



**REGENERIS**

# The Evaluation of the Sustainable Development Support Programme

A Final Report by Regeneris Consulting  
and CAG Consultants

August 2018

# Invest Northern Ireland

## The Evaluation of the Sustainable Development Support Programme

August 2018

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# Executive Summary

## The Sustainable Development Support Programme

- i. Regeneris Consulting, CAG Consulting and BMG were appointed in February 2018 to undertake the evaluation of Invest Northern Ireland's (Invest NI) Sustainable Development Support Programme (SDSP).
- ii. The SDSP was introduced in October 2015 for a three-year period running until September 2018. It aims to improve the productivity of businesses in Northern Ireland through securing cost savings in the use of energy, water, materials and reducing waste. It also promotes business opportunities in bio-energy supply chains. The SDSP is a successor programme to the Sustainable Productivity Programme which ran between April 2012 and September 2015.
- iii. SDSP is funded by Invest NI and managed by the Energy and Resource Efficiency Team which is part of the Skills and Competitiveness Division in the Business Solutions Group. It has a funding approval for £7.82m for the three-year period October 2015 to September 2018<sup>1</sup>. £4.9m of these costs relate to the top up of a revolving Energy Efficiency Loan Fund as well as capital grants, whilst the remainder cover the revenue costs associated with the delivery of various types of consultancy and support.
- iv. The SDSP covers a number of strands of activity which are related to energy and resource efficiency and the related business opportunities within a single programme:
  - Technical Consultancy & Support (TCS) – one-to-one support brokered by technical advisors from Invest NI's Energy and Resource Efficiency team and delivered through a framework of twenty-one sustainable development consultants. This also includes a focus on bio energy supply chains.
  - Energy Efficiency Loan Fund (EELF) – provides interest free loans of between £3,000 and £400,000 to businesses investing in energy efficient equipment and/or renewable technologies. The Fund is managed by the Carbon Trust.

<sup>1</sup> Note: the 3 year programme costs allowing for additional Invest NI staff costs are £9.8m. It was anticipated that the top up to the EELF would enable c.£12m worth of loans to be distributed through the recycling and reuse of repaid loans from earlier periods.

- Resource Efficiency Capital Grant (RECG) - provides grants of up to a maximum of £40,000 to Invest NI account managed companies (all other support is open to all companies) for the installation of new equipment that provide greater efficiency.
- Industrial Symbiosis Service (ISS) - this service assists business to share services, utilities, and by-product resources in order to add value, reduce costs and secure sustainability benefits. The support is delivered by International Synergies (NI) Ltd.

## Evaluation Purpose and Approach

- v. The ITT sets out a series of eight objectives mostly focused on the delivery and impact of the programme between October 2015 and September 2017 (see section one). The main themes were:
- Continued appropriateness and relevance
  - Programme performance
  - Programme delivery processes and management
  - Economic impact, cost effectiveness and value for money
  - Recommendations for a successor programme.
- vi. The evaluation approach used a range of methods, drawing on the appropriate guidance on evaluation methods including:
- Reviewing the rationale and design of the SDSP using a theory of change approach
  - A review of a small number of comparable schemes and initiatives and literature in order to draw out the lessons learn elsewhere
  - Consultations with Invest Northern Ireland, external delivery bodies, and a range of stakeholders in government, local authorities, trade bodies and business groups (Appendix A lists the consultees).
  - A large-scale survey of beneficiary businesses (147 completed interviews) in order to understand the motivation, experience and impact of the support upon these businesses, as well as in-depth qualitative research with a selection of business beneficiaries.

## Review of the Programme Rationale

- vii. The evaluation supports the view that the programme rationale (as described in the Theory of Change) remains valid. That is, there is scope to improve the productivity, competitiveness and sustainability of businesses in Northern Ireland, but there are significant market failures and therefore interventions (tailored to meet identified need) are required to ensure benefits are secured. The review of the theory of change highlighted a number of operational assumptions which were not operating in practice – these are highlighted in section two.

## Delivery Performance

- viii. Overall, good progress has been made during the first two years of operation, reflecting the strength and experience of the delivery teams and strong leadership from Invest NI. Although the delivery teams report more challenging market conditions more recently, most support strands have been able to meet their operational activity targets over the first two year period.
- ix. There was an underspend of £1m in delivery costs at September 2017 on an overall budget of £5.17m. This was primarily due to lower take-up of the energy efficiency loans (-£895k). Whilst spend was also lower than expected (-£135k) for the capital grants, this was a timing issue over the call for applications, with the grants proving very popular with Invest NI clients (and hence the calls being oversubscribed).
- x. The lower demand for the energy efficiency loans than expected is surprising given the popularity of the interest free loans in the past. Whilst it is difficult to be precise about this, it is likely that a number of these factors have contributed to this drop off in demand (see section 2). The EELF was subsequently suspended in June 2018, four months short of the end of the current three operational period for the SDSP. At the point the loan fund was suspended, it had made 428 loans worth £9.63 million compared to the 3-year target of 555 and loans worth £12.49 million.

## Delivery Processes

- xi. The design of the SDSP has clearly been informed by, and benefited, from the programme and strand evaluations (in particular the EELF) and a thorough economic appraisal. The organisation of service delivery, combining the mix of internal teams and external delivery providers, has ensured a good mix of skills, experience, track record and credibility in the

market place. The two EDOs, the Carbon Trust and International Synergies NI Ltd, have enabled good continuity of service.

- xii. One of the more significant changes in the delivery of the SDSP has been the adoption of a more coordinated approach to branding and marketing of the service. Whilst this has been helpful, it has associated weaknesses relating to the profile of SDSP services on the Invest NI website, the limited use of case studies and limited use of social media.
- xiii. The extent to which the intention of adopting a stronger one stop shop model has been achieved is mixed. Whilst the access to a range of services provided through the SDSP is good, unlike many one stop shop models the SDSP provides businesses with multiple entry points, but does not include an initial diagnostic and advisory service, and provides only limited proactive client management (with the exception of Invest NI client companies). The research also highlighted the limited knowledge of the SDSP and its services amongst the population of Invest NI Client Executives, which is important bearing in mind that these number around 1,200 businesses.
- xiv. The SDSP has an experienced management team with appropriate and effective management systems and procedures in place. However, there are operational areas in which improvements can be made including: having periodic meetings of the four delivery teams to share experiences, issues and cross-referral; and the introduction of an integrated management information system to enable the efficient and effective recording, analysis and reporting of financial and output information.

## Business Experience

- xv. The quantitative survey identified a number of key messages which were generally positive> However, there was a marked difference across the types of support:
  - The businesses that had received loans were more likely to point to tangible financial benefits in the form of financial savings (RECG recipients also pointed to these benefits but the sample size was very small)
  - Whilst businesses in receipt of the TCS consultancy support could also point to financial benefits, the majority of the total benefits was heavily skewed to relatively few businesses

- The ISS recipients were much less likely to point to financial savings either now or in the future (and it is to be expected that they may find it harder to quantify these benefits given the nature of the support).
- xvi. The businesses could also point to current or potential future benefits related to softer outcomes, such as a better understanding of resource efficiency, better knowledge of resource efficiency amongst management teams, and developing new relationships with suppliers or customers on the back of resource efficiency related activity. Fewer businesses could point to significant change in the commitment in senior management to resource efficiency and environmental management, or an improved corporate reputation on the back of the measures introduced.
- xvii. The levels of satisfaction with the support provided through the SDSP were very high across all types of support. A good litmus test of the satisfaction of the businesses with the support they received is whether they would recommend it to other businesses in their networks. The vast majority stated that they would recommend it (93%), with only seven businesses stating that they would not. The aspects of the service where a significant minority of business did anticipate some scope for improvements were:
- Marketing - the small number of qualitative responses provided mentioned improved branding, more awareness raising and a wider range of information about the services available.
  - Linkages to other forms of Invest NI support - a small number of businesses noted their limited awareness of, and lack of information provision about, other services which Invest NI provided to businesses.
  - Nature of support - a small number of respondents noted the need better follow-up procedures with advisors following the delivery of finance, advisory support and related consultancy services.

## **Economic Impact and Value for Money**

- xviii. The evidence gathered from the survey also shows that by the end of September 2017, the programme has generated around £19.91 million of gross GVA (grossed up to all of the business beneficiaries). Once the overall lifetime benefits are assessed over the three years of activity, the gross GVA is estimated to be £175.53 million. Allowing for additionality of the interventions and an additional allowance for optimism bias (25% where applicable – see para 6.4 and 6.8), the net additional GVA attributable to the first two years of activity is



estimated to be £6.78 million. **The lifetime net additional GVA is estimated to be £56.29 million.**

- xix. It is worth noting that evidence presented above identifies the EELF and TC&S strands as the main sources driving the estimated GVA benefit of the programme. Whilst the RECG and ISS strands both generate some GVA benefit, it is estimated that their contributions to the programme's overall total impact are more modest.
- xx. The analysis indicates that SDSP will deliver a return on investment (RoI) of £6.13 in net additional GVA for every £1.00 invested by Invest NI (i.e. £6.13 per £1). This figure hides variations between the programme's strands. Beneficiaries accessing energy efficiency loans are expected to generate RoI in the region of £17.61 GVA for every £1.00 invested by Invest NI, compared to £19.21 for the TC&S strand, £2.77 for the RECG strand, and £1.52 for the ISS strand. Other measures of cost-effectiveness are considered in Section 6, including an assessment based on the economic cost of the public sector's support (i.e. when the full cost of the loan fund, excluding loan repayments) is considered and the full economic cost to society (i.e. considering total costs to the public sector plus private sector match funding).

## Recommendations

### Consider Establishing Business Networks

- xxi. Invest NI may want to consider establishing business networks, for example Energy Efficiency Networks (EENs), as a means of disseminating information and advice to businesses and encouraging self-help. There is evidence to suggest that EENs have been effective in other EU countries although they do present a number of practical challenges.
- xxii. The circular economy had been identified as a potential important theme for the SDSP to focus upon in the future. Whilst not a new initiative, Invest NI should look closely at what opportunities there may be for them to support development in this area and to retain greater economy benefit locally. Research by BITC indicates that the potential gains to Northern Ireland could be around £474m<sup>2</sup>. There is the opportunity to build on the current SDSP provision, together with the strength of particular sectors in Northern Ireland such as manufacturing and construction in Northern Ireland (including 'remanufacturing').

<sup>2</sup> <https://www.bitcni.org.uk/programmes/circular-economy-networks/>

### **Improve Coordination of Marketing and the Adoption of More Innovative Methods**

- xxiii. There is a general need to improve marketing of the SDSP. Evidence of the need for a review of the current approach to marketing is reinforced by the challenges the EELF and - to a lesser extent - the other support strands face in generating sufficient take-up of the support. The literature review identified some key principles and messages of value to any renewed approach to marketing.
- xxiv. Invest NI should ensure that Client Executives are aware of the range of support offered via the SDSP and play a more active role in the promotion of the scheme.

### **Adjustments to Support**

- xxv. The RECG grants are clearly proving very popular with clients although the available funding has been limited to £40,000 and a maximum of 40% of total investment cost. However, the evaluation evidence points to modest economic impact due to limited additionality in some instances. Discussions with consultees and scheme applicants suggest that this grant rate could be reduced, perhaps from 40 to 20-25% without deterring full uptake (of the available funding). This would arguably provide better value for money to Invest NI.
- xxvi. Given the difficulties in investing all available funding for the EELF, one option would be to redirect some, or all, of the loan funding from the EELF into a broader resource efficiency loan scheme. This approach is consistent with that adopted by ZWS (ZWS operate a single loan scheme which provides support for water efficiency and waste reduction projects, as well as energy efficiency), although as noted elsewhere in this report there is not publicly available evidence to attest to the effectiveness, or otherwise, of this approach.
- xxvii. There is merit in considering other changes to the EELF to enhance take-up. In the face of uncertainty about the demand-side reasons for this drop-off in take-up, the scope of this demand could be broadened by adjusting the eligibility criteria. The Carbon Trust has already presented various ways in which this could be achieved such as extending eligibility to new build properties (i.e. allowing for the introduction of a higher standard of energy efficiency).
- xxviii. Feedback from both scheme participants and some stakeholders suggests that the provision of TCS support should be reviewed. In particular, the value of more general forms of support was questioned. It is unclear whether this reflects a criticism of the providers and or simply the low value placed in non-specific forms of advice. It may be worth considering

whether a move to the provision of 'lean and green' support (as used by Enterprise Ireland) might generate more value than general environmental reviews. It may be worth trialling this approach. Alternatively, Invest NI should consider discontinuing any provision of general support in favour of bespoke advice and support.

### **Charging for Services**

- xxix. The quantitative survey in particular explored the issue of the willingness of beneficiary businesses to pay for the financial, advisory or consultancy support they receive. Whilst the results are fairly positive in terms of this willingness, this does not in its own right provide a strong case for removing the current free support that the businesses receive. Our understanding is that a number of UK environmental support programmes have considered or attempted to introduce charging, usually following the withdrawal of Government support. But we are not aware of any successful examples and suggest proceeding with caution here.

### **Linkages Between the Strands of the Programme**

- xxx. From a delivery perspective, the linkages between different elements of the SDSP could be improved. There is scope for the Energy and Resource Efficiency team to develop closer joint working relationships with their internal and external delivery teams. Whilst personal contacts and communication with the Energy and Resource Efficiency Team appear to be good, there do not appear to be strong procedural links which facilitate joint working. There is scope for a more partnership based approach, focused on issues of common interest.
- xxxi. The Bio-energy programme stands out as something of an anomaly in the SDSP as its focus (as we understand it) is on new business / market development and innovation rather than resource efficiency. It is suggested that consideration be given to housing this element of the SDSP within another programme where there might be a more natural fit.

### **Client Management**

- xxxii. It is clear that awareness of the SDSP is highly variable and that scheme participants often do not appreciate the range of other forms of support available to them. In addition to improved signposting (by Invest NI staff, including Client Executives) and referrals it may be useful to provide an on-line signposting service. This could be based on a simple question and answer system with the aim being to ensure that potential applicants are made aware of all the potentially relevant forms of support that are available to them. If it

were felt necessary this could be a voluntary system to enable organisations who are already aware of the SDSP, or who simply wish to focus in on one particular source of support, to secure immediate access to a specific strand of support from within the programme.

- xxxiii. In the case of TCS, the business should always be followed up 3-6 months later by a call from Invest NI following the delivery of a consultancy report to discuss how best to progress next steps, including opportunities to access other forms of SDSP support.

### **Programme Monitoring**

- xxxiv. There is a need to implement a more integrated approach to monitoring of spend, activities and outputs, plus the recording of beneficiary details. The Energy and Resource Efficiency Team have clearly put a lot of effort into designing and maintaining the multiple spreadsheets, which are used to monitor and report financial, activity and output progress against targets. However, there are a range of programme management packages available that are designed for these types of programmes and which help to ensure quality assure of the data. There is a need to balance the usefulness of generic or bespoke software packages against their respective costs. Needless to say, any new investment in software and systems needs to be commensurate with the size of the programme.

# 1. Introduction

## The Sustainable Development Support Programme

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- 1.1 Regeneris Consulting, CAG Consulting and BMG were appointed in February 2018 to undertake the evaluation of Invest Northern Ireland's (Invest NI) Sustainable Development Support Programme (SDSP).
- 1.2 The SDSP was introduced in October 2015 for a three-year period running until September 2018. It aims to improve the productivity of businesses in Northern Ireland through securing cost savings in the use of energy, water, materials and through reducing waste. It also promotes business opportunities in bio-energy supply chains. The programme is also intended to encourage an enhanced understanding amongst business owners and the workforce of the contribution that energy and resource efficiency can make to business growth and development.
- 1.3 The SDSP is a successor programme to the Sustainable Productivity Programme which ran between April 2012 and September 2015 (with an extension between April and September 2015 due to the delay in securing approvals for the SDSP). In terms of the rationale and focus, the SPP is similar to the SDSP in many regards. However, a number of lessons highlighted in the programme evaluation were taken onboard in the design of the operation and delivery of the SDSP compared to its predecessor. The main change was a desire to have more of a one stop shop approach in terms of how businesses could access and be managed through the various strands of the SDSP. This included the introduction of a single integrated web page for the SDSP support on the Invest NI website.
- 1.4 SDSP is funded by Invest NI and managed by the Energy and Resource Efficiency Team which is part of the Skills and Competitiveness Division in the Business Solutions Group. It has a funding approval for £7.82m for the three-year period October 2015 to September 2018<sup>3</sup>. £4.9m of these costs relate to the top up of a revolving Energy Efficiency Loan Fund as well as capital grants, whilst the remainder cover the revenue costs associated with the delivery of various types of consultancy and support.
- 1.5 The SDSP covers a number of strands of activity which are related to energy and resource efficiency and the related business opportunities within a single programme. This has the

<sup>3</sup> Note: the 3 year programme costs allowing for additional Invest NI staff costs are £9.8m. It was anticipated that the top up to the EELF would enable c.£12m worth of loans to be distributed through the recycling and reuse of repaid loans from earlier periods.

potential benefit of securing synergies in the delivery of different types of support to businesses (business often benefit from advice and financial support to achieve both energy and resource efficiency), as well as savings in delivery and management costs. The five activity areas are:

- Technical Consultancy & Support (TCS) – one-to-one support brokered by technical advisors from Invest NI’s Energy and Resource Efficiency team and delivered through a framework of twenty-one sustainable development consultants. The support covers nine specialist areas: resource efficiency and waste management systems; clean technology systems; renewables; energy management and efficiency, investigation of new technologies; low carbon packaging solutions; environmental accreditation; transport efficiency; and sustainable business collaborations.
- Energy Efficiency Loan Fund (EELF) – provides interest free loans of between £3,000 and £400,000 to businesses investing in energy efficient equipment and/or renewable technologies. The Fund is managed by the Carbon Trust, recycling the loan repayments during its operational period (hence the value of loans anticipated to be distributed exceeds the initial capital allocation of £3.15m). It provides loans for a range of technologies and other measures including lighting, heating, air conditioning, biomass, compressed air, process heating & cooling, solar PV, building controls, etc.
- Resource Efficiency Capital Grant (RECG)– provides grants of up to a maximum of £40,000 to Invest NI account managed companies (all other support is open to all companies) for the installation of new equipment that provide greater efficiency in the use of water and raw materials, reducing associated waste and hence providing costs savings. The grant scheme is managed by the Energy and Resource Efficiency team within Invest NI.
- Industrial Symbiosis Service (ISS) - this service assists business to share services, utilities, and by-product resources in order to add value, reduce costs and secure sustainability benefits. The support is delivered by International Synergies (NI) Ltd.
- In addition, an advisor within the Energy and Resource Efficiency team provides support to raise awareness of and promote opportunities for Northern Ireland businesses in the bio energy supply chains through a dedicated Technical Advisor.

1.6 Table 1.1 summarizes the mix of outcome and selected activity targets for the SDSP over the 2015 – 2018 period. The expected reach of the programme is considerable: with: c1,350

advisory visits and 576 consultancy reports through TCS; c720 company visits and 210 match reports through ISS; c550 EELF loans; and c40 RECG grants.

1.7 In addition, the scale of ambition is clearly reflected in the SDSP's outcome targets:

- A minimum of **£145.6m gross GVA and £68.1m net additional GVA** by September 2023 secured through productivity improvements and costs savings – if achieved this would represent a return of £1-£14.8 based on gross GVA or £1-£6.9 based on net additional GVA (both based on total delivery costs of £9.8m)<sup>4</sup>. This outcome measure is not monitored on an on-going basis and needs to be estimated through the evaluation.
- Identified<sup>5</sup> and implemented<sup>6</sup> **cost savings of £24m and £12m respectively** (as well as additional turnover, although a target is not set for this). These cost saving targets are only based on a single years savings for each project. These savings and turnover growth are the drivers of the gross and net GVA.
- A minimum of **10.10ktCO<sub>2</sub> of carbon savings per annum** from the investments made by businesses receiving loans through the EELF. Although the support provided through some of the other strands may generate carbon savings, they are not counted against it.

1.8 The GVA target was based on the evaluation evidence for the predecessor SPP and is based on the sum of additional GVA (i.e. profits and salaries) arising as a consequence of the support. Although it is not clear in the economic appraisal for the SDSP, it is our interpretation that the additional profits arise as a consequence of the cost savings which are assumed to persist by the appraisers for a five year period post support (although decaying at a rate of 25% annually after the first year post-support). The appraisal did not split the sources of profits and salaries between the strands of support.

1.9 A number of these outcome targets are translated into annual operational activity targets which are monitored on an on-going basis.

<sup>4</sup> This is based on the costs incurred by Invest NI. However, it does not allow for the net costs of the EELF to INI, as it only includes the top up costs for the EELF rather than the full value of the loans made and repayments received. Also it does not take account of the full economic costs of the capital investments which are made to secure these benefits, as match funding is not included. This is covered in Section six however.

<sup>5</sup> Identified cost savings relate to all projects where Invest NI support is provided under each strand, regardless of whether they are implemented or not. As such, it is a potential saving.

<sup>6</sup> Implemented cost savings relate to implemented projects, as identified through CT drawdowns, RECG claims, IS match reports, and NISRA surveys. As such, it is an actual saving.

## Purpose and Objectives of the Evaluation

- 1.10 The ITT sets out a series of eight objectives mostly focused on the delivery and impact of the programme between October 2015 and September 2017. The ITT also noted that the 2015 appraisal of the SDSP highlighted a number of specific requirements for the evaluation. Whilst these two sets of objectives are all broadly consistent we have grouped them into a standard evaluation framework below.
- 1.11 Our discussions with Invest NI at the inception stage clearly highlighted the importance of the evaluation evidence in informing any business case for continuing the operational life of the SDSP beyond 2018, but also informing the design of sustainable productivity strands of activity going forward.

Table 1.1 Summary of Outcome and Activity Targets, SDSP, 2015-18					
	EELF	RECG	TC&S	ISS	BE
<b>Overall Outcome Targets:</b>					
Gross and net additional GVA (£145.6m/£68.1m)	X	X	X	X	X
Carbon Savings (10.1ktCO2 /year)	X				
<b>Operational Outcomes Targets:</b>					
Identified cost savings (£24m)	X	X	X	X	
Implemented costs savings (£12m)	X	X	X	X (includes additional sales)	
Additional business turnover	X (ie supply chain spend)				X (ie turnover growth in SMEs)
Investment in Innovation (£9.3m-£9.7m)	X (investment cost)	X (investment cost)	X (consultancy costs)	X (IS delivery costs)	
<b>Operational Activity Targets:</b>					
Output Targets	555 loans worth £13m	42 (min) grants worth £1.75m	1,352 advisory visits & 576 consultancy projects	720 advisory visits & 210 match reports	450 business engagements



**Table 1.2 Evaluation Objectives**

Continued Appropriateness and Relevance:

- Although highlighted in your **Evaluation Objective H** in the context of the post Sept 2018 delivery, the evaluation will also need to consider if rationale for and delivery approach remained appropriate and relevant during the last two years given any changes in policy or economic context at a NI, UK or EU level.

Programme Performance:

- The manner in which the programme has performed against input, output and outcomes targets is covered in your **Evaluation Objectives A and D**.

Programme Delivery Processes and Management:

- Assessing the appropriateness and effectiveness of the intervention's delivery model, operational process, and management and governance structures is covered in your **Evaluation Objective D**. This needs to consider the approach to procuring services, promotion and marketing, business and stakeholder engagement, application and selection procedures, service delivery arrangements, monitoring and reporting, risk management, and strategic and operational management procedures. **Evaluation Objective C** is focused on comparing the approach adopted by SDSP to other comparable programmes and projects elsewhere in the UK and EU, benchmarking management, performance and impact in order to understand the advantages and disadvantages of these different approaches.

Economic and Environmental Impact:

- Your **Evaluation Objective D** sets out the requirement to assess the outcomes and impacts which the SDSP is achieving. This is in terms of the business benefits for the participating businesses, as well as the overall benefits in terms of GVA and employment within Northern Ireland.
- **Evaluation Objective E** also refers to the return on investment being secured. Whilst this is relevant in terms of public sector's return (covered below), it also includes the return which the businesses make given the changes and investments they make following the receipt of consultancy advice, non-repayable grants or interest free loans.

Cost Effectiveness and Value for Money:

- Your **Evaluation Objectives E and F** refer to the overall return on investment and value for money which the public sector secures. This needs to take account of the overall and additional costs incurred by the public sector (allowing for Invest NI's own delivery and management costs), plus the loan repayments which will be secured in due course from EELF. It also needs to take account of the range of gross and net additional monetised economic benefits, plus the non-monetised economic and environmental benefits.

Conclusions and Recommendations:

- Your **Evaluation Objectives A and G** covers the extent to which the programme is achieving its overall objectives, the appropriateness and effectiveness of delivery and management, the nature and scale of the economic and environmental impacts being achieved, as well as value for money provided to the public sector.
- In line with the Evaluation Objective, the evaluation will need to make clear recommendations on the appropriateness of extending the operational life of the programme, the options for future interventions and targeting, as well as delivery and management approaches.

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- The Economic Appraisal's evaluation requirements (requirement E) also notes the need to consider the willingness of the beneficiary businesses to pay for the services they receive or presumably alternative financial mechanisms to non-repayable grant or interest free loans.
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## Evaluation Approach

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1.12 The evaluation approach used a range of methods, drawing on the appropriate guidance on evaluation methods (in particular the Magenta Book<sup>7</sup>). The main tasks included:

- Reviewing the rationale and design of the SDSP using a theory of change approach to set out the relationships between the issues it is intended to address, the nature of the activities and the change it seeks to secure
- A review of a small number of comparable schemes and initiatives, as well as a selection of literature, in order to draw out the lessons learned elsewhere, as well as performance benchmarks where these are available
- Consultations with the Energy and Resource Efficiency Team in Invest Northern Ireland, the two external delivery bodies (Carbon Trust and International Synergies NI Ltd), and a range of stakeholders in government, local authorities, trade bodies and business groups (Appendix A lists the consultees).
- A large-scale survey of beneficiary businesses, with 147 completed interviews being achieved against a target of 185 (Appendix B provides a summary of the achieved sample and its representativeness) with the aim of understanding the motivation, experience and impact of the support upon these businesses.
- In-depth qualitative research with a selection of business beneficiaries as well as businesses which applied unsuccessfully for support (Appendix C provides further detail) in order to understand their awareness and routes into the programme, the experience and satisfaction with the support, and the difference it has made.

