Evaluation of the Development Funds

Final Report to Invest NI

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Contents

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1. Introduction

1.1 SQW Ltd (SQW), was commissioned by Invest Northern Ireland (Invest NI) in January 2017 to undertake a joint evaluation of the Crescent Capital III Fund ('Crescent') and Bank of Ireland Kernel Capital Fund ('Kernel'), collectively referred to as the 'Development Funds'.

1.2 The evaluation covered the period from the launch of the funds in 2013 (June 2013 for Crescent; September 2013 for Kernel), through to 30 September 2016. The Funds were ongoing at the time of writing; as such, some consideration was also given to the period up until August 2017.

Purpose

1.3 The purpose of the evaluation, as set out in the original Terms of Reference, was to provide an independent evaluation of the Development Funds, centred on the following objectives:

- review the objectives of both the Kernel and Crescent Development Funds and assess the extent to which they are meeting the stated objectives and all associated targets
- review the appropriateness of the two-fund model used as part of current Funds and, subject to the findings of the evaluation, to identify the appropriateness of same going forward
- assess the appropriateness of the Tender Bid Terms with respect to the impact had on fund raising
- assess the appropriateness of Invest NI's and both Kernel and Crescent's delivery models (including the investment parameters), and the effectiveness of each Fund Manager's management and operating structures
- compare the support offered by the Development Funds with equivalent interventions available to businesses in the UK, EU and other similar regions, identifying, where appropriate, potential options for consideration going forward. The benchmark exercise should take account of the management, performance and impact of Kernel and Crescent relative to appropriate comparators
- identify the internal and external factors which have impacted upon the performance of each Fund either positively or negatively, within the period
- assess the inputs, outputs, outcomes and impacts associated with the Kernel and Crescent interventions, including a detailed assessment of the overall economic and wider impacts of each
- determine the economic Return on Investment associated with each intervention, clearly identifying actual and anticipated values
- assess the economy, efficiency and effectiveness with which public funds have been used on each intervention. To assess the extent to which each Fund represents good

Value For Money (VFM) and appropriate use of public funds across the full spectrum of relevant VFM indicators

- present a succinct set of conclusions, taking account of all of the evidence gathered during the assignment
- consider the merits of Invest NI continuing to implement similar Funds going forward, informed by an assessment of the strategic context, level of market failure, demand (including pipeline), as well as other interventions (both public and private) in the space
- identify recommendations, with a view to enhancing the economy, efficiency and effectiveness of the Programmes.

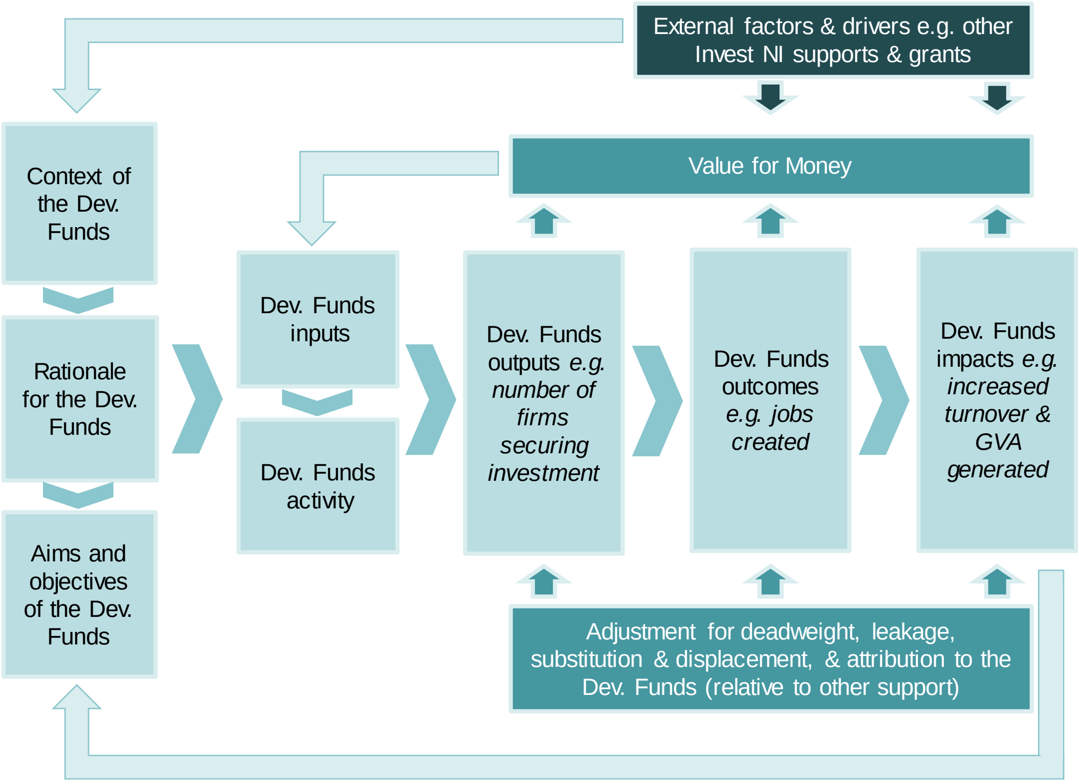
1.4 In meeting the objectives of the study, this evaluation was compliant with relevant government guidance, including HM Treasury's Green Book, the Northern Ireland Guide to Expenditure Appraisal and Evaluation, the Magenta Book, and Invest NI Economic Appraisal Methodology guidance. In practice, this means examining the following aspects, in line with the objectives set out above:

- **rationale for the Funds intervention**: the extent to which the Funds met, and continue to meet, a genuine need over the evaluation period in terms of market failures, and the Funds' fit within the wider economic and policy context
- **additionality of the Funds**: the extent to which the Funds have secured impacts over-and-above what would have occurred without the Funds, taking into account deadweight, displacement, substitution and leakage
- **net economic impact of the Funds**: assessing, as far as practical, the employment and Gross Value Added (GVA) effects delivered, and the overall contribution of the Funds to Northern Ireland's economy over the evaluation period
- **Fund Value for Money**: in terms of the Funds' Economy, Efficiency and Effectiveness and overall return on publicly–funded investment.

Evaluation Approach and Method

1.5 In order to address the objectives set out above, the study adopted a logic model approach designed to understand each aspect underpinning the intervention, from the context and rationale for the intervention, through to its impacts and value for money. The key components, and how each feeds into the next, are set out in Figure 1-1.

Figure 1-1: A logic model approach



Source: SQW

1.6 To reach useful conclusions on the key elements in this framework, the study involved a mix of primary and secondary research, including the following elements:

- **Review of key documents** relating to the Development Funds, as well as the wider access to finance landscape in Northern Ireland
- **Consultations with the Fund Managers**, Crescent Capital and Kernel Capital, Advisory Board members, and with private sector investors into the Development Funds
- **Consultations with public and private sector stakeholders**, including stakeholders within Invest NI and public bodies in Great Britain and Ireland, and wider private sector expertise around access to finance in Northern Ireland
- **Consultations with the 11 investee firms, and four non-investee firms** (firms that progressed some way towards becoming investee firms without completing their prospective deals)
- **Benchmarking against comparator funds** in Wales, Scotland and the Republic of Ireland, carried out through consultations and desk research.

Analysis and Constraints

1.7 Three important points provide the context for the evaluation findings.

- **The evaluation is made at a relatively early stage.** This is a mid-term evaluation of progress to date: it comes just over three years into an intended ten-year fund profile.

Both Funds are still investing in all of the eleven investee firms considered in this evaluation, and are also seeking to invest in additional firms. As such, it is too soon to assess fully the impacts that the Funds will have on investee firms; it will be some years before the impacts are fully realised. The impact findings should therefore, at this stage, be considered indicative, with a definitive assessment needed at a later date. The Terms of Reference did not require an assessment of the net financial cost of the Development Funds to Invest NI (taking account of any positive realisations from exits) owing to the early stage at which the evaluation is made.

- **The small number of 'beneficiaries'**. The nature of this intervention, with large scale equity funding for high growth potential businesses, and a finite Fund value, limits the number of investee firms, the 'beneficiaries' of the intervention. This is not surprising given the nature of the intervention, but does make it more difficult to ascertain the significance of the findings from the evaluation. The maximum number of examples used to inform the analysis and findings is 11, the total of investee firms as of 30 September 2016. Many of the findings are necessarily based on smaller numbers of firms.
- **The context within which the Funds operate has changed, and will continue to do so.** The economy of the UK has enjoyed a relative resurgence in growth in the last five years, following the recession. This has altered the context in which the Funds now operate, and may contribute to the growth prospects of firms. Likewise, the UK's impending exit from the European Union could have unforeseen impacts on the portfolio businesses going forward; for many, exports will be essential in reaching their growth potential.

Report structure

1.8 The remainder of this report is structured as follows:

- Section 2: Context, Rationale and Objectives
- Section 3: Inputs and Activities
- Section 4: Gross Outputs and Outcomes
- Section 5: Assessment of Attribution and Additionality
- Section 6: Impact and Value for Money
- Section 7: Process Perspectives
- Section 8: Lessons from Elsewhere
- Section 9: Conclusions and Recommendations.

1.9 Those consulted for the evaluation are listed at Annex A, whilst Annex B provides details of where each evaluation objective is considered in the main body of the report.

2. Context, Rationale and Objectives

2.1 This Section sets out the context for the Development Funds, and considers the rationale and objectives for the intervention and their suitability.

Context

Economic context

2.2 The financial crisis of the late 2000s, the ensuing recession, and stagnation in productivity growth since that time, form the economic backdrop to the Development Funds. The challenging conditions facing the Northern Ireland economy, include the lowest employment rate among UK regions and nations, low skills levels, limited access to finance, long-term industrial restructuring, and the dominance of the public sector. These issues underpin, and inter-relate with, Northern Ireland's low level of entrepreneurship, relatively small number of high growth firms, and a limited market for growth finance.

Low enterprise rate

2.3 The level of entrepreneurship in Northern Ireland has consistently underperformed the UK. In 2015, Northern Ireland had 2.8% of the UK's working age population (1.2m people), but only 2.2% of the UK's businesses (see Table 2-1)

Table 2-1: Proportion of UK private sector firms, by region/nation of the UK (2015)

Region	% of UK private sector firms	% of UK working age population
London	18.1	14.3
South East	16.3	13.5
North West	9.9	11.0
East of England	9.8	9.1
West Midlands	7.4	8.7
South West	9.9	8.1
Yorkshire and the Humber	7.1	8.2
East Midlands	6.6	7.1
Scotland	6.3	8.4
Wales	3.9	4.7
North East	2.5	4.0
Northern Ireland	**2.2**	**2.8**

Source: British Business Bank (2016) and ONS Mid-2015 Population estimates

2.4 This is further exemplified in Figure 2-1, where the gap in the enterprise rate (taken as the number of active enterprises per 10,000 working age population) between the UK and Northern Ireland widened each year between 2010 and the start of the Development Funds in 2013, and has continued to do so since. In 2010, the number of active enterprises per 10,000 working age population in Northern Ireland was 499 compared to 569 for the UK. By 2013, the number of active enterprises per 10,000 working age population in Northern Ireland had reduced to 470 compared to an increase to 587 for the UK.

2.5 This difference is stark. In 2015, there were c.56,000 enterprises in Northern Ireland. If Northern Ireland had the same number of enterprises per working age person as the UK overall, it would have an extra c.20,000 enterprises, a third again over the current level.

Figure 2-1: Enterprise rate in Northern Ireland and UK 2010-2015

Source: Business Demography and ONS

Low number of scalable firms

2.6 It has been widely acknowledged that high growth businesses[1] are very important to economic growth in the UK. Indeed, the innovation foundation Nesta reported in 2009, that just 6% of high growth companies generated half of the UK's employment growth between 2002 and 2008[2]. Given the economic challenges facing the UK, such firms have the potential to make an important contribution to tackling the UK's productivity challenge, and Northern Ireland's relatively low employment rate. However, there are proportionally fewer high growth businesses in Northern Ireland, as shown in Table 2-2, where Northern Ireland accounts for just 1.7% of the UK's high growth businesses, with 2.2% of all UK businesses.

Table 2-2: Proportion of the UK's high growth enterprises, by region/nation of the UK (2015)

Region	% of high growth enterprises
London	20.9
South East	14.4
North West	11.1
East of England	8.6
West Midlands	8.5
South West	8.2

[1] "High growth enterprise" is defined by the Organisation for Economic Co-operation and Development as a firm with an average employment or turnover growth rate exceeding 20% per annum over a three-year period and with ten or more in employment at the start of the observation period.
[2] Nesta (2009) *The Vital 6%*

Region	% of high growth enterprises
Yorkshire and the Humber	7.1
East Midlands	6.5
Scotland	6.4
Wales	3.5
North East	3
Northern Ireland	**1.7**

Source: British Business Bank (2016)

Lack of venture capital

2.7 Lack of finance generally has, at least in part, been driven by a decline in bank lending and equity investment following the financial crisis, as well as, in Northern Ireland, the substantial fall in property values following the recession, with an overhang of property debt constraining what would otherwise be investible businesses. Uniquely within the UK, Northern Ireland's banking sector is also dominated by non-UK based banks meaning that many of the policy tools used by the UK Government to stimulate bank lending were slower to be implemented (or were not implemented at all) and therefore had comparatively limited effect in Northern Ireland[3].

2.8 Ensuring sufficient access to finance is important in providing an environment in which businesses can thrive. For the high growth potential firms recognised as being important drivers of job creation and economic growth, equity finance/venture capital is particularly important. However, as shown in Table 2-3, Northern Ireland performs poorly on equity provision. In 2015, Northern Ireland with 1.7% of the UK's high growth firms had just 0.9% of UK equity investments in SMEs, although this does exclude some public-backed investments, such as the JEREMIE Funds (which are important sources of equity investment in the North of England), as well as funds operated directly by the devolved administrations in Scotland, Wales and Northern Ireland[4]. This is clearly affected by the economic weight of London, which accounts for almost half of equity investments across the UK despite having just 18% of firms; also, figures for just one year can be misleading. But some other UK territories, notably the North East and Scotland, performed relatively well, and certainly proportionately much better than Northern Ireland.

Table 2-3: Proportion of the UK's equity investments in SMEs, by region/nation of the UK (2015)

Region	% of total no. of UK Equity Investments in SMEs
London	47.1
South East	11.5
North West	6.3
East of England	6.1

[3] Invest NI (2014) *Interim evaluation of Invest NI Fund of Funds* https://secure.investni.com/static/library/invest-ni/documents/fund-of-funds-interim-evaluation.pdf

[4] These data are provided by Beauhurst. As well as excluding some public-backed investment, the data also excludes transactions on public equity markets, buyouts and family and friends rounds, and only includes publicly announced deals. That said, it is reported to be "the most accurate and complete view of UK equity investment to date"

Region	% of total no. of UK Equity Investments in SMEs
Scotland	6.1
North East	4.7
South West	4.6
West Midlands	4.0
Yorkshire and the Humber	3.5
East Midlands	2.8
Wales	2.3
Northern Ireland	**0.9**

Source: British Business Bank (2016)[5]

Policy context

2.9 These challenges are recognised by policymakers across the UK and beyond – measures to stimulate high growth businesses and access to finance have been major foci for policy intervention in recent years.

2.10 The Development Funds have direct precedents, through public sector backing for Crescent I and Crescent II, two earlier funds providing venture capital in the space now occupied by the Development Funds. Crescent I invested in firms from 1994 to 2001, with follow-on funding to 2004, whilst Crescent II invested in firms from 2005 to 2010, with follow-on funding to 2014. The Development Funds therefore extend a lengthy history of public sector backing for the venture capital market in Northern Ireland.

2.11 RSM McClure Watters July 2012 Market Failure report for Invest NI, found that, whilst Invest NI have invested in venture capital funding, the scale is much smaller than the public sector backing in the neighbouring Republic of Ireland; Enterprise Ireland invested some €352m into venture capital between 1989 and 2010, compared to £38m by Invest NI, three and a half times as much, taking into account the difference in population.

2.12 In 2010, the Economic Advisory Group (EAG) was established, in order to provide independent economic advice to the then Department of Enterprise Trade and Investment (DETI). In 2013, the EAG undertook a review of Access to Finance, which was updated in 2015. *The Future of Early Stage and Growth Finance in Northern Ireland* (2015)[6], two years into the delivery of the Development Funds, looked into the long term development of early stage and growth finance in Northern Ireland. This study called on DETI and partners to do more to help push forward the development of the early stage and growth finance market. In this context, the current policy focus is framed through Invest NI's Access to Finance strategy, which identifies an 'escalator' of support, with five separate debt and equity interventions, across six funds. In total, these funds have a total value of some £170m. The interventions are:

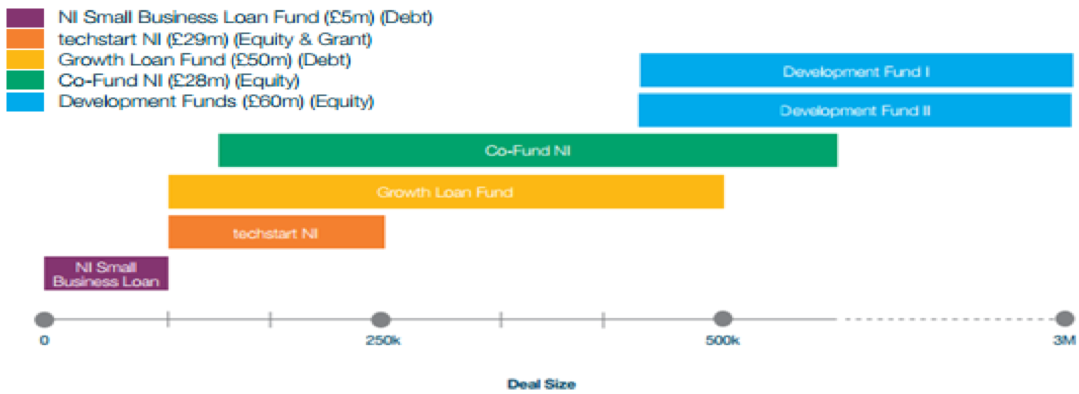
[5] British Business Bank (2016) *Small Business Equity investment Tracker*
[6] SQW (2015) *The Future of Early Stage and Growth Finance in Northern Ireland*

- **NI Small Business Loan Fund**, a £5m revolving loan fund for SMEs, with loans typically ranging from £1k to £50k. This fund is managed by Ulster Community Investment.
- **Growth Loan Fund**, a larger, £50m, loan fund (50% Invest NI funding), providing SMEs that can demonstrate sales and profitability growth, or potential for such, with loans typically between £50k and £500k. This fund is managed by Whiterock Capital Partners.
- **techstart NI**, a £29m collection of funds for start-up and early stage SMEs, including a £17m equity fund, and two university spin-out focused funds of £1.5m investing up to £250k, and a £3.6m Proof of Concept Grant Fund, providing grants of up to £25k. This intervention is managed by Pentech Ventures LLP.
- **CoFund NI**, a £28m fund (up to 50% of which supported by Invest NI funding) that co-invests alongside business angels and other private investors, with co-investment in deals up to £1m. This fund is managed by Clarendon Fund Managers.
- **The Development Funds**, evaluated in this study, two £30m funds (50% Invest NI funding), each investing up to £3m in individual businesses, and managed by Crescent Capital and Kernel Capital.

2.13 In addition to these funds, Invest NI has also funded **Halo**, a business angel network for Northern Ireland, providing a matching service between companies seeking investors/business angels.

2.14 Figure 2-2 shows the strategic positioning of the Development Funds within the wider Access to Finance offer. This structure is predicated on providing a range of support so that in the absence of private market solutions, businesses from start-up through to scaling can access funding they need. The Development Funds form the upper end of the range with support available of £450,000 to £3,000,000 over a number of investment rounds. The extent to which these interventions form a spectrum of support, is considered in Section 7.

Figure 2-2: Invest NI Access to Finance Solutions



Source: Invest NI Access to Finance

Rationale and objectives

2.15 The preceding sub-section points to strong economic headwinds at the time that the Development Funds were set up and, notably, a low enterprise rate, low employment rate, and a lack of high growth firms. This indicates a strong strategic fit between the Development Funds and the wider policy environment. However, this alone is insufficient to justify public sector intervention. HM Treasury's Green Book asserts that:

> *'... Before any possible action by government [or its agencies] is contemplated, it is important to identify a clear need which it is in the national interest for government [or its agencies] to address. Accordingly, a statement of the rationale for intervention should be developed'*[7]

2.16 To this end, we consider why Invest NI needed to intervene in the market with the Development Funds; what argument is made as to why any (structural) issues with the Northern Ireland economy could not be resolved by the private sector alone?

Rationale for an intervention then...

2.17 The rationale for intervention, as identified at the outset of the introduction of the Development Funds in 2013, points to market failure under the following categories: (1) information failures (driven by risk aversion to investment, and lack of knowledge around the benefits and opportunity of venture capital), (2) equity failures (driven by Northern Ireland's peripheral geography), and (3) wider failures of the financial system, as set out above. The reports already cited, and the views of stakeholders consulted as part of this evaluation, are in agreement on these market failures.

2.18 There were some common issues facing early stage capital across Europe around the time the Funds were set up[8]; early stage venture capital was in short supply, with a perceived gap in equity finance particularly around the £250k to £2m deal size, and potentially up to £15m in some sectors. This generic issue has two causes:

- **Early stage investment is less attractive to investors compared to other investments, due to its higher risk profile**. Investment is particularly risky in early stage firms as they often have a limited track record and limited security compared to the typically more established larger firms that would require larger deal sizes.
- **At the larger deal size fewer deals are needed to invest funds, bringing efficiencies that are lost with funds focused on smaller deal sizes.** Investments in smaller deal sizes are more resource intensive.

2.19 The equity market in Europe has therefore focused on higher value deals, leaving early stage, often high-tech high-growth potential firms, with a shortage of equity finance provision. Northern Ireland has suffered more than most in this regard, because of specific information and equity market failures, as well as scale[9].

