NORTHERN IRELAND TECHNOLOGY GROWTH FUND

EVALUATION - FINAL

14th December 2015

NORTHERN IRELAND TECHNOLOGY GROWTH FUND

EVALUATION

CONTENTS

APPENDICES

List of Abbreviations

Abbreviation	Definition
AB	Advisory Board
BERD	Business Expenditure on Research and Development
CFD	Corporate Finance Division
DETI	Department of Enterprise, Trade and Investment
EAM	Economic Appraisal Methodology
EBITDA	Earnings before interest, taxes, depreciation, and amortization
EIB	European Investment Bank
FCA	Financial Conduct Authority
FSMA	Financial Services and Market Act
FTE	Full Time Employees
GB	Great Britain
GVA	Gross Value Added
HM	Her Majesty's
HMT's	Her Majesty's Treasury
Invest NI	Invest Northern Ireland
IP	Intellectual Property
IPR	Intellectual Property Rights
IRR	Internal Rate of Return
LBT	Losses Before Tax
LEDU	Local Enterprise Development Unit (LEDU)
LPA	Limited Partnership Agreement
LPs	Limited Partners
MoU	Memorandum of Understanding
NED	Non-Executive Director
NI	Northern Ireland
NICS	Northern Ireland Civil Service
NIGEAE	Northern Ireland Guide to Expenditure Appraisal and Evaluation
NISPO	Northern Ireland Spin Out
PPS	Priority Profit Share
QUB	Queen’s University Belfast
SMART	Specific, Measurable, Achievable, Relevant and Time-bound
SMEs	Small and Medium Sized Enterprises
TOR	Terms of Reference
UK	United Kingdom
UU	University of Ulster
VFM	Value-for-Money
VGF	Viridian Growth Fund

EXECUTIVE SUMMARY

Introduction

Invest Northern Ireland (Invest NI) has commissioned Cogent Management Consulting LLP ('Cogent') to undertake a post project evaluation of the Northern Ireland Technology Growth Fund Limited Partnership ('Nitech' or 'the Fund') covering the period January 2003 to January 2013.

The Evaluation has been undertaken in line with national and regional requirements. It is compliant with Central Government guidance including:

- "The Green Book: Appraisal and Evaluation in Central Government", HM Treasury 2003;
- "The Northern Ireland Guide to Expenditure Appraisal and Evaluation (NIGEAE), Current Edition", Department of Finance and Personnel;
- "The Magenta Book: Guidance for Evaluation"; and
- "Evaluation in the Northern Ireland Civil Service: A Guide for Departments".

The Northern Ireland Technology Growth Fund

During May 1998, the then UK Chancellor announced a £315m package of spending measures and tax reliefs to contribute to Northern Ireland's (NI's) economic development. Four specific investment packages were announced, one of which was the Northern Ireland Tourism and Innovation Fund which included provision for the creation of a £3m Research and Development Challenge Fund (RDCF) to assist in the creation and expansion of research-led, market orientated businesses. The Fund was launched in 2003 as the Northern Ireland Technology Growth Fund (Nitech).

Established as a pilot Fund, the stated objectives of Nitech were to:

- Encourage and support research and development activities from university spin-outs and new business starts, and to enable researchers to develop products or services that meet an identifiable market need;
- Encourage enhanced levels of technology research within existing SMEs; and
- Increase the volume of projects with the potential to become investment opportunities for Venture Capitalists and Business Angels.

Initially established with a ten-year life, consisting of a 5 year investment phase and a 5 year follow-on and portfolio management phase, Nitech was a £3m government only funded venture capital fund. The Fund provided staged investment that ranged from £20k to £200k with a maximum investment of £250k to any one company.

It was envisaged that two types of investments would be made, namely:

- **Stage 1: Research Exemplification, Proof of Principle, Construction of Prototypes -** It was anticipated that Stage 1 investments would range between £20k and £45k and would be used to fund crucial experiments either to prove scientific prototypes or to exemplify research in more detail, construct prototypes and ultimately enable the potential business opportunity to get to the stage where external investors might consider direct involvement, or where industry might undertake joint ventures for further development, licensing etc.; and

- **Stage 2: Development Programmes -** Stage 2 investments were provided when research had been sufficiently exemplified to bring the technology to the stage that demonstrators would be produced for evaluation by potential customers and joint venture partners or to develop the technology to create initial products for sale. It was anticipated that Stage 2 investments would range between £50k and £150k.

Strategic Context and Rationale

During the period under review, there was a need for Government to provide support to address a gap in the continuum of the supply of finance for deals up to £2m for start-up and early growth businesses. This gap arose due to (amongst other things) key structural market failures and other structural issues associated with the NI Economy.

In line with Government's strategic focus, the provision of venture capital through Nitech offered the potential to promote a continuum of funds, create a deal flow chain across seed, early and development funds and retain and build on skills and capability of venture capitalists. In doing so, the Fund offered the potential to *"help eliminate the real and perceived barriers to growth"* faced by SMEs.

Operation and Delivery

Between April 2003 and November 2013, Nitech invested c. £2.92m in a total of 16 companies. £70k was invested in 3 companies to support them to exemplify their research and/or construct a prototype (Stage 1), whilst the remainder (£2.85m) were made in 13 businesses to undertake more fundamental R&D to support the development of novel products and services (Stage 2). The number and level of Stage 1 investments was lower than anticipated at the outset of the Fund, whilst the levels of demand for Stage 2 investments was relatively higher than anticipated.

Whilst other more financially attractive initiatives existed within the marketplace which supported businesses to undertake Stage 1type activities, the size of the Fund meant that there was a limited opportunity to provide follow-on investment to support the scaling of businesses and make them an attractive proposition for acquisition. The lack of availability of follow-on funding also resulted in the dilution of the Fund's shares and prevented the Fund from participating in subsequent funding rounds., This in-turn meant that the Fund Manager had a lack of ability to influence the investment terms of these rounds (which were set by the incoming investors) many of which included liquidation preferences, allowing these later investors to realise repayment of their investment on exit, ahead of investors (such as Nitech) from previous rounds.

Whilst the Fund was, in retrospect, too small to fully address the follow-on needs of NI businesses at that time, we note that it was created as a pilot Fund during a period when the importance of the role of seed and early stage finance (including VC finance) was potentially less well known amongst economic development agencies in NI and further afield, hence there was a lack of public sector initiatives available to support local SMEs.

Based on all available evidence, the Fund appears to have been appropriately managed by the Fund Manager who undertook their roles and responsibilities in accordance with the Limited Partnership Agreement which included undertaking commensurate levels of technical and market due diligence in advance of investing, stimulating deal flow and subsequently playing an active and supportive mentoring role within the portfolio companies.

Fund Impact

During the Nitech funding rounds an additional £13.3m was invested in the 16 companies, 75% (or c. £9.94m) of which came from private sector sources and the remaining 25% (or c. £3.36m) was derived from public sector sources. The analysis suggests that, the Fund may have directly supported the 16 companies to leverage between £6.7m to £10.6m in net additional investment, of which between £5m and £7.9m came from private sector sources.

Of the 16 businesses that received investment through the Fund, 11 businesses no longer exist and 5 businesses are continuing to operate. As of September 2015, there have been no successful exits. The Fund Manager's updated estimates of the value of the Fund's investments for companies that continue to exist indicate that the potential value of these investments is c. £418k, which is significantly below their value at cost.

Only 1 of the 5 existing investments have been valued by the Fund Manager in excess of its value at cost and the Fund Manager has confirmed that the Fund is likely to see a return during 2016. Whilst the progression of the 16 portfolio companies to date, has performed below expectations, it's performance should be viewed in the context of:

- Its relatively small size and associated inability to provide adequate levels of follow on funding, to support the growth and scaling of the businesses and mitigate against any dilution of the Fund' shares value;
- The limited number of other equity funds and low levels of investor readiness support that existed during the early years of Nitech;
- The depressed macro-economic climate (particularly from 2008 onwards) is likely to have impacted on company scaling and growth, resulting in companies with insufficient sales or profitable growth to become attractive acquisition targets; and
- There was a general lack of acquisition activity across NI (and the UK) during the period under review (largely due to the economic climate which drove higher levels of risk aversion and negatively impacted on the availability of finance).

In the absence of undertaking primary research with businesses that received investment, the Evaluation Team cannot definitely conclude on the levels of additionality and displacement. However, discussions with Invest NI and the Fund manager suggest that Nitech played a pivotal role in supporting the businesses to lever investment (and hence additionality levels were high and the risk of displacement was low.

The analysis indicates that Nitech may have directly contributed to creating and/or maintaining between 483 and 720 FTE job years. A total of 75 NI-based FTEs continue to be employed in 5 of the 16 portfolio companies that continue to operate. The application of the calculated levels of additionality, suggests that, depending on which additionality scenario is selected, Nitech has directly contributed to creating and potential safeguarding of between 38 and 56 of the jobs that continued to exist in 2014. The analysis indicates that Nitech is likely to have created, maintained and safeguarded a significant proportion of jobs with salaries in excess of the NI private sector median;

The analysis suggests that the portfolio companies potentially cost the NI economy £559k in gross GVA (net of the investment made through Nitech). However, much of the expenditure that has contributed to the negative GVA impacts was as a result of considerable expenditure on undertaking further R&D activities, and thus contributing to other strategic goals within an NI context, such as increasing levels of Business Expenditure R&D (BERD).

The investment made through Nitech may have directly cost the NI economy between £116k (Scenario 1) and £419k (Scenario 2) in net additional GVA to the NI economy. Given the level of investment made in each of the portfolio companies suggests that the investment made through Nitech potentially cost the NI economy between £0.04 and £0.14 in net additional GVA for every pound invested through the Fund.

In addition to the aforementioned benefits, the analysis suggests that the investment made through Nitech has contributed to delivering a number of wider (e.g. knowledge transfer, skills development, entrepreneurship etc.) and regional benefits (degree of R&D being injected and innovative nature of the project) to the NI economy.

Progress towards targets

Whilst the Evaluation Team is unable to draw direct comparisons between the anticipated deal flow activity targets and the actual outturn, the Fund achieved or partially achieved all other activity targets. We do however note that the designation of target achievement masks the overall outcomes of the companies invested in, which was below that anticipated.

Fund Finance

The full economic cost of delivering the Fund over its ten year life was £3.96m, which was broadly aligned to the anticipated costs (£4m (inclusive of the Fund extension). Fund administration costs (direct fund costs plus priority profit share (PPS)) represented just over one-quarter (26% or c. £1.1m) of the full economic cost.

A total of c. £868k of management fees (PPS) were paid to the Fund Manager over the period, representing c. 22% of total Fund costs (inclusive of direct fund costs, PPS and investment in portfolio companies). Based on the Evaluation Team's understanding of the management fees paid on other Funds (which Invest NI confirmed can typically range between 20% and 30%), the proportion of Fund costs allocated to the Fund Manager appears reasonable.

During the period under review there were no realisations from the investments and there has been no capital return to Invest NI.

Return-on-investment

Given the calculated levels of net additional GVA (between (£116k) and (£419k)) and the full economic costs (£3.96m) suggests that the Fund may have potentially cost the NI economy between £0.03 and £0.11 in net additional GVA for every pound invested.

Value-for-Money

In the absence of the original approval documentation (Economic Appraisal and Casework) it is difficult to ascertain what value-for-money (VFM) was anticipated to be in the context of Nitech. However, based on all available evidence, including the overall performance of the Fund, we conclude that the Nitech Fund has not delivered VFM during the period under review.

Whilst Nitech did not deliver VFM as a standalone Fund/intervention, a number of key learning points were identified during the delivery of the Fund which were subsequently built into the administration and operation of subsequent Access to Finance Initiatives provided by Invest NI (e.g. in NISPO).The integration of these learning points potentially paved the way for subsequent Funds to realise VFM.

Exit Strategy from the Fund

The Evaluation Team understands that the Fund Manager agreed to actively manage or closely monitor the progress of the 5 companies that are continuing to operate until the end of 2014 (at no additional cost). However, these investments are, at present, sitting in abeyance with the Fund Manager not contractually required to provide ongoing support to the companies on behalf of the Nitech Fund. We therefore recommend that Invest NI takes appropriate action in a timely manner to ensure that the investments are appropriately supported and monitored.

Discussions with the Fund Manager indicate that a number of Options could be taken forward including:

- Option 1: Return Shares to LP
- Option 2: Sell the portfolio to a secondary buyer
- Option 3: Manage-out the portfolio
- Option 4: Transfer the shares under the Co-Fund NI umbrella

Whilst the financial implications of taking forward each of these options would need to be fully assessed by Invest NI in conjunction with the Fund Manager, Option 4 would possibly be the least disruptive Option and may facilitate further follow-on support to be provided to protect the valuation position of the outstanding investments.

Recommendations

1. Invest NI should ensure to takes appropriate action in a timely manner to ensure that all existing investments in companies that are continuing to operate are appropriately supported and monitored. This should include providing consideration to the operational merits and associated costs of each of the identified potential exit strategies.

2. As part of the development of future funds, cognisance should be taken of the need to establish funds that are of a suitable size to facilitate appropriate levels of follow-on investment.

1. INTRODUCTION AND BACKGROUND

1.1 Introduction

Invest Northern Ireland (Invest NI) has commissioned Cogent Management Consulting LLP ('Cogent') to undertake a post project evaluation of the Northern Ireland Technology Growth Fund Limited Partnership ('Nitech' or 'the Fund') covering the period January 2003 to January 2013.

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This section of the report considers the background to Nitech and the overall objectives of the Evaluation.

1.2 The Northern Ireland Technology Growth Fund

1.2.1 Background to the Development of the Fund

During May 1998, the then UK Chancellor announced a £315m package of spending measures and tax reliefs to contribute to Northern Ireland's (NI's) economic development. Four specific investment packages were announced, one of which was the Northern Ireland Tourism and Innovation Fund which included provision for the creation of a £3m Research and Development Challenge Fund (RDCF) to assist in the creation and expansion of research-led, market orientated businesses. The Fund was launched in 2003 as the Northern Ireland Technology Growth Fund (Nitech).

Established as a pilot Fund, the stated objectives of Nitech were to:

- Encourage and support research and development activities from university spin-outs and new business starts, and to enable researchers to develop products or services that meet an identifiable market need;
- Encourage enhanced levels of technology research within existing SMEs; and
- Increase the volume of projects with the potential to become investment opportunities for Venture Capitalists and Business Angels.

1.2.2 Operation and Delivery

Initially established with a ten-year life, consisting of a 5 year investment phase and a 5 year follow-on and portfolio management phase, Nitech was a £3m[1] government only funded venture capital fund. The Fund provided staged investment that ranged from £20k to £200k with a maximum investment of £250k to any one company.

It was envisaged that two types of investments would be made, namely:

[1] It was initially anticipated that the £3m would be inclusive of Fund management costs. Please note that the level of investment and investment period was extended at the agreement of Invest NI. This is discussed in further detail in Section 3.

- **Stage 1: Research Exemplification, Proof of Principle, Construction of Prototypes** - It was anticipated that Stage 1 investments would range between £20k and £45k and would be used to fund crucial experiments either to prove scientific prototypes or to exemplify research in more detail, construct prototypes and ultimately enable the potential business opportunity to get to the stage where external investors might consider direct involvement, or where industry might undertake joint ventures for further development, licensing etc.; and

- **Stage 2: Development Programmes** - Stage 2 investments were provided when research had been sufficiently exemplified to bring the technology to the stage that demonstrators would be produced for evaluation by potential customers and joint venture partners or to develop the technology to create initial products for sale. It was anticipated that Stage 2 investments would range between £50k and £150k.

Costs eligible for support included research and development to underpin the value of the technology, initial patent filings, commercial due diligence, technology-related market appraisal and certain company start-up and operating costs.

Support through the Fund was available for NI-based start-ups or existing SMEs and individual researchers, research teams and University departments. Projects were selected based on their ability to demonstrate the:

- Innovative nature of the technology that would be created;
- Protected and unencumbered ownership of intellectual property;
- Commercial opportunity for the product or service that would ultimately be created;
- Likelihood of the project securing third party equity funding at some point in the future; and
- Quality of the proposed team including the availability of appropriately skilled management.

1.2.3 Fund Management

The Fund was initially established via a Limited Partnership Agreement (LPA) in January 2003 between Invest NI and ANGLE Technology Limited (acting as the General Partner) in conjunction with Clarendon Fund Managers Limited (CFM) [2]. The creation of the LPA is discussed in further detail in Section 3.

1.3 Invest NI's Requirements

Invest NI requires an Evaluation of Nitech for the period January 2003 to January 2013. The overall evaluation objectives are to:

- Examine the extent to which the Nitech Fund has performed against its targets and objectives and determine whether the targets were appropriate;
- Determine the economic impact (actual and projected) of the investment projects brokered by Nitech;
- Assess the impact of the Nitech Fund in increasing equity/venture capital investment in Northern Ireland;
- Determine the extent to which the Nitech Fund represented good Value for Money and the appropriate use of public funds;
- Assess the management of the Nitech Fund through Limited Partnerships and Management Service agreements with Clarendon Fund Managers;
- Examine options for an Invest NI exit strategy from Nitech, including secondary buy-out, internal portfolio management and managing out by existing Fund Manager; and
- Make recommendations on what the findings imply for current and future interventions.

Further details of Invest NI's specific requirements are detailed in full within Appendix I.

[2] It should be noted that CFM became the General Partner with sole responsibility for the management of Nitech. The change in General Partner is discussed in further detail in Section 3.

1.4 **Methodology**

In conducting the evaluation, Cogent employed a methodology that included:

- A robust desk-based analysis of pertinent materials relating to Nitech during the period under review including the LPA, quarterly monitoring reports, the Fund's annual accounts, the previous Interim Evaluation and supplementary monitoring information provided by the General Partner;
- Face-to-face consultations with the Fund Manager (Clarendon Fund Managers);
- Telephone and face-to-face consultations with:

  - The Evaluation Steering Group that was established for the evaluation. This included representation from Invest NI's Business Solutions and Strategy Groups;
  - Other Fund Managers including Crescent Capital (Development Fund), XCell Partners Propel Programme Delivery Agent, NISP (Halo NI and NISP Connect) and Ulster Community Investment (Small Business Load Fund Manager); and
  - InterTradeIreland.