<sup>7</sup> The Magenta Book, Guidance for Evaluation, HM Treasury, April 2011

## 2. SDSP Rationale and Theory of Change

2.1 This section sets out the rationale for the SDSP, the associated theory of change through which it is intended to achieve its outcomes, as well as considering any changes in the policy or economic context which may impact on its relevance or delivery. It also draws on a focused review of other comparable schemes in the UK in order to draw on the lessons learnt from these schemes and to identify suitable performance metrics.

### Rationale for the SDSP

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2.2 The economic appraisal of the SDSP, completed in August 2015, set out the rationale for the programme. It identified a number of key areas:

- The appraisal highlighted the relatively poor performance of Northern Ireland's businesses (relative to the UK as a whole). However, the existence of a number of general **market failures limit the extent to which businesses proactively seek business support** and implement measures to improve their productivity, competitiveness and growth. This includes information failures and asymmetry, externalities and risk aversion.
- Many of these **market failures also apply to the uptake of resource and energy efficiency advice and support** which businesses could implement to achieve costs savings, improve their productivity and potentially to unlock growth prospects. Also, whilst these measures can also generate benefits in terms of reductions in greenhouse gas emissions and the use of material resources, information failures and externalities can prevent firms from factoring these issues into their decision making.
- In addition, a number of these **market failures also affect capital markets** and hence the access to finance which businesses may need in order to implement more costly energy and resource efficiency measures.
- Whilst the threat of increasing energy prices provides a driver for businesses to become more resource efficient - and despite the potential for attractive returns - the appraisal suggested that **most companies are yet to fully exploit the cost-saving potential of basic energy and resource efficiency measures.**

2.3 The appraisal concluded that:

- There was a large body of evidence that suggested the market failures persisted and that there was a need for the public sector in Northern Ireland to be actively providing energy and resource efficiency support businesses. This included a continued need for each of the support strands which had been provided through the SPP (subject to some recommended changes).
- Although it pointed to increasing awareness of the issues around energy and resource efficiency (not least because high and increasing energy costs have a disproportionate effect on the Northern Ireland economy), businesses continue to require support in identifying and implementing improvements.
- Maintaining a grant support mechanism was important to ensuring sufficient levels of interest and take-up by firms, although the operation needed to vary between the different types of support.

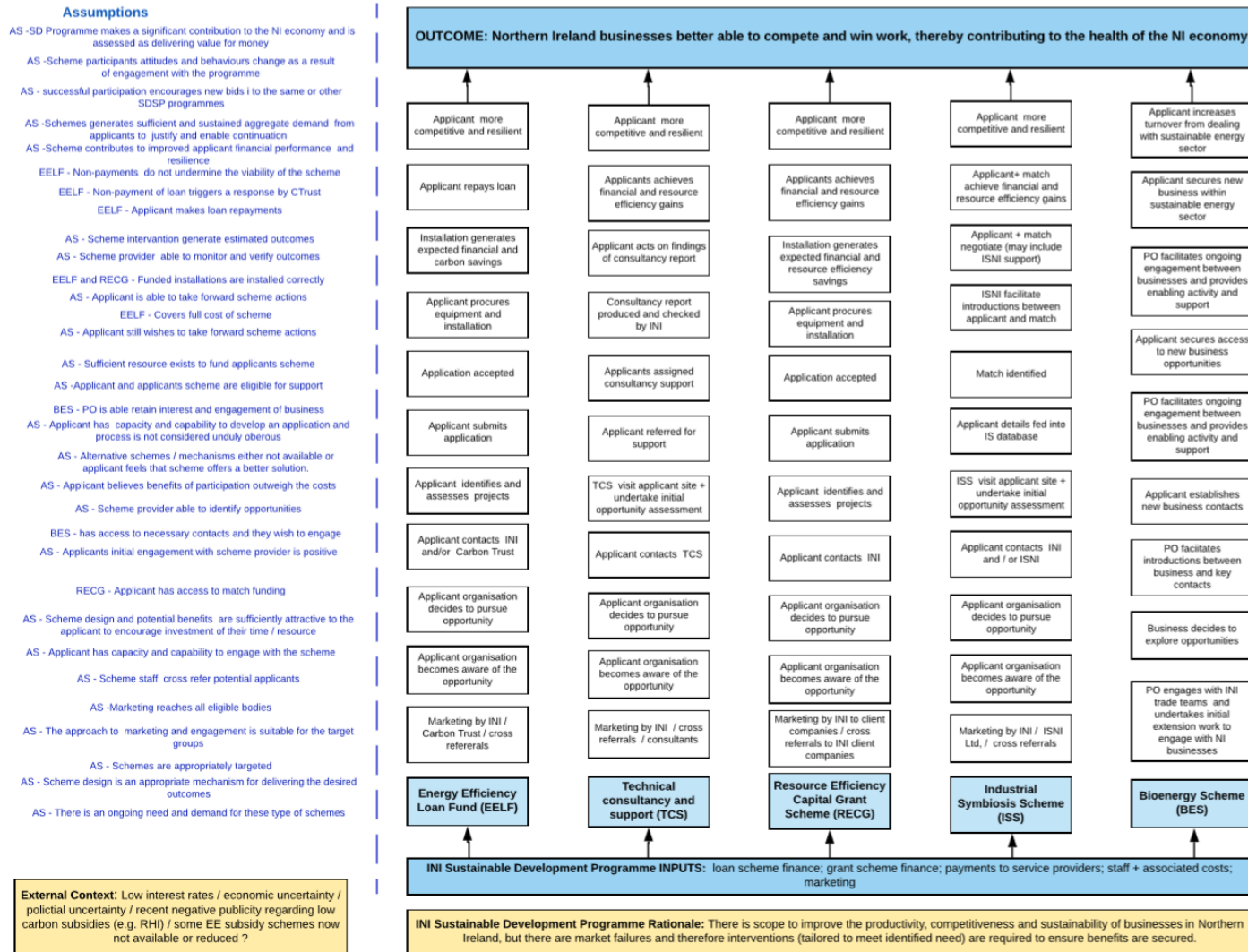
## Theory of Change

2.4 As indicated in the method statement above, the evaluation and in particular the qualitative elements, has been guided by a Theory of Change<sup>8</sup>. The ToC was developed through consultation with Invest NI and presented in diagrammatic form (see the appendices). The ToC for the SDSP describes:

- The rationale for the SDSP (why it exists)
- How it is understood to work
- The outcomes (in general terms) that the SDSP is expected to generate
- The underpinning assumptions of the scheme, i.e. what needs to be in place, or to happen, in order for the scheme to work as intended
- A description of the external factors which may impact upon the SDSP and how effectively or otherwise it works.

<sup>8</sup> Theory of Change is essentially a comprehensive description and illustration of how and why a desired change is expected to happen in a particular context. It is focused in particular on what a programme or project does (its activities or interventions) and how these lead to the desired goals being achieved.

# The Evaluation of the Sustainable Development Support Programme



- 2.5 The development of the ToC played an important role in ensuring that both the client and the evaluators had a shared understanding of the programme and its operational and strategic context. More fundamentally the ToC better enables the evaluators to ask ' intelligent' questions and to identify key lines of enquiry. In this regard the ToC served as the first stage in the development of questions for use in the stakeholder consultations and in quantitative surveys with beneficiary businesses.
- 2.6 For this evaluation the ToC directly informed the development of the following research instruments in particular:
- The development of the topic guides to be used in the stakeholder consultation and applicant / non-applicant interviews; and
  - The quantitative questionnaire as part of the survey of beneficiary businesses.

## Review of Comparator Schemes

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- 2.7 This task involved a review of seven schemes, operating in the UK and in the Republic of Ireland, that share similar objectives and purpose to the SDSP. The purpose of the exercise was to provide comparative material, on issues such as scheme design and delivery, performance and success factors, to inform section 7 of this report (conclusions and recommendations). To this end we examined publicly available information relating to:
- Enterprise Ireland Green Offer
  - EPA Green Business scheme
  - Green Business Fund
  - Resource Efficient Wales
  - Salix Finance
  - Sustainable Energy Authority of Ireland's business support programme
  - Zero Waste Scotland.
- 2.8 In addition the exercise was intended to identify a set of 6-10 potential metrics that might be used by INI to enable it to assess the performance of the SDSP programme with appropriate comparators elsewhere in the UK.
- 2.9 The review exercise proved less useful than hoped owing to the lack of publicly available information, in particular independent evaluation and monitoring information relating to

the identified schemes and organisations<sup>9</sup>. As a result, whilst the review generated some useful examples of potential alternative approaches, for example to issues such as scheme design, in most cases it is not possible for us to pass comment as to how effective or otherwise such approaches have proved to be in practice.

2.10 In addition to the scheme review, we looked at six documents which consider the issue of how best to promote energy and resource efficiency within SMEs and industry. The documents draw on learning from both within the UK and in other EU and OECD countries and are listed below:

- Centre for European Policy Studies (2015), The circular economy: barriers and opportunities for SMEs.
- Durand, A. et al (2018), Energy efficiency networks: lessons learned from Germany. In Proceedings of the ECEEE 2018 Summer Study, 11-13th June, Leading the Low Carbon Transition
- Fusion (2015), How to shift towards the circular economy from a small and medium business perspective: A guide for policy makers. Fusion.
- International Energy Association (2015), Accelerating Energy efficiency in Small and Medium Sized Enterprises. International Energy Agency
- Mallaburn, P. (2016), A new approach to non-domestic energy efficiency policy. University College London.
- OECD (2015), Policy Guidance on Resource Efficiency: Policy Highlights. Organisation for Economic Cooperation and Development

2.11 These sources were selected on the basis of their ability to offer complementary insight to that expected to be generated through the national scheme reviews and the qualitative research. The review serves to inform this report by providing examples of approaches adopted elsewhere and their delivery and impact performance, as well as alternatives to scheme design and operation that might be used to help frame any recommendations for change.

<sup>9</sup> We are aware that several of the schemes we looked at have been the subject of evaluations and performance reviews, but the findings of these exercises are not in the public domain.

## Enterprise Ireland Green Offer

**Introduction** Enterprise Ireland (EI) is the economic development agency of the Irish Government. Their aim is to encourage business growth via improved productivity, competitiveness and expansion into new markets. As part of their efforts to improve productivity EI provides a 'Green Offer' to businesses. This is intended to support businesses in becoming more resource efficient, thereby delivering cost benefits, whilst also helping to meet a demand for more environmentally friendly products and services: in this regard the Green Offer is similar to the SDSP. The Green Offer is only open to clients of Enterprise Ireland.

The Green Offer most closely resembles the INI Technical Consultancy Support offer, but is only part-funded. Whilst the focus of the Green Offer is on business improvement, the scheme appears to allow businesses considerable flexibility, in terms of project activity. The most significant elements of the Green Offer are described below

### Scheme summary

**GreenStart.** The GreenStart programme is only open to SMEs. It aims to increase the level of environmental awareness relating to regulatory compliance and to enable participants to develop a basic environmental management system. Project work is undertaken by external consultants and assignments are expected to last 8-10 weeks, although companies are limited to 7 days of support (50% grant aided). Expected outcomes include:

- Regulatory compliance
- Development of an environmental policy statements
- A simplified site EMS
- A cost saving project completed
- Production of a project report

**Business Process Improvement – GreenPlus Assignments.** The GreenPlus scheme is a more advanced programme through which client companies can apply for funding (up to €70k, 50% funded by Enterprise Ireland, to bring in external assistance to help review and revise company processes to secure and deliver resource and financial efficiencies. Activity can include enabling companies to achieve certification to ISO 14001, ISO 50001 and ISO 14064, or equivalent, but may also include work on process improvements intended to minimise raw material and energy use, and to minimise waste.

Enterprise Ireland's website showcases case studies <https://www.leanbusinessireland.ie/case-studies/>, and also provides access to guidance materials and details of best practice visits.

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**Learning points.** We were unable to find any information concerning the effectiveness of the GreenStart or GreenPlus programmes, for example numbers of beneficiaries, or information on their aggregate impact. The website provides examples of individual case studies, but these are restricted to consideration of outcomes rather than consideration of scheme success factors and lessons learnt. An interim evaluation<sup>10</sup> of the closely related LeanPlus programme reported annual improvements of €37,000 in terms of annual sales per employee (the evaluation does not provide an average cost per intervention, but suggests many companies will have received a low value intervention circa €8900.00). However, this evaluation does not reference GreenPlus and cannot therefore be used as a comparator.

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### **Environmental Protection Agency Green Business Programme (GBP)**

**Introduction.** The Environmental Protection Agency (EPA) is responsible for environmental protection and policing within the Republic of Ireland. One of the services provided by the EPA is the Green Business Programme (GBP), this is a free resource efficiency service for businesses in Ireland. All businesses have access to online support and materials, but more in-depth support is confined to those with an annual utility spend in excess of €25,000. The GBP scheme appears to offer an equivalent type of service to that provided by the SDSP technical consultancy services, although it would appear to be confined to undertaking general resource efficiency reviews only. The GBP is managed by the Clean Technology Centre (CTC) at the Cork Institute of Technology. There do not appear to be any operational links between this programme and that run by Enterprise Ireland. More details regarding the programme are provided below.

#### **Scheme Summary.**

The GBP is funded by the Environmental Protection Agency with the objective of: "*delivering substantive resource efficiency improvements and cost savings, through waste prevention and reductions in water and energy consumption.*"<sup>11</sup>

Services available to businesses include:

- On site resource efficiency assessments
  - An online resource efficiency self assessment tool
  - Guidance materials
  - Case studies
  - Seminars and events
  - A business community programme
  - Advice on other forms of Government support.
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<sup>10</sup> DJEI (2015), An evaluation of Enterprise Ireland Lean Business Offer 2009-2012. Department of Jobs, Enterprise and Innovation.

<sup>11</sup> For source of quote go to <http://greenbusiness.ie/about-us/>

The most substantive element of the GBP support is the on-site resource efficiency assessment. This is available to any businesses with a utility spend in excess of €25,000. Businesses with a spend under this value are still able to access telephone support. An unusual – in our experience – element of the GBP support is their operation of a business community programme. To date these are reported as having been established in eight towns, in response to requests from local stakeholders.

**Learning points.** Publicly available estimates of impact were limited to an infographic describing green business achievements between June 2011 and November 2014. This indicated that 180 resource efficiency assessments (presumed site assessments) had been completed and that these had identified savings of €37,000 per company. In total, over the 3 year reporting period, the scheme has identified €6.7million of potential cost savings. We were unable to locate any data on the costs of running the scheme or scheme success factors.

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## Green Business Fund

**Introduction.** The Green Business Fund (GBF) is a grant scheme, targeting SMEs in England, Scotland and Wales, run by the Carbon Trust. The aim of the programme is to reduce the CO<sub>2</sub> emission of participating businesses whilst generating energy / production cost savings. The fund offers grant funding, but unlike the SDSP resource efficiency grant scheme the focus is purely on energy as opposed to material / water resource efficiency. Despite the scheme title the GBF also offers, several forms of technical support and assistance

**Scheme Summary.** The GBF offers a range of support including:

- Energy opportunity assessments
- Implementation and equipment procurement advice
- Workshops
- Energy efficiency webinars
- Grant aid
- Case studies

The level of practical support available to businesses is tailored depending upon their energy spend. For example, whilst small businesses may receive telephone support only a business with an energy spend in excess of £50,000 is able to access the Carbon Trust's Virtual Energy Manager support service (a series of remote support modules delivered by a Carbon Trust expert).

**Learning points.** The grant element of this programme was originally 30%, up to a maximum of £10,000 total expenditure. However, this was reduced one year into the programme (in 2017), reportedly owing to the high levels of demand. Currently the grant element of the project is limited to 15%, up to a maximum cost of £5000.00. Businesses wishing to access the loan must have taken

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up some form of energy opportunity assessment support and the Carbon Trust would appear to be looking to leverage interest in the grant as a way of securing uptake of their wider support offer. As with several other of the schemes included in this review figures regarding impact and cost effectiveness were not publicly available.

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## Salix Finance

**Introduction.** Salix Finance is an independent, not for profit, organisation that provides access to interest free government funding to local government, schools, NHS, and further, and higher education institutions in England, Scotland and Wales. It is understood that Salix was initially established and run by the Carbon Trust and the scheme operates in a similar way to INI's Energy Efficiency Loan Fund excepting that it is only available to public sector bodies.

### Scheme Summary.

Exact eligibility criteria depends upon the sector and the country in which the loan is being made, but for local authorities in England and Wales the primary criteria are as follows.

- The project must pay for itself from energy savings within a maximum 5 year period.
- The cost of CO<sub>2</sub> must be less than £120 per tonne over the lifetime of the project.

The scheme differs from the others reviewed for this report in that it does not provide or fund the provision of consultancy support, although the cost of such support can be covered by the loan.

Figures produced on their website<sup>12</sup> suggest that since the establishment of the scheme in 2004 (up to 31<sup>st</sup> March 2018) it has achieved the following.

- Delivery of 16,656 schemes
- Value of projects committed £692 million
- Value of annual financial savings £158 million, 2.5 billion over the project's lifetime
- Carbon savings of 766,376tonnes of CO<sub>2</sub>e<sup>13</sup>.

**Learning points.** Salix Finance is a popular scheme with high levels of take up although it is to be more likely to be taken up by larger organisations ( for example, local authorities and universities) than smaller ones (for example, schools). A recent interim evaluation report<sup>14</sup>

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<sup>12</sup> <https://www.salixfinance.co.uk/loans/scotland-loans>

<sup>13</sup> NB it is understood that both carbon and financial savings are predicted as opposed to being based on actual measurements.

<sup>14</sup> BEIS (2018) Evaluation of the Public Sector Energy Efficiency Loan Scheme. BEIS [https://www.salixfinance.co.uk/sites/default/files/public-sector-energy-efficiency\\_loan\\_scheme\\_evaluation\\_interim\\_report\\_final.pdf](https://www.salixfinance.co.uk/sites/default/files/public-sector-energy-efficiency_loan_scheme_evaluation_interim_report_final.pdf)

suggests that the 0% cost of finance is important, but that at least some participants also place a high value on the assurance that dealing with an established, reputable and independent organisation provides. The evaluation suggests that scheme participants often return for additional loan funding, but found that some have found it challenging to identify schemes that meet the scheme payback times: this appears to be more likely to be the case for organisations that have a track record of undertaking energy efficiency work, i.e. organisations that have already undertaken the more obvious forms of energy initiative. One response has been that organisations have supplemented loan funding with other sources of finance.

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### Sustainable Energy Authority of Ireland's (SEAI) business support programme

**Introduction.** The Sustainable Energy Authority of Ireland (SEAI) is charged with leading the transition to a smarter more sustainable energy future in the Republic of Ireland. The SEAI works across sectors, but its work includes a range of activities that it takes forward under the heading of Energy in Business. As an energy agency the scope of SEAI activity is much broader than that of INI's SDSP, only activity deemed immediately relevant is reported here.

**Scheme Summary.** Current SEAI business initiatives include:

- Larger Industry Energy Network (LIEN). This initiative involves 202 of the Republic of Ireland's largest energy users (who collectively account for 55% of Ireland's industrial primary energy requirement. These are companies with annual energy bills of €1million or more, or are certified to or pursuing ISO 50001 certification. SEAI works with these companies to improve their energy performance and on sharing good practice. In 2016 the network reportedly reduced collective energy usage by 2.8% (compared to 2015), thereby avoiding an estimated 157,700tonnes of CO<sub>2</sub>e emissions (no financial savings were listed).
  - Training and support in energy management
  - Grant assistance: this takes various forms, but current offers include the EXEED grant scheme which provides support up to a value of €500,000 (50% funding). This can be used to cover the costs of both capital investments and the associated professional costs. This grant is linked to the Excellence in Energy efficiency Design (EXEED) programme which aims to ensure that organisations take a systematic approach to energy efficiency during the design, construction and commissioning of new investment and asset upgrading.
  - Other types of grant funding available include an SME grant for smart lighting, this covers 30-35% of costs (depending upon the nature of the installation). SEAI also provide a grant (up to €5000) to dairy farmers investing in energy efficient vacuum and milk pump technology.
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**Learning points.** The LIEN provides a conveniently located example of a business energy efficiency network which INI may find it useful to monitor (business energy efficiency networks are discussed in the following section).

The smart lighting grant was only piloted in 2017 and appears to be an attempt to accelerate the uptake of LED lighting systems. The scheme has reportedly proven popular with applicants (it is limited to SMEs) and provides an example of how public support can be focused on accelerating the uptake of specific forms of quick win technologies.

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## Zero Waste Scotland

**Introduction** Zero Waste Scotland (ZWS) is an independent organisation which operates a range of environmental efficiency programmes for the private, public and third sectors across Scotland. ZWS is supported by the Scottish Government but also draws funding from the European Regional Development Fund.

**Scheme summary.** One of ZWS's key programmes is Resource Efficient Scotland. Through this programme businesses can access both technical support and financial support. Details of the support provided through this programme follow:

- The SME Loan provides unsecured, interest free loans from £1,000 up to £100,000 for the installation of energy efficient measures, water saving devices and waste reduction.
- Installed measures must have a payback period of less than 20 years, but loans must be paid back within 4 years for energy efficiency measures and 8 years for other measures.
- Since its launch in 2008 the SME loan scheme has provided loans to the value of £24 million to over 800 projects (an average of £30,000) which has generated estimated financial savings of over £36 million (an average £45,000 or £1.50 for every £1 lent).
- SMEs can access free 1 to1 support including a resource efficiency audit and a tailored report.
- SMEs are also able to access the Waste Prevention Implementation Grant fund although this was closed at the time of writing.

The other major business programme run by ZWS is the circular economy programme. This is an area in which ZWS has invested considerable resource as it sees it as representing a major opportunity for Scottish businesses. Specific activities include:

- Circular economy business support service. This offers 1 to 1 support directly to SMEs to enable them to better explore more circular ways of doing business.
  - The Circular Economy Investment Fund is an £18 million grant fund aimed at assisting SMEs to develop new, circular economy based products and business models.
  - Support with sustainable design.
  - Re-use and repair.
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- Promotion of the bio-economy sector.

In their 2016 Programme Plan ZWS stated that they work to 5 key indicators and noted that they expected to deliver the following outcomes by 2018.

- 400,000 tonnes per year of carbon savings.
- 175,000 tonnes per year of waste reduction, or of resources managed in more sustainable ways.
- 100,000 tonnes per year of primary resource use avoided.
- 450 GWh per year of energy reduction.
- Over £100 million per year of cost savings to Scottish businesses, households, and third and public sector organisations.

**Learning points.** We found no information on ZWS's progress against these targets (on their website), nor did we find any examples of evaluations of the named programmes. A web search did however identify a 2018 submission to the Scottish Parliaments Economy, Jobs and Fair Work Committee<sup>15</sup>. This document suggests that ZWS have found it challenging to deliver and monitor some of their more innovative programmes, for example those relating to the circular economy. An issue of relevance to Invest NI is conveyed in the following quote: "*Our experience has been that more in-depth funding for SMEs could have had better results. We would now, on reflection, have lowered our targets to support such high numbers of SMEs and looked to provide more in-depth support to a smaller number with increased per-head spend.*" The paper goes on to note the need to avoid 'saturating' the SME sector with support programmes and to ensure that schemes, and scheme providers, work in close collaboration.

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## Points of Interest

- 2.12 There has been a general decline in the provision of free resource efficiency support within the UK. In England the funding of a number of national services was cut following the recession and the accession of the new coalition government in 2010. This led to the loss of a number of well-established support programmes run by organisations such as the Carbon Trust, Energy Savings Trust, WRAP and the National Industrial Symbiosis Programme. In contrast the devolved administrations continued to support schemes in their area, although Wales now appears to have discontinued support. Our understanding however, is that the loss of such services should not be assumed to reflect an absence of demand or need, but rather decisions made on funding or political grounds. The reported

<sup>15</sup> See [http://www.parliament.scot/S5\\_EconomyJobsFairWork/Inquiries/ESIF-031-Zero\\_Waste\\_Scotland.pdf](http://www.parliament.scot/S5_EconomyJobsFairWork/Inquiries/ESIF-031-Zero_Waste_Scotland.pdf)

success of the Carbon Trust's Green Business Fund, a recent arrival and a programme which bucks the general trend, supports this view.

- 2.13 There is a lack of publicly available independent evaluations of comparator schemes. Whilst some produced publicly available data on impact, and all provided comprehensive details of the programmes they run, the absence of insight regarding cost effectiveness, uptake, lessons learnt etc make it difficult to draw useful comparisons. For example, we noted that the ECA Green Business Programme and ZWS have both initiated work on business networks, but in neither case are we able to say whether these are effective.
- 2.14 The SDSP is unusual in not capturing and publicising the full range of non-financial (environmental) benefits produced by the programme. This reflects the differing focus and intent of the delivery agents and funding objectives of other schemes. It is understood that INIs focus is on business efficiency and growth, however it should consider whether it should place more focus on the collection of data relating to improvements in the efficient use of energy and raw material use, both of which are objectives of the UK Government's Industrial Strategy. Such data could be used in marketing, where appropriate, but more importantly they would enhance recognition of the fact that reducing Northern Ireland's reliance on often imported raw materials and energy, represent important strategic objectives in of themselves
- 2.15 Key operational differences between the SDSP and the other schemes include:
- The focus on lean and green in the Enterprise Ireland scheme. In theory this approach may allow for a more holistic form of business review than a conventional energy / resource efficiency audit, but we have no means of comparing the relative effectiveness of such approaches.
  - The focus on the circular economy in the ZWS portfolio.
  - The absence of funded consultancy support within the Salix loan scheme (although such costs can be included in the loan).
  - The extended period of payback allowed by ZWS's loan scheme (loans must be repaid within 4 or 8 years but investments can have a payback of up to 20 years) and the range of projects allowable under this scheme.

## Literature Review

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- 2.16 The following section summarises the key point from the literature review.

