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The Bioeconomy Consultants



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Executive Summary

Delivering Energy Efficient and Low Carbon Solutions for Industry (DEELOCSI) was a regional development programme undertaken by the North East Process Industry Cluster to support SMEs in the North East of England in reducing their environmental impact and improving energy efficiency as a means to improve future competitiveness.

The programme proved very successful, achieving all of its aims, objectives, deliverables and overall targets (Figure i), making a significant contribution to both jobs and GVA in the region while remaining within budget. Only two sub-targets were not achieved: the number of female jobs created and number of female jobs safeguarded. This probably resulted from an existing gender bias in the process industry rather than as a consequence of the project; it is suggested that the existing gender bias in the process industry should be better accounted for in determining gender-specific targets in future projects. The female job deficit was more than compensated for in the male employment results such that the overall job targets were achieved.

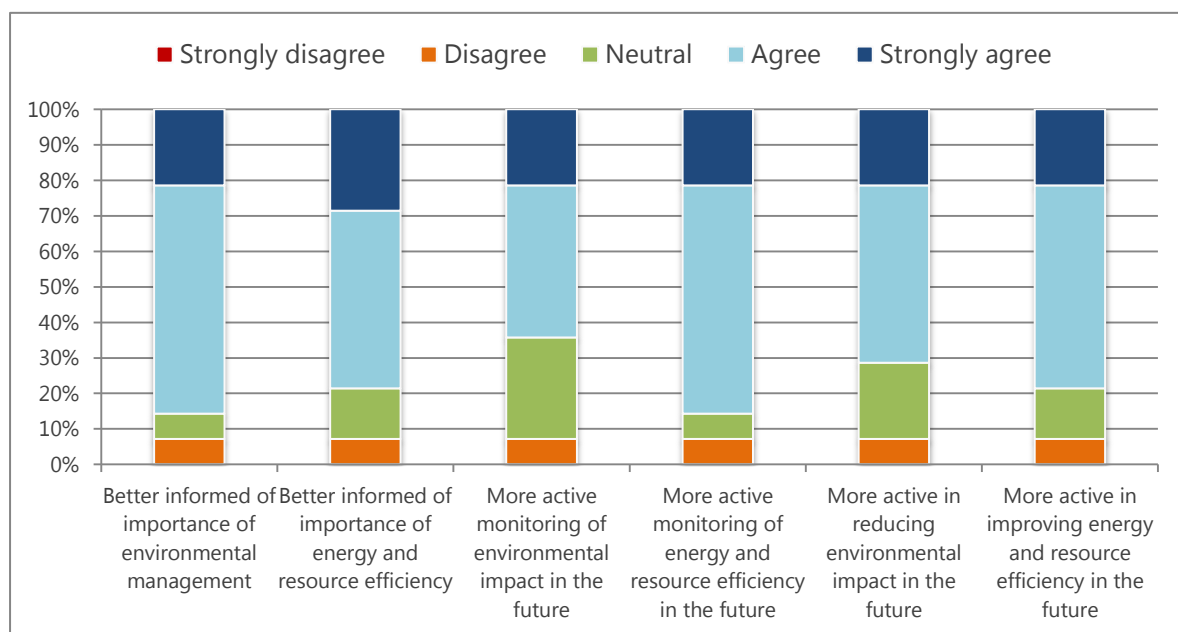
Figure i. Performance of DEELOCSI against targets

Code	Metric	Target	Achieved
040/P2/O09	Number of SMEs assisted, including integrated development of workforce skills where appropriate, with additional actions	120	120
040/P2/R22	Number of businesses assisted with improved performance, of which at least 10% to implement advanced ICT applications	108	109
040/P2/R10	Number of businesses assisted with improved environmental performance	82	83
040/P2/R11	Number of businesses assisted with improved environmental management, of which related to energy efficiency, micro renewables and other management of carbon footprint	30	30
040/P2/R14	Number of gross jobs created (total)	20	20
040/P2/R15	Number of gross jobs created (men)	11	18
040/P2/R16	Number of gross jobs created (women)	9	2
040/P2/R18	Number of gross jobs safeguarded (total)	110	112
040/P2/R19	Number of gross jobs safeguarded (men)	60	102
040/P2/R20	Number of gross jobs safeguarded (women)	50	10
040/P2/I01	Net increase in GVA as a result of the Programme	5.8	7.0
040/P2/I02	Net increase in employment	72	84

The accreditation scheme developed by the programme and delivered by JRP Solutions proved to be very successful, generating a high level of interest from participating SMEs and receiving excellent feedback from all stakeholders. Additionally, the up-skilling programme developed to assist beneficiaries in training their workforce has been very well received.

Consultation with beneficiaries indicates that DEELOCSI has had a very positive impact on the North East process industry, with almost all of those consulted stating that they feel better informed of the importance of environmental management and resource efficiency and the majority indicating that they will do more to improve performance in the future on account of the support received through the programme (Figure ii). Beneficiaries further acknowledged that the facilitation of business partnerships and the raising of awareness were the most valuable aspects of the programme, while many assisted SMEs also recognised that the support has won them new work and has provided them with a strategic advantage for future business development.

Figure ii. Impacts of DEELOCSI on beneficiary awareness and practices



Despite its successes, there remains a clear need for SMEs to receive further support in reducing their environmental impact. While DEELOCSI functioned effectively as a strategic positioning and awareness programme, the programme has not as yet resulted in significant inward investment by many of the SMEs supported. Equally, just below 70% of beneficiaries consulted would be unwilling to pay for the support offered by DEELOCSI, despite finding the support of value. Future projects should therefore seek to encourage greater investment by providing more detailed assessment of the potential financial savings that could be achieved by adopting measures to improve energy efficiency, ensuring that this information is understood at management level.

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1 Introduction

1.1 Background

The Delivering Energy Efficient Low Carbon Sustainable Industry (DEELOCSI) programme was an ERDF-funded project delivered by the North East Process Industry Cluster (NEPIC) between April 2012 and September 2015. The programme was designed to improve the regional competitiveness of small and medium-sized enterprises (SMEs) across the North East of England through the promotion and facilitation of more sustainable working practices. The NNFCC were commissioned by NEPIC to undertake a final project evaluation to determine the overall impact and success of the DEELOCSI programme (DEELOCSI).

1.2 Purpose

The aim of this evaluation is to analyse the performance of DEELOCSI, evaluating how well it has performed against its targets and assessing the wider impacts of the programme on its intended beneficiaries and the wider process industry in the North East of England.

More specifically, this report aims to address the following questions:

- Have the objectives of DEELOCSI been met and were the metrics used to determine success appropriate?
- How efficiently and effectively have the outputs of the programme been achieved?
- What has been the impact of DEELOCSI on SMEs in the North East of England and the wider process industry in the region?
- How satisfactory was the quality of support provided by DEELOCSI?
- What would have happened without the intervention of DEELOCSI?
- What is DEELOCSI's progress towards an exit strategy?
- Is there still a market need for the programme?

1.3 Approach

The approach follows HM Treasury's Green Book and BIS' guidance on evaluations for ERDF-funded projects. In order to address the research objectives NNFCC undertook the following tasks:

- Review of background documents
- Assessment of project performance and delivery
- Detailed consultation with DEELOCSI staff & stakeholders
- Detailed consultation with project beneficiaries¹
- Assessment of additionality provided by DEELOCSI
- Assessment of value for money provided by DEELOCSI

¹ An online survey and telephone consultations were used in the gathering of feedback from 18% of SMEs assisted by the programme

- An assessment of the long term and legacy impacts of DEELOCSI and need for a follow-on project

2 DEELOCSI Programme Design

2.1 Rationale

There is a growing requirement from consumers for suppliers to demonstrate increasing societal and environmental 'green' credentials. This can be met through decreasing energy use or sourcing materials with lower environmental burdens. Many studies have shown that a significant contribution to improving the sustainability of consumer products will come from direct manufacturing impacts both at the company level and its supply chain. Due to this consumer pull, an increasing number of companies involved in the process industry are being asked to assess and submit their energy use, resource efficiency and carbon footprints to demonstrate environmental compliance to the Tier 1 companies and OEM's in the supply chain that ultimately face the consumer. In order for SMEs to maintain and grow their businesses in the future, manufacturing supply chains must be able to demonstrate and report a credible assessment of their contribution towards these green credentials.

However, many SMEs involved in the process industry are yet to be directly exposed to these external drivers of delivering sustainable practices. Meanwhile, internal drivers, such as potential for reduced energy overheads, are often not viewed as important or are largely ignored at the management level due to the time and resources required to address such matters. Consequently, there is currently little impetus for SMEs to improve their resource efficiency and reduce their environmental impact with the concern that North East businesses could lose out in the future to other UK and European suppliers that are already well advanced in supply chain compliance.

The DEELOCSI project was therefore initiated by NEPIC to work with SMEs in the North East region of England to increase awareness of the importance of sustainable business development and to give these companies the appropriate tools for monitoring and improving efficiency. Ultimately, this should provide the companies assisted with a strategic advantage moving forward and enable them to retain existing and gain new business.

2.2 Aims & Objectives

The primary aim of DEELOCSI was to improve competitiveness of SMEs across the North East of England through the promotion and facilitation of more sustainable practices. More specifically, the project aimed to ensure SMEs understand the important UK and EU policy drivers, the potential for using renewable feedstocks, the need for reducing waste and the future requirement placed on them to be able to calculate and demonstrate that they are increasingly resource efficient.