1.4.1 Limitations to the Evaluation Team's ability to address the Terms of Reference

In undertaking the Evaluation of Nitech, the Evaluation Team notes that there were a number of factors that have limited our research activities. They are:

- The Fund's original approval documentation (Economic Appraisal and Casework) was not available for the Evaluation Team to review;
- The "Proposal for Fund Management Services" (January 1999) and the "Approach to Fund Management Services" (October 2002), which were prepared for the Industrial Research and Technology Unit (IRTU) and Invest NI (documenting the investment approach that was to be taken) were not available; and
- Based upon feedback from the Fund Manager, the Evaluation Steering Group requested that primary research was not undertaken with portfolio companies and private sector investors (that provided leveraged investment) given the extensive time period that has passed since making their investment and the associated concerns over the reliability of any feedback that might be received.

The absence of this documentation, and lack of primary research with some key stakeholders, limits the ability of the Evaluation Team from making definitive conclusions in relation to a number of areas of the TOR including:

- The rationale/need for the Fund including the strategic context under which Nitech operated, the market failure(s) that Nitech sought to address and the extent to which the intervention subsequently addressed the market failure (as would be identified by portfolio companies);
- The nature of the potential risks that were identified at the outset and the activities that were anticipated to be undertaken to mitigate against these risks (in the event they arose);
- Levels of activity and impact additionality (as would be identified by portfolio companies and private sector investors) and displacement and the associated economic impact of the Fund;
- The nature and appropriateness of any targets and objectives that were created for the Fund and the extent to which Nitech achieved these;
- The anticipated full economic costs of delivering the Fund over its life time;
- The anticipated monetary and non-monetary economic impact that the Fund was envisaged to provide over its life time;
- Effectiveness of the management of Nitech and the role played by the Fund Manager (as would be identified by portfolio companies and private investors); and
- Overall value-for-money (VFM) provided by the Fund (on the basis that uncertainty exists as to targets, outputs and outcomes that were anticipated to be achieved through the Fund).

In an effort to address any gaps in information, the Evaluation Team was requested to draw upon the findings of the Interim Evaluation of Nitech[3].

Notwithstanding the above, the Evaluation has made best efforts to conclude as far as possible on each of the TOR's requirements in light of the information and feedback that was provided by key stakeholders during the Evaluation process.

We also note that, at the time of Evaluation (August 2015), a significant period of time (c. 12 years) had passed since the creation of Nitech and much has changed on how projects are appraised, approved, monitored and subsequently evaluated. As such, the Evaluation Team is aware that many of the aforementioned weaknesses in governance procedures have subsequently been addressed by Invest NI (as part of its wider Corporate Governance procedures).

Please note that the Fund Manager has provided all information to inform the Evaluation on a strictly commercial-in-confidence basis and has advised that it should only be used for the sole purpose of the Evaluation.

Whilst the Evaluation Team has sought to, as far as possible, maintain the confidentiality of the companies that received support through Nitech during the period under review, certain information presented (particularly information documented in Sections 3 and 4) may inadvertently disclose the identity of some individual companies, the support they have received and/or other commercially sensitive information.

The Evaluation Team further notes that this report has been prepared for, and only for Invest NI and for no other purpose. Cogent Management Consulting LLP does not accept or assume any liability or duty of care for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

[3] Interim Evaluation completed in April 2007.

2. STRATEGIC CONTEXT AND RATIONALE

2.1 Introduction

Section 2 provides a high-level summary of the rationale for the introduction of Nitech and the policy environment within which the Fund operated during the period under review[4].

2.2 Investment Rationale

It has widely been acknowledged that, whilst progress has been made in recent years, *"NI has traditionally lacked the vibrant venture capital and debt finance markets that are necessary to support economic growth"*[5]. Specifically, research suggests that a number of factors combined both prior to, and during the course of Nitech, to necessitate Government intervention. These include:

- **The existence of the 'Debt and Equity Gap' -** A significant body of research[6] existed which suggested that there was a recognised gap in the continuum of the supply of finance (typically for deals up to £2m) for start-up and early growth businesses during the investment period of Nitech. The research suggested that a number of market failure and non-market failure factors combined in relation to the demand for, and supply of, finance to create the debt and equity gap. These included:

  – **Structural market failures on the supply and demand side -** Research suggested that the existence of asymmetric information on the supply and demand side had (and continues to have) contributed to creating the finance gap (both in debt and equity terms).

    <u>Supply side</u>

    On the supply side, in relation to <u>debt finance</u> to SMEs, it was difficult for lenders to distinguish between high and low risk entrepreneurs without incurring significant costs. To avoid the costs associated with gathering this information, lenders often require borrowers to provide evidence of a financial track record and/or collateral as security for the finance. Therefore, a market failure exists because the financial institution's decision to lend is based on collateral and track record, rather than the economic viability of the business. This means some fledgling businesses[7] with viable business propositions that lack a track record or collateral have historically been prevented from raising the finance they need.

    Another differentiating factor in NI has been the structure of bank ownership. In particular, NI's local banking sector is in a unique position in that it lacks a major indigenously owned institution with each of the four main high street banks being externally owned. Historically, this has restricted their access to some of the initiatives to improve business lending.
    It was widely recognised that an 'equity gap' also existed in the provision of modest amounts of <u>equity finance</u> to individuals and SMEs. This was also due to asymmetric information between the investor and the business on the likely viability and profitability of the business. Assessing the quality of SME proposals and associated risks is difficult and leads to the

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[4] As detailed in Section 1, in the absence of an Economic Appraisal and associated Casework approval documentation, which would have substantiated the market and strategic need for the Fund, the Evaluation Team has based the following analysis upon its consultation with key stakeholders and its review other pertinent information (e.g. Interim Evaluation of Nitech (2007), other independent evaluations undertaken of other access to finance initiatives that existed during the same period (e.g. the Viridian Growth Fund, undertaken by Cogent (2014)) and other publicly available research.

[5] Source: NI Economic Strategy.

[6] For example, see *'Bridging the Finance Gap'*, HM Treasury (2003), *'SME Financing Gap',* Joint European Resources for Micro to Medium Enterprises (April 2008), *'The Supply of Equity Finance for SMEs: Revisiting the equity gap'*, SQW for BIS (2009) and SME Access to External Finance (BIS Economics Paper No. 16 (2012).

[7] The focus of these businesses is quite often based around new and disruptive technology.

investor incurring transaction costs of undertaking due diligence. These transaction costs are generally fixed and do not vary greatly with the size of investment. For instance, consultation with Invest NI suggests that typical due diligence costs for companies at a similar stage of development as those supported through Nitech are generally between £5k and £10k (and these can rise to £20k - £50k depending on the stage of development). They are therefore higher as a proportion of the investment deal size for smaller investments, and for a small investment in a technically complex company, the costs can easily account for 10% or more of the investment. This resulted, and continues to result, in a structural gap in the market where investors and risk capital fund managers focus on fewer, larger investments in more established (lower risk) businesses at the expense of early stage venture capital. This leaves potentially viable businesses with growth potential not being able to obtain equity finance given their relatively small deal size.

In addition to the above, discussion with consultees suggests that investors (especially those from outside NI) were reluctant to invest in deals which required them to manage their investments remotely and/or they may not be aware of the potential investments that exist in a small peripheral market such as NI due to the historic lack of investment activity and their lack of knowledge of the NI market (i.e. asymmetric information).

Feedback from consultees also suggests that, at the outset of the Nitech Fund, the importance of the role of seed and early stage finance (including VC finance) was potentially less well known amongst economic development agencies in NI and further afield. Hence there was a lack of public sector initiatives available to support local SMEs (see Section 3.6 for further details). However, consultees did acknowledge that the role and importance of seed and early stage finance is now better understood by these stakeholders and this has been reflected by the increase in the range of interventions that are currently available through (amongst other things) Invest NI's Access to Finance Initiative.

Demand side

The level of venture capital investment in NI over the period from 1985 to 2000 totalled £228m which represented 0.7% of the UK total venture capital investment over this period (compared to NI's share of UK GDP of 2.2%)[8]. Research suggested that venture capital in Northern Ireland would have had to increase by four times this level to match the per capita levels of Wales or Scotland. Whilst there was considerable demand for VC funds in GB to support the 'dot com' boom (1997-2000) and technology start-up businesses, this was not mirrored within the more traditionally-based NI economy where venture capital demand and investment lagged well below the UK national average.

Economic research suggests that, during the period of Nitech, there were **asymmetric information** market failures affecting the demand side for businesses seeking finance. Principally, these related to the fact that individuals or SMEs did not fully understand the potential benefits to their business of raising finance or their likely chance of success in gaining finance, which ultimately meant they did not apply, which, in turn, restricted the growth of businesses. Business owners also lacked the knowledge of funding sources available and/or lacked the skills to present themselves as investable opportunities to investors, which combined with problems on the supply-side. It is suggested that demand side market failures were potentially most acute in businesses seeking equity finance, with many SMEs lacking information on how equity finance works and where to obtain such finance.

The NI business sector was, and continues to be, dominated by SMEs who are typically characterised as being **risk adverse**, conservative in their growth plans and reluctant to sacrifice equity in exchange for finance. Therefore, bank lending and (of particular relevance

[8] Source: Market Failure in the Supply of Venture Capital Funds for SMEs in Northern Ireland' (2002).

to NI) grant support have historically been the main sources of funding for local businesses. However, as detailed previously, businesses have been (and continue to be) faced with lower levels of grant available and more stringent lending regimes by banks, making it more difficult for them to finance growth.

- **Existence of positive externalities -** There is an under supply of equity finance to young high growth potential businesses due to the divergence of private and social benefits from investing in these businesses (as investors are primarily concerned with the financial returns from their investment). It is suggested that this results because investing in early stage innovative businesses can lead to a number of positive spill-over effects known as externalities through innovation and knowledge transfers to other parts of the economy, which private investors do not take into account when making their decision to invest in venture capital

- **Market power -** Market power can arise as a result of insufficient actual or potential competition to ensure that the market continues to operate efficiently. Market power can also be created by high start-up costs, which can deter entry by competitors in the first place.

  Research suggests that this form of market failure is evident in the NI VC due to the limited supply of VC funds and the lack of outside private investment. The relatively low levels of VC activity in NI means that the cost of VC management and set up costs are disproportionately high, which may be a deterrent to investors from outside NI. Market failure could be said to be brought about by the high fixed cost of the formal process. Within such markets, the private sector will provide the capital but they require assistance with the delivery and set up costs.

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- **Structural issues in the NI Economy –** The Evaluation Team notes that a number of structural issues associated with the NI economy have historically impacted on the demand for equity finance. These issues, including the peripherality of NI, its small business population and high levels of economic inactivity, have all contributed to lower levels of GDP per head in NI than the rest of the UK. Other economic factors, more specifically related to early stage and development investment activity, are likely to have resulted in market imperfections, including the relatively small number of technology and knowledge based businesses located in the region, a smaller number of universities from which spin-outs have emerged and a dependency on government grants, which have helped to displace equity[9].

- **The importance of the High Technology sector and businesses** – The interim evaluation of Nitech highlighted the importance of high technology sectors and businesses to contributing to longer term economic growth and prosperity. In doing so, the Evaluation noted the important role that Nitech would potentially have in stimulating technology transfer activity from NI's Universities and collaborating with local businesses to encourage the growth of these high value added sectors.

In conclusion, the Interim Evaluation noted that the initial need for government intervention was premised on the fact that:

[9] The Evaluation Team notes that the NI public sector had played a key role through its industrial development strategies in countering the negative socio-economic effects of civil unrest in Northern Ireland. By 1999/2000, public expenditure on industrial development per capita in Northern Ireland was more than 2.5% of the UK average. 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. Furthermore, it was projected that over the 2003 to 2007 period, industrial development budgets would decrease by almost 17% in real terms and this would create a 'funding gap' in the local market, and this was viewed as evidence of latent demand.

- The SME sector in Northern Ireland had a number of distinct characteristics, features and issues that needed to be addressed through investments focused on increasing innovation and commercialising research and development;
- There was an identified need to enhance the interaction, interfaces, innovation and entrepreneurship of the Northern Ireland technology transfer sector and the SME business community and therefore, to develop support services to provide appropriate access to the advice, information and resources needed by businesses to develop finance and support the commercialisation of technology within new-start and existing SME businesses;
- University-business collaboration offered considerable opportunity to influence economic growth and that intervention was required to assist university researchers to maximise their potential and the value and influence of their research and innovative development projects; and
- There was a significant gap in the market at the ‘smaller deals size range’. There existed a need for the supply of funds and appropriate support and assistance to be put in place for fledgling ideas and business ventures to be progressed through to a commercial stage/opportunity. The analysis identified that Northern Ireland and the university research market and SME business community had a number of prevalent features that were hindering and constraining VC activity and investment including issues relating to the local economy, levels of entrepreneurship and the higher availability of smaller deal sizes in Northern Ireland and their associated higher costs and risks, thus reducing the attraction for investment by Venture Capitalists or other interested parties.

The Interim Evaluation noted that at the time of drafting (2007) there was *“no evidence to believe that this situation has improved”* and other research available at that time had *“confirmed that there continues to be a market failure across the world and an area which requires government intervention.”*

2.3 Strategic Context

Appendix II provides a detailed analysis of the contribution of the Nitech with the various NI Government strategic objectives and imperatives that existed (or continue to exist) for the period under review. However, in summary, we note there was (at the time of approval), and throughout the period under review, clear alignment between the aims and objectives of Nitech and the strategic imperatives of the NI Government (including with DETI and Invest NI’s Corporate Plans and the Invest NI Access to Finance Strategies that existed).

Specifically, in line with Government’s strategic focus, the provision of venture capital through Nitech offered the potential to promote a continuum of funds, create a deal flow chain across seed, early and development funds and retain and build on skills and capability of venture capitalists. In doing so, the Fund has offered the potential to *“help eliminate the real and perceived barriers to growth”* faced by SMEs and, in doing so; contribute to promoting and encouraging private sector growth including productivity and employment.

2.4 Summary Conclusions

During the period under review, there was a need for Government to provide support to address a gap in the continuum of the supply of finance for deals up to £2m for start-up and early growth businesses. The research evidence suggests that this gap arose due to (amongst other things) key structural market failures (including asymmetric information on the demand and supply side, risk aversion, existence of positive externalities and market power) and other structural issues associated with the NI Economy.

There was (at the time of approval), and throughout the period under review, clear alignment between the aims and objectives of Nitech and the strategic imperatives of the NI Government (including with DETI and Invest NI’s Corporate Plans and the Invest NI’s Access to Finance Strategies that existed). Specifically, in line with Government’s strategic focus, the provision of venture capital through Nitech offered the potential to promote a continuum of funds, create a deal flow chain across seed, early and development funds and retain and build on skills and capability of venture capitalists. In doing so, the Fund has offered the potential to *“help eliminate the real and perceived barriers to growth”* faced by SMEs and, in doing so; contribute to promoting and encouraging private sector growth including productivity and employment.

3. FUND ACTIVITY

3.1 Introduction

Section 3 provides a summary of activity that was delivered through Nitech during the period under review. In doing so, the section also considers the role of the Fund Manager (CFM).

3.2 Establishment of the Limited Partnership and Fund Governance Procedures

As detailed in Section 1, the Fund was established in January 2003 via a Limited Partnership Agreement (LPA) between Invest NI as Limited Partner (LP) and Angle as the General Partner (GP) and overall Fund Manager. In-line with the objectives of the Fund, the stated purpose[10] of the Partnership was to:

- Provide advisory, management and consultancy services and a funding resource to assist in bringing research discoveries and early stage technologies to the point where they can be transformed into viable businesses through the formation of SMEs in the Region; and
- Carry on the business of an investor and in particular but without limitation to identify, research, negotiate make and monitor the progress of and arrange the purchase and sale and/or making of investments in manufacturing and tradable service based industrial SMEs located in the Region.

The General Partner/Fund Manager was exclusively responsible for the management and control of the business and affairs of the Partnership, with the Limited Partner (Invest NI) performing no active role in the day-to-day management and delivery of the Fund. That is to say, Invest NI was a passive investor who had no executive powers of decision making regarding the management of the funds. Rather they set the investment policy and expected adherence to it by the Fund Manager[11].

In its proposal to Invest NI to manage Nitech[12], Angle proposed to work in collaboration with Clarendon to establish and manage the Fund. Specifically, it was proposed that Angle would have day-to-day responsibility of managing the Fund including:

- Fund marketing and promotion;
- Identifying investment opportunities;
- Undertaking the initial assessment of all applications for funding;
- Monitoring the performance of investee companies and projects;
- Reporting on Fund's performance to Invest NI; and
- Managing the Fund's portfolio of investments.

It was anticipated that CFM would act as the regulated Fund Manager responsible for conducting the due diligence on the applications referred by Angle (following its initial assessment), completing all the financial negotiations and agreeing terms with clients. The Evaluation Team understands that it was informally agreed that CFM would support Angle with the marketing and promotion of the Fund given CFM's ongoing interaction with NI's technology transfer/start-up community.

On appointment however the roles and responsibilities of Angle and Clarendon were reviewed in conjunction with Invest NI and a sub-contract agreement was created which established CFM as the lead contractor and Angle as the subcontractor. There was no change in the operational roles and responsibilities that were taken forward by each contractor[13].

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10 As per the Limited Partnership Agreement (January 2003)

11 During consultation, Invest NI confirmed that such a structure is attractive to a government investor as it means that the FCA approved fund manager is responsible for decision making.