- **Northern Ireland has a long history of dependence on debt finance and grants, and aversion to equity**. The development of an indigenous venture capital market is limited by the small number of potential deals, and the market remains immature. This is self-reinforcing: knowledge and understanding of the opportunity of equity

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[7] HM Treasury (2003) *The Green Book: appraisal and evaluation in central government* (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf)
[8] Invest NI (2012) *Development Fund Economic Appraisal*
[9] EAG (2015) *Access to Finance Update*

finance is limited within the business base in Northern Ireland, and this appears to be particularly the case in 'traditional', non-high tech sectors.

- **Northern Ireland's geography further hinders the development of a mature venture capital market.** The small population of businesses, and relative isolation from larger venture capital markets, notably London, also limits the attractiveness of Northern Ireland to venture capitalists, who are typically reluctant to invest in small deals outside their own region. Limited opportunities on the supply side mean that firms that might have been able to secure equity finance if they were in London, are reportedly unable to do so in Northern Ireland, where there may be more tendency to fund only those propositions which are judged to be relatively safe.
- **There is an information market failure around promoting the opportunity of venture capital.** The relative lack of historical venture capital activity in Northern Ireland, means that there are few case studies of successful investments to help to attract private investors, and to bring the option of equity finance before prospective investee firms.

2.20 Even with Invest NI backing, securing private investment into these Funds has been a challenge. Invest NI attempted to launch a Development Fund in 2010, with Invest NI funding used to attract private sector venture capital into the market. The rationale was to increase the attractiveness of the Northern Ireland market to private investors, by reducing risks, through subordination of Invest NI returns, thus building up the local venture capital market and closing the funding gap.

2.21 In April 2011, Crescent was appointed to manage the proposed 2010 Development Fund. This Fund, totalling £30m, was to include £10m of Invest NI funding, on a subordinated basis, with the remaining £20m to be secured from the private sector. By May 2012, over one year after the intention to award the fund management contract, Crescent advised that it had only managed to secure investment of £7.5m from four investors, well short of the £20m expected. Given the substantial shortfall, this Fund was abandoned.

2.22 It had been thought that the venture capital market was maturing in Northern Ireland, with subvention having decreased from 50% on Crescent I (1994 to 2001, with follow-on funding to 2004), to 33% on Crescent II (2005 to 2010, with follow-on funding to 2014). However, the inability to raise private sector investment at 33% subvention on the 2010 Fund suggested that the market was not as mature as hoped. This however, was in the context of a very challenging environment after the financial crisis, which severely curtailed investment activity[10].

2.23 It was against this backdrop that Invest NI launched a tender process to secure the, now live, Development Funds in 2012, with revised bid criteria that included: 50% subvention; the adoption of more flexible terms within the tender process, including implementation of upper caps (rather than set amounts) on permitted private sector return (maximum 12%) and fund management fees as a % of fund size (maximum 21.5%); the option for a first close on each fund of £15m i.e. £7.5m of private funding matched by up to £7.5m subordinated Invest NI funding; and the option for up to 25% of the Fund Investment being made available for investment opportunities outside of Northern Ireland. This new tender process also required

[10] Invest NI (2012) *Development Fund Economic Appraisal*

the applicants to submit letters of intent from other investors, prior to approval from Invest NI themselves, so that Invest NI knew that the Funds could deliver.

… and the rationale for intervention now

2.24 As set out above, progress with the development of a venture capital market in NI has not always been smooth, but the successful re-launch of the Development Funds in 2013 indicates that progress has nevertheless been made. Alongside the preceding Crescent I and Crescent II Funds, public-backed equity funding has now been available in Northern Ireland for over two decades, and it is reasonable to postulate an increasing awareness of equity funding as an option for businesses, which is helping to develop the pool of serial entrepreneurs that Northern Ireland has lacked, and also helping to create an indigenous venture capital market. In addition, stakeholders consulted for this evaluation reported that there has been some positive movement in the venture capital market in Northern Ireland at the larger deal size.

2.25 However, as also noted, progress to date has been reversed at times, and can perhaps best be seen as incremental rather than wholesale. The rationale for public intervention as it existed in 2013 was seen by stakeholders as still valid. The venture capital market at this smaller deal size is entirely dependent on these Funds; for many stakeholders, these Funds *are* the venture capital market in this category. Various reasons are suggested for this:

- the continuing challenge of attracting the private sector into investments at this deal size, given the potential for more attractive larger deals
- Northern Ireland also continues to face challenges, owing to its relatively small size and still relatively undeveloped venture capital market
- broader concerns on the horizon may also impact on the attractiveness of Northern Ireland to venture capital, including the uncertainties around the UK leaving the EU, and the spectre of increased protectionism in the US.

A strong rationale

2.26 **A strong case was put forward for the Development Funds from the outset, based on a market failure in the provision of equity finance at the early stage deal size.** Stakeholders accepted that, without Invest NI support, the private sector would not have closed the gap in equity finance at this deal size.

2.27 Stakeholders also agreed that the rationale for the intervention remains valid today. Indeed, were another fund to be launched tomorrow, it was widely accepted that it would still require Invest NI backing, as market failures persist around equity finance at this deal size in Northern Ireland.

Aims and Objectives

2.28 Setting out clear and SMART objectives is essential to moving from the rationale for an intervention into implementation; the objectives for the Development Funds should flow logically from the context and rationale within which the intervention is shaped, and inform the activities of the Funds.

2.29 The *Economic Appraisal* for the Funds (2012) sets out two strategic aims, to:

- strengthen the capability of NI to develop and commercialise new technologies and break into growing sectors and markets;
- address the gap in availability of venture capital in NI by providing a continuum of funds and a deal flow chain across seed, early stage and development capital.

2.30 An overarching objective to complete a funding continuum that is easily accessible is set out in the *Economic Appraisal* (2012). Within this expectation, there are five further sub-objectives identified, to:

- improve the VC and fund management infrastructure in Northern Ireland
- establish a Development Fund with subordinated public sector and private sector investment making deals in the £450k – £2.0m range (ultimately realised as €1.5m per investment, and up to £3m over multiple investment rounds)
- successfully launch a fund into the Northern Ireland market by no later than June 2013
- appoint an FSA authorised Fund Manager to manage the Fund and ensure that risk and compliance are effectively managed
- ensure that the Fund operates in compliance with EU regulatory guidelines, including State Aid guidelines.

2.31 The objectives above are from an Invest NI perspective. As investment funds with private sector monies involved, the Development Funds are looking to secure financial returns, for both the private and public sector; these average at 10% expected returns across the two funds

2.32 The extent to which the objectives set by Invest NI have been met is explored in later sections of this report, in particular in Section 6. However, it is important also to consider the appropriateness of these objectives.

- The overall aims for the Funds are strategic in nature, and show what the Funds are intended to achieve in relation to addressing a market failure in provision: to strengthen NI's ability to support the growth of its high value business base, and to address a gap in the market for equity finance. These are clearly aligned with the rationale for the Funds i.e. to fill a gap in the market for venture capital at this deal size.
- Two specific objectives set out what the Funds are seeking to achieve, in relation to addressing a market failure in provision: complete a funding continuum that is easily accessible; and improve the VC and fund management infrastructure in Northern Ireland. These are SMART objectives for this purpose.
- A further four objectives are very much operational in scope, focused on the set up of the Fund and compliance with regulation. They are helpful in setting out, in SMART terms, how the Funds will deliver against the more strategic aims and objectives but are less useful for understanding what the Funds are trying to achieve.

- Whilst the strategic aims and objectives show what the Funds seek to achieve in terms of the funding ecosystem, there could have been additional SMART objectives relating to realised investment activity, and the impacts on investee firms, such as supporting x firms to achieve high growth business status within x years, supporting y firms to export goods/services, or supporting z firms to lever in additional (private) finance.

Summary: the context for the Development Funds, and their rationale and objectives

- Northern Ireland faces various economic challenges, including a low employment rate, low skills, a low enterprise rate, low levels of scalable firms, and poor access to finance.
- The rationale for the public sector intervening to improve access to finance is driven by information failures, equity failures, and the wider failures of the financial system. Whilst these market failures reflect the situation throughout Europe, specific challenges in Northern Ireland include a historical aversion to equity, geography and scale, and a lack of awareness concerning venture capital.
- The response to this challenge has been framed through Invest NI's Access to Finance strategy. It consists of various funds including the Development Funds, with a total value of some £170m; also, the Halo business angel network. These interventions are intended to provide a full spectrum of finance for business growth.
- The rationale for intervention was recognised and accepted by stakeholders at the outset, and their views have not changed. The Development Funds were regarded as a necessary intervention, and there is a strong belief that no equivalent offer would have appeared in the market without Invest NI support.
- The Development Funds are targeted to support the expansion of businesses that have passed the start-up stage. Invest NI's objectives for the Funds, whilst both operational and strategic, and linked to the underpinning rationale for intervention, are focused on what the Funds will deliver and achieve for the NI funding ecosystem, rather than directly on investment activity, or the impact on investee businesses.

3. Inputs and Activities

3.1 This Section sets out the inputs and activities relating to the Development Funds; this includes the spend and performance against key performance indicators relating to spend, as well as consideration of the investment activity to date.

Overview of the Development Funds

3.2 The two Development Funds, each of £30m, are intended to provide growth finance to high growth potential businesses in Northern Ireland. Half of the monies for each Fund come from Invest NI, with the remaining 50% from private investors. The Funds are overseen within Invest NI by a Programme Manager. Following an open tender, Crescent Capital and Kernel Capital, the only two applicants able to raise monies, were commissioned to establish the Funds; each Fund has its own dedicated Fund Manager.

3.3 Each Fund was required to meet a *de minimis* requirement of £15m at first close:

- first close on the Crescent Fund was achieved in July 2013, with £7.5m secured from private investors, matched by £7.5m of Invest NI monies
- first close of the Kernel Fund was achieved in October 2013, with £12.5m secured from private investors, matched with £12.5m from Invest NI.

3.4 Each Fund Manager secured match funding from private investors for the £30m Funds[11]:

- Crescent secured funding from the 57 Stars Emerging Europe Fund (£9m), from Crescent Capital itself (£1.5m), from Queen's University Belfast (£1m), and from around a dozen smaller investors (£3.5m)
- Kernel secured funding from the Bank of Ireland (£10m) and 57 Stars Emerging Europe Fund (£5m).

3.5 At the outset, the expectation was that most investment activity would take place in the first five years of the Funds (c.£36m), with follow-on funding thereafter (c£11m), and with all exits completed by 2023. In addition to the investment spend, management fees and legal fees were also taken from the Funds (c21%).

Investment and spend

3.6 At the end of the evaluation period (30 September 2016) the Funds had invested £10.57m in 11 portfolio firms.

[11] Second close was completed in December 2013 for Crescent, and February 2016 for Kernel

Table 3-1: Total monies invested and the number of firms added to the portfolio between the launch of the Funds and 30 September 2016 (£m)

	Launch - Mar 14	Apr 14 - Mar 15	Apr 15 - Mar 16	Apr 16 - Sept 16	Total
Crescent					
Investment (£m)	0.62	2.71	0.60	2.20	**6.13**
Firms added to the portfolio	2	2	1	1	**6**
Kernel					
Investment (£m)	0.25	1.54	1.55	1.10	**4.44**
Firms added to the portfolio	1	2	0	2	**5**
Total					
Investment (£m)	0.87	4.25	2.15	3.30	**10.57**
Firms added to the portfolio	3	4	1	3	**11**

Source: Invest NI

3.7 In addition to the £10.57m invested to the end of September 2016, a further £4.17m had been spent on fees. This takes overall spend by Crescent to £8.27m (including £2.14m in fees), and Kernel spend to £6.47m (including £2.03m of fees). It was expected at the outset that fees would comprise around 21% of the total fund value. To date, fees have accounted for approximately 28% of total spend to the end of September 2016. A higher proportion of fees at this relatively early stage is to be expected, as large up-front legal costs are necessarily incurred at the outset.

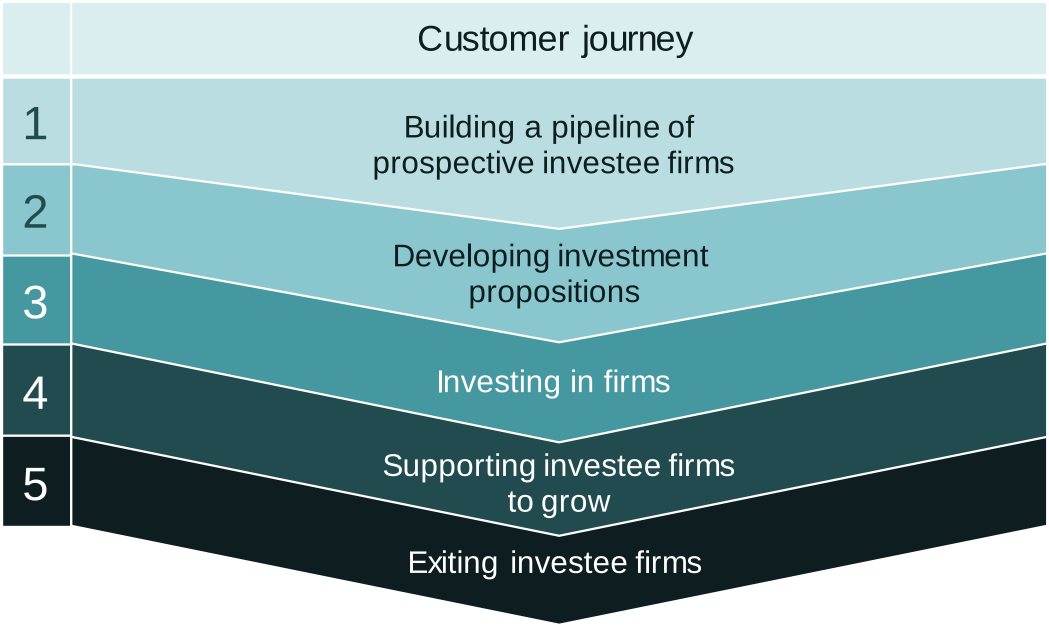
3.8 Of the £14.74m total expenditure, Invest NI had spent £7.37m (50%). In addition, Invest NI internal costs in the same period (to the end of September 2016) were estimated at approximately £110k, taking total Invest NI expenditure to £7.48m.

3.9 As noted at the outset, the Funds are still actively investing. By August 2017, Crescent had added another two firms to its portfolio with investments totalling £1.05m, as well as investing a further £1.25m in two of the existing portfolio firms, to take total investment to £8.43m. Kernel had also added two firms to its portfolio with investments of £1.75m, as well as investing a further £0.9m in two of the existing portfolio firms, taking total investment to £7.09m. This took total investment by the Funds to £15.52m by August 2017, representing approaching half of the c£36m anticipated to be invested within the first five years.

Activities

3.10 Each Development Fund investment is of course the culmination of a lengthy process. Figure 3-1 shows the activities undertaken, which include the pipeline of prospective investee firms developed by the Fund Managers, with in some cases assistance in working up their propositions, as well as negotiating the deal itself. Investment then takes place when a specific offer is accepted; the terms of this offer may be subject to further negotiation prior to the signing of the legal agreement. The firms then receive various degrees of support to grow, including potentially additional investment or wider business support, before, ultimately, the Fund exits the firm: that stage has not yet been reached with any of the Development Fund investees. The activities involved are described here; consideration of the outcomes resulting from these activities is presented in Section 4.

Figure 3-1: Customer journey through the Development Funds



Source: SQW

1. Building a pipeline of prospective investee firms

3.11 Crescent and Kernel both seek to develop a pipeline, which will provide sufficient leads to produce a portfolio of investee firms. The two Fund Managers go about this pipeline development in different ways:

- **Crescent** has a long term presence in the Northern Ireland venture capital funding environment, spanning over 20 years. As such, the firm has built up a substantial network of contacts within both the funding landscape and businesses. Its managers are typically approached directly by firms, through word-of-mouth referrals to Crescent, or via intermediaries in the corporate financial consultancy market. Two of their portfolio firms already knew about Crescent, through Crescent's profile within the investment community. Crescent also increases its profile, and meets potential portfolio firms, at events, such as InterTradeIreland events, or through judging business plan competitions.

  The expertise within the team at Crescent means that it tends to invest in high-tech firms, in the ICT industry in particular, the majority of which are located around the Belfast area.

- **Kernel** has taken a different approach, building a pipeline of firms through a series of open hours events across Northern Ireland. At these sessions any firm can come and speak to Kernel about potential investment opportunities. This outreach is a specific strategy employed by Kernel: this is the first fund they have delivered in Northern Ireland and they needed to establish presence. Kernel has also targeted profiled business databases, built relationships with local advisors, and actively partaken in various events linked to VC in order to develop additional leads. Some portfolio firms did find out about Kernel through word-of-mouth; one found out through involvement in the Propel programme, whilst another found out through discussions with Northern Ireland Science Park.

As a new entrant to market Kernel has had to build a new team. This team, like Crescent's, is multi-disciplinary, but it has particular experience and expertise in engineering and more 'traditional' industries.

3.12 Firms typically seek investment because they need external capital to grow the firm. Each of the portfolio firms consulted was developing a product; the investment was required to realise the potential of this product and the firm. Most firms stated that they had already secured as much debt finance as the banks were willing to lend, or as much as the firms felt able to borrow. Two firms cited the support they received from the Fund Managers as being the primary reason for taking the equity funding route.

2. Developing investment propositions

3.13 Often, pipeline firms are not investment-ready when they start discussions with the Fund Managers; their systems, processes, capacity and capabilities are not fit-for-purpose to accommodate growth. Significant changes are needed to achieve the necessary standards for due diligence. Examples of this pre-investment activity include:

- Undertaking efforts to put in place optimal governance and management structures. This includes working with firms to adopt best practice financial systems/processes, board structures, and leadership arrangements, to develop business plans, and to expand management teams
- For one firm, a new Chairman was brought in (a person already known to the Fund Manager)
- Securing intellectual property within the firm. On investigation by the Fund Manager, one firm was found not to own the IP for the innovation on which the business was being built. The Fund Manager helped the business to bring this IP into the firm.

3.14 This support and advice is given on an ad hoc, informal basis, rather than following a predefined structure planned from the outset. This could include referring firms to other support (potentially Invest NI support), including those that come to the Funds too early in their development for investment. The Fund Managers need to provide this support, as it helps them understand the business they are investing in, as well as ensuring that investees are effectively equipped for growth and helped to reach their potential, which then maximises the return – and speed of return – on the Fund's investment. The question of Fund Managers' awareness and use of the wider Invest NI business support offer is considered in Section 7.

3.15 The public sector is anticipating positive financial/commercial returns associated with its investments (this is necessary to incentivise further private investor activity in developing the VC market in NI), but financial return is a stronger focus for the private sector. The primary public sector focus is building indigenous expertise, changing the business culture, and demonstrating and generating economic impacts over the medium-long term.

3.16 An important element of the process of working with the businesses moving towards investment, is building a rapport between the Fund Managers and the potential investee firms. Important components are an alignment between the experience/expertise of the firms and the Fund Managers, but prospective investees must also be willing to work with the Fund Managers, and make the changes that the Fund Managers require.

3.17 Where investments fail to go to completion, it is often because, on investigation, the business does not provide the growth prospects that would enable the Fund to achieve the required financial return. This is often because of doubts about the quality of the firm's management team, and their willingness to take advice from the Fund Managers.

3. Investing in firms

3.18 The process of securing investment includes meeting due diligence requirements, putting in place the structures required for the Fund Managers to feel comfortable investing in the firm, and then agreeing terms between the potential investee firm and the Fund Manager. This involves agreeing a value for the business, the equity stake that the Fund will take, and the scale and terms of investment. The length of time from first contact to full agreement on terms and the investment inevitably varies, but for the portfolio firms the process typically took between six and eight months.

3.19 Some firms are supported to move forward to investment but do not complete the deal. Four such firms were consulted for the evaluation. In three cases, the firms decided not to proceed with the investment because they decided it was not the right time for the company to do so, whilst the fourth was ultimately turned down by the Fund Manager, with disagreement on the valuation for the firm and the equity stake requested.

3.20 While, as set out in Section 2, the initial investments on the Development Funds are intended to be between £450k and €1.5m, follow-on investments can be made into portfolio firms, to bring the total investment in any one firm up to a maximum of £3m over multiple investment rounds. Details on the number of investments can be found in Section 4.

4. Supporting investee firms to grow

3.21 The success of the Funds depends on the portfolio firms growing and reaching their potential; this is essential if the Fund Managers are to achieve the expected returns. To this end, further activity is undertaken to support the firms post-investment, to help the business be more successful more quickly, and to reduce investor risk. These actions include:

- Fund Managers sitting on the Boards of the portfolio firms, offering guidance and support on a regular basis, through attendance at Board meetings
- Broader advice on corporate messaging, pitching the business for further investment, and due diligence
- Drawing on Fund Managers' extensive networks of contacts, and introducing firms to others within the wider professional/business services sector (potentially including Invest NI) that are able to offer specific help with their business.

3.22 As with the pre-investment support, this advice and support is not structured, but provided on an ad hoc and informal basis, particularly through regular participation in Board meetings.

5. Exiting investee firms

3.23 The intention is to exit the investee firms, and obtain the expected return, within ten years, ideally less. Given the early stage of the Funds, no exits have been realised to date. Nevertheless, planning for this is an important part of the Fund activity; exiting at the right time can help to maximise the returns on the investment from the Fund. However, consultations did not identify any exits that were being planned as yet, again likely due to the early stage of the Funds. With half of the monies from the Fund being from private investors, it is essential that the investment provides as a high a return as possible, both to meet their business expectations and to improve confidence in equity funds more widely.