To achieve these aims, the following objectives were established:

- To engage with 120 SMEs within 18 months providing: an understanding of policy drivers an understanding and/or improved understanding of, and potential use of, and access to renewable feedstocks
- To provide SMEs with an ability to demonstrate resource and energy efficiency including carbon footprint and greener credentials. This activity is ongoing throughout the programme
- To certify the carbon footprint of 30 SMEs to an industry standard by the end of the programme

2.3 Deliverables

The DEELOCSI Programme intended to meet its aims and objectives through the delivery of seven separate activities. These were:

1. Commission a Steering Board to oversee the project

- 1.1. *Steering Board will meet on a quarterly basis (12 meetings - 12 senior industrialists).*
- 1.2. *Steering Board to report to NEPIC Leadership Team (12 meetings - 20 senior industrialists).*

2. Deliver a series of programme workshops

- 2.1. *Launch workshop to introduce programme to SMEs and identify potential delivery partners (40 SMEs); delivered by Core Team.*
- 2.2. *Workshop for SMEs to introduce policy drivers; delivered by procured consultants (40 SMEs).*
- 2.3. *Workshop for SMEs to provide a broad and improved understanding/use of/access to novel and renewable feedstocks; delivered by procured consultants (40 SMEs).*
- 2.4. *Mid programme re-launch workshop to disseminate findings and outputs from previous workshops (40 SMEs); delivered by Core Team.*
- 2.5. *Workshop to demonstrate resource and energy efficiency including carbon footprint and greener credentials (50 SMEs); delivered by procured consultants.*
- 2.6. *End of programme dissemination workshop (50 SMEs and partner organisations); delivered by Core Team.*

3. Assisting SMEs to identify efficiency and low carbon improvements

- 3.1. *Engage SMEs into the programme ensuring eligibility for ERDF support and de minimus status utilising existing compliant documentation; delivered by NEPIC Core Team.*
- 3.2. *Carry out a diagnostic to identify resource efficiency and low carbon opportunities; delivered by NEPIC Core Team.*
- 3.3. *Agree improvement work. SMEs resources to carry out the work will be supported either by NEPIC Core Team or where necessary, via procured consultants.*
- 3.4. *Recording mechanism and sign off of results; delivered by SMEs and NEPIC Core Team.*

4. Identify expert delivery agents for detailed efficiency and carbon footprint analysis

4.1. Utilise partnership and industry network to identify proven expertise. Steering Board to receive and approve suppliers.

5. Devise and deliver programme to enable SME up-skilling

5.1. Work alongside NSAPI or equivalent to devise a gold standard management/supervisory training programme.

6. Deliver a mechanism that allows SMEs to demonstrate lower carbon usage in their operations

6.1. Identify/develop an industry standard proforma for SMEs to demonstrate their carbon footprint.

7. Submission of reports in compliance with ERDF requirements including progress against deliverables and milestones

A set of measurable targets was developed to evaluate the progress and quantify the success of these activities. Those given in the initial proposal were later updated via a change request submitted to ERDF on the 22nd November 2013. The final targets for the DEELOCSI Programme are outlined in Table 1.

Table 1. Target outputs of the DEELOCSI Programme

Code	Metric	2012	2013	2014	2015	Total
040/P2/O09	Number of SMEs assisted, including integrated development of workforce skills where appropriate, with additional actions	24	45	45	6	120
040/P2/R22	Number of businesses assisted with improved performance, of which at least 10%to implement advanced ICT applications	18	45	35	10	108
040/P2/R10	Number of businesses assisted with improved environmental performance	13	25	35	9	82
040/P2/R11	Number of businesses assisted with improved environmental management, of which related to energy efficiency, micro renewables and other management of carbon footprint	0	0	15	15	30
040/P2/R14	Number of gross jobs created (total)	0	5	10	5	20
040/P2/R15	Number of gross jobs created (men)	0	3	5	3	11
040/P2/R16	Number of gross jobs created (women)	0	2	5	2	9
040/P2/R18	Number of gross jobs safeguarded (total)		25	60	25	110
040/P2/R19	Number of gross jobs safeguarded (men)		20	30	10	60

Code	Metric	2012	2013	2014	2015	Total
040/P2/R20	Number of gross jobs safeguarded (women)		5	30	15	50
040/P2/I01	Net increase in GVA as a result of the Programme				5.8	5.8
040/P2/I02	Net increase in employment				72	72²

In order for businesses to be assisted with improved performance it needed to be demonstrated that DEELOCSI provided guidance on one or more of the following:

- Staff training
- IT systems e.g. computers, photo copiers, etc.
- Purchasing e.g. commercial utility rates
- Networking/co-working

In order for businesses to be assisted with improved environmental performance it needed to be demonstrated that DEELOCSI provided guidance on one or more of the following:

- Internal company energy policy
- Monitoring and targeting
- Lighting
- Heat – usage and options
- Equipment controls
- Insulation
- Renewable energy
- Novel feedstocks

This typically involved a site evaluation of the SME by the DEELOCSI project manager who produced an initial diagnostics report (IDR), identifying where energy and carbon saving measures could be made, how adoption of these measures would impact the company's energy bills and carbon footprint and how much any equipment would cost (with indication of payback period). Based on this advice, SMEs were required to adopt at least some of the measures advised upon by DEELOCSI.

In order for business to be assisted with improved environmental performance, regarding energy efficiency, micro renewables and other management of carbon footprint, SMEs were required to be taken through the accreditation scheme (Deliverable 6).

² In the original programme application the net increase in employment target was calculated at 97, based on a gross jobs safeguarded and created target of 175 and assuming 55% of gross impacts were additional. When the gross targets were revised downwards with DCLG, the net employment target was not revised accordingly and remained at 97. The NNFCC has therefore revised this target to 72 for the purpose of this report in keeping with the DCLG methodology used for determining net employment impacts from gross jobs created and safeguarded.

2.4 Programme Boundaries

The programme boundaries covered business-specific, regional and temporal restrictions:

- Only SMEs, as defined by the European commission as companies with less than 250 employees and a turnover of less than €50 million³, were eligible to receive assistance. The predominant focus of support was to SMEs in the process industry, although the scope of the programme was extended to all other types of SMEs in the region.
- Only businesses that were situated in the NUTS1 North East region of England were eligible for support.
- The length of the project was 3 years, starting on the 1st April 2012, with a financial completion date of 31st May 2015 and practical completion date of 30th September 2015.

2.5 Management & Governance

The programme was managed and delivered by a core team employed by NEPIC consisting of:

- Chief Executive Officer
- Senior Project Manager
- DEELOCSI Project Manager
- Marketing Manager
- Cluster Administrator
- ERDF Compliance Administrator

NEPIC's financial management is outsourced to RTC North Limited. As such, RTC North Limited was responsible for financial management of the DEELOCSI programme.

Governance of the project was overseen by the NEPIC leadership team which comprises of senior industrialists and academics from several different sectors of the process industry. The steering group for the project was one of NEPIC's thrust teams, North East Bioresources & Renewables (NEBR).

2.6 Funding

Total funding of the project was initially proposed to be just below £1.5 million, with an ERDF intervention rate of 50%. The remaining funding was to be met through NEPIC membership fees (40%) and SME contributions (10%). However, a change request was submitted on the 22nd November 2013 to remove SME contribution from the funding profile, while maintaining the ERDF intervention rate at 50%. This change was later accepted by ERDF. A summary of programme funding is shown in Table 2.

³ http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm

Table 2. Original and revised funding details of DEELOCSI programme

Total Funding	Original (£)	Revised (£)
ERDF	746,025	534,701
NEPIC membership (ERDF eligible private match)	600,055	0
SME contribution (ERDF eligible private match)	150,000	534,701
Total	1,496,080	1,069,402

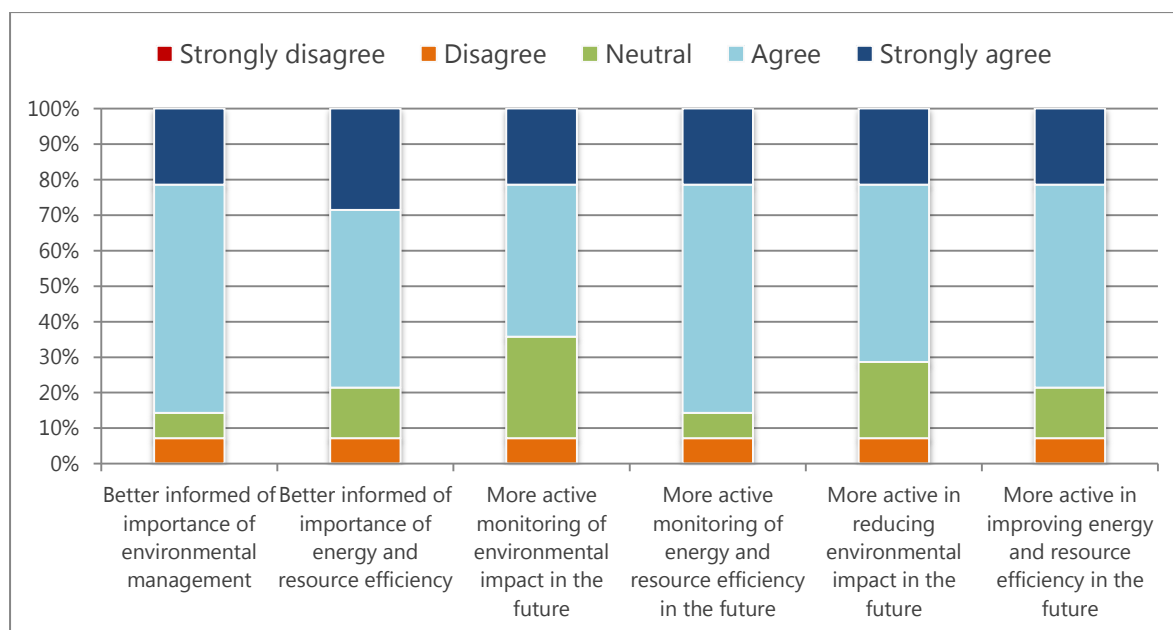
3 Programme Performance

3.1 Engagement with SMEs

SME buy-in was a critical factor for success of DEELOCSI. It was therefore imperative that the approaches used for initial engagement were appropriate for convincing SMEs that the project could add value to their business. The project team discussed and evaluated different options for engaging with SMEs and ultimately decided on a range of approaches, including networking at events, invitation to stakeholder workshops, direct contact through NEPIC membership and direct contact through cold calling. The combination of approaches used proved to be an effective and cost-efficient means for contacting businesses and resulted in the required number of enterprises engaged with to deliver against the relevant targets both within budget and time.