12 See *'Approach to Fund Management Services'* (October 2002).

13 Nor was there a change in the Priority Share, with Angle receiving 60% of management fees and CFM receiving 40%.

The roles and responsibilities were maintained by each organisation until early 2006, at which time Angle wished to withdraw from the contract. With Invest NI's agreement, Clarendon took over complete responsibility for all operational aspects of the Fund[14]. The Evaluation Team's review of monitoring reports and the interim Evaluation indicates that there is no evidence to suggest that the transfer of all responsibilities to Clarendon had any negative impact on the administration and management of the Fund. Indeed, consultation with Clarendon indicates that its presence in NI and involvement in the VGF facilitated a close working relationship with all businesses that received investment through the Fund.

The General Manager was responsible for providing quarterly and annual reports to Invest NI which contained details of (amongst other things):

- Movements/changes in the value of investments previously made through the Fund;
- Partnership assets;
- Investments purchased including a brief summary of all investee companies; and
- Investments sold and otherwise disposed of.

A Supervisory Group (SG) was established by Invest NI in consultation with the General Partner with the stated purpose of[15]:

- Monitoring and supervising the performance of the General Partner in relation to the Investment and Operational Guidelines;
- Reviewing and advising on investment policy from time to time; and
- Performing such other functions as are envisaged under the Investment and Operational Guidelines

During the period under review, the SG consisted of Edward Cartin (then Chief Executive of Qubis Ltd.) and a number of representatives from Invest NI. Like Invest NI, the LPA stated that the SG was to take no role in the management or control of the business or the affairs of the Partnership.

3.3 The Investment Process[16]

By way of raising awareness of, and stimulating demand for, the Fund and co-investment, the Fund Manager undertook networking meetings and participated in events with a variety of enterprise networks and strategic referral network partners who were actively involved in supporting the growth of NI SMEs. These stakeholders included:

Table 3.1: Enterprise networks and Strategic referral network partners utilised to stimulate deal flow
• Invest NI (including sector head, Client Executives, Corporate Finance Team, Programme Manager) and its supported programmes (e.g. Propel and Halo, the NI Business Angel Network); • NISP Connect Programmes (including Springboard, £25k Awards); • InterTradeIreland and its supported programmes (e.g. HBAN, Seedcorn Competition, VC Conference); • Enterprise NI and the regional Enterprise Agencies; • Higher Education (including their Commercialisation Departments) and Further Education Institutions; • Institute of Electronics, Communications and Information Technology (ECIT); • NI Corporate legal advisors; • Intermediaries including small and mainstream Corporate Finance and Accountancy practices; and • Business Angels (individuals, groups and syndicates).

[14] The change in operational roles and responsibilities was agreed formally by the NICS Central Procurement Directorate (letter dated 20th December 2006).
[15] Source: Limited Partnership Agreement (January 2003).
[16] Commentary on the investment process in drawn from the Interim Evaluation of Nitech and the Fund's Annual reports.

It is the Fund Managers' view that the demand for the investment through the Fund (and in particular Stage 2 investments) remained strong through the early years, especially when placed in the context where:

- There was initially limited understanding and awareness of venture capital as a source of growth finance within the private and public sector. The Fund Manager does note however that the role of venture capital is now well known in NI public sector circles as demonstrated by the significant expansion of access to finance initiatives (including market awareness and investor readiness training schemes);
- Private equity and early stage venture capital and SME founders and their management were particularly risk adverse and typically required the encouragement of their advisors to consider equity investment to fund their expansion;
- Many of the Enterprise Network Partners had only been established or were in their infancy during the initial years of the Fund (and hence relatively less experience in their respective roles); and
- There was a greater ease of access to grants and relatively cheap bank finance. Indeed, whilst not quantified, the Fund Manager suggests that there are a number of examples where the Fund's investment offers were not taken as a result of individual companies taking grant or bank finance.

Businesses interested in receiving support were required to complete and submit an application form (accessed from the Invest NI website) and a business plan with 3 year financial projections, prior to formal appraisal, to Angle. All applications to the Fund were reviewed by Angle to ascertain whether they met the basic eligibility criteria (identified under Section 1.2.3) for investment from the Fund. Applicants that complied with these basic criteria then met with Angle to clarify the degree to which they met the criteria. In many cases, the initial assessment (the stage prior to the performance of a technical and commercial evaluation by Angle), also involved an Angle specialist in the particular sector who also reviewed the application form and business plan and any further information subsequently requested. At this point, applications which did not meet the basic eligibility criteria were declined.

Applications that proceeded through this filtering stage were then subject to a technical and commercial appraisal by an appropriate Angle specialist consisting of a critical analysis of the technology, intellectual property rights (IPR) position, potential market, competitive position, route to market, management team and projected revenues.

The outcome of the evaluation concluded with a recommendation being made by Angle to CFM as to whether the investment opportunity should be taken through to the next stage of investment appraisal, together with any recommendations on factors that were to be taken into consideration when making the investment decision and conditions that had to be met by the company or project principles should the investment be made. In the case of small grant applications (typically less than £50k or for Stage 1 investments), a more streamlined short-form evaluation was performed.

If Angle recommended the proposal to move forward to the next stage, CFM was then responsible for:

- Reviewing the analysis and conclusions of the technical and commercial assessment prepared by Angle;
- Carrying out a financial review of the company; and
- Carrying out, in conjunction with Angle, further technical and commercial due-diligence (if this was considered necessary) or commissioning further due diligence from a third party.

Dependent on the outcome of this due diligence work CFM:

- Structured and negotiated a suitable investment proposal for the applicant seeking funding and presented this to the Fund's Investment Approval Committee (IAC); and
- Managed the final investment process including the issue of draft offer letters, completion of further commercial and financial due diligence, and worked with the Fund's appointed legal representatives to complete the necessary investment documentation.

Consultation with CFM indicates that this work proved to be time consuming as the Fund Manager was often dealing with several co-investors and needed to take into consideration a company's operations and total financing requirements, rather than only the specific elements of expenditure that may be part-financed by the Fund. The position was further complicated by the fact that, in most circumstances, companies were not investor-ready at this stage of financing. In the absence of other wrap-around investor readiness support, in order to expedite the investment process, it was therefore necessary in some cases for CFM to work with companies and provide assistance in putting them into a suitable framework for investment. With hindsight, the Fund Manager suggested that the realisation of this need should have been expected during the early years of the Fund given the nature of most early stage investments.

Once an investment has been made, Clarendon and / or Angle monitored the performance of the company or project in which the Fund has invested, in order to protect the Fund's interests. In the case of investments of over £100k, a non-executive director (NED) was appointed to the company and attended all board meetings.

The likely exit of an investment was considered as part of the due diligence process, including consideration of the likelihood of trade sale, licensing deals, Initial Public Offering (IPO) and Management Buy Out (MBO)/Management Buy In (MBI). However, given the early stage of the companies forming the portfolio and the experience of the Fund Manager in the additional investment needed beyond the first round to grow the company to a stage where an exit could be contemplated, the initial emphasis of the approach taken by the Fund Manager was to attract follow on finance for a large part of the portfolio company's life (which was 7-9 years in the case of Nitech). Underlying this approach was (is) the expectation that maximising the amount and diversity of sources of follow on finance for portfolio companies (rather than focusing on short-term exit planning) would ultimately maximise financial returns for the Fund.

Progress in achieving the business plan (with a fall-back Plan B in place in case the funding requirement was not achieved) and, where necessary, the timescale to achieve follow-on finance was monitored through the quarterly Investor Reports and the Advisory Board. The Fund Manager also identified potential contingency/mitigation arrangements in the event that follow-on funding was not achieved. Through Board attendance the Fund Manager worked closely with portfolio companies to ensure later stage investor readiness and to assist in sourcing finance in the fund raising activities. Portfolio progress and follow-on funding was formally reviewed in Quarterly Reports and Advisory Board meetings.

During consultation, the Fund Manager stated that the most significant issue faced by the Fund, the Fund Manager and portfolio companies was the limited follow-on finance available within the Fund itself, which it views as being a small fund (of £3m). The Fund Manager suggested that this issue was compounded by the fact that:

- VC managers from outside NI were reluctant to consider deals within NI due to their relatively small size and the fact that NI's peripheral location made it more difficult to actively manage potential investments; and
- There was a general lack of investor readiness amongst companies approaching the Fund. As such, it is Fund Manager's view that it had to take on a role of being an equity advisory service (especially in the early years of the Fund) as much as a VC fund manager.

3.4 Investment Activity

3.4.1 Overview of Investments made in Portfolio Companies

Between April 2003 and November 2013, Nitech invested c. £2.92m in a total of 16 companies. Tables 3.1 and 3.2 provides a summary of the investment that was made in each portfolio company during the life of Nitech.

Table 3.2: Nature of investments made through Nitech						
Company	**Stage 1**		**Stage 2**		**Total**	
	No. of investments	**Value**	**No. of investments**	**Value**	**No. of investments**	**Value**
A	1	£20,000	-	-	1	£20,000
B	-	-	3	£275,017	3	£275,017
C	-	-	3	£230,000	3	£230,000
D	-	-	1	£120,000	1	£120,000
E	-	-	1	£250,000	1	£250,000
F	-	-	2	£249,994	2	£249,994
G	-	-	4	£250,000	4	£250,000
H	1	£20,000	-	-	1	£20,000
I	-	-	1	£225,000	1	£225,000
J	-	-	3	£190,420	3	£190,420
K	3	£30,000	-	-	3	£30,000
L	-	-	2	£250,000	2	£250,000
M	-	-	3	£155,000	3	£155,000
N	-	-	1	£200,000	1	£200,000
O	-	-	2	£250,000	2	£250,000
P	-	-	1	£200,000	1	£200,000
Total	**5**	**£70,000**	**27**	**£2,845,431**	**32**	**£2,915,431**
Average (per business)	**£23,333**		**£218,879**		**£182,214**	
Average (per investment)	**£14,000**		**£105,386**		**£91,107**	
Range (per business)	**£20k - £30k**		**£120k - £275k**		**£20k - £275k**	
Range (per investment)	**£10k - £20k**		**£21k - £250k**		**£10k - £250k**	

Salient points to note include:

- It was envisaged that two types of investments would be made; namely:
  - **Stage 1 - Research exemplification, Proof of Principle and Construction of Prototypes -** The Fund made 5 investments, totalling £70k, in 3 businesses[17]. The average investment in each business was £23.3k. All of the Stage 1 investments were made in the form of a repayable/convertible grant. None of the three businesses that received Stage 1 support went on to receive Stage 2 investment. Based upon the Evaluation Team's review of the Interim Evaluation and consultation with CFM, the analysis indicates that the number and levels of investment in Stage 1 deals was below that anticipated at the outset of the Fund. The Evaluation Team understands that this was due to two interrelated factors; namely:
    - **The availability of support through the University Proof of Concept Programme (PoCp) -** It was initially anticipated that Stage 1 PoC investment through Nitech would be used to support the development of university projects to the level of investor readiness required for Stage 2 deals. However, during the course of Nitech, Invest NI created the University PoCp which also provided investment to facilitate this type of activity. The Evaluation Team understands that the structure of support (non-repayable grant) available through the PoCp was deemed to be more attractive (for reasons discussed below) than the Stage 1 support available through Nitech; hence demand for Stage 1 support through Nitech was lower than anticipated.

[17] The Evaluation Team understands a further Stage 1 investment (of £20k) was made in Company C but was not utilised by the company and was returned to the Fund. This investment has been excluded from all subsequent analysis.

- **Nature of financial assistance** – Businesses that received Stage 1 investment did so on the basis that the investment would be repaid or converted to equity shares when the businesses value could be better determined (following a reasonable period of operation). However, it is the Fund Manager's view that the availability of other non-repayable grants (e.g. through the PoCp, START, SMART etc.), which did not require businesses to sacrifice equity, were considerably more attractive to businesses and hence there was a reduction in demand for Stage 1 deals. This is discussed further in Section 4.8.

– **Stage 2 - Development Programmes** - 27 Stage 2 investments, totalling c. £2.85m, were made in 13 businesses. The average investment in each business that received Stage 2 investment was £219k, whilst the level of individual business investment ranged from £120k to £275k. The vast majority (96% or £2.74m) of Stage 2 equity investments were made in the form of ordinary shares, with the reminder (£101k or 4%) made in the form of convertible loans.

Table 3.3:Nature of equity investment taken as part of Stage 2 investments[18]

Company	Financial instrument		Total
	Ordinary Shares	Convertible Loan	
A	-	-	-
B	£275,017		£275,017
C	£208,930	£21,070	£230,000
D	£120,000	-	£120,000
E	£250,000	-	£250,000
F	£249,994	-	£249,994
G	£250,000	-	£250,000
H	-	-	-
I	£225,000	-	£225,000
J	£190,420	-	£190,420
K	-	-	-
L	£250,000	-	£250,000
M	£75,000	£80,000	£155,000
N	£200,000	-	£200,000
O	£250,000	-	£250,000
P	£200,000	-	£200,000
Total	**£2,744,361 (96%)**	**£101,070 (4%)**	**£2,845,431**

In contrast with the levels of demand for Stage 1 support, consultation with Invest NI and the Fund Manager indicates that demand for Stage 2 follow-on investment was considerably higher amongst the 13 companies than initially anticipated. It is Invest NI's and the Fund Manager's view that the higher than anticipated levels of demand was a reflection of the relatively lower levels of understanding of the role of seed and early stage finance that existed during the early years of Nitech including an understanding of the need to provide follow-on investment to support the scaling of businesses and make them an attractive proposition for acquisition. It is the view of Invest NI and the Fund Manager, and shared by the Evaluation Team, that the Fund was, in retrospect, too small to fully address the follow-on needs of NI businesses at that time.

Consultation with the Fund Manager indicates that the lack of availability of follow-on funding also resulted in the dilution of the Fund's shares, reducing the value of its shareholding, unless the following rounds were at a significantly higher valuation. Of equal importance, the lack of participation in these subsequent funding rounds frequently meant that the Fund Manager had a lack of ability to influence the investment terms of these rounds (which were set by the incoming investors) many of which included liquidation preferences,

[18] Source: Clarendon Fund Managers and Nitech Statutory Accounts March 2013.

allowing these later investors to realise repayment of their investment on exit, ahead of investors (such as Nitech) from previous rounds[19].

- Whilst the Fund was initially allocated £3m to cover all Fund costs (i.e. investment in businesses and Fund Management costs), by March 2007 the Fund had been fully committed (reflecting the strong demand for Nitech, and in particular Stage 2, support). As such, Invest NI sought, and was subsequently granted, up to an additional £1m in funding to accommodate additional funding opportunities that would potentially arise between March and December 2007, when it was anticipated Invest NI would introduce a new and enhanced VC Fund (the Northern Ireland Spin Out (NISPO) Fund) which would provide investment for similar businesses;

Whilst it was initially envisaged that Nitech would have a ten year-life (and thus would operate from January 2003 to January 2013), the Fund availed of a 21-month extension to September 2014, which was permissible under the terms of the LPA, to explore potential options on how best to close the Fund, dissolve the Partnership and deal with any portfolio companies that continued to exist (including opportunities to 'realise' any returns from the investments). The Evaluation Team understands that this time period was further extended to December 2014 to facilitate the completion of the current final evaluation of Nitech[20].

During February 2014, Invest NI requested and was subsequently provided with a 'Realisation' Paper by the CFM which identified a number of options that could be taken by Invest NI as to how the outstanding companies could be managed and ultimately realised. Based on the findings of the Realisation Paper, Invest NI requested and was subsequently provided with a paper by CFM summarising the value of existing portfolio companies/investments at that time and a cost-benefit analysis of CFM 'managing-out' the existing portfolio companies/investments.

An analysis of the current status of the each of the portfolio companies in detailed in Section 4.7.

3.5 Risks

The absence of the Fund's original approval documentation (Economic Appraisal and Casework) limits the Evaluation Team from commenting on whether the potential risks identified at the outset, arose during the delivery of the Fund, as well as the appropriateness of any contingency measures that were put in place to mitigate against these risks (in the event that they occurred).

Notwithstanding this we note that:

- In August 2005, an independent Third Party Organisation (TPO) report of Nitech was provided to Invest NI. Whilst the Evaluation Team was only provided with a high level summary of the findings of this report, we note that no issues were identified by the inspection in relation to the use of funds and only a *"number of minor recommendations"* were made[21].

[19] These effects are not solely restricted to Nitech, but are typical of many early-stage funds investing in technology businesses requiring multiple rounds of investment.
[20] Please note that due to considerable delays (amounting to months) in receiving information to facilitate the completion of the Evaluation meant that the Evaluation could only be completed after December 2014.
[21] These Recommendations were not available during the Evaluation.

- In March 2007, an independent Sponsor Control Review (SCR) of Nitech was carried out on behalf of DETI. This SCR reviewed the controls that had been in place in respect of four key areas, namely: contractual arrangements; corporate governance arrangements; monitoring arrangements; and funding arrangements. They following was noted by the SCR in relation to each of these areas:

Table 3.4: Key findings detailed within the Sponsor Control Review	
Arrangement	**Commentary provided within the SCR**
Contractual arrangements	On the basis of the work undertaken we are satisfied that the business relationship between Invest NI and Nitech is appropriately documented to enable the clear identification of roles and responsibilities of both parties.
Corporate Governance	The SCR noted that Invest NI's risk register[22] did not reflect the risks associated with the Nitech consulting contract, albeit Invest NI did not consider the risks associated with the Nitech contract to be a prime risk. With the exception of the matter, the SCR stated that *"we are satisfied that the decision to create the TPO relationship has been based on an appropriate business case and that Invest NI personnel are aware of the risks associated with using this TPO"*.
Monitoring	On the basis of the work undertaken the SCR concluded that it was satisfied that Invest NI has adequate oversight of the activities of Nitech to enable it to ensure that Nitech is meeting its responsibilities under the contractual arrangements and to identify and manage any risks arising from a failure of Nitech to meet those responsibilities.
Funding	The SCR concluded that Invest NI has adequate arrangements in place to ensure that payments to Nitech are properly vouched, authorised and only made when contractually due.