- 2.17 SMEs tend to be focused on the day to day operation of the business and have limited time and resources to investigate non-core business opportunities including energy and resource efficiency, or newer concepts such as the circular economy. SMEs benefit from information that is:
- Easy to access
  - Tailored to their specific needs
  - Delivered in a convenient form and by a trusted source.
- 2.18 Whilst larger businesses may have in-house expertise or capacity on resource efficiency, or at least in related areas such as process engineering, SMEs are more likely to rely on external support for more specialist advice and guidance. Programmes should therefore ensure that there is sufficient capacity and expertise within supporting bodies.
- 2.19 Features of successful SME support programmes incorporate training (for SMEs and support providers), the development of professional networks and the provision of practical written guidance. For example, energy efficiency networks (EEN, see below) have proven successful in generating benefits (cost and CO<sub>2</sub> reductions) for participating businesses in German EENs and have emerged in several other countries.
- 2.20 Networks need not be confined to energy and could also consider resource efficiency and the circular economy. For example, Business in the Community NI run a circular economy business network.
- 2.21 Finance can be a particular problem for SMEs and therefore successful programmes should enable access to sources such as grants, leasing options, dedicated lines of credit and favourable loan schemes.

### **Energy Efficiency Networks**

An energy efficiency network (EEN) is a group of companies or public institutions whose energy managers meet to share experiences and exchange best practice on energy efficiency and innovation. The concept of EENs was first developed in Switzerland in the 1980's, subsequently it has been adopted by several other countries most notably, in 2002, by Germany.

In 2014 Germany established the Energy Efficiency Networks Initiative (EENI). Networks registered through this initiative are required to define a common energy saving target and to participate in a national monitoring programme.



Evaluations of EENs in Germany suggests that participants achieve benefits and once engaged in the programme often become advocates of the approach. However, securing the engagement of companies is challenging.

- 2.22 SMEs are more likely to be motivated to take action where they perceive that such activity contributes to their core business, for example LED lighting is seen by many as offering a better quality of light and may therefore improve the customer experience, as well as generate financial savings. When communicating to SMEs, for example via case studies, it is can be helpful to communicate benefits beyond cost and energy / resource savings. For example, enhanced productivity, improved working environment, improved health and safety, and improved compliance. This has been an aspect of the approach adopted by the SDSP and both the quantitative and qualitative research providers some evidence of the effectiveness of this approach. One of the key messages was the scope to realise co-benefits which could have been more strongly promoted and highlighted through case studies (at least where these appear to be highly valued by the business).
- 2.23 SME programmes are more effective when supported by stakeholder networks, e.g. equipment suppliers, consultancies and trade organisations are all aware of schemes and active in promoting them. The consultations with the trade bodies (although only three) suggested that they not as 'plugged into' the SDSP as they might be. Although INI has sought to engage with the membership of trade bodies, there could be scope to pursue this further in the future.
- 2.24 Support measures, whether provided by the same or external organisations, should complement one another wherever possible and support should be as integrated as possible to provide a pathway of resource and energy efficiency support. This also applies to clear pathways into other forms of business growth and productivity provision. The qualitative research suggests that not all participants were aware of the range of support offered by SDSP, also appears to be fewer clear linkages between different elements of support than their might be.

### 3. Delivery Performance

#### Scope of the Section

- 3.1 This section provides an overview of the SDSP's approved spend and allocated targets and assesses performance over its first two years of delivery (between October 2015 and September 2017). In addition, this section also analyses prospects for take-up over its final year of delivery (October 2017 – September 2018).

#### Approved Expenditure and Programme Targets

- 3.2 The programme received funding approval for £7.82 million for the period October 2015 to September 2018. Of this, £4.90 million was approved as capital expenditure, with the remaining £2.92 million allocated as revenue expenditure. Table 3.1 below provides an overview of the planned capital and revenue expenditure by the programme between 2015 and 2018.

	Oct 2015 - Sept 2016	Oct 2016 - Sept 2017	Oct 2017 - Sept 2018	Total
Capital funding (£ million)	£1.68	£1.80	£1.43	£4.90
Revenue funding (£ million)	£0.96	£0.96	£1.00	£2.92
Total (£ million)	£2.63	£2.76	£2.42	£7.82

Source: Invest Northern Ireland

- 3.3 The capital funding element (£4.90 million) covers the Energy Efficiency Loan Fund (EELF top up) and the Resource Efficiency Capital Grant (RECG) strands of the programme, whilst the revenue funding element (£2.92 million) covers the Industrial Symbiosis Service (ISS) and Technical Consultancy Support (TCS) strands, as well as core programme administration costs incurred by Invest NI in running the programme (excluding existing staff time costs).
- 3.4 Given that the programme is a successor to the previous Sustainable Productivity Programme, the main strands of delivery were expected to continue subject to a number changes in the scope and delivery approach. Consequently, capital and revenue expenditure and the associated activity were profiled to be incurred on a fairly even basis through project delivery period (i.e. over a three-year period). The only exception to this

was the Resource Efficiency Capital Grant strand which was planned to run until March 2018 (instead of September 2018).

- 3.5 Table 3.2 below sets out in detail the planned expenditure for each of the delivery strands of the SDSP, in addition to planned programme administration costs between October 2015 and September 2018.

Table 3.2 Planned Expenditure by Cost Category, Year and Total				
	Oct 2015 - Sept 2016	Oct 2016 - Sept 2017	Oct 2017 - Sept 2018	Total
<i>Programme Delivery Costs</i>				
Energy Efficiency Loan Fund	£1,050,000	£1,050,000	£1,050,000	£3,150,000
Resource Efficiency Capital Grant	£625,000	£750,000	£375,000	£1,750,000
Industrial Symbiosis Service (incl. VAT)	£306,977	£306,977	£306,977	£920,930
Technical Consultancy Support (incl. VAT)	£500,000	£500,000	£500,000	£1,500,000
NISRA Surveys (incl. VAT)	£40,000	£40,000	£40,000	£120,000
<b>Subtotal</b>	<b>£2,521,977</b>	<b>£2,646,977</b>	<b>£2,271,977</b>	<b>£7,440,930</b>
<i>Programme Administration Costs</i>				
Fully Loaded Invest NI Salary Costs (existing staff)	£649,086	£665,269	£681,882	£1,996,236
Programme Salary Costs (new staff)	£56,344	£57,745	£59,182	£173,270
Marketing Costs (incl. VAT)	£51,196	£51,196	£51,196	£153,588
External Evaluation Costs (incl. VAT)	-	-	£42,000	£42,000
Procurement Costs - CPD Charges	£10,000	-	-	£10,000
Procurement Costs - Fully Loaded Invest NI Salary Costs	£1,842	-	-	£1,842
<b>Subtotal</b>	<b>£768,467</b>	<b>£774,209</b>	<b>£834,260</b>	<b>£2,376,936</b>
<b>Total Cost</b>	<b>£3,290,444</b>	<b>£3,421,186</b>	<b>£3,106,237</b>	<b>£9,817,866</b>
<b>Cost for DETI/ Invest NI Approval</b>	<b>£2,639,516</b>	<b>£2,755,918</b>	<b>£2,424,355</b>	<b>£7,819,788</b>

Source: Invest NI

- 3.6 Of the £4.90 million approved as capital expenditure, around £3.15 million (or 64%) was allocated to the Energy Efficiency Loan Fund. The allocation to the EELF did not reflect the total value of loans which were anticipated to be made to businesses due to the recycling of loans from earlier Loan Fund periods which were repaid and hence available for new loans (subject to written off loans). The EELF was forecast to distribute around £12.5 million in loans over a three-year period, with £1.05 million drawn down annually from Invest NI

as a top up to the recycled loans. The rest of capital funding (£1.75 million) was allocated to the RECG strand.

- 3.7 Of the programme’s approved £2.92 million revenue funding around £0.9 million and £1.5 million were allocated to the ISS and TCS strands respectively. The rest (around £0.4 million) of the approved revenue funding was allocated to cover the programme’s administration costs, including new programme staff salaries (£173,300), marketing (£153,600), evaluation (£42,000) and other procurement costs (10,000).
- 3.8 Around £2.00 million was allocated to cover Invest Northern Ireland’s pre-existing programme salary costs. Whilst this is included in overall economic costs of the programme, the programme costs are also presented without these costs to reflect the additional cost basis on which Invest NI sought the expenditure approval from the Northern Ireland Government.
- 3.9 The SDSP has targeted businesses in Northern Ireland with the aim of improving their productivity through securing cost savings in their use of energy, water, materials and waste, and to promote business opportunities in bio-energy supply chains. The programme’s delivery plan set out the target to deliver over 3,000 interventions across its various strands, although the nature and depth of the interventions varied between support strands and, in the case of ISS and TCS, as businesses progressed with the support available. These targets are outlined in Table 3.3 below.

Table 3.3 Planned Activity by Each Support Strand, Year and Total				
	Oct 2015 - Sept 2016	Oct 2016 - Sept 2017	Oct 2017 - Sept 2018	Total
Energy Efficiency Loan Fund:				
• Loans to companies	186	185	186	556
Resource Efficiency Grants:				
• Grants to companies (min number)	15	18	9	42
Industrial Symbiosis Service:				
• Advisory visits with companies	240	240	240	720
• Small match reports (< £25,000 saving)	60	60	60	180
• Large match reports (> £25,000 saving)	10	10	10	30
Technical Consultancy Support:				
• Advisory visits to companies	451	451	450	1,352
• Consultancy projects with companies	192	192	192	576
Bioenergy:				
• Advisory visits to companies	150	150	150	450
• New entries onto supplier database	20	20	20	60
• Trade events	3	3	2	8

Source: Invest NI

## Overview of Programme Performance

- 3.10 The analysis presented in this section draws on SDSP's performance over the first two years of delivery (i.e. between October 2015 and September 2017). Table 3.4 below sets out expenditure incurred over the first two years, whilst Table 3.5 set out the variation compared to planned expenditure.
- 3.11 To September 2017, around £4.17 million has been spent on programme delivery, and a further £1.4 million on administrative costs (including pre-existing programme salary costs).

Table 3.4 Incurred Expenditure by Cost Category, Year and Total			
	Oct 2015 - Sept 2016	Oct 2016 - Sept 2017	Total
<i>Programme Delivery Costs</i>			
Energy Efficiency Loan Fund	£1,127,097	£77,097	£1,204,193
Resource Efficiency Capital Grant	£629,340	£611,128	£1,240,468
Industrial Symbiosis Service (incl. VAT)	£322,272	£285,420	£607,692
Technical Consultancy Support (incl. VAT)	£660,810	£402,077	£1,062,886
NISRA Surveys (incl. VAT)	£36,300	£17,700	£54,000
<b>Subtotal</b>	<b>£2,775,818</b>	<b>£1,393,421</b>	<b>£4,169,239</b>
<i>Programme Administration Costs</i>			
Fully Loaded Invest NI Salary Costs (existing staff)	£632,776.60	£554,127.42	£1,186,904.02
Programme Salary Costs (new staff)	£37,144	£52,681	£89,824
Marketing Costs (incl. VAT)	£43,954.56	£52,885	£96,839.56
External Evaluation Costs (incl. VAT)	£10,680	£10,680	£21,360
Procurement Costs - CPD Charges	£5,140.50	£4,387.50	£9,528
<b>Subtotal</b>	<b>£729,696</b>	<b>£674,761</b>	<b>£1,404,456</b>
<b>Total Expenditure</b>	<b>£3,505,514</b>	<b>£2,068,182</b>	<b>£5,573,695</b>

Source: Invest NI

- 3.12 Overall delivery costs totalled £2.8 million for the first year (2015 and 2016) year of delivery, which then fell to £1.4 million in the second year. Whilst spend for the first year was slightly over planned expenditure (by c. £250,000), spend during the second year fell well short of that (by c. £1.30 million).

3.13 Programme delivery expenditure was below planned spend across a number of delivery strands. A key variance for the second year of delivery was a fall in expenditure on the EELF (£1.20 million draw down compared to planned expenditure of £2.10 million over the two years). It was expected that the Carbon Trust, the operators of the EEFL, would see strong demand for the EELF throughout the delivery period. On this basis Invest NI planned to release £1.05 million each year into the revolving loan fund. The shortfall in demand in year-two has meant that to date, Invest Northern Ireland's actual payments into the Loan Fund has been around 43% below that expected. Whilst spend on the RECG strand has been slightly lower than expected (by around 10%), this is expected to be made up in the final year due to strong demand for the capital grants. On the other hand, spend on the TCS strand was slightly over that planned by around £62,900 (or 6%), whilst the ISS strand was on par. The reasons behind this variance for the EELF is explored in more detail in the section below.

**Table 3.5 Incurred Expenditure Compared to Planned Expenditure**

	Planned expenditure (Oct 2015 - Sept 2017)	Expenditure (Oct 2015 - Sept 2017)	Variance (+/-)	Variance (%)
<i>Programme Delivery Costs</i>				
Energy Efficiency Loan Fund	£2,100,000	£1,204,193	-£895,807	-43%
Resource Efficiency Capital Grant	£1,375,000	£1,240,468	-£134,532	-10%
Industrial Symbiosis Service (incl. VAT)	£613,954	£607,692	-£6,262	-1%
Technical Consultancy Support	£1,000,000	£1,062,886	+£62,886	6%
NISRA Surveys (incl. VAT)	£80,000	£54,000	-£26,000	-33%
<b>Subtotal</b>	<b>£5,168,954</b>	<b>£4,169,239</b>	<b>-£999,715</b>	<b>-19%</b>
<i>Programme Administration Costs</i>				
Fully Loaded Invest NI Salary Costs	£1,314,354	£1,186,904	-£127,450	-10%
Programme Salary Costs	£114,088	£89,824	-£24,264	-21%
Marketing Costs (incl. VAT)	£102,392	£96,840	-£5,552	-5%
External Evaluation Costs (incl. VAT)	£0	£21,360	£21,360	-
Procurement Costs - CPD Charges	£10,000	£9,528.00	-£472	-5%
<b>Subtotal</b>	<b>£1,530,834</b>	<b>£1,404,456</b>	<b>-£126,378</b>	<b>-8%</b>
<b>Total Expenditure</b>	<b>£6,699,788</b>	<b>£5,573,695</b>	<b>-£1,126,093</b>	<b>-17%</b>

Source: Invest NI

- 3.14 Programme administrative costs have also been below planned expenditure for this two year period, mostly associated with lower salary costs.
- 3.15 The outputs profile (presented in Table 3.6 below) indicates that the programme has made significant progress to date, especially with regards to the RECG and the TCS strands. The RECG scheme has made a larger number of grants over the period when compared with its target, awarding over twice as many grants (or +145%) as was agreed but a much smaller average than expected (given the lower spend on RECG during the period noted above), The programme has also over-delivered with regards to the number of TCS advisory visits to companies (364 additional visits or +40% over).

Table 3.6 Planned vs Achieved Activity by Each Support Strand 2015-17

	Planned activity (Oct 2015 - Sept 2017)	Achieved activity (Oct 2015 - Sept 2017)	Variance (+/-)	Variance (%)
EELF Loans	371	326	-45	-12%
RECG Grants	33	81	+48	+145%
Industrial Symbiosis Advisory Visits	480	468	-12	-3%
TCS Advisory Visits	902	1,266	+364	+40%
TCS Consultancy Reports	384	413	+29	+8%
Bio-Energy Supply Chain Engagements	300	243	-57	-19%

Source: Invest NI

- 3.16 On the other hand, the programme has under-achieved in terms of the number of energy efficiency loans with a shortfall in the number of loans issues of 12% (or 45 fewer loans than planned). The programme has also under-delivered against its target for bio-energy supply chain engagements (by around 19%, or c. 60 fewer engagements with businesses than intended).
- 3.17 The following section discusses each strand in more detail and assesses where and how variance between the programme's targets and its outcomes occur.

## Energy Efficiency Loan Fund Performance

- 3.18 During the first two years Invest NI has injected £1.2m into the EELF, enabling the Carbon Trust to make 326 loans with a value of £7.46 million. The EELF has made around 45 fewer loans than originally planned for the first two years of delivery which translates to c. £0.9 million less in the total value of the loans provided to businesses. The analysis shows that

for both years, the Carbon Trust has fallen short of its target of making 186 loans each year, but this gap has been more pronounced in 2016/17.

- 3.19 It was expected that the average loan size over the 3 year period would be around £22,500, with the actual outturn over the two year period being £22,900. However, whilst the average loan awarded throughout 2015-16 was well over the assumed average (ie. slightly over £26,100), the following year (ie. 2016-17) saw the average loan value fall to around £19,400.

	Oct 2015 - Sept 2016	Oct 2016 - Sept 2017	Total Oct '15 - Sept '17	Target Oct '15 - Sept '17	Variance (+/-)
Number of Loans	169	157	326	371	-45
Total Value of Loans	£4,415,228	£3,039,787	£7,455,016	£8,336,250	-£881,234
Average Value of Loans	£26,126	£19,362	£22,868	£22,500	--

Source: Invest NI

- 3.20 Detailed analysis of programme beneficiaries receiving support through the EELF strand indicates that to date 31 businesses have received more than one loan, with one business accessing six energy efficiency loans. Together these businesses have accessed 75 loans, c. 21% of total.

Loans per business	No of businesses	Percentage of businesses
One loan	229	88%
Two loans	22	8%
Three loans	7	3%
Four loans	1	<1%
Five loans	0	0%
More than 5 loans	1	<1%
Total	259	100%
N/A	22 (loans)	--

Source: Invest NI

- 3.21 Between October 2015 and September 2017, almost £10 million in loan repayments have been made by beneficiaries benefitting from loans made under the previous SPP or the



- two first years of the SDSP. This includes around £1.84 million in loan repayments by beneficiaries accessing loans between October 2015 and September 2017. The continuing loan repayments and lower level of distributed loans relative to projections resulted in the EELF recovering over £2 million more than it awarded in loans, resulting in the need for less (capital) funding to be drawn down from the SDSP's available budget for the EELF.
- 3.22 Overall, the value of the loans accessed varies from £3,000 to £400,000, with average repayment terms ranging from 12 months for the smaller loans up to 48 months for the larger ones. The repayment period and amount due each month depends on various factors including the expected cost savings enabled by the energy efficiency measures implemented in addition to their persistence. As a result, the monthly repayments for loans vary from £100 to over £6,000. In a couple of instances where the energy efficiency loan received is very large (over £300,000), monthly repayments of over £10,000 are made. That said, the median monthly repayment made is around £370.
- 3.23 The loans have enabled Northern Ireland businesses to implement a range of energy efficiency measures. Overall, around 20 types of technologies were installed; some of which include combined heat and power, energy from waste, space heating, the installation of renewable energy sources (such as solar and wind), biomass, and upgrading to energy efficient lighting. Overall, energy efficient lighting was the most popular technology, representing around three-in-four of the interventions funded through the EELF loans (over 230 loans).
- 3.24 Overall, the EELF strand appealed to a wide variety of businesses trading across a wide range of sectors (such as manufacturing, construction, transport and storage, as well as professional and personal services). That said, around 90% of all businesses benefitting from the EELF strand were (registered) SMEs, representing a lower proportion than is seen across Northern Ireland (where 99.7% of all businesses are defined as SMEs).
- 3.25** Whilst the majority of business receiving loans only accessed this type of support through SDSP (85%), 15% also accessed another type of support as well. Given the advisory nature of the TCS, it is not surprising that this was the more common form of SDSP support accessed alongside the loans (by 10% of businesses), with these businesses also more likely to access multiple loans.
- 3.26 The EELF has historically performed strongly, with good demand for the interest free loans on offer. There are a range of possible explanations for the underperformance of the loan fund, although it is difficult to be definitive about the respective roles these have made:

- Economic uncertainty – a number of stakeholders and consultees have pointed to the uncertain economic conditions, primarily linking this to the uncertainties over the potential impact of BREXIT and the exact form of the UK's departure from the European Union. This type of uncertainty may have more of an effect on sectors which are more prone to the effects of recession, including manufacturing and construction sectors which the EELF draws heavily upon for their clients. Although the TCS and ISS strands of SDSP have also reported slightly more challenging market conditions for this reason, the impact on demand should not be so strong as these advisory services do not necessarily require an upfront commitment to capital investment.
- Market confusion – a number of consultees noted the suspension of the Northern Ireland Renewable Heat Initiative and the potential for this to generate a wariness and caution amongst businesses about Northern Irish Government backed energy and resource efficiency schemes in general. Whilst there is the potential for this type of effect, the EELF is operated on an arm's length basis and many businesses may not necessarily align it with the NI RHI and the Northern Ireland Government.
- Changing policy environment – the changes in UK government policy for supporting smaller scale renewable energy development have reduced the financial attractiveness of small scale renewable incentives available to businesses. For example, the decline in the value of the Feed in Tariff (FITs) for use with small scale solar and the suspension of the Renewable Heat Incentive (RHI). The Carbon Trust reported a sharp decline in applications for loans to support renewable activity and suggested that this might in part be attributed to reduced activity in relation to on-site renewable energy generation.
- Market saturation – the EELF has been available to businesses in Northern Ireland for over a decade and it has been suggested that one reason for the decline in uptake of the scheme might be that the market place could be saturated. However, the volume of loans provided annually and in aggregate is still fairly modest in the context of the size and value of the business base in Northern Ireland. As an example, if the loan fund lent £2m per annum over a decade, this would be just £20m compared to an economy worth £38 billion. It is more likely that the programme needs to extend its reach beyond the 'usual suspects' as a considerable latent market remains within Northern Ireland.
- Responsiveness of the EDO – the Carbon Trust's contract with Invest NI does not provide the budget or the scope to market the Fund directly to business or through

intermediaries, instead relying the marketing effort of Invest NI. The contract does not permit Carbon Trust any discretion to spend Fund budgets on marketing and promotional activity. Whilst this arrangement may be appropriate in general circumstances, it does limit the opportunity for the Carbon Trust to stimulate market interest and to build networks when or if demand falls.

- Loan eligibility and terms and conditions – it is worth considering whether the existing terms and conditions associated with the scheme might constrain potential applicants. In particular repeat applicants may find it harder to continue to find eligible projects (something observed in Salix Finance’s public sector energy efficiency loan scheme). Meanwhile new and previous applicants may find it harder to meet the carbon reduction criteria as a result of the decarbonisation of the electricity grid. Figures produced by the Department of Agriculture, Environment and Rural Affairs (2017) indicate that greenhouse gas emissions per unit of electricity generated declined by 24% between 2004 and 2015. The upshot of this is that energy efficiency measures need to deliver higher levels of energy reduction to generate the same level of carbon savings. It is noted that the Carbon Trust recently reduced the carbon reduction criteria for their Welsh 0% loan scheme, from a requirement that each £1000 of loan generated 1.5 tonnes of CO<sub>2</sub> savings to one where each £1000 leads to 1 tonne of CO<sub>2</sub> savings. This was reportedly undertaken to allow for the impact of grid decarbonisation on energy efficiency

## Resource Efficiency and Capital Grant Performance

- 3.27 An overview of progress by the RECG strand over the SDSP’s first two years of delivery is presented below. It shows that so far, 81 grants have been awarded with a total value of £1.24 million, all to Invest NI clients (a condition of this strand of the SDSP support). Given the grant rate of 40%, the RECG grants have levered total investment of £3.25 million. The number of awards has been uneven over the two years, with 28 and 53 grants awarded in 2015/16 and 2016/17 respectively.
- 3.28 The analysis presented in Table 3.8 shows that RECG has over-delivered not only against its target for years one and two (i.e. a target to award 33 grants) but has already surpassed its volume target for the programme’s three-year delivery period (i.e. a target to award 42 grants). However, despite its over-achievement the analysis shows that to date, the programme has under-spent against its planned expenditure target (by around £134,532).

3.29 This is primarily the result of the average grant awarded being significantly lower than initially forecast (the forecast is based on the maximum grant of £40,000 being awarded in all cases). In reality the average grant awarded over the programme’s first two years of delivery was £15,314. The average grant figure hides significant differences between years one and two of the programme’s delivery. Whilst the average grant awarded between October 2015 and September 2016 was around £22,500, in the following year the average grant value fell to around £11,500 per grant as a greater number of lower value projects were approved.

Table 3.9 Resource Efficiency Capital Grants					
	Oct '15 - Sept '16	Oct '16 - Sept '17	Total Oct '15 - Sept '17	Target Oct '15 - Sept '17	Variance (+/-)
Number of Grants	28	53	81	33	+48
Total Value of Grants	£629,340	£611,128	£1,240,468	£1,375,000	-£134,532
Average Value of Grants	£22,476	£11,531	£15,314	£40,000	-

Source: Invest NI

3.30 The projects supported through the capital grants were estimated to generate resource savings per annum of £1.40 million. Given the total projects costs of £3.25 million, this equates to an average project payback period of 2.3 years (or 0.8 years in terms of the Invest NI grant component).

3.31 Invest NI’s monitoring data indicates that the grants were used to finance a variety of resource efficiency technologies, such as; automatic press brakes, paint spray booths, plasma cutters, vacuum packing machinery, CNC machines etc.

## Technical Consultancy Support Performance

3.32 The analysis of the programme’s outputs profile discussed above shows that the TCS strand has made significant progress against its targets for years one and two, over-delivering both in terms of advisory visits completed (by over 300 visits), and the number of technical consultancy projects supported (by around 30 projects). The table below shows that whilst the number of advisory visits saw very little change between years one and two of delivery, the number of technical consultancy projects delivered fell by around 35% over the same period.