The support provided through engagement with SMEs also proved appropriate in delivering the programme’s intended objectives. Of the beneficiaries consulted⁴, 86% felt they were better informed of the importance and business impacts of environmental management due to the support received through DEELOCSI, while 79% of beneficiaries that provided a response felt they were better informed of the importance and business impacts of energy and resource efficiency due to the programme (Figure 1). Meanwhile, a significant majority of SMEs further claimed that the support of the DEELOCSI project will result in them more actively monitoring their energy/resource efficiency in the future and will further seek measures to reduce environmental impact and improve energy/resource efficiency in the future (Figure 1).

Figure 1. Impacts of DEELOCSI on beneficiary awareness and practices



⁴ 18% of SMEs assisted by the programme

Based on this evidence, the programme can therefore be considered largely successful in achieving Objectives 1 and 2 of the programme (outlined in Section 2.2). Further elaboration on the impacts of DEELOCSI on project beneficiaries is provided in Section 5.

3.2 Stakeholder workshops

The DEELOCSI project team initially proposed to deliver six separate workshops throughout the course of the programme. However, because of areas of overlap and commonality between the proposed workshops, the stakeholder workshops were restructured such that the “Introduction to policy drivers” and “Introduction to renewable feedstocks” workshops were condensed into a single “Grow greener” workshop, delivered in January 2013, and the “Mid-programme re-launch” and “Resource and energy efficiency” workshops were condensed into a single “Winning business with green credentials” workshop, delivered in September 2014.

Individual attendances at the stakeholder workshops were generally satisfactory. However, SME representation was lower than the target attendance for all events except the launch workshop (Figure 2). This suggests that either the targets developed for SME attendance at workshops were overly ambitious or that the marketing approaches for the workshops were not appropriate for meeting the targets. SME representation was especially low at the end of programme dissemination workshop which is potentially an indication there was a lack of interest for this event. This could be because beneficiaries did not feel a need to attend this workshop on account they had already received support from the programme i.e. they had little more to gain.

Figure 2. Target and actual attendances for DEELOCSI stakeholder workshops

Activity Code	Workshop	Target SME attendance	SME attendance	Individual attendance
2.1	DEELOCSI launch workshop	40	49	103
2.2	Introduction to policy drivers; “Grow Greener”	40	26	51
2.3	Introduction to renewable feedstocks; “Grow Greener”	40	26	51
2.4	Mid-programme re-launch workshop; “Winning business with green credentials”	40	29	44
2.5	Resource and energy efficiency; “Winning business with green credentials”	50	29	44
2.6	End of programme dissemination workshop	50	12	15

In addition to being one of the main deliverables of the programme, the stakeholder workshops also provided a means for DEELOCSI to engage with and educate SMEs, thereby contributing to achieving Objectives 1 and 2 of the programme (outlined in Section 2.2). Members of the project team believed that the workshops were very successful in encouraging SME participation with the project and found it to be a more effective means of SME engagement than the other adopted approaches. Equally, many of the beneficiaries found the workshops not only an effective means of engaging with the project but also provided an excellent forum for networking and generating business on account that many of those who attended had similar business needs and interests. Project partners also found the workshops valuable for networking and developing their client base.

RECOMMENDATION: SME representation at stakeholder events was generally lower than the target attendance. However, the project team, project partners and beneficiaries alike found the workshops to be a very valuable forum for delivering programme objectives, networking and for developing business in the region. On account of this feedback, increased efforts into event publicising and marketing can be justified for similar projects in the future, although this does not guarantee numbers.

3.3 SME up-skilling

The SME up-skilling programme was a further important deliverable of DEELOCSI, especially with regards to the legacy impacts of the project. It was initially intended that an up-skilling course would be developed in partnership with the National Skills Academy Process Industries (NSAPI), however the project team decided that an open tender would ensure the most suitable organisation was selected for delivering the programme. Based on the strength of the bids, Environmental Academy was selected for developing the course. The company developed an online training course comprising of eight different modules which addressed an array of different areas covering environmental management and energy efficiency. The e learning up-skilling programme was initiated during Q2 2015 and at the time of writing, 13 project beneficiaries have undertaken it thus far. From feedback received to date, it suggests a positive impact in terms of new found business culture, energy management awareness and staff training. Beneficiaries further noted its comprehensiveness and coverage of recent developments such as the Energy Savings Opportunity Scheme (ESOS). In addition, the DEELOCSI team were very satisfied with the final product and are hopeful that it will help build on the current and future successes of the programme.

SME up-skilling also provided an integral part of the project support provided to SMEs, with enterprises advised on suitable approaches for actively monitoring their energy efficiency and environmental impact. Some beneficiaries acknowledged the potential benefits and so adopted measures for continual improvement of energy efficiency and reducing environmental impact. In addition, several beneficiaries adopted energy champions within the workforce who became responsible for monitoring company energy usage on account of

the support received. However, many SMEs did not take on the responsibility internally which poses a risk that much of the support given through DEELOCSI may not be built upon in the future.

3.4 Delivery of accreditation scheme

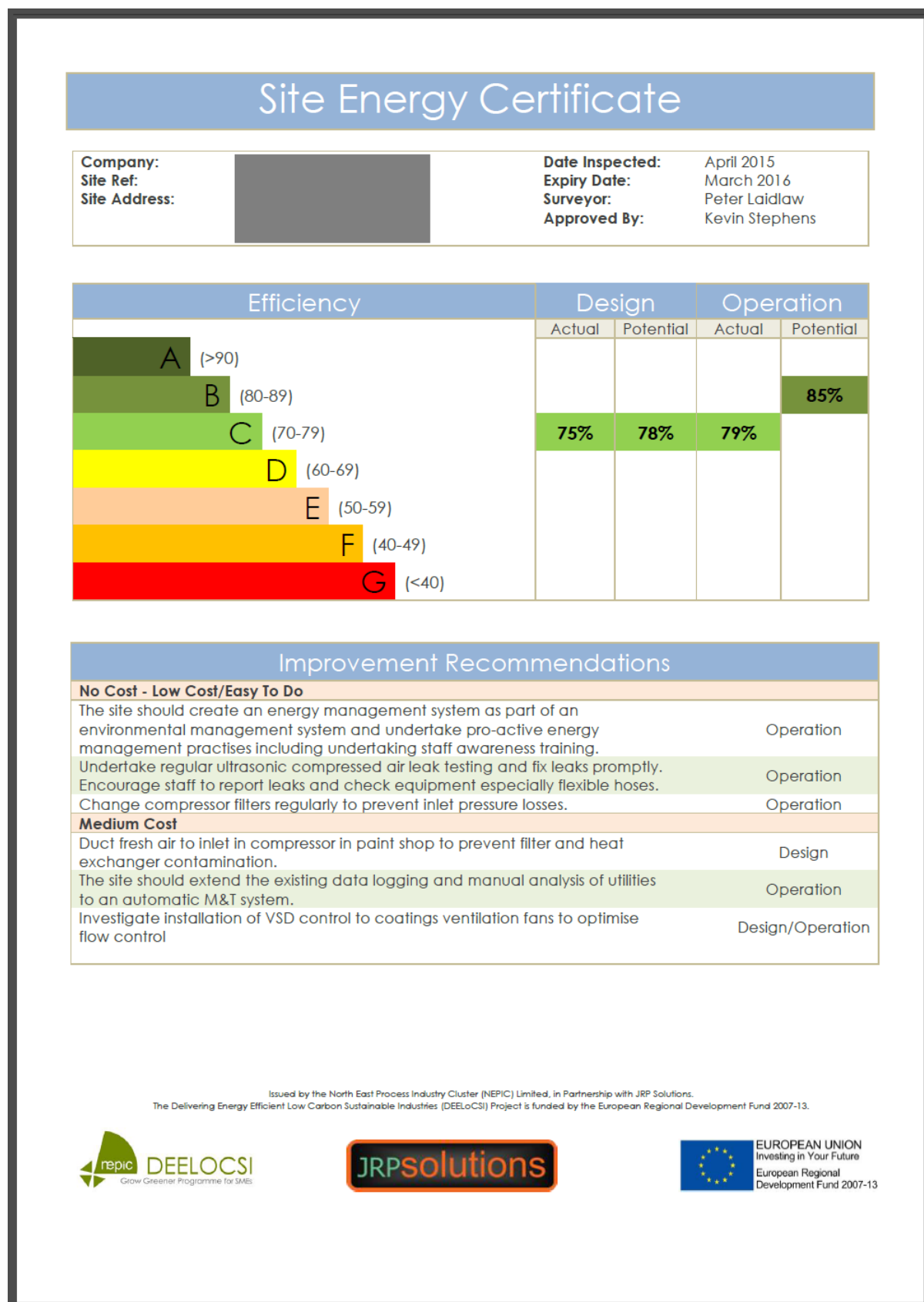
The delivery of a suitable, industry-recognised accreditation scheme was performed to give SMEs a tangible means of demonstrating their commitment towards more sustainable and energy efficient practices. In turn, it was anticipated that this would provide a competitive advantage to SMEs when supplying products or services to the 1st tier OEM's and large corporates, who are being increasingly subjected to sustainability regulations.

Via a tendering process, JRP Solutions Ltd was selected to deliver the accreditation scheme. The company was chosen on account of their previous experience in delivering such schemes and because they already had a suitable certification system in place that was easily adaptable to the requirements of DEELOCSI. The certification system was designed in similar manner to the energy efficiency rating used commonly for white goods, using a qualitative scale ranging from A (high energy efficiency) to G (low energy efficiency). To determine how the SME measured on the scale, a JRP representative undertook a comprehensive site evaluation, looking at the design and operation of equipment onsite to determine a final rating. Initial site visits were undertaken once IDRs had been produced for the SME, followed by a final site visit which was performed at least one year later once measures to improve energy performance and environmental management had been adopted. Site performance was then documented in the final site energy certificate (example shown in Figure 3).

The project team noted that developing interest from SMEs for accreditation initially proved difficult, most likely because enterprises were originally expected to pay for certification. However, once SME contribution was removed from the funding profile and the service was offered for free, the project team found that SMEs were very keen to engage and it was their opinion that up to 70-80 companies involved in DEELOCSI would have eventually been interested in going through the process if sufficient funding was available.