Based on the above the SCR concluded that the overall assurance level was "substantial". It was the view of the Review Team that *"the system of internal control established and in operation is robust. Evaluations revealed that the system of internal control mitigates the key risks identified and tests revealed that controls are being applied consistently. No control weaknesses were identified and any recommendations made relate to potential control enhancements"*. Accordingly, no recommendations for improvement were identified.

In summary, whilst the Evaluation Team cannot state with certainty that Invest NI and the Fund Manager implemented appropriate strategies to mitigate against all risks identified at the outset, the independent TPO and SCR reports indicated that the organisations took reasonable steps to mitigate a number of key risks that would have potentially had a negative impact on the delivery of the Fund.

3.6 Progress towards Targets

In the absence of the original approval documentation (Economic Appraisal and Casework), the Evaluation Team has documented the activity targets that were presented within the Interim Evaluation of Nitech. Please note it is unclear if these targets were amended, or additional targets included, following the increase in the size of the Fund in 2007[23].

The activity targets established for Nitech were based upon the anticipated investment that would be made through the Fund, both in terms of the number of deals and the quantum of investment made through these deals. It was anticipated that £930k was anticipated to be invested through 31 Stage 1 deals and £1.6m was anticipated through 16 Stage 2 deals. The Interim Evaluation indicated that it was anticipated "the original intention under NITECH was to have used their Stage 1 PoC support to develop university projects to the level of investor readiness needed for Stage 2 deals". Specifically, it was anticipated that half of Stage 1 project would progress to Stage 2.

[22] This risk register was not available during the period of the Evaluation.
[23] On the basis that the Fund was fully committed by March 2007, up to an additional £1m in funding was approved by Invest NI to accommodate additional funding opportunities that would potentially arise between March and December 2007.

Table 3.5 Deal flow targets		
Deal stage	**Number of deals**	**Investment in deals**
Stage 1	31	£930,000
Stage 2	16	£1,600,000
Total	**47**	**£2,530,000**

In relation to the these targets, the Evaluation Team notes that the targets, as presented in Table 5.1, do not take account of the increased contribution that was made by Invest NI through the Fund. Furthermore, it is unclear as to whether the 'number of deals' related to the number of investments made across the portfolio companies or whether it related to the number of companies receiving investment.

Notwithstanding the fact that the Evaluation Team is therefore unable to draw direct comparisons between the anticipated deal flow activity targets and the actual outturn, we note the following:

- The Fund only made 5 Stage 1 investments in 3 portfolio companies. None of the three businesses that received Stage 1 investment went on to receive Stage 2 investment. However, it is noted that the above target for Stage 1 'deals' was established prior to the creation of the University PoCp.

- 27 Stage 2 investments, totalling c. £2.85m, were made in 13 businesses.

In addition to the deal flow targets, the Interim Evaluation indicated that three strategic activity targets were established for Nitech. A summary of the progress made towards each target is detailed in the table below.

Table 3.6 Progress towards strategic targets	
Strategic outcome target	**Commentary**
Encourage and support research and development activities from university spin-outs and new business starts, and to enable researchers to develop products or services that meet an identifiable market need	Target partially Achieved. Per Section 4, the investment made through Nitech has supported companies to undertake product, service and market research and development activities (as reflected in the high payroll costs and negative EBITDA) and hence is likely to have encouraged product and process innovation. During consultation, the Fund Manager indicated that there had been a significant level of knowledge transfer between NI's two universities and industry as a result of the creation of spin-ins, spin-outs or the establishment of commercial knowledge transfer relationships. It is the Fund Managers view that this is best evidenced by the fact that QUB and UU invested c. £1m in half of the portfolio companies (i.e. 8 of 16 businesses). The absence of detail on the products and/or service developed by the portfolio companies, and/or the scale of orders made for these, precludes the Evaluation Team from drawing conclusions as to whether the research supported products or services that ultimately addressed an identifiable market need. The fact that only 5 of the 16 portfolio companies continues to exist may, in part, reflect the lack of positive outcomes from the R&D activity that was undertaken with the support of Nitech and/or the levels of demand for the products/service that were ultimately created. We do however note that other external factors (such as a lack of follow-on funding) may have also led to the cessation of these businesses operations.
Encourage enhanced levels of technology research within existing SMEs	Target Achieved. The Interim Evaluation of Nitech concluded that: *"it is*

Table 3.6 Progress towards strategic targets	
Strategic outcome target	**Commentary**
	considered that NITECH has supported technology research within existing SMEs. The survey of funded companies found that the most common need for NITECH funding was finance for research and development work".
Increase the volume of projects with the potential to become investment opportunities for Venture Capitalists and Business Angels	Target partially Achieved. The number of Stage 1 investments was considerably below that anticipated and none of the companies that received Stage 1 investment went on the receive Stage 2 investment. However, the levels of private sector investment leveraged (as well as the assumed high levels of additionality) during the Nitech Stage 2 funding rounds suggests that Fund was broadly successful in increasing the volume of projects with the potential to become investment opportunities for VCs and Business Angels.

In summary, whilst the Evaluation Team is unable to draw direct comparisons between the anticipated deal flow activity targets and the actual outturn, the Fund achieved or partially achieved all other activity targets. We do however note that the designation of target achievement masks the overall outcomes of the companies invested in, which was below that anticipated.

3.7 Equality Considerations

Section 75 of the Northern Ireland Act 1998 requires that Invest NI shall, *"in carrying out its function relating to Northern Ireland, have due regard to the need to promote equality of opportunity"* between the following nine Section 75 groups:

- Persons of different religious belief, political opinion, racial group, age, marital status or sexual orientation;
- Men and women generally;
- Persons with a disability and persons without; and
- Persons with dependents and persons without.

In addition and without prejudice to these obligations, in carrying out its functions, Invest NI is also committed to promote good relations between persons of different religious belief, political opinion or racial group.

During June 2007, Invest NI undertook an Equality Impact Assessment (EQIA) of its Business Development Solutions (which Nitech formed part of) Policy. The draft EQIA went out for a 12 week consultation period in June 2007. Following the close of this consultation a final report was published in November 2007. The final report outlined the actions/recommendations which Invest NI committed to take forward and to monitor on an annual basis. In 2010, as part of its 3rd year review, Invest NI provided a summary of its progress towards the actions/recommendations contained in the EQIA.

Table 3.7: Progress made towards the recommendations of the 2007 EQIA (up to 30/11/10)	
Recommendation	**Progress (Invest NI verbatim response)**
Set up an effective equality monitoring strategy in conjunction with the Equality Commission for Northern Ireland.	We now have an equality monitoring strategy in place and we have collected information from companies in receipt of assistance for the 08/09 and 09/10 financial periods. At present we are constructing an electronic reporting system to enable us to analyse this information.

Additional criteria for programmes or schemes will be clearly defined and set out; and any potential adverse impacts associated with these criteria will be considered.	The majority of BDS programmes target client companies. On the rare occasion where programmes have targeted individuals, there has been a sound rationale for this and criteria have been explicitly defined. There is also ongoing screening of all programmes to ensure equality of opportunity. We will again look at access to our programmes and services within the remit of the ongoing Communications and Access EQIA.
When a BDS programme targets certain groups then the reasons for targeting these groups will be made transparent. A review of programme accessibility will also be undertaken to ensure consistency of approach.	Where a BDS programme targets a certain grouping there will be a clear rationale outlined for this. The Communication and Access EQIA, due to be finalised in 2010, will review overall accessibility to Invest NI, including that of programme accessibility
There will be ongoing training of front line staff and in particular Client Executives in Section 75. Where external consultants are employed then their responsibilities under Section 75 will also be made clear, and this will include any training requirements.	All Invest NI staff has received equality and diversity training. This will continue for any newly recruited staff. In 07/08 staff received specific disability awareness training and tailored training is ongoing for all staff. Staff also availed of equality screening and monitoring training in May 2009 and we have conducted additional training on how to complete the new equality screening forms during the summer of 2010.
Each programme will make clear, in all documentation, that materials can be made available in alternative formats where necessary and on request.	It is stated on all major Invest NI corporate publications, that they will be made available, on request, in alternative formats. We will however review this through the course of the Communications and Access EQIA and make changes where appropriate.
Marketing of BDS programmes and services among minority communities will be considered as part of a broader positive action programme.	In August 2008 Invest NI held an Engaging Ethnic Minority Enterprise seminar in conjunction with NICEM. This seminar promoted Invest NI programmes and how this grouping could best avail of the assistance on offer. We are also working with ex-prisoners groups to promote services and better accessibility to services.
All application forms will use a format with clear fonts, layout, and colours etc. that are accessible to those with special needs.	We have developed and produced "Making Information More Accessible" guidelines which are held on Invest NI's intranet and accessible to all staff. We are currently reviewing this as we conduct our Communications and Access EQIA to ensure that the information and guidance is still up to date and practical.

As stated within the Interim Evaluation, a lack of profiling data of applicants (in terms of the Section 75 categories) precludes the Evaluation Team from concluding that there were no adverse impacts on persons from Section 75 categories or upon equality of opportunity. However, we note that the Fund was available to all NI businesses and there is no evidence to suggest that the Fund Manager rejected applications on the basis of anything other than the future viability of the business proposition.

Similarly, the Evaluation Team's review of Nitech activity and monitoring information provided during the evaluation process has identified:

- No evidence of higher or lower participation or uptake of different groups;
- No evidence to indicate that different groups had different needs, experiences, issues and priorities in relation to Nitech investment activity;
- No opportunities to better promote equality of opportunity or better community relations by altering the work of Nitech;
- No accessibility issues that might run contrary to the Disability Discrimination Act 1995.

On this basis, the Evaluation Team concludes that, whilst Nitech was not specifically targeted at any specific Section 75 categories, it does not appear to have had an adverse impact on any Section 75 group.

3.9 **Summary Conclusions**

The following key conclusions can be drawn with regards to the activity that was delivered through Nitech during the period under review:

- Between April 2003 and November 2013, Nitech invested c. £2.92m in a total of 16 companies;

- The Fund made 5 Stage 1 investments, totalling £70k, in 3 businesses. The average investment in each business was £23.3k. All of the Stage 1 investments were made in the form of a repayable/convertible grant. None of the three businesses that received Stage 1 support went on to receive Stage 2 investment.

- 27 Stage 2 investments, totalling c. £2.85m, were made in 13 businesses. The average investment in each business that received Stage 2 investment was £219k, whilst the level of individual business investment ranged from £120k to £275k. The vast majority (96% or £2.74m) of Stage 2 equity investments were made in the form of ordinary shares, with the reminder (£101k or 4%) made in the form of convertible loans.

- The lack of availability of follow-on funding also resulted in the dilution of the Fund's shares, reducing the value of its shareholding, unless the following rounds were at a significantly higher valuation. Of equal importance, the lack of participation in these subsequent funding rounds frequently meant that the Fund Manager had a lack of ability to influence the investment terms of these rounds (which were set by the incoming investors) many of which included liquidation preferences, allowing these later investors to realise repayment of their investment on exit, ahead of investors (such as Nitech) from previous rounds;

- Whilst the Evaluation Team cannot state with certainty that Invest NI and the Fund Manager implemented appropriate strategies to mitigate against all risks identified at the outset (on the basis that these risks are unknown), the independent TPO and SCR reports indicated that the organisations took reasonable steps to mitigate against a number of key risks that would have potentially had a negative impact on the delivery and impact of the Fund; and

- Whilst Nitech was not specifically targeted at any specific Section 75 categories, it does not appear to have had an adverse impact on any Section 75 group.

4. **IMPACT OF THE FUND**

4.1 Introduction

Based upon monitoring information provided by the Fund Manager, Section 4 considers the impact of the Nitech Fund during the period under review.

4.2 Investment Leveraged

Given the early stage of development of the businesses that were invested in through Nitech, it was anticipated that the investment would serve to support the leveraging of further investment (from other private and other public sources) to support the development and scaling of the businesses and potentially make them a more attractive proposition for acquisition. On this basis, whilst the investment leveraged should not be viewed as an outcome of Invest NI's support, it should be viewed as an important output and interim measure of success.

4.2.1 Gross Investment Leveraged

Table 4.1 provides a summary of the gross investment leveraged by the Fund. Further detail is providing in the succeeding paragraphs.

Table 4.1: Summary of investments made in companies supported by Nitech[24]

Company	Investment prior to Nitech Funding rounds	Investment made during Nitech rounds					Total investment to date	Gross investment leveraged ratios	
		Nitech	Private	Public	Total Funding leveraged	Total investment in Nitech rounds		Private	Total
A	£30,000	£20,000	£20,000	-	£20,000	£40,000	£70,000	£1.00	£1.00
B	£200,000	£275,017	£720,000	£150,000	£870,000	£1,145,017	£1,345,017	£2.62	£3.16
C	-	£230,000	£1,209,070	£660,000	£1,869,070	£2,099,070	£2,099,070	£5.26	£8.13
D	£434,500	£120,000	£284,481	£191,624	£476,104	£596,104	£1,030,604	£2.37	£3.97
E	£500,000	£250,000	£344,000	£240,000	£584,000	£834,000	£1,334,000	£1.38	£2.34
F	£250,000	£249,994	£1,096,395	£237,500	£1,333,895	£1,583,889	£1,833,889	£4.39	£5.34
G	-	£250,000	£725,000	£325,000	£1,050,000	£1,300,000	£1,300,000	£2.90	£4.20
H	-	£20,000	£20,000	-	£20,000	£40,000	£40,000	£1.00	£1.00
I	£1,000,000	£225,000	£450,000	£25,000	£475,000	£700,000	£1,700,000	£2.00	£2.11
J	-	£190,420	£285,185	£105,185	£390,370	£580,790	£580,790	£1.50	£2.05
K	£50,000	£30,000	£40,000		£40,000	£70,000	£120,000	£1.33	£1.33
L	-	£250,000	£1,160,000	£324,000	£1,484,000	£1,734,000	£1,734,000	£4.64	£5.94
M	-	£155,000	£627,500	£377,500	£1,005,000	£1,160,000	£1,160,000	£4.05	£6.48
N	£1,700,000	£200,000	£600,000	£230,000	£830,000	£1,030,000	£2,730,000	£3.00	£4.15
O	-	£250,000	£1,407,500	£312,500	£1,720,000	£1,970,000	£1,970,000	£5.63	£6.88
P	-	£200,000	£950,000	£185,000	£1,135,000	£1,335,000	£1,335,000	£4.75	£5.68
Total	**£4,164,500**	**£2,915,431**	**£9,939,131**	**£3,363,309**	**£13,302,439**	**£16,217,870**	**£20,382,370**	**£3.41**	**£4.56**

[24] Source: Clarendon Fund Managers.

Salient points to note include:

- Half (i.e. 8 - N=16) of the companies had received investment prior to receiving Nitech investment. Levels of pre-investment ranged from £30k to £1.7m, with the average level equating to c. £521k. Discussions with the Fund Manager suggests that key sources for the pre-investment in the companies included support from friends and family, bank finance and other institutional investors (e.g. ACT Venture Capital, Enterprise Equity). The Fund Manager confirmed that, in the case of all 8 companies, the respective funder had provided the maximum level of funding that it was prepared to provide and hence VGF funding was required to support the continued operation and growth of the companies;
- During the Nitech funding rounds an additional £13.3m was invested in the 16 companies, 75% (or c. £9.94m) of which came from private sector sources and the remaining 25% (or c. £3.36m) was derived from public sector sources. A disaggregation of the key sources of additional funding leverage is provided in Table 4.2 below:

Table 4.2: Sources of levered funding during Nitech rounds

Source	Value	% of Totals
VC Funds	£1,675,000	13%
Private Investors	£2,834,152	21%
VGF - Private sector	£1,499,309	11%
VGF - Public sector	£1,499,309	11%
Invest NI	£1,864,000	14%
Bank	£525,000	4%
Corporate Investors	£945,521	7%
University (e.g. QUBIS or UU Tech)	£996,635	7%
Founder/Management	£1,463,514	11%
Total	**£13,302,439**	**100%**
Private sector[25]	£9,939,131	75%
Public sector[26]	£3,363,309	25%

- As detailed in the table above, c. £3m of this investment being made through the Viridian Growth Fund (VGF) which operated during similar timeframes as Nitech;
- Levels of leveraged funding during Nitech funding rounds ranged from £20k to c. £1.9m and the average level of investment leveraged was c £831k;
- The analysis suggests that, on a gross level, every £1 invested in the Fund has leveraged £3.41 in private sector investment or £4.56 in total investment (i.e. private and public sector investment leveraged); and
- In total, c. £20.4m (or an average of £1.3m) has been invested in the 16 companies to date[27].

[25] Private sector sources include private and corporate investors, bank finance, founder/management team finance, VC Funds, University Funds and 50% of the contribution of any investment derived through the VGF. Please note that the VGF LPs provided a total of £10m in capital commitment with one-third of this being provided by DETI (public sector), one third by the other private sector investors and one third by the European Investment Fund (EIF). The EIF shareholders include the European Investment Bank (EIB), the European Union, represented by the European Commission, and a wide range of public and private banks and financial institutions. Given the involvement of both the public and private sector in the EIF, the Evaluation Team has split the contribution made by the EIB equally between the public and private sector.

[26] Public sector sources include funding from Invest NI and 50% of the contribution of any investment derived through the VGF.

[27] I.e. Investment made prior to and during the Nitech funding rounds.

4.2.3 Net Additional Investment Leveraged

Additionality

The net impact of Nitech (i.e. its additionality) relating to its ability to enable companies to leverage investment during Nitech funding rounds can only be measured after making allowances for what would have happened in the absence of the support from Nitech. In the absence of undertaking primary research with private sector investors[28], the Evaluation Team is unable to conclude with certainty as to the contribution that Nitech (both in terms of financial and non-financial support provided) had in supporting businesses to leverage investment or maintain and expand their operations.