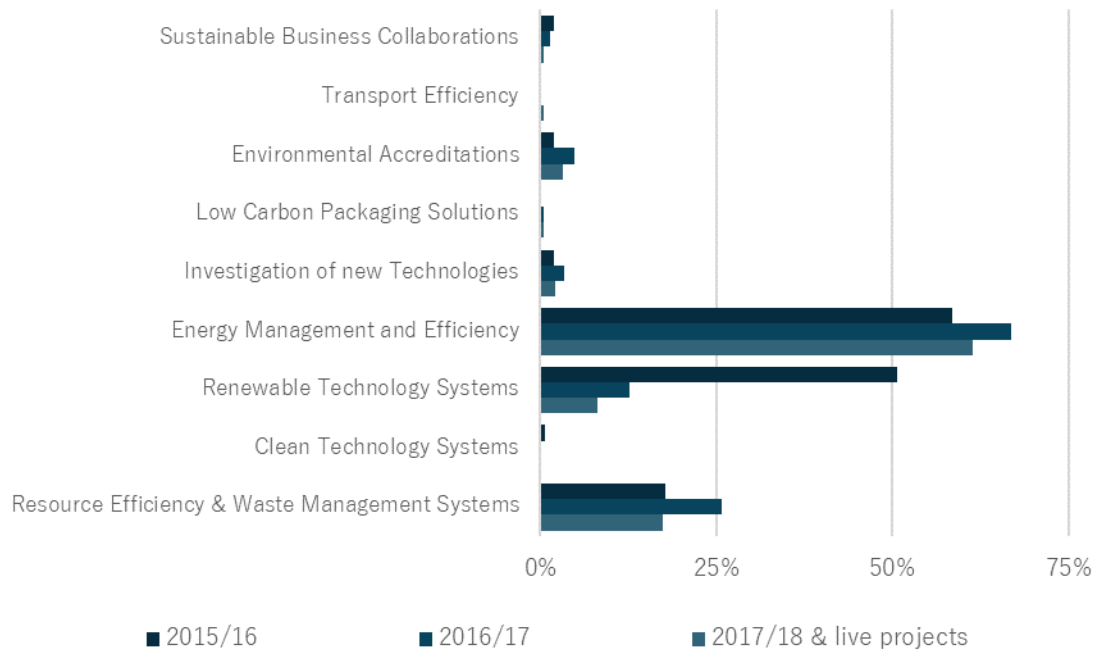
3.33 Despite the good progress over the first two years, the consultations with the Technical Advisors indicated it had become more challenging in 2017/18 to secure the scale of advisory visits with businesses to meet the annual target but also the necessary volume to meet the target for consultancy projects given the typical conversion rates. The monitoring data for the first two years indicates that the conversion rate had already jumped between 2015/16 and 2016/17 (from one consultancy projects for every 2.6 advisory visits to 3.5), which is generally indicative of a more difficult environment for the provision of these services.

Table 3.10 Technical Consultancy Support					
	Oct '15 - Sept '16	Oct '16 - Sept '17	Total Oct '15 - Sept '17	Target Oct '15 - Sept '17	Variance (+/-)
Advisory visits	645	565	1,210	902	+308
Consultancy projects	251	162	413	384	+29
Conversion rate (visits into projects)	2.6	3.5	2.9	2.3	

Source: Invest NI

3.34 Figure 3.1 below provides an overview of the type of consultancy projects delivered through the TCS strand through the programme's first two years of delivery. Please note that a project could fall under more than one of the categories identified in the diagram below. A more detailed look at the projects delivered shows that more than half of all projects delivered between October 2015 and September 2017 were focussed on energy management and efficiency. Other project types popular throughout the delivery period include projects focussing on renewable technology systems (over 50% of all projects in year one), as well as others focussing on resource efficiency and waste management systems (around one-in-four technical consultancy projects in year two of delivery). There was large fall off in the number of projects with a renewable energy focus, mainly due to changes in available incentives, making small scale renewables projects less attractive to businesses.

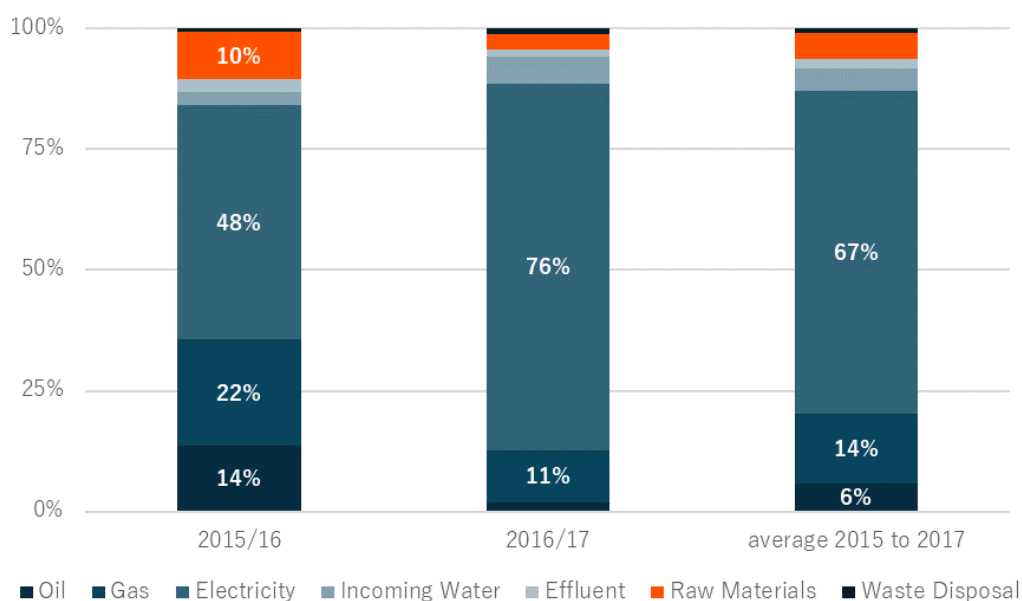
Figure 3.1 Technical consultancy, project types



Source: Invest NI

3.35 Table 3.11 summaries the potential cost savings, additional financial turnover and CO2 savings which could be secured if the resource and energy efficiency projects identified in the consultancy reports were to be implemented by the businesses. This analysis shows that implementation of all the projects in the consultancy reports would incur around £259.4 million in capital investment costs, and result in around £26.8 million in potential annual cost savings. Further analysis of the evidence provided by Invest NI indicates that a large proportion of the cost savings identified over both years were for electricity costs (ie. 48% for 2015-16, and 76% for 2016-17).

Figure 3.2 Breakdown of identified potential cost savings (TCS)



Source: Invest NI

- 3.36 In addition, it is estimated that the technical consultancy projects completed as part of this strand have the potential to generate almost £570,000 in additional sales.
- 3.37 The average payback period associated with the projects in the completed consultancy reports equates to 9.7 years, although this varies between 3.7 for reports completed in 2015/16 and 12.3 in 2016/17. The average is heavily skewed by a few very large investments with long pay back periods (over 30 years). However, investments of this nature are unlikely to be implemented in practice as they will not meet most businesses' expected rates of return.

Table 3.11 Potential Benefits and Investment Costs Identified in TCS Consultancy Projects

	2015-16	2016-17	Total
Annual Cost savings (£ million)	£8.20	£18.54	£26.75
Annual Increased additional sales (£ million)	£0.26	£0.31	£0.57
Estimated capital investment costs (£ million)	£30.69	£228.67	£259.37
Payback period (years)	3.7	12.3	9.7

Source: Invest NI Note: payback periods are based on costs savings and do not include additional sales.

## Industrial Symbiosis Service Performance

- 3.38 The evidence presented earlier indicates that SDSP has made significant progress towards its key target of 720 advisory visits as part of the ISS strand over its three-year delivery

period. Over the first two years 467 advisory visits have been completed, 121 visits over the two-year target and making considerable progress towards the target for final year of delivery.

- 3.39 However, despite the over-achievement in terms of the number of advisory visits completed, the ISS strand has under-achieved slightly in terms of the number of match reports completed (i.e. a report identifying the potential resource savings). Over the first two years, a total of 107 small match reports (ie. under £25,000 in potential costs savings) were completed against a target of 120, whilst 16 large match reports (i.e. over £25,000) against a target of 20. As with the TCS strand, ISS has had to undertake a higher volume of initial advisory visits in order to achieve the match report targets. As with a number of other strands, the advisors reported that this was indicative of a more challenging environment for providers of business support.

Table 3.12 Industrial Symbiosis Services

	Oct '15 - Sept '16	Oct '16 - Sept '17	Total Oct '15 - Sept '17	Target Oct '15 - Sept '17	Variance (+/-)
Advisory visits to companies	235	232	467	346	+121
Match reports (< £25,000)	45	65	107	120	-13
Match reports (> £25,000)	4	12	16	20	-4
Conversion Rate	0.21	0.33	0.26	0.4	-

Source: Invest NI

- 3.40 Evidence provided by Invest NI also shows that to date, up to £8.89 million of potential cost savings have been identified as a result of the advisory visit reports conducted.



**Table 3.13 Potential cost savings identified as a result of AVRs and workshops**

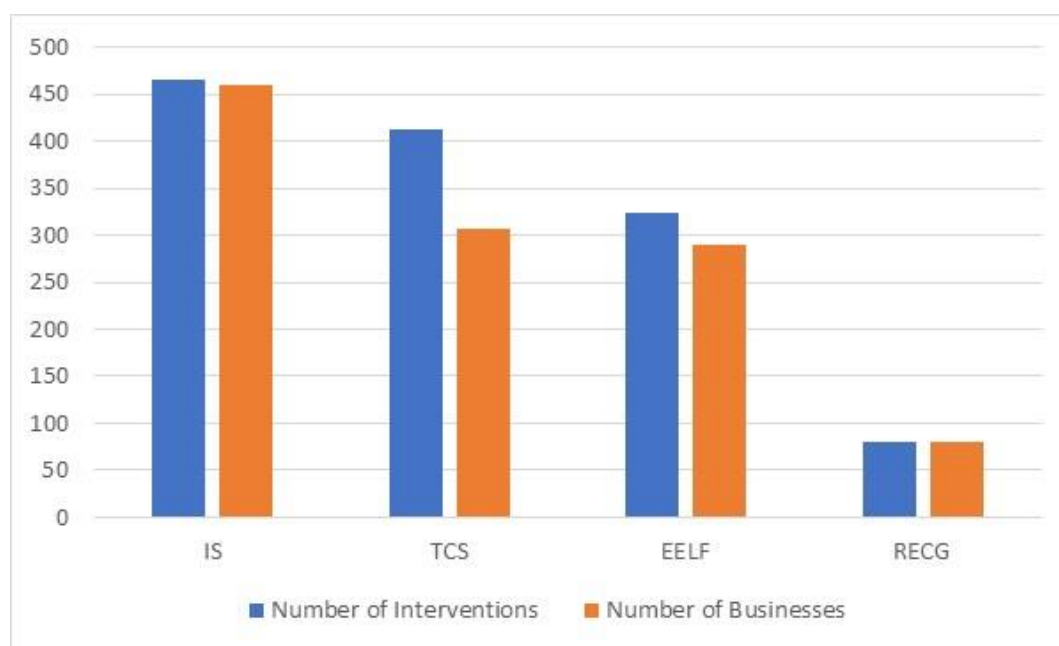
	Year 1	Year 2	Total
Potential cost savings AVRs (£ million)	£5.40	£3.49	£8.89

Source: Invest NI

## Multiple Forms of Support

- 3.41 A large number of businesses receive multiple forms of support through SDSP, either receiving multiples ‘hits’ of the same type of support or different types of support. Whilst 934 unique businesses have been supported through 1,284 interventions during the first two year period, only around 560 businesses have received just one intervention.
- 3.42 Figure 3.2 shows the number of unique businesses accessing the total interventions for each support strand. Whilst the majority of businesses accessing ISS did so only once (at least in the first two years of SDSP), a sizeable proportion of businesses accessing TCS received multiple consultancy projects (an average of 1.5).

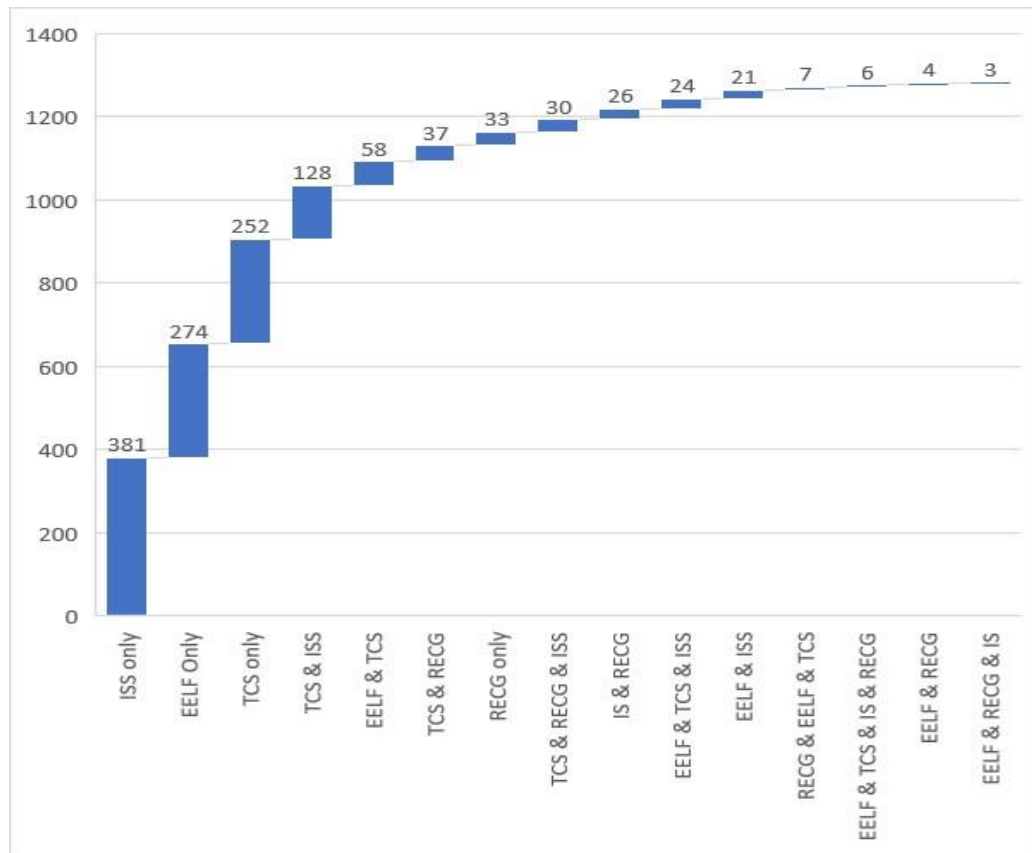
**Figure 3.3 Number of Interventions and Unique Businesses by Strand Type**



Source: Invest NI

- 3.43 As noted earlier the majority share of business (c60%) received one form (i.e. strand) of support. However, Figure 3.4 sets out the combinations of support which the 374? businesses in receipt of multiple types of support received. The most common combinations are: TCS and ISS (158); TCS and EELF (82); and TCS and RECG (67).

Figure 3.4 Access to Multiple Forms of Support by Businesses (Number of interventions by strand of activity and strand combinations)



Source: Invest NI

## Progress Against Programme Outcomes

- 3.44 This section assesses progress against the SDSP’s overall and operational outcome targets. The table below indicates that the programme has made good progress against its operational outcome targets (identified and implemented business cost savings and investment in innovation) and some progress against its carbon saving target. The progress against overall GVA target is not monitored by Invest NI on an on-going basis and hence this needs to be estimated through the impact aspect of this evaluation (see section five).
- 3.45 Based on the monitoring data provided by Invest NI, the energy efficiency measures which have been implemented as a consequence of the loans made over the first two years have the potential to deliver 8.5 kt of CO<sub>2</sub> savings. This is an under achievement of c. 6.5 kt of CO<sub>2</sub>, (-32%).
- 3.46 Furthermore, the different strands of activity enabled by the programme have identified the potential for around £28.0 million in annual cost savings (i.e. around 75% over the

programme's target for the first two years), and, based on projects implemented, achieved around £8.3 million in implemented cost savings for the businesses (ie. 4% over the programme's target for the first two years). Around two fifths of this saving has arisen through the EELF and a slightly smaller proportion through the RECG, reflecting the greater focus of new capital investment to support resource efficiency. The estimate of the implemented savings in each year are based on a combination of methods with differing degrees of certainty including:

- EELF - the Carbon Trust's estimates of savings made on the basis of the types of measure implemented and their timing (based on industry accepted costs savings and so a reasonable degree of certainty)
- RECG – estimates based on the nature of the proposed measure and associated technology (based on industry accepted costs savings and so a reasonable degree of certainty)
- ISS – the actual savings identified in the match reports following implementation of the recommendations by the business (high degree of certainty)
- TCS – the bi-annual surveys of businesses with a consultancy project undertaken by NISRA (this is the only source based on the businesses' own estimates of savings – it is subject to a greater degree of uncertainty than the other sources. The survey managers frequently experience difficulties obtaining company input to the surveys, and those companies responding to the survey often have difficulties identifying actual quantified impacts, owing to the early stage at which the NISRA surveys are undertaken.

3.47 The SDSP support has also secured investment in innovation amounting to around £14.5 million, compared against a target of up to £19.4 million over the first two year delivery period (i.e. representing an under-achievement of 25%). This measure is in effect the total value of investment that the businesses have implemented following financial, advisory or consultancy support through SDSP. As would be expected, the vast majority of this investment occurs through the EELF (58%) and RECG (32%).

Table 3.14 Progress against overall and operational outcome targets

	3 year programme target	Assumed Target 2015-17	Achieved to date (2015-17)	Variance (+/-)	Progress vs target
<b>Overall Outcome Targets:</b>					
Gross GVA	£145.6	£97.1	See impact section		
Net additional GVA (£ million)	£68.1	£45.4	See impact section		
Carbon savings (kt CO <sub>2</sub> / year)	30.3	20.2	13.7	-6.5	-32%
<b>Operational Outcome Targets:</b>					
<u>Identified</u> cost savings (£ million)	£24	£16	£28	+£12	+75%
<u>Implemented</u> cost savings (£ million)	£12	£8.0	£8.3	+£0.3	+4%
Additional business turnover (£ million)	£16.5-	£11-	£8.5	-2.5	-22%
Investment in innovation (£ million)	£27.9 - £29.1	up to £19.4	£14.5	-£4.9	-25%

Source: Invest NI

### Three year Outturn Prospects

- 3.48 The latest monitoring information from Invest NI indicates that the targets for ISS and TCS consultancy projects are broadly on track to achieve their 3 year targets. However, the EELF was suspended in June 2018, four months short of the end of the current three operational period for the SDSP. At the point the loan fund was suspended it had made 380 loans worth £8.56 million compared to the 3 year target of 555 and loans worth £12.49 million.

Table 3.15 Predicted Lifetime Outturn for Against Key Activity Targets

	3 year Target	Key Outputs up to Sept 2017	Forecast Outputs Sept 2018
EELF - loans	555	326	428
RECG - grants	42	81	81
ISS – match reports	235	140	210
TCS -consultancy projects	576	413	578

Source: Invest NI

- 3.49 Table 3.15 presents the estimated three year expenditure outturn. Invest NI forecast that actual incurred costs over the three year period will be £7.73 million, £2.09 million less than

the original forecast. This is primarily due to the underspend associated with the EELF. On the basis of actual additional expenditure forecast to be incurred by Invest NI (i.e. netting off existing salary costs) the expenditure is £6 million and underspend is -£1.82 million.

Table 3.16 Predicted Lifetime Outturn for Against Key Activity Targets			
	Total Planned Expenditure	Expenditure Outturn	Difference
Programme Delivery Costs			
Energy Efficiency Loan Fund	£3,150,000	£1,050,000	-£2,100,000
Resource Efficiency Capital Grant	£1,750,000	£2,003,332	£253,332
Industrial Symbiosis Service (incl. VAT)	£920,930	£925,500	£4,570
Technical Consultancy Support (incl. VAT)	£1,500,000	£1,563,351	£63,351
NISRA Surveys (incl. VAT)	£120,000	£88,980	-£31,020
Subtotal	£7,440,930	£5,631,163	-£1,809,767
Programme Administration Costs			
Fully Loaded Invest NI Salary Costs (existing staff)	£1,996,236	£1,730,017	-£266,219
Programme Salary Costs (new staff)	£173,270	£143,437	-£29,833
Marketing Costs (incl. VAT)	£153,588	£144,712	-£8,876
External Evaluation Costs (incl. VAT)	£42,000	£69,907	£27,907
Procurement Costs - CPD Charges	£11,842	£11,103	-£739
Subtotal	£2,376,936	£2,099,176	-£277,760
Total Cost	£9,817,866	£7,730,339	-£2,087,527
Cost for DETI/ Invest NI Approval	£7,819,788	£6,000,322	-£1,819,466

## 4. Process Review

- 4.1 This section focuses on the assessment of the appropriateness and effectiveness of the delivery model, including:
- promotion and marketing
  - business and stakeholder engagement
  - application and selection procedures
  - service delivery arrangements
  - monitoring and reporting
  - strategic and operational management procedures (including risk management procedures).

### Design of the Delivery Model

- 4.2 The design of the delivery model for the SDSP built on learning from the predecessor Strategic Productivity Programme (SPP). The SDSP was an evolution of the SPP, allowing for a number of key lessons from the evaluation evidence and subsequent project appraisal produced for the SDSP. The detailed economic appraisal involved consideration of programme options, testing with internal and external stakeholders, design of delivery approaches and setting financial, output and impact targets.
- 4.3 Some of the key aspirations of Invest NI in designing the SDSP programme included:
- Provision of a stronger one stop shop model, including initial engagement of companies
  - Scope to better align services and achieve efficiency through a combination of internal and external provision
  - An enhanced coordinated marketing and promotional focus, managed through INI's corporate marketing team.
- 4.4 Early delays in sign-off of the SDSP were mitigated by extending the previous SPP programme for an additional period, in order to avoid a hiatus between the two programmes, which might otherwise have led to loss of experienced delivery staff and a break in momentum in service delivery to businesses.

- 4.5 The scope of SDSP was designed to address gaps in provision and avoid overlap with other services already available (eg energy / resource efficiency services delivered by other local or national providers). Since the launch of the SDSP, a number of complementary energy and resource efficiency programmes have closed (eg programmes supported by Interreg funding and a number of other local authority led services, although in some cases new initiatives, such as the Business in the Community circular economy programme have been introduced, as outlined below). As such the delivery team are now aware of very few other energy and resource efficiency business support programmes.

#### **Business in the Community Circular Economy Programme**

Business in the Community is a UK wide organisation that was established to champion social responsibility within the business community. A Northern Ireland (NI) branch was established in 1989 and now has over 260 members. The ambition of the NI branch is to establish NI as an environmentally sustainable region. A key component of the NI branch workstream is focused on the development of the circular economy (an approach which looks to ensure the continued circulation of resources rather than disposal) and the organisation has established circular economy business networks (focused on circular offices and the polymers sector) to help pursue the estimated £474 million dividend that is estimated to be available to NI businesses. The networks will enable businesses to come together to share ideas and to collaborate on new ideas for moving towards a more circular use of resources.

- 4.6 Decisions on which strands of the programme should be delivered internally or externally were based on an assessment of the degree of specialist expertise required and the extent to which these were available within Invest NI or externally. Three broad approaches were subsequently used, building on the approach which had been tried and tested through the SPP:

- **Delivery fully in-house** – this is the case for the Resource Efficiency Capital Grants Scheme and Bioenergy Supply Chain Support strands – both fully run by members of the Energy and Resource Efficiency Team within Invest NI.
- **Delivery of advice in-house, with use of external specialist consultants** – this is the case for the technical consultancy support strand – whereby specialist advisors within the Energy and Resource Efficiency Team undertake initial engagement and diagnostic work with businesses, with agreed packages of consultancy support tendered to relevant experts through mini-competitions within a contractor framework.

- **Delivery externally** – this is the case for Industrial Symbiosis Service and Energy Efficiency Loan Funds, both run by external delivery organisations (EDOs), reflecting the specialist expertise required for each of these strands. ISS is operated by International Synergies NI Limited, a specialist industrial ecology consultancy. EELF is operated by the Carbon Trust an independent advisor on carbon reduction, resource efficiency strategies and operator of energy efficiency loan funds across the UK. Both of these organisations operated these same support strands under the SPP and where subsequently awarded the contracts to run the new services through a competitive tendering process.

4.7 The procurement of the two external delivery organisations and the contractors for the technical consultancy framework all used open tendering processes, following the corporate approaches used by Invest NI. These approaches were felt to be robust and led to the successful appointment of suitably skilled contractors. In the case of Carbon Trust and International Synergies (NI) Ltd both had built their knowledge, experience and track record under the previous SPP.

## Promotion, Marketing and Lead Generation

- 4.8 The SDSP is open to all private sector businesses across Northern Ireland as well as some charities and social enterprises. The only strand with more limited criteria is the Resource Efficiency Capital Grants which are limited to Invest NI clients only.
- 4.9 Overall promotion and marketing of the programme is led by Invest NI directly, with limited roles for the two EDOs external delivery organisations. The aim in doing this is to ensure strong corporate branding for the scheme, ensure quality control over the marketing collateral and messaging, as well as the management of the marketing effort in an efficient and effective manner.
- 4.10 In the case of the EELF, the Carbon Trust's contract with Invest NI provides very little scope for it to directly market the fund and instead focuses the Carbon Trust role upon providing input and support. Whilst the contract does not give Carbon Trust any discretion to spend fund money on marketing and promotional activity, it has nevertheless operated website pages alongside that of the Invest NI site.
- 4.11 International Synergies has more discretion to undertake direct marketing of ISS due to its advisory focus. Although it is still reliant on the Invest NI's website and marketing collateral, it also directly undertakes a range of promotional events, workshops and stakeholder engagement.



- 4.12 Within Invest NI a wide range of media have been used for promoting and marketing the programme, including website, written and video case studies, promotional documents, advertorials in targeted magazines / journals, radio advertising, social media, and team attendance at events and exhibitions. Some of the support strands had specific targets for running events aimed at stakeholders, intermediaries and businesses.
- 4.13 The overall approach to marketing and promotion work is led by the Invest NI corporate marketing team, with EDOs inputting ideas into the marketing approaches used and marketing colleagues joining the monthly monitoring meetings. This is broadly in line with the approach set out in the project appraisal undertaken in 2015, which highlighted Invest NI would have overall responsibility for marketing, although did indicate more of a role for EDOs, suggesting that conditions relating to marketing and promotion would be built into their contracts, relating to promoting their respective parts of the programme, as well as having a wider signposting approach to other parts of the programme.
- 4.14 Whilst the coordinated corporate approach to the branding and marketing effort is sensible in terms of the efficient use of resource and access to specialist expertise, it has clearly been the source of some frustration. A number of consultees involved in the delivery of SDSP support strands suggested that strand operators should be allowed more latitude to promote the overall programme and their own strand. It was also noted by the EDOs that resources for promotion were limited, particularly amongst non-Invest NI delivery organisations.

