CRESCENT CAPITAL II

FINAL EVALUATION

Invest Northern Ireland

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OFFICIAL-SENSITIVE-COMMERCIAL

INVEST NI

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FINAL EVALUATION

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CRESCENT CAPITAL II

FINAL EVALUATION

GLOSSARY OF TERMS

AIM	Alternative Investment Market
ASHE	Annual Survey of Hours and Earnings
BBB	British Business Bank
BGF	Business Growth Fund
BoA	Board of Advisors
BVCA	British Venture Capital Association
CCII	Crescent Capital II
CFM	Clarendon Fund Management
Co-Fund	Northern Ireland Co-Investment Fund
CPJ	Cost per Job
DETI	Department for Enterprise, Trade & Investment
EBT	Emerging Business Trust
ECF	Enterprise Capital Funds
EE	Enterprise Equity
EI	Enterprise Ireland
EIF	European Investment Fund
ERDF	European Regional Development Fund
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
IC	Investment Committee
IDB	Industrial Development Board
IPO	Initial Public Offering
IRR	Internal Rate of Return
IUL	Innovation Ulster Limited
KPIs	Key Performance Indicators
MBI	Management Buy In
MBO	Management Buy Outs
NECOIF	North East Co-Investment Fund
NI	Northern Ireland
NILGOSC	NI Local Government Officers Superannuation Committee
PSA	Public Service Agreement
SCF	Scottish Co-Investment Fund
SME	Small, Medium Enterprise
UCF	University Challenge Fund
VFM	Value for Money
VC	Venture Capital

EXECUTIVE SUMMARY

Introduction

Invest NI commissioned Capaxo Ltd and its associate Maureen O'Reilly, to undertake an independent Evaluation of Crescent Capital II (Crescent II), covering the period from March 2004 to March 2019. Crescent II is managed by Crescent Capital.

This £22.5m fund, launched in 2004, was funded one third:two thirds public to private, with Invest NI investing £7.5m (by way of a subordinated loan) and the matching £15m funded by a range of investors including international investors (NY State Retirement Fund), the European Investment Fund, the two NI Universities and other private investors. Fees and costs of £5.9m were paid from the £22.5m fund.

Market failure was justified on the basis of evidence of a notable gap in the provision of Venture Capital (VC) funds for SMEs in Northern Ireland (NI), particularly in the deal size range £0.25m to £1.5m. There were no purely private sector driven VC funds established in NI. NI secured 0.70% of the UK total VC investment in 1985 to 2002 as compared with NI's share of UK Gross Domestic Product ("GDP") of 2.2%.

The period of the fund coincided with a particularly volatile period from a global financial/economic perspective. The early years of Crescent II coincided with a period of high availability of bank debt to businesses and individuals, with limited demand for funding from mature companies. Funding requests were largely driven by early stage technology companies as well as two Management Buy outs (MBOs). This was followed by the global financial crisis from 2008, with resultant impacts on the performance of portfolio companies and the value and timing of exits.

Delivery and Performance against Targets

12 companies were invested in under Crescent II between 2004 and 2010. Of these 12 companies:

- Three have yet to exit, with returns expected from two, these having also been supported under Crescent III (one of the subsequent Development Funds). One company floated in 2017 on the Alternative Investment (AIM) market;
- Seven companies were sold at a positive valuation, with all seven sold to external investors mainly US Foreign Direct Investments (FDI). There has been an overall surplus on exited companies of £7.2m (sale proceeds in excess of investment cost but excluding management fees);
- Six of the companies with a successful exit are still trading. A number of companies now trade as cost centres and while turnover is not directly attributed to the NI operation, employment has increased, and the NI economy has benefitted from further investment made by the FDI parent; and
- One company failed and one was sold for a nominal sum.

Overall:

- Nine of the 12 investments (62% by investment cost) have resulted or are anticipated to result in a benefit to the Fund; and
- Nine of the 12 investments (72% by investment cost) have resulted in a benefit to the NI economy in terms of NI jobs created (343) or NI jobs safeguarded (27)[1]. Two of the investments, with investment of £1,626k, surplus of £609k and NI employment at investment of 23, were acquired by FDI companies and the technology and employment were fully or mainly exited from NI.

All of the privates' capital (£15m) has been returned plus all of the £3.4m Priority Preferred Return (based on a 4.7% coupon). £0.78m has been returned to Invest NI (out of its £7.5m investment).

[1] Note that these reflect current employment where known.

c£5.1m is anticipated to be realised from two of the remaining three exits, all of which will be to the benefit of Invest NI. The fund has therefore the potential to return c88% of the Invest NI capital. The overall Crescent II fund Internal Rate of Return ("IRR") will, at best, be in the order of 1%.

Crescent II was established as a 10-year limited partnership, with the option of extending the fund if required. With companies yet to exit, the fund's life has been extended on three occasions to April 2020, is now at 16 years, and is potentially going to run to 18 years to secure appropriate valuations. The extensions in 2014 and 2015 were for a fee. There has been no fee paid to Crescent since 2015.

Feedback from Crescent management is that a fund period of ten years, with flexibility for extensions, continues to be appropriate, on the basis that an initial fund term beyond ten years may act as a deterrent to private investors. Under Crescent II, the subordinate structure with Invest NI has meant that privates have exited within a 12-year period.

This intervention by Invest NI has met its key strategic objectives, meeting the market demand from SMEs for funding, and with additionality deemed to be reasonable at 49%. It has also been successful in achieving returns for investors. While some investors have noted a lower financial return than anticipated, in a period that straddled the financial crisis beginning in 2008, the financial return is at least comparable to other regional funds.

Crescent II has achieved two of its five stated target KPIs (to raise £10m through private investment and with no more than 29% failures); partially achieved one KPI (make 17 investments by Year 8 totaling £15.55m, although the fund was fully invested in 12 companies); not achieved one target (exit from 53% (nine) companies by year 10); and is not anticipated to achieve the outstanding target of an IRR of 10%. This latter target is not, however, deemed to be realistic.

There is evidence of:

- Commercial Performance of investee companies: at an overall level, there were increases in sales and employment.
- For the companies where information is available, turnover is estimated to have increased from £6.8m to £31m at exit or current, an increase of £24.4m, with export sales of £30.8m.
- NI employment increased from 153 to 366, an increase of 213. 153 Full Time Equivalent (FTE) jobs have been safeguarded in NI.
- The Cost per Job (CPJ) under Crescent II (at £68.7k per job) is higher than that for benchmarked funds. There were some inconsistencies: some benchmarked funds include significant loans as compared to the primarily equity in Crescent II; in some benchmarked funds, private investors may have invested as a matched deal rather than into the fund. In both such instances, the loans and private funds invested in benchmarked funds may not have been included in the CPJ calculation, resulting in these reporting lower CPJ figures than under the Crescent II calculation. When the Invest NI capital cost only is taken into account, the cost per job to Invest NI is £22.9k for Crescent II, as compared to £13k for Crescent I.
- The financial return (at 119% of fund invested) is higher than for the Northern English Jeremie fund.
- The total Gross Value Added (GVA) generated is £9.08 per £1 INI investment in Crescent II and £1.72 GVA per £1 from all investments – Crescent II and others. We note that for the 12 companies in the Crescent II portfolio, there has been £25.616m invested from other sources, including NITECH/Viridian, and Co-Fund for two of the companies.
- Value Add to investee companies: There is evidence that Crescent II has had a positive impact on investee companies in terms of non-financial supports provided.
- Wider and regional impacts: There is evidence of positive wider and regional impact:
  - Crescent II has been instrumental in addressing gaps in the availability of early stage and development capital and increased the number of visible and sustainable sources of finance for SMEs, including external international investment into NI at a time when there were limited equity sources.
  - It has helped to facilitate a sustainable VC and Fund Management community in NI.
  - It has introduced VC funds as a mainstream funding mechanism.

- Seven companies have attracted FDI as acquirers, and showcased NI's R&D capabilities. Of the six companies acquired by US firms, three have NI employment, actual and forecast, between 100 and 150.
- Finance and strategic advice have helped to scale companies in NI.
- It has introduced VC funds as a mainstream funding mechanism.
- It has successfully brought a company to IPO and supported MBOs.
- It has helped to develop the skill base in NI.
- It has had a positive impact on the investment culture in NI, encouraging access to new VC capital markets.
- Successful exits have enabled founders to support growth in further companies.

Note that there have been further VC funds supported by Invest NI, with Crescent III and Kernel Capital launched in 2013 and Crescent IV launched in 2019.

Recommendations

The recommendations from the evaluation of Crescent II (not dealt with within subsequent funds) are:

1) There should be annual monitoring of NI employment (as well as total employment).
2) Invest NI should track the post exit performance of exited companies (turnover, employment including NI employment) until the final evaluation, recognizing that there may be limitations[2].
3) The Fund Manager should include Marketing as an agenda item in the quarterly monitoring meetings with Invest NI as well as the six-monthly Advisory Board Meetings attended by the Invest NI representatives.
4) As appropriate, the Fund Manager should ensure that its Term Sheets includes references, at a high level, to clauses likely to be included in the Investment Agreement (for example warranties, anti-dilution terms, good leaver and bad leaver terms, drag along and tag along clauses); the Fund Manager should also offer discussions on the same with management and, as appropriate, other existing shareholders.
5) The Fund Manager should also continue to present details to Invest NI on the pipeline of new companies, and the portfolio companies' requests for funding.
6) It is recommended that Invest NI organise a forum (at least annually) to enable all Access to Finance Fund Managers to improve dialogue, work more collaboratively and identify companies that may be ready to move up the funding escalator. Crescent Capital should actively participate in these future forums.

[2] For example, if an exited company is acquired and ceases to be an Invest NI client then INI will also have no leverage for obtaining the information

1 INTRODUCTION AND BACKGROUND

1.1 Introduction

Invest NI commissioned Capaxo Ltd and its associate Maureen O'Reilly, to undertake an independent Evaluation of Crescent Capital II ("Crescent II" or "CCII"), covering the period from March 2004 to March 2019.

Crescent II commenced in March 2004 and was constituted as a Limited Partnership. Its purpose was to continue the work of its predecessor fund - Crescent I - in identifying, negotiating, making, monitoring and realising investments in SMEs located in NI which operate in the manufacturing, IT or tradable services sectors.

The £22.5m Fund was made up of Invest NI's contribution of £7.5m (subordinated), the European Investment Fund (EIF) £6m, £1m from each of the two Northern Ireland "NI" universities and £7m from other private sector investors including £3.75m from the New York State Common Retirement Fund. A full list of investors is included at para 3.2.3.

The Fund made investments in the range of £250k up to £1.5m. The total amount available for investment was £17.5m after deduction of Crescent Capital fees and costs of £5.9m[3]. Crescent Capital was selected under competitive tender to manage the Fund. Crescent Capital has also successfully bid for and managed one of the subsequent Development Funds (Crescent III – 2013-2023) and has, in 2019, been awarded the Development Fund for 2019-2029 (to be known as Crescent IV).

12 companies were invested in under Crescent II. Of the 12 companies invested in, all bar three have been exited, with two of these having been supported also under Crescent III.

An Interim Evaluation was conducted in 2009.

1.2 Aim, Objectives and Targets of Crescent II

<u>Aim and Objectives of Crescent II</u>

Crescent II's objective was to achieve returns for investors, primarily through capital growth, by investing in SMEs - with the Fund Manager seeking to realise investments by way of trade sales, flotations etc. Realisations therefore usually occur during the second half of the Fund's life.

The following SMART objectives were set out for Crescent II[4]:

- Raise £10m through private investment in the fund of which £5m is to be raised by December 2003 and a further £5m from 12 months thereafter;
- Make 17 investments by Year 8 totaling £15.55m;
- Experience no more than 29% (five) failures by year 10;
- Exit from 53% (nine) companies by Year 10; and
- Achieve a net Internal Rate of return "IRR" of 10% over the life of the funds.

As at January 2013, the date of the final drawdown, 100% of the committed £22.5m had been drawn and invested[5].

1. £19.2m had been returned from investment realisations, equating to approximately 85% of the initial investment. The private investors have received all of their initial £15m commitment and all of the £3.4m Priority Preferred Return (based on a 4.7% coupon).
2. Invest NI has received a number of distributions, and to date has had £0.78m of its £7.5m (10%) commitment returned. The three companies remaining in the portfolio had a £5.1m valuation

[3] Allowance also for bank interest earned and realisations reinvested

[4] 2004 Business Case and Economic Appraisal

[5] The TOR states 16 companies but this includes loans into 2 portfolio companies, and a loan to the acquirer of one portfolio company. Of the remaining 13 companies, one had an investment of only £23k when the investment was acquired from the Emerging Business Trust (EBT) a £750k local VC fund funded in 2000 by the International Fund for Ireland ("IFI") and the Local Enterprise Development Unit ("LEDU").

as at 31 March 2019. One company was held above cost at that date, and two below, although with one company's shares trading on the AIM, share prices have been fluctuating and valuations have been generally upwards. Invest NI will continue to receive all future realisations until its full £7.5m commitment is returned (see para 3.2.3).

1.3 Delivery of Crescent II

Following a competitive tendering process, Invest NI appointed Crescent Capital to manage Crescent II. Crescent II was established as a 10-year limited partnership, with the option of extending the Fund if required. The Fund's life has been extended on three occasions, most recently to April 2020.

The responsibilities of the Fund Manager were to raise private sector funding and to select and invest in companies which demonstrated high growth potential with a view to exiting during the life of the fund, making a return on investment in the region of 10%. Crescent II commenced investing in 2004.

Crescent II had eight Limited Partners and one General Partner. According to its Limited Partnership Agreement, Crescent Capital's *investment policy* for the Partnership highlighted that it would seek to:

- Identify investments with the potential to generate high returns, yet which also represent manageable risks;
- Invest in businesses where the entry price is attractive and where clear exit routes can be identified; and
- Back management teams with good track records who are prepared to commit their own capital to transactions.

Limited Partners were passive with regard to investment decisions. Crescent II had an Investment Committee ("IC") and a Board of Advisors ("BoA").

The role of the IC was to provide a forum for investment making decisions rather than monitoring investments once made. As part of submissions to the IC, the structure and pricing of investments were addressed in the context of the risks of the project and the scale of upside that the project offered. The IC comprised former CEO of Hambros VC[6] and former CEO of IDB (one of the predecessor agencies that formed Invest NI).

The BoA had a role in monitoring the performance of the fund and the fund manager vis-à-vis the portfolio of investments. The BoA comprised investors and their representatives and its role was to protect investor interest. The BoA met every six months and received updates on each of the portfolio companies, interim and annual accounts of the fund and also a schedule outlining the performance of the fund as a whole.

1.4 The scope, purpose and objective of the Final Evaluation of Crescent II

The scope of the final evaluation of Crescent II is set out in Appendix I.

The methodology followed is summarised as follows:

- Desk top review of strategic context and the Crescent II database;
- Benchmarking with other Development Fund models;
- Consultations with participant company representatives, investors and key stakeholders;
- Review of Crescent II Portfolio and Additionality;
- Findings and conclusions.

[6] Crescent I was set up under the terms of the Hambro Northern Ireland Ventures LP Limited Partnership Agreement

2 STRATEGIC CONTEXT & RATIONALE

2.1 Introduction

Section 2 is concerned with an assessment of the strategic context and rationale in which Crescent II was launched.

2.2 Strategic Context

2.2.1 Assess how Crescent II contributed to Government strategic aims, objectives, targets and actions

The relevant economic development strategies of the NI Executive, the Department for Enterprise, Trade & Investment ("DETI") and Invest NI at that time recognised the need for active finance markets to stimulate economic development, particularly in the knowledge-based industries.

In its Priorities and Budget 2004-2006, the NI Government retained the five priorities which were set out in the former Executive's last Draft Programme for Government (in September 2002) – with a focus on the economy included as one of these: "Securing a Competitive Economy".

The Priorities and Budget 2006-2008 also noted the emphasis on supporting R&D:

Priorities and Budgets 2006-2008 (Extracts)

Strategic Priority	Priority Outcome	(Selected) Associated PSA[7] Targets
Economic Growth	Competitive Business	By March 2008, reduce the productivity gap (measured by GVA per hour worked) with the UK. By March 2008, business expenditure on R&D to have increased at a rate faster than that of comparable UK regions so as to reduce the current gap in R&D expenditure as a percentage of GVA. During the period 2005-08, support the establishment of 10,000 sustainable new businesses, of which 40% will be in New Targeting Social Need areas.

DETI's Corporate Plan 2002-2005 included a target which is relevant to Financial Infrastructure in support of Economic Development: "By March 2004, establish and promote new financial products with a view to increasing the number of mature capital funds promoted by DETI and also to increase the proportion of repayable finance in relation to total Selective Financial Assistance."

Under the Promote and Encourage Enterprise driver of the **DETI 2005 to 2008 Corporate Plan**, the plan set a key action with direct relevance to the Crescent Capital funds, '*to promote and develop more extensive use of equity by Northern Ireland businesses*'.