However, discussions with Invest NI and the Fund Manager suggest that Nitech would have played a pivotal role in supporting the businesses to lever investment (and hence additionality level would be high) on the basis that (amongst other things):

- Funders, who had provided investment to companies prior to the Nitech funding round, were no longer willing and/or able to provide further funding nor were they likely to attract funding from alternative sources. As such, in the majority of cases, Nitech and its Fund Manager led or was part of a subsequent first institutional investor round, was the major investor and (in a number of cases) led or was part of a 'rescue round';
- There was a lack of other investment funds and wrap-around investor readiness support available in the marketplace (VGF and Crescent Capital II being the only other equity fund available at that time);
- VC managers from outside NI were reluctant to consider deals within NI due to their relatively small size and the fact that NI's peripheral location made it more difficult to actively manage potential investments;
- A number of the private sector investors would have been located outside NI and would have been unwilling to manage their investment remotely. As such, it is Invest NI's view that these investors would have been reluctant to invest had they not had a trusted local partner (in the form of the Nitech and the Fund Manager);
- The Fund Manager also notes that it played an active role attracting other VC investors to the companies during the period under review; and
- There were a number of market and non-market failures (noted in Section 2) that were preventing businesses from accessing finance at that time.

For illustrative purposes we have calculated the net additional funding leveraged using levels of additionality based on three scenarios[29]:

- **Levels of additionality assigned by the Fund Manager (Scenario 1) -** Based on its understanding of the impact that the Nitech support (financial and non-financial) had on leveraging further investment to fund each individual company's ongoing operations and growth, the Fund Manager assigned a level of additionality which it feels best represents the likelihood that the company would have derived the leveraged funding during the Nitech funding rounds (or would have derived the funding to a similar scale or within a similar timescale) in the absence of Nitech funding. The level of additionality assigned to each company by the Fund Manager is provided in the table below:

[28] As detailed in Section 1, the Evaluation Steering Group requested that Cogent did not undertake primary research with private sector investors (that had provided leveraged investment) given the extensive time period that has passed since making their investment and the associated concerns over the reliability of any feedback that would be received during the primary research.
[29] Please note that the approach to calculating net additional funding leveraged was agreed in conjunction with the Evaluation Steering Group during the course of the Evaluation.

Table 4.3: Levels of company additionality assigned by the Fund Manager	
Company	**Level of additionality**
A	100%
B	100%
C	100%
D	70%
E	100%
F	70%
G	100%
H	100%
I	100%
J	70%
K	100%
L	70%
M	70%
N	60%
O	70%
P	60%
Average	**84%**

As illustrated above, levels of additionality assigned by the Fund Manager for each company ranged from 60% and 100%, with the average level of additionality being 84%;

- **Levels of additionality calculated as part of the Interim Evaluation of Nitech and other access to finance initiatives (Scenario 2) -** Based on the feedback from businesses at that time (2007), the interim external Evaluation calculated the level of additionality at 75%. Similarly, the external Evaluation of the Crescent Capital Fund I and II (Evaluation undertaken in 2009) calculated additionality at the same level. In the absence of our own primary research with investors, the Evaluation Team has therefore used these additionality benchmarks as a proxy within its analysis.
- **Additionality at a 50% (Scenario 3) -** Whilst acknowledging the likelihood that levels of additionality were high for each of the businesses that Nitech invested in, for prudence, the Evaluation Team has applied a relatively lower level of additionality (50%).

Displacement

Please note that, in the absence of undertaking primary research with companies, the Evaluation Team has been unable to ascertain the potential levels sales that were displaced at a NI and UK level as a result of the support that was delivered through Nitech. However, it is Invest NI and the Fund Manager's view, and shared by the Evaluation Team, that the level of displacement was likely to be low on the basis that:

- The Fund invested in companies that were at a pre-revenue stage and were engaging in R&D to develop innovative goods and services. This is best evidence by the negative EBITDA incurred by portfolio companies across the period under review (see Section 4.5); and
- Given the novel nature of the goods and services that were being developed, the businesses were likely to have had few (if any) competitors located in NI and UK markets.

The application of the additionality levels to the gross funding leveraged during the Nitech funding rounds are detailed overleaf (Table 4.4).

The analysis suggests that, depending on which scenario is selected, the Fund may have directly supported the 16 companies to leverage between £6.7m to £10.6m in net additional investment, of which between c. £5m and c. £7.9m came from private sector sources. On a leveraged ratio basis, the analysis suggests that every pound invested by Nitech has leveraged between £1.70 and £2.70 of net additional private sector investment[30].

[30] These ratios increase to between £2.28 and £3.63 when examined on a total funding leveraged basis.

Table 4.4: Net additional investment leveraged

Business	Scenario 1 (Based on Fund Manager's assessment)						Scenario 2 (Based on the Interim Evaluation's findings) Additionality =75%					Scenario 3 (Lower case scenarios) Additionality =50%				
	Additionality	Investment			Leveraged Ratio		Investment			Leveraged Ratio		Investment			Leveraged Ratio	
		Private	Public	Total	Private	Total	Private	Public	Total	Private	Total	Private	Public	Total	Private	Total
A	100%	£20,000	-	£20,000	£1.00	£1.00	£15,000	-	£15,000	£0.75	£0.75	£10,000	-	£10,000	£0.50	£0.50
B	100%	£720,000	£150,000	£870,000	£2.62	£3.16	£540,000	£112,500	£652,500	£1.96	£2.37	£360,000	£75,000	£435,000	£1.31	£1.58
C	100%	£1,209,070	£660,000	£1,869,070	£5.26	£8.13	£906,803	£495,000	£1,401,803	£3.94	£6.09	£604,535	£330,000	£934,535	£2.63	£4.06
D	70%	£199,136	£134,136	£333,273	£1.66	£2.78	£213,360	£143,718	£357,078	£1.78	£2.98	£142,240	£95,812	£238,052	£1.19	£1.98
E	100%	£344,000	£240,000	£584,000	£1.38	£2.34	£258,000	£180,000	£438,000	£1.03	£1.75	£172,000	£120,000	£292,000	£0.69	£1.17
F	70%	£767,477	£166,250	£933,727	£3.07	£3.73	£822,296	£178,125	£1,000,421	£3.29	£4.00	£548,198	£118,750	£666,948	£2.19	£2.67
G	100%	£725,000	£325,000	£1,050,000	£2.90	£4.20	£543,750	£243,750	£787,500	£2.18	£3.15	£362,500	£162,500	£525,000	£1.45	£2.10
H	100%	£20,000	-	£20,000	£1.00	£1.00	£15,000	-	£15,000	£0.75	£0.75	£10,000	-	£10,000	£0.50	£0.50
I	100%	£450,000	£25,000	£475,000	£2.00	£2.11	£337,500	£18,750	£356,250	£1.50	£1.58	£225,000	£12,500	£237,500	£1.00	£1.06
J	70%	£199,630	£73,630	£273,259	£1.05	£1.44	£213,889	£78,889	£292,778	£1.12	£1.54	£142,593	£52,593	£195,185	£0.75	£1.03
K	100%	£40,000	-	£40,000	£1.33	£1.33	£30,000	-	£30,000	£1.00	£1.00	£20,000	-	£20,000	£0.67	£0.67
L	70%	£812,000	£226,800	£1,038,800	£3.25	£4.16	£870,000	£243,000	£1,113,000	£3.48	£4.45	£580,000	£162,000	£742,000	£2.32	£2.97
M	70%	£439,250	£264,250	£703,500	£2.83	£4.54	£470,625	£283,125	£753,750	£3.04	£4.86	£313,750	£188,750	£502,500	£2.02	£3.24
N	60%	£360,000	£138,000	£498,000	£1.80	£2.49	£450,000	£172,500	£622,500	£2.25	£3.11	£300,000	£115,000	£415,000	£1.50	£2.08
O	70%	£985,250	£218,750	£1,204,000	£3.94	£4.82	£1,055,625	£234,375	£1,290,000	£4.22	£5.16	£703,750	£156,250	£860,000	£2.82	£3.44
P	60%	£570,000	£111,000	£681,000	£2.85	£3.41	£712,500	£138,750	£851,250	£3.56	£4.26	£475,000	£92,500	£567,500	£2.38	£2.84
Total		**£7,860,812**	**£2,732,816**	**£10,593,628**	**£2.70**	**£3.63**	**£7,454,348**	**£2,522,481**	**£9,976,829**	**£2.56**	**£3.42**	**£4,969,565**	**£1,681,654**	**£6,651,220**	**£1.70**	**£2.28**

4.3 Employment

Table 4.5 provides a summary of the number of full-time equivalent (FTE) employees employed in the portfolio companies during the period under review, with further analysis provided thereafter.

Table 4.5: Gross and Net additional FTEs employed in portfolio companies 2003-2014[31]

Company	Pre-investment employment	Peak employment	Gross Job Years	Gross No. of FTEs	Net Additional job years					
					Scenario 1 (Based on Fund Manager's assessment)		Scenario 2 (Based on the Interim Evaluation's findings)		Scenario 3 (Lower case scenarios)	
					Additionality	Net additional jobs years	Additionality	Net additional jobs years	Additionality	Net additional jobs years
A	N/A	N/A	N/A	N/A	100%	N/A		N/A		N/A
B	10	15	136	12	100%	136		102		68
C	2	6	22	0	100%	22		16.5		11
D	3	3	8	0	70%	5.6		6		4
E	21	25	50	0	100%	50		37.5		25
F	15	36	236	13	70%	165.2		177		118
G	2	7	13	0	100%	13		9.75		6.5
H	N/A	N/A	N/A	N/A	100%	N/A	75%	N/A	50%	N/A
I & J	14	14	52	1	85%[32]	44		39		26
K	N/A	N/A	N/A	N/A	100%	N/A		N/A		N/A
L	2	22	82	0	70%	57.4		61.5		41
M	0	13	42	0	70%	29.4		31.5		21
N	16	34	186	34	60%	111.6		139.5		93
O	2	10	22	0	70%	15.4		16.5		11
P	13	19	117	15	60%	70.2		87.75		58.5
Total	**100**	**204**	**966**	**75**		**720**		**725**		**483**

[31] Source: Clarendon Fund Managers. Please note that all jobs are NI-based FTE jobs. Data is not provided for those businesses that received Stage 1 investment only (i.e. for Businesses A, H and K) on the basis that 2 businesses did not complete their R&D project (and the other returned their grant) and hence Nitech could not invest in them. Please note Company I was acquired by Company J. As such, the key economic impact metrics have been examined for 12, rather than 16 companies.

[32] The Evaluation Team has applied the average level of additionality assigned by the Fund Manager to each of the businesses (i.e. 100% and 70%).

- All but one of the companies (N=11) were actively employing FTE employees prior to receiving Nitech funding. Levels of pre-investment employment ranged from 2 to 21 FTEs, with the average employment level across these companies equating to c. 9 FTE employees;

- A comparison of pre-investment, peak and 2014 employment levels across the period under review indicates that there have been significant variances in the number of FTEs employed within each of the portfolio companies. Given the variance in the number of FTEs employed within each of the portfolio companies across the period, the Evaluation Team has examined the levels of employment in term of job years. This analysis suggests that, between 2003 and 2014, a total of 966 gross job years were created and/or maintained. The application of the calculated levels of additionality (per Section 3.3.2), suggests that, depending on which additionality scenario is selected, Nitech directly contributed to creating and/or maintaining between 483 and 720 FTE job years; and

- A total of 75 NI-based FTEs continue to be employed in 5 of the 16 portfolio companies that continue to operate. The application of the calculated levels of additionality, suggests that, depending on which additionality scenario is selected, Nitech has directly contributed to creating and potential safeguarding[33] of between 38 and 56 of the jobs that continued to exist in 2014.

Table 4.6: Gross and Net additional FTEs employed in portfolio companies in 2014

Company	Gross No. of FTEs (March 2014)	Scenario 1 (Based on Fund Manager's assessment)		Scenario 2 (Based on the Interim Evaluation's findings)		Scenario 3 (Lower case scenarios)	
		Additionality	Net additional jobs years	Additionality	Net additional jobs years	Additionality	Net additional jobs years
A	N/A	100%	N/A	75%	N/A	50%	N/A
B	12	100%	12		9		6
C	-	100%	-		-		-
D	-	70%	-		-		-
E	-	100%	-		-		-
F	13	70%	9		10		7
G	-	100%	-		-		-
H	N/A	100%	N/A		N/A		N/A
I & J	1	85%	1		1		1
K	N/A	100%	N/A		N/A		N/A
L	-	70%	-		-		-
M	-	70%	-		-		-
N	34	60%	20		26		17
O	-	70%	-		-		-
P	15	60%	9		11.25		8
Total	**75**		**52**		**56**		**38**

[33] Given the potential for some or all of the FTEs that were employed pre-Nitech investment, the Fund may have safeguarded some of the jobs that continue to exist in the portfolio companies that continue to operate in 2013.

4.4 Salary Levels

The Evaluation Team notes that the Fund Manager was able to provide detailed information relating to average salaries offered within each of the portfolio. However, based on the salary information provided, the Evaluation Team is unfortunately unable to conclude as to how many of the jobs that have been created, maintained or safeguarded had salary levels above the private sector median (PSM) wage level for any given year.

The Evaluation Team's analysis does however indicate that, with the exception of the annual salaries for four companies in one year and one company for two years, the average annual salary per person in each company was in excess of NI private sector median for that respective year. Indeed, the analysis suggests that the average annual salary per person ranged from 1.1 to 3.2 times the NI PSM in that year. Whilst we do not suggest that average salaries can be directly compared with median salaries, these ratios may provide some indication that many of salaries were likely to have been over the NI PSM (albeit not conclusively so).

Table 4.7 provides a summary of the average annual salary in each of the portfolio companies that are continuing to operate in 2014. In all companies, the average annual salary per person was above the NI PSM median (of £18,720) for this year.

Table 4.7: Salaries in portfolio companies in 2013 (PSM = £18,720)[34]

Company	Gross No. of FTEs (2013)	Average annual salary per person
A	N/A	N/A
B	12	£37,908
C	-	-
D	-	-
E	-	-
F	13	£24,896
G	-	-
H	N/A	
I &J	1	£32,000
K	N/A	N/A
L	-	-
M	-	-
N	34	£23,095
O	-	-
P	15	£37,872

Notwithstanding the absence of information relating to individual and median salaries within each of the portfolio companies, the analysis indicates that Nitech is likely to have created, maintained and safeguarded a significant proportion of jobs with salaries in excess of the NI private sector median.

[34] Source: Clarendon Fund Managers.

4.5 **Gross Value Added**

Technical notes

- Gross value added (GVA) has been calculated by summing each company's earnings before the deduction of interest, tax, depreciation and amortization expenses (EBITDA) with their payroll costs for each year of their operation during the period under review.

- Please note that the approach to calculating GVA at a company level was agreed in conjunction with Invest NI’s economists. Company level EBITDA and payroll costs were provided by the Fund Manager during the Evaluation process. All figures presented solely relate to NI based EBITDA and payroll costs that were generated during the period under review. In a small number of cases (less than 10 cases) that information was missing for individual companies in individual years, the Fund Manager has made assumptions (where possible) as to the likely EBITDA and payroll that would have been incurred based on its understanding of the individual circumstances of the company at that time. In a small number of cases (less than 5 cases) EBITDA and payroll information was not available for a given company in a given year nor was the Fund Manager in an appropriate position to provide a likely estimation for this. In such instances, the Evaluation Team has not included an estimation of EBITDA and payroll costs for these time periods. It should be noted however that it is Fund Manager’s view that the companies would not have made negative EBITDA during these small number of cases, hence the Evaluation Team has adopted a prudent approach in excluding these small number of cases.

- The Evaluation has sought to adopt a ‘common sense’ approach to assessing the GVA contributed by businesses in receipt of Nitech support. Given the fact that the majority of businesses would have been undertaking pre-commercial activity (i.e. operating in the product development phase of a new start company or a business with a strong focus on R&D), these businesses would have been anticipated to have a negative operating profit given the absence of sales revenue at a time when costs were being incurred. As such, it is more appropriate to base each business’ (that was operating during this developmental phase) GVA on their <u>employee costs alone</u> until the point where the business was anticipated to derive sales revenues.

  However, based on monitoring information provided by Invest NI and the Fund Manager, it is not clear when each business was anticipated to enter its respective sales period. In the absence of this information, <u>employee costs</u> have only been used to calculate GVA up to the point where the business started to derive revenues (as indicated within CFM’s monitoring information). Beyond this point, GVA has been calculated by summing the calculated levels of EBITDA and employee costs (as noted above).

- For those three businesses that did not receive Stage 2 investment, it has been assumed that the Stage 1 investment was utilised to support the businesses payroll costs;

- Return on investment ratios have been calculated net of the Nitech investment that was made in each business.

4.5.1 Gross GVA

Table 4.8 provides a summary of the gross GVA contributed by each company during the period under review, with further detail provided thereafter.

4.8: Gross GVA contributed by Nitech						
Company	**Total EBITDA**	**Total Payroll cost**	**Gross GVA[35]**	**Nitech Investment**	**Gross GVA net of Nitech investment**	**Gross GVA return on investment ratio**
A	-	£20,000	£20,000	£20,000	-	-
B	(£2,698,309)	£4,985,311	£2,287,002	£275,017	£2,011,985	£7.32
C	(£1,589,082)	£284,556	(£403,042)	£230,000	(£633,042)	(£2.75)
D	(£533,578)	£360,699	£187,067	£120,000	£67,067	£0.56
E	(£1,046,716)	£518,504	(£528,212)	£250,000	(£778,212)	(£3.11)
F	(£6,180,170)	£5,304,306	(£836,446)	£249,994	(£1,086,440)	(£4.35)
G	(£1,488,582)	£1,089,884	£1,089,884	£250,000	£839,884	£3.36
H	-	£20,000	£20,000	£20,000	-	-
I&J	(£2,134,822)	£1,024,265	(£629,750)	£415,420	(£1,045,170)	(£2.52)
K	-	£30,000	£30,000	£30,000	-	-
L	(£5,875,348)	£4,558,592	£189,844	£250,000	(£60,156)	(£0.24)
M	(£1,540,454)	£1,351,530	(£188,924)	£155,000	(£343,924)	(£2.22)
N	(£4,439,224)	£3,731,278	(£707,946)	£200,000	(£907,946)	(£4.54)
O	(£2,452,564)	£717,929	£717,929	£250,000	£467,929	£1.87
P	(£2,548,136)	£3,657,100	£1,108,964	£200,000	£908,964	£4.54
Total	**(£32,526,985)**	**£27,653,954**	**£2,356,370**	**£2,915,431**	**(£559,061)**	**(£0.19)**

[35] For reasons noted, the Gross GVA contributed by an individual business (or at an overall level) cannot be calculated by summing its EBIDTA and total payroll costs.