Summary of Inputs and Activities

- The two Development Funds, each of £30m, were set up in 2013. Each Fund consists of £15m from Invest NI with the remaining 50% from private investors. The Fund Managers are Crescent Capital and Kernel Capital.
- By the end of September 2016, £10.57m had been invested, with overall fund expenditure (including fees) at £14.74m. Over half of the monies invested had been by Crescent, which was already known in the market. By August 2017, investment had increased from £10.57m to £15.52m, with the number of portfolio companies increasing from 11 to 15.
- Internal costs within Invest NI are estimated to be around £110k. As 50% of fund expenditure is Invest NI monies, total Invest NI expenditure to date is £7.48m.
- The Development Funds' activities are not restricted to investment. They include building a pipeline of prospective investee firms and providing initial support and advice, through to supporting the investee firms to achieve expected growth. This could include referring to support elsewhere, for instance from other Invest NI support.
- The two Fund Managers have taken different approaches to building their pipelines, although both attend events. Crescent has relied more on its existing networks and word-of-mouth to connect to prospective firms whereas Kernel holds regular open hours for interested businesses and has also made efforts to build new relationships with local advisors. This difference reflects Crescent's long term presence in Northern Ireland, and Kernel's first Northern Ireland-specific fund.
- The portfolio firms were typically seeking investment to develop a product and realise growth potential. Most reported that they had reached the limit of their borrowing capacity.
- In order to create an attractive investment proposition, the Fund Managers frequently provide prospective investees with support and advice which will help them to grow. This support is provided on an ad-hoc and informal, rather than structured, basis.
- For the current portfolio firms, initial investment has typically occurred six to eight months after first contact, once the conditions for investment and due diligence requirements had been met and the terms of the investment agreed.
- Support from the Fund Managers has continued to the businesses in their portfolios. This further support can also be on an ad-hoc basis, but Board

membership is also used by the Funds, to understand the business and help enable the firms to achieve their growth potential.

- The final stage for the Funds will be to exit the firm. The Funds started investing only in 2013, and no exits have yet been undertaken.

4. Gross Outputs and Outcomes

4.1 This Section explores the gross outputs and outcomes that the Development Funds' portfolio firms have secured to date, and expect to achieve in the future, in relation to jobs, turnover, exports and follow-on investment.

An interim assessment

4.2 The quantified outputs and outcomes presented here are indicative: they show what had happened to the end of September 2016, in terms of the outputs (i.e. relating to investment activity), and to March 2017 for outcomes for those firms that became investee firms prior to the end of September 2016. Owing to the timing of this evaluation, they do not represent a definitive assessment of the final outputs and results associated with the Development Funds nor of individual investments made under the Development Funds.

4.3 They are partial for two reasons:

- in terms of outputs, the Funds are still in the investment phase, which means that more firms will be invested into (and indeed have been since September 2016), and that the firms currently in the portfolio may see follow-on investment – or fail – before the end of the planned investment period. Of the 11 portfolio firms to the end of September 2016, all were consulted for the evaluation
- given the early stage of this evaluation, it may take several years before the full extent of outcomes are achieved by the portfolio firms. Some account is taken of this by asking about expected outcomes in five years' time. However, both for internal reasons and changes in their external environment, some firms may not perform as well as they anticipate, whilst others may exceed expectations.

Gross outputs

Investing in business

4.4 At 30 September 2016, Crescent had invested in six firms, and Kernel in five. A total of 17 investments had been made into these 11 firms, 10 investments in the five firms in the Kernel portfolio, and seven investments in the six Crescent firms. The number of portfolio firms had increased to 15 by August 2017.

4.5 The average invested in each deal also differs significantly between the Funds. The average deal size for Crescent is £876k, while the average deal size for Kernel is approximately half this, at £444k.

Table 4-1: Total investments between the launch of the Funds and 30 September 2016

	Launch - Mar 14	Apr 14 - Mar 15	Apr 15 - Mar 16	Apr 16 - Sept 16	Total
Crescent	1	3	1	2	**7**
Kernel	1	3	3	3	**10**
Total	**2**	**6**	**4**	**5**	**17**

Source: Invest NI

4.6 Table 4-2 sets out key details of each investee firm in the Crescent and Kernel portfolios, including location, sector, investment date and total to the end of September 2016, and a brief description of the companies' focus.

4.7 Key characteristics of the 11 firms are as follows.

- **Age**. Most of the investee businesses are between five and ten years old, and therefore fairly well-established; the oldest firm was founded in November 1997, whilst the youngest was founded in July 2015.
- **Sector**. All the investee businesses are based on an identifiable technology, but Crescent's portfolio firms are in ICT and energy, whilst Kernel's are in life sciences, waste processing and ICT. This split reflects the experience and focus of the respective Fund Manager teams, as indicated in Section 3. Overall, this distribution is in line with that in the wider UK venture capital market; two thirds of UK venture capital investment is in ICT and life sciences[12].
- **Location**. All but one of the firms is based in Belfast or the immediate vicinity; only one, Waste Systems, is based in the west. Belfast's domination of the portfolio is unsurprising in that it is the largest city, and the main economic hub and research base in Northern Ireland. From the efforts undertaken, particularly by Kernel, with open hours sessions across Northern Ireland, but also by both Fund Managers through attendance and sponsorship of events across Northern Ireland, it does not appear that the Funds are focusing their pipeline development and hence investment activity, only in Belfast.
- **Gender**. Female leadership amongst the portfolio firms is limited, with no female CEOs amongst the investee firms, although there is female representation on the management teams of many, and strong female representation amongst the Fund Manager teams. The small number of firms involved means it is difficult to draw any conclusions from this.

4.8 Under Section 75 of the NI Act 1998, Invest NI has an obligation to provide equal opportunities for all, including men and women generally, persons with a disability and persons without, persons with dependants and persons without, persons of different religious belief, political opinion, racial group, age, marital status or sexual orientation. This evaluation found no evidence that the delivery of these Funds deliberately goes against this obligation in any way.

[12] Invest NI (2014) *Interim Evaluation of Invest NI Fund of Funds* https://secure.investni.com/static/library/invest-ni/documents/fund-of-funds-interim-evaluation.pdf

Table 4-2: Crescent Capital and Kernel Capital investee firms and company information

HQ location	Sector	Development stage	Date founded	Date of initial investment	Investment to end Sept 2016	Company information
Crescent Capital portfolio						
Belfast	ICT	Exploitation	June 2014	February 2015	£0.5m	Founded to develop solutions that leverage machine learning and deep analytics to revolutionise how networks are operated and consumed.
Belfast	ICT	Early/Growth	October 2008	January 2014	£0.62m	Involved in the field of Big Data & Analytics, developing scalable, open source analytics platforms that can be tuned to specific data, software tools and business needs.
Mid and East Antrim	Energy	Exploitation	January 2008	August 2014	£2.4m	Specialises in power generation using landfill gas (methane gas given off by waste materials slowly decomposing within the landfill).
Belfast	Energy	Start-up	July 2015	June 2016	£1.0m	The firm is consulting on plans to develop a state-of-the-art gas-fired power station in Belfast. This proposed development will bring a new supply of low carbon energy to Northern Ireland moving away from older traditional fossil fuel powered stations.
Belfast	ICT	Development	November 2009	July 2015	£0.60m	A cloud software product for make-to-order that supports key business processes from sales, to production, to purchasing and service, and connects them. It is an all-in-one CRM and ERP product.
Belfast	ICT	Expansion	November 1997	March 2015	£1.01m	Provides technology solutions designed to enhance existing process safety management, plant productivity and best practices across the Power Generation, Oil and Gas, Petrochemical and Continuous Processing industries.
Kernel Capital portfolio						
Belfast	Life Sciences	Early stage	June 2013	June 2016	£0.50m	Specialises in the manufacture of scientific instruments for protein detection, to detect a range of diseases.
Lisburn and	Life Sciences	Development	May 2010	January 2015	£2.00m	A medical solutions company specialising in Pathological and Radiological diagnosis techniques, with streamlined software

HQ location	Sector	Development stage	Date founded	Date of initial investment	Investment to end Sept 2016	Company information
Castlere-agh						packages and Laboratory information systems that offer overall laboratory management.
Belfast	ICT	Development	December 2011	June 2014	£1.00m	Innovative software enabling a presenter and their audience to interact throughout their meetings through their mobile devices (e.g. smartphones and tablets).
Antrim and Newtown-abbey	Waste Processing	Early stage	March 2009	October 2013	£0.34m	Novel platform technology converting low value particulate waste into higher value products.
Derry and Strabane	Waste Processing	Development	March 2009	May 2016	£0.60m	Provides a range of separation solutions for sorting Metals, Wood, Mixed Debris, Construction Debris, Plastics and other materials

Source: SQW

Key performance indicators

4.9 The key performance indicators (KPIs) agreed by Invest NI with the Fund Managers were focused on measures of investment delivery, namely to:

- complete at least four investments per annum for the first five years
- operate in the deal size range of a minimum of £450k and a maximum of €1.5m[13]; it is the evaluator's understanding that this relates to initial investment deal size only
- make investments with an aggregate subscription equal to 15% of the Partnership Funding in each year of the investment period; it is the evaluator's understanding that this relates to 15% of the funding expected to be invested in the first five years (i.e. not including follow-on investments thereafter)
- make 20 investments over the first five years of the term
- make investments only within the investment area (ultimately contracted as just within NI).

4.10 Table 4-3 sets out progress to date against these KPIs. Overall, the Funds have struggled to date to meet the KPIs. Neither fund has achieved four investments for three of the four years since the funds started, nor have they achieved the 15% minimum subscription target for each year.

Table 4-3: Performance against KPIs

KPI	Status at end of evaluation period (end September 2016)	
	Crescent	**Kernel**
Four investments p.a.	• Since starting, Crescent has secured 1 investment in the first year of the fund, 3 in year 2, 2 in year 3 and 4 in year 4 (current partial year). The fund has therefore missed this KPI for 3 of the 4 years to date.	• Since starting, Kernel has secured 2 investments in the first year of the fund, 2 in year 2, 6 in year 3 and 1 in year 4 (current partial year). The fund has therefore missed this KPI for 3 of the 4 years to date.
Deal size minimum £450k, max €1.5m	• All Crescent deals to date have been within the deal size limits.	• One initial deal was below the £450k threshold. However, this was explicitly agreed as an exceptional case with the fund's Advisory Board at the time of investment.
Aggregate subscription 15% in each year of investment period	• Not met by Crescent in each year of the investment period (this would require an investment of c.£2.7m in each year, based on 15% of total funding expected to be invested in each of the first five years of the Fund (c.£18m)).	• Not met by Kernel in each year of the investment period (this would require an investment of c.£2.7m in each year, based on 15% of total funding expected to be invested in each of the first five years of the Fund (c.£18m)).

[13] €1.5m is the upper limit for any one transaction per the 2008 General Block Exemption Regulation. The Development Funds are permitted to provide investment of up to £3m over a number of investments rounds.

KPI	Status at end of evaluation period (end September 2016)	
	Crescent	**Kernel**
20 investments in five years	• On present trajectory, this KPI will not be met. However, it is likely that the number of investments will increase, as firms are added to the portfolio, and as Crescent starts to follow-on with current portfolio businesses, which may make this target attainable.	• On present trajectory, this KPI will not be met. It is likely that the number of investments will increase, as additional firms are added to the portfolio.
All investments in investment area	• This is a stipulation in Crescent's contract, and the Fund is currently achieving this KPI.	• As with Crescent, this is a stipulation in Kernel's contract, and the Fund is currently achieving this KPI.

Source: SQW

4.11 As acknowledged by Invest NI in the evaluation Terms of Reference, and reinforced in the consultations with the Fund Managers, it is clear that some of these KPIs (the first and third in the table above) were, from the outset, not appropriate, as they assume linear progress, in number and value of deals, across the five year investment period. With this intervention, there was also the added challenge that one of the Fund Managers, Kernel, was new to the market, and might have been expected to require a likely longer lead-in time for investments, as it would need to build profile and networks in the investment community. But all such funds take time to build up a pipeline of firms, and still longer to turn these into investments, and this should have been taken into account when targets were set.

4.12 In addition to adopting a non-linear approach to the agreed KPIs, it might have been beneficial to establish other KPIs that captured more of the activity involved in delivering the Funds. For instance, additional KPIs could have monitored the development of a pipeline of potential investee firms, and how these firms were moving towards investment deals. This would help to understand the likelihood of the Funds being invested to plan by their anticipated closure date: i.e. c.£36m placed in businesses, with the remaining £24m either spent on fees (c.£12m) or held for follow-on investments after the end of the initial investment period (also c.£12m).

4.13 It might be expected that the deal flow and investment value from this point forward will increase over the remainder of the investment period, compared to the first three years. However, looking at the period that this evaluation formally covers, with just over £10m of £36m invested by the end of September 2016, ***a considerable uplift in activity will be necessary to invest £36m within the envisaged five year timespan***; there has been some uplift since September 2016, as noted in the previous section, with c.£5m of further investment activity by early August 2017, but it is too early to say whether this will be sufficient to achieve the target level of investment. The danger of shortfall was noted both by stakeholders and fund investors. Some consultees felt that the Fund Managers were being very selective with their investments, which contributed to the low number of investments. Others suggested the low numbers are not unexpected as, given the relatively small number of firms involved in such a fund, it is not uncommon for investments to come in waves.

4.14 Fund investors trust the Fund Managers to make good investments; if there are no good firms to invest into, they would not expect the Fund Managers to invest in firms simply to 'make up the numbers'. But they also expressed some unease about the volume of business concluded to date. Funds of this nature are inherently high risk, as set out in Section 2. The larger the number of firms invested into, the more likely it is that successful firms will be found that will make the Fund 'stack up' and provide the expected returns. With lower numbers of firms, there is greater risk that returns are not achieved.

4.15 Investors have committed monies to the Funds expecting a certain return; if their monies are not spent fully, this again will limit their ability to secure the returns they expected, although if the funding is not drawn down, the option to invest elsewhere remains open.

4.16 From an Invest NI standpoint, it is important that the Funds are visibly engaged in activity and successfully deliver these returns. This will secure economic benefits and prove to the venture capital market that Northern Ireland is a viable location for investors to make a good return, thus encouraging more investors to operate there.

Gross Outcomes

4.17 Under gross outcomes, we consider the growth of the firms since investment, in terms of jobs, turnover, and exports, any outcomes in leveraging further investment, and any outcomes relating to the wider support provided by the Fund Managers. Note that for anonymity, the firms are not listed in the same order here as in Table 4-2.

Jobs

4.18 Figure 4-1 sets out jobs growth within the 11 portfolio firms, from initial investment to the present day, and looking forward to the total number of jobs that investee firms expect to see in five years' time.

- At initial investment, the 11 firms consulted for the evaluation employed 127 people in total. This included 74 people within Crescent portfolio firms, averaging around 12 people in each, and 53 in Kernel portfolio firms, averaging around 11 per firm. One firm reported zero employment, although it does commission work from Northern Ireland-based sub-contractors. Other firms also use sub-contractors; the numbers quoted here include only direct employment within the firms. Note also that the timespan varies: the date for initial investment was only a few months ago for some, whilst others have been investee firms for three years.

- Already, many of the portfolio firms have seen strong employment growth. Across the firms, employment has grown from 127 to 191 since initial investments; jobs have grown rapidly at both Crescent portfolio firms (74 to 96) and even more so at Kernel portfolio firms (53 to 95). Of the firms that have employees (10), eight saw an increase between the initial investment and the present date; the fastest growing firm has grown from 11 staff to 36 since investment. One firms saw a decrease in job numbers, from five to four. But as noted above, the time between first investment and the present day varies considerably.

- Looking forward, almost all firms reported that they expect high growth in employment. In five years' time, the total number of jobs is expected to be 2.5 times the current level, increasing from 191 to 474 (all 11 firms expect to have employees by this time). Two firms were expecting employment figures to have increased by more than 50 since initial investment, with one of these expecting to grow from 22 at initial investment, to 80 in five years' time. One firm expected to see employment decrease from the current level, as a result of contracting-out.

- The Fund Manager is, as noted earlier, focused on investment performance. While this will involve growth in investee businesses, the emphasis is on financial returns – pursuit of employment growth might well suggest different business strategies, at least in the short-medium term. Invest NI, in looking to overall economic benefit, is using Development Funds as a mechanism to increase investment activity and develop the local venture capital market, thus helping secure the medium-long term conditions for further economic growth.

Figure 4-1: Growth in the number of jobs within portfolio firms, from investment to now, and looking forward five years, by Fund

	At 1st investment	Now	Five years' time
Crescent	74	96	219
Kernel	53	95	255
Total	*127*	*191*	*474*

	At 1st investment	Now	Five years' time
Firm A	40	44	70
Firm B	13	13	45
Firm C	6	8	50
Firm D	3	8	5
Firm E	9	14	24
Firm F	3	9	25
Firm G	15	20	65
Firm H	0	0	20
Firm I	11	36	55
Firm J	22	35	80
Firm K	5	4	35
Total	*127*	*191*	*474*

Source: Employees at first investment are based primarily on information from the Fund Managers; all other figures are derived from SQW analysis

Turnover

4.19 In terms of turnover, Figure 4-2 shows the growth from first investment to the present day, and then looking forward five years.

- At the time of initial investment, seven of the 11 portfolio firms consulted for the evaluation had achieved sales; three of the five Kernel firms were trading, and four of the six Crescent firms were trading. At that stage, four of the five ICT firms in the portfolios were trading. Among the firms trading at the initial investment, sales levels ranged from £170k to £2.8m.
- Since initial investment, strong turnover growth is already evident; eight of the firms are now trading, with all five ICT firms now having achieved sales. Across the portfolio, turnover has increased from £7m to £14m. There are now five firms with a turnover of more than £1m, up from two at the initial investment. However, as the first investment was at a different date for each firm, growth figures should be treated with caution. Nevertheless, it is clear that turnover growth has taken place; all eight firms now trading saw an increase in turnover between the initial investment and the current date.
- Looking forward, turnover is expected by the portfolio companies themselves to grow very significantly in the next five years, with all 11 firms expecting to have achieved sales. Across the firms, aggregate annual turnover is expected to reach almost £230m within five years, from a current level of £14m. One company (Firm C) accounts for some two thirds of the total future projected turnover levels. is It is not unusual for the success or otherwise of investment funds to hinge on a small number of very successful cases, with other firms achieving, at best, much lower levels of growth. But even without this outlier, aggregate annual turnover is expected to increase from £14m to £88m, a six-fold increase.
- Taking only the eight firms that are trading at present, turnover is expected to rise from £14m to £72m, a five-fold increase on the present day, and a ten-fold increase since initial investment; six of these firms predict turnover of £10m in five years, with one predicting turnover of £9m.

Figure 4-2: Growth in turnover at portfolio firms, from investment to now, and looking forward five years

	At 1st investment	Now	Five years' time
Crescent	£3.1m	£7.8m	£185.0m
Kernel	£4.3m	£6.4m	£43.0m
Total	*£7.4m*	*£14.2m*	*£228.0m*

	At 1st investment	Now	Five years' time
Firm A	£2.4m	£3.4m	£9.0m
Firm B	£0.4m	£0.5m	£10.0m
Firm C	£0.0m	£0.0m	£140.0m
Firm D	£0.3m	£3.0m	£10.0m
Firm E	£0.0m	£0.5m	£6.0m
Firm F	£0.2m	£0.4m	£10.0m
Firm G	£0.5m	£1.3m	£10.0m
Firm H	£0.0m	£0.0m	£10.0m
Firm I	£0.8m	£2.1m	£10.0m
Firm J	£2.8m	£3.0m	£10.0m
Firm K	£0.0m	£0.0m	£3.0m
Total	*£7.4m*	*£14.2m*	*£228.0m*

Source: SQW Analysis

Exports

4.20 Potential high growth firms typically face limited local markets, and will usually need to sell outside Northern Ireland to be scalable. All of the portfolio firms to date have developed technologies that are innovations for their market. As such, selling into the rest of the UK, and exporting beyond, forms an important part of many of their plans. As with employment and turnover, the export profile of the firms is changing, and is expected to evolve in the future:

- On initial investment, four of the seven trading firms were already exporting outside the UK, with three of these making the majority of their sales from exports.
- This has increased to six investee firms exporting at present, with just two of currently trading firms not exporting. Four of these firms make the majority of their sales from exports, with one achieving 90% of their sales through exports.

- In five years' time, the number of exporting firms is expected to increase again, with 10 of the 11 portfolio firms then expecting to export. Of these, eight look to achieve the majority of their sales through exports, with three of these expecting to achieve 90% sales from exports, and one expecting 100% of sales outside Northern Ireland. Only one firm, an indigenous utilities company, has no plans to export.

4.21 It is evident from this that the Development Funds are supporting scalable businesses with high export potential.

Further investment

4.22 For many of the portfolio firms, the investment from the Development Funds forms just one part of a history of investment. One firm had already received £6m prior to Development Fund involvement, but would have struggled to continue without Development Fund investment. Some firms have used a 'cocktail' of other support prior to the Development Funds, including from Invest NI, notably investment from the CoFund or through participation in the Propel programme.

4.23 The Development Funds also played an important role in assisting portfolio companies to leverage other funding as part of investment rounds. This has been achieved primarily in two ways:

- Bringing in co-investment at the time of the initial investment from the Development Fund. One of the portfolio firms raised £900k at the initial investment with £500k from the Development Fund, with the remainder secured from the founders and from private investors through the Enterprise Investment Scheme, which provides tax relief for investors. Another portfolio firm raised £1.3m, with Kernel providing the final £200k to close an investment round that had been open for a year; without the Development Fund monies, the investment round may not have been successful.
- Providing follow-on funding alongside other investors. The firm that raised £1.3m in the initial Development Funds investment round undertook another investment round for £300k, with Development Fund monies again forming part of the round.

4.24 In the case of most Kernel portfolio firms, follow-on investment has already been made by Kernel through the Development Fund. With Crescent, follow-on funding might also be expected for their portfolio firms, although for most this has not yet happened.

