut across activity regarding the wider environment, the finance 'platform' (i.e. funding and infrastructure), and the finance 'process' (i.e. the relationships and linkages across the market). The five strategic recommendations and a set of *indicative* underpinning actions are as follows:

- **SR1: Develop the policy and performance management framework for early stage and growth finance in Northern Ireland, providing a clear commitment to the development of the market, and understanding of its role in the wider entrepreneurial ecosystem**
  - A1: DETI should lead on and publish a formal policy statement on early stage and growth finance, identifying roles and responsibilities for delivery, strategic objectives and role in the delivery of the Economic Strategy and Innovation Strategy. This work should include a review of related policy statements (e.g. Higher Education, Further Education, entrepreneurship, and internationalisation) to ensure that linkages are maximised. Subsequently, all interventions in this space should align to the policy framework, providing constancy and avoiding interruptions in implementation.
  - A2: Design and implement an integrated monitoring and evaluation framework for all publicly-backed early stage and growth finance interventions in Northern Ireland. This should include consistent key performance indicators, be designed to reflect the time-paths to impacts of equity investment (i.e. with a 5-10 year time-frame) and outcome-based metrics including exits, and draw on good practice on robust evaluation methodologies for finance interventions.
- **SR2: Enhance Northern Ireland's relationships and links with external sources of 'smart' venture capital finance, expertise and networks, driving up the competitiveness and extending the reach of the local market**
  - A3: Scope the potential for the development of public-sector backed cross-regional funds with partners in UK, Republic of Ireland, and the EU. This should include engaging with the European Investment Fund and the British Business Bank (building on existing relationships), to identify and progress options. These discussion need to reflect the revised State aid rules that allow for higher levels of investment in SMEs via public intervention. (Note that an overview of the potential for Northern Ireland to draw down EU sources of finance is provided in the accompanying Technical Report).
  - A4: Develop cross-referral protocols between fund managers and funds in Northern Ireland and the rest of the UK and the Republic of Ireland, to

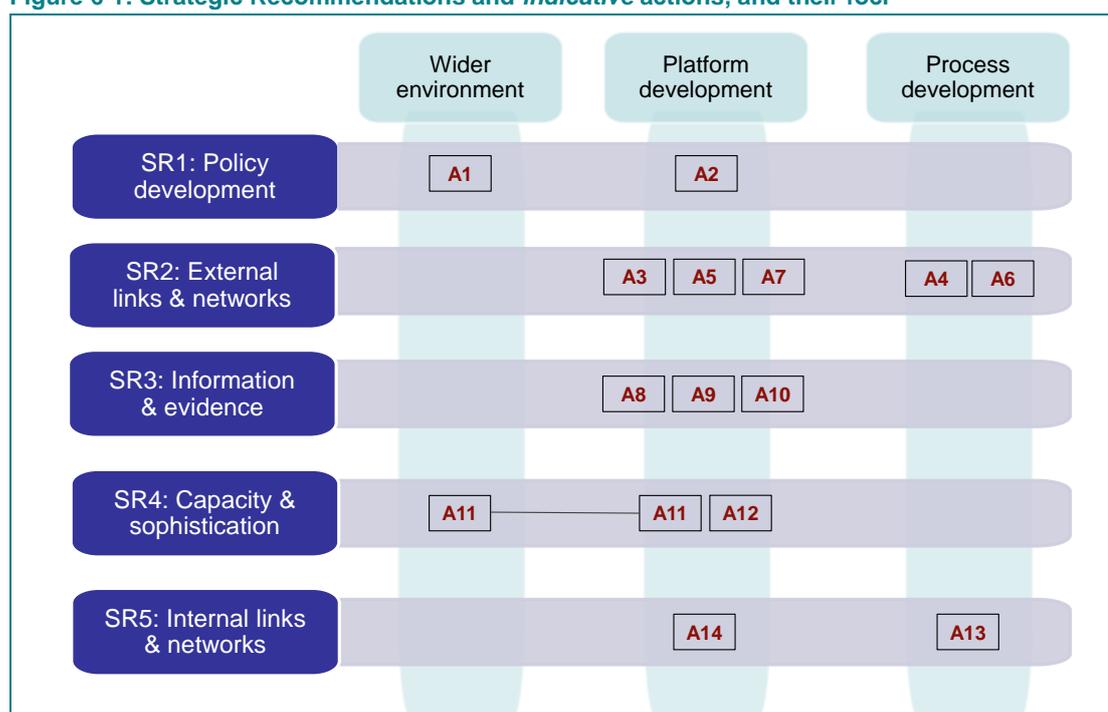
enhance the flow of opportunities and investments, and enhance the knowledge and skills of local fund managers in investing in and supporting growth firms. This should include initial liaison with the BVCA and IVCA to identify relevant fund managers in the UK and Republic of Ireland to target, establishing a database of 'referrers' and 'referees' in fund organisations, and occasional meetings of 'referrers' and 'referees' to monitor flows of referrals and consequent results (e.g. investments made, value of investments).