Salient points to note include:

- Total EBITDA for the period under review was c. (£32.5m). The analysis suggests that, when examined on a cumulative basis, all of the companies derived negative EBITDA during their respective years of operation during the period under review, with the level of negative EBITDA ranging from c. £534k to £6.2m. Indeed, none of the 12 companies derived positive EBITDA for any given year of operation.

  However, the Evaluation Team considers that the preceding analysis should be viewed in context. Empirical evidence[36] suggests that there is a tendency for private equity funds focusing on seed and early stage growth companies to derive negative returns and cash flows in the short to medium term (which may amount to years), given the infancy of the companies invested in and the extensive research and development activities that are often undertaken to bring innovative products or services to market. These funds tend to anticipate and derive positive returns and cash flow later in the investment fund's life as the portfolio companies mature and are gradually exited (also known as the 'J-curve' effect).

  It is the Fund Manager's view, that the duration of the negative EBITDA incurred by portfolio companies is also likely to reflect, and have been influenced by, the depressed macro-economic climate (particularly from 2008 onwards) which negatively impacted on company scaling and growth during the period.

- Reflecting the high number of jobs years and salaries supported, the total payroll costs for the 12 companies equated to c. £27.7m during the period under review, albeit 67% (or £18.6m) of costs were attributed to 4 companies.

- The analysis suggests that the portfolio companies potentially cost the NI economy £559k[37] in gross GVA (net of the investment made through Nitech). 5 (31%) of the 12 companies (that received stage 2 investment) contributed positive GVA during the period under review, with the level of gross GVA contributed by an individual company ranging from £67k to £2m. The level of negative GVA contributed by the remaining 7 companies ranged from £60k to £1.1m. However, we understand, through discussion with Fund Manager, that much of the expenditure that has contributed to the negative GVA impacts was as a result of considerable expenditure on undertaking further R&D activities, and thus contributing to other strategic goals within an NI context, such as increasing levels of Business Expenditure R&D (BERD). Furthermore, the Fund Manager has indicated that there is likely to have been positive knowledge and market spillovers resulting from the R&D activities that were supported by the Fund during the period under review.

- On an overall basis, the analysis indicates that the portfolio companies provided an economic loss of £0.19 to date in gross GVA (net of the investment made through Nitech) for every pound invested through the Nitech Fund.

4.5.2 *Net additional GVA*

The application of the three additionality scenarios (see Table 4.9 overleaf) to the gross levels of GVA contributed by each company, suggests that the investment made through Nitech may have directly cost the NI economy between £116k (Scenario 1) and £419k (Scenario 2) in net additional GVA to the NI economy[38].

Given the level of investment made in each of the portfolio companies suggests that the investment made through **Nitech potentially cost the NI economy between £0.04 and £0.14 in net additional GVA for every pound invested through the Fund**.

[36] For example see *'The private equity J-Curve: cash flow considerations from primary and secondary points of view'*, Christian Diller, Ivan Herger, Marco Wulff, Capital Dynamics

[37] The negative GVA should be viewed as a cost to the economy on the basis that the investment (Nitech and other investment) could have been allocated to support other commercial/economic development activities that would have possible made a positive contribution to the NI economy during the same period.

[38] Please note that the figures are net of the investment made through Nitech.

Table 4.9: Net additional GVA contributed by Nitech

Company	Gross GVA net of Nitech investment	Scenario 1 (Based on Fund Manager's assessment)			Scenario 2 (Based on Interim Evaluation findings)			Scenario 3 (Lower case scenarios)		
		Additionality	Net additional GVA	Net additional GVA return on investment ratio	Additionality	Net additional GVA	Net additional GVA return on investment ratio	Additionality	Net additional GVA	Net additional GVA return on investment ratio
A	-	-	-	-		-	-		-	-
B	£2,011,985	100%	£2,011,985	£7.32		£1,508,989	£5.49		£1,005,993	£3.66
C	(£633,042)	100%	(£633,042)	(£2.75)		(£474,782)	(£2.06)		(£316,521)	(£1.38)
D	£67,067	70%	£46,947	£0.39		£50,300	£0.42		£33,534	£0.28
E	(£778,212)	100%	(£778,212)	(£3.11)		(£583,659)	(£2.33)		(£389,106)	(£1.56)
F	(£1,086,440)	70%	(£760,508)	(£3.04)		(£814,830)	(£3.26)		(£543,220)	(£2.17)
G	£839,884	100%	£839,884	£3.36		£629,913	£2.52		£419,942	£1.68
H	-	-	-	-	75%	-	-	50%	-	-
I &J	(£1,045,170)	85%	(£888,395)	(£2.14)		(£783,878)	(£1.89)		(£522,585)	(£1.26)
K	-	-	-	-		-	-		-	-
L	(£60,156)	70%	(£42,109)	(£0.17)		(£45,117)	(£0.18)		(£30,078)	(£0.12)
M	(£343,924)	70%	(£240,747)	(£1.55)		(£257,943)	(£1.66)		(£171,962)	(£1.11)
N	(£907,946)	60%	(£544,768)	(£2.72)		(£680,960)	(£3.40)		(£453,973)	(£2.27)
O	£467,929	70%	£327,550	£1.31		£350,947	£1.40		£233,965	£0.94
P	£908,964	60%	£545,378	£2.73		£681,723	£3.41		£454,482	£2.27
Total	**(£559,061)**		**(£116,035)**	**(£0.04)**		**(£419,296)**	**(£0.14)**		**(£279,530)**	**(£0.10)**

4.6 Wider and regional benefits

Based upon the preceding analysis and discussions with the Fund Manager, the investment in portfolio companies has potentially contributed to the realisation of a number of wider and regional benefits, as outlined in the table below.

Table 4.10: Nitech's contribution to wider and regional benefits	
Wider benefits	
Knowledge transfer	During consultation, the Fund Manager indicated that there had been a significant level of knowledge transfer between NI's two universities and industry as a result of the creation of spin-ins, spin-outs or the establishment of commercial knowledge transfer relationships. It is the Fund Managers view that this is best evidenced by the fact that QUB and UU invested c. £1m in half of the portfolio companies (i.e. 8 of 16 businesses). The transfer of knowledge between individuals and institutions is also likely to have led to increased skills amongst entrepreneurs involved in the portfolio companies.
Skills development	
University linkages with industry	
Entrepreneurship	Through its investment in portfolio companies, Nitech is likely to have stimulated entrepreneurial activity amongst NI-based start-ups. During consultation, the Fund Manager also indicated that a number of companies and entrepreneurs involved in the companies have progressed to establish other spinout companies.
Encouraging FDI	Whilst monitoring information was not available at the time of Evaluation, the Fund Manager has indicated that a proportion of the private sector investment leveraged during the Nitech rounds, was derived from investors based outside of NI.
Regional benefits	
Degree of R&D being injected	As detailed previously, the investment made through Nitech has supported companies to undertake substantial levels of product, service and market research and development activities (as reflected in the high payroll costs and negative EBITDA) and hence is likely to have encouraged product and process innovation.
Innovative nature of the project	

4.7 Status of the Portfolio Companies

Table 4.11 provides a summary of the nature of investments that were made by the LPs through the Fund and the status of each of the companies.

Table 4.11: Overview of Progress of portfolio companies[39]

Company	Value at cost	Equity taken in business	Companying operating?	Provisions	Valuation @ June 2013	Valuation @February 2014						
						Low		Medium		High		Weighted average value
						Forecast Value	Prob. %	Forecast Value	Prob. %	Forecast Value	Prob. %	
A	£20,000	-	X	(£20,000)	-	-	-	-	-	-	-	-
B	£275,017	1.88%	✓	-	£0	£0	100%	-	-	-	-	£0
C	£230,000	11.62%	X	(£230,000)	-	-	-	-	-	-	-	-
D	£120,000	7.29%	X	(£120,000)	-	-	-	-	-	-	-	-
E	£250,000	22.73%	X	(£250,000)	-	-	-	-	-	-	-	-
F	£249,994	2.7%	✓	-	£124,997	£0	10%	£23,200	80%	£66,500	10%	£25,210
G	£250,000	11.33%	X	(£250,000)	-	-	-					
H	£20,000	-	X	(£20,000)	-	-	-					
I	£225,000	15%	X	(£225,000)	-	-	-	-	-	-	-	-
J	£190,420	14.93%	✓	-	£95,210	£0	30%	£50,000	50%	£132,000	20%	£51,400
K	£30,000	-	X	(£30,000)	-	-	-	-	-	-	-	-
L	£250,000	0.25%	X	(£250,000)	-	-	-	-	-	-	-	-
M	£155,000	9.37%[40]	X	(£155,000)	-	-	-	-	-	-	-	-
N	£200,000	2.0%	✓	-	£202,789	£0	20%	£202,789	20%	£440,000	60%	£304,558
O	£250,000	9.2%	X	(£250,000)	-	-	-	-	-	-	-	-
P	£200,000	2.84%	✓	-	£50,000	£0	25%	£45,000	70%	£100,000	5%	£36,500
Total	**£2,915,431**			**(£1,800,000)**	**£472,996**	**£0**		**£320,989**		**£738,500**		**£417,668**

[39] Source: Clarendon fund Managers *"Fund Valuation @ Cost Benefit of 'Managing Out'"*, February 2014

[40] 2.5% in ordinary shares and 6.87% in preference shares.

Salient points to note include:

- Of the 16 businesses that received investment through the Fund, 11 businesses no longer exist (one of which (Company I) was acquired by another portfolio company (Company J)) and 5 businesses are continuing to operate. As of September 2015, there have been no successful exits.

- Total provisions made by the Fund for businesses that received investment but no longer exist equate to c. £1.8m.

- In February 2014, the Fund Manager provided a range of updated estimates of the value of the Fund's investments for companies that continue to exist (N=5). Based on the weighted average of three potential scenarios (low/medium/high), the Fund Manager has indicated that the potential value of these investments is c. £418k, which is significantly below (63% or c. 696k) their value at cost (of c. £1.1m).

- Only 1 of the 5 existing investments have been valued by the Fund Manager in excess of its value at cost (Company N) and the Fund Manager has confirmed that the Fund is likely to see a return during 2016. The reduced value of the remaining 4 companies is reflective of:

  - The investments held by the fund have been significantly diluted due the lack of participation of Nitech in subsequent funding rounds (due to the lack of availability of follow on funding); and/or
  - The shares held by other investors that made investment in subsequent funding rounds include liquidation preferences, allowing these later investors to realise repayment of their investment on exit, ahead of investors (such as Nitech) from previous rounds; and/or
  - The companies have not progressed in the manner anticipated at the outset due to internal and/or external factors (e.g. market driven factors).

- Discussions with Invest NI suggest that whilst the levels of anticipated success from a seed and early stage VC fund will typically vary depending on a range of factors including the wider macro-economic environment and the other support mechanisms available within the wider ecosystem, it would typically anticipate that one-third of companies would fail, one-third would continue to operate but underperform and one-third would excel. Whilst the progression of the 16 portfolio companies to date, has performed below this trend, it is the Fund Manager's view, and shared by the Evaluation Team, that the performance should be viewed in the context of:

  - The Fund was, in retrospect too small to support follow on funding, to support the growth and scaling of the businesses and mitigate against any dilution of the Fund' shares value;
  - The limited number of other equity funds and low levels of investor readiness support that existed during the early years of Nitech – as noted Nitech was a pilot Fund;
  - The depressed macro-economic climate (particularly from 2008 onwards) is likely to have impacted on company scaling and growth, resulting in companies with insufficient sales or profitable growth to become attractive acquisition targets; and
  - There was a general lack of acquisition activity across NI (and the UK) during the period under review (largely due to the economic climate which drove higher levels of risk aversion and negatively impacted on the availability of finance).

4.8 Duplication and complementarity

Figure 4.1 and Table 4.12 provides an overview of other public and private sector initiatives that sought to provide seed and early stage growth finance to SMEs during the period under review (2003-2013). Commentary on the 'fit' of the Nitech is provided in the succeeding paragraphs.

Figure 4.1: Overview of other seed and growth capital available to NI SMEs during the period of the Nitech

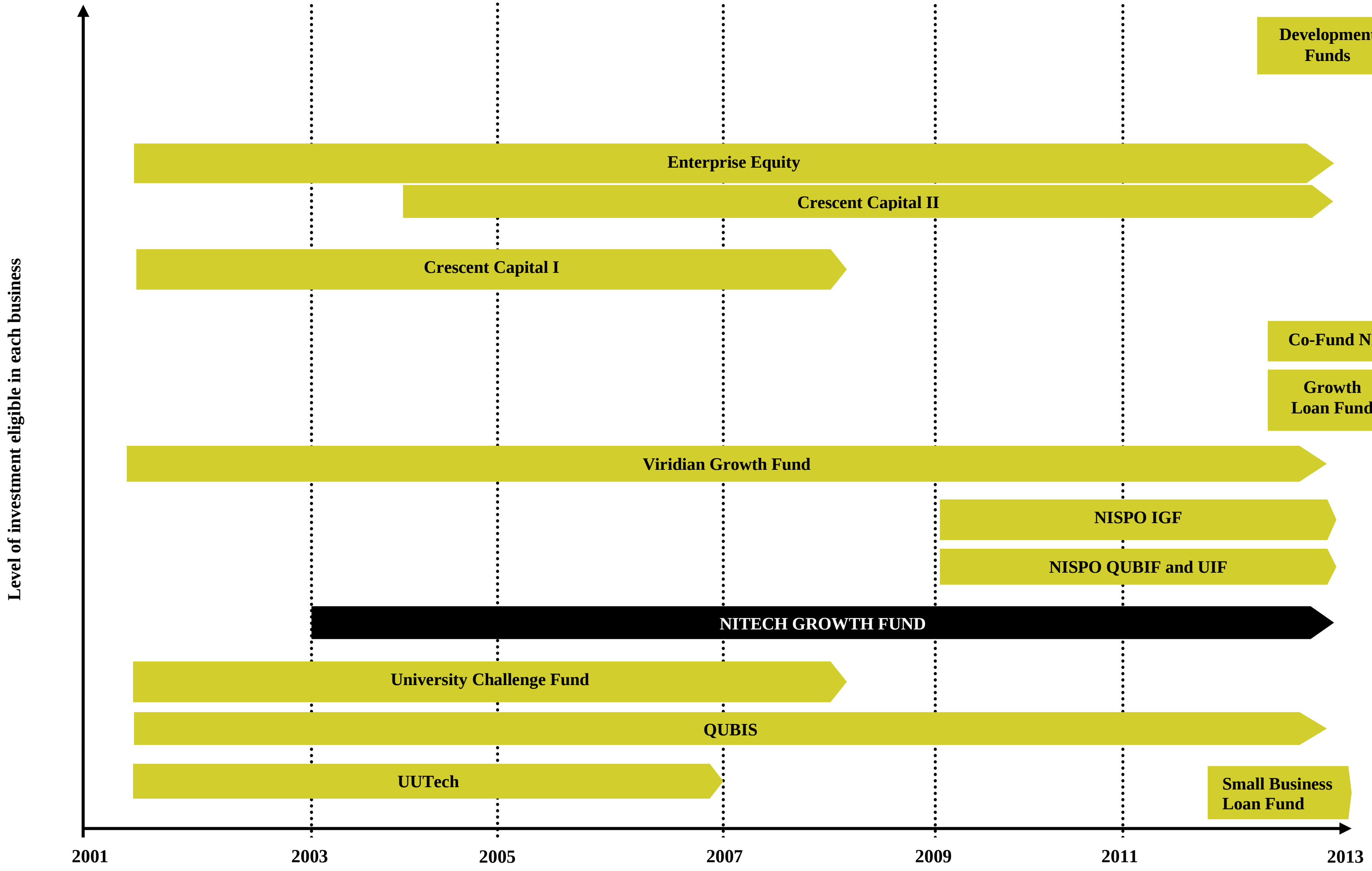

Table 4.12: Overview of Funding Initiatives					
Name of fund	**Fund Total**	**Fund type**	**Extent of loans/ investments**	**Area of Focus**	**Years of Operation**
Funding Initiatives					
Viridian Growth Fund	£10m	Equity	£50k to £300k	Pre-revenue product or development stage	2001-2011 (+ 2 yr. extension)
Crescent Capital I (Crescent Capital)	£14m[41]	Equity	£250k - £1m	Early-stage and development stage technology companies.	1995-2008 (Investment phase: 1995-2001 Managing-out phase: 2001-2008)
Enterprise Equity (Enterprise Equity)	£10m	Equity	£250k - £1.5m	Growth-orientation established companies.	1987 – ongoing (Investment completed in 2010, currently managing-out investments)
Crescent Capital II (Crescent Capital)	£22.5m	Equity	£250k - £1.5m	Early-stage and development stage technology companies.	2004 - 2014 (Investment phase: 2004 -2010 Managing-out phase: 2010 - to date)
University Challenge Fund (UU and QUB)	£2.75m Fund	Equity	£25,000 - £50,000	University spin-out businesses at seed/ early-stage growth stage.	1998 – 2008
QUBIS Ltd	£0.5m	Equity	£10,000 - £50,000[42]	University spin-out businesses at seed/ early-stage growth stage.	1994 – ongoing (Evergreen Fund continuing to make investments)
UUTECH Ltd	£1.9m	Equity	£5,000 - £50,000	University spin-out businesses at seed/ early-stage growth stage.	1998-2006
Access to Finance Initiatives					
NI Small Business Loan Fund (UCI)	£5m	Debt	Up to £50,000	Micro-businesses, SMEs in the start-up and growth phases and social enterprises.	2013 – ongoing
NISPO (IGF) (E-Synergy)	£12m	Equity	£50k - £250,000	Non-University businesses at seed/ early-stage growth stage.	2009 – ongoing
NISPO POC (E-Synergy)	£3m	Grant	£10k and £40k	Entrepreneurs and seed-businesses	2009 – ongoing
NISPO (QUBIF and UIF) (E-Synergy)	£2m (£1m each)	Equity	£50k and £200k	University spin-out businesses at seed/ early-stage growth stage.	2009 – ongoing
Co-fund NI (Clarendon)	£16m over 6 years	Equity	£250k and £450k[43]	Early-stage, high growth SMEs.	2011 - ongoing
Development Funds (Crescent Capital and Kernel Capital)	£60m over 10 years	Equity	£450k and £2m[44]	Expansion of established businesses that have passed the start-up stage.	2013 - ongoing
Growth Loan Fund (Whiterock Capital)	£50m	Debt/ Mezz	£50k to £500k	SMEs with high growth potential.	2012 - ongoing

[41] Including £7m of loans from the public sector matched by £7m of private sector investment. Public sector investment was on a subordinated basis.
[42] Although up to £0.5m could be invested in an individual company through QUB's £2.5m Development Fund.
[43] Led by business angels.
[44] Comprising both public and private funding.