4.25 Some firms have also received investment from other sources since the Development Funds' invested, but without the Funds being involved in later funding rounds. This includes one firm that secured £250k from an existing angel investor in the company, and another firm that secured £100k from an earlier funder in the firm. One other firm is launching a £100k round, and had suggested to the Fund Manager that they might invest; however, the Fund Manager did not, as the deal size would have been very small, probably only about £15k. Some investees also used other public sector funds, including other Invest NI support streams, and university support, including from QUBIS.

4.26 Looking forward, most of the firms stated that they were likely to look for further investment in the future. For many of the portfolio firms, the involvement of the Development Funds is a step along the way to growth, but this initial investment will not be sufficient to realise their growth aspiration.

4.27 The ability of the Funds to leverage in additional investment, either alongside the investment from the Funds, or separately later, is key to maximising the value of the Funds to the investee firms and venture capital market:

- Investment from the Funds into Kernel firms by the end of September 2016 totalled £4.4m, with at least £1.5m invested by others either alongside Kernel's investment, or separately after their initial investment
- Investment from the Funds into Crescent firms by the end of September 2016 totalled £6.13m, with at least £800k invested by others either alongside Crescent's investment, or separately after their initial investment.

4.28 These figures can be expected to increase, as more Development Fund monies are invested, and as the firms continue to develop.

Qualitative outcomes

4.29 The investee firms variously attributed the following wider benefits to the Development Funds:

- improved governance, finance and management structures; improved management team
- access to expertise, from the Fund Managers and externally, as well as through recruits into the firm, sourced through the Fund Managers' networks
- positive cultural change and improved discipline within the firms' management
- securing the initial investment, co-investments and potential follow-on investments, which are helping to deliver business growth.

4.30 In addition to the benefits to the business from the wider support provided, investment from the Development Funds was also stated by two portfolio firms (one Crescent, one Kernel), as being important in giving the firm credibility and exposure to the investment community, owing to the profile of the Fund Managers within the investment community in Northern Ireland.

4.31 Non-portfolio firms also see beneficial outcomes from the support they receive when attempting to secure investment, even when that investment is not realised. This includes improving their knowledge on how to secure investment from other sources, improving their knowledge around common pitfalls to avoid in operating the business and, in the case of one firm, improving the management structure.

Summary of Gross Outputs and Outcomes

- At this stage, both outputs and outcomes are indicative; the Funds are still in their investment phases: the firms received their investments within the last three years at most, and at this stage impacts can be indicated, but not known.
- By the end of September 2016, 11 firms had received funding through 17 separate investments. Crescent had made seven investments in six firms and Kernel had made 10 investments in five firms; the average investment was £876k for Crescent and £444k for Kernel. By August 2017, the number of investee firms had increased to 15.
- Total investment to the end of September 2016 is lower than expected, although there has been an upturn in activity since then. This reflects Fund Managers' assessment of their pipeline and individual risks, and also the time to put due process in place. Original targets are now seen as unrealistic, but achieving a wider spread of investments across a range of firms will help reduce risk to the Funds as a whole.
- The investee firms are typically between five and 10 years old, based in and around Belfast, and have developed a distinctive technology. They operate in ICT, Energy, Life Sciences and Waste Processing.
- The level of employment amongst the firms has already grown significantly, from 127 at initial investment to 191, and their forecasts are for a total of 474 in five years' time.
- All firms that are now trading have seen an increase in their turnover since investment. The overall turnover of firms at first investment was £7m, which has now reached £14m and is expected to grow to £228m in five years' time, or £88m excluding one outlier.
- Six of the eight firms currently trading, are already exporting, up from four at initial investment. Given the small indigenous market, this is a key to delivering scalability in Northern Ireland. In five years' time, 10 out of 11 firms expect to be exporting, with eight of the firms forecasting that this will account for the majority of their sales.
- Many firms have attracted additional investment/received further support from other sources alongside, prior to, or since investment from the Funds, including other support from Invest NI.
- The support and advice offered by the Fund Managers is seen by the firms as having provided additional benefits, ranging from improving governance structures and management capabilities, to accessing expertise, positive cultural changes and increased credibility as an investible business.

5. Attribution and Additionality

5.1 In this Section, the gross outputs and outcomes set out in Section 4 are adjusted to assess the attributable and additional difference made to the Northern Ireland economy by the Development Funds.

Attribution

5.2 Attribution refers to the extent to which other public sector support/investment may have led to outcomes being achieved by the investee companies, beyond the Development Fund investment support. Ideally, attribution to the Development Funds would be quantified based on understanding all of the support and investment received by the portfolio firms, and assessing the specific and joint roles played by these various external involvements in the growth of the firms. However, this is complicated, as:

- some of these interventions will be investment-related, others will take the form of business support with varying levels of intensity
- many of the firms concerned have been in existence for years, and in some cases are very different to the firms that had received earlier publicly-backed investment/support
- some firms may expect to receive future publicly-backed investment/support, in helping to realise their growth potential, such as follow-on investments.

5.3 Gathering data on all of the potential support these businesses have received, interpreting this, and then attributing benefits to the Development Funds, would therefore be an inordinately large and complex task, and one that would still not provide a definitive and robust picture. However, it is possible, without quantifying this fully, to use Invest NI monitoring data to gain an indicative understanding of the extent and effect of other support.

5.4 One, relatively simple, method for assessing attribution would be to assume attribution based on the value of different support provided e.g. if 50% of the monetary value of public sector support for a business was from the Development Funds, 50% of benefits for the business would be attributed to the Development Funds. In total, £2.8m of other Invest NI support is known to have been provided for investee firms, based on information from Invest NI's own database, and excluding non-monetary support. With the £7.48m spent by Invest NI through Development Funds, this gives a total Invest NI spend of c.£10.3m on these firms, of which the Development Funds account for 73%. In addition to this support, many of these firms may also have secured funding from elsewhere in the public sector. This includes some public sector assistance channelled through Invest NI, as well as direct support from other public sector bodies: it includes a firm securing co-investment from the CoFund; another obtaining an Innovate UK Knowledge Transfer Partnership; one securing investment through the Enterprise Investment Scheme; and another securing investment from QUBIS. The share of the Development Funds within this wider public funding context is therefore somewhat less than 73%.

5.5 However, it is important to recognise that the purpose of the Development Funds is to provide a step-change in the prospects of businesses. It would therefore be unfair to assume a level of attribution on the basis of just the monetary value of the support. **Having considered the available data with respect to the monetary support provided to businesses, which it is recognised is not complete, and mindful that all businesses stated that the Development Funds contributed at least in part to the beneficial outcomes for their business, we have attributed 80% of benefits to the Development Funds.**

Additionality

Purpose and approach

5.6 Additionality provides an approach to understanding the contribution that the Development Funds have made to the portfolio firms, and from that the net outcomes for Northern Ireland. There are four dimensions to additionality: deadweight, displacement, leakage and substitution. These are taken in turn, to provide some insight into the contribution the Funds are making in terms of broader economic benefit.

Deadweight

5.7 The first element, deadweight, compares the outcomes achieved against what would have been achieved even without intervention (the reference case). This is described in *The Additionality Guide*[14] as follows:

> *"The reference case is the estimate of what level of target outputs/outcomes would be produced if the intervention did not go ahead. It is the 'do nothing' or do minimum option and the outputs/outcomes produced under this option are referred to as deadweight."*

5.8 Both attribution and deadweight consider the relationship between investment from the Development Funds and investment/support from elsewhere, where any has been received. In some instances, attribution can be linked closely to deadweight, but not always, and it is therefore important to consider deadweight separately. Attribution in this evaluation explores the value of Invest NI support alongside that from the Development Funds in delivering benefits. For deadweight, we consider the extent to which firms would still have grown and delivered the economic benefits without support from the Development Funds. Some firms may have secured, or believe that they would have secured, at least some benefits anyway.

5.9 Each of the portfolio firms was asked whether they felt that they would have achieved the same positive outcomes for their business without the Development Funds. Table 5-1 sets out a firm-level assessment of deadweight. This assumes the same deadweight ratio on both jobs and turnover. As with attribution, it is inherently tricky to make assessments of deadweight where we cannot directly measure the reference case. In this instance, this is further complicated by the small number of firms involved in the Development Funds, and the specific nature of the firms as high growth potential businesses. To this end, we have taken firms' own qualitative assessment of deadweight, and then applied one of seven possible ratios to

[14] Homes and Communities Agency (2014) *Additionality Guide Fourth Edition 2014*

quantify this[15]. Of the 11 firms consulted, three are shown to have zero deadweight; none of the firms have high levels of deadweight. Deadweight across the portfolio firms averages at 34%. Note that this is not the same as saying 34% of all *benefits* are deadweight, as the benefits are not equally distributed across the portfolio firms. As such, the 34% represents an unweighted aggregate deadweight factor.

Table 5-1: Deadweight on positive outcomes, by portfolio firm

Firm	Notes on deadweight	Estimated deadweight
Crescent		
A	It would have taken the firm much longer to secure the positive outcomes they achieved, but they may have done so ultimately	Medium – 50%
B	The firm could have continued to build, but it would not have been to the same scale or quality; it would have taken another five years to get to half way to where they are now	Low – 25%
C	None of the beneficial outcomes would have been achieved without Development Fund support, as they would have been unable to secure other finance to achieve the outcomes	Zero – 0%
D	The firm would have continued to grow, but at a lower quality. Banks may have been able to provide the same level of funding as the Development Funds.	Medium – 50%
E	The firm would not exist now without the investment from the Development Fund	Zero – 0%
F	The business would have grown, but at a slower rate, and without the IP they have built up; the firm would be around half the size now	Medium – 50%
Kernel		
G	This firm would have secured the same outcomes if they had been able to secure funding from elsewhere; they report, however, that bank finance, their preferred alternative, would not fund them	Medium – 50%
H	Without investment from the Development Fund, the firm would not have secured beneficial outcomes, and indeed may have gone out of business entirely, due to cashflow requirements at the time of investment	Zero – 0%
I	It is possible that investment could have been secured from elsewhere. However, without investment, the benefits would not have occurred	Medium – 50%
J	The firm would have secured funding from elsewhere, but it would have taken much longer to achieve positive outcomes	Medium – 50%
K	The experience gained from Kernel was an important element contributing to the positive outcomes; as such, even if investment had been obtained from elsewhere, it would have taken a lot longer to secure the same benefits	Medium – 50%

Source: SQW

[15] 0% for zero deadweight; 12.5% for very low deadweight; 25% for low deadweight; 50% for medium deadweight; 75% for high deadweight; 87.5% for very high deadweight; and 100% for full deadweight

Displacement

5.10 Displacement, the second element of additionality is defined in *The Additionality Guide* as the deduction to be made for:

> *"...the number or proportion of intervention outputs accounted for by reduced outputs elsewhere in the target area."*

5.11 In this case, displacement is taken to mean the extent to which the firms would be taking market share away from competitors. All the portfolio firms are developing/commercialising innovative products, with almost all expecting to export their goods. As such, displacement is very low. Just three firms reported any displacement at all, with two reporting high displacement, and one reporting low displacement; in each case, this was due to having some Northern Ireland-based competitors for their market. Conservatively, we estimate a very low level of displacement across the other eight firms. Displacement across the portfolio firms averages at 25%.

Table 5-2: Displacement on positive outcomes

	Estimated displacement
Crescent	
4 firms	Very low – 12.5%
2 firms	High – 75%
Kernel	
4 firms	Very low – 12.5%
1 firm	Low – 25%

Source: SQW

Leakage

5.12 Leakage is defined in *The Additionality Guide* as:

> *"... the number or proportion of outputs (occurring under the reference case and the intervention options) that benefit those outside of the intervention's target area or group* [and] *should be deducted from the gross direct effects."*

5.13 In the context of this intervention, leakage would be the extent to which the Funds are supporting firms based outside Northern Ireland. All 11 portfolio firms are headquartered in Northern Ireland. However, five firms have employees outside Northern Ireland. Table 5-3 shows the assumed leakage levels for positive outcomes, based on responses by the portfolio firms. In reality, the leakage value is likely to vary over time, with varying proportions of employees based outside Northern Ireland at different times. This will be driven by changing markets and economies, as well as factors within the business, and cannot sensibly be forecast at the level of the individual business. It is therefore assumed that the leakage proportion for each remains unchanged from that reported here. Leakage across the portfolio firms averages at 15%.

Table 5-3: Leakage on positive outcomes, by portfolio firm

Firm	Total no. of employees at present	Estimated leakage outside NI
Crescent		
A	44	25%
B	13	25%
C	8	0%
D	8	0%
E	14	0%
F	9	0%
Kernel		
G	20	0%
H	0	0%
I	36	45%
J	35	25%
K	4	40%

Source: SQW

Substitution

5.14 Substitution is defined by *The Additionality Guide* as being where:

> *"… a firm substitutes one activity for a similar one (such as recruiting a jobless person while another employee loses a job) to take advantage of public sector assistance".*

5.15 In the case of the Development Funds, substitution was found to be 0% across all portfolio firms. Each firm was developing a specific product or market proposition, and sought investment to realise the potential of this. None of the businesses substituted this ambition for another that they could have achieved, in order to gain investment.

Overall additionality

5.16 Taking each of the four additionality factors into consideration, we can see the additionality for each firm, and in aggregate across the Funds. Table 5-4 shows the level of additionality across each firm, for both past and future outcomes. Additionality varies considerably by firm, from 13% to 88%. Across the Funds overall, unweighted additionality is calculated at 42% overall, and for both Crescent and Kernel separately.

Table 5-4: Additionality ratios, by portfolio firm

Firm	Estimated additionality ratio
Crescent	***42%***
A	33%
B	49%

Firm	Estimated additionality ratio
C	25%
D	13%
E	88%
F	44%
Kernel	***42%***
G	38%
H	88%
I	24%
J	33%
K	26%

Source: SQW

Summary

5.17 The following table sets out a Summary of this Section, relating to attribution and additionality. In section 6, which follows, we discuss the implications in terms of impact and value for money.

Summary

- Assessing the attribution of benefits to investee firms from Development Funds' activities is complex, given their varied histories and previous support. Some simplifying assumptions have been made in attempting this. Available data from Invest NI show that 73% of the monetary value of support given by Invest NI to the investee firms has been through the Development Funds. Other support has also been provided to at least some of these firms from public sources. Having considered the available data with respect to the monetary support provided to businesses by Invest NI, which it is recognised is not completed, and mindful that all businesses stated that the Development Funds contributed at least in part to the beneficial outcomes for their business, we have attributed 80% of benefits to the Development Funds.
- In terms of additionality, across the four main elements:
  - ➢ The levels of deadweight ranged from no deadweight (three firms), to medium deadweight (seven firms).
  - ➢ Levels of displacement are low, due to the firms developing/commercialising innovative products sold in external markets..
  - ➢ Leakage, based on the number of employees based outside NI for each firm, varied between 0% and 45%.
  - ➢ There was no evidence of substitution for any of the firms.
- The overall additionality ratio, and that for each Fund separately, is calculated at 42%.

6. Impact and Value for Money

6.1 This Section provides an assessment of overall gross and net impact of the Development Funds on the Northern Ireland economy and Value for Money.

Approach to impact assessment

6.2 The monetary impact assessment focuses on the Development Fund's employment impacts. Impact assessment of economic development interventions would normally be focused on GVA impacts. However, as many of the Development Fund investee firms are not profitable at the current stage of their development, the approach taken has been based on employee costs alone, generally a more conservative approach to monetising impacts. It is noted that all investee firms anticipate becoming substantially profitable in the medium term. Although the impact assessment has been based on employment costs alone, actual and forecast turnover among investee firms is also presented in this section for information.

6.3 The analysis which follows uses data from the 11 portfolio firms at the end of September 2016, all of which were consulted for the evaluation. There is inevitable uncertainty regarding the scale of these impacts, as:

- many of the firms have only recently secured investment from the Development Funds
- some firms may secure further investment from the Funds in the future, which may alter impacts, and will alter costs, affecting the assessment of Value for Money
- the nature of the cohort of firms is that all have very ambitious growth plans; this is self-reported, and the performance of other similar funds suggests that it is unlikely that they will all realise their ambitions
- growth beyond 2022 has not been considered, as it is too far into the future to provide meaningful and robust estimates of impact. Nevertheless, positive impacts of the Funds may be realised, beyond this period.

6.4 The impacts set out below are therefore based on applying a series of assumptions, and sensitivity testing. The approach taken is in line with established evaluation guidance and practice, but the results should be seen as indicative, not definitive.

Employment impacts

6.5 The estimated net employment effects of the Development Funds, taking into account additionality and attribution, by portfolio firm, are set out in Table 6-1. Two separate estimates have been calculated, representing low and high scenarios. The low scenario is based on additional employment created since the investee firm's first Development Fund investment. The high scenario, by comparison, also includes the employment of existing employees, on the basis that the Development Fund investment has supported the continued operation of the firms, and hence has both safeguarded as well generated employment impacts.

6.6 The analysis suggests that the current net employment effects of the Development Funds across the portfolio ranges between 17 (low scenario) and 55 jobs (high scenario); between 8 and 32 for the Crescent portfolio, and 10 to 23 in the Kernel portfolio[16]. In estimating anticipated impacts, we have assumed an optimism bias at 20% of growth in jobs, to reflect the potential for participants to over-estimate their business's future performance. Including the anticipated impacts over the next five years in the total, the net employment effect is between 89 and 127 jobs (between 40 and 64 for Crescent firms, and between 49 and 63 for Kernel firms).

6.7 The total number of anticipated gross jobs in the investee firms by year 2022 is almost 500. In the *Economic Appraisal* (2012), the total number of employees at investee firms was estimated to reach 2,000 in 10 years post-investment in each firm. This is a longer period than used in this evaluation, and is also based on the Funds being fully invested, and therefore assumes a higher number of portfolio firms, whilst this analysis considers only the 11 firms currently in the Funds' portfolios. It is therefore difficult to say how well the Funds are performing to date against this estimate, but it indicates the scale of ambition.

Table 6-1: Gross employment outcomes and net employment impacts, by portfolio firm

Firm	Gross employment impact now		Net employment impact now		Gross employment impact to 2022		Net employment impact to 2022	
Crescent								
	High	***Low***	***High***	***Low***	***High***	***Low***	***High***	***Low***
A	44	4	12	1	70	30	17	7
B	13	0	5	0	45	32	15	10
C	8	2	2	0	50	44	8	7
D	8	5	1	1	5	2	1	0
E	14	5	10	4	24	15	15	9
F	9	6	3	2	25	22	8	7
Sub-total	*96*	*22*	*32*	*8*	*219*	*145*	*64*	*40*
Kernel								
	High	***Low***	***High***	***Low***	***High***	***Low***	***High***	***Low***
G	20	5	6	2	65	50	17	12
H	0	0	0	0	20	20	11	11
I	36	25	7	5	55	44	10	8
J	35	13	9	3	80	58	19	13
K	4	-1	1	0	35	30	6	5
Sub-total	*95*	*42*	*23*	*10*	*255*	*202*	*63*	*49*
Total	*191*	*64*	*55*	*17*	*474*	*347*	*127*	*89*

Source: SQW

[16] All numbers rounded to the nearest whole number

Turnover impacts

6.8 The estimated net turnover effects associated with the Development Funds, taking into account additionality and attribution, by portfolio firm, are set out in Table 6-2. Some other adjustments have been made to arrive at these totals, namely:

- an optimism bias adjustment factor has been applied to future increases in turnover, at 20%, to reflect the potential for participants to over-estimate their business's future performance
- self-reported future turnover is assumed to be at 2017 prices.

6.9 We present two scenarios below: a high and low scenario. The low scenario is based on additional turnover growth generated since the investee firm's first Development Fund investment, with anticipated growth from 2017 to 2022 weighted towards the final two years. The high scenario assumes that all turnover is included, on the basis that the Development Fund investment has supported the continued operation of the firms, and hence has both safeguarded as well generated turnover impacts; in this scenario, anticipated growth from 2017 to 2022 considered to be linear[17].

6.10 The analysis suggests that the current net turnover effects of the Development Funds are valued at between £2.3m (low scenario) and £6.3m (high scenario); between £1.6m and £3.4m for the Crescent portfolio, and between £0.6m and £2.9m for the Kernel portfolio. Including the anticipated impact over the next five years in the total, and excluding Firm C as an outlier, the net turnover effect is between £54.1m and £85.0m (between £104.5m and £152.2m including the outlier).

Table 6-2: Gross turnover outcomes and net turnover impacts, by portfolio firm (£m)

Firm	Gross actual turnover from investment to now		Net actual turnover from investment to now		Gross actual and anticipated turnover from investment to 2022		Net actual and anticipated turnover from investment to 2022	
Crescent								
	High	***Low***	***High***	***Low***	***High***	***Low***	***High***	***Low***
A	6.3	1.5	1.7	0.4	40.1	19.1	9.6	4.4
B	0.9	0.2	0.4	0.1	31.9	22.2	10.3	7.1
C[18]	0.0	0.0	0.0	0.0	420.0	315.0	67.2	50.4
D	6.3	5.4	0.6	0.5	42.3	34.7	3.8	3.2
E	0.8	0.8	0.5	0.5	13.8	9.6	8.2	5.8
F	0.7	0.3	0.2	0.1	31.5	23.1	9.0	6.6

[17] It is assumed that there would be no effect on turnover in the same year as initial investment from the Development Funds. As such, we do not include turnover from the year of initial investment from the Development Funds in either scenario.
[18] Anticipated turnover for this firm is very high and is an outlier. However, anticipated employment is not. This is due to the nature of the business (energy generation) which is expecting to achieve very high turnover on very low levels of employment.