*"The marketing by Invest NI is not as flexible as it could be and it does not reflect changing circumstances or opportunities." ST4*

*"Invest NI are not driving it from a marketing point of view. I don't see a strategy or a vision" ST4*

- 4.15 Concerns were also expressed about the value of the website and approach to social media. Consultees have highlighted:
- Limitations of the website with a number of consultees indicating that this could be updated more frequently and that it would benefit from more case studies and a wider mix of different sector perspectives
  - Lack of a social media presence
  - Lack of responsiveness of the Invest NI marketing team, linked to limited capacity and competing priorities within this team.

- 4.16 Whilst the limited role of Carbon Trust in direct marketing activity is sensible in a 'business as usual' scenario, this has clearly not been the case given the substantial dip in applications and approvals of new loans. The Carbon Trust's NI loan scheme manager has had to develop an engagement strategy targeting:
- equipment suppliers to promote the benefits of the loan fund as a sales tool
  - business groups and trade associations as a communication channel to promote the loan fund to their memberships; and
  - end users directly including past clients.
- 4.17 The Carbon Trust has also been working alongside Invest NI to design and implement a social media based promotional campaign.
- 4.18 Invest Northern Ireland has highlighted that while there have been referrals into the programme, these have been more limited than might have been expected from a number of sources:
- Invest Northern Ireland has an internal referral process, so the team has received internal business referrals to the SDSP, however greater awareness and promotion of the programme internally could help to increase this.
  - Cross-referrals between different strands is also fairly limited at present. One issue may be that the providers from each of the strands do not meet regularly as a group, which may be constraining the sharing of information on clients.
  - Referrals from external delivery organisations were reported by consultees to have also been limited. Sector bodies in particular have highlighted that many businesses they are involved with are unaware of the SDSP programme, suggesting that the programme could do more to work with these bodies in promoting the programme, and helping to increase referrals and raise awareness of the programme to specific sector audiences.
- 4.19 As part of the evaluation beneficiary survey, businesses were asked how they first heard about the programme. This analysis is set out in section five.
- 4.20 Certain sectors are much more greatly represented in the programme than others, reflecting the fact that some sectors are more energy and resource intensive than others, and so have greater gains to make from enhanced energy and resource efficiency. In particular, sectors such as construction, engineering, food, tourism and hospitality tend to be well represented, while many service sectors are less well represented (although here

the building premises are often leased and therefore the opportunity to invest in the building fabric is more complex).

- 4.21 As highlighted above, Invest NI works with around 2,100 businesses across the region more intensively, with these clients eligible for the capital grants scheme. Around 75% of these businesses are small and a further 12% are medium sized. Around 60% are in manufacturing and construction sectors. With increased liaison, there is greater opportunity for Invest Northern Ireland to market the scheme to these clients.

## Application and Selection Procedures

- 4.22 The processes used for businesses to apply for business support under SDSP, and the processes for appraising these applications and selecting business to be supported, vary under each strand of the programme. The table below provides a summary of the approach used under each strand.

Table 4.1 Application and Selection Approach for SDSP Strands	
Strand	Approach
Technical Consultancy Support	<ul style="list-style-type: none"> <li>• Diagnostic visit undertaken by INI technical advisor who assesses need and support that can be provided (up to five days of consultancy support) and produces a short meeting note which may include recommendations for additional specialist consultancy support.</li> <li>• If the business agrees to consultancy support, then a brief is drawn up and agreed with business.</li> <li>• Once agreed this is tendered via a mini-competition through the contractor framework.</li> <li>• Once appointed, consultancy assignments need to be completed within a fixed period and are quality checked by the advisor before sharing with the company.</li> <li>• Businesses must have a minimum of £30,000 resource spend per year to receive the consultancy support. .</li> </ul>
Energy Efficiency Loan Fund	<ul style="list-style-type: none"> <li>• Companies apply online to the Carbon Trust, who undertake appraisals and make loan decisions. The loan fund is subject to eligibility criteria relating to the type of technology, thresholds based on the carbon savings (a threshold from 1.5tCO<sub>2</sub> per £1k) and maximum loan values and repayment periods. Businesses are credit checked as part of the due diligence process.</li> <li>• Invest NI are only informed about applications once the loan is offered to the business.</li> </ul>

Strand	Approach
Resource Efficiency Capital Grants	<ul style="list-style-type: none"> <li>• Applications are made in response to calls for applications.</li> <li>• Applications are assessed by an internal panel within INI based on fixed criteria and can either be awarded, rejected, or held on reserve.</li> <li>• Applications are rated based on a waste hierarchy tool – issues higher up the waste hierarchy score higher – as well as the payback period and ability of the company to match fund the investment.</li> <li>• Only Invest NI client companies are eligible.</li> </ul>
Industrial Symbiosis	<ul style="list-style-type: none"> <li>• As a matching service there is no formal application. Following contact with a business an advisory visit is undertaken and an advisory visit report produced.</li> <li>• Besides direct promotion of the service to businesses, workshops are also used as a way of informing businesses about the service.</li> <li>• When businesses are matched for an industrial symbiosis process, this matching process is signed off.</li> </ul>
Bioenergy Supply Chain Support	<ul style="list-style-type: none"> <li>• Service is primarily based on networking, so no application / selection process involved.</li> </ul>

4.23 There is no central diagnostic function or application to the programme as a whole. As such businesses apply to the specific programme strand that they are interested in. Invest NI believe that beneficiaries typically know the type of support they want, and a central diagnostic approach would create additional bureaucracy which may make the programme less attractive to businesses. However, this ignores the fact that in some cases businesses are unaware of the range of support opportunities available to them and therefore may only be approaching Invest NI to secure known forms of support.

4.24 The lack of this centralised approach however may lead to lost opportunities for engaging businesses with more than one strand of the programme support, subject to the knowledge of the staff delivering each stream to enable them to determine the most appropriate support needs of businesses, the effectiveness of cross referral processes and the incentive to make this work sensibly.

4.25 To enhance cross-referrals through the application and selection process, it might be desirable to:

- **Develop a more interactive tool diagnostic through the website** – enabling businesses to better explain their particular needs and be signposted to all of the relevant programme strands. Resource Efficient Scotland offers a similar function on its website, as described in the case study box below. Alternatively, a simple screening questionnaire / tool could be used. This need not take more than 8-12

mins to complete and could be made voluntary where a potential applicant only wishes to pursue a specific form of support. [FYI CAG recommended that ZWS introduce such a tool because they had a problem with non-compliant bids which was wasting a lot of their, and applicants, time].

- **Develop wider customer relationship management role of all INI staff involved in SDSP delivery as well as the Client Executives**– at present team members, mainly delivering TCS, primarily focus on their specific areas of delivery, whereas by having a wider SDSP customer relationship role and deeper understanding of other support strands, they would be better positioned to cross refer clients into other complementary strands of SDSP supported activity.
- **End of support review process** - an alternative to a gateway diagnostic approach might be to have to an end of support review, using this as an opportunity to identify other forms of support through SDSP. This might be seen as less burdensome to a client, particularly where they have a clear idea about what type of support they initially want.

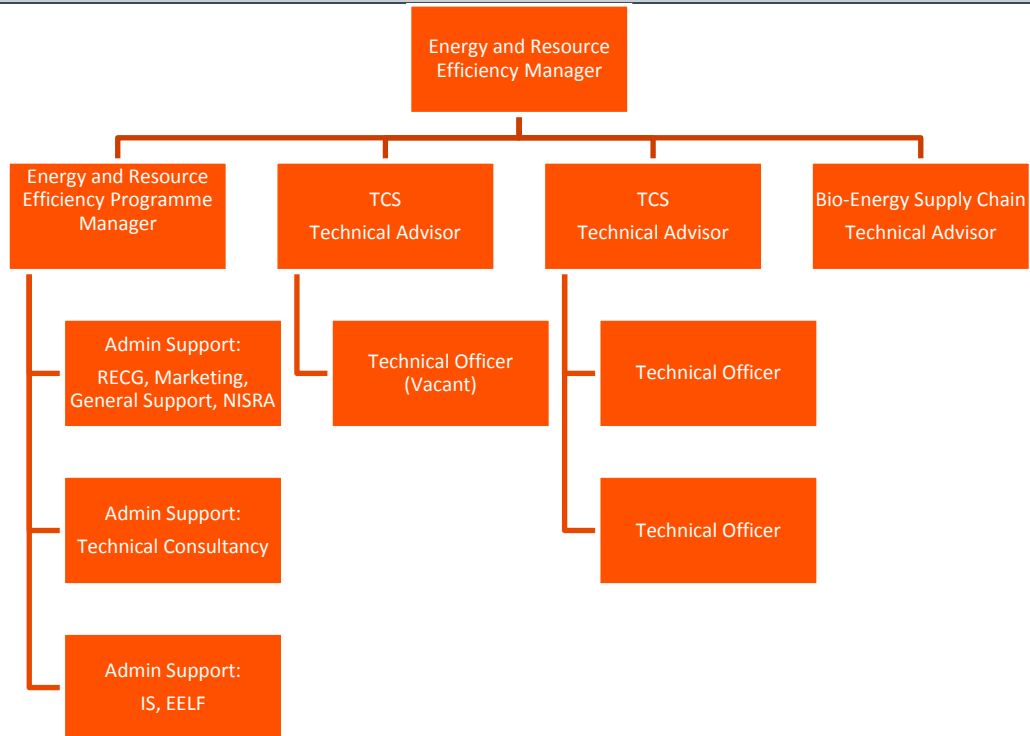
## Client Engagement and Business Support Journey

- 4.26 Our initial consultations with the programme management team, technical advisors and delivery partners suggest that it is challenging to map the customer routes into and journey through different strands of support. Whilst this is an important aspect of how the SDSP operates in practice, the client management procedures and the type of experience which businesses have, little monitoring data is maintained on how businesses enter the programme and move between different strands of support (where this is relevant).
- 4.27 Whilst businesses are not actively client managed from the perspective of the SDSP as a whole, they are managed by each of the individual strands they are supported by. Section three highlighted that a significant proportion of businesses do receive support from multiple strands, however their journey through these strands is not proactively coordinated by a client executive (with the exception of existing Invest NI clients).
- 4.28 Section five provides evidence from the survey on their experience of engagement and support from the advisors.

## Strategic and Operational Management

4.29 Table 4.2 set out the structure of the Invest NI's Energy and Resource Efficiency Team.

Table 4.2 Structure of the Energy and Resource Efficiency Team



Source: Invest NI

4.30 The primary roles and structures involved in overall strategic and operational management were as follows:

- The team manager and programme manager within the Energy and Resource Efficiency Team retain overall responsibility within Invest NI for managing the delivery of the programme, including operational oversight, financial and output management, and EDO contract management. Most internal team members report to these two staff members, except for the three technical officers (SO grade) who report the two technical advisors.
- Internal programme approval is undertaken at the outset of the programme, with a number of tiers of sign-off at different levels in line with established delegated approval levels, including by the Department for the Economy, the Department of Finance and final approval by the Minister. Any major changes to the programme would need to go through the same approval process.

- Progress is reported internally to the senior responsible officer on a monthly basis. The officer is a Director within the Skills and Competitiveness Division in the Business Solutions Group
- Contracts are in place with the EDOs, setting out their roles and requirements. These contracts provide the basis for managing the delivery of the EDOs
- Contracts are agreed with consultants for specific technical consultancy work as part of a call-off contract, with these consultants all be part of a procured consultancy framework
- An internal audit check is undertaken for the programme approximately every two years by a team from the Department of Economy.

4.31 A key element of the operation of the project has been communication and close-working with the EDOs and wider delivery stakeholders eg communications team and other sub-contractors. The following processes enabled this:

- Monthly meetings are held with the EDOs on a one to one basis, with a report and presentation on progress prepared and circulated by the EDO beforehand. The focus of the meeting is upon progress against targets, discussion of any performance issues and forward planning.
- Six monthly meetings are available with active contractors on the framework for the technical consultancy work, to discuss any issues with the framework. Whilst these are offered to the consultants, not all take up these offers as some are not active in tendering.

4.32 Findings from the evaluation qualitative research suggest that whilst senior staff from Invest NI meet with their equivalents in International Synergies and the Carbon Trust, operational staff across the four delivery strands seldom if ever meet. Whilst operational staff from the organisations interviewed reported that they had effective informal lines of communication with one another, it was suggested that it might be useful to hold occasional meetings for all those involved in the delivery of the SDSP. One suggested these meetings could provide an opportunity for identifying and discussing issues with individual strands, for example the fall off in uptake of the EELF, with a view to agreeing action on potential solutions or mitigation measures.

4.33 Qualitative consultations also suggested that there was a need for Invest NI Client Executives to play a greater role in promoting the full range of SDSP schemes, but that

there was likely to be a need to engage and educate these staff as to the nature and benefits of the programme and in particular Industrial Symbiosis and the EELF.

## Monitoring and Reporting

- 4.34 The team manager and programme manager are also responsible for monitoring and reporting.
- 4.35 Data on spend and outputs is collected from each project strand, including the strands led by EDOs, on a monthly basis. For the external bodies, provision of this data is tied to payments. This collected data is entered into monitoring spreadsheets then used by the Invest NI team for internal reporting. These include:
- Spreadsheet of Programme Interventions (number and value of interventions)
  - Operating Performance and Monitoring Report – covering achievements against a range of key outcome targets
  - Individual spreadsheets for the Energy Efficiency Loan Fund, Resource Efficiency Capital Grants, Technical consultancy and Industrial Symbiosis strands.
- 4.36 Alongside this data, a survey is undertaken every six months of the businesses that have availed of the technical consultancy strand, after completion of their technical consultancy support. The survey covers financial cost savings and project expenditure, only covering savings to date, with no persistence of these savings assumed. This information is used to assist in analyzing programme outcome measures (netting off EELF and RECG savings where TCS businesses have also accessed loans and/or grants). In practice, the programme team feel this process may need to be reviewed, as the survey often comes at too early a stage for any benefits of the support to have been realised, and as a result the programme outcomes may be underestimated.
- 4.37 The team manager and programme manager would lead on responding to any underperformance which could threaten achievement of programme targets. An example of this has been investing in additional marketing activity for the loan fund, for which demand has been lower than anticipated.
- 4.38 Given that Invest NI is committed to achieving a successful economy in Northern Ireland which will provide equal opportunities for all, it also monitors the equalities aspects of the SDSP. Section 75 of the NI Act 1998 requires Invest NI, in carrying out all its functions, powers and duties, relating to Northern Ireland, to have due regard to the need to promote equality of opportunity.



4.39 A full equalities assessment for the SDSP was undertaken in 2009. It concluded that the programme did not have an adverse impact on any of the nine Section 75 criteria. It does not appear that active monitoring of the criteria or a more update to date assessment has taken place. However, it should be borne in mind that the SDSP has continued to be implemented in a way which is consistent with the 2009 assessment.

## Risk Management

4.40 Risk management for the programme is undertaken at two levels:

- Significant strategic risks when identified will be logged and addressed through the Invest NI organisational risk register
- Day to day risk management is addressed more informally through regular monthly output meetings, focused on addressing risks to delivery of programme targets.

4.41 Based on other similar programmes this appears a sensible and proportionate approach to programme risk management.

4.42 The consultations with the programme management team and the EDOs clearly highlights that all of those involved in scheme delivery were concerned about ensuring they hit their uptake targets. A particular focus more recently has been the under performance of the EELF in terms of the take-up of loans. This is particularly important for the EELF strand given that this is a big driver of financial saving targets (and hence one key source of GVA benefit) and the only recorded reported source of CO<sub>2</sub> savings. The Invest NI team response to this challenge has been to invest further in new and enhanced marketing and promotion approaches to seek to boost engagement levels.

## 5. The Business Experience

- 5.1 The analysis of the businesses experiences of the SDSP have been informed by:
- Performance data about the mix of support received by business over the past two years
  - A large scale of survey of 147 businesses which have received support undertaken by BMG Research
  - In-depth qualitative research with beneficiaries (18, of which 2 received multiple types of support and businesses which enquired or applied for support but did not receive it (2)
  - Finally, to a lesser extent, the consultations with a range of internal and external stakeholders involved or with an interest in the SDSP.
- 5.2 The large scale survey was undertaken by BMG Research during June and early July 2018, covering businesses which received support over the two year period October 2015 to September 2017. Indicative targets were set for each type of support, although it proved difficult to achieve these in practice [add targets into table in next draft]. It proved necessary for Invest NI to contact beneficiary businesses during the course of the survey to encourage more to participate. The response rates are shown in Table 5.1, varying between 11% to 30%.
- 5.3 A large number of beneficiary businesses receive multiple support through SDSP, either receiving multiples 'hits' of the same type of support or more commonly different types of support. Whilst 934 unique businesses have been supported through 1,284 interventions during the two year period, only around 560 businesses have received just one intervention. This had implications for the design of this survey and the approach to gathering self-reported evidence about the impact of this support on business behaviour and performance.
- 5.4 In order to facilitate the collection of robust survey evidence of impact and avoid the difficulties associated with businesses having to separate out impacts associated with multiple forms of support, it was decided to focus the beneficiary survey on businesses which only received one instance of support. However, it was important not to exclude businesses which received multiple types of support from the research and hence the experiences and benefits of these businesses was explored through the more qualitative research.

Table 5.1 Quantitative Survey Response Rates

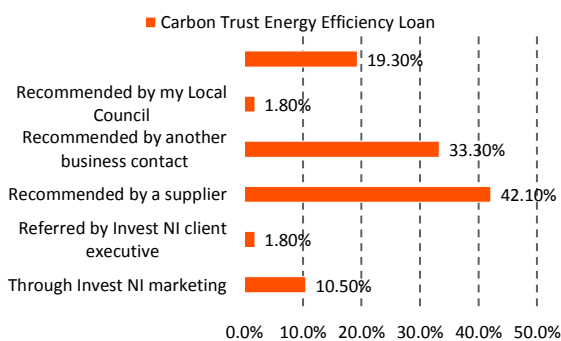
	No. of beneficiaries surveyed	No. Receiving One Type of Support	Response Rate
Carbon Trust Energy Efficiency Loan	57	238	24%
Resource Efficiency Capital Grants	7	30	23%
Industrial Symbiosis Advice and Support	42	122	34%
Technical Consultancy and Support	41	170	24%
Total	147	560	26%

5.5 Two out of every five respondents (39%) were in the manufacturing sector, with a little over a fifth (23%) in the services sector. The remainder were in primary production sectors, the public sector or classed as 'other'. The vast majority of companies had been operating for over five years (86%), with very few start-up enterprises.

### Finding Out About the SDSP

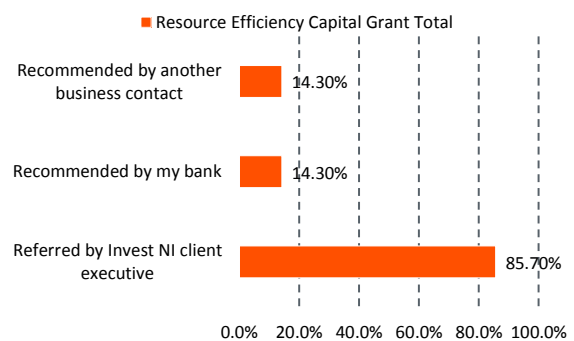
5.6 Figures 5.1 to 5.4 highlight the diverse ways in which businesses found out about their support. Recipients of the RECG and TCS in particular were more likely to have been referred by INI client executives, and to a lesser extent the ISS. As we would expect, recipients of the loans were more likely to have been recommended by a supplier as well as word of mouth from other businesses.

Figure 5.1 How did you find out about the EELF?



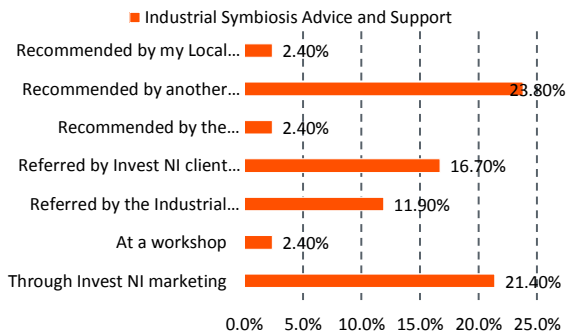
Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N-57. At a 95% confidence level the margin error on a 50% response is plus or minus 14%

Figure 5.2 How did you find out about the RECG?



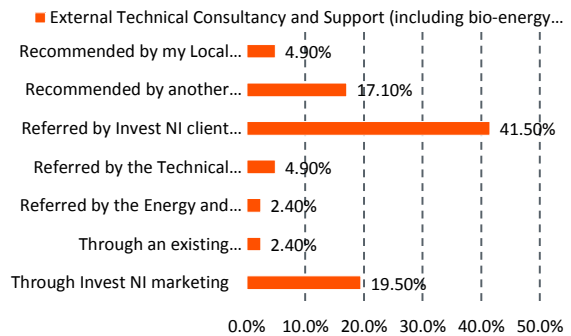
Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N-7. The sample size is too small to estimate a meaningful margin of error and the data should be judged accordingly.

Figure 5.3 How did you find out about the ISS?



Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N-41. At a 95% confidence level the margin error on a 50% response is plus or minus 15.8%

Figure 5.4 <How did you find out about the TCS?



Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N-42. At a 95% confidence level the margin error on a 50% response is plus or minus 15.3%

- 5.7 The qualitative research provided further insight into the reasons why companies sought support through the SDSP and the manner in which they first engaged with the programme. The main route into SDSP support was through direct contact with Invest NI, via the telephone enquiry line or in some instances a Client Executives. Some businesses who had received support through Industrial Symbiosis reported having heard about the scheme directly from International Synergies, whilst one business reported having been informed of the EELF scheme by an energy efficiency consultancy.
- 5.8 Although some respondents felt that Invest NI were good at alerting them to scheme opportunities ("*Invest NI are good at letting us know about such schemes*" EELF3), others felt that communication could be improved by providing more regular communication and more information about the full range of SDSP support available to them. **In general respondents were not aware of the full range of support provided by the SDSP and were often not aware that the scheme they were involved in was part of a broader programme.**
- 5.9 The stakeholder interviews suggested that the SDSP does not have a high profile within the Northern Ireland business community, particularly those who do not have on-going involvement with Invest NI (e.g Invest NI clients):

*"we are constantly being told by people that they did not know the scheme existed"* ST13

*"There is a gap in awareness - we have companies saying that they didn't know this [the SDSP] existed."* ST5

5.10 This gap in awareness of the scheme (both the programme as a whole and individual elements of the programme) amongst the NI business community, was identified as one of the main barriers preventing scheme uptake, particularly amongst SMEs. Reasons given for this reported lack of awareness included:

- A sense amongst smaller businesses that Invest NI was focused on larger higher value businesses and that it was 'not for them'
- A lack of awareness that Invest NI might provide the types of support offered by the SDSP as opposed to more mainstream business support
- Businesses, particularly smaller businesses, lacking the time to seek out opportunities.

5.11 A number of individuals involved in the delivery of the SDSP indicated a desire, and need, to reach a new and wider audience:

*"Obviously the methods we are currently using are not reaching those companies" ST14*

*"The SDSP might be known to INI clients, but there are only 1,200 of these whilst the manufacturing sector alone consists of 5,500 companies."*

*"I am not sure awareness [of the SDSP] will be particularly high, especially for those not in regular contact with INI." ST10*

5.12 Suggestions for increasing awareness from consultees included:

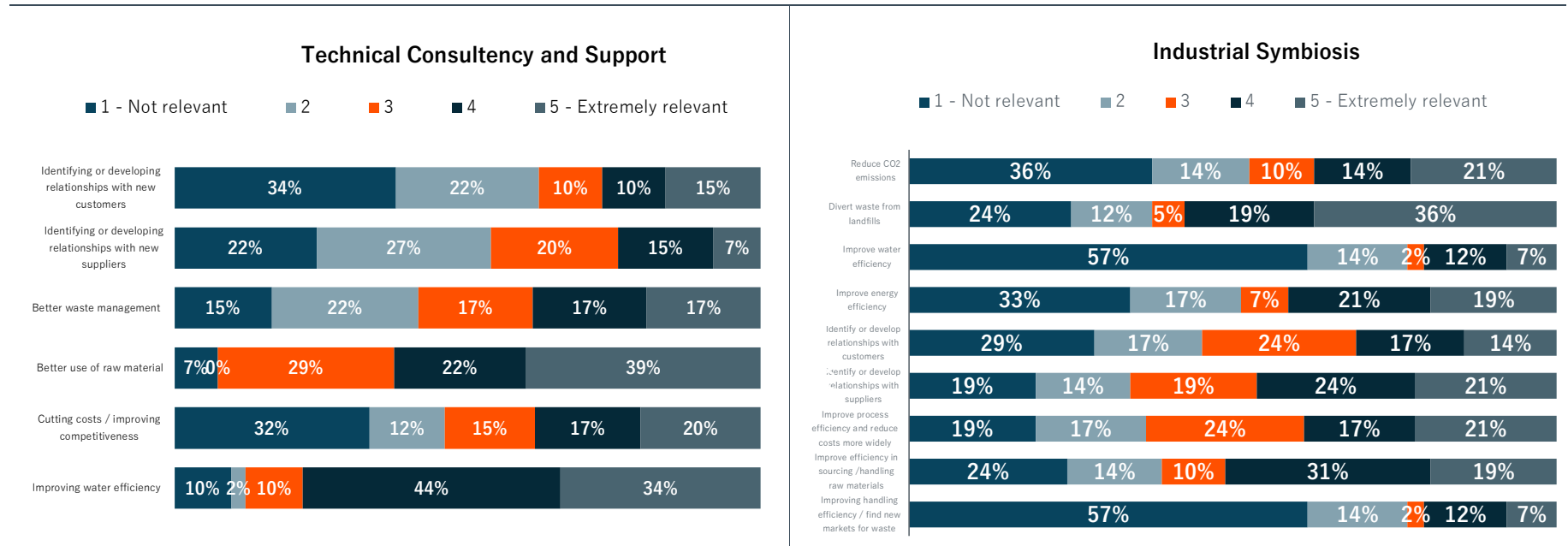
- Ensuring that all Invest NI client executives are more familiar with the scheme and are actively promoting it.
- A more proactive approach to engagement, including direct approaches (something it was reported that IS were good at and that Energy and Resource Efficiency team in Invest NI were having to do more of to stimulate demand).
- Regular communication via email, newsletters (including articles in the publications of trade bodies and other relevant external media) and social media channels.
- The production and dissemination of more sector specific case studies illustrating the potential benefits to business of engagement in the programme.
- Promotion of the wider benefits of the scheme, i.e. whilst direct cost savings will be important to all businesses there are other good reasons in terms of the co-benefits to engage with the scheme.