In addition to the support provided through Invest NI's Access to Finance initiatives, a number of other financial and non-financial initiatives were available during the period under review that sought to support start-up and early growth businesses (including funds to support R&D activity and technology and knowledge transfer from NI's universities). These initiatives included:

- Proof of Concept Programme (University, Invest NI)
- START Programme (Invest NI)
- Small Firms Merit Award for Research and Development (SMART) Programme (Invest NI)
- COMPETE Programme (Invest NI)
- Halo NI (NISP)
- £25k awards (NISP CONNECT)
- VC Forum (NISP CONNECT)
- Seedcorn Competition (InterTradeIreland)
- NISPO Investment Readiness/Awareness Programme (IRP) (E-Synergy funded by Invest NI)
- Propel Programme (Invest NI)
- Springboard (NISP CONNECT)
- Enterprise Forum (NISP CONNECT)
- Frameworks Workshops (NISP CONNECT)

An overview of each of these initiatives is provided in Appendix IV.

Salient points to note in relation to the range of initiatives that were available to provide seed and early stage support (financial and non-financial) to SMEs during the period under review includes:

- Whilst there was a small number of other VC funds in operation during the early years of the Nitech (i.e. VGF, Crescent Capital I and II and Enterprise Equity), these funds focused on different investment ranges than Nitech and the businesses that were supported were typically at a later stage of development (i.e. after the pre-revenue stage). As such, the Fund played a complementary role to these Funds during the period under review;

- In terms of the other R&D Funds that were available during the investment phase of Nitech, Invest NI created a Memorandum of Understanding (MoU) which concluded that: Invest NI and Angle Technology Ltd were in agreement that:

  "Angle Technology Ltd and Invest NI agree that the NITECH Fund and the existing Invest NI R&D programmes are not mutually exclusive. On the contrary, they are intended to operate on a complementary basis alongside each other. Flexibility is vital; the proportionate contribution from the Fund or any of the individual R&D support programs may vary from a single source (i.e. either the Fund or an individual Invest NI R&D programme) or a combination of the Fund and an individual and appropriate programme. Both parties recognise the need for close liaison and co-operation, on a case by case basis, in deciding the most appropriate allocation of support."

  In-line with the conclusions of the MOU, discussions with Invest NI indicates that demand for R&D initiatives such as START, SMART and COMPETE remained strong throughout their respective delivery periods and there was no evidence to suggest the Nitech displaced these initiatives (or vice versa). Indeed, supported by evidence within the Interim Evaluation of Nitech which indicated that a number of portfolio companies had received support through both Nitech and these other Funds, it appears that the initiatives complemented one another.

  However, the availability of University PoCp support from 2003 (in the form of a non-repayable grant) was deemed to be more attractive than the Stage 1 support available through Nitech (which required the investment to be repaid or converted to equity shares) which resulted in demand for Stage 1 support through Nitech being lower than anticipated. Whilst it is unclear as to whether the projects in receipt of PoCp support would have performed relatively better if they had been supported through Stage 1 of Nitech, we do note that the lower than anticipated levels of demand for Stage 1 support resulted in an increased quantum of support to be invested in supporting Stage 2 activity; and

- More recently, the Evaluation Team notes that whilst the introduction of the NISPO IGF (in 2009 through Invest NI's Access to Finance Initiative) offered similar levels of funding (between £50k and £250k), Nitech was not making investment in its portfolio companies at that stage (on the basis that the Fund was fully invested). As such, there was (is) no opportunity for Nitech to have duplicated or displaced support that has been available through Invest NI's current portfolio of Access to Finance initiatives. Indeed these initiatives (and the other identified business supports) offered the potential to provide follow-on support the businesses in receipt of Nitech investment.

4.9 Assessing the Economic Impact of Similar Funds

By way assessing the economic impact of similar investment funds in future, all future evaluations should be undertaken in line with NIGEAE and focus on assessing the inputs, activities supported, as well as the outputs and outcomes derived by participating businesses and the wider NI economy. A summary of the areas that should be examined (at a minimum) at each stage of the Evaluation 'logic chain' is summarised below.

Figure 4.2: Areas to be assessed as part of the Evaluation of similar Funds

Inputs

- Invest NI staff time
- Fund investment Costs including:
  - Fund Management Costs
  - Investment in businesses
- Contribution of participating businesses (cash and in-kind contributions)

Activities

- Fund management activities undertaken
  - External marketing of the Fund
  - Management of the application process (including due diligence activities)
  - Management of Fund finance
  - Monitoring of investments
  - Liaison with businesses
  - Signposting businesses to other forms of support (where required)
- Levels of investment made (at an overall level and at an individual business level)
- Type, degree of novelty and nature of R,D&I activity undertaken

Outputs

- Investment levered (disaggregated by public and private sector sources) both during the Fund's investment rounds and post investment rounds
- Nature of any products or services developed
- Nature of R&D spillovers derived
  - Knowledge spillovers
  - Market spillovers
  - Network spillovers

Outcomes

- £ of domestic, external and export sales derived
- £ of cost savings derived
- £ of R&D spillovers derived
- Supply chain impacts
- £ of gross GVA derived
- £ of net additional GVA derived
- Gross and net additional jobs created /sustained (including number above the PSM)
- No. / % of businesses reporting an increase in competitiveness
- Wider and Regional benefits:
  - Workforce with enhanced skills
  - Reduction of 'brain drain'
  - Enhanced levels of entrepreneurship
  - Knowledge transfers and creation of university linkages with industry
- Enhanced reputation of the NI economy

4.10 **Summary Conclusions**

Based on the analysis of available monitoring information and consultation with the Fund Manager, the following key conclusions can be drawn with regards to the monetary and non-monetary economic impact of Nitech during the period under review:

- During the Nitech funding rounds an additional £13.3m was invested in the 16 companies, 75% (or c. £9.94m) of which came from private sector sources and the remaining 25% (or c. £3.36m) was derived from public sector sources. The analysis suggests that, the Fund may have directly supported the 16 companies to leverage between £6.7m to £10.6m in net additional investment, of which between £5m and £7.9m came from private sector sources.

- In the absence of undertaking primary research with businesses that received investment, the Evaluation Team cannot definitely conclude on the levels of additionality and displacement. However, discussions with Invest NI and the Fund manager suggest that Nitech played a pivotal role in supporting the businesses to lever investment (and hence additionality levels were high and the risk of displacement was low.

- The analysis indicates that Nitech may have directly contributed to creating and/or maintaining between 483 and 720 FTE job years. A total of 75 NI-based FTEs continue to be employed in 5 of the 16 portfolio companies that continue to operate. The application of the calculated levels of additionality, suggests that, depending on which additionality scenario is selected, Nitech has directly contributed to creating and potential safeguarding of between 38 and 56 of the jobs that continued to exist in 2014. The analysis indicates that Nitech is likely to have created, maintained and safeguarded a significant proportion of jobs with salaries in excess of the NI private sector median;

- The analysis suggests that the portfolio companies potentially cost the NI economy £559k in gross GVA (net of the investment made through Nitech). However, much of the expenditure that has contributed to the negative GVA impacts was as a result of considerable expenditure on undertaking further R&D activities, and thus contributing to other strategic goals within an NI context, such as increasing levels of Business Expenditure R&D (BERD).

- The investment made through Nitech may have directly cost the NI economy between £116k (Scenario 1) and £419k (Scenario 2) in net additional GVA to the NI economy. Given the level of investment made in each of the portfolio companies suggests that the investment made through Nitech potentially cost the NI economy between £0.04 and £0.14 in net additional GVA for every pound invested through the Fund.

- In addition to the aforementioned benefits, the analysis suggests that the investment made through Nitech has contributed to delivering a number of wider (e.g. knowledge transfer, skills development, entrepreneurship etc.) and regional benefits (degree of R&D being injected and innovative nature of the project) to the NI economy.

- Of the 16 businesses that received investment through the Fund, 11 businesses no longer exist and 5 businesses are continuing to operate. As of September 2015, there have been no successful exits. The Fund Manager's updated estimates of the value of the Fund's investments for companies that continue to exist indicate that the potential value of these investments is c. £418k, which is significantly below their value at cost.

- Only 1 of the 5 existing investments have been valued by the Fund Manager in excess of its value at cost and the Fund Manager has confirmed that the Fund is likely to see a return during 2016.

5. FUND FINANCE, RETURN-ON-INVESTMENT AND VALUE-FOR-MONEY

5.1 Introduction

Section 6 examines the costs associated with administering Nitech during the period under review. In doing so, the section also examines the value-for-money (VFM) that has been delivered by the Fund to date.

5.2 Summary of Income and Expenditure

Table 5.1 provides a summary of the Fund's income and expenditure during the period under review with further detail provided in the subsequent paragraphs.

Table 5.1: Summary of income and expenditure[45]

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Income												
Loan	£799,700	£890,000	£685,000	£0	£462,000	£0	£615,000	£80,000	£140,000	£110,000	£95,615	£3,877,315
Capital	£300	£0	£0	£0	£0	£0	£0	£0	£0	£0	£0	£300
Income[46]	£3,097	£20,511	£20,349	£23,572	£17,211	£16,357	£5,408	£19	£10	£7	£3	£106,544
Subtotal	**£803,097**	**£910,511**	**£705,349**	**£23,572**	**£479,211**	**£16,357**	**£620,408**	**£80,019**	**£140,010**	**£110,007**	**£95,618**	**£3,984,159**
Expenditure												
Direct fund costs[47]	£42,632	£19,431	£14,227	£20,874	£13,686	£10,872	£13,939	£14,163	£13,146	£10,007	£8,717	£181,694
Priority Profit Share[48]	£21,250	£87,519	£82,260	£90,257	£74,239	£68,281	£74,038	£81,353	£100,164	£96,887	£91,419	£867,667
Investment in companies	£340,000	£885,000	£320,000	£318,924	£390,370	£661,137	-	-	-	-	-	£2,915,431
Subtotal	**£403,882**	**£991,950**	**£416,487**	**£430,055**	**£478,295**	**£740,290**	**£87,977**	**£95,516**	**£113,310**	**£106,894**	**£100,136**	**£3,964,792**
Net surplus/deficit	**£399,215**	**(£81,439)**	**£288,862**	**(£406,483)**	**£916**	**(£723,933)**	**£532,431**	**(£15,497)**	**£26,700**	**£3,113**	**(£4,518)**	**£19,367**

[45] Source: Nitech Annual Statutory accounts. During consultation, Invest NI confirmed that the amount of its internal staff time committed to overseeing the administration of Nitech was negligible (on the basis that a Fund Manager was appointed to oversee its delivery) and hence should be excluded from the analysis.
[46] Income relates to monitoring and arrangement fees, bank deposit interest and loan interest.
[47] Direct fund costs include: audit, tax and legal fees, aborted deal costs, share custodian fees, Supervisory Board payments and bank fees and charges.
[48] The priority profit share relates to the management fees paid to the Fund Manager (Clarendon).

Salient points to note include:

- The full economic cost of delivering the Fund over its ten year life was £3.96m, which was broadly aligned to the anticipated costs (£4m (inclusive of the Fund extension);
- Fund administration costs (direct fund costs plus priority profit share (PPS)) represented just over one-quarter (26% or c. £1.1m) of the full economic cost;
- A total of c. £868k of management fees (PPS) were paid to the Fund Manager over the period, representing c. 22% of total Fund costs (inclusive of direct fund costs, PPS and investment in portfolio companies). Based on the Evaluation Team's understanding of the management fees paid on other Funds (which Invest NI confirmed can typically range between 20% and 30%), the proportion of Fund costs allocated to the Fund Manager appears reasonable;
- It is understood that the Fund Manager agreed to monitor and oversee the investments during 2014 at no additional cost; and
- During the period under review there were no realisations from the investments and there has been no capital return to Invest NI[49].

5.3 Return-on-investment

The Evaluation Team's analysis suggests that Nitech may have directly cost the NI economy between £116k (Scenario 1) and £419k (Scenario 2) in net additional GVA. Given the level of investment made in the portfolio companies (c. £2.92m) suggests that Nitech potentially cost the NI economy between £0.04 and £0.14 in net additional GVA for every pound invested through the Fund.

However, as detailed in Section 6.2, the full economic cost of delivering the Fund was £3.96m (inclusive of direct fund costs, PPS and investment in portfolio companies). Given the calculated levels of net additional GVA suggests that the Fund may have potentially cost the NI economy between £0.03 and £0.11 in net additional GVA for every pound invested (on a full economic cost basis).

Table 5.2: Calculation of the return-on-investment provided by Nitech

Full Economic Cost	Net additional GVA			Return-on investment		
	Scenario 1	Scenario 2	Scenario 3	Scenario 1	Scenario 2	Scenario 3
£3,964,792	(£116,035)	(£419,296)	(£279,530)	£1: (£0.03)	£1 : (£0.11)	£1 : (£0.07)

5.4 Value-for-Money

In the absence of the original approval documentation (Economic Appraisal and Casework) it is difficult to ascertain what value-for-money (VFM) was anticipated to be in the context of Nitech. Notwithstanding this, the Evaluation has sought to provide a rounded conclusion on the degree to which the Fund provided VFM during the period under review based on the following points:

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49 Other than the £20k that was returned by Company C, which did not utilise the Stage 1 investment which it was allocated.

Table 5.3: Summary of Value for Money	
VFM Indicator	**Conclusion**
Strategic Fit	In line with Government's strategic imperatives, the provision of venture capital through Nitech promoted a continuum of funds, supported the creation a deal flow chain across seed, early and development funds and heled to address the barriers to growth faced by SMEs.
Need & Market Failure	During the period under review, there was a need for Government to provide support to address a gap in the continuum of the supply of finance for start-up and early growth businesses. The research evidence suggests that this gap arose due to key structural market failures (including asymmetric information on the demand and supply side, risk aversion, existence of positive externalities and market power) and other structural issues associated with the NI Economy. Based on all available evidence, the Fund contributed to addressing the identified market need as far as the scale of the Fund permitted this.
Additionality	In the absence of undertaking primary research with private sector investors[50], the Evaluation Team is unable to conclude with certainty as to the contribution that Nitech (both in terms of financial and non-financial support provided) had in supporting businesses to leverage investment or maintain and expand their operations. However, discussions with Invest NI and the Fund manager suggest that Nitech played a pivotal role in supporting the businesses to lever investment and hence levels of additionality was high.
Displacement	It is Invest NI's and the Fund Manager's view, and shared by the Evaluation Team, that the level of displacement was likely to be low given the fact that the Fund typically invested in pre-revenue businesses and the businesses were likely to have had few (if any) competitors located in NI and UK markets (given the novel nature of the goods and services they were developing).
Duplication and complementarity	The research suggests that the availability of PoCp (University) support potentially duplicated the Stage 1 investment support that was available through Nitech. There was little other risk of the Fund duplicating or displacing other similar initiatives that were available in the NI marketplace during the period under review (or vice versa).
Economy Efficiency and Effectiveness	• **Economy** measures are concerned with showing that the appropriate inputs (i.e. the resources used in carrying out the project) have been obtained at least cost. In the absence of the original approval documentation it is unclear as to the rationale why the initial size of the Fund (i.e. £3m) was deemed to be the level of investment that was required to meet the growth finance needs of businesses at the time of establishing the Nitech. However, the size of the Fund was, in retrospect; too small to meet the growth finance needs of businesses. We note that the Fund Manager was appointed based on their proposal to manage the Fund, with Invest NI concluding that the fees that were due to be paid to it were commensurate to the management role it had to perform and offered the potential to provide relative VFM (vis-à-vis the other potential fund managers that bid to perform the role). A total of c. £868k of management fees (PPS) were paid to the Fund Manager over the period, representing c. 22% of total Fund costs (inclusive of direct fund costs, PPS and investment in portfolio companies). Based on the Evaluation Team's understanding of the management fees paid on other Funds (which Invest NI confirmed can typically range between 20% and 30%), the proportion of Fund costs allocated to the Fund Manager appears reasonable • **Efficiency** relates to measures that are concerned with achieving the maximum output

[50] As detailed in Section 1, the Evaluation Steering Group requested that Cogent did not undertake primary research with private sector investors (that had provided leveraged investment) given the extensive time period that has passed since making their investment and the associated concerns over the reliability of any feedback that would be received during the primary research (given the passage of time).