The Department's main aim in its **Corporate Plan 2008-2011** was, '*to promote the development of a globally competitive economy in Northern Ireland*', with the key objective, '*to encourage the development of a high value added, innovative, enterprising and competitive economy, leading to greater wealth creation and job opportunities for all*'.

In the **Invest NI Corporate Plan 2002-2005**, more effective Corporate Finance is cited as being an innovative driver, which will attain competitive advantage, with initiatives to include: "Encourage and provide targeted financial support to raise the level of investment by business in strategic research, product development and industrial design"; and "Develop, with DETI, a process for equity investment in suitable start-up companies with promising technologies and good business prospects".

[7] NI Government Public Service Agreement targets

Invest NI Corporate Plan 2005 to 2008, noted its support to assisting companies to achieve growth in productivity, export sales and profitability, gear the provision of financial support to developing capability and less to increasing capacity. It also noted "Whilst maintaining the availability of grant support through Selective Financial Assistance[8] and certain R&D mechanisms, {Invest NI to} manage a shift in emphasis from grant support towards the effective use of equity, venture capital and other forms of repayable assistance, and assist companies to explore private sources of finance".

Invest NI - Corporate Plan 2008 to 2011 plan highlights that Invest NI's short-term priority is to realise the potential of existing businesses across all sectors.

All of the above strategies have a similar theme in seeking to build a competitive, outward focused economy, supporting export growth companies, and increasing productivity and competitiveness in NI. Invest NI interventions, including Crescent II, have a particular focus on supporting high growth businesses which have the potential to compete in global markets and help promote a competitive, outward looking economy. Crescent II was therefore a key initiative in supporting the growth potential of early stage and SME companies.

2.2.2 Venture Capital Funds in Northern Ireland pre establishment of Crescent II

In the late 1990s, it was noted by a range of interested parties, including the Industrial Development Board for Northern Ireland ("IDB"), one of the predecessor bodies that formed Invest NI, that the market for venture capital ("VC") in Northern Ireland (NI) was under-developed when compared with other UK regions.

In terms of actions taken to address such under-provision in the VC market, the IDB established the **Crescent Capital I £14m fund** (then called Hambros NI Ventures) in 1995 with 50% government funding. The Fund was established as a pilot, with £7m provided by Invest NI in the form of a loan, subordinated to a matching £7m from private investors. It was set up as a 10-year limited partnership with the option to extend for a further two years. The Fund sought to make investments in the range £250k to £750k and up to £1m in exceptional circumstances.

Investments were made in 12 companies in the period 1995 to 2001 (6 years). The Crescent I limited partnership terminated on 10 November 2007 and the winding up of the Fund was completed in mid 2008. Of the 12 companies, three resulted in profitable trade sales, one Initial Public Offering (IPO) was achieved, and two investment portfolio companies failed. The remaining investments did not provide commercial returns. Overall, the Fund achieved an Internal Rate of Return ("IRR") of minus 0.9%; there was a shortfall of just over £60k in returns to private investors, who got close to £13m including the priority return, and the IDB investment of £7m was written off.

In 2004, the Invest NI Business Case in respect of a successor fund to Crescent I noted that that the level of venture capital investment in NI over the 17 year period from 1985 to 2002 totalled £309m (average £18m pa) out of a UK total of £44,117m[9]. This represented 0.70% of the UK total venture capital investment over this period as compared with NI's share of UK GDP of 2.2%. There was therefore an under-provision by VC funds into NI of £662m or 214%, as noted in the table below.

	Actual £ Million	Expected activity based on population £ Million	Underinvestment in VC £ Million	Actual / Expected
Total Activity 1985 - 2002	309	971	(662)	31.8%
Early Stage and Expansion 1997 - 2000	58	143	(85)	40.6%

Source: BVCA as per Interim Evaluation of CCII 2009

Early Stage and Expansion activity in 1997-2000 is also included in the table above, this typically represents capital requirements in the range £250k-£1,500k. Based upon Northern Ireland's share of UK GDP and the total venture capital investment during the period, actual venture capital activity in NI was equally under provided in respect of early stage and expansion capital, by at least £85m in

[8] Selective Financial Assistance (SFA) is the main support mechanism used by Invest NI to provide direct financial support to private firms for investment and employment projects.
[9] Data stated to be sourced from BVCA - details are taken from the Interim Evaluation of CCII dated 2009

the period.

The Business case notes that there was a notable gap particularly in the provision of VC in NI for SMEs in the deal size range £250k to £1,500k[10]. It also noted that there were no purely private sector driven VC funds established in NI.

With the last investment in a new company through Crescent I being in 2001, Venture Capital funds available to NI SMEs in the early 2000s (pre-Crescent Capital II) is summarised below.

There were three University funds, one each from Queens University and Ulster University as well as a joint fund (the University Challenge Fund). With these funds supporting spin outs from the NI Universities, these were often precursor funds or co-investing funds with CC II.

In addition, other funds included the Emerging Business Trust (from which CCII acquired two investments on its winding up[11]), with Viridian and NITECH providing seed capital and acting as investment sources to two CCII investments, while Enterprise Equity was focused on expansion capital:

Funds	Investment Range	Year Establish-ed	Investment Period	Funds Raised	Focus
University funds:					
QUBIS (Queens)	£1k- £500k	1984	1984 on	No limit	Seed investment in spin outs/ins
UUTECH Ltd (Ulster University)	£10k - £150k	1998	1998 on	No limit	
University Challenge Fund ("UCF")	£25k-£100k	1998	1998 -2009	£2.75m	
Other funds:					
Enterprise Equity	£500k - £1.5m	1987	1987- 2008	£10m	Expansion, MBOs/MBIs
Viridian Growth Fund	£50k - £300k	2001	2001-2008	£10m	Expansion
NITECH	£5k - £250k	2003	2003-2008	£3m	Early stage
Emerging Business Trust (EBT)	£5k-£50k	2000	2000-2005	£750k	Early stage

Source: Invest NI, QUB, UU per 2009 Interim Evaluation of CCII plus consultations

Note that all funds above are 100% public sector funded (by the Universities, Invest NI (or its legacy agencies), UK Government, International Fund for Ireland etc).

2.2.3 Government Need for Intervention - Evidence of Market Failure

The strategic context and need for the establishment of Crescent II can be summarised:

Strategic Context: the economic development strategies of DETI and Invest NI recognised the need for an active finance market to stimulate economic development potential, particularly in knowledge-based industries. The appraisal conducted for the new VC fund to follow Crescent I highlighted that the provision of venture capital funding in NI lagged behind the rest of the UK. The appraisal also found that the support of venture capital funds was also consistent with Invest NI's

[10] Market Failure in the Supply of Venture Capital for SMEs in Northern Ireland. Invest NI 2002.

[11] For one of the companies there was no further investment by Crescent after the initial investment of £23k and its results are not included in the evaluation

strategy to move towards repayable forms of financial assistance as a means of growing early stage, entrepreneurial businesses, as set out in the (then) Invest NI Corporate Plan. In addition, the fund helps to stimulate investment and growth in companies providing high quality sustainable employment, in line with Invest NI and Departmental objectives.

Need: the need for Crescent II was identified against a series of key headings, the most pertinent of which are summarised below:

- **Economic Profile of Northern Ireland:** the NI economy was (and continues to be) highly dependent on small businesses. In 2002, there were around 85,000 businesses of which 99% employed fewer than fifty people, and 93% employed fewer than ten people. In comparison, there were only 60 businesses employing more than 250 people[12]. A study titled, 'Market Failure in the Supply of Venture Capital Funds for SMEs in Northern Ireland' (Invest NI, October 2002) identified economic factors leading to market failure in the venture capital market in Northern Ireland, including civil unrest, government policy for industrial development, and Northern Ireland's peripheral location vis a vis the VC community in GB.

- **Trends in Selective Government Financial Assistance:** the public sector had played a key role through its industrial development strategies in countering the negative effects of civil unrest in NI. Through the 'Troubles' the private sector weakened, inward investment became problematic and gradually the public sector was drawn in and became a surrogate for the private sector. By 1999/2000, public expenditure on industrial development per capita in NI was more than 2.5% of the UK average[13]. As a result, SMEs tended to be less dependent on private sector risk capital and more dependent on state support, and therefore the challenge facing industrial development policy makers was to re-orientate SMEs towards more normal financing of growth, including the use of venture capital.

- **Demand for Venture Capital Funds:** as noted, the level of VC investment in NI over the period from 1985 to 2002 totalled £309m which represented 0.7% of the UK total VC investment over this period as compared with Northern Ireland's share of UK GDP of 2.2%. VC investment in NI was far below the UK national average. The UK government's "Addressing the SME Equity Gap" and "Bridging the Finance Gap"[14] documents suggested that the equity gap throughout GB and NI had widened. The research referred to in the Economic Appraisal in 2004 also indicated that there was reluctance on the part of venture capitalists based in GB and RoI to invest in NI in deals of less than £1.5 million. A total of fourteen GB / RoI-based venture funds participated in NI deals over the previous three years; however, none was prepared to invest in deals of less than £1.5 million due to high transaction costs relative to the investment size, and the expected returns[15]. The level of underinvestment is evidenced by Enterprise Ireland investing some €352m into VC funds between 1989 and 2010, compared to £38m by Invest NI, three and a half times as much, taking into account the difference in population.

- **Stimulus of Private sector led VC market**: Although the public sector had invested in a number of venture capital funds, this did not stimulate the private sector market to invest without public sector support. Public funding is particularly prominent in early-stage funding. Only 20% of all early-stage UK investments had public backing in 2000. Since then, the increase in publicly backed deals saw funding peaking at 68% of all early-stage investments in 2008 (at the start of the recession – see below).

- In addition, the rationale for government intervention in the venture capital market flowed directly from Invest NI's `Venture Capital, Our Approach' strategy. Its key objective was, '*to promote a vibrant and self-sustaining venture capital industry in Northern Ireland, that will*

[12] Invest NI Household Entrepreneurship Study 2002
[13] Data taken from Interim evaluation of CCII dated 2009 (page 40)
[14] DTI (1999) "Addressing the SME Equity Gap: Support for Regional Venture Capital Funds. Consultation Document" 30 HMT and SBS (2003) "Bridging the Finance Gap: Next Steps in Improving Access to Growth Capital for Small Businesses"
[15] Data is reproduced from Para 3.3 of the Interim Evaluation of Crescent II 2009

provide equity funding to sustain and encourage the growth of SMEs and in particular, knowledge-based businesses'.

Government's primary response to gaps in VC availability was to intervene at an institutional level to help bring into being new sources of equity funding. This aimed to help accelerate the quality and quantity of VC funds available to SMEs based in NI.

The first VC fund (Crescent I) ceased investing in new companies in November 2001, while Viridian, NITECH and the University funds focused on seeding companies. This left Enterprise Equity as the only NI-based venture capital fund operating in the deal size range between £250,000 and £1.5 million but focused on expansion capital only. There was no local supply of VC funds to meet the needs of investments for SMEs of £250k to £1,500k.

The provision of a second fund (in Crescent II) was to benefit the SME by creating a more competitive VC environment. Moreover, it was expected that VC funds operating in this deal size range would continue to be viable only with continued government support.

Furthermore, the Invest NI casework paper noted that the proposed Crescent II fund would contribute to meeting Invest NI's objectives, including those relating to, 'increasing R&D'; 'helping existing businesses to grow'; increasing the level / quality of business starts'; and attracting new FDI'.

In discussion, the BBB note that the ability to access VC funding has changed fundamentally since 2004-2014 (the Crescent II funding period) with BBB noting the 40 non-NI VCs in attendance at the Catalyst Inc Deal Day in October 2019 (while this is evidence of increased interest in NI, there is no data on the number of subsequent investments).

2.2.4 Venture Capital Funds in Northern Ireland following Crescent II

Market failure in 2004 is further justified by the need for Invest NI to support further VC funds post Crescent II.

With the last Crescent II investment into a new company being in 2010, Invest NI attempted to launch a Development Fund in 2011.

In April 2011, Crescent was appointed to manage the next 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, and in the context of a very challenging environment after the financial crisis, Crescent advised that it had only managed to secure investment of £7.5m from four investors. Given the substantial shortfall, this Fund was abandoned.

It was against this backdrop that Invest NI launched a tender process to secure the 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 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.

Two Fund Managers, each for a £30m fund, were appointed and funds launched in 2013, (July 2013 for Crescent III; September 2013 for Kernel Capital). The First close for Crescent III (in July 13) was for £15m and the First close for Kernel (September 2013) was for £25m. Both Funds ultimately achieve a second close of £30m.

The investment period was 2013 to 2019 (including an extension), with the funds to run to 2023 (plus extensions).

A further business case in 2018 identified the need for a further local VC fund to support NI companies to grow in global markets, encourage entrepreneurship and help to rebalance and rebuild the NI economy by driving private sector growth.

The 2018 Economic Appraisal supporting the business case concluded that there is a need for a successor Fund to the Development Funds based on:

- NI Economic performance – the NI relatively poor performance on key relevant economic indicators and the longstanding structural issues within the NI economy;
- The British Business Bank's ("BBB") statistics for NI which indicate that it is the worst performing region in attracting equity investment. In 2017, NI represented <1% of the UK equity investment by value (reported as zero), and 1% by volume;
- Views of BBB, in particular, on the importance of equity finance to high growth potential firms to enable them to deliver on job creation and economic growth, and the challenges for SMEs in securing private equity, both across the UK and in NI;
- The competition for equity finance, as noted by BBB, with an increasing focus on larger deals and dominance of London and the South East, the importance of Government investment in private equity;
- The BBB reports on the continued role for Government at a time when deals levels are getting larger and external equity funders are cherry-picking projects aligned to their expertise and with no requirement to fund projects in NI; and
- The opportunity to better promote equity funding as a means of growth to Invest NI Pre Scaling and Scaling companies, as well as to support Management Buy Outs (MBOs).

To this end, the £65m Crescent Capital IV fund has been launched by Invest NI (Crescent Capital were appointed following a competitive tendering process) and will offer companies within the technology, life sciences and manufacturing sectors investments of up to £2.5m in initial investment rounds and up to £5m in any one company.

All of the above has demonstrated that there continues to be market failure within the VC market in NI and acts as justification for the Invest NI support to Crescent II in 2004.

2.3 Market Context

The market context is relevant to Crescent II. While Crescent I coincided with the Dotcom bubble, the early years of Crescent II (from 2004) coincided with a period of high availability of bank debt to businesses and individuals, followed, in 2008, with a global financial crisis, with the Venture capital market not being immune to the impact of the recession.

Whilst no evidence exists, anecdotal evidence suggests that the ease of accessing bank debt undoubtedly led to a focus by trading companies on debt rather than equity to fund the growth in their businesses.

The financial crisis, which began in earnest in 2008, then severely impacted upon venture capital investment activity. Feedback from BBB was that deal levels in 2009 were some of the lowest levels seen in the last decade, with seed and early-stage financing being particularly hard hit. This is the context in which Crescent II operated.

2.4 Summary of Findings

In conclusion:

- The provision of the Crescent II fund, supported by Invest NI, clearly fitted with the policy aims, strategies and objectives of Invest NI and government at that time;
- Crescent II followed on from Crescent I with the last new company investment being in 2001;
- There was market failure as, in 2004, there was a notable gap in the provision of VC funds for SMEs in NI, particularly in the deal size range £250k to £1,500k and there was no purely private sector driven VC funds established in NI;
- Whilst NI SMEs could apply for UK based VC funds, these were competitive funds and NI was underperforming in terms of VC investment (NI secured 0.70% of the UK total VC investment in 1985 to 2002 as compared with NI's share of UK GDP of 2.2%); and
- Subsequent funding raised confirms that market failure still exists for VC funding in NI.

3 OPERATION AND DELIVERY

3.1 Introduction

Section 3 is concerned with an assessment of the operation and delivery of Crescent II. Section 3 includes the following:

Para	Details
3.2	Review of the range of investments supported and the basis for the investment
3.3	Identify the main risks and actions taken to manage risks
3.4	Assess the management of exits from investments in order to achieve the best return and the valuation of the portfolio
3.5	Review progress against the Action Plan arising from recommendations in the previous evaluation

3.2 Review of the range of investments supported and the basis for the investment

3.2.1 Investment Activity and profile of investee companies

Crescent II was launched as a £22.5m investment fund. This included fees for the delivery agent (Crescent Capital). From this £22.5m investment, £17.5m was invested into companies by way of equity (£17.4m) and loans (£113k), as follows:

Fund and investments	£000
Total fund	22,500
Management fee and costs	(5,900)
Bank interest earned	321
Realisations reinvested	632
Net investments	17,555[16]

Note that companies' names are not published with these being classified as companies A through to L (for the 12 companies).

£232k of the £632k realisations reinvested was from the proceeds of the sale of Company A. Some of proceeds were reinvested in the purchaser shares via its parent (the latter subsequently realised £939k), the rest (i.e. cash) was distributed; the balance of £400k was used for a follow-on investment in Company G that was realised within 12 months of the investment. These proceeds were retained for re-investment in line with clause 11.4 (11.4(b) in particular) of the Limited Partnership Agreement.