## Motivations for Seeking Support

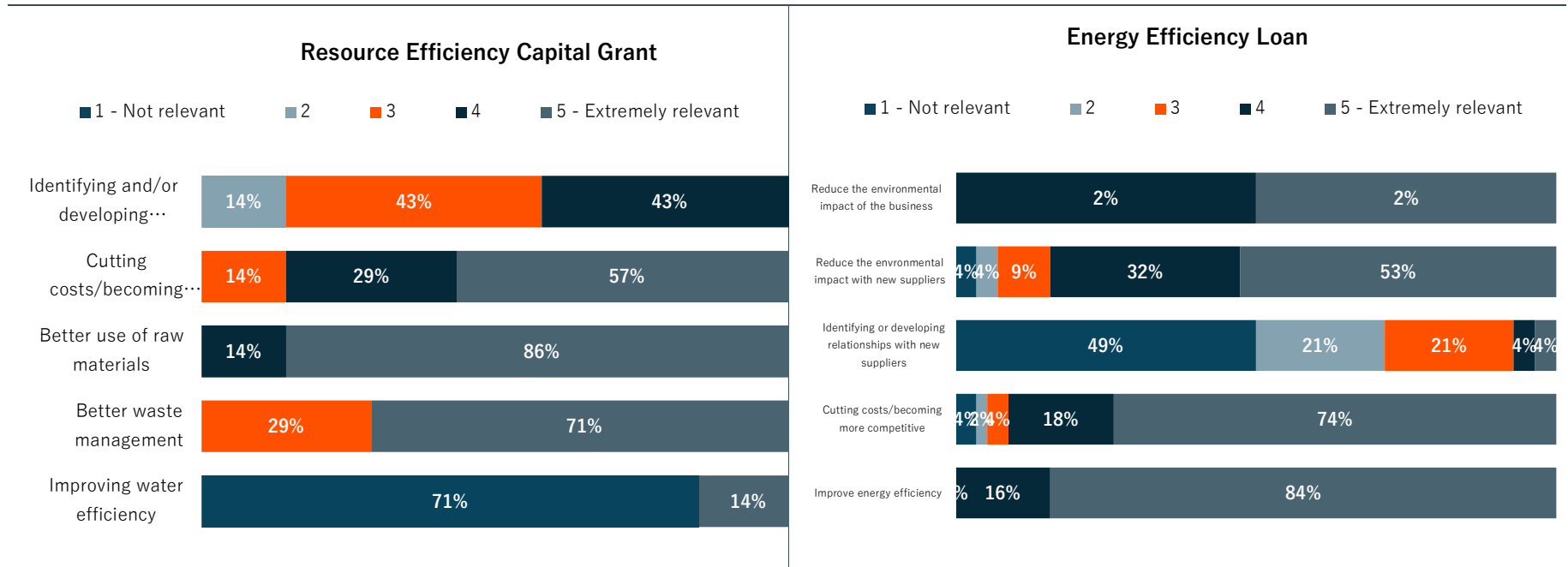
5.13 The beneficiary survey provided useful evidence on the motivations for businesses seeking and pursuing the support, further backed up by the qualitative research. The motivations for seeking each type of support differed, largely reflecting the forms of assistance available and the benefits this offered businesses:

- EELF – the motivations of the businesses surveyed were primarily focused on energy efficiency but also clearly linked to reducing operational costs; whilst a sizeable proportion were seeking to reduce their environmental impact with their suppliers, few indicated that the support was focused on steps necessary to develop relationships with suppliers; very few were interested in reducing their environmental impact for its own sake.
- RECG – a strong focus on achieving better waste management including the use of raw materials, as well the associated costs savings. Many of the respondents also identified the measures implemented as an opportunity to develop and secure new relationships with customers.
- ISS – a diverse range of reasons were identified, with many businesses citing multiple motivations; the more popular motivations were to divert waste from landfill and thereby secure costs savings, sourcing and processing materials more efficiently (but few were interested in handling efficiency), and to help develop customer and supplier relationships through their use of materials and waste. A small number were interested in water efficiency or the wider environmental benefits of materials and waste reduction such as CO2 emissions.
- TCS – there was a strong focus on improving the efficiency of energy, water and other materials, as well as a better waste management in general. Whilst not unimportant there was less emphasis placed reducing costs in its own right or using the support to enable the development of relationships with customers or suppliers.

Figure 5.5 Motivations for Seeking Support



The Evaluation of the Sustainable Development Support Programme



Source: : Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018.



- 5.14 Most businesses consultees in the qualitative research specifically referenced cost savings – to be achieved through reduced energy, water and raw material use and in some instances reducing landfill costs - as their primary motivation for seeking SDSP support. It was noted that electricity costs are high in Northern Ireland and also that recycling infrastructure is underdeveloped in the area. In both instances these were seen as incentivising resource efficiency initiatives. Improving business efficiency, productivity, improving the quality of products and business growth were also referenced as important objectives.
- 5.15 Environmental benefits were seen by some as being the most important objectives and were referenced by a number of others as an important secondary output. Where referenced, environmental outcomes were reported as being: good business sense; an asset to company marketing and a means of improving CSR credentials to customers (generally businesses were talking about business customers).
- 5.16 In relation to the IS support, whilst businesses clearly hoped to secure useful outcomes, they conveyed a sense that such enquiries were speculative, i.e. it was accepted that an investigation might not yield a positive outcome, but it was considered worth investigating.
- 5.17 Some respondents, who had received assistance through the TCS scheme, reported that they had wished to validate in-house research.

*"We were hoping to get validation, you know, that what we were planning to do was the right thing." TCS4*

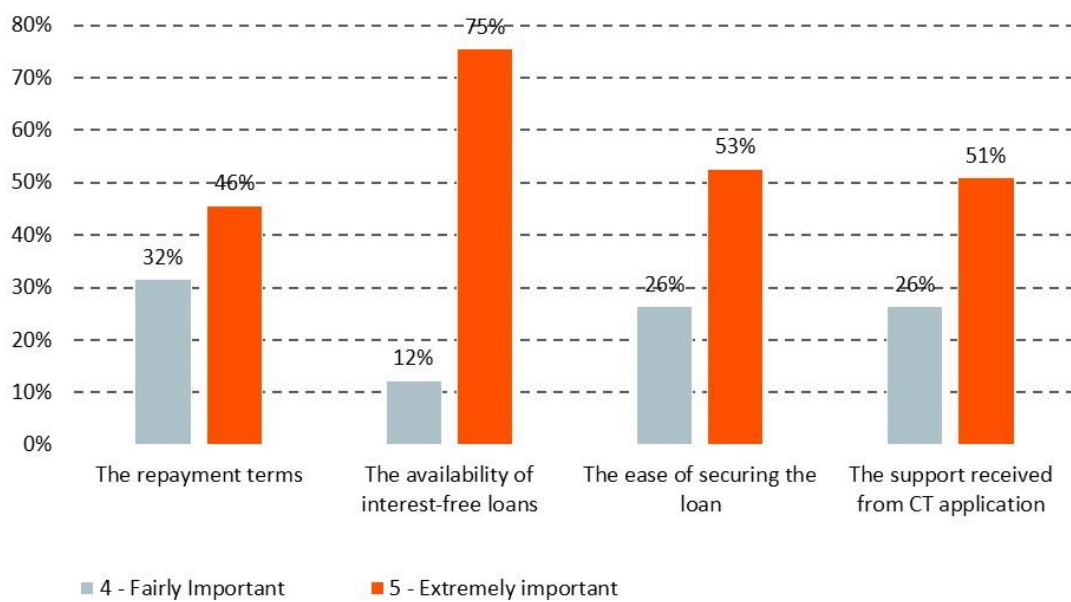
## Energy Efficiency Loan Fund

- 5.18 The vast majority of the survey beneficiaries (90%) who received a loan had fully implemented the measures which had been funded through this finance at the time of the survey<sup>16</sup>. The upshot of this is that these firms should be capturing the associated cost savings from the measures and most should be in a reasonable position to judge the scale of the savings and associated benefits they will receive.

<sup>16</sup> The survey only included businesses which had drawn down the full loan and fully implemented the associated measures (and indeed, they cannot draw down the final part of the loan until the funded measures are commissioned). However, some businesses may be implementing these measures as part of a wider suite of changes and hence they may not perceive that these have been fully implemented yet.

- 5.19 The types of measures were heavily skewed to lighting (68%), with far fewer implementing refrigeration (5%). Other measures implemented by the survey respondents were implemented by just a single business. A majority of the loan recipients (56%) also invested their own money alongside the loan, with most of these investing less than £5,000.
- 5.20 Few of the loan recipients (7 or 12%) surveyed initially sought finance from other sources, including the high street banks, prior to applying to the EELF. Three of these sought finance from other lenders (presumably commercial lenders), whilst others pursued other miscellaneous sources. Three of the four companies that went on to apply for finance from these other sources were successful.
- 5.21 The loan recipients were asked to indicate the importance of various features of the loans they received. Understandably, the respondents rated the interest free loans as being of most importance (75% very important, 12% quite important). Others key features were also highly rated including the ease of securing the loan (53% and 26%), the informal support provided by the Carbon Trust (51% and 26%) and the repayment terms (46% and 32%). Few other features were mentioned by respondents.

Figure 5.6 Importance of the Features of the Loan Fund to EELF Beneficiaries

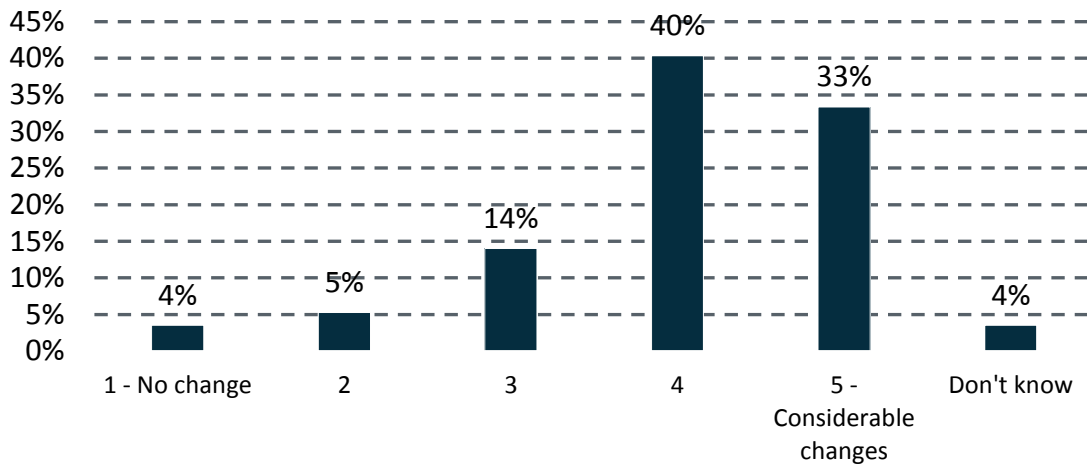


Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N-57. At a 95% confidence level the margin error on a 50% response is plus or minus 13.1%.

- 5.22 Reflecting the extent to which the respondents had implemented their measures, the vast majority were able to point considerable or significant change in their energy efficiency. On a scale of 1 to 5 where 1 is not change and 5 is considerable change, 40% selected a

score of 4 and 33% selected a score of 5. However, it should be borne in mind that the question is based on the businesses own judgment.

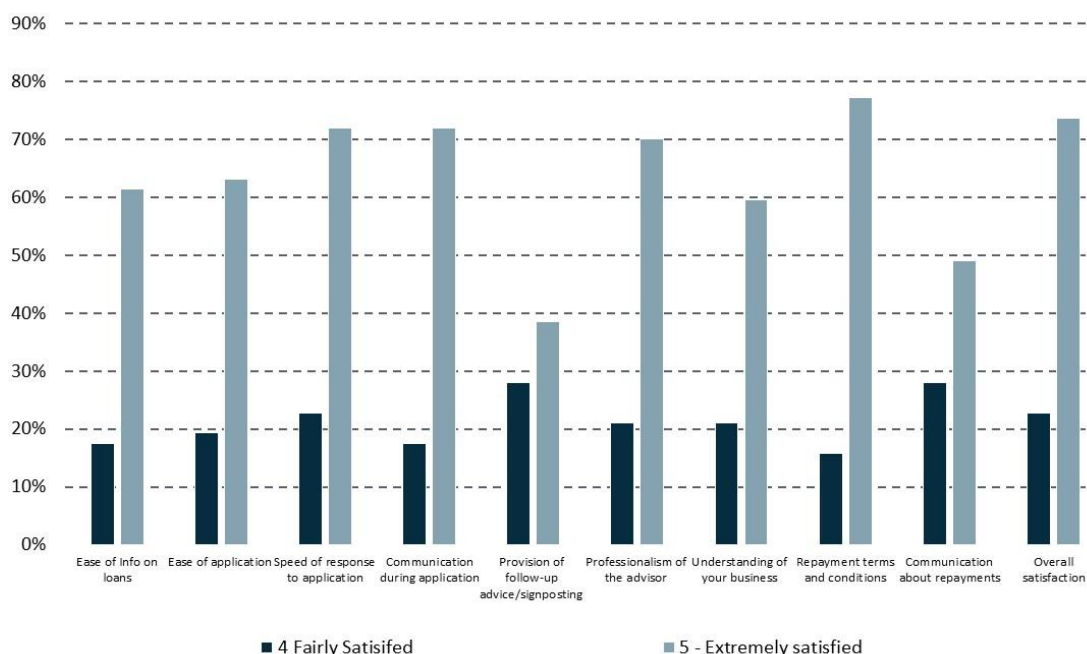
Figure 5.7 The Extent of Increased Energy Efficiency to Date as a Result of the EELF



Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=57. At a 95% confidence level the margin error on a 50% response is plus or minus 13.1%.

- 5.23 The businesses interviewed in the qualitative research also reported positive outcomes from the EELF scheme, in terms of financial savings in particular. Some respondents, who had installed LED lighting, also noted that they felt that the lighting quality was better and that their premises looked more professional. [add chart from survey]
- 5.24 The actual quantification of these benefits amongst the survey respondents, focusing mainly on financial savings in the case of the loan fund, is presented in the next section. This analysis also considers the additionality of the support – that is, the extent to which the businesses would or would have implemented the measures and secured the benefits in the absence of the loan.
- 5.25 The level of satisfaction with the EELF was extremely high amongst the respondents that had received the loans, which reflects both the provision of interest free finance but also the quality of other aspects of the support and service. Overall, 76% were very satisfied and 23% were fairly satisfied. Satisfaction was also very higher with the process of finding out about the loan fund, the application and approval process, and the professional of the Carbon Trust advisors. Although still satisfied with some other aspects of the service, the respondents were less satisfied with the longer term assistance from the Carbon Trust including follow-up contact and sign-posting to other support (common to other strands of the support) and the communication from them during the repayment period.

Figure 5.8 Satisfaction with EELF Assistance



Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=57. At a 95% confidence level the margin error on a 50% response is plus or minus 13.1%.

## Resource Efficiency Capital Grants

- 5.26 It is worth bearing in mind that the population for this strand of the programme is relatively small, which had implications in terms of difficulties reaching the desired survey response rate. In total just seven businesses which received grants between October 2015 and September 2017 responded to the survey, a response rate of 9%. However, it is supplemented by the qualitative research with RECG recipients.
- 5.27 Five of the seven businesses had completed the implementation of their grant supported resource efficiency measures, whilst the other two were nearly complete (over 75% complete). Whilst the capital grant cannot be claimed until the measures have been implemented, the businesses may see these measures as part of a wider series of measures or action which could be on-going.
- 5.28 All but one of the companies stated that their businesses were more resource efficient as a consequence of the measures they had or were implementing. This one company was still in the process of implementing its proposed measures.
- 5.29 The qualitative research included only two non-participants, both RECG applicants, due to the difficulties of identifying these businesses. In both cases they reported that they had

been able to proceed with the types of investments they were interested in pursuing in the absence of the assistance through SDSP.

5.30 In terms of the types of benefits which these firms had realised to date, care needs to be exercised here due to the small number of respondents and range of potential benefits types. Bearing this in mind, the key points were:

- All reported a much better understanding of resource efficiency
- All also pointed to enhanced productivity, a greater commitment to related R&D activity and improved environmental performance.

5.31 The qualitative research with SDSP beneficiaries confirmed the high level of satisfaction with RECG grants, the value of capital grants in enabling businesses to implement new resource efficiency investments. Most reported that their schemes had met, or exceeded, their expectations; the exceptions being those businesses which had implemented their investments relatively recently.

5.32 RECG scheme participants reported a range of benefit. Whilst cost reductions, achieved through reducing energy, water and raw material use were reported as clear wins for them, businesses also noted the following range of benefits:

- Ability to extend their product range and to access new markets as a consequence of new equipment
- Increased output and turnover
- Enhanced employee satisfaction as a result of new equipment
- Reduced maintenance costs and machine downtime (for example some applicants reported that staff morale and personal pride had improved as a result of seeing investment in new equipment and working with more modern, cleaner and efficient equipment)
- Space saved through reduced need for on-site waste disposal.

5.33 One business noted that the experience had been transformative, giving them the confidence to invest in other equipment. On a related note, a number of stakeholders noted that they felt that SDSP had generated increased confidence amongst businesses and also noted that by

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*“It has really boosted us. We want more machines and we can afford to invest in them now as our sales have increased. It’s given us the ability and confidence to invest.” MS2*

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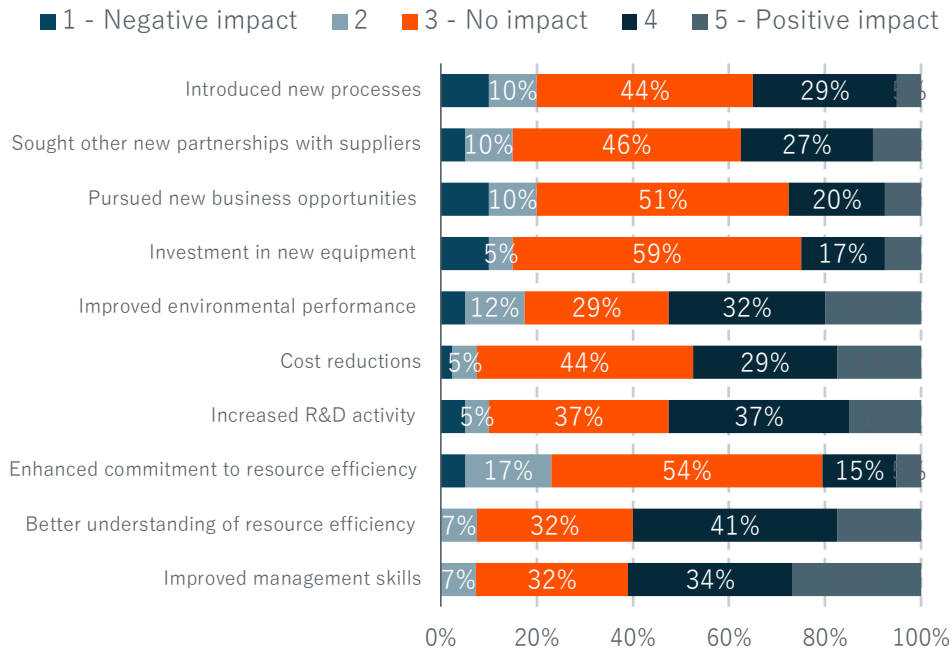
becoming involved in the development of a business case for the RECG businesses might learn new skills and become more aware of the potential for introducing innovations.

- 5.34 Three of the seven businesses reported using Northern Ireland based companies to implement their capital investment, although they did not provide information on the level of expenditure.

### **Technical Consultancy and Support**

- 5.35 The large-scale survey completed interviews with 41 companies which had received a consultancy report and achieved a response rate of 10% and therefore caution needs to be exercised in the interpretation of the data.
- 5.36 Businesses receiving TCS consultancy reports were asked to indicate the extent to which they had secured a range of possible benefits to date as a consequence of the support. On average, two out of five businesses (c40%) had not realised any of these benefits to date. Whilst it needs to be borne in mind that it is still early days for some of these businesses, the main areas where positive impacts had been achieved were: improved management skills (61% good or some progress); better understanding of resource efficiency amongst the management team (59%); and improved environmental performance (51%). Least progress had been made in terms of new capital investment (only 24%) and a greater commitment amongst the businesses managers to resource efficiency (20%).

Figure 5.9 Impact of TCS Support on Businesses to Date

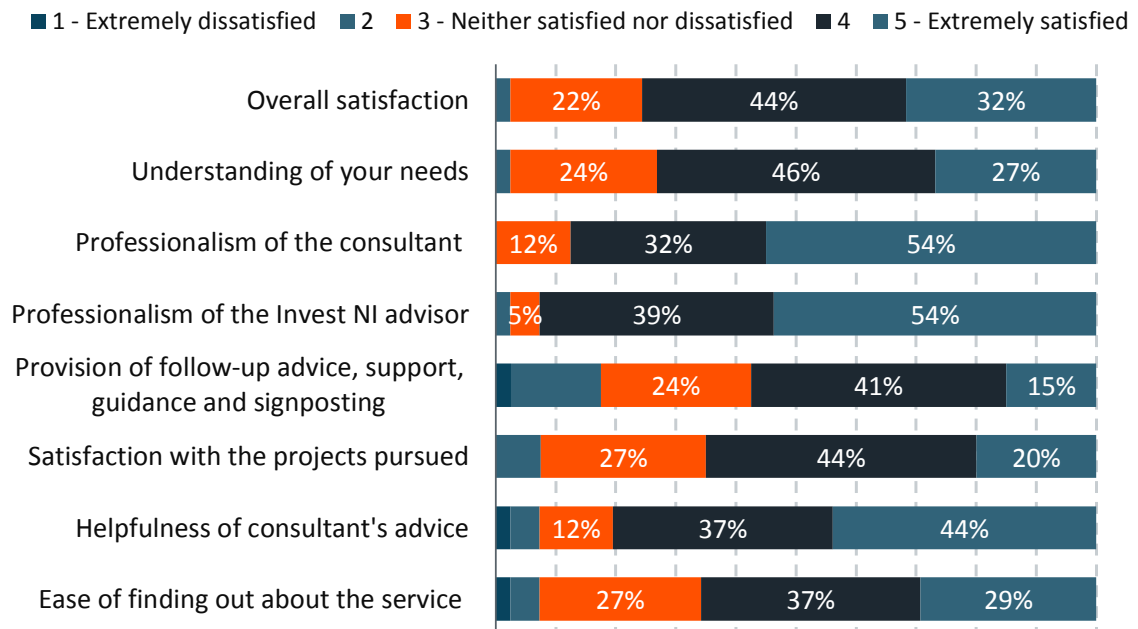


Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=41 At a 95% confidence level the margin error on a 50% response is plus or minus 15.5%.

- 5.37 When asked about the potential to future additional benefits in the future, in most instances the respondents didn't expect to achieve much additional benefit. The exception was around additional capital investment in more resource efficient equipment or related measures, a greater business commitment to resource efficiency and an improved corporate reputation for resource efficiency and environmental management. These are all aspects which can take the businesses longer to realise.
- 5.38 The in-depth consultations with businesses receiving TCS support highlighted positive business outcomes as a result of the support, but also that for some the value lay in the validation of their own in-house investigation. In these instances, the consultancy reports were useful primarily because they had reassured the companies that they were making the correct decision. One organisation that had had several TCS reports produced for them noted that they had found the advice very useful and that one of the reports had provided the basis for a major investment in new equipment.
- 5.39 The levels of satisfaction with the support as a whole (42% fairly satisfied and 32% very satisfied). The most highly rated aspects of the support were: the professionalism of the Invest NI advisors (95% very or fairly satisfied); professionalism of the technical consultants (85%); and the helpfulness of the consultant's advice on resource efficiency actions (80%).

The main aspect which was poorly rated was the provision of follow-up advice and signposting, although even here only a minority were fairly or very dissatisfied (15% and 2% respectively).

Figure 5.10 Satisfaction with TCS Support



Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=41. At a 95% confidence level the margin error on a 50% response is plus or minus 15.5%.

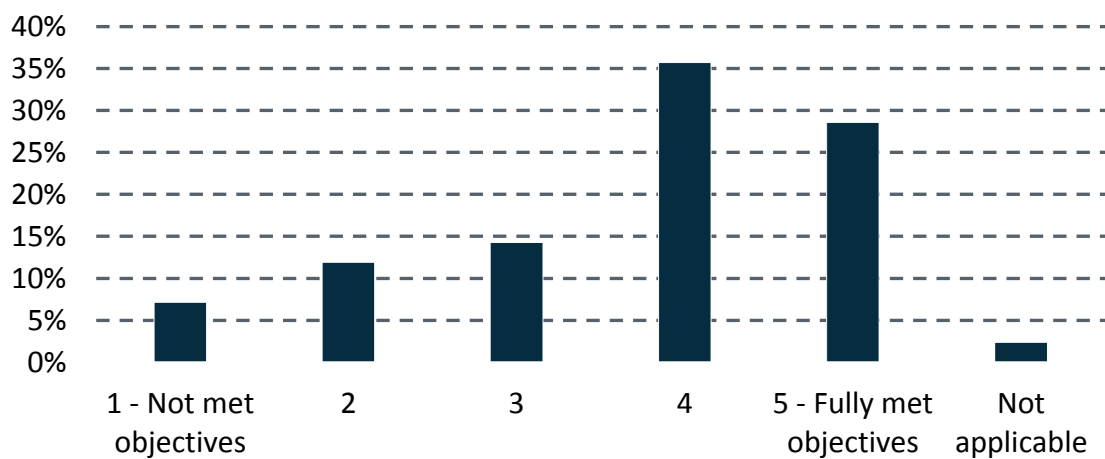
- 5.40 The in-depth consultations with businesses receiving TCS support illustrated that the messages from the consultations with business receiving TCS support were not always as positive. One business stated that the report that had been produced for them was '*a waste of time*', whilst some others reported that the recommendations contained in their report had been impractical or unrealistic for their business.
- 5.41 The value of some TCS reports was questioned by one stakeholder consultee who suggested that the evolution of understanding of environmental issues amongst businesses meant that the more generic forms of report – i.e. those looking at general opportunities for energy, water, resource efficiency opportunities - often offered little added value to a business. Instead they suggested that there should be greater emphasis on providing detailed, bespoke reports focused on specific project opportunities.