Table 5.3: Summary of Value for Money	
VFM Indicator	**Conclusion**
	from a given set of inputs. The analysis indicates: – The number of Stage 1 investments was below that initially anticipated at the outset of the Fund; – The levels of private sector investment that was leveraged should be viewed positively given the wider macro-economic environment that existed across the period; – The progression of the 16 portfolio companies to date (11 companies no longer exist, 4 companies are significantly below their value at cost and only 1 company is above its value at cost and is likely to provide a return in the short to medium term) indicates that the Fund has performed below this trend. – In addition, the Fund may have been able to yield more positive results (both in leveraged investment terms, and the progress of the investments (including return to the Fund) had the size of the Fund been larger. • **Effectiveness** measures are concerned with showing the extent to which aims, objectives and targets of the project are being achieved. Whilst the Evaluation Team is unable to draw direct comparisons between the anticipated deal flow activity targets and the actual outturn, the Fund achieved or partially achieved all other activity targets. We do however note that the designation of target achievement masks the overall outcomes of the companies invested in, which was below that anticipated.
Cost effectiveness	In the absence of an economic appraisal and/or associated casework documentation, anticipated cost effectiveness indicators were not identified for the Fund, and hence comparative analysis (of actual versus anticipated) cannot be made. On a leveraged ratio basis, the analysis suggests that every pound invested by Nitech has leveraged between £1.44 and £2.32 of net additional private sector investment. These ratios increase to between £2.27 and £3.61 when examined on a total funding leveraged basis. Given the calculated levels of net additional GVA (between (£116k) and (£419k)) and the full economic costs (£3.96m) suggests that the Fund may have potentially cost the NI economy between £0.03 and £0.11 in net additional GVA for every pound invested.
Economic Efficiency test results	From a monetary perspective the analysis suggests that Nitech has directly: • Contributed to creating and/or maintaining between 483 and 720 FTE job years, a significant proportion of which are likely to have salaries in excess of the NI private sector median • Directly cost the NI economy between £116k (Scenario 1) and £419k (Scenario 2) in net additional GVA to the NI economy In addition to the above, the analysis suggests that the investment made through Nitech is likely to have contributed to delivering a number of wider (e.g. knowledge transfer, skills development, entrepreneurship etc.) and regional benefits (degree of R&D being injected and innovative nature of the project) to the NI economy

On consideration of the above points, including the overall performance of the Fund, we conclude that the Nitech Fund has not delivered VFM during the period under review.

We do however note that the Fund was a pilot Fund that was created during a period when the importance of the role of seed and early stage finance (including VC finance) was potentially less well known amongst economic development agencies in NI and further afield, hence there was a lack of public sector initiatives available to support local SMEs. Allied to this, at that time of the Fund's creation, there was a more limited understanding of the levels of follow-on investment that would be required to support the scaling of businesses and make them an attractive proposition for acquisition. The combination of these factors resulted in higher than anticipated levels of demand for a Fund which was, in retrospect, too small to fully address the follow-on needs of NI businesses at that time.

Linked to the previous point, discussions with Invest NI and the Fund Manager indicate that, in addition to increasing stakeholders understanding of the importance and role of seed and early stage finance, a number of key learning points were identified which were subsequently built into the administration and operation of subsequent Access to Finance Initiatives provided by Invest NI (e.g. in NISPO). These learning points included:

- There was a continued need for government intervention to meet the growth finance needs of businesses;
- The need to establish Funds that were of an appropriate scale (in terms of the quantum of investment available) to facilitate reasonable levels of follow-on investment to minimise the dilution of the Fund's share values and enable the Fund Manager to play a more influential and proactive role in the investment terms of these follow-on rounds;
- The need to provide other non-finance support to businesses alongside the investment including:
  - **Wrap-around investor readiness/business advisory support** to provide specialist early-stage business mentoring advice to those projects that need it, in order to improve the quality of their business proposition and general business acumen;
  - **Marketing/education function** to make potential investees of the availability of funding and the benefits of receiving this support vis-a-vis any equity that is required to be sacrificed to receive this support;
- The need for greater levels of communication, connectivity and interworking between relevant stakeholders within the NI seed and early stage ecosystem to ensure that potential opportunities to support businesses, through their various stage of growth, were not being missed;
- Linked to the previous point, there was a greater recognition of the need to provide a wider continuum of funding (across different investment levels) to ensure that businesses were receiving the appropriate levels of support to facilitate the next stage of their development

Based on these learning points, the Evaluation Team concludes that whilst Nitech did not deliver VFM as a standalone Fund/intervention, the integration of these learning points potentially paved the way for subsequent Funds to realise VFM.

5.5 Exit Strategy from the Fund

The Evaluation Team understands that the Fund Manager agreed to actively manage or closely monitor the progress of the 5 companies that are continuing to operate until the end of 2014 (at no additional cost). However, these investments are, at present, sitting in abeyance with the Fund Manager not contractually required to provide ongoing support to the companies on behalf of the Nitech Fund. However it is noted that the remaining 5 portfolio companies also received support through the VGF, also managed by Clarendon and as such continue to be appropriately supported and monitored. Nevertheless, we recommend that Invest NI takes appropriate action in a timely manner to ensure that the investments continue to be appropriately supported and monitored.

Discussions with the Fund Manager indicate that a number of Options could be taken forward by Invest NI to close the Fund and provide ongoing management and monitoring support to the portfolio companies that continue to exist. The options include:

- **Option 1: Return Shares to LP -** Option 1 would involve the Fund's shares in the individual companies being returned to Invest NI (which is allowable under the terms of the LPA[51]). However, the Fund Manager has indicated that the shares are illiquid[52] and the majority of the active portfolio companies continue to require direct intervention by the Manager[53] to protect the interests of Nitech LP, in the absence of further follow-on investment from the Fund.

- **Option 2: Sell the portfolio to a secondary buyer -** It is/has been possible to sell companies and/or equity portfolios to secondary funders i.e. fund managers who specialise in buying-up limited partners' positions in VC and private equity funds. However, the Fund manager has indicated that had there been ready buyers for individual companies, the Nitech portfolio would already have been realised. Indeed, buyers have been sought for individual companies, or for a significant part of the assets, but with little or no interest. The additional difficulty with the sale of a Partner's share of the portfolio to a secondary funder is the resultant substantial discount to the carrying value (up to 50%) that is the norm for these transactions.

  This option has been recently investigated with potential secondary buyers for the VGF portfolio with the conclusion that the portfolio is not attractive to such buyers. Given the VGF portfolio is in a more commercially advanced state than that of Nitech, it would be (in the Fund Manager's view) unlikely to find a buyer for the Nitech Fund's portfolio.

- **Option 3: Manage-out the portfolio -** The portfolio can be "managed out" i.e. realised either within the Limited Partnership or under a new contract between the LP and an FCA-authorised party and outside the original Limited Partnership Agreement (which has now terminated).

  The original LPA stated that the General Partner of the Limited Partnership would act as the liquidating trustee of the Partnership when it terminated[54]. The power to allow the General Partner to take the actions required in managing-out the portfolio and the extended period of time envisaged, may be achievable practically for Nitech (given Invest NI is the sole Limited Partner) by an agreed alteration to the wording of the clause in the LPA that authorises the General Partner to become the liquidating trustee of the portfolio.

- **Option 4: Transfer the shares under the Co-Fund NI umbrella** – A fourth option would involve the Fund's share transferred to Invest NI under the Co-Fund NI (which we understand is allowable under an increased fund size). Discussions with the Fund Manager indicates that, in such a scenario, Invest NI would potentially be charged a fee based on a fixed Co-Fund NI contracted fee applied to cost or value of the transferred portfolio. There would potentially be no bonus paid to the Fund Manager other than valuation performance of Co-Fund NI being measured inclusive of the Nitech shares. The Evaluation Team understands that such an option could reduce legal costs of transferring shares whilst retaining Invest NI rights in accordance with standard Co-Fund rights. It is also noted that 3 of the investee companies are already Co-Fund NI investees so minimal disruption would potentially be incurred. The Option may also allow for some follow on investment to be provided to more effectively protect the valuation position.

[51] See Clause 6.6.1 (b) of the LPA
[52] That is, the shares could not be easily sold or exchanged for cash without a substantial loss in value
[53] For example, to support companies to lever additional funding, support company re-structuring and deal with management issues.
[54] The Evaluation Team understands that the legal view is that the authority of the liquidating trustee under the original LPA in the case of the VGF did not allow the trustee to take the actions. In this case, an extended period of time (envisaged as up to 3 years) to realise (i.e. sell) the VGF portfolio assets and a new Liquidating Trust is required.

Assuming that Invest NI would not want to manage the outstanding investment portfolio (per Option 1), and Invest NI and the Fund Manager is unlikely to find a buyer for Nitech's portfolio (per Option 2), then Options 3 and 4 are likely to be the most realistic options from which Invest NI can select to support and monitor the outstanding investments. Whilst the financial implications of taking forward each of these options would need to be fully assessed by Invest NI in conjunction with the Fund Manager, Option 4 would possibly be the least disruptive Option and may facilitate further follow-on support to be provided to protect the valuation position of the outstanding investments.

The operational merits and associated costs of each of the above options should be fully considered by Invest NI in timely manner to facilitate the management and monitoring of the Fund's outstanding investments

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The section presents the Evaluation Team's key conclusions and recommendations arising from the evaluation process.

6.2 Conclusions

6.2.1 Strategic Context and Rationale

During the period under review, there was a need for Government to provide support to address a gap in the continuum of the supply of finance for deals up to £2m for start-up and early growth businesses. This gap arose due to (amongst other things) key structural market failures and other structural issues associated with the NI Economy.

In line with Government's strategic focus, the provision of venture capital through Nitech offered the potential to promote a continuum of funds, create a deal flow chain across seed, early and development funds and retain and build on skills and capability of venture capitalists. In doing so, the Fund offered the potential to *"help eliminate the real and perceived barriers to growth"* faced by SMEs.

6.2.2 Operation and Delivery

Between April 2003 and November 2013, Nitech invested c. £2.92m in a total of 16 companies. £70k was invested in 3 companies to support them to exemplify their research and/or construct a prototype (Stage 1), whilst the remainder (£2.85m) were made in 13 businesses to undertake more fundamental R&D to support the development of novel products and services (Stage 2). The number and level of Stage 1 investments was lower than anticipated at the outset of the Fund, whilst the levels of demand for Stage 2 investments was relatively higher than anticipated.

Whilst other more financially attractive initiatives existed within the marketplace which supported businesses to undertake Stage 1type activities, the size of the Fund meant that there was a limited opportunity to provide follow-on investment to support the scaling of businesses and make them an attractive proposition for acquisition. The lack of availability of follow-on funding also resulted in the dilution of the Fund's shares and prevented the Fund from participating in subsequent funding rounds., This in-turn meant that the Fund Manager had a lack of ability to influence the investment terms of these rounds (which were set by the incoming investors) many of which included liquidation preferences, allowing these later investors to realise repayment of their investment on exit, ahead of investors (such as Nitech) from previous rounds.

Whilst the Fund was, in retrospect, too small to fully address the follow-on needs of NI businesses at that time, we note that it was created as a pilot Fund during a period when the importance of the role of seed and early stage finance (including VC finance) was potentially less well known amongst economic development agencies in NI and further afield, hence there was a lack of public sector initiatives available to support local SMEs.

Based on all available evidence, the Fund appears to have been appropriately managed by the Fund Manager who undertook their roles and responsibilities in accordance with the Limited Partnership Agreement which included undertaking commensurate levels of technical and market due diligence in advance of investing, stimulating deal flow and subsequently playing an active and supportive mentoring role within the portfolio companies.

6.2.3 Fund Impact

During the Nitech funding rounds an additional £13.3m was invested in the 16 companies, 75% (or c. £9.94m) of which came from private sector sources and the remaining 25% (or c. £3.36m) was derived from public sector sources. The analysis suggests that, the Fund may have directly supported the 16 companies to leverage between £6.7m to £10.6m in net additional investment, of which between £5m and £7.9m came from private sector sources.

In the absence of undertaking primary research with businesses that received investment, the Evaluation Team cannot definitely conclude on the levels of additionality and displacement. However, discussions with Invest NI and the Fund manager suggest that Nitech played a pivotal role in supporting the businesses to lever investment (and hence additionality levels were high and the risk of displacement was low.

The analysis indicates that Nitech may have directly contributed to creating and/or maintaining between 483 and 720 FTE job years. A total of 75 NI-based FTEs continue to be employed in 5 of the 16 portfolio companies that continue to operate. The application of the calculated levels of additionality, suggests that, depending on which additionality scenario is selected, Nitech has directly contributed to creating and potential safeguarding of between 38 and 56 of the jobs that continued to exist in 2014. The analysis indicates that Nitech is likely to have created, maintained and safeguarded a significant proportion of jobs with salaries in excess of the NI private sector median.

The analysis suggests that the portfolio companies potentially cost the NI economy £559k in gross GVA (net of the investment made through Nitech). However, much of the expenditure that has contributed to the negative GVA impacts was as a result of considerable expenditure on undertaking further R&D activities, and thus contributing to other strategic goals within an NI context, such as increasing levels of Business Expenditure R&D (BERD).

The investment made through Nitech may have directly cost the NI economy between £116k (Scenario 1) and £419k (Scenario 2) in net additional GVA to the NI economy. Given the level of investment made in each of the portfolio companies suggests that the investment made through Nitech potentially cost the NI economy between £0.04 and £0.14 in net additional GVA for every pound invested through the Fund.

In addition to the aforementioned benefits, the analysis suggests that the investment made through Nitech has contributed to delivering a number of wider (e.g. knowledge transfer, skills development, entrepreneurship etc.) and regional benefits (degree of R&D being injected and innovative nature of the project) to the NI economy.

Of the 16 businesses that received investment through the Fund, 11 businesses no longer exist and 5 businesses are continuing to operate. As of September 2015, there have been no successful exits. The Fund Manager’s updated estimates of the value of the Fund’s investments for companies that continue to exist indicate that the potential value of these investments is c. £418k, which is significantly below their value at cost.

Only 1 of the 5 existing investments have been valued by the Fund Manager in excess of its value at cost and the Fund Manager has confirmed that the Fund is likely to see a return during 2016. Whilst the progression of the 16 portfolio companies to date, has performed below expectations, it’s performance should be viewed in the context of:

- Its relatively small size and associated inability to provide adequate levels of follow on funding, to support the growth and scaling of the businesses and mitigate against any dilution of the Fund’ shares value;
- The limited number of other equity funds and low levels of investor readiness support that existed during the early years of Nitech;

- The depressed macro-economic climate (particularly from 2008 onwards) is likely to have impacted on company scaling and growth, resulting in companies with insufficient sales or profitable growth to become attractive acquisition targets; and
- There was a general lack of acquisition activity across NI (and the UK) during the period under review (largely due to the economic climate which drove higher levels of risk aversion and negatively impacted on the availability of finance).

6.2.4 Progress towards targets

Whilst the Evaluation Team is unable to draw direct comparisons between the anticipated deal flow activity targets and the actual outturn, the Fund achieved or partially achieved all other activity targets. We do however note that the designation of target achievement masks the overall outcomes of the companies invested in, which was below that anticipated.

6.2.5 Fund Finance

The full economic cost of delivering the Fund over its ten year life was £3.96m, which was broadly aligned to the anticipated costs (£4m (inclusive of the Fund extension). Fund administration costs (direct fund costs plus priority profit share (PPS)) represented just over one-quarter (26% or c. £1.1m) of the full economic cost.

A total of c. £868k of management fees (PPS) were paid to the Fund Manager over the period, representing c. 22% of total Fund costs (inclusive of direct fund costs, PPS and investment in portfolio companies). Based on the Evaluation Team's understanding of the management fees paid on other Funds (which Invest NI confirmed can typically range between 20% and 30%), the proportion of Fund costs allocated to the Fund Manager appears reasonable.

During the period under review there were no realisations from the investments and there has been no capital return to Invest NI.

6.2.6 Return-on-investment

Given the calculated levels of net additional GVA (between (£116k) and (£419k)) and the full economic costs (£3.96m) suggests that the Fund may have potentially cost the NI economy between £0.03 and £0.11 in net additional GVA for every pound invested.

6.2.7 Value-for-Money

In the absence of the original approval documentation (Economic Appraisal and Casework) it is difficult to ascertain what value-for-money (VFM) was anticipated to be in the context of Nitech. However, based on all available evidence, including the overall performance of the Fund, we conclude that the Nitech Fund has not delivered VFM during the period under review.

Whilst Nitech did not deliver VFM as a standalone Fund/intervention, a number of key learning points were identified during the delivery of the Fund which were subsequently built into the administration and operation of subsequent Access to Finance Initiatives provided by Invest NI (e.g. in NISPO).The integration of these learning points potentially paved the way for subsequent Funds to realise VFM.

6.2.9 Exit Strategy from the Fund

The Evaluation Team understands that the Fund Manager agreed to actively manage or closely monitor the progress of the 5 companies that are continuing to operate until the end of 2014 (at no additional cost). However, these investments are, at present, sitting in abeyance with the Fund Manager not contractually required to provide ongoing support to the companies on behalf of the Nitech Fund. We therefore recommend that Invest NI takes appropriate action in a timely manner to ensure that the investments are appropriately supported and monitored.

Discussions with the Fund Manager indicate that a number of Options could be taken forward including:

- Option 1: Return Shares to LP
- Option 2: Sell the portfolio to a secondary buyer
- Option 3: Manage-out the portfolio
- Option 4: Transfer the shares under the Co-Fund NI umbrella

Whilst the financial implications of taking forward each of these options would need to be fully assessed by Invest NI in conjunction with the Fund Manager, Option 4 would possibly be the least disruptive Option and may facilitate further follow-on support to be provided to protect the valuation position of the outstanding investments.

6.3 Recommendations

1. Invest NI should ensure to takes appropriate action in a timely manner to ensure that all existing investments in companies that are continuing to operate are appropriately supported and monitored. This should include providing consideration to the operational merits and associated costs of each of the identified potential exit strategies.

2. As part of the development of future funds, cognisance should be taken of the need to establish funds that are of a suitable size to facilitate appropriate levels of follow-on investment.