The profile of investments is as follows, with the initial investment period spanning from October 2004 to May 2010 (5 years and 7 months):

Company	Date of first investment	Months held	Total Investment £000	Sector	Maturity as per CC reports	Linkages
A	25/10/2004	74	1,366	Software	Development	Spin out
B	06/05/2005	65	1,276	Audio Compression	MBO/Development	n/a
C	29/06/2005	14	350	Analytical Instrumentation	Early	Spin out of Spin out
D	10/11/2006[17]	**149**	1,479	Life Sciences	Early	Spin Out
E	05/09/2007	**139**	2,040	Software	Start Up	n/a
F	23/06/2006	82	1,230	Software	Early	n/a
G	09/11/2007	40	1,150	Software	Start Up	n/a

[16] There is £2k from Crescent

[17] Date acquired from EBT

Company	Date of first investment	Months held	Total Investment £000	Sector	Maturity as per CC reports	Linkages
H	09/06/2008	**130**	1,450	Software	MBI/Development	n/a
I	13/11/2008	91	950	Software	Early	Spin out
J	03/06/2009	52	2,240	Medical devices	Development	n/a
K	11/11/2009	73	2,225	Software	Development	n/a
L	25/05/2010	67	1,431	Software	Start Up	Spin out of Spin out
			17,187			
Co A parent Loan	Nov 2010	39	232	As per above	As per above	As per above
Co E Loan	Sept 2007	n/a	63	As per above	As per above	As per above
Co H loan	June 2008	n/a	50	As per above	As per above	As per above
			£17,532			
Acq from EBT[18]	22/11/2006	**149**	23	Software	Early	Spin out
			£17,555			

Of this £17.5m, there have been 57 investment rounds into 12 portfolio companies, two loans into two companies and one investment into the US company acquiring one of the portfolio companies.

The number of investments in the 12 portfolio companies is shown below:

CCII Investment rounds	No of companies	Total Funding (£000)
Investment one	12	9,408
Investment two	10	3,620
Investment three	7	2,008
Investment four	6	1,100
Investment Five etc	6	1,396
	12	17,532

The above includes six companies with five or more investment rounds, six companies with four investment rounds, and seven companies with three investment rounds.

[18] Relates to investment of £23k as per para 2.2.2

The range of investment is shown:

CCII	Total CC Investment £000	No of companies	Average investment £000	Largest £000	Smallest £000
Investment one	9,408	12	784	1,500	350
Investment two	3,620	10	362	613	131
Investment three	2,008	7	287	750	50
Investment four	1,100	6	183	375	50
Investment Five etc	1,396	6	233	100	13
	17,532	12	1,461		
		57 investments	£308		

The average Crescent II investment is £1,461k per company and £319k by investment round, and has ranged from £350k to £1,500k for a first-round investment and from £13k to £750k for individual follow on investments.

With Crescent II launched in 2004, investments in new companies, by year, started with one company in 2004/5, has been steady at two new investments a year from 2005/6 to 2009/10, with a further one in 2010/11. Initial investment by year peaked in 2009/10, with the last initial investment in 2010/11:

CCII (£)	2004/5	2005/6	2006/7	2007/8	2008/9	2009/10	2010/11	Later	Total
New companies	1	2	2	2	2	2	1	0	12
Initial invest't £000	501	1,162	523	1,250	1,900	2,540	1,273	-	9,149
% initial	5%	13%	6%	13%	20%	27%	16%	0	100%
Follow on	-	-	440	1,375	1,215	1,138	3,189	1,028	8,383
Total invest't £000	501	1,162	963	2,625	3,115	3,678	4,462	1,028	17,532
% total	3%	7%	5%	16%	18%	21%	25%	6%	100%

Follow on funds commenced from 2006/7 and has continued until Nov 2010.
Circa 54% of the total £17.5m investment had been in first round investments, with 46% being follow-ons.

The following is noted:

Sectoral distribution – There was a significant investment in software (nine of the 12 companies). There were only two small manufacturing companies in the portfolio (in analytical instrumentation and medical devices) and no large manufacturing companies. Whilst Crescent stated that they sought to identify manufacturing companies for investment (having invested in this sector in Crescent I), the investment opportunities were mainly in respect of early and growth stage technology opportunities including companies with their origins in, or linkages to, the region's two Universities.[19] Six of the companies were spin outs (including two that were spin outs of university spin outs). The Fund also provided development capital and support to management buy outs/ins ("MBOs/MBIs").

Maturity of companies – Of the investee companies, seven are stated to be start up and early stage companies, three at development stage and two of the portfolio companies were MBO/MBIs. Company A was also a portfolio company from Crescent I. Employees ranged from two to 31 at the time of the investment. Turnover at investment (available for nine of the companies) ranged from £5k (with three companies having turnover less than £50k pa) to £2.1m.

Shareholding: In terms of its level of shareholding, Crescent II held more than 50% in three companies, where total investment was £5.5m (31% of the total investment) and holds/held more than 30% in seven companies where total investment was £11.879m (67% of the total investment).

Deal sizes: 53% of deal size rounds, by number, were for under £250k, while 53% by value were in the range £250k to £750k:

	No of rounds	% rounds	Investment £000	% investment	Average £000
<£250k	30	53%	2,019	12%	67
£250k to £500k	15	26%	5,225	30%	348
£501k to £750k	7	12%	4,113	23%	588
£751k to £1m	1	2%	835	5%	835
>£1m	4	7%	5,340	30%	1335
	57	100%	17,532	100%	308

Export focus of companies – details are not available on the level of exports within investee companies at the time of the initial investment, although it is expected by the nature of the companies that the majority is exported.

Regional Spread: Crescent II has only invested in NI based companies.

[19] The Development Fund launched in Nov 2019 has targets for manufacturing, with Crescent's experience from Crescent I and II being that average employment within manufacturing companies has been higher than for technology focused companies.

Level of Investment: The average number of investment rounds was 4.7 rounds per portfolio company.

Crescent II as follow on and partnering funder: There was no policy in place to bring in investment partners on a deal by deal basis, although a number of companies did secure other funding.

The details on other funding introduced is taken from a variety of sources including the 2009 Interim evaluation of Crescent II. A split is included of monies invested pre-Crescent II and alongside or after Crescent II and is a best estimate based on the information available. Not all information is complete, however there is estimated to have been at least £25m invested in these 12 companies (excluding Invest NI grant finance and debt finance) and including an estimated £22m alongside or after Crescent II.

Total funds invested pre-Crescent II is estimated at £3.65m. One of the companies (Company A) has had investment from Crescent I (£634k), two had investment from Viridian/NITECH (Companies A and D with c£1.8m),

Total funds invested with or post Crescent II is estimated at £21.9m. Three companies subsequently took Co-Fund I monies (Companies D, I and J with £1.075m) and another two availed of follow on support from Crescent III (Companies D and H with £1.6m). £5.6m was raised through an Initial Public Offering ("IPO") on AIM. Three companies (Companies A, B and I) secured c£10m from other VC institutions (DN Capital, DJ Esprit, Trinity Venture Capital, Par Equity), although a proportion of Company A VC funds was also pre-Crescent II.

In total, QUBIS, Ulster and UCF invested c£1m in six companies (Companies A, B, C, D, I, and J).

Company	Crescent II Shareholding %[20]	No. Funding rounds	Initial Investment £000	% initial to total	Follow on £000[21]	% follow on to total	Total Investment £000	Other funds leveraged Pre CCII £000	Other funds leveraged with/post CCII £000	Total funds leveraged Post CCII £000
A	4.90%	3	501	31%	1,097	69%	1,598	950	8,601	9,551
B	24.56%	2	835	65%	441	35%	1,276	0	1,618	1,618
C	21.80%	1	350	100%	-		350	0	90	90
D	11.74%	11	23	2%	1,456	98%	1,479	900	7,804	8,704
E	59.00%	5	500	24%	1,603	76%	2,103	0	155	155
F	59.75%	8	500	41%	730	59%	1,230	0	-	-
G	34.75%	2	750	65%	400	35%	1,150	0	50	50
H	36.50%	1	1,450	97%	50	3%	1,500	0	1,082	1,082
I	20.40%	6	400	42%	550	58%	950	0	2,269	2,269
J	44.04%	8	1,040	46%	1,200	54%	2,240	300	297	597
K	65.73%	7	1,500	67%	725	33%	2,225	1,000		1,000
L	32.80%	2	1,300	91%	131	9%	1,431	500		500
		57	9,149	52%	8,383	48%	17,532	3,650	21,966	25,616
			762		699		1,461			
			762		147		308			

[20] Fully diluted – after options.

[21] Includes Loan notes

3.2.2 Current Exit status of Portfolio companies

At 31st March 2019, of the 12 companies, c75% (nine) of the portfolio by number and value had been exited and c25% (three companies) had not been exited.

Status	No of companies	Total Equity Investment £000	Valuation at March 2019 £000	Surplus/ (deficit) £000
Total not exited	3	4,969	5,103	134
Exited	9	12,563	19,841	7,278
	12	17,532	24,944	7,412

Of the nine companies that exited, seven were through successful sales, one through liquidation (Company J) and one (Company K) was sold for minimal value to another portfolio company (Company H).

Of the two companies either liquidated or sold for minimum value, Crescent II had invested £4.4m or 25% of the fund, with a shareholding between 44% and 65%. It is understood that these failed largely due to unforeseen changes in market conditions, i.e. for Company J, there was a medical scare related to the company's proposed cosmetic procedures that meant that demand did not materialise.

One of the companies not exited, (Company D), had however floated on the AIM market in December 2017 and Crescent II can exit from December 2019 (see below).

Companies not exited

	Crescent II Shareholding[22] %	Total equity Investment £000	Valuation at March 2019 £000	Surplus/ (deficit) £000	Valuation times cost
D	11.74%	1,479	756	(723)	0.51
E	59.00%	2,040	0	(2,040)	
H	36.50%	1,450	4,347	2,897	3
		4,969	5,103	134	

For the three companies not yet exited, one is held above cost with Crescent revaluing each six months. The valuation of company D fluctuates depending on the share price on AIM and has improved since March 2019.

Feedback from Crescent Capital is that they anticipate a value of at least £5.1m on exit (Company D at cost and Company H as per above). Companies E and H anticipate an exit within the year.

There was an agreement with Company's D' Nominated Advisor as part of the AIM raise in December 2017 that Crescent II would not exit before December 2019; these types of agreements are common for early stage companies going public. Post December 2019, the date of exit will be based on achieving the most positive valuation as prices fluctuate (the share price had declined since the IPO but has partially recovered) and also at a timing so as not to flood the market (with Crescent Capital being the single largest investor). Note that the share price was 28.50p at end March 2019, and 69.50p at 24th October 2019 (peaking at 85p at May 2019).

Exited companies

Details on exited companies are set out below. Note that this includes loan notes repaid.

	CC II Shareholding		Total CC Investment	Sale Proceeds	Surplus/	Valuation times cost	

[22] Fully diluted (after options)

Company	%	Country of origin of acquirer	£000	£000	(deficit) £000		Gross IRR
A	4.90%	US	1,366	3,046	1,680	2.23	17%
B	24.56%	US	1,276	1,895	447	1.31	12%
C	21.80%	US	350	512	162	1.46	28%
F	59.75%	US	1,230	1,544	314	1.26	4%
G	34.75%	US	1,150	4,535	3,385	3.94	50%
I	20.40%	Netherlands	950	2,847	1,897	3	17%
J	44.04%	Failed	2,240	0	-2,240	-	n/a
K	65.73%	Company H	2,225	81[23]	-2,144	0.04	n/a
L	32.80%	US	1,431	4,273	2,842	2.99	20%
A Loan			232	939	707	4.05	42%
E Loan			63	63	0	1.00	
H loan			50	106	56	2.12	
			12,563	19,841	7,278	1.58	

There were no dividends declared on any companies, with all proceeds being from the sale proceeds or repayment of loans.

Of the companies exited, two companies returned a surplus in excess of £2m, accounting for c45% of the total sale proceeds to date.

There has been an overall surplus on exited companies of £7.2m (sale proceeds in excess of investment cost but excluding management fees).

Current status post acquisition

As noted, of the seven successful sales, six were sold to US companies and one to a Dutch company. All of the companies with a successful exit are still trading, except one (Company C– where the IP transferred to the acquiring company in this instance). For a number of companies (Companies A and F), these now trade as cost centres and while turnover is not directly attributed to the NI operation, employment has increased, and the NI economy has benefitted from further investment made by the FDI parent. There is however limited information on turnover in these companies. Further details on turnover and employment are set out in para 4.3.5.

Fund Timespan

The Crescent II fund was originally approved for ten years (six years investing and four years exiting). It is now at 16 years and is potentially going to run to 18 years because of two companies of value that are still not exited. The last exit was in June 2016 (Company I – held from 2008). The private investors were therefore exited 12 years from initial investment (2004-2016).

This partially reflects the timing of the fund – coinciding with the crisis of 2008-2012 - and also the pool of companies that Crescent could invest in. The view from Crescent was that the NI companies available for investment were generally less mature than those invested in by UK VC funds, with the level of maturity as well as their peripheral location to the UK, impacting upon the timing and scale of exits. Based on existing valuations, for the two companies of value still in the portfolio, the proceeds will all go to Invest NI, hence there is deemed to be value in not seeking an exit that might impact on the value to Invest NI as well as the performance and growth prospects of the companies. The mechanism by which CCII was established, with Invest NI having a subordinated position, is considered to be unique in that, with the NI economic development agency being last to be paid, this allows a longer term view to be taken by Invest NI on the timescales for payment.

Feedback from Crescent management is that the mechanism proposed under Crescent IV (five years investing and five years to exit) is more appropriate for encouraging exits, and mirrors what the UK VC community is offering. Furthermore, that a fund period of ten years, with flexibility continues to

[23] Company sold for c£125k

be appropriate, particularly given that any extension of the initial fund term may act as a deterrent to investors.

Case studies

A number of case studies are set out below.

Case Study: Fusion Antibodies

Fusion Antibodies was established in 2001 as a spin-out from QUB. It is a biotechnology company. Crescent's initial investment was made in November 2006 by purchasing part of the Emerging Business Trust's investment in Fusion, with follow on investment from Crescent II under 11 funding rounds. Fusion has previously benefitted from other funds including the Viridian fund. The company has also secured funding under CoFund I and Crescent III as well as private investors. The company has had a mixed performance, as seen by the fact that employment peaked at 33 in 2008 (when turnover was c£450k) but fell to c12 in 2012. The company refocused its effort away from drug discovery to acting as a Contract Research Organisation that offers a range of antibody engineering services for all stages of therapeutic and diagnostic antibody development. Since 2012, the company has successfully sequenced more than 250 antibodies and successfully completed over 100 humanisation projects for its international, blue-chip client base, which includes eight of the top 10 global pharmaceutical companies by revenue. Fusion floated on the AIM market in December 2017, at a £18m valuation and raising cash of £5.6m. Turnover is currently £2.2m (although down from £2.7m in the previous year) with 40 staff employed. Reduced revenues are attributed to the timing of substantial orders. In its 2019 annual report, the company reported that 30% of the company's revenues came from exports to European Union countries, with some 91% of its revenues generally coming from outside the UK. The company is developing new export markets to "mitigate the risks of overexposure to any one geographical market". The annual report also noted that "significant revenue growth is achievable" in the current financial year. Crescent is the largest single shareholder with 11.74% shareholding and can exit from December 2019.

Case Study: Maildistiller

Maildistiller is a SaaS email security provider, operating in the Cyber security software market, specifically designed for channel distribution through multi-level distribution and managed service providers. The Company was established in 2005 and received support from Crescent Capital II. As part of a plan to expand its Proofpoint Essentials suite of software-as-a-service (SaaS) security and compliance solutions, Proofpoint Inc, the Californian based NASDAQ listed leader in cloud-based information security and governance software, acquired the NI -based company in 2013. Proofpoint was attracted by the high-grade IP, IT engineering capability and the European location. According to Proofpoint, the technology was to enable Proofpoint Essentials to combine the security and threat detection capabilities with ease of use, multi-level channel management and modern SaaS architecture required to serve the mid-to-small enterprise market. Since 2013, the NI base has grown to employ over 150 staff in NI.

Case Study: PathXL

PathXL is a company operating in the medical and life sciences technology sector. It seeks to replace the use of microscopes and glass slides in pathology with digital images, and then applying advanced software and algorithms to aid the diagnostic process, making labs more efficient and eliminating the risk of error. PathXL started out as a Queen's University spin-out firm in 2004. With investment support from a variety of funds, including Crescent Capital II, CoFund I and Par Equity, the company successfully

developed its technology and capability, until it was acquired by Philips Healthcare in 2016. Now known as Philips Digital & Computational Pathology Belfast, it has grown to employ by over 50 staff in NI, with turnover in excess of €2m. It has plans to further grow staff in NI to over 100.