Ultimately, the scheme was viewed as a major success of the programme, both by the project team who felt that it would provide beneficiaries with a significant competitive advantage in the future, and by programme beneficiaries, who found the process and outputs to the scheme very valuable, with at least one already planning on being certified again in the future at the SME's expense. On account of this, the project team would have liked to have been able to take more companies through the accreditation process, potentially at the expense of some of the support provided to SMEs that had a lower level of engagement with the project through re-profiling the funding for the programme. However, the team acknowledged that it was a requirement for the project that 120 SMEs be assisted and that it would therefore not have been possible to take any more companies through the accreditation process.

Figure 3. Example site energy certificate



The successful completion of this deliverable meant that Objective 3 of the programme was achieved.

3.5 Performance against outputs

The DEELOCSI programme had twelve individual targets used to determine the success of the project, covering a range of different areas including energy efficiency, environmental management, employment and GVA. Successful completion of the programme deliverables resulted in DEELOCSI achieving all of its overall targets, and half of its sub-targets (i.e. gender-specific employment targets) (Figure 4).

Figure 4. Performance of DEELOCSI against outputs

Code	Metric	Target	Achieved
040/P2/O09	Number of SMEs assisted, including integrated development of workforce skills where appropriate, with additional actions	120	120
040/P2/R22	Number of businesses assisted with improved performance, of which at least 10%to implement advanced ICT applications	108	109
040/P2/R10	Number of businesses assisted with improved environmental performance	82	83
040/P2/R11	Number of businesses assisted with improved environmental management, of which related to energy efficiency, micro renewables and other management of carbon footprint	30	30
040/P2/R14	Number of gross jobs created (total)	20	20
040/P2/R15	Number of gross jobs created (men)	11	18
040/P2/R16	Number of gross jobs created (women)	9	2
040/P2/R18	Number of gross jobs safeguarded (total)	110	112
040/P2/R19	Number of gross jobs safeguarded (men)	60	102
040/P2/R20	Number of gross jobs safeguarded (women)	50	10
040/P2/I01	Net increase in GVA as a result of the Programme	5.8	7.0
040/P2/I02	Net increase in employment	72	84

The only targets that were not achieved were the number of female jobs created (040/P2/R16) and number of female jobs safeguarded (040/P2/R20). In both these cases the programme significantly underperformed, with only around 20% of the target achieved. However, this was compensated for by a significant over-performance in the number of male jobs created and number of male jobs safeguarded, such that the targets for total number of

jobs created and safeguarded were achieved. It is likely that the disproportionate impact of DEELCOSI on male and female jobs is a result of the existing gender bias in the process industry. For instance, the Institution of Engineering and Technology suggest that only 7 per cent of the UK engineering workforce is female⁵. In respect of this fact, it can be concluded that the distribution of females to males in the job creation and safeguarding targets of DEELOCSI were inappropriate.

Gross GVA for DEELOCSI was calculated by the project team at £11.1 million using a similar process to the "Gross jobs created or safeguarded" methodology outlined in BIS RDA evaluation guidelines⁶. However, the calculation instead assumed a GVA per head estimate of £37,183⁷, representative of UK manufacturing, as opposed to using the recommended regional average value, which for the North East of England is £17,381⁸. On account that the DEELOCSI programme was primarily targeted at the process industry, it is agreed that the approach used by DEELOCSI for calculating gross GVA is suitable. When accounting for net additionality (outlined in Section 6), net GVA of the programme is estimated at £7.0 million, indicating that DEELOCSI exceeded its target of £5.8 million.

To further measure the success of the programme, it could have been beneficial to implement other target outputs. Notably, due to the success of stakeholder workshops and SME signposting in the region, it could have been beneficial for DEELOCSI to have a target for business collaborations facilitated to evaluate the impact DEELOCSI has had on business generation in the region. However, the relevant ERDF metric (Number of assisted businesses within the region engaged in new collaborations with the knowledge base; O40/P1/R12) only extends to Public Sector Research Establishments, Research and Development Organisation, Research and Technology Organisation, higher education and further education partnerships, and as such would not have been appropriate for the programme.

3.6 Summary

The DEELOCSI project achieved all of its aims, objectives, deliverables and overall targets. The project team believe the success of the programme was largely because the solutions offered were practical and deliverable. The accreditation scheme and up-skilling programme delivered by project partners was fit for purpose and received well by both the project team and by the programme beneficiaries. Meanwhile, the stakeholder workshops provided a very valuable forum for engaging SMEs with the project and facilitating business development in the region. However, attendances were slightly poorer than targeted. As such, it is recommended that greater efforts are put into the publicising and marketing for similar events in the future to ensure maximum benefit is gained from these opportunities. Finally,

⁵ <http://eandt.theiet.org/news/2014/jun/women-in-engineering-day.cfm>

⁶ BIS (2009) RDA Evaluation: Practical Guidance on Implementing the Impact Evaluation Framework

⁷ BIS (2012) Industrial Strategy: UK Sector Analysis.

⁸ ONS (2014) Statistical bulletin: Regional Gross Value Added (Income Approach), December 2014

the metrics used for measuring success were largely appropriate, with exception of the distribution between females and males for the number of jobs created and number of jobs safeguarded targets.

In respect of programme performance, it can therefore be concluded that DEELOCSI was successful. It can also be concluded that the approaches used in were suitable for delivering the desired outcomes.

LESSONS LEARNED:

- Multiple approaches to stakeholder engagement require varied and complementary skills best delivered through project teams. Team member flexibility is important for successful engagement.
- To improve setting appropriate targets for job creation, make sure to account for any existing gender bias within the target beneficiaries

4 Project Delivery

4.1 Efficiency

First and foremost, the programme was delivered within the projected timeframe and to budget, indicating that the programme functioned efficiently enough to deliver the desired outcomes of the programme. However, there were aspects of the programme where efficiency could have been improved.

The project team operated at risk for the first 6 months of the project which meant that the assignment of a project manager could not be undertaken until the end of this period. This caused an initial delay in SME engagement.

In addition, there was some confusion from some of the project team as to the necessary evidence required by DCLG for claims against project targets. Equally, there was some lack of clarity from DCLG as to what could constitute as suitable evidence. On account of this, the project team organised an intervention meeting to ensure both parties were clear on this matter. While this factor threatened to have an impact on efficiency of delivery, the intervention meeting was timely and enabled the programme to progress without any significant loss in time or resources.

Delivery of the up-skilling and accreditation programmes was performed very efficiently in the main part. This was because the selected partners had significant experience in delivering similar schemes and so already had the necessary frameworks and systems in place. However, there were some difficulties that arose in the provision of the final accreditation certificates. This was in part due to staff turnover at JRP Solutions between the initial and final visits; the individual responsible for the initial site visits was based inside the North East region while the individual responsible for final site visits was based outside the region. In addition, there was less time available for performing the final site visits. The planning of the final appointments was therefore more difficult and resulted in a small delay in delivering the final certificates to some beneficiaries. Equally, JRP Solutions noted that some SMEs were not particularly responsive and suggested that in hindsight it may have been useful to use the DEELOCSI project team (who had a closer relationship with programme beneficiaries) as a conduit for organising site visits.

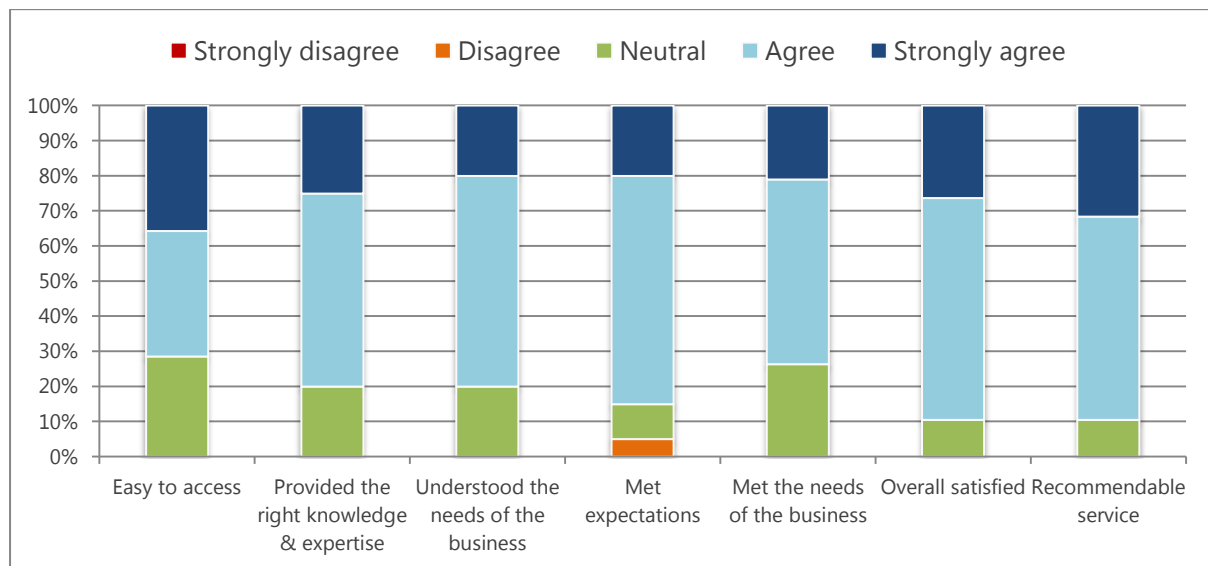
4.2 Effectiveness

The DEELOCSI beneficiaries consulted⁹ largely viewed the project as a valuable form of support for their business. Approximately 70% of beneficiaries acknowledged that the support was easy to access, with around 80% believing the support provided the right knowledge and expertise and that the project understood the needs of the business. Meanwhile, 85% of beneficiaries agreed that the support met their expectations while 74% of beneficiaries agreed that the support met the needs of their business. Overall, 89% of

⁹ 18% of SMEs assisted by the programme

beneficiaries were satisfied with the support provided and would recommend the service to another business (the remaining 11% neither agreed nor disagreed with these statements).

Figure 5. Beneficiary opinion of the quality of DEELOCSI



When considering this information alongside the conclusions of Section 0, the programme has been very effective in addressing the objectives of the programme, notably the raising of industry awareness. However, the DEELOCSI project team felt that alternative strategies could have better delivered against the overall aims of the programme.