Firm	Gross actual turnover from investment to now		Net actual turnover from investment to now		Gross actual and anticipated turnover from investment to 2022		Net actual and anticipated turnover from investment to 2022	
Sub-total	*15.0*	*8.2*	*3.4*	*1.6*	*579.6 (159.6 excl. outlier)*	*423.6 (108.6 excl. outlier)*	*108.2 (41.0 excl. outlier)*	*77.3 (26.9 excl. outlier)*
Kernel								
	High	***Low***	***High***	***Low***	***High***	***Low***	***High***	***Low***
G	1.3	0.4	0.4	0.1	33.9	22.0	8.6	5.4
H	0.0	0.0	0.0	0.0	30.0	22.5	16.8	12.6
I	4.8	2.3	0.9	0.4	42.8	26.5	7.2	4.4
J	5.9	0.3	1.5	0.1	41.9	17.1	9.9	3.6
K	0.0	0.0	0.0	0.0	9.0	6.8	1.5	1.1
Sub-total	*12.0*	*3.0*	*2.9*	*0.6*	*157.6*	*94.7*	*44.0*	*27.2*
Total	26.9	11.2	6.3	2.3	737.2 *(317.2 excl. outlier)*	518.3 *(203.3 excl. outlier)*	152.2 *(85.0 excl. outlier)*	104.5 *(54.1 excl. outlier)*

Source: SQW

Employee cost impacts

6.11 The estimated employee cost impacts are set out in Table 6-3; these are taken as a proxy for GVA impacts for the purposes of this evaluation. This takes into account attribution and additionality, using the same ratios identified in the previous section. It also includes a number of additional assumptions:

- employee costs are calculated by applying the average salary in Northern Ireland for each firm's sector to each of their employees. Salaries for each sector are taken from the Annual Survey of Hours and Earnings. For 2017 to 2022, the 2016 salaries for each sector are used, with an assumption of 1% wage inflation per annum
- on-costs of 15% are added to the salaries, in order to arrive at total employee costs to the portfolio businesses. This ratio is a 'rule of thumb', taken from Scottish Enterprise.

6.12 These impacts are based on the employment impacts covered earlier in this section, and therefore also have the same high and low scenario, and the same application of optimism bias. As with turnover impacts, there is an assumption that employment (and therefore employee cost) growth will be weighted towards the final two years of the period from 2017 to 2022 for the low scenario, and that growth will be linear across all years from 2017 to 2022 for the high scenario[19].

[19] It is assumed that there would be no effect on employee costs in the same year as initial investment from the Development Funds. As such, we do not include employee costs from the year of initial investment from the Development Funds in either scenario.

6.13 This analysis suggests that **net employee cost impacts to date range between £1.1m (low scenario) and £3.8m (high scenario);** net employee cost impacts for the Crescent portfolio range between £0.5m and £2.5m, whilst for the Kernel portfolio they range between £0.6m and £1.3m. The **net impacts up to 2022 range between £10.2m and £21.7m**.

6.14 A validation exercise was completed internally within Invest NI drawing on Key Performance Indicator data for Development Fund companies, which includes data on wages and salaries and profits/losses. The exercise confirmed that wages and salaries values represent a strong proxy for GVA impacts at this stage in the firms' development.

Table 6-3: Gross employee cost outcomes and net employee cost impacts (£k)

Firm	Gross actual employee costs from investment to now		Net actual employee costs from investment to now		Gross actual and anticipated employee costs from investment to 2022		Net actual and anticipated employee costs from investment to 2022	
Crescent								
	High	***Low***	***High***	***Low***	***High***	***Low***	***High***	***Low***
A	3,209	266	842	70	14,777	3,646	3,704	826
B	970	13	382	5	7,261	2,950	2,555	934
C	438	113	88	23	9,953	6,170	1,698	1,014
D	528	280	53	28	1,412	810	146	84
E	1,380	387	966	271	5,770	2,301	3,792	1,478
F	561	340	196	119	4,189	2,931	1,330	924
Sub-total	*7,086*	*1,400*	*2,527*	*516*	*43,362*	*18,808*	*13,225*	*5,261*
Kernel								
	High	***Low***	***High***	***Low***	***High***	***Low***	***High***	***Low***
G	543	140	163	42	7,191	3,789	1,921	960
H	0	0	0	0	1,755	1,316	983	737
I	3,103	1,889	597	364	12,462	8,449	2,298	1,556
J	1,813	660	476	173	11,170	6,066	2,708	1,424
K	109	-26	23	-5	3,321	1,847	585	304
Sub-total	*5,567*	*2,662*	*1,259*	*573*	*35,899*	*21,467*	*8,495*	*4,980*
Total	*12,653*	*4,063*	*3,786*	*1,089*	*79,261*	*40,275*	*21,720*	*10,241*

Source: SQW

Value for Money

6.15 Value for Money (VfM) is a key consideration for evaluation studies, because it establishes the relationship between the inputs made, and the economic returns secured. The evaluation's Terms of Reference required two forms of VfM assessment:

- An assessment of Economy, Efficiency, and Effectiveness for each Fund. Respectively, these are:
  - (i) the extent to which project outcomes have been achieved for the minimum cost input
  - (ii) the costs with which outputs/outcomes (gross and/or net) have been delivered (routinely presented as 'Cost per XX'), and
  - (iii) the extent to which the objectives defined for the intervention at the outset have been realised in practice, and will be sustained in the future.
- Determination of the economic Return on Investment associated with each Fund, clearly identifying actual and anticipated values.

Assessment of Economy, Efficiency, and Effectiveness

Economy

6.16 Economy assesses the extent to which project activity has been delivered at the minimum cost to the public purse. In considering the Economy of the Development Funds over the evaluation period, the following points are relevant.

- A competitive tendering process was undertaken to commission two Fund Managers. This included a scoring mechanism that encouraged bidders to put forward proposals that minimised public sector costs, such as placing upper limits on private sector return and management fees, rather than a set amount, thereby encouraging bidders to present a more advantageous case to Invest NI.
- The scale of the Funds, at £30m each, was seen by many stakeholders as being an appropriate size for the potential deal flow in the market, even if the actual profile of investment has not been as high as expected to date.
- Fees and other non-investment costs have been high to date, compared to the assumptions in the *Economic Appraisal* (2012) for the Funds. The *Economic Appraisal* assumed fees at around 21% of the Fund value. By comparison, fees to date have comprised 28% of Fund spend. This relatively high figure is not surprising, as investments have been lagging, and fees to date will include up-front costs incurred at the set-up stage, such as legal fees. As these fees will not recur on a proportional basis, it can be anticipated that the proportion of the Fund value that is comprised of fees will ultimately fall to closer to the benchmark set out in the *Economic Appraisal*.
- Having two Fund Managers gives Invest NI a good sense on whether either Fund is performing particularly poorly, which could give Invest NI leverage in performance managing the two Fund Managers. That said, having two Funds also means that some fees are incurred twice instead of once, including the legal fees to set up the Fund, as highlighted above.

6.17 In the round, the **Economy of the Development Funds, at this early stage, is judged to be reasonable**. However, this assessment will need to be revisited in future years, once a more complete picture can be given of the Funds' operation.

Efficiency

6.18 Efficiency represents the cost at which net outputs and outcomes are achieved through an intervention. Here we set out cost per net job figures. This uses the following assumptions:

- In terms of costs, as set out earlier in this report, overall spend by the Funds totals £14.74m; overall costs including internal Invest NI spend total £14.85m. Of this:
  - the **full economic cost totals £8.86m**, based on a pro rata apportioning of the spend to date by the Funds across the NI-based investors (Invest NI and private NI-based investors putting in 58% of the total value of the Funds) and non-NI based investors (foreign investors, including 57 Stars and the Bank of Ireland, putting in 42% of total value of the Funds), and including Invest NI internal costs (at c.£110k).
  - **public sector costs (all Invest NI) total £7.48m**, comprising half of the spend of the Funds (£7.37m) plus internal Invest NI costs (c.£110k).
- Jobs impacts based on the high and low scenario presented earlier in this section. These are considered for the period from initial investment to date, and from initial investment to 2022.

6.19 As shown below, the **cost per net job for the Development Funds by 2022, based on public sector costs to date, is estimated at between £59k (high impacts scenario) and £84k (low impacts scenario), and between £70k and £100k when based on full economic costs**. Cost per net jobs to date are considerably higher.

6.20 Any benchmarking of the Development Funds in terms of costs and impacts needs to be mindful of the nature of the interventions (i.e. scale of equity investments available and type of companies invested in), the stage of interventions, the differences in impact assessment methodologies etc., when making any comparisons. We believe that it would not be appropriate to formally benchmark the Development Fund figures against other interventions at this point in time, given the specific circumstances of these Funds, with the very small number of firms involved and given the interim nature of the outcomes and impacts, with the Funds still in their investment phase.. However, for the sake of some comparison, the 2013 evaluation of the Scottish Venture Fund[20] estimated cost per net job (including supply chain jobs) of £87k looking forward to 2016. The 2016 evaluation of Wales's JEREMIE Fund[21] identified cost per net job at £23.5k, although a methodology more in line with the one used in this evaluation (i.e. not taking account of financial returns or supply chain jobs), would suggest a figure of around £90k.

[20] PACEC (2013) *Economic Impact of the of the [sic] Scottish Venture Fund*
[21] Regeneris (2016) *Final Evaluation of the Wales JEREMIE Fund* http://www.financewales.co.uk/pdf/Wales%20JEREMIE%20Evaluation%20-%20Executive%20Summary%20-%20Final.pdf

Table 6-4: Cost per net job outcome, using full economic costs and public sector costs, and high and low scenarios for job outcomes.

	Cost per net job to date (£k)		Cost per net job to 2022 (£k)	
	High scenario impacts	***Low scenario impacts***	***High scenario impacts***	***Low scenario impacts***
Net jobs vs. full economic cost to date	161	519	70	100
Crescent	174	737	87	140
Kernel	143	346	53	67
	High scenario impacts	***Low scenario impacts***	***High scenario impacts***	***Low scenario impacts***
Net jobs vs. public sector cost to date	136	438	59	84
Crescent	131	555	65	106
Kernel	143	346	53	67

Source: SQW

6.21 There are a number of important caveats to these data:

- whilst this calculation uses an accurate depiction of actual spend to the end of September 2016, using these figures could provide an unfair depiction of Efficiency, given that there are large upfront costs in setting up the Funds. As a result of these large upfront costs, fees currently comprise some 28% of all costs; these are expected to fall over the lifetime of the Funds, as more investment activity takes place, as set out under Economy. This will likely reduce the cost per net job, as a greater proportion of funding is accounted for by investment which, hopefully, will deliver additional positive outcomes;
- in addition, some firms are likely to receive additional investment in order to realise their growth. As such, there may be an underestimation of spend;
- there is no consideration of financial returns for the public or private sector in these calculations; returns may emerge later in the intervention;
- it is important to emphasise the indicative nature of the impacts, and the early stage at which this assessment has been undertaken. These numbers should be treated with caution; they will change in future, depending on how the potential of these businesses is, or is not, realised, and as additional firms join the portfolio of investee firms;
- we have not considered growth beyond 2022, as it is too far into the future to provide meaningful and robust estimates of impact. Nevertheless, impacts can be expected over the longer term.

6.22 At this early stage, and with these caveats in mind, the **Funds are shown to achieve reasonable Efficiency**. However, this is a very early assessment; this finding will need to be reaffirmed or otherwise at a later date, with a follow-up assessment.

Effectiveness

6.23 Effectiveness represents the extent to which the stated objectives of an intervention are being achieved through the outputs and outcomes that it is generating. As set out in Section 2, there are two strategic aims and six main objectives for the Funds. Table 6-5 sets out the progress in meeting these objectives to date.

Table 6-5: Progress against aims and objectives for the Development Funds

Aims and objectives	Progress	Comment on performance
Strategic aims		
Strengthen the capability of Northern Ireland to develop and commercialise new technologies and break into growing sectors and markets		Evidence on the extent to which new technologies have truly been commercialised is yet to be fully understood, with some businesses pre-revenue. Nevertheless, the Funds are, for the most part, investing in innovative businesses that are developing unique products and new technologies. The firms are also largely export-driven; investment from the Funds helps firms to grow and therefore access other markets. In addition, the Fund Managers have supported some firms in securing intellectual property and moving innovations forward towards commercialisation, even if full commercialisation has yet to occur.
Address the gap in availability of venture capital in Northern Ireland by providing a continuum of funds and a deal flow chain across seed, early stage and development capital		This appears to be happening to date, with firms supported that would not have secured investment without the Funds. However, the extent to which the Development Funds genuinely work as part of a continuum of funds is questionable; this is explored in further detail in Section 7.
Objectives		
Complete a funding continuum that is easily accessible		The different experience within the Fund Manager teams ensures a wide variety of sectors are able to access funding. Accessibility is ensured by activities undertaken by the Fund Managers to raise the profile of the Funds and develop a pipeline of potential investee firms. However, consultees suggested that more could be done in this regard.
To improve the VC and fund management infrastructure in Northern Ireland		The Development Funds have directly led to Kernel having a Northern Ireland-based team, helping to build up the fund management infrastructure. The continued presence and development of these two teams also supports the diversification of the VC and fund management infrastructure, with some sectors now targeted that may not have received the same attention previously, due to the different foci and experience of the two Fund Managers. Moreover, these Fund Managers have secured new and substantial investment into Northern Ireland from elsewhere, including monies from Bank of Ireland and 57 Stars.
Establish a Development Fund with subordinated public sector and private sector investment making deals in the £450k – £2.0m range (ultimately realised as €1.5m per investment, and up to £3m over multiple investment rounds)		The Development Funds were launched, with both subordinated public sector funding and private sector investment. Not all initial deals to date have been within the £450k to €1.5m deal size. However, the only initial investment to date that was not above the minimum threshold was considered an exceptional case, as reported earlier in this report.

Aims and objectives	Progress	Comment on performance
To successfully launch a fund into the Northern Ireland market by no later than June 2013		The Crescent Fund was successfully launched in June 2013. Kernel was then successfully launched in September 2013. Following launch, both funds have successfully completed second closes and are now fully subscribed.
To appoint an FSA authorised Fund Manager to manage the Fund and manage the Fund and ensure that risk and compliance are effectively managed		This has been achieved to date with two Fund Managers with long track records in providing Funds of this nature. As investment is ongoing, a final assessment on this will be possible only at the end of the Funds' lifespans.
To ensure that the Fund operates in compliance with EU regulatory guidelines, including State Aid guidelines.		As above, this has been achieved to date although investment is ongoing, and it will not be possible to make a final assessment on this for some time.

Source: SQW

6.24 Overall, the findings are positive. However, there are three important caveats:

- As set out in Section 2, most of these objectives are about the set up and delivery of the Funds. As such, progress against these mostly *delivery*-focused objectives does not necessarily tell us that the Funds are being successful in terms of what the Funds are trying to *achieve*.
- Not all the objectives are SMART. The extent of achievement of the first objective in Table 6-5, in terms of how the Funds have strengthened the capability of Northern Ireland to develop and commercialise new technologies and break into growing sectors and markets, could be assessed on the balance of a range of business data and informed views only over a longer timescale. A SMARTer objective would have focused on outcomes that could clearly be attributed to the Funds, as indicators of progress towards what might be seen as the overall purpose and goal.
- Some additional SMART objectives could have been included. For instance, objectives relating to realised investment activity, and the impacts on investee firms directly, would have been useful in understanding what the Funds have achieved.
- It is still early days for the Funds: the assessment here is based on an informed multi-perspective view of the position at this time, but it is inevitably partial.

6.25 Taking progress against aims and objectives to date and these further points together, the evaluation conclusion is an, albeit qualified, **positive assessment regarding the Effectiveness of the Development Funds, to date**. As indicated above, this assessment should be revisited and retested in the future.

Return on Investment

6.26 Finally, in terms of Value for Money, is the consideration of Return on Investment (RoI). This compares costs against net employment cost impacts (both undiscounted[22]). Specifically:

[22] As per client steering group recommendation

- costs are those set out earlier in the section under Efficiency, including both full economic costs and separately public sector costs
- **net employment cost impacts to date for the Development Funds, estimated at between £1.1m (low scenario) and £3.8m (high scenario). Including both achieved and expected employment costs up to 2022, the impacts increase to between £10.2m and £21.7m**. Note that this only includes outcomes attributed to the Funds, and not other interventions, which are factored into the impact figures earlier, through the inclusion of attribution ratios on all impacts (see the previous section for further details on how attribution is treated).

6.27 Positive return on investment figures are identified, for the full impact period to 2022. The **return on investment based on *full economic* costs to date and impacts to 2022 range between 0.9:1 and 2.4:1 for Crescent and 1.5:1 and 2.6:1 for Kernel. Return on investment based on *public sector* costs to date and impacts to 2022 range between 1.3:1 and 3.2:1 for Crescent and 1.5:1 and 2.6:1 for Kernel**[23]. Return on investment figures to date are less positive, with no figures giving return on investment above 0.6:1, and with some calculations giving figures as low as 0.1:1. However, it should be recognised that many of the firms only recently received investment, meaning that there has not been long for impacts to be realised, despite substantial costs incurred.

Table 6-6: Return on Investment (£s per £1) based on full economic costs to Northern Ireland to date and costs to date for Northern Ireland's public sector, against high and low scenarios for employee cost-based impacts

	Return on investment to date		Return on investment to 2022	
Net employee costs vs. full economic cost to NI to date	***High scenario impacts***	***Low scenario impacts***	***High scenario impacts***	***Low scenario impacts***
Crescent	0.5	0.1	2.4	0.9
Kernel	0.4	0.2	2.6	1.5
Net GVA vs. NI public sector cost to date	***High scenario impacts***	***Low scenario impacts***	***High scenario impacts***	***Low scenario impacts***
Crescent	0.6	0.1	3.2	1.3
Kernel	0.4	0.2	2.6	1.5

Source: SQW

6.28 It is important to emphasise several caveats on this assessment:

- the early stage of the assessment means that impacts are estimated, through self-reported outcomes
- whilst the impact figures include medium term forecasts, in reality, impacts are likely to be felt beyond our cut-off of 2022
- there is no consideration of financial returns for the public or private sector in these calculations; returns may emerge later in the intervention

[23] Note that, for Kernel, the numbers remain the same whether taking public sector costs or full economic costs, as all non-Invest NI costs are from investors outside NI.

- likewise, further future investment and support may be required in order to deliver future impacts, which could increase the full economic cost/public sector cost to Northern Ireland
- fees currently comprise a higher proportion of the total costs than is expected over the lifetime of the Funds. Significant costs, including legal fees for setting up the Funds, are incurred early on, but are not recurring fees going forward; as fees decrease as a proportion of total spend as more investment occurs, impacts are likely to result from a higher proportion of the spend, thereby potentially increasing the return on investment.

6.29 These impact figures should be taken as indicative at this stage, with further analysis needed later to verify and update these results.

Summary

6.30 The following table sets out a Summary of this Section, relating to impact and value for money.

Summary

- Figures and conclusions regarding impact and VfM are indicative only at this stage. The reasons for this include the recent nature of the investment, previous/other public sector support, and the likelihood that firms will receive future additional investment.
- The current net additional employment ranges between 17 and 55 jobs – between 8 and 32 for Crescent and 10 and 23 for Kernel. It is forecast that the net employment effect by 2022 will be between 89 and 127 jobs.
- The current net turnover effects are valued at between £2.3m and £6.3m; between £1.6m and £3.4m for the Crescent portfolio, and between £0.6m and £2.9m for the Kernel portfolio. Including the expected impact to 2022 in the total, the net turnover effect is between £54.1m and £85.0m (excluding an outlier).
- On the employment cost basis used in our methodology, the positive net economic contribution to the NI economy to date is estimated to be between £1.1m and £3.8m; between £0.5m and £2.5m, for Crescent's portfolio, and between £0.6m and £1.3m for Kernel's portfolio. By 2022, the net employment cost impact is calculated as having grown to between £10.2m and £21.7m.
- It is too early to provide a fully rounded assessment of VfM. Initial conclusions on VfM are, however, provisionally positive.
  - In the round, the Economy of the Development Funds, at this stage, is judged to be reasonable, with a competitive tendering process, two Fund Managers, and an appropriate scale of funding. Fees have been high to date, given the set-up costs for the Funds; it is expected that fees will comprise a smaller proportion of the costs if fully invested.
  - Taking progress against objectives to date, the evaluation conclusion is a, qualified, positive assessment regarding the Effectiveness of the Development Funds. Importantly, the Funds are intended to have a positive effect on the wider venture capital market in Northern Ireland, and consequently benefits on the wider economy; to some extent, the Funds are currently meeting these objectives.

- Against current public sector costs, cost per net job outcome to 2022 ranges between £59k and £84k. Against current full economic costs, cost per net job outcome to 2022 ranges between £70k and £100k. Costs per net job to date are considerably higher, illustrating the importance of securing anticipated outcomes.

- There is shown to be positive return on investment for employment cost-based impacts to 2022, compared to current costs. Return on investment, based on *full economic* costs to date and impacts to 2022, range between 0.9:1 and 2.4:1 for Crescent and 1.5:1 and 2.6:1 for Kernel. Return on investment based on *public sector* costs to date and impacts to 2022 range between 1.3:1 and 3.2:1 for Crescent and 1.5:1 and 2.6:1 for Kernel.

7. Process Perspectives

7.1 To inform the ongoing delivery of the Development Funds, and any future interventions, and complement what can be learnt from the inevitably incomplete quantitative analysis, this Section considers perspectives on the process used to date in setting up and delivering the Funds, drawing on the evidence from the consultations with partners and stakeholders completed for the evaluation.

7.2 The section is structured around three main themes:

- the original bid criteria and terms
- the 'two-fund model'
- the management and delivery of the Funds.

Bid criteria and terms

7.3 The establishment of publicly-backed venture capital schemes is a complex process, involving the need to balance commercial, legal, and strategic intents, and involving a detailed procurement exercise. External stakeholders believe that this process was generally well-managed by Invest NI, and that the bid terms and criteria used in the procurement were appropriate and effective.