3.2.3 The Profile of Investees

Under the Crescent II fund, £7.5m was invested by Invest NI and £15m by other investors. The KPIs for the fund included details of when financial close (of monies committed) was to be achieved.

A first close of the Fund at £8.5m was achieved in April 2004 (against a target of £10m by December 2003) with the first draw down taking place at that time. A second and final closing with £22.5m of commitments (including Invest NI) took place in May 2005.

The Fund originally had a term of ten years plus two one-year extensions (i.e. to 2016). The Fund's life has been extended to 6th April 2020 to allow for the outstanding exits (the expectation being that this will be extended further). The extensions in 2014 and 2015 were for a fee. A further two years were added in 2016 and a further two years added in 2018 but with no fee paid to Crescent since 2015.

Match investors in Fund II included a mix of institutional and private investors including locally based and international investors. There was a mix of public and private sector funds. The structure of the Fund was that there was one General Partner (founder of Crescent Capital) and eight Limited partners.

Investor	First close £000	Second & Final close £000	Total Participation £000	% Ownership
Invest NI	£4,250	£3,250	£7,500	33.33%
Queens University Belfast	£1,000	0	£1,000	4.44%
UUTech Ltd (part of Ulster University)	£1,000	0	£1,000	4.44%
Ulster Bank Ltd	£500	0	£500	2.22%
NILGOSC: NI Local Government Officers Superannuation Committee	£1,000	£1,000	£2,000	8.89%
Private individual	£500	0	£500	2.22%
EIF: European Investment Fund	0	£6,000	£6,000	26.67%
Hudson River Fund II/ New York State Common Retirement Fund	0	£3,750	£3,750	16.67%
General Partner/Crescent Capital CEO	£250	0	£250	1.11%
Grand Total	**£8,500**	**£14,000**	**£22,500**	**100%**

The above includes investment by the CEO of Crescent Capital (shown on investment papers as "General Partner").

The Invest NI loan of £7.5m was such that it was fully subordinate to all of the other investors, in order to make Crescent II attractive as an investment vehicle to the other funding institutions and investors.

With regard to distributions, the general policy of the Fund was to distribute net income and the proceeds arising from the disposal of investments on a quarterly basis.

Under the terms of the Limited Partnership Agreement, the Fund prioritised a baseline return to private investors - no repayment of the Invest NI loan would occur until the external investors had received distributions equivalent to their committed capital plus a minimum downside return – UK Gilt Rate (4.7% compounded semi-annually). However, Invest NI would share in any return of capital once this baseline / priority preferred return has been met; the balance of the investors' preferred return (up to 8% pa compounded semi-annually) would not be paid until after the Invest NI Loan was repaid.

Inherent in this approach was the use of public sector capital to provide a return to the private sector in the event of the overall poor performance of the Fund, however this was considered essential if the Fund was to leverage private sector capital.

Note that the investors above include the EIF[24], who were, in this period, investing in regional funds and investment in Crescent II was discretionary.

3.2.4 Consideration of the Basis for the Investment

Crescent Capital has a long-term presence in the NI VC funding environment, spanning almost 10 years at the time that Crescent II was launched. As such, the firm had 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.

Similar to Crescent I, there was a focus on high growth early stage companies, although Crescent I supported a number of larger businesses as compared to Crescent II, where turnover and employment at investment was:

	Crescent I	Crescent II
No of investments	12	12
Turnover at investment	£70.264m	£7.2m
Employees at investment	774	166

Crescent II also noted its support for IP rich companies with their origins in, or linkages to, the region's two Universities. To this end, of the 12 investments, six were university spin outs. This compares to Crescent I, were eight of the 12 investee companies were in the Manufacturing sector (including two large companies).

Feedback from stakeholders, including investors, was that although some would have preferred to have seen larger companies in the Crescent II portfolio, and there was disappointment amongst investors as to the financial performance of Crescent II, the general view was that Crescent Capital invested in the best of what was available at the time. To this end, it is difficult to determine the reasons for the low level of manufacturing companies or larger companies in the portfolio, except to surmise that this might have been attributed to the more plentiful availability of debt finance in the period. Feedback from Crescent Capital was that it did actively seek out manufacturing companies for investment but without significant success.

The Universities in particular were appreciative of Crescent II's appetite for investing in spin outs.

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

Notwithstanding this, investment decisions by Crescent Capital had to be made on the basis of the potential for financial returns rather than alignment with wider public sector goals.

3.3 Main risks and actions taken to manage risk

3.3.1 Key risks

[24] EIF's shareholders are the European Investment Bank (62%); the European Union, represented by the European Commission (29%); and 30 privately owned EU financial institutions (9%).

Consideration has been given to the main risks at the commencement of Crescent II and the actions taken to mitigate the risks. These are summarised:

Risk type	Risk	Commentary and Risk Reduction-Strategy/Measure
Insufficient funding raised from private investors to ensure financial close	There was a risk that there was insufficient funding from private investors to ensure financial close at the due dates	Public sector subordination is regarded as an important and necessary mechanism for attracting private investment into NI, given the scale of the economy and market, and a limited track record of successful VC. 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. In Crescent I, Invest NI subordinated 50% of the funds. This was reduced to 33% for Crescent II. Despite the reduction, such was the level of perceived derisking that financial close was successfully achieved. A key issue for the Fund was the ability to attract international funds into NI. The £3.75m investment by Hudson River Fund II/ New York State Pension Fund was a key recognition of the international support for increased economic activity in NI, with the New York State Pension Fund subsequently investing in the Development Funds (Crescent and Kernel) in 2013/4.
Lack of quality investments leading to commercial success and achievement of targeted IRR	There was a risk that the portfolio companies were not of sufficient quality to ensure commercial success and to allow investors to achieve the IRR	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'. Whilst Crescent stated that they sought to identify manufacturing companies for investment, the investment opportunities for Crescent II were mainly in respect of early and growth stage technology opportunities including companies with their origins in, or linkages to, the region's two Universities. The period of initial investment was five years and seven months, with the latter years spanning the 2008 -2010 financial crash. The general feedback from stakeholders was that Crescent invested in the best investment options available in NI at that time. It is noted that the two companies that effectively failed were 2009 investments, however, the second largest surplus came from the 2010 investment. It is noted that Crescent II invested in a Crescent I portfolio company (and has later invested in two Crescent II companies through Crescent III). This is considered by stakeholders to be on the basis of prudent financial judgement. Crescent Capital effectively invested in 12 companies which appears to have allowed sufficient diversification to spread portfolio risk (although there was a high number of software companies invested in). The stage of maturity also reflected a spread between start-ups, early stage and development companies. Crescent achieved a positive gross IRR on seven of the nine companies exited and expects to achieve a positive gross IRR on two of the companies not yet exited. The IRR is already higher than was achieved for Crescent I. Notwithstanding this, the overall IRR achieved was deemed to be disappointing for a number of the investors.

Risk type	Risk	Commentary and Risk Reduction-Strategy/Measure
Fund managers	There is a risk that the fund manager had inadequate resources or expertise to manage Crescent II	Invest NI appointed an FSA authorised Fund Manager to manage the Fund and to ensure that risk and compliance were effectively managed. Crescent Capital had already had 10 years of fund management experience in NI (Crescent I ran from 1995 to 2007). Fund managers sat on the portfolio companies Boards and were often instrumental in key Board and Chair appointments.
Risk of insufficient follow on funding for portfolio companies	There was a risk of insufficient follow on funding for portfolio companies, and that companies had insufficient capital to meet their funding needs to bring them to a satisfactory exit	The investment period was such that follow on funds were available until December 2014. Follow on funds represented circa 46% of all funds. There was no policy in place to bring in investment partners on a deal by deal basis, although most companies did secure other funding, with Crescent also investing in two companies through Crescent III. Total other funding is estimated at £25.8m (see para 3.2.1) although some predated Crescent II. There was some feedback from companies in terms of the timeliness of follow on investments, appropriateness of investment rounds. Feedback included that follow on money could have been deployed more quickly and in larger amounts of funding than actually invested, and that by investing less monies than requested and over a slower timescale that this had a negative impact on companies seeking to implement their strategy. Against this, Crescent had to manage the use of public funds including seeking to secure an appropriate return for its investors. Crescent also did seek to accommodate companies were follow on funding was deemed to be surplus to their needs with one company (Company G) being allowed to return funds raised (and reduce the Crescent II shareholding attached to this follow on funding) when the company was sold immediately after the follow on investment.

We note that the overall approach to risk management appears to be robust and proportionate.

3.4 Management of Exits from each investment to achieve the best return and valuation of the portfolio

Consideration has been given to the management of the exit from each investment to achieve the best return and maximise the valuation of the portfolio.

There have been seven positive exits to date. Feedback from five of the seven founders/CEOs at exit was that Crescent did seek to have a positive role in helping to build value in the company and to then achieve successful exits from the investment portfolio, including by introducing Corporate Finance expertise to identify exit targets. It was also noted that management of the portfolio including Crescent Capital's positive role in introducing a Chairman to two companies, with this ensuring that the company had a clear strategy and strong corporate governance arrangements in place to steer the company to a successful exit.

"Very good support has been given by Crescent during the exit negotiations and legal process".

A number of companies were of the view that Crescent could have introduced stronger networks (for funding, customers/partners and exit) and a small number of founders/CEOs considered that the companies already had the networks in place and that the valuations would have been achieved regardless. Stakeholders were of the view that Crescent II had a well-run portfolio that was managed for exits.

With regards to the two companies that failed or were sold for minimal value, it is noted that these secured a total of 15 investment rounds between them. Where it can be difficult to pick winners in a portfolio (one of the software companies had had their valuation written down to £0 prior to being sold at an uplift of circa three times the investment), feedback from stakeholders did note the willingness of Crescent Capital to continue to invest to maximise the potential for a successful outcome (although this needs to be balanced with a timely exit where the prospects for success are slim and funds can be invested elsewhere).

With regards to the companies not yet exited, these are particularly appreciative of the efforts of Crescent in working toward a successful exit, including having the foresight, vision and ambition to bring Company D to the AIM market (see case study), with the £5.6m of cash raised enabling the company to fund its expansion plans.

3.5 Progress against the Crescent II Action Plan (as per 2009 Evaluation)

Details of progress against the Action Plan prepared following the 2009 Interim evaluation of Crescent II is as set out below (with actions relating to the Development Funds launched in 2013 unless otherwise stated). Note that the Evaluation team have reviewed the final action plan monitoring update (dated October 2013) that details if/how the recommendations were implemented.

	Recommendation	Status
1	A successor source of funding to Crescent II should be established in a timely way – to avoid a gap in available funding between Crescent II closing for investments and a successor beginning to invest.	See para 2.2.3 – Successor funds established. There was a gap in funding in 2010 for reasons outside of Invest NI's control, with Invest NI subsequently re-structuring its requirements to facilitate the completion of fund closes.
2	Any Fund which is supported by public funds should be set objectives which relate to both investments (e.g. number and type of investments, target sectors, the work needed in investor readiness, the level of deal flow and the risk levels of projects), and also which relate to wider and regional benefits.	The Development Funds in 2012 had targets as follows: number of investments per year and total investments in the first five years, in NI only. The Economic Appraisal for the Fund of Funds (2010) had an aim to strengthen the capability of NI to develop and commercialise new technologies and break into growing sectors and markets. There were no specific targets on sectors or the risk level of projects. The Development Fund tender launched in 2019 now has targets for sectors (linked to priority sectors) and targets linked to the maturity of projects (with restrictions on the number of start-ups supported) {reflecting also the level of Invest NI support to start ups through Techstart ni}. The recommendation has therefore been partially implemented, with further to be done to document the work on investor readiness, the level of deal flow, the risk levels of projects and the wider and regional benefits being achieved.
3	The monitoring performance should be expanded in line with objectives for new funds. The monitoring information should provide a clear sense of how the fund management team is splitting its time against marketing, investor readiness, investment appraisal building project value and project exits.	The Oct 2013 update notes that "Monitoring requirements, based on agreed key performance indicators for each element of the fund manager's work has been expanded in line with the new fund". It is noted that monitoring needs to be in place for economic as well as financial monitoring. This should be a feature of the new Development Fund.
4	Customer service standards should be set by the Fund Manager and performance against these monitored. {INI Client Executives had been concerned over the approach taken on a number of the projects regarding a lack of clarity around the Fund's investment policy and the length of time taken by	The Oct 2013 update notes that "Customer service standards are reflected in all legal documentation. Performance against these will be monitored". There was generally positive feedback on how well Crescent Capital did their jobs - on how successful projects were selected, the assessment process, the approval process, the process for setting valuations,

	Recommendation	Status
	Crescent to appraise proposals and make funding decisions}.	appropriateness and timing of initial and follow on funding rounds. A small number of stakeholders noted that Crescent's approach is to invest small amounts of cash in the follow on funding, whereas access to larger amounts of investment would help companies to be more ambitious in their plans, allow for long term planning when growing teams and help NI companies to scale to £10-20m turnover. Again, for one investee company, they considered that the CC investment approach for follow ons was unduly long and protracted and the mechanism by which CC provided part of the funding (loan notes) hampered company growth. The above however must be balanced with Crescent's need to ensure appropriate use of public funds and its IRR targets set. In addition, in relation to customer service, it was noted that all VC funding could benefit from standardisation of documents with proformas issued as is the practice by techstart and the Business Growth Fund. This would reduce legal costs for the company, enable the founders to get early sight of Terms and Conditions of investment and what can or can't be negotiated, thus speeding up the investment process. It would also enable the applicants to get an understanding, at an early stage, of the processes and legal requirements of the investment agreement. Details on warranties etc can be difficult for companies to digest at a late stage in the investment process. There is a need to educate the founders more at the start of the process.
5	CCII Management fees were in line with benchmarks, if on the low side, and any new Fund should continue to be in line with these.	The subsequent Fund Managers were selected by competitive tender and cost was one of the key selection criteria. Fee levels were monitored by Invest NI. Payment could be withheld, if the manager did not perform in line with agreed KPIs, reflected in the LPA.
6	Invest NI should investigate the appetite of co-investors to participate in a co-investment fund – operating in the same space as CCII.	Invest NI introduced the Co-Investment Fund in 2011.
7	Any future fund in the Crescent space should have a clear investment strategy focusing on those companies which would not otherwise access finance.	The Interim Evaluation noted that displacement of other VC funds was potentially high (although this was not apparent from consultations for the Final Evaluation). Additionality was noted as being 49% based upon the responses from the 8 companies that responded to the survey (3 companies had not exited and 5 had exited). The Development Funds have been positioned in the £1m gap where VC funding is difficult to access.

	Recommendation	Status
8	Invest NI should clearly specify the role of the Fund Manager to encompass deal generation and investor readiness to complement the equity investments it makes, with SMART objectives set for: promoting the Fund; seeking investment opportunities; evaluating all applications for funding; monitoring the performance of investee companies and projects; reporting on performance; and managing the Fund's portfolio of investments.	Future fund managers were selected by competitive tender. The ability to generate deals and improve investor readiness were to be key selection criteria. Legals for the Development funds reflected the importance of deal generation and investment readiness support. Stakeholders noted that Crescent are not as visible as some other Invest NI backed funds and deal flow might be better if they are more active in the market place. It is not a member of the BVCA[25] . It does not participate in the Catalyst's annual NI Deal Day[26] (although it is not clear if invited). There was considered to be potential for Crescent to be further engaged in the wider investor community and also do more to co-invest. There were mixed views as to the level of involvement of fund managers – some thought fund managers to "over manage" and others thought that the level of strategic involvement was appropriate. Stakeholders also noted the need for sector specific fund managers, noting the Crescent Capital had good technology background. It was also noted that there is no organised communication network between the Invest NI funds / services, which given the size of the market, is perhaps a missed opportunity to share information, particularly about companies that may be ready to move up the funding escalator. Better and more regular communication between fund managers might in some instances provide an introduction service for companies, and a filtering mechanism for later stage funds and assist in achieving the shared goals of stimulating economic growth, wealth creation and job creation. That withstanding, there is more overlap between the Development Funds, Co-Fund, techstart ni etc, and the informal networks may be operating as appropriate.
9	Best practice as promulgated by Guidance from the Department Of Finance And Personnel on Making Appointments to External Delivery Organisations should be considered to ascertain how this could be implemented / applied with regard to declarations and handling of conflict of interest.	DFP guidance was applied to all future funds.
10	Best practice as promulgated by Guidance from the Office of the Commissioner for Public Appointments and from benchmark examples should be considered to ascertain how this could be implemented with regard to appointments to the Board of Advisors for the public (Invest NI representatives) only	DFP guidance was applied to all future funds. Best practice has been reflected in the legals for the Development funds. The fund manager is appointed first, followed by the Advisory Committee.

[25] British Venture Capital Association
[26] 40 VCs from outside NI participated in the 2019 Deal Day

	Recommendation	Status
11	A database of Section 75 information, in line with Invest NI policy, should be kept on each applicant to any future Fund.	Reflected in Development funds legals. As part of the Equality requirements a database of Section 75 information was kept on each applicant to the new Fund.

3.6 Conclusion

Section 3 has considered the operation and delivery of Crescent II.