## Industrial Symbiosis Support

- 5.42 The survey completed interviews with 42 companies giving a reasonable response rate of 30%. The interviews were restricted to businesses which had progressed to receiving match reports which identified specific costs savings or additional sales for them from reusing waste materials.
- 5.43 Two thirds of the businesses (65%) reporting either meeting their objectives in accessing ISS support in full (29%) or in large part (36%). Less than one in ten (7%) stated that they had not meet their objectives in anyway, at least to date.

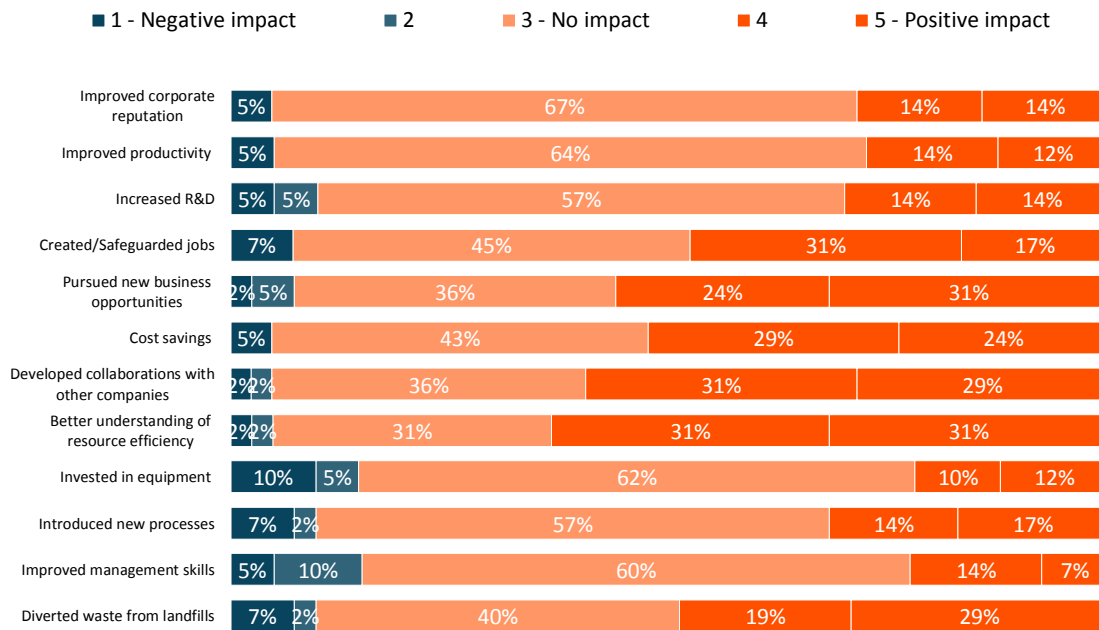
Figure 5.11 Did Businesses Meet their Objectives in Accessing ISS



Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=42. At a 95% confidence level the margin error on a 50% response is plus or minus 15.5%.

- 5.44 Businesses which had progress to the point of receiving match reports through ISS were asked to indicate the extent to which they had secured a range of possible benefits to date as a consequence of the support. On average, two out of five businesses (c40%) had not realised any of these benefits to date. Whilst it needs to be borne in mind that it is still early days for some of these businesses, the main areas where positive impacts had been achieved were: a better understanding of resource efficiency amongst the management team (62%); collaborations with other businesses (60%); and the pursuit of new business opportunities (55%). At the time of the survey just half of respondents had made costs savings (52%) to date, one of the main objectives of the support.
- 5.45 Unsurprisingly given the nature of the ISS support, less progress was made in achieving business benefits in a number of areas including improved business reputation, investment in new equipment, introduction of new process and improved productivity.

Figure 5.12 Impact of ISS on Business Behaviour and Performance to Date

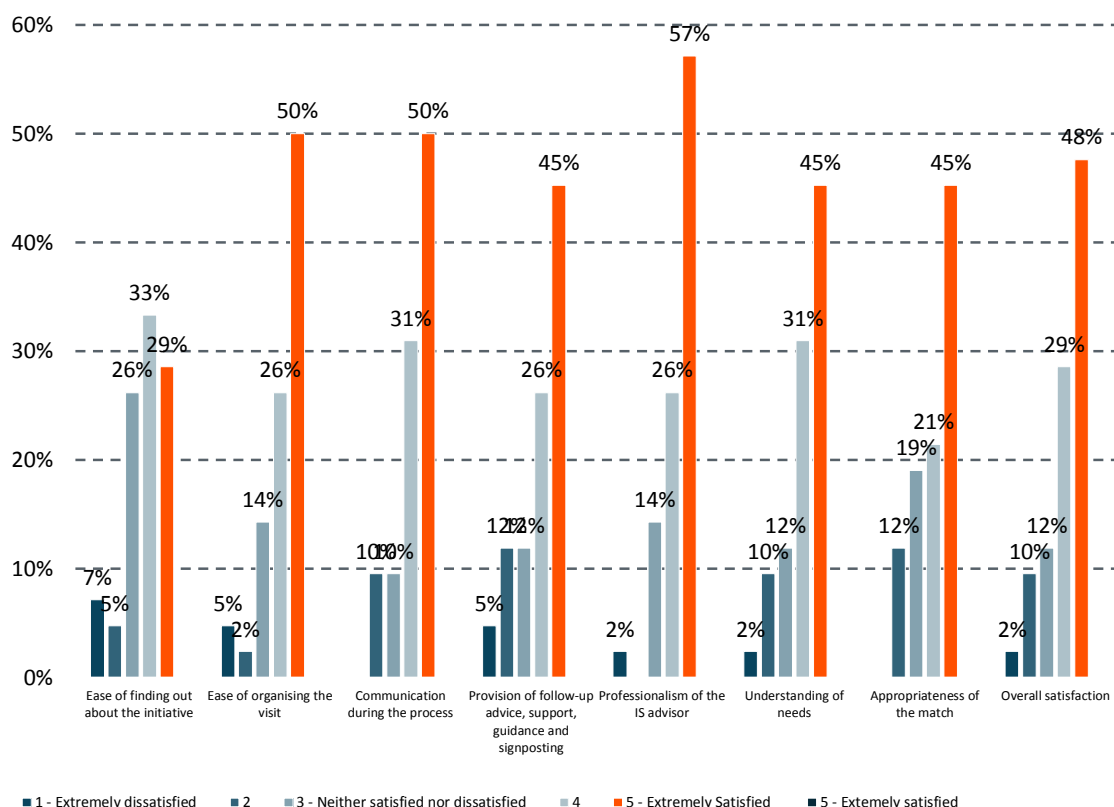


Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=42. At a 95% confidence level the margin error on a 50% response is plus or minus 15.5%.

- 5.46 The large survey indicated that businesses expected to make further business gains as a consequence of the ISS support in the future. The picture was fairly uniform across the types of benefits with improvements of 15-17% percentage points in those securing significant or some benefit across all benefits types.
- 5.47 The challenges of the businesses securing tangible business benefit was reinforced to some extent through the business consultations as part of the qualitative research. None of those who had received IS support reported having been able to make major changes to their business as a result of their report, although this is clearly not representative of IS support in general. Interestingly, these businesses nevertheless were pleased with the support provided by International Synergies, with a number noting that they intended to continue to engage with International Synergies as they anticipated using their support again in the future.
- 5.48 As with the other types of support, the levels of satisfaction with the ISS support as a whole (48% fairly satisfied and 46% very satisfied), as well as the different aspect of it was very high overall. The most highly rated aspects of the support were: the professional of the ISS advisors (83% very or fairly satisfied); and the communication during the process (81%). As

with some other types of support, the main aspect which was poorly rated was the provision of follow-up advice and sign-posting, although even here only a minority were fairly or very dissatisfied (12% and 5% respectively).

Figure 5.13 Satisfaction with Aspects of ISS Services

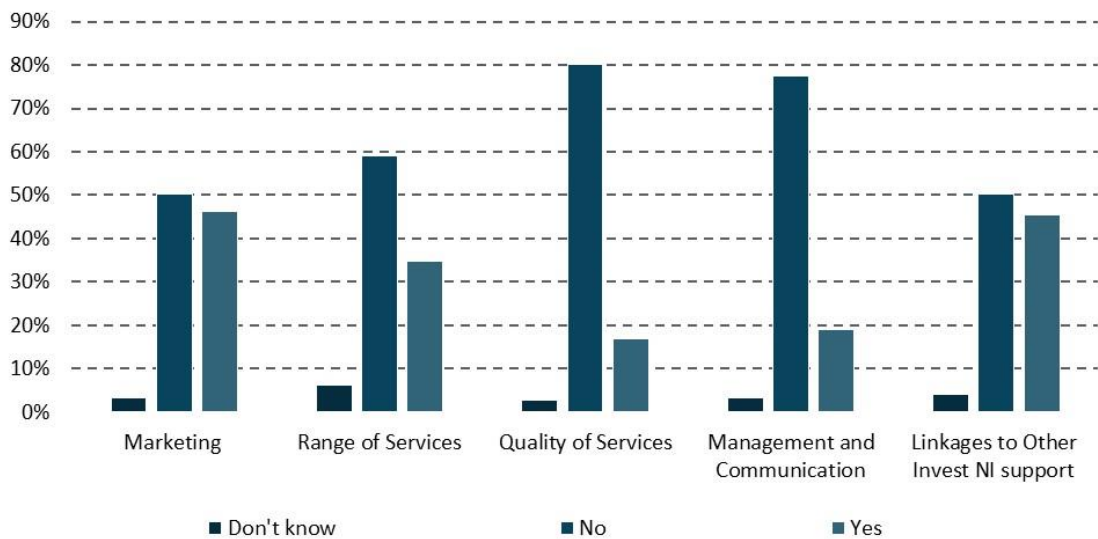


Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=42. At a 95% confidence level the margin error on a 50% response is plus or minus 15.5%.

## Beneficiaries Views on Improvements

5.49 The quantitative survey asked the beneficiary businesses about the elements of the SDSP which could be improved. The key observation is that the majority of businesses did not identify any particular ways in which the programme could be improved, although it should be borne in mind that, given the form of the interview, the interviewees had not been given the opportunity to consider this fully.

Figure 5.14 Businesses Views on Improvements to the SDSP



Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=147. At a 95% confidence level the margin error on a 50% response is plus or minus 8.1%.

5.50 The aspects of the service where a significant minority of business did anticipate some scope for improvements were:

- Marketing (46% of respondents) – the small number of qualitative responses provided included improved branding, more awareness raising and a wider range of information about the services available
- Linkages to other forms of Invest NI support (46%) – a small number of noted their limited awareness of, and lack of information provision about, other services which Invest NI provided to businesses.
- Range of services (35%) – although not primarily concerned with the range of services, a small number of respondents noted the better follow-up procedures with advisors following the delivery of finance, advisory support and related consultancy services.

5.51 Turning to the in-depth qualitative research, a number of business respondents reported that they could not think of how the scheme might be improved as they had found it simple and easy to engage with. Those who were able to identify potential improvements suggested the following:

- EELF2: the business thought the scheme was very bureaucratic and that the process of accessing and receiving support could be simplified;

- MS1: the business thought the TCS consultancy report should be more tailored to the business in question rather than a set of generic options. They would have liked the report to be more specific and less lengthy.
- TCS1: the business felt the report contained impractical (too expensive) options when there was a need for practical recommendations.
- MS2: the business reported that the RECG spreadsheet was poorly laid out and difficult to use.
- RECG3. the business thought the application process could be simplified with a clearer set of success criteria stated.
- RECG NP1(unsucessful applicant): the business thought its application had been rejected on very minor technicalities. They thought Invest NI should be more helpful in providing constructive feedback on unsuccessful applications. *"No-one has come back to say you were unsuccessful but the schemes is open for applications again from xx and we'd be happy to receive another application from you."*

5.52 As reported above, a common theme was the view amongst businesses and some stakeholders that Invest NI needed to be more proactive in promoting the SDSP, some suggesting that case studies would be helpful whilst others suggested that rather than them having to look for opportunities they would rather Invest NI approach them directly to discuss possible opportunities for support. Others noted that they would like to see more funding devoted to RECG so more capital grants could be made available to businesses given the strength of demand and tail off in popularity of EELF.

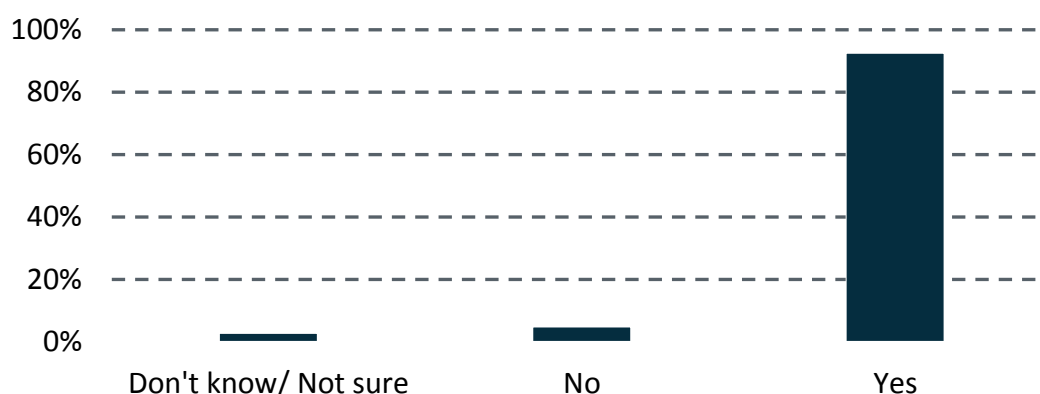
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"Consultancy is all very well but if you can access grant to invest in new equipment you're creating new employment." RECG3

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5.53 A key litmus test of the satisfaction of the businesses with the support they received is whether they would recommend it to other businesses in their networks. The vast majority stated that they would recommend it (93%), with only seven businesses stating that they would not.

Figure 5.15 Recommending the SDSP to Other Businesses



Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=147. At a 95% confidence level the margin error on a 50% response is plus or minus 8.1%.

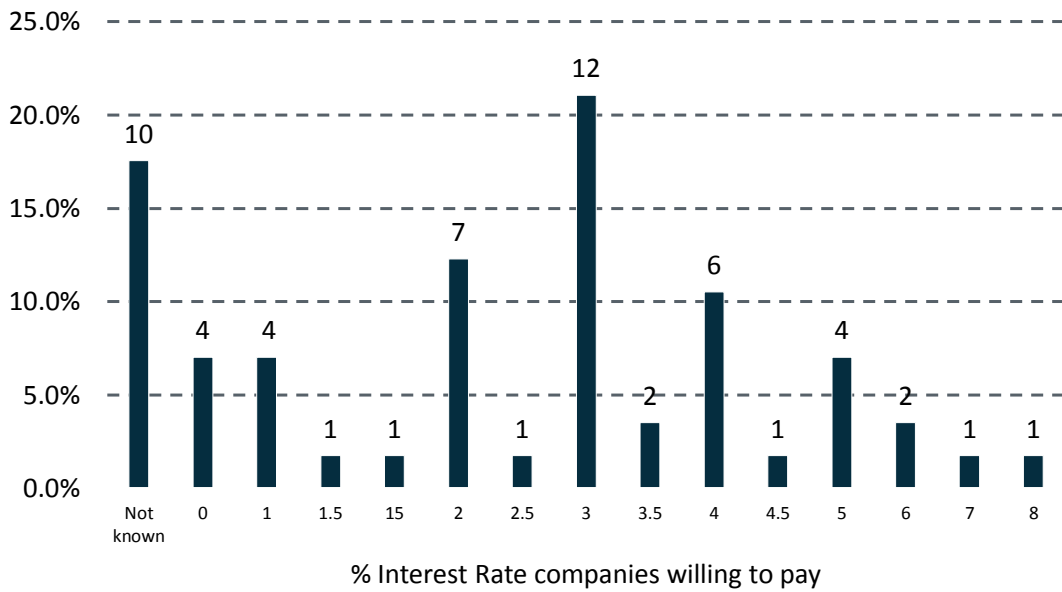
## Equality Considerations

- 5.54 The survey and other qualitative research did not point to any particular equality issues in terms of access to and delivery of services or outcomes related to anti-poverty, social inclusion, equality of opportunity or good relations.

## Willingness to Pay for Services

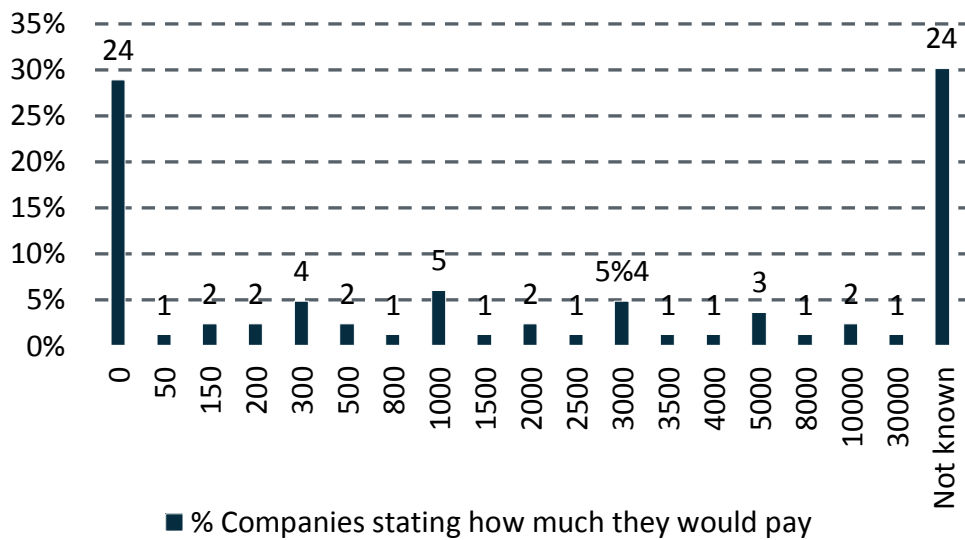
- 5.55 The quantitative survey explored the willingness to pay for the finance or support they receive. The key points are:
- EELF – a quarter of the respondents either weren't sure if they were willing to pay interest on their loans (18%) or were unwilling to pay (7%). In total half (50%) were willing to pay between 2% and 4%, which is well below the market rate for these types of loans to small businesses (assuming they are able to secure debt finance).
  - Only two out of five business (41%) that had received support through the RECG, ISS or TCS were willing to contribute financially for the services. The average amount was £6,500, although if the three businesses willing to pay in excess of £10,000 are excluded the average is £3,900.

Figure 5.16 Interest Rates (%) Willing to Pay for the EELF Loans



Source: Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=57 [ . At a 95% confidence level the margin error on a 50% response is plus or minus 13.1%.

Figure 5.17 Willingness to Pay for Other SDSP Services (£)



Source: : Regeneris Consulting, summarising INI SDSP data provided by BMG July 2018. N=83. At a 95% confidence level the margin error on a 50% response is plus or minus 10.8%.

## 6. Impact Evaluation

- 6.1 This section assesses the GVA impacts generated by the SDSP programme. This analysis draws on the telephone survey with 147 beneficiaries of the programme, as well as the additional insight provided by our analysis of the monitoring data for outputs and outcomes. It is important to bear in mind the limitations of relying on the survey of just 147 beneficiaries even though it represents a quarter of all businesses which received just one type of support. This is a particular issue for the RECG as only seven interviews with businesses were completed in this instance. (see Table 5.1). These limitations also include drawing on the businesses' own perceptions of the changes in business performance to date and in the future, the role of the support in securing these changes and various factors which inform our displacement assumptions.
- 6.2 More broadly the overall impacts presented below need to be considered in the context of the timing of this evaluation. Overtime, the certainty of the impacts forecast by businesses will become clearer.

### Outcome Framework

- 6.3 Overall, the programme has set out a target to achieve around £145.6 million in gross GVA over its lifetime, of which £68.1 million would be net additional GVA (assumed on the basis of a five-year persistence period following the receipt of support by the business). The main driver of this is the costs savings through efficiency measures, as well as opportunities to secure additional turnover or turnover growth.
- 6.4 To better understand the SDSP's additional impact on GVA at the level of the Northern Ireland economy, deadweight, displacement and optimism bias have been considered. The following is a brief explanation of the additionality measures applied. The assessment of the programme's additionality draws on the evidence gathered as part of the telephone beneficiary survey;
- **Deadweight** considers the gross impacts that would have happened anyway without intervention from the SDSP programme. The beneficiary survey explored the extent to which benefits resulting from the programme would have occurred anyway had there been no support available, at a later date, on a reduced scale, or no impacts generated.



- **Displacement** considers the extent to which the economic value generated takes place at the expense of non-supported NI businesses. Beneficiaries were asked to identify the proportion of businesses they compete with who are based in Northern Ireland, and whether market conditions have declined, stayed the same or improved since receiving support.
- **Optimism bias**, is an adjustment to beneficiaries' tendency to be overly optimistic about the predicted outcomes resulting from the support received from the SDSP programme. An optimism bias factor of 25% is applied to any beneficiary responses considered to be outliers. Our approach for selecting outliers is based on identifying the inter-quartile range (IQR) between quartile one (Q1) and quartile three (Q3), multiplying this by 1.5 times and adding it to the third quartile. This process identifies an upper limit beyond which any responses are considered outliers as shown in the following formula  $[Q3 + (1.5 * IQR)]$ , and an optimism bias factor of 25% is applied<sup>17</sup>.

6.5 The survey evidence pointed to the following deadweight, displacement and overall additionality factors. The level of overall SDSP programme additionality is lower than the level forecast as part of the economic appraisal (33.4% versus 59%), although it should be noted the appraisal did not account for displacement. There is significant variability in the reported strand level additionality factors, ranging from 23% for ISS to 58% for the RECG strand. However, it is noted that displacement was not accounted for as part of the appraisal.

	Deadweight	Displacement	Additionality
Carbon Trust Energy Efficiency Loan	38.1%	44.2%	34.5%
Resource Efficiency Capital Grants	11.8%	34.4%	57.9%
Industrial Symbiosis Advice and Support	69.2%	24.6%	23.2%
Technical Consultancy and Support	54.1%	28.8%	32.7%
Average for the SDSP	48.6%	34.9%	33.4%

Source: beneficiary survey

6.6 In the modelling it is assumed that any business cost savings could be directly attributed to increased GVA (ie. £1 for £1), whilst a proportion of increased turnover could be assigned

<sup>17</sup> This approach identifies four outliers for the EELF strand, two outliers for the ISS strand and two outliers for the TC&S strand.

to increased GVA (using GVA to turnover ratios from the latest Annual Business Survey published by the ONS). Where beneficiaries provided changes in employment number but no information on increased turnover, the overall change in turnover is calculated based on turnover per job (from the latest Annual Business Survey), of which a proportion was then assigned as GVA as per the previous method.

- 6.7 Based on this, it is estimated that to date, the first two years of operation of the SDSP programme have helped generate around £19.91 million in gross GVA. Once the overall, lifetime benefits of the various interventions are considered, the gross GVA anticipated to be generated is estimated to be in the region of £175.33 million.
- 6.8 Table 6.1 below presents an overview of both gross and net additional GVA generated to date and over the programme's lifetime as a result of SDSP. The programme's net additional impacts are based on evidence gathered through the beneficiary survey (i.e. for deadweight and displacement) and an additional allowance for optimism bias (of 25%, where applicable – see para. 6.4) to counter beneficiaries' tendency to be overly optimistic about the predicted outcomes resulting from the support received<sup>18</sup>.
- 6.9 Based on these additionality adjustments it is estimated that the first two years of support have generated around £6.78 million in net additional GVA. Once the lifetime impacts generated by the programme are considered, overall net additional GVA impacts are estimated to be around £56.29 million.
- 6.10 It is worth noting that evidence presented above identifies the EELF and TC&S strands as the main sources driving the estimated GVA benefit of the programme. The scale of the estimate for TCS is driven by a small number of businesses which expect a major impact on their future turnover as a consequence of the SDSP support they have received. Whilst this is possible given the nature of the businesses concerned, the fact that it is a forecast which may not occur in practice has to be borne in mind. However, rather than excluding these values, this is addressed through the use of the optimism bias factors (where applicable – see para. 6.4).

<sup>18</sup> Based on the survey results, there was not strong evidence to suggest that a significant optimism bias factor needed to be applied to the totality of forecast impact values (although there can be a need to do this for forecasts of business benefits gathered through self-reported surveys). Across a significant proportion of survey respondents, the anticipated gross impact values were not very different to the anticipated impact values collected by the SDSP team at the time of application for and delivery of the support. Also, the current environment (e.g. suspension of RHI) is potentially a contributory factor in companies being more cautious in reporting impact values. To reflect this, a 25% OB factor was applied to outlier values only.

Table 6.2 Overall Estimated GVA Benefit for Businesses Supported Oct 2015-September 2017 – to date and lifetime

		GVA to date (£ million)	Lifetime GVA impacts (£ million)
Gross GVA	EELF	£5.28	£43.72
	RECG	£1.24	£13.13
	ISS	£0.47	£8.72
	TC&S	£12.92	£109.75
	<b>Total</b>	<b>£19.91</b>	<b>£175.33</b>
Total net additional GVA (incl. deadweight, displacement and optimism bias – where applicable)		£6.78	£56.29

Source: Calculations by Regeneris Consulting, based on BMG Survey and SDSP monitoring data 2018

- 6.11 Whilst the RECG and ISS strands both generate some GVA benefit, it is estimated that their contributions to the programme's overall total impact are more modest.