The project team recognised that although the programme was effective within the confines of the targets, greater value could have been achieved by providing extended support to the larger (10-15) SMEs where there existed far greater potential for reducing energy requirements and improving environmental impact. This was because the larger companies were generally more energy intensive and often had less concerns regarding energy usage and costs. Meanwhile, the benefits achieved with some of the smaller companies could have been identified and realised with less input. The project team therefore felt it would have been valuable having a scaling mechanism within the metrics such that more extensive support could be provided to larger SMEs and less time for smaller companies. However, ERDF funding restrictions meant that the time spent with each SME for a given project assist category was the same, regardless of enterprise size. In acknowledgement of this limitation, the project team highlighted projects to equipment providers where a more thorough analysis of potential energy savings would be beneficial in the hopes that the support provided by DEELOCSI would be built upon.

The DEELOCSI project team also believed that it would have been valuable to take more companies through the accreditation process. However, this could not be performed for reasons discussed in 3.4 .

Finally, the team felt that a streamlining of paperwork, especially for SMEs, would have resulted in more effective delivery of the programme. However, this is not strictly speaking a reflection of the effectiveness on this programme alone, but the impact of DCLG requirements on the monitoring of regional development programmes in general.

Both the up-skilling and accreditation schemes were agreed to have been delivered effectively by programme stakeholders and beneficiaries. However in delivering the accreditation scheme, personnel changes at JRP Solutions threatened to limit the effectiveness of the certification systems. There were some concerns from the project team that the final site evaluations would not be undertaken consistently with the initial site evaluations on account that the system was, to a degree, subjective. However, JRP clarified that site checklists are developed to restrict any inconsistencies and that it would have been very unlikely that site ratings would change depending upon the accreditor used.

4.3 Management

Feedback provided by the DEELCOSI project team, programme partners and beneficiaries indicate that both the internal and external management of the programme was performed well.

Regular meetings between the project team, steering committee and NEBR thrust team ensured that any issues (such as the need for DCLG claim requirements) were addressed in a timely manner and ensured that decision making processes were undertaken with a large representation of programme stakeholders present. Programme management at the delivery level was also undertaken effectively, with regular checks of performance against milestones ensuring the programme remained on track. The project team recognised that effective data management and good file keeping were critical in this respect. The overall consensus of the project team was that internal communications were clear with the frequency of project meetings deemed to be appropriate. The effective management of the programme is borne out by the high level of performance against objectives and targets.

Partnership management was largely handled well although, as previously noted, organisation of final site visits for the accreditation scheme proved difficult and could potentially have been improved by using the DEELOCSI project team to schedule these appointments.

4.4 Communication and dissemination

Internal communications were generally considered to have been managed well with representatives of the project team attending steering committee and NEBR thrust team meetings to ensure programme progression was being accurately and reliably reported upon.

External communications were also regarded as being delivered well. Significant efforts were made to publicise the DEELOCSI programme. In addition to the stakeholder events, several press releases were published in local newspapers during the course of the programme. However, it is recognised that SME attendance at stakeholder events was below that targeted and so further efforts to improve external communication is likely justifiable for any future projects of a similar nature.

4.5 Summary

The DEELOCSI programme was delivered efficiently, with the programme running to time and budget. Any issues that threatened to impact project delivery, such as clarification on DCLG claim requirements, were addressed in a timely manner, ensuring that any potential damage to the success of the programme was minimised.

The programme was also delivered effectively, best evidenced by the positive feedback provided by beneficiaries on the quality of support provided by DEELOCSI. However, the project team felt that while the programme was effective within its confines, several other strategies could potentially have improved the effectiveness of the programme in delivering against its intended aims should the funding restrictions have allowed them.

The programme was managed well, both internally and externally. There were some small difficulties in scheduling appointments between programme partners and beneficiaries which could possibly have been improved by using the project team as an intermediary between the two parties.

LESSONS LEARNED:

- To improve planning and scheduling, ensure that there is a clear and effective strategy for any third party contractor engagement with programme beneficiaries
- To minimise any potential time and resource wastage, ensure project performance definitions and evidence/methodologies required for claims are clearly understood by all members of the project team and confirmed with DCLG prior to commencement of the project

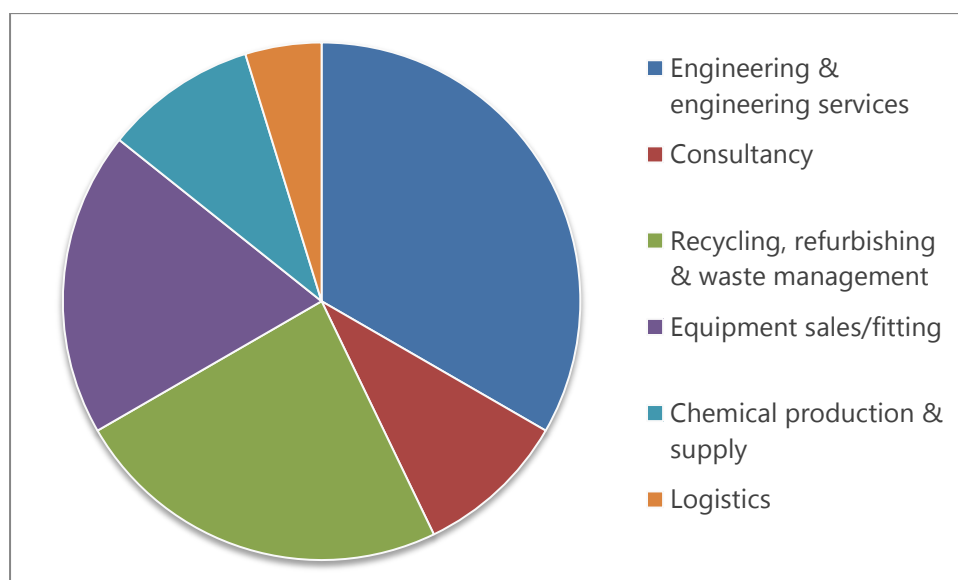
5 Impacts of DEELOCSI

5.1 Beneficiary overview

The vast majority of SMEs supported by DEELOCSI covered a broad range of business focus areas within the process industry including engineering, manufacturing, consulting, logistics, waste management & recycling. A minority of other businesses included classic car restoration, laundry services, drug & alcohol testing and catering.

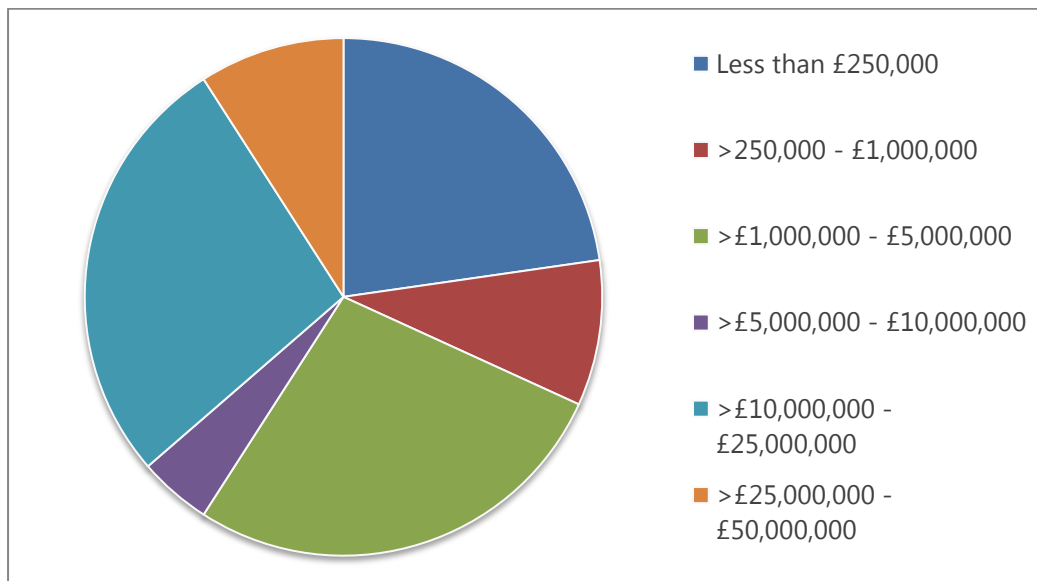
Of the beneficiaries consulted during this research, around one third were engineering or engineering services companies and around one quarter were recycling, refurbishing or waste management companies (Figure 6). Approximately one fifth of beneficiaries were involved in equipment sales or fitting while the focus areas of the remaining enterprises consulted were split relatively evenly across consultancy, chemical production/supply and logistics.

Figure 6. Focus areas of surveyed and interviewed DEELOCSI beneficiaries



The size of SMEs interviewed and surveyed through this research was also broadly distributed. Around one quarter had a turnover of less than £250,000, one third a turnover of between £1million and £5million and a further third a turnover of between £5 million and £25 million (Figure 7). There were also several beneficiaries consulted with turnovers of between £25 million and £50 million and between £250,000 and £1 million.

Figure 7. Annual turnover distribution of DEELOCSI beneficiaries



Around two thirds of the beneficiaries surveyed and interviewed chose the support, in part, for improved awareness and education on energy and environmental management. Approximately half of beneficiaries partly chose the support to maintain market competitiveness, with a similar number also choosing the support to reduce company overheads. Around one third of beneficiaries chose the support, in part, due to a moral obligation to reduce the environmental impact of their business and a similar number chose the support due to requirements of supply chain partners for demonstration of good sustainability credentials. Finally, approximately 50% of beneficiaries were interested in developing business partnerships.

5.2 Development of low carbon economy

The DEELOCSI programme aimed to encourage the development of a low carbon economy in the North East of England by raising awareness, encouraging training and up-skilling, improving operational behaviour and encouraging the installation of energy efficient equipment and renewable energy technologies.

As already noted in Section 3.1 , DEELOCSI functioned very effectively in improving awareness of beneficiaries of the importance of energy efficiency and environmental management.