Crescent II was established as a ten-year limited partnership with the option of extending the fund if required. The fund's life has been extended on three occasions to April 2020.

The £22.5m fund was funded one third: two thirds public to private, with Invest NI investing £7.5m (by way of a subordinated loan) and the matching £15m funded by a range of investors. Fees and costs of £5.92m were paid from the £22.5m fund, with c£17.5m invested into 12 portfolio companies.

There was a high level of investment in technology-based companies. There were only two small manufacturing companies in the portfolio and no large manufacturing companies. It is noted that the circumstances arising during the Crescent II investment period (when significant levels of debt were available up to 2008 and then the economic crisis from 2008), may have meant that manufacturing opportunities were not presented for investment. It is recommended that future Funds continue to support manufacturing investment opportunities; it is noted that there are targets for manufacturing companies in Crescent IV.

Feedback from companies indicates a reasonable to high level of satisfaction with the processes adopted by Crescent Capital.

At 31st March 2019, of the 12 companies, c75% (nine) of the portfolio by number and value had been exited and c25% (three companies) had not been exited.

Of the companies exited, two companies returned a surplus in excess of £2m, accounting for c45% of the total sale proceeds to date. Two companies failed (including one sold for an nominal amount). There has been an overall surplus on exited companies of £7.2m (sale proceeds in excess of investment cost but excluding management fees).

For the three companies not yet exited, Crescent Capital anticipate a valuation of at least £5.1m on exit against an investment cost of £4.96m.

Feedback from companies would indicate that the exit process has been well managed. Notwithstanding this, there was some disappointment from investors on the level of return on investment.

A review of the risk management process would indicate that the risks were managed and mitigated against.

There was considered to be potential for Crescent Capital to be further engaged in the wider investor community and also do more to co-invest. It is noted that Crescent IV has targets for co-investing. There is an opportunity to improve dialogue/communication amongst the fund managers. It is anticipated that Invest NI will monitor the level of engagement with the wider investor community and co-investments secured as part of Crescent IV.

The Crescent II Action Plan (as per the 2009 Evaluation) included a recommendation to document the work on investor readiness, the level of deal flow, the risk levels of projects and the wider and

regional benefits being achieved (see recommendations 2 and 8). Consultations have also called for the standardisation of terms sheets etc. It is noted that Crescent already report on leveraged investment from other sources in their routine reporting, as well on turnover, leverage, GVA, and Employment numbers. All portfolio companies including exit plans are listed and discussed at both the quarterly and advisory group meetings.
There continues to be a need for the Fund Manager to undertake the following:

- ensure that its Term Sheets includes references, at a high level, to clauses likely to be included in the Investment Agreement; the Fund Manager should also offer discussions on the same with management and, as appropriate, other existing shareholders.
- continue to present details to Invest NI on the pipeline of new companies, and the portfolio companies' requests for funding.

This should be taken forward by all future Fund Managers.

4 PERFORMANCE & IMPACT

4.1 Introduction

Section 4 is concerned with an assessment of the performance and impact of Crescent II. Section 4 includes the following:

Para	Details
4.2	Performance against its specific targets and appropriateness of targets
4.3	Assessment of inputs, outputs, outcomes and impacts and overall economic and wider impacts
4.4	Assessment of the impact of Crescent II in increasing equity investment and addressing barriers to SMEs seeking finance to support growth plans

4.2 Performance against its specific targets and appropriateness of targets

4.2.1 Assessment against KPI targets

An assessment of Crescent II's performance against the KPI targets set by Invest NI indicates that only two were achieved. It is noted that all were investment activity related targets, namely:

Key Performance Indicator	Performance against targets	Status
Raise £10m through private investment in the fund of which £5m is to be raised by December 2003 and a further £5m from 12 months thereafter;	A total of £22.5 million was raised comprising public and private contributions: Invest NI: £7.5m; EIF £6m; QUB: £1m; UU: £1m. Private investors: £7m. The Interim Evaluation classified EIF, QUB and UU as public funds – this Evaluator notes that these were discretionary funds and could be deemed to be "private". A first close of the Fund at £8.5m was achieved in April 2004 (£4.25m of non INI) with the first draw down taking place at that time. A second and final closing with £22.5m of commitments took place in May 2005.	With a minor change to timing, this objective was achieved.
Make 17 investments by Year 8 totaling £15.55m;	The target was for 17 investments in new companies. Total investment by year 8 (2012/13) was £17.2m. Investment had been made in 12 companies and 51 rounds	No of investments - not achieved, although the target may have been unrealistic given that the Fund was fully invested in 12 companies. Investment target - achieved Overall - target partially achieved
Experience no more than 29% (five) failures by year 10;	Of the 12 investments managed by Crescent, one failed and one was sold at a small valuation to another portfolio company. Failures were less than 10%	Achieved
Exit from 53% (nine) companies by year 10; and	By year 10 (2014/15), five of the 12 companies managed in the portfolio, had exited (38%). It is noted that for these 12 companies, three were invested in in 2009/10 (at the end of the investment period) although two of these failed. Of the last investment in 2010, this was exited in 2015 for a multiple of 2.99 times cost.	Not achieved - four companies were exited between 2010 and 2015 and 3 companies are yet to exit
Achieve a net Internal Rate of return "IRR" of 10% over the life of the funds.	£19.2m has been returned including all of the £15m to privates and £0.78m to INI. There are three companies to exit and c£5.8m is anticipated to be realised. The Fund may not return all monies to Invest NI but could return 88% of the Invest NI capital	Not likely to be achieved

In summary, Crescent II has achieved two of its stated target KPIs, partially achieved one, not achieved one target and is not anticipated to achieve the outstanding target. It is noted that the new Development fund launched 2019 has an IRR target of 3%. The target of a net IRR of 10% was therefore not realistic (see benchmarking section).

A key KPI was the ability to attract funding to match Invest NI in the Crescent II fund. Consultations were held with the majority of the investors into the fund (all bar one participated). They noted the following:

Reasons for investing in Crescent II

All investors had non-financial reasons for investing in CCII – seeking to support the local economy at a time of political change in NI and therefore a philanthropic interest in NI, seeking to support the innovation culture through support to spin-outs etc, seeking to support a public seeded fund that would help to bring economic prosperity to NI. Of the £15m match funding, £9.750m, or 65%, was raised from investors outside of NI. That said, the financial outturn was important to a number of the investors, with the outturn lower than that anticipated.

Views on Fund size and geographical restriction

Crescent II was considered to be a small fund, but an increase from the £14m Crescent I fund, which was the first VC fund in NI. There was positive feedback on the quality of companies, sectoral mix, stage of development of companies, size of companies, and size of investments per company noting the portfolio mix was to be unexpected. Whilst a number of investors voiced a preference for larger deals, there was a view that Crescent worked with what was available in NI and that there had been some efforts to seek to identify manufacturing deals which did not lead on to investment.

Need for Invest NI support and subordination levels

Crescent II was a public seeded fund at a time when there was little VC activity in NI. The limited VC activity in NI pre 2004, and lack of detail on possible VC returns, meant that Invest NI support was critical. Indeed, the level of subordination (at 33%) and Priority Preferred return (at 4.7% - the UK gilt rate) could have been higher – it being noted that while the Priority Preferred return was 4.7%, the Preferred return was 8% - with investors not likely to see any advances over the 4.7%. It is noted that the Priority Preferred return was higher in both of the Development Funds in 2013.

Views on the exits achieved – timeliness and financial returns

Most of the investors did not have much visibility on the exits, although there was a general view that the return on investment was not optimum. This had the impact of deterring some investors from supporting future funds, although others (such as the New York State Common Retirement Fund) have continued to support economic growth in NI. EIF has noted that the Crescent II was a poor performer when compared to their own funds but were unable to provide a comparison against other small regional funds. It was noted that decisions to invest in future funds were not solely being taken on financial grounds: i.e. Ulster University has now launched its own Enbarr fund and NILGOSC has changed its investment criteria to focus solely on debt (and is a contributor to the NI Growth Loan Fund and Growth Finance Fund).

Views on Crescent management and support including the number and quality of fund managers

There was positive feedback on the Crescent management, and the support they gave to the innovation community. NI investors noted the excellent job done by Crescent in 2004 in leveraging in international private sector capital. The universities (with spin out companies seeking and securing support from Crescent) were more vocal on the day to day dealings with companies, noting the importance of communication (to investee companies) on their assessment of progress and investment decisions as well as greater visibility of the fund within the Universities. There was also a request from the Universities for industry standard terms sheets.

4.2.2 Overall Assessment against Aims and Objectives

Crescent II had two main aims: (i) to stimulate the VC industry in Northern Ireland, helping to accelerate the quality and quantity of venture capital available to local SMEs and (ii) to operate a cost effective fund which would achieve returns for investors, primarily through capital growth - with the Fund Manager seeking to realise investments by way of trade sales, flotations etc.

Invest NI funding into Crescent II, with 33% subordination (a reduction from 50% subordination in Crescent I), was deemed to be critical in attracting private sector venture capital into the NI market. The rationale was to increase the attractiveness of NI equity market to private investors, reducing their risk through subordination of Invest NI monies, thus building up the local venture capital market and closing the funding gap identified in NI.

Subsequent attempts in the next decade to establish dedicated VC funding in NI without Invest NI support (i.e. the Emerald Infrastructure Development Fund launched in 2008) were not successful[27].

Moreover, following Crescent II, Invest NI attempted to launch a £30m Development Fund in April 2011, with Crescent appointed to manage this new fund. This proposed fund was aborted when, in the context of a very challenging environment after the financial crisis from 2008, which severely curtailed investment activity, Crescent did not secure sufficient investor interest to ensure financial close. Despite this, there have been two successful Development Funds launched since Crescent II:

- The £60m Fund launched in 2013 and currently delivered as two funds by Crescent and Kernel Capital with Invest NI support at £30m.
- The £65m fund launched in 2019 and to be delivered by Crescent (as Crescent IV) with Invest NI support up to £32.5m. 5m. {Note that first close of £26.5m has been achieved at end February 2020}.

The delivery agents in both cases have been able to secure the necessary private sector funding, with a number of investors in Crescent II also contributing to the 2013 Development Funds (i.e. the New York State Common Retirement Fund[28] and the NI universities).

The Crescent II fund has therefore been instrumental in pump priming VC activity in NI.

As per para 2.2.3, there is an increasing level of VC investments in NI since 2010 when Crescent II made its last 'new' investment, in part due to the introduction of the Invest NI backed Techstart ni Seed Fund but also new entrants, such as the Business Growth Fund and increasing interest from GB, ROI and international funds. According to the Knowledge Economy Index[29], in terms of Venture capital and private equity activity, NI has experienced the fastest rate of growth of the UK regions since 2009 with an average annual funding growth rate of 14.7%. This rate of growth is reflected in improvements in NI's regional ranking year on year from 2013, moving from 12th place in 2013 to 6th in 2018.

Moreover, £19.2m had been returned from investment realisations, equating to approximately 85% of the initial investment. The private investors have received all of their initial £15m commitment and all of the £3.4m Priority Preferred Return (although not the balance to the Preferred return of 8%).

Invest NI has received a small number of distributions, and to date has £0.78m of its £7.5m (10%) commitment returned. Invest NI will continue to receive all future realisations until its full £7.5m commitment is returned. Feedback from Crescent Capital is that they anticipate a value of at least £5.8m on exit, which would mean that Invest NI could have 88% of its capital repaid. The exact level of return to Invest NI is not yet known.

[27] Note that this was to include funds from four New York city pension funds
[28] This invested in both Crescent III and Kernel
[29] file:///C:/Users/Placement/Downloads/full-research-findings.pdf

Feedback from the investors is that returns are lower than anticipated; however there was recognition of the challenges facing the NI economy and the global economy during the period of the Crescent II Fund. The financial returns are also comparable to that of benchmark funds where information is available – see para 5.2.

Crescent II did not have any specific economic targets, although other benchmark funds did (see para 5.2). It is worth highlighting the NESTA report ("Reshaping the UK economy", June 2009) comments on "*the tyranny of multiple objectives*". This report acknowledges that "*many publicly backed funds have multiple objectives: they may seek to deliver both a commercial and a social return, or to encourage regional development.*" However, drawing on NESTA's own experience of running and investing in funds, the report highlights difficulties in meeting multiple objectives suggesting: "*that it is very difficult to make successful investment whilst also pursuing other objectives. Indeed, the more objectives a fund has (either explicitly or tacitly), the less likely it is to satisfy any of them.*" This withstanding, the economic impact of Crescent II is noted in para 5.3.

4.3 Assessment of inputs, outputs, outcomes and impacts and overall economic and wider impacts

4.3.1 Assessment of Inputs, outputs, outcomes and impacts

Crescent II Inputs

	Budgeted cost £000	Actual Cost £000
Crescent II investment	22,500	22,500
Crescent Capital Delivery Agent fees/costs (included in £22.5m)	5,900	5,900
Invest NI investment	7,500	7,500
Invest NI staff time (estimated)[30]	500	500
Invest NI other costs legal advisors, procurement, evaluations[31]	100	100
TOTAL COST to Invest NI before receipts from exits	8,100	8,100

Outputs

Components	Targeted output	Actual output
Length of investment period in CCII portfolio	10 year plus 2 years with initial investment from 2004-2009, and follow on 2009-2014 (plus 2 years)	6 years investment from 2004 to 2010. Follow on funds commenced from 2006/7 and has continued until Nov 2010.
No of companies invested in	Target of minimum of 17 investments	Actual 57 investments across 12 business entities.
Private sector leverage	Leverage £15m from private sector	Leveraged £15m including £8m from quasi public discretionary funds of EIF and Universities
Average investment per company	Average of £1,042k per company	Average of £1,461k per company, £308k per round
No of failures	KPI of no more than 29% (five) failures by year 10	Of the 12 investments managed by Crescent, one failed and one was sold at a nominal value to another portfolio company. Failures were less than 10%
Targeted sectors and exports	The focus of the Fund was to be on early and growth stage technology opportunities with a preference for those companies with their origins in, or linkages to, the region's two Universities.	There was a significant investment in software (nine of the 12 companies). There were only two small manufacturing companies in the portfolio. six of the companies were spin outs
Targeted business evolution	SMEs at early or growth stage plus developmental stage	Seven were start up and early stage companies, three at development stage and two of the portfolio companies were

30 Based on estimate for the £65m Dev Fund

31 Based on estimate for the £65m Dev Fund

		MBO/MBIs. With a split of 50%/42% early stage to growth/development companies, as well as a focus on technology led companies, this is likely to have impacted upon the employment arising from Crescent II.
Outcomes		
Stimulate the VC industry in Northern Ireland, helping to accelerate the quality and quantity of venture capital available to local SMEs	12 companies received funding totalling £17.5m - £9.1m in initial investment and £8.3m in follow on funding. Attracted £15m of private and quasi private funding including international funds via New York State Common Retirement Fund. There is estimated to have been at least £22m additional investment in these 12 companies (alongside or after Crescent II).	
Operate a cost-effective fund which would achieve returns for investors, primarily through capital growth - Achieve a net Internal Rate of return "IRR" of 10% over the life of the funds.	Returned £19.2m from investment realisations, equating to approximately 85% of the initial investment. A minimum of a further £5.8m is anticipated although this is not certain. The IRR KPI will not be achieved but the target may not have been realistic.	
To support entrepreneurship in NI leading to high growth potential, innovative, export focused companies	Seven start ups or early stage companies receiving funding	
Impact		
Growth in gross sales/external sales of beneficiary SMEs	The 2009 Interim Evaluation notes the turnover and employees at investment for the companies then in the portfolio (9 of the 12), with turnover having grown from £6.2m at investment to £23.8m by 2008/9. For the companies where information is available, turnover is estimated to have increased from £7.2m to £31m at exit or current, with export sales of £30.8m	
Number of new gross jobs created/safeguarded in investee companies	Total employment has grown from 166 to 421, an increase of 255. NI employment has grown from 153 to 366, an increase of 213. 153 FTE jobs in NI have been safeguarded.	
GVA impact	The GVA impact associated with investee companies to date (net of deadweight, displacement etc.) amounts to £74 million.	
Wider impacts	As at 4.3.7	

4.3.2 Financial Management and Output Monitoring arrangements

The Crescent Capital initial gross annual management fee proposed for managing the fund was 2.5% per annum of the total commitments of the fund (i.e. £22.5 million) for the first six years. Thereafter, the fee reduced by 0.25% per annum. Each year, the fee was increased by the RPI for inflation starting on the third anniversary. This included Crescent's costs for time on deal flow generation and assessment 'at the front end', making new investments, and managing existing investments 'at the back end' helping value to be built and to then achieve exits from the investment portfolio.

The total fee for Crescent II was £5.17m made up as follows:

- c£5m – as due under the ten year LPA.
- £95k extension fee for Year 11 (approved by Private Investors and Invest NI).
- £70k extension fee for Year 12 (approved by Private Investors and Invest NI).