7.4 Four key findings are noted regarding the appropriateness of the bid criteria and terms adopted.

- Drawing on the previous experience of seeking to raise private finance to match public investment in a venture capital scheme that was unsuccessful (as discussed in Section 2), Invest NI required tenderers to supply letters of intent from private partners. This approach put the onus on the prospective fund managers to secure finance – which was a challenge, but one that was achieved. It was regarded by consultees as an important requirement in order to prevent the process being abandoned as in the previous attempt, ensuring that applicants had the private finance committed, and placing the new funds on a sound commercial footing from the outset. This model was seen as good practice from Invest NI.
- Those consulted also believed that the flexibility in the bid terms was helpful in securing interest from prospective applicants, and in driving the applicants to put in bids on the best terms for the public sector. It was noted that the scoring mechanism sought to maximise the value for money of the Funds. That said, only two applicants ultimately submitted bids, with both accepted.
- As discussed earlier in this report, some of the KPIs established for the Funds were not regarded as appropriate, notably in terms of the lack of a build-up period for the development of a pipeline of opportunities in the early years of delivery. However, Invest NI recognised this early, and has worked effectively and flexibly with the Fund Managers, focusing on the overall strategic intent of the Funds and the need to

generate momentum and quality deal-flow. The non-linear nature of the investment flow is an important lesson for Invest NI to take on-board for any future venture capital schemes. As noted in section 4, additional KPIs might usefully indicate the strength of the pipeline, how this has changed over the Fund's lifetime and what might happen in the next period. These could include the numbers of 'serious' enquiries (pursued beyond the first contact), the number of firms at early stage investigation and negotiation, and those where headline terms have been agreed (i.e. prior to due diligence and final agreement).

- Public sector subordination is regarded as an important and necessary mechanism for attracting private investment into Northern Ireland, given the scale of the economy and market, and a limited track record of successful venture capital. Subordination was reported by stakeholders as being a key tool to de-risk investment for private investors, thus helping to attract them into the market. Changes to State Aid rules, in reducing the permitted level of subordination from 50% to 25%, may make it more challenging to establish/close funds in the future, given that the market has yet to fully mature in Northern Ireland.

The 'two-fund model'

7.5 The evaluators were asked to review the appropriateness of the two-fund model adopted for the Funds i.e. the decision to establish two separate funds, each with a total value of £30m, rather than a single fund with this level (or potentially a lower level) of finance. The evaluation tested and assessed whether the practical implementation and operation of the two-fund model has been appropriate, and how this may have impacted (positively or negatively) on the progress and effects of the Funds to date. Feedback from the consultations suggested both advantages and disadvantages to the two-fund model; these are set out in Table 7-1, below.

7.6 The key point for Invest NI was the failed fund launch in 2011, and the potential of a two-fund model to realise the intended overall scale and market presence. One stakeholder stated that having public money in two parallel funds must increase overall costs, drive down potential investment returns, and make it more difficult to secure future private sector involvement in the market. However, we found little or no evidence that the Funds have competed directly for the same business. We therefore accept that the decision to adopt a two-fund model was appropriate: while this financial and procurement model was the direct consequence of the previous unsuccessful launch, it also allowed Invest NI to compare results from different approaches to supply.

Table 7-1: Potential advantages and disadvantages of the two-fund model

Advantages	Disadvantages
• *Competition is generated between the two Funds* – driving-up the quality and appropriateness of support, and helping to generate a sense of momentum and interest in the venture capital market across Northern Ireland • *Breadth of experience and expertise* – with two Fund Managers involved, firms are able to access a broader range of experience (e.g. in terms of sectors, technologies, networks, contacts) than would be the case with a single fund manager • *Complementary offers have been possible* – with the two Funds generally targeting different kinds of businesses (e.g. by sector and level of market readiness), due to the different expertise across the two teams. This means that some firms that may not have received investment from one of the Fund Managers may be able to do so from the other • *Performance and risk management for Invest NI* – with two funds, the risk of public investment is reduced as Invest NI is not reliant on success of a single provider; having two funds also has the potential to increase Invest NI's leverage over the Fund Managers • *Increasing the pool of venture capital expertise in Northern Ireland* – the two-fund model meant that it was possible for the Funds to support the development/continuation of two indigenous venture capital teams. In practice, this included Kernel setting up a team in Northern Ireland. This is important in building up the venture capital infrastructure of Northern Ireland	• *Dilution of market clarity* – two funds may have led to a level of uncertainty in the market, particularly given the absence of a clear articulation of the respective sector/market focus of the Funds • *Lower profile for the Funds* – having two smaller funds means that, individually, the two Funds have a lower profile across the market than might have been the case with one larger fund • *Potential for competition to reduce public sector value for money* – competition over the terms of investment, where potential investee firms attempt to play one Fund Manager off against the other to secure better terms, would not necessarily be a good thing as a reduced return to Fund Managers could reduce private sector interest in the potential for similar funds in the future • *Reduced clarity in the escalator of support* – linked to the above, with two funds, the path-way from earlier stage investments to venture capital is less streamlined, leading to a need for providers at earlier stages to engage with two fund managers and uncertainty over the most appropriate route for potential investee firms • *Duplication of management costs* – with two funds, the management costs associated with investment activity are increased, meaning a lower level of finance is available for investment than would potentially have been the case with one manager

Source: Fund Manager and stakeholder consultations

7.7 For the Development Funds to date, the two-fund model has delivered the following benefits.

- It has proven helpful in developing the overall capacity and depth of venture capital in Northern Ireland, which over the long-term will be important in developing a sustainable and mature market. A common theme in the consultations with partners and stakeholders was that whilst two funds operating in parallel both funded by Invest NI may pose some challenges in the short-term, in the long-run having more organisations involved in the venture capital market is in itself a 'good thing'. In this context, the presence of Kernel was regarded as important, bringing 'new blood' to the venture capital market in Northern Ireland, alongside the established and recognised Crescent Capital. Moreover, bringing Kernel into Northern Ireland also helped to bring more funding into the market from elsewhere, with the Bank of Ireland investing into their Fund alongside Invest NI.

- Having two Fund Managers has led to a wider set of expertise and experience for firms to choose from, and allows them to seek the 'best fit' between the Fund Manager and their firm.

- Fears around competition limiting the value for money of the Funds do not appear to have been realised. Consultations with the Fund Managers reveal that the Funds tend to consider different types of businesses, based on the specific experience and expertise in their own teams. Half of the money in the Funds is from private investors, who are looking for a return based on evident value: in the small number of cases where firms went to both Fund Managers, looking for the best possible terms, we found no evidence of a 'race to the bottom' to beat the other Fund Manager's offer.

7.8 That said, we see this as appropriate specifically for the context in which the Development Funds have been operating. Care is needed to ensure that this model does not lead to a lack of profile around the Funds, or add confusion to navigating the ecosystem on the demand-side (i.e. for firms seeking investment). This requires robust marketing and clear communications.

Management of the Funds

7.9 The evaluation findings on the delivery and management of the Funds are largely positive. There were two key messages from the partners and stakeholders:

- Although operating different methods (see Section 3), Crescent and Kernel were each regarded by those with some knowledge of their operations to be well-managed, and to operate in line with the expectations and practices of fund managers elsewhere. Given the substantial track-record of both Crescent and Kernel as fund managers (the former in Northern Ireland, and the latter in the Republic of Ireland) this is not unexpected, but it is important.

- The level of administration associated with the Funds was not regarded as inappropriate or problematic; whilst the inclusion of public funding in the investment mix naturally has led to monitoring/reporting requirements that would not be evident for private-sector only funds, this did not appear to have led to any adverse impacts on investment levels or support.

7.10 However, two issues were also highlighted where, while there was some divergence of views, we believe that more might have been done on the positioning and visibility of the Funds.

- First, although there are examples of the Funds engaging with other elements of the 'funding escalator', this appears to have been largely opportunistic rather than systematic. The Funds have relatively low visibility to other elements of the wider ecosystem: they invest into a very small number of firms, and provide a level of funding that would be far above that being sought by many SMEs. Their approach is inevitably more highly focused than other funding and advisory support, and the benefits from closer links to other activities will be less evident to their Managers. That said, the Funds should be actively engaged with some relevant elements of the wider ecosystem, notably with other business advisers working with firms in their target areas, and with university spin-out/commercialisation activities. Regarding the latter, stakeholders remarked that interactions with the Funds have been more limited than expected, given the potential for these earlier-stage interventions to lead into next stage demand for venture capital.

- Second, and related to this, some business and corporate finance advisors and Invest NI's client executives, commented that more could have (and should have) been done to raise the awareness of the Funds across the wider investment and businesses support community, and the enterprise base itself, to generate an increased pipeline of opportunities. It was recognised that there was no 'easy fix' here, and the call was not for promotion for its own sake. Given the challenges to date in generating a deal-flow to meet the target of 20 investments per Fund, we conclude that more needs to be done by both the Fund Managers and Invest NI to ensure that the business and advisor community is aware of the finance available from the Funds, and any successor funds, helping to generate interest and stimulate deal-flow.

Summary of Process Perspectives

- The bid criteria and terms were appropriate and effective. The approach taken meant that the Funds were set up on a sound footing from the outset and there was an emphasis on maximising the impact of the Funds. However, some of the KPIs were not appropriate, notably that for 'straight line' investment deal activity from the outset: this has already been recognised by Invest NI. We believe that a wider set of KPIs could be adopted in future to improve understanding on progress and any emerging issues.
- The two-fund model brings both advantages and disadvantages, but we conclude that it has worked well here. Key benefits include the increased diversity in the venture capital market, through bringing a new team into the market (Kernel) with funders new to Northern Ireland, and through creating a wider breadth of experience and expertise to meet the known and latent needs of potential investees. Potential problems resulting from competition between the two Fund Managers did not materialise due to their differing focus, and unwillingness to partake in damaging competition for the same business. However, care is needed to ensure that the two-fund model does not lead to a lack of profile for VC activity, or confuse firms seeking to navigate the ecosystem and identify the funding solution which will best meet their needs.
- Findings on delivery and management are also largely positive: the Fund Managers' professional knowledge is widely recognised, and the Development Funds operated on a similar basis to other venture funds. Areas for improvement include a need to strengthen the relationship with other elements of the 'funding escalator' and improving the level of awareness of the Funds within the wider investment and businesses support community, and the enterprise base.

8. Lessons from Elsewhere

8.1 This Section explores what organisations with similar responsibilities elsewhere have done and/or are doing to grow the market for 'early stage and growth' venture capital in their areas. The findings from their experience are used to inform the evaluation of the Development Funds, and point to potential lessons for the future. Three comparator organisations were reviewed: Enterprise Ireland, Finance Wales, and the Scottish Investment Bank.

Enterprise Ireland

The role of Enterprise Ireland

8.2 In the early 1990s, Ireland's early stage and growth finance market was very different to its present landscape[24]. There was no business angel networks on the island, and there was a clear funding gap for start-ups. Ireland struggled at both ends of the finance market – the pipeline quality was poor and there was very little funding of venture capital funds.

8.3 This began to change in the 1990s, as a flow of investment opportunities, primarily in the indigenous computer software sector, heralded the "Celtic Tiger" era[25]. Enterprise Ireland, an independent agency of the Department of Jobs, Enterprise and Innovation, was set up with a mission to help the development and growth of Irish enterprises in world markets, building on the work of predecessor organisations. Carrying out a similar role to that of Invest NI, Enterprise Ireland works to help Irish entrepreneurs to start businesses, and supports businesses to grow, innovate and win export sales in global markets.

8.4 As elsewhere, provision of finance is generally available for firms at the larger deal size, from about €5m upwards. However, funding for firms at values below €5m remains more difficult to secure. Enterprise Ireland operates across a variety of funding mechanisms, some equity finance, but others debt or mezzanine: the aim is to offer funding appropriate to each firm, recognising that equity finance is suitable only for some firms, and at some stages of their development, and there is a need to ensure robust levels of return to build an effective financial system. On equity finance, Enterprise Ireland has pursued the *pari passu* model since the emergence of Ireland's venture capital market, and undertakes both direct and indirect investments:

- Direct investments are undertaken alongside private sector investment, with Enterprise Ireland monies never comprising more than half of the deal size. As Enterprise Ireland staff are not investors by trade, the due diligence in each deal is carried out by the other investors.
- Indirect investment is also undertaken alongside, through the private sector. Since 1994, Enterprise Ireland has invested some €600m into venture funds, leveraging €900m of other investment, to bring investment to €1.5bn overall. These venture funds are operated by commercial fund managers. There are 13 venture capital funds

[24] SQW (2015) *The Future of Early Stage and Growth Finance in Northern Ireland*
[25] Bary, F., O'Mahony, C., Sax, Beata (2012) *Venture Capital in Ireland in Comparative Perspective*. Irish Journal of Management 32, pp1-27

in total that are currently investing, with €685m under management, and three development capital funds, with €490m under management. The private sector leverage on this funding is typically higher than for the direct investments.

8.5 The scale of investment is set within programme periods; in 2007 to 2012, and then again in 2013 to 2018, Enterprise Ireland has had €175m to invest.

8.6 As with Invest NI, Enterprise Ireland also offers a wide range of other business support. The agency is currently working with about 3,500 firms.

Outcomes and impacts

8.7 No impact evaluations are publicly available on Enterprise Ireland's venture capital investments. Assessing the scale and nature of the contribution from Enterprise Ireland's activities is therefore not possible. However, the overall VC market, in which Enterprise Ireland is recognised as a major player and innovator, is now both substantial and diverse:

- A 2015 review of finance for SMEs across the island of Ireland[26] described the Irish venture capital industry as "vibrant" and pointed out that there has been "significant and sustained" support from the Irish Government.
- A critical mass of activity and expertise has been reached in the venture capital market; this is seen as essential to sustaining a professional cost structure and to allow sufficient diversification to spread portfolio risk. This has been achieved through long term, and substantial, public sector investment into entrepreneurial structures and support, including through accelerator schemes and growth finance interventions, creating both supply of, and demand for, equity finance.
- This is not to say that a perfect market exists. The current pipeline of firms for the venture capital funds is smaller than those involved believe to be desirable or possible. This is attributed to firms facing issues in accessing funding at smaller sizes, disrupting their progress through the funding escalator towards venture funding. Moreover, whilst the level of angel investment has risen in recent years, it is recognised that further improvements could be made[27].

Lessons and process perspectives

8.8 As a jurisdiction that has developed its publicly-backed venture capital capabilities over a number of decades, and as one that is widely seen as having done so successfully, there are a number of useful lessons and perspectives to be taken from the experience of Enterprise Ireland. The following lessons and perspectives were put forward in previous research, but also through consultation with Enterprise Ireland for this evaluation:

- Key drivers of change in Ireland's finance landscape were the establishment of Seed Funds by Enterprise Ireland from 2007 onwards, and a broader growth in entrepreneurial activity, that was in part a reaction to the economic crisis. Northern Ireland is more reliant on the public sector as a source of employment and investment

[26] InterTradeIreland (2013) *Access to Finance for Growth for SMEs on the Island of Ireland*
[27] SQW (2015) *The Future of Early Stage and Growth Finance in Northern Ireland*

than the Republic of Ireland. A strong private sector is crucial in developing a pipeline of investment propositions at seed and early stage. But there is also substantial government support for business sector R&D and innovative start-up firms in the Republic, further driving demand[28]. In addition, the nature of FDI is different, with the focus on knowledge/R&D focused activity, while in Northern Ireland it has tended to be on more traditional production sectors and 'back-office' functions.

- Stimulating the demand for equity finance has been key to developing the venture capital market in Ireland. This was achieved in part through the development of incubators and accelerators programmes that helped to develop a pipeline of young knowledge/technology based firms seeking investment at both seed and early stage. In addition, the emergence of Ireland as a location for knowledge/technology multinationals has also been important in developing the broader knowledge economy and as a source of spin-outs and start-ups. In this context, Ireland's total venture capital investments in seed and start-up companies as a proportion of GDP was the third highest in the EU in 2012, behind only Hungary and Estonia[29].

- Direct interaction between Enterprise Ireland and the firms the agency works with is seen as integral to keeping Enterprise Ireland's staff commercially/business-minded, ensuring that Enterprise Ireland understands the needs of the business base.

- All Enterprise Ireland funds are designed using Enterprise Ireland's own internal growth capital department, which has built a substantial internal expertise on designing and establishing funds; over the past 20 years, the unit has set up around 40 funds and negotiated the legal agreements around these.

- Enterprise Ireland has also benefited from a stable investment team, which means that staff within the team know what other teams in Enterprise Ireland do, and how their work fits in to the wider support ecosystem. Understanding this internally means that the team have intelligence on the types of firms in the pipeline for funds from an early stage. Moreover, the long-term retention of staff also means that the team has learnt from previous funds, and is very experienced with the stock of 3,500 companies that Enterprise Ireland work with; staff sit on the Advisory Boards for all of Enterprise Ireland's funds, so are '*plugged into the ecosystem*'.

- Operating on a *pari passu* basis makes funds easier to set up. This model has also been pivotal to its success in developing a strong private sector venture capital market, and in providing value for money to the taxpayer. The interventions are now less susceptible to political change, that could otherwise affect the quality and consistency of provision.

- The private sector fund managers delivering the funds focus on bringing value to companies from their own specific areas of expertise, including both generic business practices and sector knowledge. The fund managers clear focus on business growth, and hence on increasing commercial returns, is seen as fundamental to the model's success: the balance with the wider economic impact, which Enterprise Ireland looks

[28] Over the period 1995- 2006 the share of government investment in R&D fell in both the EU and the OECD but it rose in Ireland (Barry et al. 2012)
[29] SQW research for the European Commission (2013)

for, is expected to be achieved through fund design. Whilst Enterprise Ireland's investment team are experienced, this is within a generalist skillset, not through the investor mindset of the fund managers.

- Enterprise Ireland now has a long track record of working with private investors, on numerous successful funds. This track record has evidently attracted private investors, while also enabling Enterprise Ireland, which is well established within the access to finance ecosystem, to continue to play a key role.
- Experience from previous funds suggest that the best performing funds are often sector-specific, particularly around life sciences. However, this requires a critical mass in particular sectors in order to work, and it would be a larger challenge in Northern Ireland, with its smaller business base.
- Private sector leverage is very high on some funds; on one, Enterprise Ireland's monies comprise just 8% of the total. However, involvement in such funds is important for Enterprise Ireland in building a track record, whilst minimising input into any given fund, allowing more funds to be supported. The large portfolio of firms that Enterprise Ireland works with throughout their development is an attraction for other investors, as agency staff can help identify possible investees, as well as the established position that Enterprise Ireland has taken within the market.
- Research from 2015 refers to the challenge in securing follow-on finance, suggesting there is a continued need for government support of seed and early stage finance.
- Evaluation is seen as a challenge in the area of fund set-up/creation, owing to the time-lag before lessons and impact can be truly learnt.

Finance Wales

The role of Finance Wales

8.9 Wales faces many of the same challenges to Northern Ireland in terms of provision of finance for SMEs. As with Northern Ireland, bank finance has been more difficult to access since the recession; alternative sources of finance including equity investment have not tended to be utilised by Wales's businesses, and the supply of private sector equity finance is limited[30] [31]. There is also a belief that London-based venture capitalists are reluctant to come to Wales to seek deals. In this context, Finance Wales was set up in 2001 by the then Welsh Assembly, to improve access to capital and deal flow through the provision of funds and services for Welsh businesses.

8.10 Within the Finance Wales Group, which remains a subsidiary of Welsh Government, Finance Wales and FW Capital are fund managers, and xénos is a business angel network. FW Capital operates outside of Wales, and currently manages five funds in the North West and North East of England.

[30] Jones-Evans, D. (2013) *Access to Finance Review: Stage 1 Report*
[31] Regeneris (2016) *Final Evaluation of the Wales JEREMIE Fund* http://www.financewales.co.uk/pdf/Wales%20JEREMIE%20Evaluation%20-%20Executive%20Summary%20-%20Final.pdf

8.11 Finance Wales manages and delivers its own Funds, and is currently managing 11 funds, including 10 for businesses, investing between £1k and £3m, and offering debt, mezzanine and equity investments. These schemes are set out in Table 8-1. Overall, Finance Wales currently has over £900m of funding under its management, just under £500m of which is for businesses, with the remainder being Wales's Help to Buy scheme for home ownership.

Table 8-1: Finance Wales Funds

Funds	Fund size	Funders	Status
Wales SME Investment Fund	£40m	Welsh Government, Barclays	Investing
Wales Micro-business Loan Fund	£12m	Welsh Government	Investing
Wales Property Development Fund	£10m	Welsh Government	Investing
Wales Capital Growth Fund	£25m	Welsh Government	Investing
Wales Technology Seed Fund	£7.5m	Welsh Government	Investing
Wales Management Succession Fund	£25m	Welsh Government	Investing
Wales Technology Venture Investment Fund	£10m	Welsh Government	Investing
Wales Life Sciences Investment Fund	£50m	Welsh Government	Investing
Help to Buy Wales	£454m	Welsh Government	Investing
Wales Business Fund	£136m	ERDF, Welsh Government	Investing
Wales JEREMIE Fund	£157.5m	EIB, ERDF, Welsh Government	Fully invested

Source: Finance Wales[32]

8.12 Just one of these Funds has already fully invested: the Wales JEREMIE Fund, the first fund of its type launched anywhere in the European Union. This fund provided a mix of finance, with £59m in loans and microloans, £58m in risk capital, and £40m in early stage ventures. A total of £202m of co-investment was made alongside JEREMIE. As such, this is an intervention that is of a much larger scale, and scope, than the Development Funds, more akin to the Invest NI funding escalator overall.

8.13 Of the 11 funds, the closest comparator to the Development Funds is the Wales Business Fund. This is a fund for early stage technology and growth businesses, with funding in the order of £50k to £2m in the first round of funding, and up to £5m over multiple rounds. The fund is a mix of debt and equity funding. The management of the Wales Business Fund was put out to tender, with Finance Wales's bid successful. The fund was launched in September 2016, following the end of the investment period of the JEREMIE Fund (September 2015).