The programme has also been successful, to some extent, in improving current operational behaviour and encouraging the installation of energy efficient equipment and renewable energy technologies. As a result of the support offered through DEELOCSI around 60% of beneficiaries surveyed improved their operational behaviour, while 30% installed energy efficient lighting. A further 15% installed renewable energy technologies while 10% installed variable speed drives. One beneficiary also installed destratification fans, although none of the beneficiaries consulted took other possible available measures such as voltage

optimisation or heat recovery from process equipment. Three beneficiaries consulted did not install any new equipment or change current practices (however, these SMEs were instead assisted by the programme through the facilitation of partnerships with other beneficiaries where they could offer support i.e. SME signposting). This data suggests that the majority of SMEs not only felt better educated, but also acted upon the advice received by DEELOCSI and adopted at least some of the measures suggested for improving energy efficiency and reducing environmental impact.

However, of the companies surveyed 53% knew that their energy requirements had reduced because of the support while 42% were unsure (Figure 8). The remaining 5% of beneficiaries did not see a reduction in energy requirements because of the support received. Those that observed a reduction in energy demand typically saw costs reduce by around 5-10%, although some beneficiaries noted reductions up to 20%. Meanwhile, only half of beneficiaries consulted knew their carbon footprint had reduced because of the support while 44% remained unsure (Figure 9). Those that observed an improvement in carbon footprint typically saw carbon emissions reductions of around 10%. Therefore, while beneficiaries largely felt better informed and have adopted better practices and/or more efficient equipment on account of the support, in many cases they are yet to quantify the impact of the support on their business.

Figure 8. Impact of DEELOCSI support on beneficiary energy demand

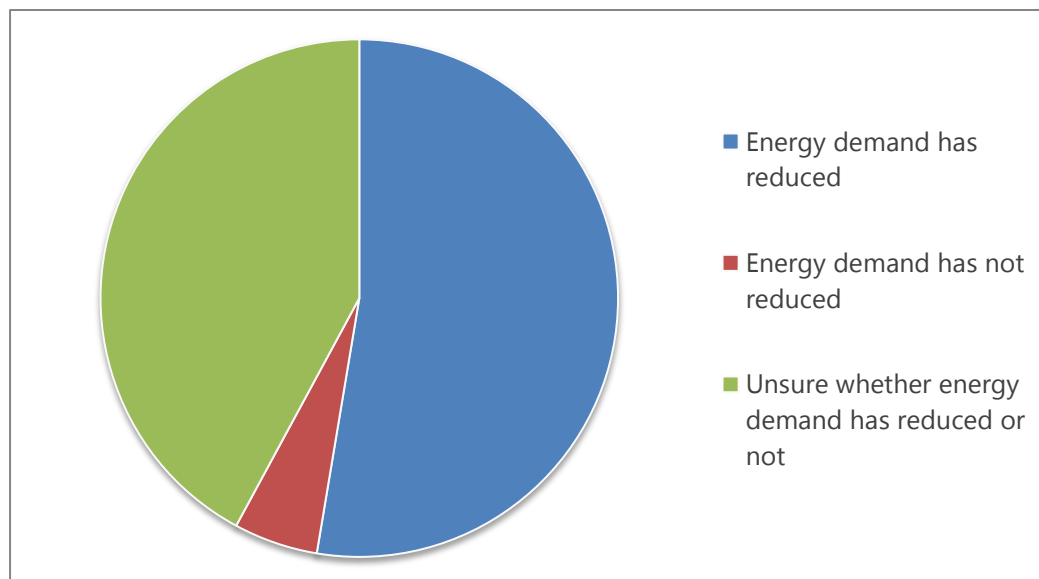
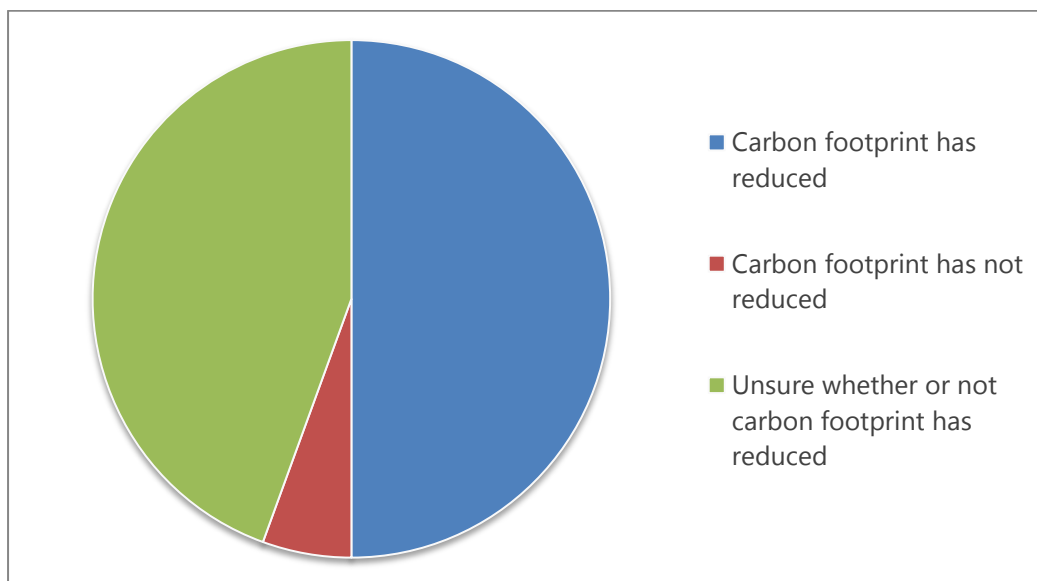


Figure 9. Impact of DEELOCSI support on beneficiary carbon footprint



This evidence suggests that while DEELOCSI has been very effective at raising SME awareness and facilitating best practice, in many cases the support has not been sufficient enough for SMEs to justify quantifying the environmental benefits. It is therefore recommended that any future project needs to provide further and/or improved quantification of the environmental impacts of the support provided, while also convincing beneficiaries of the importance of continued monitoring of these impacts.

RECOMMENDATION: Any future project that builds on the successes of the DEELOCSI programme should provide further and/or improved quantification of the environmental impacts of any measures suggested to improve performance, while also encouraging beneficiaries to improve monitoring of such impacts when interventions are undertaken.

While some beneficiaries have not actively pursued improvements in monitoring of energy efficiency and environmental impact, other beneficiaries have successfully built upon the support provided. Several beneficiaries have developed new company roles for monitoring energy usage and carbon emissions (e.g. an “energy champion”) with the aim of achieving continual reductions in the future.

In addition to the direct environmental impacts of DEELOCSI on programme beneficiaries, several SMEs noted that there have been additional benefits resulting from the support. At least two beneficiaries have stated that the support has assisted them in gaining ISO14001. Another beneficiary has started offering new products (PV and biomass boilers) in part due to the support received through DEELOCSI. Meanwhile, several SMEs have passed the knowledge they have gained through DEELOCSI on to their customers/clients. For instance, one beneficiary noted:

“We now look closely at what we offer clients when energy consumption forms a part of the equipment we can propose”

This evidence suggests that the reach of DEELOCSI has extended beyond the direct beneficiaries and encouraged adoption of more sustainable practices in the wider economy.

5.3 Economic impacts and facilitation of business activity

For all 84 business assisted with improved environmental performance, the DEELOCSI programme identified measures that could reduce utility costs across all SMEs by just over £3 million per year, for a total combined capital cost of £10.8 million. Through improving company profitability and facilitating local supply partnerships, the programme therefore had large potential to encourage economic growth of the North East region of England.

However, only 47% of beneficiaries consulted have seen an increase in turnover due to DEELOCSI (53% had not) while only 40% have seen an increase in profit (25% had not and 35% remained unsure). This evidence suggests that many of the businesses supported had not as yet observed any economic benefit as a direct result of support from DEELOCSI. In some instances, beneficiaries were unwilling to commit to large capital outlays in the near term, limiting the potential to achieve the savings indicated and developing local supply contracts. This was reflected in the final project evaluations where it was demonstrated that only 2 of 18 respondents had invested capital on account of the support provided by DEELOCSI. One beneficiary noted that it would have been beneficial to have the economic advantages of solar and biomass better quantified for them. This suggests that in some cases, the programme failed to appropriately convey the economic impacts of the improvement measures suggested to the beneficiaries.

RECOMMENDATION: Any future project that builds on the successes of the DEELOCSI programme should provide further and/or improved quantification of the financial impacts of any measures suggested to improve performance as a means to encourage greater investment.

The DEELOCSI project team, programme stakeholders and beneficiaries alike found the programme to be an excellent means for facilitating business partnerships in the region, both through the stakeholder workshops and the “SME signposting” activities adopted by the project team. When reflecting on the support received, one beneficiary noted:

“The support from DEELOCSI programme has enabled me to engage with a wider target audience in which to promote my business”

Meanwhile, another beneficiary identified the most beneficial aspects of the DEELOCSI support provided to them as:

"...networking, support and the advice I received from the project, enabling me to contact new clients and win work [and] being more strategically positioned to compete in a very competitive marketplace"

Other beneficiaries noted that although they had received little work currently as a direct result of DEELOCSI (and consequently had felt little impact on company profit/turnover), they do expect further business to result from partnerships generated through the programme. One SME clarified that for many businesses, it takes time to commit to upgrading existing equipment (especially if significant capital is required) and that this has been one of the main reasons they had not received greater benefit from the programme sooner. However, the company has several lucrative contracts in the pipeline resulting from partnerships facilitated through DEELOCSI, suggesting that they will notice greater financial benefit from the programme in the near- to mid-term.

Project partners also found the networking opportunities offered by DEELOCSI beneficial, with both JRP Solutions and the Environmental Academy having generated new business partnerships with programme beneficiaries.

DEELOCSI was further successful in achieving its target of 20 jobs created. One beneficiary consulted employed new panel wireman and an apprentice on account of the support, while two other companies have taken on a new apprentice each due to DEELOCSI. Another company has not as yet employed any additional staff as a result of the support, but plans to recruit soon, suggesting that the impacts of DEELOCSI could result in further job creation in the region in due course.

5.4 Knowledge transfer and up-skilling

As noted in Section 3.1 almost all beneficiaries of DEELOCSI believe that their awareness of energy and environmental management has improved because of the support received from the programme. Many of the companies consulted recognised that the knowledge gained has been passed onto employees who now take much better care to adopt best practice (e.g. turn off equipment/lighting when not in use) and report instances of poor practices.