## Effectiveness of the Support

- 6.12 This section assesses the cost effectiveness and value for money of the programme; which compares the net benefits delivered by the scheme, and the costs for delivering the programme. Again, the reliance of self-reported survey evidence and the relatively small sample (147 completed interviews – see table 5.1) should be borne in mind in terms of the reliability of the evidence which the analysis is based on.
- 6.13 Table 6.2 below presents an overview of the return on investment based on the GVA generated per £1 invested and covers both benefits to date and forecasts of the future GVA which may be realised in future years. This section presents the return on investment based on net additionality (ie. considering deadweight, displacement and optimism bias – where applicable).
- 6.14 The return on investment (RoI) of SDSP can be calculated on various costs basis – we have used the following:
- (i) The net costs to the public sector – this is the public-sector costs which have been borne, including Invest NI salary costs This includes the net costs of delivering the

EELF, allowing for the assumed repayments of the loans and the write offs. The overall three years costs on this basis are £9.18 million.

- (ii) The economic costs of the public sector’s support – this is (i) above, plus the full value of the EELF loans which are made to the businesses. The value for the three-year programme period is £15.74 million.
- (iii) The full economic costs allowing for private sector investment – this is (ii) above, plus the financial contributions that the businesses themselves make to the resource efficiency measures they implement. This draws on Invest NI’s administrative and monitoring data on the value of this match funding. The total cost associated with the three-year programme is £48.71 million.

6.15 The analysis presented in Table 6.2 below indicates that when the programme’s net cost to the public sector is considered, it is estimated that SDSP will deliver £6.13 of net additional GVA for every £1.00 invested by Invest NI.

6.16 This average figure hides variations between the programme’s strands. Once the (net additional) lifetime benefits of the programme are considered, beneficiaries accessing energy efficiency loans are expected to generate RoI in the region of £17.61 GVA for every £1.00 invested by Invest NI, compared to £19.21 for the TC&S strand, £2.77 for the RECG strand, and £1.52 for the ISS strand. The variation in RoI estimates based on the net cost to the public sector reflects the analysis presented in para. 6.10 above which identifies EELF and TC&S as the programme’s key drivers of GVA impacts.

6.17 When the economic cost of the public sector’s support (ie. the full cost of the loan fund, excluding loan repayments) is considered, the overall RoI of the programme falls to £3.58 of net additional GVA for every £1.00 invested. Please note that this change is a result of the decrease in RoI for the EELF strand (to £2.19 for every £1.00); however, RoI estimates for the RECG, ISS and TC&S strands remain unchanged.

Table 6.3 SDSP Return on investment of based on lifetime impacts (per £1 cost)

	Net cost to the public sector	Full economic cost of public sector’s support	Full economic cost incl. co-investment
Carbon Trust Energy Efficiency Loan	£17.61	£2.19	£1.42
Resource Efficiency Capital Grants	£2.77	£2.77	£0.83
Industrial Symbiosis Advice and Support	£1.52	£1.52	£1.52

Technical Consultancy and Support (including bio-energy scheme)	£19.21	£19.21	£1.50
Programme total (incl. INI salaries)	£6.13	£3.58	£1.16

Source: Calculations by Regeneris Consulting

- 6.18 An analysis of VfM based on the programme’s full economic cost of the public sectors support, indicates that SDSP is expected to generate £3.58 of net additional GVA for every £1.00 invested. The only difference in this costs measure is that it takes account of the reuse of monies recycled from the EELF. Consequently, the RoI for the EELF under this measure falls from £17.61 to £2.19.
- 6.19 The final analysis of VfM is based on the programme’s full economic cost to society (ie. considering total costs to the public sector plus the private sector match funding). This indicates that overall SDSP is expected to generate £1.16 of net additional GVA for every £1.00 invested. VfM across the programme’s strands is expected to be in the region of £1.50 of net additional GVA per £1.00 invested for the EELF, ISS and TC&S strands, whilst VfM for the RECG strand is estimated to be around £0.83 for every £1.00 invested. The RoI for TCS falls from £19.21 to £1.50 per £1 cost due to the inclusion of the businesses’ costs of interventions in addition to the consultancy and administrative costs borne by Invest NI.

## 7. Conclusions and Recommendations

### Review of the Programme Rationale and Theory of Change

- 7.1 The evaluation supports the view that the programme rationale (as described in the Theory of Change) remains valid. That is, there is scope to improve the productivity, competitiveness and sustainability of businesses in Northern Ireland, but there are significant market failures and therefore interventions (tailored to meet identified need) are required to ensure benefits are secured.
- 7.2 The assumptions described in the Theory of Change (ToC) were, in general, found to be 'proven'. Those assumptions that were found to be largely or wholly unproven are identified below:
- Whilst the SDSP is clearly securing major changes in resource efficiency through new investments and changes in practice and process, the evaluation found little clear evidence that participation in the SDSP generates an underlying change in business attitude in relation to resource efficiency. There is some evidence to suggest that at least some scheme participants actively seek other project opportunities (as a result of participation in the SDSP), but this is driven by business objectives and not associated with resource management per se.
  - The qualitative research (consultations and in-depth interviews with scheme applicants) revealed that recruiting new applicants to the scheme was challenging and in the case of the EELF this has led to a suspension of the scheme.
  - The qualitative research indicates that there is a widespread view that the current approach to the marketing of the SDSP does not reach all eligible bodies. A number of consultees reported that there is significant latent demand in Northern Ireland, but noted that awareness of the programme is low and that Invest NI should consider reviewing their approach to the targeting of the scheme (in marketing terms).
  - A number of consultees reported that they felt that the cross referral system was too ad-hoc and that the programme would benefit from the development of a more systematic approach, particularly by Invest NI staff.

- In general there were few concerns about the scheme design, but applicant interviews provided some examples of dissatisfaction with the TCS strand of the programme (see section 2) .
- The impact assessment, as indicated below, suggests that the additional economic benefits of some types of SDSP activity are significant and offer value for money to the public sector. However, the benefits for other aspects of the support may be limited (see Section 6).

7.3 These issues are explored in greater detail in the following sections.

## Delivery Performance

- 7.4 The design of the SDSP and its performance framework benefited from the experience of multiple predecessor schemes (most recently the SPS), comprehensive evaluations of the SDSP and a number of its strands, plus a detailed economic appraisal of the proposed programme. In the view of the evaluators it combines an appropriate mix of indicators and targets set at an appropriate level given the delivery model.
- 7.5 The outcome targets are judged to be appropriate and realistically set, there is one particular aspect of uncertainty. . The programme only includes carbon savings from the EELF funded measures, although interventions through the other strands may also contribute to carbon savings. However, this is a fairly pragmatic approach given that the estimation of carbon savings is less straight forward for other areas of the programme compared to the EELF.
- 7.6 Good progress has been made during the first two years of operation, reflecting the strength and experience of the delivery teams and strong leadership from Invest NI. Although the delivery teams report more challenging market conditions more recently, most support strands have been able to meet their operational activity targets over the first two year period. The monitoring data indicates that the delivery teams, with the exception of the RECG, have had to engage with more businesses in order to secure their take-up targets.
- 7.7 There was an underspend of £1m in delivery costs at September 2017 on an overall budget of £5.17m. This was primarily due to lower take-up the energy efficiency loans (-£895k). Whilst spend was also lower than expected (-£135k) for the capital grants this was just a timing issue over the call for applications, with the grants proving very popular with Invest NI clients (and hence the calls being oversubscribed).

- 7.8 The lower demand for the energy efficiency loans than expected is surprising given the popularity of the interest free loans in the past (although the target number of loans has been increased compared to the predecessor SPP). There are a range of possible explanations for this including: the economic uncertainty linked to BREXIT dampening business appetite for new capital investment; confusion and suspicion amongst businesses of government interventions following the suspension of the NI Renewable Heat Initiative; the potential saturation of the market given the take-up of loans over the previous decade; changes in the policy environment, with less financial support for small scale renewables reducing the take-up of loans for this type of intervention; and the decarbonisation of the grid making it more difficult to meet the schemes carbon reduction criteria.. Whilst it is difficult to be precise about this, it is likely that a number of these factors have contributed to this drop off in demand.
- 7.9 The SDSP is also making reasonable progress against its carbon saving, financial cost savings, turnover and innovation targets (allowing for the slower progress against the EELF activity target). However, it will be challenging to achieve the carbon saving target as a consequence of this drop off in the uptake of loans.
- 7.10 The latest monitoring information from Invest NI indicates that the targets for ISS and TCS consultancy projects are broadly on track to achieve their 3 year targets. However, the EELF was suspended in June 2018, four months short of the end of the current three operational period for the SDSP. At this point the loan fund was suspended it had made 428 loans worth £9.63 million compared to the 3 year target of 555 and loans worth £12.49 million.

## Delivery Processes

- 7.11 The design of the SDSP has clearly been informed by and benefited from the programme and strand evaluations (in particular the EELF) and a thorough economic appraisal. As such, it has been able to draw on a number of important delivery lessons in terms of: a stronger one stop shop model; better alignment of services; and an enhanced coordinated branding and marketing of the services.
- 7.12 The organisation of the delivery of services, combining the mix of internal teams and external delivery providers, has ensured a good mix of skills, experience, track record and credibility in the market place. The fact that the two EDOs, the Carbon Trust and International Synergies NI Ltd, previously delivered EELF and ISS as part of the predecessor SPP has enabled good continuity of service.



- 7.13 One of the more significant changes in the delivery of the SDSP has been the adoption of a more coordinated approach to branding and marketing of the service, led by Invest NI marketing team working closely with the Energy and Resource Efficiency Team. Consultations with the delivery team and stakeholders have indicated that whilst this has been helpful it has associated weaknesses related to the profile of SDSP services on the Invest NI website, the limited use of case studies and limited use of social media.
- 7.14 The extent to which the intention of adopting a stronger one stop shop model has been achieved is mixed. In many regards the programme does provide businesses with a good mix of support for businesses to achieve a wide range of resource efficiency goals, combining different delivery methods and offers (advice, consultancy, grant and loan). However, unlike many one stop shop models the SDSP provides businesses with multiple entry points, does not include an initial diagnostic and advisory service, and provides limited proactive client management (with the exception of Invest NI client companies).
- 7.15 The monitoring data highlights the extent to which businesses accessible multiple services through SDSP, however the qualitative research highlighted that many business beneficiaries are unaware of or have limited awareness of other SDSP support services which are available (i.e. other than the support they accessed). The question which arises is whether businesses could have benefited more if there were more proactive management of the client journey. Whilst an active overarching client management approach would be bureaucratic and inefficient given the combination of internal and external providers, the successor to the SDSP would benefit from improved coordination between providers (including systems for cross referral) and after care support (providing opportunities to identify additional support needs).
- 7.16 The consultations also highlighted the limited knowledge of the SDSP and its services amongst the population of Invest NI Client Executives. This is an important consideration due to the role they play in advising Invest NI's priority business clients, accounting for around 1,200 businesses large businesses. Although efforts have been made to raise awareness of the support available amongst the client executives, the potential offered by this route to major businesses with scope for significant resource efficiency and hence productivity improvements have still not be been optimised.
- 7.17 Whilst the SDSP does provide businesses with access to a broad range of resource efficiency support, changes in policy have reduced the attractiveness of pursuing some measures through the programme, whilst other resource efficiency projects in Northern Ireland have closed reducing the range of support available to businesses. The appraisal for the successor programme to SDSP should review in detail whether the scope of support should

be extended to cover any additional unmet business support needs around energy / resource efficiency that this may have created.

- 7.18 The SDSP has an experienced management team with appropriate and effective management systems and procedures in place. Areas for improvement include: having periodic meetings of the four delivery teams to share experiences, issues and cross-referral; the introduction of an integrated management information system to enable the efficient and effective recording, analysis and reporting of financial and output information.
- 7.19 A related point is that it would be helpful for Invest NI to also monitor the routes by which businesses enter the SDSP, including being able to distinguish between the helpline, referrals from Client Executives or the multiple routes possible for each support strand.

## Business Experience

- 7.20 The quantitative survey asked the sample of beneficiary businesses about the range and scale of benefits they had secured to date as a consequence of the support, as well as the potential benefits they might realise in the coming years. Whilst the messages were generally positive, there was a marked difference across the types of support:
- The businesses which had received loans were more likely to point to tangible financial benefits in the form of financial savings (RECG recipients also pointed to these benefits but the sample size was very small)
  - Whilst businesses in receipt of the TCS consultancy support could also point to financial benefits through costs savings or additional turnover from pursuing new opportunities related to resource efficiency, the majority of the total benefits were heavily skewed to relatively few businesses
  - The ISS recipients were much less likely to point to financial savings either now or in the future (and it is to be expected that they may find it harder to quantify these benefits given the nature of the support).
- 7.21 The businesses also could point to current or potential future benefits related to softer outcomes such as a better understanding of resource efficiency, better knowledge of resource efficiency amongst management teams and developing new relationships with suppliers or customers on the back of resource efficiency related activity. Fewer businesses could point to significant change in the commitment in senior management to resource efficiency and environmental management, or an improved corporate reputation on the back of the measures introduced.

- 7.22 The levels of satisfaction with the support provided through the SDSP were very high across all types of support. Of note is the particularly high levels of satisfaction with the professional and helpfulness of support provided by the advisors across the different strands of activity. The main weaknesses which the businesses pointed to were related to the provision of follow-on support and sign-posting to further assistance (although only a small minority were dissatisfied in this regards).
- 7.23 A good litmus test of the satisfaction of the businesses with the support they received is whether they would recommend it to other businesses in their networks. The vast majority stated that they would recommend it (93%), with only seven businesses stating that they would not.
- 7.24 The aspects of the service where a significant minority of business did anticipate some scope for improvements were:
- Marketing – the small number of qualitative responses provided mentioned improved branding, more awareness raising and a wider range of information about the services available.
  - Linkages to other forms of Invest NI support – a small number of businesses noted their limited awareness of, and lack of information provision about, other services which Invest NI provided to businesses.
  - Nature of support – a small number of respondents noted the need better follow-up procedures with advisors following the delivery of finance, advisory support and related consultancy services.
- 7.25 The quantitative survey explored the willingness to pay for the finance or support they receive, although there is the need to exercise caution here as the information was only gathered through the survey (and the limited samples sizes in some instances) rather than other forms of more in-depth research. Whilst a quarter of the respondents who received loans weren't sure if they were willing to pay interest on their loans or were unwilling, half (50%) were willing to pay an interest rate between 2% and 4%, which is well below the market rate for these types of loans to small businesses. Only two out of five business (41%) that had received support through the ISS or TCS were willing to make a financial contribute for the services. The average amount was £6,500, although if the three businesses willing to pay in excess of £10,000 are excluded the average is £3,900.

## Economic Impact and Value for Money

- 7.26 The evidence gathered from the survey also shows that by the end of September 2017, the programme has generated around £19.91 million of gross GVA. Once the overall lifetime benefits are assessed over the three years of activity, the gross GVA is estimated to be £175.53 million.
- 7.27 Allowing for additionality of the interventions and an additional allowance for optimism bias (25% where applicable – see para 6.3), the net additional GVA attributable to the first two years of activity is estimated to be £6.78 million. The lifetime net additional GVA is estimated to be £56.29 million.
- 7.28 It is worth noting that evidence presented above identifies the EELF and TC&S strands as the main sources driving the estimated GVA benefit of the programme. Whilst the RECG and ISS strands both generate some GVA benefit, it is estimated that their contributions to the programme's overall total impact are more modest.
- 7.29 The analysis indicates that SDSP will deliver £6.13 of net additional GVA for every £1.00 invested by Invest NI. This figure hides variations between the programme's strands. Beneficiaries accessing energy efficiency loans are expected to generate RoI in the region of £17.61 GVA for every £1.00 invested by Invest NI, compared to £19.21 for the TC&S strand, £2.77 for the RECG strand, and £1.52 for the ISS strand.
- 7.30 When the economic cost of the public sector's support (ie. the full cost of the loan fund, excluding loan repayments) is considered, the overall RoI of the programme falls to £3.58 of net additional GVA for every £1.00 invested. It should be noted that this change in RoI is due solely to the EELF strand (falling to £2.19 for every £1.00), whilst RoI estimates for the RECG, ISS and TC&S strands remain unchanged.
- 7.31 An analysis of VfM based on the programme's full economic cost to society (ie. considering total costs to the public sector in addition to private sector match funding), indicates that SDSP is expected to generate £1.16 of net additional GVA for every £1.00 invested. VfM across the programme's strands is expected to be in the region of £1.50 of net additional GVA per £1.00 invested for the EELF, ISS and TC&S strands, whilst VfM for the RECG strand is estimated to be around £0.83 for every £1.00 invested.

## Recommendations

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### Consider Establishing Business Networks

- 7.32 Invest NI may want to consider establishing business networks, for example Energy Efficiency Networks (EENs), as a means of disseminating information and advice to businesses and encouraging self-help. There is evidence to suggest that EENs have been effective in other EU countries although evidence from Germany suggests that recruitment can be challenging and that they are more likely to appeal to organisations involved in manufacturing. The existence of SEAI's Large Industry Energy Network (an EEN) provides a geographically convenient example that INI may wish to investigate in more detail.
- 7.33 Business in the Community has established business networks focused on the circular economy, involving 100+ businesses. These may also provide a useful local example and may be something that Invest NI wishes to engage with and build upon. There are clear links with the IS work and some of the resource efficiency support could also link to it – it may even be appropriate to engage with these networks to determine if existing SDSP support might be adjusted to better meet their needs. If nothing else members of the CE networks should be aware of the support available through SDSP.
- 7.34 The circular economy had been identified as a potential important theme for the SDSP to focus upon in the future. Whilst there are concerns in some quarters that the circular economy concept is akin to the *'emperors new clothes'*, we believe there is much more to it than this and Invest NI should look closely at what opportunities there may be for them to support development in this area and to retain greater economy benefit locally. Research by BITC indicates that the potential gains to Northern Ireland could be around £474m<sup>19</sup>. There is the opportunity to build on the current SDSP provision, together with the strength of particular sectors such as manufacturing and construction in Northern Ireland.
- 7.35 Given the reported strength of the engineering sector one circular economy issue considered worth examining is that of 'remanufacturing'. This entails the refurbishment of used equipment (e.g. vehicle components) to produce products equal in performance to a new product. Remanufacturing is seen as offering the opportunity to create new businesses and to reduce the UKs reliance on imported raw materials.

<sup>19</sup> <https://www.bitcni.org.uk/programmes/circular-economy-networks/>

### What is Remanufacturing?

To return a used product to at least its original performance with a warranty that is equivalent to or better than that of the newly manufactured product. This involves dismantling the product, restoring and replacing components and testing the individual parts and whole product to ensure that it is within its origin design specifications.

From a customer viewpoint, the remanufactured product can be considered the same as a new product. Performance after remanufacture is expected to be at least to the original performance specifications. The warranty is generally at least equal to the new product equivalent.

Source: European Manufacturing Website <http://www.remanufacturing.eu/about-remanufacturing.php>

### Improve Coordination of Marketing and the Adoption of More Innovative Methods

7.36 There is a general need to improve marketing of the SDSP. Awareness of the SDSP was reportedly low and Invest NI marketing was reported by a number of consultees and applicants as being ineffective – particularly in terms of engaging with non-Invest NI clients. Evidence of the need for a review of the current approach to marketing is reinforced by the challenges the EELF and to a lesser extent the other support strands face in generating sufficient take-up of the support. The literature review identified some key principles and messages of value to any renewed approach to marketing. The following steps to reach existing Invest NI client companies and a wider audience of companies:

- The marketing should be accessible, sector specific and highlight issues salient to the core concerns of the target business, i.e. not just focus on cost savings and resource efficiency but highlight any other significant benefits achieved by the business (for example, improved lighting might benefit many forms of business environment).
- There was a regular call from consultees for case studies from qualitative research.
- There is merit in a more focused and coordinated effort to establish better links with trade bodies, and probably in particular those in the manufacturing sector, in order to extend their reach. Such bodies should also be more closely involved in discussions regarding potential amendments to the SDSP (see following section).

- A number of the consultees involved in delivery of support thought there was value in a more concerted and sustained effort to market the SDSP through social media channels.

7.37 Invest NI should ensure that Client Executives are aware of the range of support offered via the SDSP and play a more active role in the promotion of the scheme.

### **Adjustments to Support**

7.38 The RECG grants are clearly proving very popular with clients although the available funding has been limited to £40,000 and a maximum of 40% of total investment cost. Discussions with consultees and scheme applicants suggest that this could be reduced, perhaps from 40 to 20-25% without deterring full uptake (of the available funding). The Carbon Trust's Green Business grant (an existing SME energy efficiency grant scheme) initially offered a 40% grant, but owing to high levels of demand this was subsequently reduced to 20%. According to the Carbon Trust the scheme remains popular, but by reducing the value of the grant the Trust has been able to improve its overall impact. Any deterrent impact associated with a reduction in the grant might be offset by offering (an optional) soft loan i.e. a grant / loan combination.

7.39 Given the difficulties in investing all available funding for the EELF one option would be to redirect some, or all, of the loan funding from the EELF into a broader resource efficiency loan scheme. This approach is consistent with that adopted by ZWS (ZWS operate a single loan scheme which provides support for water efficiency and waste reduction projects, as well as energy efficiency), although as noted elsewhere in this report there is not publicly available evidence to attest to the effectiveness, or otherwise, of this approach.

7.40 There is merit in considering other changes to the EELF to enhance take-up. In the face of uncertainty about the demand side reasons for this drop-off in take-up, the scope of this demand could be broadened by adjusting the eligibility criteria. The Carbon Trust has already presented various ways in which this could be achieved such as extending eligibility to new build properties (i.e. allowing for the introduction of a higher standard of energy efficiency).

7.41 Feedback from both scheme participants and some stakeholders suggests that the provision of TCS support should be reviewed. In particular the value of more general forms of support was questioned. It is unclear whether this reflects a criticism of the providers and or simply the low value placed in non-specific forms of advice. It may be worth considering whether a move to the provision of 'lean and green' support (as used by Enterprise Ireland)

might generate more value than general environmental reviews and it may be worth trialling this approach. Alternatively, Invest NI should consider discontinuing any provision of general support in favour of bespoke advice and support.

### **Charging for Services**

- 7.42 The quantitative survey in particular explored the issue of the willingness of beneficiary businesses to pay for the financial, advisory or consultancy support they receive. Whilst the results are fairly positive in terms of this willingness, this does not in its own right provide a strong case for removing the current free support that the businesses receive.
- 7.43 In the case of the EELF, a majority were willing to pay a rate of interest of between 2-4% which is well below the market rate. The key consideration is that in light of the fall-off in take-up and the uncertainty around the reasons for this, now is not the time to introduce an interest charge. Whilst an interest charge would provide additional revenue to help support delivery costs, this could be undermined by not operating at a sufficient scale to make the loan fund economic to continue operating. Needless to say this would require further modelling.
- 7.44 There was greater unwillingness to pay for the other services (although the small number of RECG recipients in the survey makes it difficult to judge for that type of assistance). Whilst the potential to charge for TCS consultancy support is greater than ISS, the introduction of a charge would potentially have a marked negative impact on take-up. Our understanding is that a number of UK environmental support programmes have considered or attempted to introduce charging, usually following the withdrawal of Government support, but we are not aware of any successful examples

### **Linkages Between the Strands of the Programme**

- 7.45 From a delivery perspective, the linkages between different elements of the SDSP appear to be quite weak. There is scope for the Energy and Resource Efficiency team to develop closer joint working relationships with their internal and external delivery teams. Whilst personal contacts and communication with the Energy and Resource Efficiency Team appear to be good, there do not appear to be strong procedural links which facilitate joint working. This includes cross referral of businesses between different strands of support to ensure the most suitable assistance is accessed or to enable a business to progress on to other forms of support. Whilst this cross referral does happen on occasion, it appears to be ad-hoc rather than systematised (and may reflect the distinction between internal and



external providers), a more partnership based approach, focused on issues of common interest, would seem useful.

- 7.46 The Bio-energy programme stands out as something of an anomaly in the SDSP as its focus (as we understand it) is on new business / market development and innovation rather than resource efficiency. It is suggested that consideration be given to housing this element of the SDSP within another programme where there might be a more natural fit.

### **Client Management**

- 7.47 It is clear that awareness of the SDSP is highly variable and that scheme participants often do not appreciate the range of other forms of support available to them. In addition to improved signposting (by Invest NI staff, including Client Executives) and referrals it may be useful to provide an on-line signposting service. This could be based on a simple question and answer system with the aim being to ensure that potential applicants are made aware of all the potentially relevant forms of support that are available to them. If felt necessary this could be a voluntary system to enable organisations who are already aware of the SDSP, or who simply wish to focus in on one particular source of support, to secure immediate access to a specific strand of support from within the programme.
- 7.48 In the case of TCS, following the delivery of a consultancy report to a business this should always be followed up 3-6 months later by a call from Invest NI to discuss how best to progress next steps, including opportunities to access other forms of SDSP support. This exercise could also be used to monitor business views on the value of the support they received, their views on the suitability of other existing forms of SDSP support and potentially to canvass for views on future forms of support need. Some of this is picked up to some extent by the NISRA survey, but this is an administrative exercise where as there is a need for a client relationship management approach.

### **Programme Monitoring**

- 7.49 As noted in section 2 other similar support programmes, e.g Zero Waste Scotland, measure performance using both financial and non-financial metrics (in addition to savings achieved etc). It is suggested that Invest NI consider a similar approach on the basis that reducing energy demand and raw material requirements generates wider economic benefits in the form of improved energy and material resource security, and reduced need for landfill (although we acknowledge this is picked up to some extent by ISS) or other forms of waste management infrastructure. Being able to demonstrate a commitment to a clean and green economy may also be useful in helping to attract inward investments from multi-nationals,

many of whom regard these issues as being important both strategically and from a CSR perspective.

- 7.50 There is a need to implement a more integrated approach to monitoring of spend, activities and outputs, plus the recording of beneficiary details. The Energy and Resource Efficiency Team have clearly put a lot of effort into designing and maintaining the multiple spreadsheets which are used to monitor and report financial, activity and output progress against targets. However, there are a range of programme management packages available which are designed for these types of programmes and which help to ensure quality assure of the data. However, there is a need to balance the usefulness of generic or bespoke software packages against their respective costs. Needless to say, any new investment in software and systems needs to be commensurate with the size of the programme.





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