8.14 The Wales Technology Seed Fund provides a pipeline of firms for the fund, offering £50k to £150k of equity funding for very early stage firms. This fund was launched whilst the JEREMIE Fund was still investing. At that time, the JEREMIE Fund left a gap in the market at this very low level of funding: the Technology Seed Fund was launched to fill this gap.

Outcomes and impacts

8.15 As noted earlier, the Wales JEREMIE Fund is the only fund under Finance Wales's management that has currently been entirely invested. It is also the only fund for which any evaluation activity has been undertaken, but as also noted above, it is far from an exact parallel to the

[32] http://www.financewales.co.uk/performance--impact/funds-we-manage.aspx

Development Funds. The 2016 evaluation of the JEREMIE Fund nevertheless produced some relevant findings on outcomes and impacts resulting from these activities[33].

- Through the provision of a substantial amount of equity finance, the JEREMIE Fund has helped to stimulate demand for equity, through a market-making role.
- The Fund is expected to make a financial return, for reinvestment in SMEs, of £76m. This is driven by a small number of firms, a common feature of most small business support, and in particular of venture capital funds; five companies account for over 55% of total equity realisation projections.
- The evaluation noted that having an anchor investors, backed by the public sector, has an important catalytic effect in drawing in investment from private sector funds that would otherwise have been unlikely to be attracted away from the main areas of concentration of equity finance in the UK (the Golden Triangle and Manchester).
- Against an investment of £158m, between 2009 and 2015, the JEREMIE Fund is expected to deliver net GVA impacts of £205m, and 1,740 direct jobs (rising to 3,520 jobs with supply chain multipliers included). Cost per net additional job is reported as being £23.5k. It is noted that this figure is based on taking account for financial returns to the public sector (which reduces the public sector costs) and also supply chain jobs
- The Fund was reported to have benefited from a flexible design and ability to invest across all eligible sectors.
- Follow-on investments were found to be crucial in supporting early stage SMEs; the JEREMIE funds in the northern England lacked this possibility in non-assisted areas.
- Finance Wales was reported to have underestimated the long term nature of the investments, particularly for firms in the medical technologies sector.
- There was some referral activity between Finance Wales and Business Wales (launched in 2013), a Welsh Government-led service providing support in finance, marketing, skills and training, innovation, starting businesses, business planning and IT. Finance Wales has invested resource into strengthening of the relationship between the two. Although there is now thought to be a reasonably good common understanding of what each organisation offers, there is still scope to improve this. The evaluation suggested formal mechanisms to encourage referrals between the two, including the regular monitoring of KPIs, and Finance Wales representation on Business Wales' operational group.

Lessons and process perspectives

8.16 Finance Wales was consulted directly for this evaluation, to understand their perspective on the current position in developing the venture capital market in Wales, including achievements and constraints. Key points were as follows:

[33] Regeneris (2016) *Final Evaluation of the Wales JEREMIE Fund* http://www.financewales.co.uk/pdf/Wales%20JEREMIE%20Evaluation%20-%20Executive%20Summary%20-%20Final.pdf

- Flexibility on the type of funding is a useful tool for Finance Wales. Gaps in the access to finance market change over time; having the option of debt, mezzanine and equity funding is useful, allowing Finance Wales to change its emphasis according to supply and demand within the funds.

- Wales has been fairly successful at encouraging firms to relocate to Wales, through its 'wrap-around' support, and good grant regime. This wrap-around support includes support through Business Wales. There is intended to be an escalator of support, through the various support services provided through Business Wales and through the funds managed by Finance Wales. The extent to which this works in practice is unproven, as no studies have been undertaken to explore this. Common management through Finance Wales enables the potential for cross-referral, but the range of support services targeting businesses at different stages means that the support ecosystem can be difficult for businesses to understand and negotiate.

- Experience with the JEREMIE Fund led to Finance Wales adjusting its expectations on the timeframe for returns. Initially the JEREMIE Fund was intended to invest for five years, with realisation over the following five years, for a 10 year lifecycle in total. This was later revised to 6.5 years for investment and five years for realisation. A longer timeframe was built into the Wales Business Fund from the start, with a seven year investment period and five years' realisation.

- This change in timeframe has been driven by market demand, and risk profile; there may be deals that could be done in a shorter timeframe, that are too risky. Market demand should, in part, be stimulated by the funds, and the extent to which the funds succeed in moving firms away from debt as the only option for investment. Demand is also driven by the extent to which the wider ecosystem is providing the 'right' potential deals e.g. whether good businesses are coming through the universities in Wales, incubators, and from inward investment, and the extent to which entrepreneurship is successfully encouraged.

- The Wales Business Fund is strictly limited to Wales, due to funding from the EU and Welsh Government. This presents challenges, in that private funds would not be limited to specific geographies in the same way, and would therefore be able to build a strong portfolio across a large area if necessary.

- The Wales Business Fund operates on a co-investment basis. There are no private funders at the fund level; as such, each investment must have a co-investment partner to match the Finance Wales contribution. Operating at the level of individual deals presents a challenge, as co-investment must be sought for every single investment, rather than once, prior to the launch of the fund. This is a different model to that used in JEREMIE. The change was necessitated by the accounting arrangements of Finance Wales 's interaction with Welsh Government departments: a fund-level deal, with all of Finance Wales's investment committed at the outset, would not work.

- Whilst the need to bring in co-investment at the deal level is a challenge for the Wales Business Fund and Wales Technology Seed Fund, it does help to broaden the co-investment base within Wales, which is seen as a useful outcome.

- The evaluation of the Wales JEREMIE Fund suggested that more regular research into the Welsh loan and venture capital finance markets should be undertaken, to inform Finance Wales's investment strategy and the development of further interventions; a model similar to Scotland, with research on the SME finance market undertaken every two years, was recommended.

Scottish Investment Bank

The role of the Scottish Investment Bank

8.17 Scotland benefits from a relatively strong angel investor network, with over 20 business angel groups[34], typically operating in the £100k to £2m deal size. Moreover, Scotland performs relatively well in driving the pipeline of potential firms for investment, through university spin-outs and through incubators, including CodeBase, the UK's largest start-up incubator, based in Edinburgh. The result of this is evident in Scotland's profile in the UK's equity investment market, with Scotland having 6.3% of the UK's firms, 6.4% of its high growth firms, and 6.1% of its equity investments; the only other area of the UK outside the South East that 'pulls its weight' in this regard is the North East.

8.18 Moreover, the latest review of the risk capital market in Scotland[35] shows a surge in investment activity between 2011 and 2014, with investment rising from £90m in 2011, to £244m in 2014, levels not seen since the dot.com boom, although this does include investment at much higher deal sizes than those where the public sector intervenes.

8.19 As such, Scotland has an ecosystem that, in terms of both supply and demand for equity finance, is relatively well developed compared to other areas of the UK outside the South East.

8.20 That said, Scotland does suffer from the same equity gap for SMEs seen elsewhere in the UK at the smaller deal sizes. This is attributed to a lack of knowledge amongst investors as to the supply of viable businesses to invest into, and the high costs of due diligence, perception of risk, and lower returns which all limit supply; also, an aversion to equity which limits demand.

8.21 In this context, the Scottish Investment Bank was established in 2010, as the investment arm of Scottish Enterprise, Scotland's main economic development agency, with the aim of increasing the supply of growth finance, and helping SMEs with growth and export potential to access this. Scottish Enterprise had developed a suite of co-investment funds, from the mid-2000s onwards.

8.22 The Scottish Investment Bank operates as a commercial operator in the market, on the same terms as private investors. Subordination has never been used by the Scottish Investment Bank. Indeed, the model has been for investors to come to the Scottish Investment Bank to invest alongside their own funding, rather than vice versa, in a similar model to that of Enterprise Ireland's. As such, State Aid is not an issue for the Bank in investing in businesses. The Scottish Investment Bank seeks returns, and is a long-term investor, looking to exit seven to ten years after initial investment.

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[34] Young Company Finance (2015) *The Risk Capital Market in Scotland 2014*
[35] ibid.

8.23 As part of its offer, The Scottish Investment Bank has two investment funds aimed at start-up, early stage and expanding businesses across all sectors, that cover a similar segment of the market to the Development Funds:

- The Scottish Co-investment Fund (SCF), now in its third iteration, although essentially a revolving fund, with no determined investment and realisation phases. The Fund offers equity only, investing between £10k and £1.5m per deal. It operates through private investors, registered with the Scottish Investment Bank as accredited investment partners, coming to the Bank with an investment proposition. Having already undertaken due diligence on the investor prior to accreditation, this model means that the Scottish Investment Bank does not undertake due diligence on each investment, trusting that the investors have market credibility and would not be investing their own monies without having undertaken their own due diligence.

- The Scottish Venture Fund (SVF), also essentially a third iteration and revolving fund (combining the then Scottish Venture Fund, the Scottish Portfolio Fund, and the Scottish Seed Fund), investing between £10k and £2m. The SVF is primarily an equity fund, but other investment options can be explored. In the case of SVF, the Scottish Investment Bank undertakes its own due diligence prior to investment.

8.24 Both the SCF and SVF operate on a co-investment basis, whereby private investors come alongside each investment by the Scottish Investment Bank, with deal sizes between £20k and £10m overall, and a maximum of 50% Scottish Investment Bank funding in each deal. Scottish Investment Bank funding is invested on a *pari passu* basis for both funds, i.e. on the same terms as its investment partners. In total, the Scottish Investment Bank is expecting to have invested around £34m in 2016/17, across these two funds; £28m was invested in 2015/16, and £25m in 2014/15.

8.25 Once investment is agreed, the Bank's Portfolio team works alongside investee firms' management teams on an ongoing basis to help shape their strategy and maximise the outcomes of the investment for the company, the investors and the Scottish economy. Further investments of up to £2m in each firm annually are possible through direct investment, outwith the funds, although it is not clear the extent to which this is done.

Outcomes and impacts

8.26 An evaluation was undertaken on the previous Scottish Venture Fund, in 2013[36]. This is the most recent relevant evaluation of a Scottish Investment Bank intervention, prior to the reorganisation of the Fund to include the Scottish Seed Fund. The following impacts were identified:

- The operation of the Fund was reported to have improved the scale and quality of commercial venture funding opportunities across Scotland. Around 40% of investors would not have invested alongside the Fund without Scottish Investment Bank's investment, whilst a further third would have only invested part of what they ultimately invested. The Fund, therefore successfully leveraged private sector investment.

[36] PACEC (2013) *Economic Impact of the of the [sic] Scottish Venture Fund*

- Many investee firms had also used wider Scottish Enterprise business support, including account managers (similar to Invest NI's client executives), with the evaluation citing positive interdependencies between the SVF and other public sector funds and business support, which are reported to underpin and add to the benefits for supported businesses. This is also reported to help strengthen the network of support in Scotland, and link together key players (including businesses, investors, advisers in higher education and the private sector, and Scottish Enterprise), to develop a positive ecosystem for innovation. Nevertheless, it was reported that this relationship could be strengthened.

- Similarly to the Development Funds, investee firms identified the complementary nature of the wider support provided in relation to the investments, in addition to the funding itself, including investors being represented on company boards.

- The evaluation highlights the positive impacts the Fund has had on businesses, including: increased innovation and R&D; increased productivity; and increased employment. The Fund invested £39.9m between 2007 and 2011, and levered in a further £91.2m of investment (primarily from business angels and venture capitalists). From this investment, it was expected to deliver 580 net new jobs by 2016 (three years after the evaluation), corresponding to a cost per net job (including supply chain jobs) of £87k by 2016 (2011 prices), and a GVA impact of £92m over the same time period.

Lessons and process perspectives

8.27 As part of the evaluation of the Development Funds, we consulted with the Scottish Investment Bank, to understand their perspective on developing the venture capital market in Scotland. The following points were raised, alongside those highlighted from the SIB evaluations:

- Managing funds directly has both benefits and disadvantages. It is beneficial to the Scottish Investment Bank in ensuring that a focus on driving economic impacts through investments is retained, primarily centred on delivering GVA impacts, whereas a private fund manager may be focused solely on commercial returns. However, this does make for a resource-intensive set-up, with the Scottish Investment Bank having to work with a current portfolio of some 280 firms across its various funds.

- The Scottish Venture Fund was combined with the Scottish Portfolio Fund and the Scottish Seed Fund in order to create a more streamlined access to finance escalator that is easier to navigate for businesses. The need for this stemmed from the way in which firms progressed through the funding escalator. For the Scottish Seed Fund, firms typically were being funded by family or friends, and so Scottish Investment Bank's role was often hands-on, with the Bank involved in investment decisions. With the Scottish Co-investment Fund, the funders were then accredited investment partners, with the Bank taking a hand-off approach. With the Scottish Venture Fund, the investment decision was once again taken by the Bank. This created a complicated process to navigate, hindering businesses from working through the escalator of support.

- The Scottish Investment Bank enables investors to contribute to larger deals than would have been otherwise possible for them, or allows them to invest in more firms, by spreading their investment, and risk, over a larger number of businesses.
- The flexible nature of the SVF, with options other than equity funding available, ensures that the most appropriate solution is provided for each company's circumstances.
- Having the option of direct investment outwith the funds, of up to £2m per year, gives the Scottish Investment Bank the ability to continue supporting firms beyond their initial requirements, ensuring that firms remain able to access support, and thus optimise the positive economic impact for Scotland.
- The funds operate on an ongoing basis, rather than having fixed investment and realisation periods. This means that funding for the funds is reviewed on an annual basis, with no certainty of funding beyond the current year, although this has not been an issue to date, with additional funding provided each year since 2003.
- The long term nature of equity investments make it challenging to see, and evidence, the impacts of the Bank's interventions. The 2013 evaluation of the Scottish Venture Fund called for regular monitoring of impacts, every few years, to assess the implications of the fund's activity for policy, and ultimate cost effectiveness. In this context, Scottish Enterprise has commissioned research on a regular basis, since 2003, to identify investment activity in Scotland, including an estimation of the total flow of risk capital investment into early stage Scottish firms. This allows Scottish Enterprise to understand the impact that its early stage equity interventions, through the Scottish Investment Bank, are having on the market, and to ensure that these interventions remain relevant and appropriate for the objective of maximising economic impact.

Summary

8.28 The following table sets out a Summary of this Section, relating to lessons from elsewhere.

Summary

- Three comparator organisations were consulted for this evaluation, in order to inform the evaluation of the Development Funds, and point to potential lessons for the future: Enterprise Ireland, Finance Wales, and the Scottish Investment Bank. The context within which each organisation operates differs, in terms of the economic conditions and the role of the public sector:
  - Ireland has a well-developed venture capital market. This has been driven by substantial public investment over decades, which continues today through Enterprise Ireland, an Irish Government agency. Enterprise Ireland contributes monies to a large number of funds, including 13 venture funds, and three development funds, all with high levels of private investment, as well as through direct investments, with investments undertaken on a deal-by-deal basis alongside private investors. All of Enterprise Ireland's investments are undertaken on a *pari passu* basis, with some €600m invested by Enterprise Ireland since 1994, leveraging a further €900m.

- Scotland benefits from a well-developed angel investment market, which provides a basis for developing a strong equity finance ecosystem. The Scottish Investment Bank, set up in 2010 as the investment arm of Scottish Enterprise, delivers numerous funds, including two with similarities to the Development Funds: the Scottish Co-investment Fund (SCF) and the Scottish Venture Fund (SVF). Across these two funds, the Scottish Investment Bank is expecting to have invested £34m in 2016/17 alone.
- Wales suffers from many of the same issues as Northern Ireland, with a fledgling equity finance market. Finance Wales, set up in 2001 to improve access to capital and deal flow through the provision of funds and services for Welsh businesses, operates 11 funds in Wales, including the Wales Business Fund and Wales JEREMIE Fund; together these two funds alone comprise almost £300m of funding.

- The following points were the main themes from these comparator reviews:
  - Flexibility of funding type within funds has been important in allowing funds to respond to market gaps as they emerge/evolve (whether debt, mezzanine or equity is the market gap at the time).
  - Follow-on investment is very important for ensuring timely investment into businesses, and for allowing them to reach their potential, rather than being stunted; this helps to ensure growth potential is achieved, but also that previous investments are not wasted.
  - Each of the comparator areas is funding on a much larger scale than Northern Ireland, albeit they are all larger markets. Nevertheless, each is important in building a critical mass of activity, In Ireland, providing substantial publicly-backed support has helped to deliver an enviable venture capital market, with both demand and supply stimulated.
  - Ensuring that the funding and wider support ecosystem is easily navigable is essential to taking firms through from an early stage to achieving their high growth potential. In the case of Enterprise Ireland, the success in positioning Enterprise Ireland as a conduit for the wider ecosystem, alongside a long term stability in their investment team, helps to create a seamless operation across their various support streams.
  - Evaluation is difficult, but nevertheless important, for helping to evidence the impact that funds are having on the venture capital market and on the wider economy.
  - Direct interaction between the support agencies and the firms being supported, helps to ensure that the agencies understand the business base, including the requirements of business, and emerging issues, and are thus able to respond appropriately. It also means that staff at the agencies understand the business environment, and retain a commercial mindset. However, it does also add to the resourcing requirement of the organisations; in the case of the Scottish Investment Bank, this includes managing a portfolio of 280 firms.
  - A *pari passu* model makes setting up funds easier, and is also seen as providing good value for money for the public purse.
  - Contributing a small proportion of the monies to a fund helps Enterprise Ireland to operate across a larger suite of funds. This helps the organisation to build its track record and credibility within the market. This also gives the other investors in those funds access to Enterprise Ireland's pipeline of 3,500 firms currently being supported more widely.

9. Conclusions and Recommendations

9.1 This Section brings together the findings set out in the preceding sections of this report. Conclusions are presented on the Funds to date, followed by recommendations, both for these Funds and any potential future intervention.

Conclusions

Rationale and Objectives

9.2 Northern Ireland faces various economic challenges, including a low employment rate, low skills, a low enterprise rate, low levels of scalable firms, and poor access to finance. The rationale for the public sector intervening to improve access to finance is driven by information failures, equity failures, and the wider failures of the financial system. While these market failures reflect the situation throughout Europe, Northern Ireland's are exacerbated by local firms' historical aversion to equity, relative geographical isolation from London, and a lack of awareness about venture capital, based on limited exposure.

9.3 The response to this challenge has been framed through Invest NI's Access to Finance strategy. It consists of various funds, including the Development Funds, which have a total value of some £170m, in addition to the Halo business angel network. Between them, these interventions are intended to provide a full spectrum of finance for business growth.

9.4 The rationale for intervention is accepted by stakeholders, both at the outset and at present. Both then and now, it was felt that these Funds were a necessary intervention, and that they would not have been established without Invest NI support.

9.5 Within this spectrum, the Development Funds are intended to provide funds for the expansion of businesses that have passed the start-up stage. For Invest NI, objectives for the Funds are focused on improving conditions for the development of the Northern Ireland economy in the medium-to-long term. Hence the stated objectives focus on what the Funds will deliver, or do in relation to the funding ecosystem, rather than what they will achieve directly, for instance in relation to investment activity or in terms of objectives in relation to investee businesses. While the link must be made to the underpinning rationale, the objectives could have explicitly included both strategic and operational aims, including some related to the businesses themselves e.g. objectives to support x firms to achieve high growth business status within x years, support y firms to export goods/services, or support z firms to lever in additional (private) finance. From the private investor perspective, the objective for the Funds is much more focused on commercial returns.

Inputs and Activities

9.6 The Development Funds are two £30m funds set up in 2013 and delivered by two Fund Managers: Crescent Capital and Kernel Capital. Each Fund consists of £15m from Invest NI with the remaining 50% from private investors. At the outset the expectation was that most investment activity would take place in the first five years of the Funds (c.£36m), with follow-on funding thereafter (c£11m). In addition to the investment spend, management fees and legal fees were also taken from the Funds (c21%).

9.7 By the end of September 2016, £10.57m had been invested, with overall spend by the Funds (including fees) at £14.74m. Invest NI spend to September 2016 totals £7.48m (including investment activity, fees and internal Invest NI costs).

9.8 The level of investment made to September 2016 was lower than expected. While this may in part reflect the diligence of Fund Managers, it seems unlikely that the investment targets will be achieved over the intended investment period for the Funds, and there may be increased risk to performance if a spread of investments across a range of firms is not achieved. Concern as to the likelihood of the Funds being fully invested is recognised by Invest NI, with both Fund Managers issued with performance notices in April 2017. Close monitoring will be required to ensure that Invest NI is fully sighted on progress, and can consider options for proceeding with the funding were the monies not to be invested. However, positively, there has been an upturn in investment activity in recent months; by early August 2017, total investment had reached £15.5m.

9.9 The Development Funds' activities are not restricted to investment. There are additional activities undertaken as part of the process of investing in businesses, from building a pipeline of prospective investee firms and providing initial support and advice, through to supporting the investee firms to achieve expected growth.

9.10 The two Fund Managers have taken different approaches to building their pipelines of prospective firms. Crescent often uses existing networks and word-of-mouth to connect to prospective firms whereas Kernel holds regular open events, that any firm can attend, and has sought to establish relationships with local advisors. This is in part driven by differences in their networks and profile: Crescent had already operated in Northern Ireland for some years, while this is Kernel's first Northern Ireland-specific fund.

9.11 The portfolio firms were typically seeking investment to develop a product and realise growth potential. Most had reached their borrowing capacity through other means.

9.12 Once identified as prospective investees, the Fund Managers often provide support and advice in developing each firm's ability to accommodate growth, thus helping to create an attractive investment proposition. This support is provided on an ad-hoc and informal, rather than structured, basis.

9.13 For the current portfolio firms, initial investment has typically occurred six to eight months after first contact, once due diligence requirements were met and the terms of the investment agreed.

9.14 After joining the portfolio, support from the Fund Managers has continued, with many firms receiving further support and advice from the Fund Managers, again on an ad-hoc basis but also through Board representation, to maximise the potential for the firms to achieve their potential growth.