Many beneficiaries believed that the knowledge provided by DEELOCSI was the most beneficial aspect of the programme. One SME noted that:

"Getting un-biased information on the best course of action for the business to reduce our energy usage and therefore carbon footprint [was the most beneficial aspect of the DEELOCSI programme]."

Many of the companies consulted also believe the programme has had a significant impact in raising awareness of the importance energy and environmental management in the wider process industry, with some SMEs stating that they have passed on the knowledge gained

through the programme to clients/customers. DEELOCSI could therefore have a “ripple effect” on knowledge transfer in the North East economy.

The e learning up-skilling programme was initiated during Q2 2015 and at the time of writing, 13 project beneficiaries have undertaken it thus far. From feedback received to date, it suggests a positive impact in terms of new found business culture, energy management awareness and staff training. Other beneficiaries have demonstrated an interest in undertaking the programme and believe it will be of value to the company. For instance, one SME stated:

“We expect to use the on line training package to add energy and environment to the duties of our quality manager”

However, it was noted that further training support earlier on in the programme could have been valuable to the assisted businesses. One beneficiary noted that it would have been useful to have a simple presentation on training provided during the course of the support (either delivered in person or as a pre-recorded video presentation) to which all relevant staff could attend. It can therefore be speculated that earlier provision of the up-skilling aspects of the programme could have resulted in more companies monitoring the financial and environmental impacts of DEELOCSI on their business.

5.5 Strategic Added Value

Many beneficiaries of DEELOCSI believe that the programme has provided them with a competitive advantage. Approximately one third of SMEs consulted indicated they had won new work as a direct result of the support provided while around two thirds felt that the support had provided them a strategic advantage. Various reasons were provided for why companies believed a strategic advantage had been gained, including:

“Our major USP for our equipment is that it uses less energy and therefore has less impact on the environment. We can now back up that ethos with our own behaviours within the workshop.”

“We push our environmental credentials forward when tendering and look at organisations that look for this from their supply chain.”

“The support from DEELOCSI has helped position my organisation in order to target new clients and widen my network of potential customers.”

The project team perceive that those companies who have undertaken the accreditation procedure will notably benefit from a strategic point of view. It is believed that this will provide credible evidence to supply chain partners of the business’s green credentials and give them a far greater competitive advantage in the future as the importance of business sustainability increases up and down the supply chains.

5.6 Cross-cutting themes

5.6.1 Equal opportunities

The DEELOCSI programme has had little involvement in promoting equal opportunities, although it has ensured that throughout its activities, no form of discrimination has taken place with the project team complying with company guidelines on equal opportunities.

There were some instances throughout the course of the programme where equal opportunity was actively addressed. For all stakeholder workshops it was ensured that there was suitable disabled access. Additionally, the up-skilling course used a large, bold typeface to assist the visually impaired and contained images of people with different genders, ages and races.

While the vast majority of beneficiaries did not consider that DEELOCSI improved company practices relating to equal opportunities, one SME stated:

"The support has enhanced my awareness and endorsed my equal opportunities policies and procedures for future business"

5.6.2 Environmental impact & sustainability

The purpose of the DEELOCSI programme was to improve the environmental impact and sustainability of SMEs in the North East region of England. The manner by which the project addressed this cross-cutting theme is therefore discussed throughout this report.

5.7 Summary

The assistance provided to SMEs through the DEELOCSI programme was widely acknowledged as beneficial with almost 90% of enterprises consulted satisfied with the support.

Beneficiaries generally acknowledged that the facilitation of business partnerships and the raising of awareness were the most valuable aspects of the programme. Many beneficiaries also recognised that the support has won them new work and has provided them with a strategic advantage for future business development.

However, only relatively few of the measures identified by the DEELOCSI project team for improving energy efficiency and environmental performance in SMEs have been adopted. The programme is therefore yet to stimulate significant investment in energy efficient and/or renewable technologies by many of the businesses involved in the programme. It is duly recognised by both the project team and programme beneficiaries that further investment could come in time, with many SMEs unwilling to invest significant capital immediately on the back of such assistance, but instead more likely to do so over several years. However, some SMEs were simply unwilling, or did not have the means, to invest the capital required.

Based on this feedback, it is recommended that any future project of a similar nature to DEELOCSI should provide further and/or improved quantification of the environmental and financial impacts of the support provided as a means to encourage further investment.

DEELOCSI also has significant potential for having long term effects on the wider process industry, with many business partnerships developed through the programme beginning to enter supply agreements and many programme beneficiaries adopting best practices and actively supporting knowledge transfer to both staff and customers/clients.

DEELOCSI can therefore be considered successful in encouraging economic growth in the North East of England and in facilitating the development of a low carbon economy.

6 Additionality

The Government (through the HM Treasury Green Book) maintains that public sector spending should address market failures and bring about change that would not have happened at all, would have happened at a slower rate, or on a smaller scale than without public intervention. This is referred to as additionality.

Our assessment of additionality includes both qualitative and quantitative analysis. The qualitative assessment was made on the basis of consultations with programme beneficiaries. The quantitative assessment was made by applying deadweight, displacement, leakage and multiplier effects to project outputs to measure net additional impact comparing this to the reference case i.e. of doing nothing. We have used benchmarks from the BIS Occasional Paper 'Research to improve the assessment of additionality'¹⁰, as recommended by the Impact Evaluation Framework.

The following sections present our assumptions on deadweight, displacement, leakage and multiplier effects of the programme. Substitution is not included in the calculation on account that - based on beneficiary consultation - it is not believed to have occurred during the course of the programme¹¹.

6.1 Leakage

Leakage is defined as *'the proportion of outputs that benefit those outside of the programme/project's target area or group'*. It is essentially a measure of the benefits of a project which have been diverted from the target group to other beneficiaries or to other areas. In this case this refers to benefits outside of the North East of England and the companies that operate above the SME threshold.

The data provided by the DEELOCSI project team and by the beneficiaries through consultation shows that all of the outputs claimed are for enterprises that lie within the target region. None of the outputs claimed were for large enterprises with more than 250 employees or above £50 million turnover. Leakage for the project is therefore likely to be very small. While these responses indicate no leakage has occurred, a factor of 1% is considered appropriate to account for potential unidentified leakage as it is difficult for programmes to prevent leakage entirely.

This value is low when compared to the benchmark of 11.3%, considered as the mean value for regional programmes relating to business development & competitiveness.

¹⁰ BIS (2009) Research to improve the assessment of additionality.

¹¹ Defined as a negative effect that arises when a firm substitutes a jobless person to replace an existing worker to take advantage of the public sector assistance

6.2 Displacement

Displacement is defined as *'the proportion of the project outputs/outcomes accounted for by reduced outputs/outcomes elsewhere in the target area'*. In this context displacement is the extent to which activity and investment delivered by DEELOCSI may have displaced activity from existing providers of business support.

The business survey results show that 35% of responding businesses reported that they could have got all (5%) or some (27%) of the support provided by DEELOCSI from elsewhere. A further 36% of enterprises were unsure whether or not the support was available from elsewhere. However, consultations have highlighted that while there are many drivers for large corporations to improve their energy and environmental performance, such drivers are largely absent for SMEs. As a consequence, there has been limited support to date concentrating on assisting SMEs in the UK to reduce their energy demand and environmental impact. Together, this evidence suggests that while some displacement is likely to have occurred, it is unlikely to be higher than the mean value identified for business development funded support by the Department for Innovation and Skills (29.3%)¹². A displacement factor of 27.5% has therefore been applied based on the findings of the business survey, accounting for all companies that could have got all the support elsewhere, half of those reporting some of the support could have been supported elsewhere and one quarter of those who were unsure whether they could have received the support from elsewhere.

6.3 Multiplier effects

The investment in the North East of England will generate further economic activity associated with additional local income, local supplier purchases and longer term development effects as a result of increased investment. There are two types of multiplier to consider; indirect (or supply linkage) and induced (or income). Indirect multipliers are *"the subsequent effects caused by the consequent changes in intermediate demand"* i.e. the increase in expenditure on intermediate goods and services caused by the intervention. Induced multipliers are *"the effects attributable to the ensuing change in compensation of employees and other incomes, which may cause further spending and hence further changes in final demand"* i.e. the increase in revenue brought to the region through increased employee spend on local goods and services as a result of the intervention. The combined effects are known as a composite multiplier.

Based on consultations with programme beneficiaries and stakeholders, DEELOCSI facilitated many business relationships in the region, directly partnering SMEs in need of new equipment with relevant local suppliers. Equally, the programme highlighted to suppliers projects where potential further improvements could be made. Finally, there were examples where the programme provided support outside of the programme remit. For instance, the

¹² BIS (2009) RDA Evaluation: Practical Guidance on Implementing the Impact Evaluation Framework

project team advised one beneficiary on alternative means to dispose of its waste oil, thereby facilitating a new local partnership and generating additional value for both companies involved. However, several supplier beneficiaries consulted noted that although business partnerships have been facilitated through DEELOCSI, a significant increase in product demand has yet to be realised. Based on this evidence, the indirect multiplier is likely to be moderate.

The final project evaluations undertaken by NEPIC show that across the participating 18 SMEs, £270,000 of capital investment was encouraged. While, further SMEs are likely to have invested capital on account of DEELOCSI support, it is duly acknowledged that the businesses most engaged with the project are those most likely to invest capital and also those most likely to participate in evaluations. When carefully considering responses provided during the beneficiary consultations, it is estimated that DEELOCSI is likely to have encouraged in the region of £540,000 of capital investment (twice the investment indicated by the evaluations) of which approximately three quarters (£405,000) is likely to be with suppliers in the region due to the high level of SME signposting undertaken throughout the programme. This would mean that every £1 of DEELOCSI support encouraged £0.38 of investment in intermediate goods/services within the region (i.e. 38% of investment).

Additionally, the programme has created a net total of 20 jobs. Assuming an average wage for the North East of £24,440¹³ and making a considered estimate that one third of household income is spent on goods and services within the regional economy, it can be estimated that approximately £147,000 of induced income has been generated by the programme (approximately 15% of investment).