- A5: Undertake an initial market testing exercise to scope the development of a fund with international fund managers, with local public sector backing.
  - A6: In advance of the development of a Northern Ireland accelerator, establish reciprocal relations with targeted overseas accelerators, and provide support to enable Northern Ireland entrepreneurs to participate in these overseas programmes while the local accelerator is developed (for which a Manager has been appointed). These reciprocal relations should be retained once the Northern Ireland accelerator is up and running, providing access to international experience, contacts and networks.
  - A7: Scope and establish a co-ordinated programme of engagement in international networks, events and forums focused on venture capital, targeting 'best of class' activity, likely to be in London, the USA and Europe. This should cover activities involving entrepreneurs, investors, advisors, and policymakers.
- **SR3: Improve the quality and accessibility of information and evidence available to those seeking and providing investment in early stage and growth finance in Northern Ireland**
    - A8: Support comprehensive reporting on investment activity through the establishment of a bespoke Northern Ireland 'equity finance monitor', and/or activity to provide fuller disclosure of data to relevant market sources (e.g. investigating if data from non-BVCA members can be included in the annual BVCA report). If a bespoke Northern Ireland 'equity finance monitor' is developed, this could inform an annual 'State of the Province' report on market activity, highlighting 'success stories' to communicate recent major exits and investments.
    - A9: Undertake an annual demand survey of growth-oriented firms/entrepreneurs to provide live data on expected demand, and experiences of seeking finance in the past year. This could draw on the survey completed as part of this study and be distributed online by relevant partners (e.g. Halo, NISP Connect, InterTrade Ireland etc.) at minimal cost. Evidence from this study's survey could be integrated with Action A8 to provide an annual report on supply, demand, and market activity.
    - A10: Develop Invest NI's 'Access-to-Finance' web presence, aligning with current work underway at NISP/Queen's University Belfast to develop a clear 'map' of finance sources.

- **SR4: Enhance the capacity and sophistication of the early stage and growth finance market in Northern Ireland**
  - A11: Establish an Equity Finance ‘Panel’ for Northern Ireland (perhaps similar to Matrix, the science panel) to provide industry expertise and experience focused specifically on equity finance issues. The panel should involve members from outside Northern Ireland, who can provide an external, objective, and challenging perspective, as well as helping to build links with other places. It would also draw on existing fora, for example the Economic Advisory Group and Invest NI Fund of Funds Working Group (where members have equity specialisms). With a modest executive capacity, the role of the proposed panel will be twofold, namely to provide:
    - Foresighting knowledge and expert advice to policymakers to inform policy on equity finance issues, drawing on international expertise and best practice.
    - Tailored advice and guidance to entrepreneurs and investors on specialised technology/market/sector issues as they relate to equity finance, helping to develop the knowledge, sophistication and capacity of players in the local market.
  - A12: Deliver a focused capacity and skills development programme for business and financial advisors working with SMEs and early-stage/growing firms across Northern Ireland. The programme should focus on improving awareness and understanding among the advisory community on the role of equity finance in firm growth and scaling, the funds available in Northern Ireland, UK and Republic of Ireland, and on market/technology issues. The programme could involve a series of workshops involving experts from within and outside Northern Ireland (the latter also delivering against the intent of SR2, through establishing relationships between advisors and external players including links to external venture capitalists).
- **SR5: Promote improved linkages within the Northern Ireland early stage and growth finance community, to address on-going co-ordination failures**
  - A13: Resource a dedicated ‘NI Finance Animateur’ role with responsibility to foster enhanced relationships across the market, including identifying demand and brokering links between entrepreneurs, academics/researchers, and investors. This role could be situated within an existing organisation (Invest NI or NISP Connect), or outside of existing structures.
  - A14: Review the processes in place to maximise the flow of demand from relevant Invest NI programmes to early stage and growth finance interventions, and take action to address any ‘blockages’ where the systems are not optimised. As far as practical, Invest NI Client Executives and delivery managers should be incentivised to regard equity finance solutions as equally ‘valuable’ as other forms of support provided to client firms.

- 6.6 It is worth noting that the actions are focused principally on ensuring that the hard and soft ‘infrastructures’ are in place to facilitate increased demand, rather than actions focused explicitly on stimulating demand for equity finance directly. Stimulating demand is critical and needs to be a priority going forward. However, as discussed previously, it is through the effective operation of the entrepreneurial ecosystem as a whole that demand will be generated and sustained – for example, maximising the potential of Northern Ireland in accessing research and innovation funding, generating a pipeline of start-ups, and supporting enterprise and wider skills development. Policy alignment and infrastructure development is therefore key. For example, Action 13 and 14 if implemented effectively will help to stimulate demand for equity finance by facilitating links between entrepreneurs seeking finance and those providing it.
- 6.7 The Actions identified above focus on three broad areas: those that address the **wider environment** influencing early stage and growth finance, those focused on the **development of the early stage and finance ‘platform’** i.e. finance, information, institutions, and those focused on **improvements to the ‘process’ of early stage and growth finance** i.e. behaviours, and relationships. A summary of where the actions sit in relation to the wider environment, platform development and process development is set out in Figure 6-1.