9.15 The final stage for the Funds will be to exit the firm. As the Funds only started investing in 2013, no exits have yet been undertaken.

Outputs and Outcomes

9.16 At this stage, both outputs and outcomes are provisional; the Funds are still in their investment phases, whilst firms that have been invested only received the investment within the last three years at most, meaning that it is very difficult to assess with any certainty the impacts of investing in these businesses.

9.17 By the end of September, 11 firms had received funding through 17 separate investments. Crescent had made seven investments in six firms and Kernel had made 10 investments in five firms. By August 2017, the number of investee companies had increased to 15.

9.18 The 11 investee firms (as of September 2016) were typically between five and 10 years old, based in and around Belfast; each had developed a distinctive technology of some description. The sectors represented were ICT, Energy, Life Sciences and Waste Processing. None of the firms have females in CEO roles. This evaluation found no evidence that the Funds have infringed or gone against the spirit of equal opportunity obligations, nor restricted their area of search. The Fund Managers were looking for potential for long term growth, and such opportunities may be concentrated, within sectors or geographically. To ensure the full range of opportunities are encouraged to come forward, the Funds should take visible steps to ensure that they remain accessible to all, including geographically, sectorally, and in terms of gender representation.

9.19 Both Fund Managers have had limited success in their performance against some KPIs, although the suitability of these KPIs have been questioned due to their assumption of linear investment activity from the outset.

9.20 The level of employment amongst the 11 investee firms (as of September 2016) has grown significantly, from 127 at initial investment to 191, and there is an expectation that the figure will be 474 in five years' time. Likewise, all firms that are now trading have seen an increase in their turnover since investment. The overall turnover between firms at first investment was £7m, which has now reached £14m and is expected to grow to £228m in five years' time.

9.21 Many of the firms have already achieved exports, which are key to delivering scalability in Northern Ireland, given the small indigenous market. Six out of the eight currently trading firms are now exporting, compared to four at initial investment. In five years' time it is expected that 10 out of 11 firms will be exporting, with eight of the firms expecting to achieve the majority of their sales through exports.

9.22 Many firms have attracted additional investment/received further support from public sector sources alongside, prior to, or since investment from the Funds.

9.23 The support and advice offered by the Fund Managers has provided additional benefits, ranging from improving governance structures and management capabilities, to accessing expertise, positive cultural changes and increased credibility as an investible business.

Attribution and Additionality

9.24 It is complicated to assess attribution of benefits to the Development Funds for investee firms, given their individual histories and previous support. Available data from Invest NI show that 73% of the monetary support given by Invest NI to the investee firms has been through the

Development Funds. Other public sector support has also been received. Having considered the (incomplete) available data with respect to the monetary support provided to businesses, and mindful that all businesses stated that the Development Funds contributed at least in part to the beneficial outcomes for their business, we have attributed 80% of benefits to the Development Funds.

9.25 Additionality has been calculated on each of its four main dimensions: levels of *deadweight* ranged from no deadweight (three firms), to medium deadweight (seven firms); *displacement* levels are low for the most part, due to levels of exporting and companies mainly having competitors abroad; *leakage*, based on the number of employees based outside NI for each firm, varied between 0% and 45%; there was no evidence of *substitution*. Unweighted additionality for the Funds in aggregate, and also for each Fund separately, was assessed at 42%.

Impact and Value for Money

9.26 The situation regarding impact and Value for Money ***is indicative*** due to a variety of factors, including:

- the timing of the evaluation
- the recent nature of the investments
- the basis of the impact assessment has been based on employment costs alone, without consideration of profitability
- the portfolio of companies will likely expand
- the likelihood that firms will receive future additional investment from these and other Funds.

9.27 The current net employment effects for the 11 investee companies ranged between 17 and 55 jobs – between 8 and 32 for Crescent and 10 and 23 for Kernel. It is forecast that the net employment effect by 2022 will be between 89 and 127 jobs.

9.28 The current net turnover effects were valued at between £2.3m and £6.3m; between £1.6m and £3.4m for the whole of the Crescent portfolio, and between £0.6m and £2.9m for the whole of the Kernel portfolio. Including the expected impact to 2022 in the total, the net turnover effect was between £54.1m and £85.0m (excluding an outlier), which highlights the growth ambitions of the investee companies.

9.29 The net employment cost impact to date was estimated to be between £1.1m and £3.8m; between £0.5m and £2.5m for Crescent's portfolio, and between £0.6m and £1.3m for Kernel's portfolio. By 2022, the net employment cost impact is estimated to grow to between £10.2m and £21.7m.

9.30 In terms of the Value for Money of the Funds, it is too early to draw any definitive conclusions. However, an early assessment of Value for Money has been made:

- in the round, the Economy of the Development Funds, at this stage, is judged to be reasonable, with a competitive tendering process, two Fund Managers, and an appropriate scale of funding. Fees have been high to date, given the set-up costs for the Funds; it is expected that fees will comprise a smaller proportion of the costs if fully invested

- taking progress against objectives, the evaluation conclusion is a qualified, positive assessment regarding the Effectiveness of the Development Funds, to date
- against current public sector costs, cost per net job outcome to 2022 ranged between £59k and £84k. Against current full NI economic costs, cost per net job outcome to 2022 ranged between £70k and £100k. Figures for cost per net job outcome to date were considerably higher.
- Return on investment, based on *full NI economic* costs to date and impacts to 2022, ranged between 0.9:1 and 2.4:1 for Crescent and 1.5:1 and 2.6:1 for Kernel. Return on investment based on *public sector* costs to date (without taking account of any public sector financial returns) and impacts to 2022 ranged between 1.3:1 and 3.2:1 for Crescent and 1.5:1 and 2.6:1 for Kernel. Returns on investment based on impacts to date were much less positive. However, this is not surprising, given the short timeframe since investment in which to realise beneficial outcomes, although of course it emphasises the importance of anticipated impacts actually materialising.

Process Perspectives

9.31 The bid criteria and terms were appropriate and effective. The approach taken meant that the Funds were set up on a sound footing from the outset and there was an emphasis on maximising the impact of the Funds. However, some of the KPIs were not appropriate, in terms of assumptions regarding a linear pattern to investment activity over time; positively, this has already been recognised by Invest NI. KPIs could also have been developed to understand activities in developing the pipeline of potential portfolio businesses. These could include the numbers of 'serious' enquiries (pursued beyond the first contact), the number of firms at early stage investigation and negotiation, and those where headline terms have been agreed (i.e. prior to due diligence and final agreement).

9.32 Various potential advantages and disadvantages were cited by stakeholders with regards to the two-fund model, but overall the model has worked well. Key benefits include the increased diversity in the venture capital market, through bringing a new team into the market (Kernel), and through creating a wider breadth of experience and expertise for prospective investee firms to choose from, with the experience and expertise across the two Fund Managers differing. Potential problems resulting from competition between the two Fund Managers did not materialise due to differing focuses and an unwillingness to partake in damaging competition over the same firm. However, care is needed to ensure that the two-fund model does not lead to a lack of profile around the Funds, or add confusion to navigating the ecosystem, on the demand-side (i.e. for firms seeking investment).

9.33 Findings on the delivery and management of the Funds are largely positive, with regard to the Fund Managers' knowledge, and the Funds operating on a similar professional basis to other funds. The areas identified for improvement were primarily about increasing mutual awareness within the institutional and market contexts. They include a need to strengthen the relationship with other elements of the 'funding escalator', to improve the level of awareness of the Funds within the wider investment and businesses support community, and the enterprise base itself. There should be a shared objective to develop a genuinely seamless and integrated support landscape. More could be done to raise awareness, and improve understanding, of the Development Funds and equity finance, both within Invest NI (for instance amongst client executives) and also across the wider support landscape. This could lead to pre-investment support being better informed about the requirements of the Development Funds, leading to more focus on those firms that have the greatest potential to secure investment, and benefits, from the Funds. Likewise, more could be done to highlight the opportunities for the Fund Managers to integrate/engage with other elements of the support landscape; for instance, in understanding where/how to direct pipeline firms for further development and support where those firms lack 'investment readiness' – Invest NI has an important role in promoting opportunities for, and then facilitating, these interactions.

9.34 Some deals have also taken place at the sub-£450k level, intended to be picked up by other interventions, and not the Development Funds. However, it is understood that only one of these was at the initial investment stage, and that this particular investment was agreed as an exceptional case.

Lessons from Elsewhere

9.35 Three comparator organisations were consulted with for this evaluation, in order to inform the evaluation of the Development Funds, and point to potential lessons for the future: Enterprise Ireland, Finance Wales, and the Scottish Investment Bank. The contexts within which each organisation differ, and in part this is due to the operations of the public sector:

- Ireland has a well-developed venture capital market. This has been driven by substantial public investment over decades, which continues today through Enterprise Ireland, an Irish Government agency. Enterprise Ireland contributes monies to a large number of funds, including 13 venture funds, and three development funds, all with high levels of private investment, as well as through direct investments, with investments undertaken on a deal-by-deal basis alongside private investors. All of Enterprise Ireland's investments are undertaken on a *pari passu* basis, with some €600m invested by Enterprise Ireland since 1994, leveraging a further €900m.
- Scotland benefits from a well-developed angel investment market, which provides a basis for developing a strong equity finance ecosystem. The Scottish Investment Bank, set up in 2010 as the investment arm of Scottish Enterprise, delivers numerous funds, including two with similarities to the Development Funds: the Scottish Co-investment Fund (SCF) and the Scottish Venture Fund (SVF). Across these two funds, the Scottish Investment Bank is expecting to have invested £34m in 2016/17 alone.
- Wales suffers from many of the same issues as Northern Ireland, with a fledgling equity finance market. Finance Wales, set up in 2001 to improve access to capital and deal flow through the provision of funds and services for Welsh businesses, operates 11 funds in Wales, including the Wales Business Fund and Wales JEREMIE Fund; together these two funds alone comprise almost £300m of funding.

9.36 The following points were the main themes from these comparator reviews:

- Flexibility of funding type within funds has been important in allowing funds to respond to market gaps as they emerge/evolve (whether debt, mezzanine or equity is the market gap at the time).
- Follow-on investment is very important for ensuring timely investment into businesses, and for allowing them to reach their potential, rather than being stunted; this helps to ensure growth potential is achieved, but also that previous investments are not wasted.
- Each of the comparator areas is funding on a much larger scale than Northern Ireland, albeit they are all larger markets. Nevertheless, each is important in building a critical mass of activity, In Ireland, providing substantial publicly-backed support has helped to deliver an enviable venture capital market, with both demand and supply stimulated.
- Ensuring that the funding and wider support ecosystem is easily navigable is essential to taking firms through from an early stage to achieving their high growth potential. In the case of Enterprise Ireland, the success in positioning Enterprise Ireland as a conduit for the wider ecosystem, alongside a long term stability in their investment team, helps to create a seamless operation across their various support streams. Similarly, the combination of support from Scottish Enterprise and Scottish Investment Bank is reported to help to add to the benefits for supported businesses, and helps to strengthen the network of support in Scotland, linking together key players across the public and private sectors.
- Evaluation is difficult, but nevertheless important, in helping to evidence the impact that funds are having on the venture capital market and on the wider economy.
- Direct interaction between the support agencies and the firms being supported, helps to ensure that the agencies understand the business base, including the requirements of business, and emerging issues, and are thus able to respond appropriately. It also means that staff at the agencies understand the business environment, and retain a commercial mindset. However, it does also add to the resourcing requirement of the organisations; in the case of the Scottish Investment Bank, this includes managing a portfolio of 280 firms.
- A *pari passu* model makes setting up funds easier, and is also seen as providing good value for money for the public purse.
- Contributing a small proportion of the monies to a fund helps Enterprise Ireland to operate across a larger suite of funds. This helps the organisation to build its track record and credibility within the market. This also gives the other investors in those funds access to Enterprise Ireland's pipeline of 3,500 firms currently being supported more widely.

Overall conclusion

9.37 This evaluation found that there was a strong rationale from the outset for the Development Funds, with market failures in the provision of equity finance, and an aversion to equity finance amongst the business base. That rationale is reported by stakeholders as remaining valid today.

9.38 Operationally, the number of investments to date has been lower than might have been expected given these market failures in supply, although there has been a notable increase in activity in recent months. The number, and value, of investments has certainly been lower than the KPI targets for the Funds, although these are acknowledged to have been inappropriate from the outset. However, the Funds are still in their investment phase, and they may ultimately achieve the expected number and value of investments.

9.39 The fact that the Funds are still in their investment phase is also important in relation to assessing the impact of the Funds. Whilst an indicative assessment has been undertaken, it remains too early to say with any certainty what the impact of the Funds will be; many of the firms have only recently secured their initial investment, whilst the portfolio of firms should increase over time. That said, even at this early stage, the impact assessment shows that there have already been positive employment impacts for Northern Ireland resulting from the Funds; these impacts are expected to increase in future, as firms grow and also become more profitable. At this stage, it is not possible to draw any real distinction between the two Funds in terms of impacts; it will take several years after the start of the Funds' operation before it will be possible to draw any conclusions as to how the Funds compare in terms of impact.

9.40 Importantly, the operation of the Funds is helping to achieve structural benefits for Northern Ireland, in terms of developing its equity finance market, in addition to the economic benefits described above; indeed, these are the fundamental aims of the Funds. This includes helping to broaden the supply, and suppliers, of equity investment, with Kernel establishing a team in Northern Ireland for the first time. The slow build-up of investment activity could lead to questions as to whether there is sufficient deal flow potential to raise market interest. However, there are now signs of increased momentum. The success of the Funds in supporting the development of Northern Ireland's equity finance market will, to some extent, depend on this momentum being maintained.

9.41 The operation of the Funds is largely well-regarded, with both Crescent and Kernel executives seen as knowledgeable and experienced. However, more could, and should, be done to increase linkages between the Funds and other partners, and to ensure that firms are able to navigate the funding and wider support ecosystem with ease.

Recommendations

9.42 Based on the conclusions set out above, the following table sets out a series of recommendations. These should be seen in the positive context of what the Funds have achieved to date, and are expected to achieve in the future, as well as the interim nature of this study. Some of these recommendations, therefore, are for the ongoing operation of the Development Funds, whilst others look to future interventions, and seek to learn from the experience of the Development Funds.

Table 9-1: Recommendations

	Recommendation	Responsible authority
	Development Funds	

	Recommendation	Responsible authority
R1	More should be done to link the Development Funds into the wider pipeline of prospective investee businesses, such as those spin-out and scale-up firms funded by Techstart NI and the CoFund	Fund Managers and Invest NI
R2	More should be done to publicise the Development Funds to prospective investee businesses, and situate them within the wider funding ecosystem and wider Invest NI suite of support/solutions	Invest NI
R3	Additional efforts should be undertaken with client executives and members of the wider business/financial services community, to highlight and improve understanding of the Development Funds	Invest NI Fund Managers
R4	There should continue to be close monitoring of deal activity and, within the confines of the LPA, assess available options should either/both Funds not fully invest	Invest NI Other Fund Investors
R5	Further research should be commissioned later on in the Development Funds' lifecycles to understand the emerging impacts of the Funds. This will help to draw out any differences in the performance of the two Funds, which should be more apparent after these longer periods. *In line with the original Invest NI approval these are scheduled at Year 6 and at the close of the Fund.*	Invest NI
	Future interventions	
R6	For future funds, Invest NI should consider adopting a similar competitive approach to bidding as used for the Development Funds	Invest NI
R7	The objectives for any future intervention should clearly set out objectives in relation to investment activity and investee firms	Invest NI
R8	KPIs for future interventions should better reflect the pattern of investment activity typical of such funds, rather than assuming a linear outturn for the funds	Invest NI
R9	New KPIs should also be added, to include some assessment of performance in building a pipeline of prospective investee firms	Invest NI
R10	The potential for a more flexible intervention, with different forms of finance, should be explored	Invest NI
R11	Any economic appraisal for a future intervention should consider whether the overall scale of the intervention needs to be adjusted	Invest NI
R12	The potential for investing money in more funds (i.e. potentially at less than 50% of the total investment, but in a larger number of funds) should also be explored	Invest NI
R13	Any future economic appraisal should continue to test the need for subordination, in line with the market requirement in Northern Ireland. In testing the need for subordination it will be important that this is cognisant of the revisions to the 2014 General Block Exemption Regulations	Invest NI

	Recommendation	Responsible authority
R14	The design of a similar future intervention should consider what might be offered in parallel to help ensure a pipeline of 'investment ready' businesses	Invest NI
R15	Any future economic appraisal should consider the scope for delivery through pari passu co-investment at deal level.	Invest NI
R16	Any future economic appraisal should consider how financial sustainability of development funds can be balanced with the market failure rationale for Invest NI investment.	Invest NI

Source: SQW

Annex A: Consultees

A.1 SQW consulted widely for this evaluation, including with the Fund Managers, private investors in the Funds, wider private sector expertise in the access to finance ecosystem in Northern Ireland, operators of other access to finance interventions in Northern Ireland, and wider stakeholders in the public sector in Northern Ireland, Great Britain and Ireland, and private sector. Details of those consulted are provided below.

Table A-1: Stakeholders consulted for this evaluation

Name	Role	Organisation
Fund Managers		
Colin Walsh	Managing Director	Crescent Capital
Jayne Brady	Partner	Kernel Capital
Niall Olden	Managing Partner	Kernel Capital
Allen Martin	Senior Investment Executive	Kernel Capital
Helen Norris	Marketing Executive	Kernel Capital
Fund Investors		
Alexandra Jung	Senior Advisor	57 Stars
Julie Ann O'Hare	Director of Business Banking Northern Ireland	Bank of Ireland
Mike Burrows	-	Barnrose Properties Ltd
Martin Catney	-	Private investor
Donal Denvir	-	Private investor
Alex Hambro	-	Private investor & Crescent Capital Chairman
Advisory Board		
Peter McNaney	Chair, INI Board Member and Advisory Board Member of Kernel	Access to Finance Working Group
Wendy Galbraith	Crescent Advisory Board Member	Queen's University Belfast
Judith Totten	Alternate Funder, INI Board Member and Advisory Board Member of Crescent	UpStream Asset Finance
Stakeholders		
Tim Mills	Investment Director	British Business Bank
Tom Smyth	Private Equity Fund Manager	Broadlake
Neil Simms	Fund Manager	Clarendon Fund Managers
Fiona McCausland	Sector Initiatives	Department for the Economy
Donnchadh Cullinan	Manager, Growth Capital & Banking Relations	Enterprise Ireland

Name	Role	Organisation
Sian Price	Strategy Team Manager	Finance Wales
Charlie Kerlin	Corporate Finance Advisor	Grant Thornton
Paul Millar	Fund Manager	WhiteRock Capital
Alan Watts	Business Angel Network	Catalyst Inc
Drew O'Sullivan	Lead Equity Adviser	IntertradeIreland
David Bradshaw	Regional Business Team, *and Evaluation Steering Group Member*	Invest Northern Ireland
John Miller	Client Manager	Invest Northern Ireland
Grainne McVeigh	Director, *and Chair of Evaluation Steering Group*	Invest Northern Ireland
Russell Smyth	Corporate Finance Advisor	KPMG
Rory Quirke	Private Equity Fund Manager	MML Capital
Diane Roberts	Director	Xcell Partners
Barry-John Kelly	Corporate Finance Advisor	PwC
Brian McCaul	CEO	QUBIS
Kerry Sharp	Director	Scottish Investment Bank
Harry McDaid	Fund Manager	Ulster Community Investment Trust
Hal Wilson	Fund Manager	techstart NI
Tim Brundle	Director	Ulster University

Source: SQW

A.2 We also consulted with all 11 firms that had secured investment from the Funds as of the end of September 2016, and four firms that had not secured investment from the Funds.

Annex B: Evaluation Objectives

B.1 This Annex sets out which sections of the main body of the evaluation report respond to each evaluation objective, as set out in the Terms of Reference for the study.

Table B-1: Evaluation Objectives & References

Reference in Evaluation Terms of Reference	Evaluation Objective	Section of evaluation that addresses objective
a	Review the objectives of both the Kernel and Crescent Development Funds and assess the extent to which they are meeting the stated objectives and all associated targets;	2, 6
b	Review the appropriateness of the two-fund model used as part of current Funds and, subject to the findings of the evaluation, to identify the appropriateness of same going forward;	7
c	Assess the appropriateness of the Tender Bid Terms with respect to the impact had on fund raising;	7
d	Assess the appropriateness of Invest NI's and both Kernel and Crescent's delivery models (including the investment parameters), and the effectiveness of each Fund Manager's management and operating structures;	7
e	Compare the support offered by the Development Funds against equivalent interventions available to businesses in the UK, EU and other similar regions, identifying, where appropriate, potential options for consideration going forward. The benchmark exercise should take account of the management, performance and impact of Kernel and Crescent relative to appropriate comparators;	8
f	Identify the internal and external factors which have impacted upon the performance of each Fund either positively or negatively, within the period;	4, 7
g	Assess the inputs, outputs, outcomes and impacts associated with the Kernel and Crescent interventions, to include a detailed assessment of the overall economic and wider impacts of each;	3, 4, 5, 6
h	Determine the economic Return on Investment associated with each intervention, clearly identifying actual and anticipated values;	6
i	Assess the economy, efficiency and effectiveness with which public funds have been used on each intervention. To assess the extent to which each Fund represents good Value For Money (VFM) and appropriate use of public funds across the full spectrum of relevant VFM indicators;	6
j	Present a succinct set of conclusions, taking account of all of the evidence gathered during the assignment;	9
k	Consider the merits of Invest NI continuing to implement similar Funds going forward, informed by an assessment of the strategic context, level of market failure, demand (including pipeline), as well as other interventions (both public and private) in the space; and	9
l	Identify recommendations, with a view to enhancing the economy, efficiency and effectiveness of the Programmes.	9

Source: SQW