Based on the above information, a considered judgement of the likely impacts, and BIS guidance, a composite multiplier of 1.53 is suggested for the DEELOCSI programme. This is broadly comparable to the BIS regional benchmark means for individual enterprise support (1.44).

6.4 Deadweight

Deadweight is defined as the *'proportion of outputs that would have been achieved in the area without the project'*.

SME consultations demonstrate that the majority of beneficiaries felt that some (50%) or all (17%) of the positive impacts would have been achieved in the absence of DEELOCSI. Meanwhile, 28% of beneficiaries believed that none of the positive impacts would have been achieved while 6% of beneficiaries felt there were no positive impacts resulting from the support.

¹³ [ONS \(2013\) Annual Survey of House and Earnings, 2013 Provisional Results](#)

Based on the responses of the business survey and interviews, a deadweight factor of 42% is proposed for DEELOCSI accounting for all beneficiaries that felt all the positive impacts would have been achieved and half of beneficiaries that some positive impacts would have been achieved. This compares to BIS Guidance which suggests that an average level of deadweight at a regional level is 45.5%.

6.5 Summary

Net additionality of the programme is summarised in Table 1. It estimates that 63% of gross outputs generated by the programme are additional and would not have occurred without DEELOCSI. This compares favourably to the mean net additionality benchmark for regional programmes of 55%. The level of activity delivered by DEELOCSI means that a net additional total of 84 people are employed in the North East region of England and £7.0 million net GVA has been generated.

Table 3. Net impacts of the DEELOCSI programme as determined through additionality assessment

	Gross	Leakage	Gross Local	Displacement	Net local	Multiplier	Total Net	Deadweight	Net Additional
Enterprises Assisted	120	1	119	33	86	45	131	55	76
Gross Jobs Created	20	0	20	6	14	8	22	9	13
Gross jobs created and safeguarded	132	1	131	36	94	50	144	61	84
GVA impact	£11,117,717	£111,177	£11,006,540	£3,057,372	£7,949,168	4213059	£12,162,227	£5,108,135	£7,054,091

7 Value for Money

This section of the report assesses the value for money generated by the DEELOCSI programme, based upon the delivery of net outputs. Net outputs provide an assessment of the programme's performance taking into account additionality factors. As recommended by BIS, value for money is assessed against two factors:

- Cost effectiveness in terms of costs per net outputs; and
- The ratio of GVA to cost as an indicator of the benefit:cost ratio.

The results of the cost effectiveness assessment are based on the provision of £534,701 ERDF funding for the programme, and the actual net outputs achieved as determined in Section 6. Benchmark values have been taken from the mid-term assessment of comparable programmes (Priority 2: Business Growth & Enterprise ERDF-funded projects) in the region running from 2007 to 2013¹⁴.

The cost of job provision by DEELOCSI is poorer than the benchmark average, with £41,130 of ERDF funding required for each net job created and £6,365 of ERDF funding required for each net additional job (both jobs created and jobs safeguarded) by DEELOCSI, compared to £24,150 and £3,850 ERDF funding for the benchmark values, respectively (Table 4). This is not entirely unexpected as the nature of the DEELOCSI programme meant that jobs were only created and supported indirectly, by means of inducing increased beneficiary revenues and/or profits. Other Business Growth & Enterprise projects in the region would have had a more direct impact on creating jobs (e.g. development of business centres) and hence would be expected to have provided jobs at lower cost.

Conversely, the cost of GVA generation was far better for DEELOCSI than for comparable projects in the region, with £1 of ERDF funding resulting in £7.0 net GVA, compared to £1 of ERDF funding for £1.9 of net GVA for the benchmark. Bearing both cost effectiveness measures in mind, it is concluded that DEELOCSI offered good value for money.

Table 4. Cost effectiveness of DEELOCSI programme

	Net jobs created	Net additional jobs	Net GVA:Cost ratio
DEELOCSI costs (ERDF funding only)	£41,130	£6,365	£7.0:£1
Benchmark average (ERDF funding only)	£24,150	£3,850	£1.9:£1

¹⁴ [Regeneris Consulting \(2011\). North East ERDF Operational Programme:2007-13: Mid-Term Evaluation](#)

8 Legacy & long term impacts

8.1 Legacy impacts

The project team, programme partners and beneficiaries believe that DEELOCSI will have an enduring impact on the North East process industry. The increased awareness brought to the sector is already having an impact in the development of best practice with regards to energy management, while the learning provided by the support is in many cases being passed on by SMEs to their staff and customers. The knowledge provided by DEELOCSI should therefore reach a larger audience than just the intended recipients of support. In addition, the up-skilling programme should enable continued education of the sector well into the future. Knowledge transfer is therefore likely to be a significant aspect of the programme legacy.

The business partnerships generated throughout the programme were also perceived by many stakeholders to be a valuable long-term benefit of the programme. While in some cases these partnerships have not contributed to the immediate success of DEELOCSI, it is very likely that they will continue to develop over time and result in greater business for those companies involved. This should ultimately lead to increased economic growth in the North East of England.

8.2 Need for follow-on project

All programme stakeholders indicated a need for a follow-on project. The project team recognised that there is still little direct incentive for SMEs to adopt more sustainable practices other than supply chain pressures. It was also indicated that for many of the beneficiaries involved, there is still a greater need for increased education and awareness to ensure that companies build on the advice provided through the DEELOCSI project. The up-skilling programme should help in some respect, although it will only benefit those businesses whose employees decide to complete the course. The project team also felt there were still significant improvements that could be made by many of the beneficiaries, especially for the larger SMEs where there was often insufficient time available to help the business completely.

The project partners also believes there is a need for further training and guidance, indicating that there are many SMEs that still lack awareness and require further training/guidance.

Finally, all beneficiaries consulted believed there was a need for a follow-on project. Several beneficiaries indicated that there remain many more businesses in the region that could benefit from the programme, while others suggested that SMEs do not have the capability to understand the issues by themselves, especially when considering the complexity of regulations and legislation.

When reflecting on the need for further support, one beneficiary noted:

"I expect the issues to become more important and more complicated. It is particularly difficult for SMEs to understand all the complications about all the issues and legislation."

There were some SMEs that indicated that further assistance would be valuable for those companies that have already received support from DEELOCSI, with one beneficiary stating:

"I believe a further programme would be advantageous to help the companies who participated in the project to gain further access to improvement funding including more in-depth support for energy efficiency projects such as ISO 50001 and 14001 support and renewable energy measures. Quite often companies do not have the in-house capacity to implement some of the measures identified as part of the initial support stages."

9 Summary & Recommendations

In all aspects of project performance and delivery, the DEELOCSI programme was successful.

This evaluation demonstrates that all three of the programme objectives were achieved effectively and efficiently. Virtually all beneficiaries felt better informed of the importance of environmental management and resource efficiency while the accreditation of 30 SMEs to an industry standard was performed successfully. Beneficiaries were also given the appropriate tools for demonstrating their resource and energy efficiency, with the majority claiming they would more actively monitor energy usage and carbon emissions in the future as a result of the programme. However, less than 50% of those consulted had yet to attempt quantifying the impacts that DEELOCSI had on their business. This suggests that the anticipated outcome of delivering against the second objective of the programme (i.e. to implement the knowledge gained in monitoring energy efficiency and carbon emissions) is yet to be fully realised.

The deliverables of the programme were also largely achieved. Stakeholder workshops were considered a large success by all involved although attendances were slightly lower than targeted. This indicates that future projects of a similar nature should be able to justify greater efforts into the publicity of stakeholder events. When considering the delivery of programme outputs, the only gross targets not achieved were the number of female jobs created and safeguarded. However, the numbers of male jobs created and safeguarded were greater than their respective targets, such that the targets for total jobs were achieved. This indicates that the gender distribution assumed within the employment targets was not appropriate as it did not fully account for the existing gender bias in the process industry.

DEELOCSI resulted in the generation of £7.0 million net GVA and an additional 84 people in employment in the region, exceeding its net targets while remaining within budget. This indicates that the programme made a significant and cost-effective impact on the North East regional economy.

Despite its successes, there remains a clear need for SMEs to receive further support in reducing their environmental impact. While DEELOCSI functioned effectively as a strategic positioning and awareness programme, the programme has not as yet resulted in significant inward investment by many of the SMEs supported. Equally, just below 70% of beneficiaries consulted would be unwilling to pay for the support offered by DEELOCSI, despite finding the support of value. Future projects should therefore seek to encourage greater investment by providing more detailed assessment of the potential financial savings that could be achieved by adopting measures to improve energy efficiency, ensuring that this information is understood at the management level.

Recommendations and lessons learned for the DEELOCSI programme, as provided throughout this evaluation, are summarised below.

LESSONS LEARNED:

- Multiple approaches to stakeholder engagement require varied and complementary skills best delivered through project teams. Team member flexibility is important for successful engagement.
- To improve setting appropriate targets for job creation, make sure to account for the existing gender bias within the target beneficiaries
- To improve planning and scheduling, ensure that there is a clear and effective strategy for any third party contractor engagement with programme beneficiaries
- To minimise any potential time and resource wastage, ensure project performance definitions and evidence/methodologies required for claims are clearly understood by all members of the project team and confirmed with DCLG prior to commencement of the project

RECOMMENDATIONS:

- SME representation at stakeholder events was generally lower than the target attendance. However, the project team, project partners and beneficiaries alike found the workshops to be a very valuable forum for delivering programme objectives, networking and for developing business in the region. On account of this feedback, increased efforts into event publicising and marketing can be justified for similar projects in the future, although this does not guarantee numbers.
- Any future project that builds on the successes of the DEELOCSI programme should provide further and/or improved quantification of the environmental impacts of any measures suggested to improve performance, while also encouraging beneficiaries to improve monitoring of such impacts when interventions are undertaken.
- Any future project that builds on the successes of the DEELOCSI programme should provide further and/or improved quantification of the financial impacts of any measures suggested to improve performance as a means to encourage greater investment.

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NNFCC is a leading international consultancy with expertise on the conversion of biomass to bioenergy, biofuels and bio-based products.



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