Figure 6-1: Strategic Recommendations and *indicative* actions, and their foci



Source: SQW

## Implementation

- 6.8 Delivering the actions will require robust governance and delivery arrangements, and further work to move them on from indicative actions to a deliverable agenda for progress. Whilst some actions will be the responsibility of specific agencies, notably DETI to lead on policy development (with others having supporting and expert roles in informing policy and operational development, such as Invest NI, the Northern Ireland Science Park and InterTrade Ireland), a wide range of *functions* are required in terms of platform and process development.

6.9 In taking forward further development and implementation, partners should consider the most appropriate *form* of delivery to ensure that actions are delivered in an integrated and consistent way. Three headline forms are possible:

- Formalise the roles and responsibilities of agencies across the existing delivery landscape, with accountability for delivery of actions identified clearly
- An existing organisation (likely Invest NI or NISP) takes on formally additional roles and responsibilities
- A new organisation, 'New Co', is established to take on formal responsibility for the actions set out in the guidance, with appropriate governance and accountability systems in place.

6.10 Further, while delivery against specific actions will be the responsibility of a range of agencies, it is important that one – specifically, DETI – retains an overall strategic role to ensure that progress is made and delivery is realised.

## References

- <sup>i</sup> Economic Advisory Group, Review of access to finance for NI businesses, March 2013
- <sup>ii</sup> An evaluation of the Fund of Funds model was completed in June 2014, see [here](#)
- <sup>iii</sup> Entrepreneurship at a Glance 2014, OECD
- <sup>iv</sup> British Business Bank (2014), *VC Evolved*
- <sup>v</sup> Lerner, The Boulevard of Broken Dreams: Innovation Policy and Entrepreneurship [here](#)
- <sup>vi</sup> See for example Hwang and Horowitz (2012), *The Rainforest: The secret to building the next Silicon Valley*
- <sup>vii</sup> See for example Lerner (2010)
- <sup>viii</sup> Mason and Pierrakis, (2009) *Venture Capital, the Regions and Public Policy: The United Kingdom*.
- <sup>ix</sup> Chen, Gompers, Kovner, and Lerner (2009), *Buy Local? The Geography of Successful and Unsuccessful Venture Capital Expansion*. Working Paper 09-143. Harvard Business School.
- <sup>x</sup> SQW Ltd for BIS (2010) *Improving the coherence, co-ordination and consistency of publicly-backed venture capital provision*.
- <sup>xi</sup> Waddell, 2013: col. 3697  
<http://www.scottish.parliament.uk/parliamentarybusiness/28862.aspx?r=9431&mode=pdf>
- <sup>xii</sup> Nesta and University of Cambridge (2014) *Understanding Alternative Finance: The UK Alternative Finance industry Report*. See report [here](#).
- <sup>xiii</sup> BVCA (2014) *VC Evolved - How VC has adapted in the 15 tumultuous years since the Dotcom Boom*. See report [here](#).
- <sup>xiv</sup> BVCA (2013) *The Missing Piece. How Corporate Venture Capital can transform UK financing and funding*. See report [here](#).
- <sup>xv</sup> The first business accelerator was the 'Y Combinator' in the US launched in 2005. This has invested in over 700 start-ups, alumni include Dropbox and Airbnb. See: <https://www.ycombinator.com/>
- <sup>xvi</sup> Telefónica UK/O2 (2014) *The rise of the UK accelerator and incubator ecosystem*. See report [here](#).
- <sup>xvii</sup> Ibid.
- <sup>xviii</sup> Eric Reis, *Lean Start-up: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*
- <sup>xix</sup> Blank S, *Why the Lean Start-Up Changes Everything*. The Harvard Business Review. May 2013. <https://hbr.org/2013/05/why-the-lean-start-up-changes-everything>
- <sup>xx</sup> Ibid.
- <sup>xxi</sup> Regional Gross Value Added (Income Approach), 2013 available [here](#)
- <sup>xxii</sup> Further details of the finance sought by survey respondents is set out in the Technical Report
- <sup>xxiii</sup> RSM McClure Watters (2014) *Ex-Ante Assessment of Financial Instruments*
- <sup>xxiv</sup> For example see *Benchmarking UK Venture Capital to the US and Israel: What lessons can be learned?* [here](#)
- <sup>xxv</sup> First Findings From The UK Innovation Survey 2013 see [here](#)
- <sup>xxvi</sup> See the accompanying Technical Report to see the methodology and assumptions used for these estimates
- <sup>xxvii</sup> The upper-case estimate assumes that 50% of the identified demand is a viable investment proposition. A lower-case estimate based on 25% of identified demand being a viable investment proposition identifies potential demand of around £10m per annum.
- <sup>xxviii</sup> Note that the data exclude public-backed loan finance, for example currently served by the Small Business Loan Fund and Growth Loan Fund. These data are also not included in the NISP Connect/Innovation Strategy data
- <sup>xxix</sup> Proof of Concept grants are available under techstart, with a budget of £7.2m over the funding period. We have assumed a £1.5m average investment per annum.