No fees were paid or due during Years 13, 14, 15 and 16.
Total fees paid of £5.17m represented 22.9% of Fund. With further set up costs etc, the total cost for managing the fund was £5.9m.

Within the VC industry, benchmarks for management fees at the time of the Interim Evaluation, suggest a typical level of between 2% and 5%. Benchmarking in 2018 suggested that fees range from 1.5% - 4% pa of total Fund value, however standard at 2%-2.25% pa. The Crescent II arrangement (i.e. fee as a percentage of committed funds) for management fees is regarded as industry standard, noting also that Crescent II was a small fund and the fee percentage might therefore be on the higher side.

From a NI perspective:

- In Crescent I, fees of £3.6m were paid to Crescent Capital over the lifetime period of the £14m fund (1995 – 2007) (25.7% of the total fund).

- Fees in Crescent III and Kernel (as part of Development Funds) were 19.5/19% of the total fund (with a cap of 22.5%), namely £5.85m for Crescent III and £5.7m for Kernel (each on a £30m fund).

Including other out of pocket costs (for legals, evaluations etc), the total cost to date for Crescent II is £8.1m including estimated INI monitoring costs, although a net cost to Invest NI to date of £7.32m and an anticipated cost to Invest NI of c£1.5m:

Crescent II	Total Crescent II Less actual realisations £000	Crescent II INI cost Less actual realisations £000	Crescent II INI cost less anticipated realisations £000
Investment	22,500	7,500	7,500
Including Crescent delivery agent fee and costs	*5,900*	*2,950*	*2,950*
Invest NI fully loaded cost	500	500	500
Other INI costs	100	100	100
Total Costs	23,100	8,100	8,100
Less Realisations	-19,200	-780	-6,606
Cost to INI		7,320	1,494
Shortfall to INI on capital		6,720	894

4.3.3 Financial Performance

Assessment is made of the financial impact (financial return) of Crescent II.

Of the 12 investments, nine are divested off (seven resulted in profitable trade sales, one failed and one sold for a nominal value to a portfolio company). Company loans were also repaid. To date, Crescent II has realised £19.8m on a £12.6m investment. Sales includes:

- Company L (invested £1.4m and realised £4.2m);
- Company I: (invested £950k and realised £2.8m);
- Company G (invested £1.15m and realised £4.5m on $18.5m sale);
- Company A (invested £1.3m and realised £3.0m on sale); and
- Company F (invested £1.23m and realised £1.544m on $4.5m sale).

Of the two companies that failed, both (Companies J and K) had investment into each of c£2.2m.

There are three investments yet to exit (investment cost of £4m) including two (Companies D and H) at an investment of circa £3m which have secured additional funds of £1.6m from Crescent III.

Crescent II had an overall valuation of £24.944m at March 2019 (the date of the Fund's 56th report). This includes a £723k write down on Company D, with this shareholding having decreased in value since the AIM flotation in Dec 2017 (floated at £18.5m). As noted, its share price was 28.50p at end March 2019, and 69.50p at 24th October 2019 (peaked at 85p at May 2019).

£19.2m has been returned from investment realisations, equating to approximately 85% of the initial investment (plus the Priority Referred return). Feedback from Crescent Capital is that the fund has returned all capital to the private investors, but with an expected shortfall to Invest NI of £1.5m:

Actual and Anticipated out-turn CC II	Crescent II (£000) Actual	Crescent II (£000) Forecast
Privates	£15,000	£15,000
Privates preferred return	£3,400	£3,400
Invest NI	£780	£6,606
Total Actual/forecast	£19,180	£25,006
Current/forecast shortfall to INI	£6,720	£894
Total	£25,900	£25,900

The overall Crescent II fund IRR is anticipated to be 1% (>£22.5m). As noted, the target of a net IRR of 10% was not realistic.

4.3.4 Baseline of Economic Performance

The economic impact analysis for Invest NI evaluations generally consider gross and net impacts, considering gross GVA and employment, taking account of deadweight and displacement.

The 2009 Interim Evaluation notes the turnover and employees at investment for the companies then in the portfolio (nine of the 12), with turnover having grown from £6.2m at investment to £23.8m by 2008/9:

Company	Maturity	Turnover at investment[32] £000	Turnover at 2008/9 £000	Employees at Investment	Employees at 2008/9
A	Development	1,294	15,008	31	198
B	MBO/Development	2,195	5,749	21	54
C	Early	433	235	4	4
D	Early	348	453	15	33
E	Start Up	5	51	2	12
F	Early	49	270	2	12
G	Start Up	30	123	3	12
H	MBI/Development	1,766	1,659	21	30
I	Early	85	261	6	12
		6,205	23,809	105	367
J	Development		522[33]	9	37
K	Development		983[34]	31	15
L	Start Up[35]		2,175[36]	21	24
			27,489	166	443

For this Final Evaluation, there have been difficulties in determining the employment figures in the Crescent II companies, prior to investment, during investment and at exit. This arises as Crescent Capital was not required to monitor employment within their portfolio companies. Crescent Capital also had no dealings with companies post exit, and hence details on employment post exit have been requested of Invest NI, supplemented by any knowledge of the original founders (all of whom have exited the companies). {Note that all three of the existing companies[37] responded to a survey in relation to this Evaluation, and five of the nine companies sold, excluding the two failures}.

[32] Refers to dates between 2004 and 2009
[33] Year to March 2009
[34] Year to March 2012
[35] This was a spin out of an established spin out and the company had a revenue stream on establishment
[36] Year to March 2012
[37] INI agreed that Datactics should be excluded

Difficulties have also arisen in estimating NI employees to establish economic impact. A best estimate is included below based again on feedback from the founders on the level of NI employees in the business, as well as the Evaluators' knowledge of the companies (for those not responding to the survey). There has, through necessity, been an element of approximation of employment in each individual year and the detail below has not been validated by Invest NI or the Evaluator.

Details on employment at base is therefore estimated:

Investee Company data	Investment Amount £'000	FTE employees pre investment	FTE NI employees pre investment
Companies not yet exited	4,969	38	38
Companies exited	12,563	128	115
Companies	17,532	166	153

4.3.5 Estimated Economic Impact - Employment

Details of the actual (estimated) employment in each of the years is as set out in Appendix IV. As agreed with Invest NI, employment has been included at current levels for companies still in the portfolio and three years post exit for those companies no longer in the portfolio. An approximation has been made for NI employment as per para 4.3.4.

Details on employment at base is therefore estimated:

Investee Company data	Investment Amount £'000	FTE employees post investment	FTE NI employees post investment
Companies not yet exited	4,969	99	77
Companies exited – 3 years post exit	12,563	322	289
Total	17,532	421	366

Note that employee totals have fluctuated – employment in 2008/9 was estimated at 443. In terms of the 12 companies, total employment is noted currently for those companies not yet exited or three years post exit for these no longer in the portfolio. The detail below is in respect of total employment, including NI employment:

Company	Employees at Investment	Employees at 2008/9[38]	Current Employment in companies not exited	Employment in companies exited - 3 years post exit	Total employment
A	31	198	-	133	133
B	21	54	-	10	10
C	4	4	-	0	0
D	15	33	40	-	40
E	2	12	5	-	5
F	2	12	-	72	72
G	3	12	-	22	22
H	21	30	54		54
I	6	12	-	65	65
J	9	37	-	0	0
K	31	15	-	0	0
L	21	24	-	20	20
	166	443	99	322	421

[38] Employment is shown at 2010 for Companies J, K and L

- Of the three existing companies, two have increased their employees, whilst employment has fallen in one company
- Of the seven exited companies with positive valuations, four had increased employment, one had no employees three years after exit, and two had seen a reduction in employment.

It is noted however from the case studies, that for two companies with 205 FTEs recorded above, their employment has increased since they were acquired and they are now employing, or forecast to employ, 250 in NI. Three of the acquired companies have NI employment, actual and forecast, of between 100 and 150 in NI.

One previous founder noted that more could have been done by Invest NI to maintain turnover, post-acquisition:

Invest NI have not taken advantage of the impact of the acquisition. The acquisition attracted one of the largest privately held software companies in Silicon Valley to Belfast – post acquisition there was practically no engagement to attract them to further invest and grow a major footprint in NI. As a consequence, the team has dwindled and an acquisition 18 months later in Republic of Ireland has now turned into a major development and investment centre for the US company in Europe. This was a huge missed opportunity for Invest NI/NI govt.

Source: company founder

The increase in employment (total and in NI) was:

Investee Company data	Investment Amount £'000	FTE employees increase	FTE NI employees increase
Companies not yet exited	4,969	61	39
Companies exited – 3 years post exit	12,563	194	174
Total	17,532	255	213

Total employment has grown from 166 to 421, an increase of 255. NI employment has grown from 153 to 366, an increase of 213. 153 FTE jobs in NI have been safeguarded. Note that employment has been lower than in Crescent I (see para 5.2) although there were no economic targets.

4.3.6 Estimated Economic Impact - Turnover

Consideration is given to turnover within the Crescent II companies. Note that many companies became cost centres post their acquisitions and turnover has therefore been difficult to determine. Some information is incomplete and based on eight companies responding to the survey:

Company	Investment excl Loan Notes £000	Turnover at investment[39] £000	Turnover at 2008/9 £000	Annual Turnover Current/at exit	Annual Export Turnover Current/at exit	Forecast Export Turnover 3 years
D	1,479	348	453	2,200	2,100	4,500
E	2,040	5	51	155	155	2,000
H	1,450	1,766	1,659	4,200	4,000	6,300
Total Existing	4,969	2,119	2,163	6,555	6,255	12,800
A	1,366	1,294	15,008	19,000	19,000	
B	1,276	2,195	5,749	7,000	7,000	
G	1,150	30	123	1,500	1,500	
I	950	85	261	1,300	1,200	
L	1,431	1,088[40]	2,175	2,900	2,900	
Exited with responses	6,173	4,692	23,316	24,700	24,600	

[39] Refers to dates between 2004 and 2009
[40] Estimation per consultation

Company	Investment excl Loan Notes £000	Turnover at investment[39] £000	Turnover at 2008/9 £000	Annual Turnover Current/at exit	Annual Export Turnover Current/at exit	Forecast Export Turnover 3 years
C	350	433	235	n/a	n/a	
F	1,230	49	270	n/a	n/a	
J	2,240	n/a	522	Failed	Failed	
K	2,225	n/a	983	Sold at min value	Sold at min value	
	17,187[41]	7,293	27,489	31,255	30,855	12,800

In summary:

- For the companies where information is available, turnover is estimated to have increased from £7.2m at investment to £31m at exit or current, an increase of £24.4m, with export sales of £30.8m.
- For the existing companies on the portfolio, turnover increased from £2.1m to £6.6m with £6.3m of this export sales.
- For five exited companies with information available, turnover increased from £6.1m at investment to £24.7m at exit, with almost all being export sales. Note that additionality and displacement is considered in para 5.3.1.

4.3.7 Economic Benefits of exits

The financial impact of exits to date (and potential) is noted in para 3.2.2. The exits (actual and planned) can be assessed in terms of their benefit to the NI economy and/or to the Fund:

Company	Investment £000	Surplus/ (deficit) £000	Benefit to Fund	Current NI Employment	Growth in NI employment from investment	Benefit to NI economy
D	1,479	(723)	Potentially	31	16	Yes
E	2,040	(2,040)	No	5	3	Yes
H	1,450	2,897	Yes	41	20	Yes
A	1,366	1,680	Yes	107	82	Yes
B	1,276	447	Yes	9	-10	Partially
C	350	162	Yes	0	-4	No
F	1,230	314	Yes	150	148	Yes
G	1,150	3,385	Yes	21	18	Yes
I	950	1,897	Yes	62	56	Yes
J	2,240	-2,240	No	0	-29	No
K	2,225	-2,144	No	0	-8	No
L	1,431	2,842	Yes	18	-1	Yes
Total of benefit			9 of 12			9 of 12

Overall, it is considered that:

- Nine of the 12 investments (62% by investment cost) resulted in a benefit to the Fund (or a benefit is anticipated); and
- Nine of the 12 investee companies (72% by investment cost) resulted in a benefit to the NI economy in terms of NI jobs created (343) or NI jobs safeguarded (27)[42]. Two of the investee companies, with investment of £1,626k, surplus of £609k and NI employment at investment of 23, were acquired by FDI companies. The technology and employment of these two companies were fully or mainly exited from NI.

[41] £17.532m incl loan notes

[42] Note that these reflect current employment where known.

4.3.8 Wider Impact

Consideration is given to the wider impacts achieved from Crescent II. The following is considered:

Role of Crescent II in addressing gaps in the availability of early stage and development capital and increase the number of visible and sustainable sources of finance for SMEs including external investment into Northern Ireland.

Invest NI's focus in 2002 was encouraging and providing targeted financial support to raise the level of investment by business in strategic research, product development and industrial design as well as developing a process for equity investment in suitable start-up companies with promising technologies and good business prospects.

There was evidence of market failure at the time of the establishment of Crescent II with the fund filling one element of the VC infrastructure for which there is a demonstrable need – providing a follow on from NITECH/Viridian (see para 2.2.2) (which could invest up to £250k/£300k respectively), and a deal flow for larger / later deals and at a time when the level of VC investment in NI represented 0.7% of the UK total VC investment as compared with NI's share of UK GDP of 2.2%.

At the time of Crescent II's launched, Enterprise Equity was the only NI VC house capable of meeting demand for deal sizes £250k plus. Other UK/ROI VC houses were unwilling to invest in NI: the geographical location and the proliferation of smaller deals (e.g. less than £1 million) had traditionally deterred further private sector VC activity in Northern Ireland.

Crescent Capital II and Enterprise Equity were the only two funds in NI focused on post start up - early stage investments with deal sizes from £250k up to £1m, although the focus for Enterprise Equity was increasingly on MBI/ MBOs.

The £1m plus development funding level has been historically challenging for NI companies. There was limited evidence of external VCs investing in NI (the exception in the portfolio was Company A). There was also a need for a fund with sufficient capital to follow their money to a successful exit in order to demonstrate the potential of such investment to make adequate returns for the private sector. Crescent II's investment in 12 businesses was therefore critical.

Role in facilitating a sustainable Venture Capital and Fund Management community in NI
Crescent II was the second VC fund in NI at a time when all regions were investing in VC funds. Stakeholders note the benefits to NI of having a vibrant VC community, with the infrastructure for sustainability. Crescent II assisted in developing / maintaining fund management experience in NI – through employing a locally based Fund Manager.

Role in attracting FDI
The general experience of Crescent II has been that that trade sales to overseas companies can lead to a FDI growth opportunity, with more jobs created (i.e. where an FDI acquires an INI equity supported company and develops it further in NI). Accordingly, a more active VC environment will indirectly encourage FDI as the types of companies supported can be referenced in the Invest NI sales drive. Various VC exits and other exits by technology led companies have been to overseas companies and FDI has occurred e.g. The US FDI purchase of Company F where NI jobs now total 150 (from 72 jobs three years after exit), although for others (Company L), the NI operation has not expanded.

Role of CC II in scaling companies in NI
Crescent II had a role in scaling companies including through access to finance and governance. As a condition of their investment the funds often require appointment of non-executive chairs and directors who have industry knowledge and experience on the boards of the investee companies to strengthen the directors' skill sets.

"There were plenty of good pre-revenue projects in the NI market, that are founded on leading research and/or world class technical expertise. The funds should ideally bring "smarts" and contacts/networks as well as money to each project. The issues typically faced by most companies are around not being clear from an early stage on the product/market fit, not having the confidence, ambition and tools to effectively scale projects, a lack of sales skills in management teams and a lack of experienced NEDs". (Solicitor)

"Without the investment, company would have remained on a more conservative strategy, foregoing some growth opportunities". (Company CEO)

Role in introducing venture capital as a mainstream funding mechanism
A key outcome was to increase access to VC funds for NI SMEs. The availability of Crescent II facilitated the education of the NI SME community as to the benefits of venture capital (experienced board representation etc) as a stepping stone to reducing NI's grant culture dependency.

It is difficult to assess the impact of Crescent on the grant culture dependency – however the fact that companies are increasingly exposed to this form of finance – whether successful or not in securing it – has undoubtedly helped to educate businesses about this route to finance.

Role in successfully bringing a company to IPO and supporting MBOs
Company D achieved an IPO in 2017. Its case study is included in para 3.2.2. With this being a significant achievement for the company (from a reduction in staff to 12 in 2012, it pivoted to refocus its efforts on providing services (rather than drug discovery) and achieved a valuation of £18m and cash injected of £5.9m. Since then the Company has grown, and despite a fall in sales in the current year, expects sales to increase over the next three years. The CEO largely attributes this achievement to the Crescent Capital managing partner and notes the mentoring support provided by Crescent Capital.

The role in supporting MBOs and MBIs was also noted. There were two such transactions with Crescent II supporting the MBO of Company B and the MBI of Company H. For the former, this was sold on a multiple of 1.31 times investment. The MBI is still in the Crescent II portfolio and is valued at three times investment cost. The CEO of Company H noted the partnership arrangement with Crescent:

"CC partnered with me in the acquisition. The nature of the professional / commercial relationship fits the profile of the company and our management team". (Company CEO)

Role in the development of the skill base in NI
In Crescent II funding of seven start-ups/early stage companies, the VC fund manager played a role in the development of skills, knowledge, networks and management capabilities (as evidenced by investee company survey responses with regard to non-financial supports). Investment has been made in investor readiness and deal flow generation activities. Crescent Capital notes that often, pipeline firms were not investment-ready when they start discussions with the Fund Manager; their systems, processes, capacity and capabilities were not fit-for-purpose to accommodate growth. Significant changes were needed to achieve the necessary standards for due diligence. To this end, Crescent had sought to work with the potential portfolio companies to put in place optimal governance and management structures, including working with firms to adopt best practice financial systems/processes, board structures, and leadership arrangements, to develop business plans, and to expand management teams. Even for more mature companies, these noted the benefits of regular feedback from the experienced Crescent investment team.

Synergy with existing DETI backed VC funds e.g. Viridian, NITECH
The £22.5m Crescent Capital II Fund was developed to occupy a specific gap in the NI VC infrastructure with NITECH, Viridian and others including QUBIS and UUTECH providing a pipeline into the fund.

Impact of CC II on the investment culture in NI, encouraging access to new capital markets and introductions made: The concept of VC funding was not well known in the local market in 2004, so there was a lot of education to be done on a deal by deal basis, and also in terms of wider awareness of the VC funding model. The VC funds have been well represented at trade events/conferences over the last decade although it does not spend sizable amounts on PR and marketing. Awareness of the existence of these funds could have been greater among those not already plugged into the local VC eco-system of advisors, intermediaries and industry events.

Founders supporting growth in further companies.
Of the successfully exited founders completing the survey, all but one have proceeded to invest in or act as CEO/Chairman in future start-ups as well as investing in multiple start-ups.

4.4 Assessment of the impact of Crescent II in increasing equity investment and addressing barriers to SMEs seeking finance to support growth plans

CCII had a significant impact in increasing equity/venture capital investment in NI and in attracting new funds to NI.

The fund has been very important in establishing VC as a viable source of funding for early stage local companies. They have been invaluable in attracting external funds to NI.

UK and Irish based funds have taken a much greater interest in NI companies in the last decade. They generally make later stage investments, so often they look for a local investment to have been made in the early stages of growth as an endorsement of the management team and governance standards. Without a thriving local VC market, later stage external money is much harder to attract. Another source of investment comes in the form of external trade buyers acquiring portfolio companies when the funds exit. These buyers have typically been US or European based multi-nationals who have invested further in the NI business post acquisition.

4.5 Conclusion

This section of the report considered the performance of Crescent II against its specific targets.

Crescent II has achieved two of its stated target KPIs, partially achieved 1, not achieved 1 target and is not anticipated to achieve the outstanding target (although the target of a net IRR of 10% was not realistic).

£19.2m has been returned from investment realisations, equating to approximately 85% of the initial investment (plus the Priority Referred return). Feedback from Crescent Capital is that the fund has returned all capital to the private investors, but with an expected shortfall to Invest NI of £1.5m.

Total employment has grown from 166 to 421, an increase of 255. NI employment has grown from 153 to 366, an increase of 213. 153 FTE jobs in NI have been safeguarded. Note that employment has been lower than in Crescent I (see para 5.2) although there were no economic targets.

For the companies where information is available, turnover is estimated to have increased from £7.2m to £31m at exit or current, with export sales of £30.8m.

There have been wider economic benefits:

- Crescent II has been instrumental in addressing gaps in the availability of early stage and development capital and increased the number of visible and sustainable sources of finance for SMEs including external investment into Northern Ireland.
- It has helped to facilitate a sustainable Venture Capital and Fund Management community in NI
- It has attracted FDI, leading to growth in acquired companies
- Finance and strategic advice, including from NEDs have helped to scale companies in NI
- It has introduced venture capital as a mainstream funding mechanism
- It has successfully brought a company to IPO and supported MBOs
- It has helped to develop the skill base in NI
- It has had a positive impact on the investment culture in NI, encouraging access to new capital markets and introductions made
- Founders have been supporting growth in further companies.

5 RETURN ON INVESTMENT & VALUE FOR MONEY

5.1 Introduction

Section 5 is concerned with an assessment of the Return on Investment and Value for Money from Crescent II. Section 5 includes the following:

Para	Details
5.2	Benchmarking
5.3	Consideration of the Return on investment
5.4	Economy, efficiency and effectiveness of Crescent II
5.5	Assessment of Value for Money
5.6	Equality

5.2 Benchmarks of Regional Venture Funds

5.2.1 NI Benchmark funds

Pre Crescent II: Crescent Capital I (the predecessor to Crescent II) was a £14m Venture Capital Fund set up under the terms of the Hambro Northern Ireland Ventures LP Limited Partnership Agreement dated 23 October 1995. The Fund was established as a pilot with £7m provided in the form of a loan from Invest NI, subordinated to a matching £7m from private investors (this being the ongoing arrangement). The Fund sought to make investments in the range £250k to £750k and up to £1m in exceptional circumstances. A total of £10.79 million was invested by the Fund in 12 companies;

- Scale (employees): ranging from around five people to more than 500 people at the time of the investment;
- Scale (turnover): ranging from around £119,000 to in excess of £41.1 million at the time of investment;
- Sector: Eight in the manufacturing sector, three in the tradable services sector and one undefined sector (UP Holdings a property holding company);
- Deal Type: start up (x1), early-stage (x4) or development stage (x7).

This levered further investment of around £15.45 million from the public and private sectors. In addition, management fees of £3.6m were paid to Crescent Capital over the lifetime period of the Fund (1995 – 2007).

The Limited Partnership terminated on 10 November 2007 and the winding up of the Fund was completed in mid 2008.

In terms of economic performance, total sales increased by £68.576m (98%) from £70.2 million to £138.8 million; and employment levels increased by 413 (53%) from 774 employees to 1,187 employees.

In terms of financial performance, of the twelve investments, three resulted in profitable trade sales, one Initial Public Offering (IPO) was achieved, and two failed. The remaining investments did not provide commercial returns. Overall the Fund achieved an Internal Rate of Return (IRR) of minus 0.9%, there was a shortfall of just over £60k in returns to private investors (with an IRR of 7.8% to the private sector) and the DETI / Invest NI investment of £7m was written off.

Subordination: INI has historically invested its money in the Development Funds on the basis of it being subordinate to the private sector. The level of subordination was 50% in Crescent I, 33% in Crescent II, 50% in the Crescent III and Kernel Development Funds and 25% subordination in Crescent IV. This was after the 2011 failed bid (as initially won by Crescent assuming 33% subordination). Changes in EU rules means that there is now an upper level on subordination of 25% - Reference Article 21 GBER 2014.

5.2.2 Benchmark funds at launch of Crescent II

The benchmarking exercise conducted for the Interim Evaluation in 2009 demonstrates the range of investment models that were utilised throughout the UK and Ireland, with benchmarking against the North East Co-Investment Fund (NECOIF); The Scottish Co-Investment Fund (SCF); and The Enterprise Ireland Seed and Venture Capital Programme (EI) as per the Interim Evaluation (2009). There has also been benchmarking across the Northern English JEREMIE Funds (evaluation completed in 2019) and with a review of the Early Assessment of the Impact of BIS Equity Fund Initiatives (2010). The three JEREMIE funds cover the North East, North West and Yorkshire and Humber regions of England and were funded through the 2007-13 English ERDF programme.

Details of benchmark funds are:

Indicator	Crescent Capital I	Crescent Capital II	NECOIF	SCF	Northern English JEREMIE Funds	EI 2000-2006	EI 1994-1999
Period	1995-2007	2004-2020	2005-2008	2003-	2007-2013	2000-2006	1994-1999
Type	Equity	Equity	Equity & quasi equity	Equity	Equity plus loans	Equity	Equity
Fund Value	£14m	£22.5m	£23m	£84m	£600m[43]	€474m	€147m
Source(s)	Invest NI (EU) 50% Private 50%	Invest NI 33%, EIF 27% QUB/UU 9% Private 31%	ERDF 100%	SE/ERDF 52% Other 48%	ERDF Structural Fund and the European Investment Bank.	EI 21% Other 79%	ERDF 30% Other 70%
Public / Private Investment	subordinated loan	subordinated loan	pari passu	coinvest on pari passu basis	n/a	EI 2007-2012 Programme - pari passu	
Investment range	£250k-£1m	£250k-£1.5m	£100k-£1.5m Max NECIOF 45%	Up to £0.5m from fund. Max total investment size of £2m	n/a	n/a	n/a
Investments: £	£10.8m	£17.5m	£23m	£22.95m	£424m	€295m	€129m
Investments: No of investments	32	57	67	162	n/a	503	506
Investments: No of businesses	12	12	34	100	1,869	152	146
Average investment	£337,253	£307,579	£343,284	£141,667	n/a	€586,481	€254,941
Average investment per company	£899,340	£1,461,000	£676,471	£229,500	£226,859	€1,940,789	€883,562
Leverage[44]	£8.7m	£25.6m	£40m	£54m ++	£891m	n/a	n/a
Impact	413 jobs created £68.576 m increase in turnover.	255 jobs created 166 jobs safeguarded £24.4m increase in turnover.	n/a	709 jobs created £157m turnover	17,000 created 19,000 safeguarded	n/a	n/a
Impact: - £ invested per job created	£26,131 £13,065 INI only	£68,752 total £22,917 INI only	n/a	£32,370	£25,422	n/a	n/a
Financial return	c£13m[45]	£25m forecast	n/a	n/a	£432m forecast	n/a	n/a

43 Based on £424m invested and 28% fees

44 Leverage for Crescent I and II excludes Invest NI grants etc

45 Almost £13m when £7m capital plus 7.8% IRR returned to privates included

European funding is an important contributor to the funds benchmarked, with funding being drawn down from the ERDF and the EIF (and other undefined European monies) by 6 of the 7 funds (including Crescent Capital who drew EIF funds for Crescent II). The ratio of public to private sector monies invested in the funds varies from a minimum of 21% within the EI 2000-2006 fund to 100% of all monies under the NECOIF.

Fund value varies considerably ranging from £10m under Crescent I to £424m in the Northern English JEREMIE Fund and €474m under the EI 2000-2006 Fund. The former will include a range of investment mechanisms including seed, loans etc.

Average investment round size ranges from just over £147k (SCH) to €586k (EI 2000-2006 Programme). The closest average deal size is for NECOIF (£343k) NECOIF: 67 deals, invested £23m.

Average investment per business ranges from £226k (Northern English JEREMIE Fund) to €1.9m (EI 2000-2006 Programme).

Considering impacts of the funds, Northern English JEREMIE Fund had a target of 19,000 jobs created with 17,000 achieved. In terms of cost per job created, this varies from £25.4k (Northern English JEREMIE Fund) to £68.7K (Crescent II). Crescent I fall within this range – the figure for Fund I is £26.1k. The cost per job (CPJ) is significantly higher for Crescent II at £68.7k per job (based on actual employment for companies still in the portfolio and employment three years post exit for those where exits have been achieved). When the Invest NI capital cost only is taken into account, the cost to Invest NI is £22.9k[46] for Crescent II as compared to £13k for Crescent I.

With at least two exited companies demonstrating NI employment growth, the current CPJ will have declined further (to £47.2k for the full fund and £15.7k for Invest NI).

It is noted that the Northern English JEREMIE Fund includes loans. As a further benchmark, for the Northern English JEREMIE fund, the Mid-Term Review (November 2013) - Pages 81 and 97 indicate loans have a CPJ of c£21k and equity c£55k.

Management fees in Crescent II (excluding costs) account for 23% of the total spend (investment sum/ management fees). This appears to be consistent with other available benchmark information (e.g. NITECH 27%, ERDF VC Funds in England and Wales 22% and 28% for the Northern English JEREMIE fund).

With the exception of funds based in London and the South East of England, there were very few regional, government backed funds during this investment period which achieved a return for government. Research carried out by the Small Business Service of DTI, with input from the British Venture Capital Association (March 2006)[47] concluded that early stage funds achieved a negative IRR during the early 2000s, although there would have been economic benefits arising from the creation of government backed funds during this period. (This research indicated that a five-year rolling Internal Rate of Return to 2004 was -1.2% for Venture Capital Funds in the US and -2.3% for those in Europe. According to BVCA, the UK early stage funds achieved an IRR of -10.3% in 2004 over five years.)

It is noted that for the Northern English JEREMIE fund, the original expectation was that the Funds would return £514m, equivalent to 121% of capital invested. The latest projections indicate that the funds will return a lower amount of £432m, equivalent to 102% of capital invested.

This compares to Crescent II where the expected outturn for capital is £25m, or 142% of fund invested.

In summary:

- The average investment per round was comparable to other funds, with average investment per company similar to EI.

[46] 1/3 of £17.532m divided by total increase in employment of 255
[47] https://pdfs.semanticscholar.org/2cc2/5160ae928613287a2b9a85baed06af6cf749.pdf

- There was a lower number of jobs created as compared to other funds, with CPJ being higher - although comparable when INI funding only is considered and considering the equity portion only of benchmark funds.
- The financial return appears more favourably than that of the benchmarked Northern English JEREMIE fund.

5.3 Consideration of the GVA return on investment

5.3.1 Economic impact of the Crescent II investment

Consideration has been given to the economic impact of the investment made by the Crescent II Fund.

The impact assessment has focused on the overall GVA contribution brought about as a result of jobs in the portfolio companies, currently for existing companies in the portfolio and for 3 years post exit for companies no longer in the portfolio. Details are as per Appendix IV.

We have taken the self-assessment of additionality by the companies at 89% and applied the displacement/leakage/substitution calculations as the previous Development Fund Interim evaluation. For example, for the Development Funds (Crescent III & Kernel) the company assessment of additionality was 76% and this was reduced to 42% factoring in displacement/leakage/substitution. We have applied a similar reduction for Crescent II with overall additionality estimated at 49%.

Based on GVA per sector[48] for the period 2006 to 2019 and NI jobs as per para 4.3.5, total gross GVA arising is £133.842m and Net GVA is £73.602m.

The above GVA, at £73.602m is based on total GVA (not incremental) reflecting the overall value added contributed by funded companies in the CC II period up to current.
We also note that for the 12 companies in the Crescent II portfolio, there has been £25.616m invested from other sources, including NITECH/Viridian, and CoFund for two of the companies.

The £72.602m is therefore attributed to all investments made.

It is not possible to determine the impact of individual investments, i.e. some monies were invested pre-Crescent II and the companies were not performing, and hence the value of these investments may have been diminished.

Equally, the Crescent II monies were instrumental in many cases in leveraging in the additional investment, or supported companies during difficult trading or funding periods, prior to them securing additional monies.

Apportionment for Invest NI's investment in Crescent II and assuming no apportionment, indicates the following:

	Total Net GVA generated at 49% additionality £000	Investment £000	GVA per investment
All investment	£73,602	£42,693[49]	£1.72
INI investment (all costs)	£73,602	£8,100	£9.08

The above is indicative only - The total Net GVA generated across all investments is £9.08 per £1 INI investment in Crescent II and £1.72 GVA per £1 from all investment - Crescent II and others.

5.4 Economy, efficiency and effectiveness of Crescent II

[48] This has been based on GVA per FTE (workplace FTE estimated by evaluator)
[49] £25,161k plus £17,532k

Consideration is given to the economy, efficiency and effectiveness with which public funds have been used on Crescent II.

In terms of economy – ('doing things at the right cost'), Invest NI had implemented a robust Economic appraisal process to assess, amongst other things, the reasonableness of cost components. There was an open and competitive tendering process for the appointment of the Fund Manager. The level of Invest NI subordination had been set at a maximum of 50% in order to maximise the return on investment to Invest NI and reduce the overall net cost. Management fees were comparable to benchmarks at 23% of the total fund. Private investors were paid their Priority Preferred Return in line with the tender documents. Crescent Capital has continued to manage existing portfolio companies since 2016 at no additional cost to Invest NI, albeit that two of these are now part of the Crescent III portfolio.

As such, it is the Evaluation Team's view that Invest NI had made appropriate efforts to ensure that the fund was delivered at least cost to Invest NI.

In terms of efficiency, ('doing things the right way'), there was one experienced fund manager responsible for the Fund. There were targets set for the number of companies invested in.

- Average VC investment per deal is comparable with benchmark funds which illustrate similar activity levels;
- Average VC investment per investee company is at the high end of the average investments per investee company from the benchmark organisations but comparable to EI [noting that not all benchmark investments are in equity]

With regard to effectiveness ('doing the right things'), Crescent II had two main aims: (i) to stimulate the VC industry in Northern Ireland, helping to accelerate the quality and quantity of venture capital available to local SMEs and (ii) to operate a cost effective fund which would achieve returns for investors, primarily through capital growth - with the Fund Manager seeking to realise investments by way of trade sales, flotations etc. A number of SMART objectives were set, i.e. there were targets set for the raising of private investment, the number of investments, and timing of such investments, the number of failures, the number and timing of exits and the IRR. Of the five targets set, Crescent II has achieved two of its stated target KPIs, partially achieved one, not achieved one target and is not anticipated to achieve the outstanding target.

Not all of the targets were clear, i.e. there is ambiguity if the number of investments relate to the number of portfolio companies or the number of funding rounds. Delays in exiting two of the existing portfolio companies is likely to have increased the value of the Fund and therefore been advantageous for the investors, namely Invest NI, with there being an expectation that Invest NI will receive 88% of its investment. Overall:

- Fund Performance (IRR): Crescent II did not achieve the KPI for 10% IRR although this is considered to have been unrealistic
- Commercial Performance of investee companies: at an overall level, there were increases in sales and employment levels during the period of the Crescent II investment.
- For the companies where information is available, turnover is estimated to have increased from £7.2m to £31m at exit or current, an increase of c£24m, with export sales of £30.8m.
- NI employment increased from 153 to 366, an increase of 213. 153 FTE jobs in NI have been safeguarded.
- The CPJ is higher than the benchmark funds for Crescent II at £68.7k per job. When the Invest NI capital cost only is taken into account, the cost to Invest NI is £22.9k for Crescent II as compared to £13k for Crescent I.
- The financial return (at 142% of fund invested) is higher than for the Northern English Jeremie fund).
- Value Add to investee companies: There is evidence that Crescent II has had a positive impact on investee companies in terms of non-financial supports provided.
- Wider and regional impacts: There is evidence of positive wider and regional impacts due to Crescent II

Overall, Crescent II has met its aims and objectives. It was the 2nd dedicated VC fund in Northern Ireland, attracting private including international funds into NI to support the growth of SMEs. It also successfully resulted in full payment to the private investors, although there is likely to remain a shortfall for Invest NI.

5.5 Assessment of Value for Money

Consideration is given to the extent to which Crescent II represented good Value for Money (VfM) and appropriate use of public funds across the full spectrum of relevant VFM indicators. Value for money is considered against relevant indicators:

Summary of Value for Money	
VFM Indicator	
Strategic Fit	The focus for the NI Executive was on the economy including "Securing a Competitive Economy". Allied to this, Crescent II was clearly aligned to the focus of addressing funding gaps in NI companies seeking to develop and commercialise new technologies and break into growing sectors and export markets.
Need & Market Failure	In terms of need and market failure this is noted as follows: • Market failure/Equity Considerations - asymmetric information/information failures/risk aversion of potential Institutional and private investors to invest in NI; • NI Economic performance – NI performance on key relevant economic indicators and the longstanding structural issues within the NI economy; • The level of demand for Crescent II and the lack of sufficient early stage and development finance in NI beyond that provided by INI and including at the £1m level; • The opportunity to attract new external funds to NI; • The need for Crescent II to follow its money to successful exits and demonstrate commercial returns to investors, encourage reinvestment in NI in future funds, and to facilitate the retention of external VC invested companies (and its employees) in NI.
Additionality	In terms of their ability to access funding in the absence of Crescent II, feedback from company respondents suggests that additionality (after adjustment for displacement, leakage and substitution) is at 49%.
Displacement and complementarity	Displacement of companies' goods or services is likely to be low or non existent. Of the companies reporting turnover, less than 3% was within NI. Crescent II filled a gap in the market after Crescent I, before Co-Fund I and when the available public sector funding was limited to Enterprise Equity which focused on larger deals.
Economy Efficiency and Effectiveness	Overall findings on the value for money of Crescent Capital Fund II are as follows: • The ratio of management fee to total investment is consistent with other funds • Average VC investment per deal is comparable with benchmarks although VC investment per investee company is at the high end of the benchmark organisations but comparable to budgeted levels. • Fund Performance (IRR): Crescent II did not achieve the KPI for 10% IRR. With the 2019 Development Fund having a targeted 3% IRR, the target for Crescent II was unrealistic. • Commercial Performance of investee companies: at an overall level, there were increases in sales and employment levels during the period of the Crescent II investment. • In terms of CPJ created, Crescent II is above benchmark funds.

Summary of Value for Money	
VFM Indicator	
	• Value Add to investee companies: There is evidence that Crescent II has had a positive impact on investee companies in terms of non-financial supports provided. • Wider and regional impacts: There is evidence of wider and regional impacts due to Crescent II Based on GVA per sector for the period 2006 to 2019 and NI jobs as per para 4.3.5, total GVA arising is estimated £73.602m.
Cost effectiveness	The cost per job (CPJ) is significantly higher for Crescent II at £68.7k per job (as compared to £26.1m for Crescent I). When the Invest NI capital cost only is taken into account, the CPJ for Invest NI is £22.9k for Crescent II as compared to £13k for Crescent I. The total GVA generated is£9.08 per £1 INI investment in Crescent II and £1.72 GVA per £1 from all investments – Crescent II and others.
EET[50]	The average period of investments in the 12 companies is 5.2 years. The financial return (at 142% of fund invested) is higher than for the Northern English Jeremie fund.

Overall, dependent on the outcome of the remaining portfolio companies, Crescent II is considered to have demonstrated reasonable impact across all Value for Money indicators.

5.6 Equality

This section of the report provides an Equality assessment of Crescent II. Invest NI details in its Equality Scheme how it continues to meet its Section 75 responsibilities through its arrangements for monitoring any adverse impact of policies on the promotion or equality of opportunity.
The Evaluation Team's review of the programme's activities indicates that the programme is available to all eligible businesses and investors.

[50] Economic Efficiency test

6 OVERALL ASSESSMENT & LESSONS LEARNT

6.1 Introduction

A key focus of this Evaluation of Crescent II is the assessment of the outcomes, value for money and wider economic benefits gained from the delivery of Crescent II and the extent to which objectives have been met.

6.2 Conclusion on Crescent II

Crescent II was established as a 10-year limited partnership, with the option of extending the fund if required. The fund's life has been extended on three occasions to April 2020.

The £22.5m fund was funded one third: two thirds public to private, with Invest NI investing £7.5m (by way of a subordinated loan) and the matching £15m funded by a range of investors including international investors (NY State Retirement Fund), the European Investment Fund, the two NI Universities and other privates. Fees and costs of £5.9m were paid from the £22.5m fund.

The intervention by Invest NI has met its key strategic objectives, meeting the market demand from SMEs for funding, and with additionality deemed to be reasonable at 49%. It has also been successful in achieving returns for investors. While some investors have noted a lower financial return than anticipated, in a period that straddled the financial crisis beginning 2008, the financial return is at least comparable to other regional funds.

Crescent Capital was selected under competitive tender to manage the Fund.

Key Performance Indicator	Performance against targets	Status
Raise £10m through private investment in the fund of which £5m is to be raised by December 2003 and a further £5m from 12 months thereafter;	A total of £22.5 million was raised comprising public and private contributions: Invest NI: £7.5m; EIF £6m; QUB: £1m; UU: £1m, New York State Common Retirement Fund: £6m, other Private investors: £1m. EIF, QUB and UU were discretionary funds and could be deemed to be "private".	With a minor change to timing, this objective was achieved.
Make 17 investments by Year 8 totaling £15.55m;	Total investment by year 8 (2012/13) was £17.2m. Investment had been made in 12 companies and 51 rounds	Partially achieved although the target may have been unrealistic given that the Fund was fully invested in 12 companies.
Experience no more than 29% (five) failures by year 10;	Failures were less than 10%	Achieved
Exit from 53% (nine) companies by year 10	By year 10 (2014/15), 5 of the 12 companies had exited (38%).	Not achieved
Achieve a net Internal Rate of return "IRR" of 10% over the life of the funds.	The privates received capital (£15m) and Priority Preferred Return (£3.4m) and £0.78m has been returned to INI. c£5.8m is anticipated to be realised from the remaining 3 exits. The Fund could return c88% of the Invest NI capital. The overall CCII fund IRR is anticipated to be in the order of 1%.	Not likely to be achieved but not realistic target[51]

Of the five SMART targets set, Crescent II has achieved two of its stated target KPIs, partially achieved one, not achieved one target and is not anticipated to achieve the outstanding target of an IRR of 10%. This target is not, however, deemed to be realistic.

There is evidence of:

[51] The net IRR target for the new Development Fund in 2019 is 3%.

- Commercial Performance of investee companies: at an overall level, there were increases in sales and employment levels during the period of the Crescent II investment.
- For the companies where information is available, turnover is estimated to have increased from £7.2m to £31m at exit or current, an increase of c£24m, with export sales of £30.8m.
- NI employment increased from 153 to 366, an increase of 213. 153 FTE jobs in NI have been safeguarded.
- The CPJ under Crescent II (at £68.7k per job) is higher than for the benchmark funds. When considering the benchmark funds, it is noted that some benchmarked funds include loans and in some instances private investors may have invested as a matched deal rather than into the fund. In both such instances the loan and private funds invested may not have been included in the CPJ calculation, resulting in these reporting lower CPJ figures than under the Crescent II calculation. When the Invest NI capital cost only is taken into account, the cost per job to Invest NI is £22.9k for Crescent II as compared to £13k for Crescent I.
- The financial return (at 142% of fund invested) is higher than for the Northern English Jeremie fund).
- The total GVA generated is £9.08 per £1 INI investment in Crescent II and £1.72 GVA per £1 from all investments – Crescent II and others. We note that for the 12 companies in the Crescent II portfolio, there has been £25.616m invested from other sources, including NITECH/Viridian, and Co-Fund for two of the companies.
- Value Add to investee companies: There is evidence that Crescent II has had a positive impact on investee companies in terms of non-financial supports provided.
- Wider and regional impacts: There is evidence of positive wider and regional impact:
  - Crescent II has been instrumental in addressing gaps in the availability of early stage and development capital and increased the number of visible and sustainable sources of finance for SMEs, including external international investment into NI, at a time when there were limited equity sources.
  - It has helped to facilitate a sustainable Venture Capital and Fund Management community in NI.
  - Seven Crescent II companies have attracted FDI as acquirers, and showcased NI's R&D capabilities. Of the six companies acquired by US firms, three have NI employment, actual and forecast, between 100 and 150.
  - Finance and strategic advice, including from NEDs introduced by Crescent, have helped to scale companies in NI
  - It has introduced venture capital as a mainstream funding mechanism.
  - It has successfully brought a company to IPO and supported MBOs.
  - It has helped to develop the skill base in NI.
  - It has had a positive impact on the investment culture in NI, encouraging access to new capital markets and introductions have been made.
  - Successful exits have enabled founders to support growth in further companies.

6.3 Findings and Lessons Learnt during the Evaluation of Crescent II

Overall, this Evaluation concludes the Crescent II intervention in NI has met its aims and in part met it objectives and targets. As noted above, Invest NI has since launched the Development Funds in 2013 (Crescent III and Kernel) and Crescent IV in 2019. A number of observations and lessons learnt from Crescent II have already been identified through the Interim Evaluation of Crescent II and indeed the Interim Evaluation of the 2013 Development Funds, with resultant targets in the 2019 Development Fund. These include:

Size of companies invested in and sectors: Crescent II had a high level of investment in software companies and start ups, albeit that investors and stakeholders accepted that Crescent invested in what was available at the time. Crescent II straddled a period of limited sources of funds for high growth start ups, high availability of debt for trading companies and also the financial crisis which may have affected the appetite for more mature companies, especially manufacturing companies, to secure equity investment. Going forward, and with the launch also of techstart II,
there are targets in Crescent IV for a portfolio spread across Invest NI priority sectors as well as limits on investments in start ups. It is recommended that current funds continue to support manufacturing investment opportunities; it is noted that there are targets for investment in manufacturing companies in Crescent IV(in the context of Advanced Manufacturing being an Invest NI priority sector).

Employment in investee companies: Employment in Crescent II was low when compared to Crescent I and benchmark funds. This reflected the nature of the companies invested in, although it is noted that NI employment has subsequently grown in two out of the seven successful exits, supported by the new US parent company. Whilst some benchmark funds (i.e. Jeremie) had targets for employment, these were public sector backed funds as compared to Crescent II with two thirds being private funds with commercial objectives. In addition, there is an argument put forward by NESTA that a fund should not have multiple targets, i.e. economic and financial. The Evaluator agrees that employment targets should not be a feature of future funds, although the targets for more mature companies and also a wider portfolio spread, may result in additional economic outcomes, including increased employment.

Financial Returns to Investors: There has been disappointment by a number of investors in the financial return from Crescent II. It is noted for Crescent II, that Invest NI had a 33% investment, all of which was subordinated to the privates, and with a priority preferred return to the privates of 4.7%. Changes introduced by Invest NI subsequent to this for the Development Funds in 2012 included a 50% subvention by Invest NI; and the implementation of upper caps (rather than set amounts) on permitted private sector return (maximum 12%).

IRR targets: Linked to the issue raised on the financial return, the IRR target set for Crescent II is considered to be unrealistic. It is noted that Invest NI has set a target for a net 3% IRR for the 2019 Development fund (Crescent IV).

Monitoring of Investee companies: Crescent Capital did not have a requirement to monitor the performance of investee companies in relation to turnover and employment. This monitoring is now a feature of the successor funds. This should be extended to the monitoring of NI employment. Invest NI should also continue to track the post exit performance of exited companies (where possible) until the final evaluation so that the economic performance of the fund can be fully determined.

Matched private sector investment. There was no policy in place to bring in investment partners on a deal by deal basis. Targets for match funding, on a deal by deal basis, is now a feature of the 2019 Development Fund.

Marketing of the Development Funds: There was feedback from stakeholders that there could be more visible marketing of Crescent Capital, further engagement with the Universities and a mechanism to ensure good communication across all of the Invest NI funding mechanisms. It was noted that Crescent is not a member of the BVCA. There is evidence that the Crescent III and Kernel Development funds have been jointly investing with other Invest NI funding mechanisms, i.e. alongside techstart ni and Co-Fund. It is recommended that for Crescent IV, that Crescent Capital should include its Marketing as an agenda item in the quarterly monitoring meetings with Invest NI as well as the six-monthly Advisory Board Meetings attended by the Invest NI representatives.

Engagement and Co-Investment by the Development Fund: There was considered to be potential for Crescent Capital to be further engaged in the wider investor community and also do more to co-invest. It is noted that Crescent IV has targets for co-investing. There is an opportunity to improve dialogue/communication amongst the fund managers. It is also recommended that Invest NI monitors the level of engagement with the wider investor community and co-investments secured as part of future funds (including Crescent IV).

The Crescent II Action Plan (as per the 2009 Evaluation (see recommendations 2 and 8)) included a recommendation to document the work on investor readiness, the level of deal flow, the risk levels of projects and the wider and regional benefits being achieved. Other feedback from stakeholders was the need for early education of founders as to the terms of an equity deal and standardisation of terms sheets etc. It is noted that Crescent already report on leveraged investment from other sources in their routine reporting, as well on turnover, leverage, GVA, and employment numbers. All portfolio companies including exit plans are listed and discussed at both the quarterly and advisory group meetings. There continues to be a need for the Fund Manager to undertake the following:

- ensure that its Term Sheets includes references, at a high level, to clauses likely to be included in the Investment Agreement; the Fund Manager should also offer discussions on the same with management and, as appropriate, other existing shareholders.
- continue to present details to Invest NI on the pipeline of new companies, and the portfolio companies' requests for funding.

This should be taken forward by all future Fund Managers.

Fund Timescale: The fund was originally approved for ten years (six years investing and four years exiting), is now at 16 years and is potentially going to run to 18 years because of two companies of value that are still not exited. The private investors were exited 12 years from initial investment (2004-2016). Feedback from Crescent management is that a fund period of 10 years, with flexibility, continues to be appropriate, particularly given that any extension of the initial fund term may act as a deterrent to investors.

6.4 Recommendations

The recommendations from the evaluation of Crescent II (not subsequently dealt with within Crescent IV) are:

1) There should be annual monitoring of NI employment (as well as total employment).

2) Invest NI should track the post exit performance of exited companies (turnover, employment including NI employment) until the final evaluation, recognizing that there may be limitations[52].

3) The Fund Manager should include its Marketing as an agenda item in the quarterly monitoring meetings with Invest NI as well as the six-monthly Advisory Board Meetings attended by the Invest NI representatives.

4) As appropriate, the Fund Manager should ensure that its Term Sheets includes references, at a high level, to clauses likely to be included in the Investment Agreement (for example warranties, anti-dilution terms, good leaver and bad leaver terms, drag along and tag along clauses); the Fund Manager should also offer discussions on the same with management and, as appropriate, other existing shareholders.

5) The Fund Manager should also continue to present details to Invest NI on the pipeline of new companies, and the portfolio companies' requests for funding.

6) It is recommended that Invest NI organise a forum (at least annually) to enable all Access to Finance Fund Managers to improve dialogue, work more collaboratively and identify companies that may be ready to move up the funding escalator. Crescent Capital should actively participate in these future forums.

[52] For example, if an exited company is acquired and ceases to be an Invest NI client then INI will also have no leverage for obtaining the information