

DRAFT

Sector Skills Agreement Stage 3: Gap Analysis and Market Testing

**for the building services engineering
sector in Northern Ireland**

October 2007

SummitSkills

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2 Introduction

2.1 Our aim for the SSA

Underpinning this report is the core ethos that SummitSkills has been working to throughout the whole Sector Skills Agreement. It has been our aim:

*Through authoritative research and extensive consultation,
to identify skills related issues facing the sector and
produce workable solutions to address them.*

We want the ultimate outcome of the Sector Skills Agreement to be a practical working and evolving document that enables employers to develop the skills they need for their business to succeed.

2.2 Stage 3 background and purpose

This stage three report is the third in the series for the Sector Skills Agreement. It follows the Sector Needs Analysis (SNA) at stage one, where an evidence base was created on the current and future skills needs for the sector, and the Assessment of Current Provision (ACP) at stage two, where the sector's training provision was evaluated. SummitSkills has combined its own research and recommendations with feedback gathered from employers and partners at stages one and two to produce this stage three report, which now suggests solutions and actions to address the issues the sector is facing.

We present these reports as early 'action plans', which highlight what is needed and who should be involved. This document will help funding partners and employers identify exactly what they need to do and consider in advance of their firm commitment at stages four and five.

2.3 Already grounded in opinion and consultation...

The strength of SummitSkills' work is our 'bottom-up' approach and consultation activity to date. The 420 in-depth employer interviews ensured from the offset that the research was grounded firmly at the grass roots of the sector. These interviews, planned against a strict matrix to take into account all business sizes and industry types, ensured that the data gathered was a true representative sample of businesses in the sector¹. This valuable qualitative data when teamed with national statistics presented a complete picture of building services engineering skills requirements to allow SummitSkills to have full confidence in its conclusions and recommendations.

In addition to these interviews, a survey of 600 building services engineering firms both in Northern Ireland and the Republic of Ireland was undertaken to explore employer demographics, recruitment patterns, location of work, travel to work and training and cross-border movement. From this work SummitSkills was also to provide detailed guidance on the number of new entrants required for the sector over the next five years. This information has been produced in a supplementary

¹ Please see the Sector Needs Analysis document for a full description of the research methodology

document based on the revised structure for Further Education and the emerging Workforce Development Forums.

To further underline the bottom up approach, rather than present just an all-England SNA and ACP, SummitSkills took the step to produce a report for each of the nine English regions, Northern Ireland, Wales and two for Scotland covering the Scottish Enterprise and Highlands & Islands Enterprise areas. Immediately from these documents, our national and regional stakeholders could identify with the issues and priorities at their local level and start to develop workable solutions to address them.

Once the Sector Needs Analysis for each region or country was produced, we wanted to ensure that employers, funders, providers, unions and other stakeholders were able to hear about the research findings, understand the issues the sector is facing and have the opportunity to explore solutions to address the issues. To do this we held 13 events across the UK and invited the various parties that play a role in the Sector Skills Agreement. At each event delegates worked in teams to answer questions like: “What is the ultimate solution to this problem?”, “How can employer, providers and government partners all contribute,” and “What are the quick win and long haul solutions for the SSA?”

These events also took place at the ACP stage, where delegates worked again in teams to answer questions like: “Why is this issue important?”, “What action would like to see taken?” and “What are the barriers to implementation or bridges that we have or need to build?”

The key issues identified at each of the events have also been tested with existing employers’ focus groups within the NI sector, allowing SummitSkills to develop a solutions-based approach to these issues.

These meetings saw the ongoing development of crucial partnership working – the discussions held were vital to help all parties understand each others’ perspectives, positions and considerations. SummitSkills has been encouraged that already these events have led to some ‘quick wins’ where partners have started working together on projects that can be implemented straight away to be of immediate benefit for example the development of national occupational standards for renewables.

One such example of an essential partnership would be the creation of employer organisation (PMST - Plumbing and Mechanical Services Training) charged with the delivery of the Level 3 Modern Apprenticeship for the mechanical sector in NI. Throughout the workshops to date employers indicated a high level of support for the demand-led approach and through a partnership developed from an employer focus group committed financially to take an active part in the delivery of apprenticeships within NI. This organisation was funded on behalf of local employers by the respective industry trade associations (HVCA and SNIPEF), drawing employers to form a board that provides strategic direction for apprenticeship within the sector. PMST has also worked closely with the Electrical Training Trust on common issues such as the SummitSkills review of National Occupational Standards and presentations to Careers Service NI.

Ultimately all of the issues, recommendations and solutions to date have already been proposed and discussed around the UK by those who will be central to the SSA’s implementation. The proposals here have been well thought through and stem from employers and stakeholders already offering solutions. This has allowed SummitSkills to present a stage 3 document for Northern Ireland containing themes and ideas that have already been extensively debated by the sector in the country.

2.4 Moving forward...

The proposed solutions and actions for each party will now be tested out with employers and stakeholders to gauge their opinion and response. By the end of this stage there will be general agreement on where the sector is now in terms of skills needs and skills supply, what needs to happen to deliver the skills needed for the future, and who needs to do what to achieve that.

The consultation process will comprise one to one and group negotiations with stakeholders and wider discussions directly with employers and also through trade associations and professional bodies to share action plans, negotiate and agree on exactly what can and will be achieved. In addition, regional SSA implementation teams will be established which will consist of key local stakeholders as well as influential sector employers in the region who will take responsibility for progressing the action at local level.

This process of discussion, assessment and ultimately endorsement will pave the way for a final agreement at stage 5 which contains solid mechanisms to create a sector that has the right skills, in the right place, at the right time.

3 Executive Summary

3.1 SummitSkills and the building services engineering sector

SummitSkills is the Sector Skills Council for the building services engineering sector. SummitSkills' role is to promote skills and standards within the building services engineering sector to develop a fully skilled and qualified workforce which is able to improve productivity and compete in a globalised economy.

The building services engineering sector represents the following core industries:

- air conditioning and refrigeration
- electrotechnical
- heating and ventilation
- plumbing
- building services engineering consultancy.

The UK's building services engineering sector has an annual turnover of £16.2bn (2005), rising to £17bn in 2007, employs over 600,000 individuals in over 60,000 businesses.

In comparison, the overall size of the sector for NI, the construction industry in Northern Ireland is the smallest in the UK, generating an estimated £2.2bn (2000 prices) of output in 2006, about 2.6% of the UK total equating to a total for the building services engineering sector of £0.5bn. The entire construction industry is estimated to have grown by around 6% last year, a much better performance than the UK as a whole, which could only manage 1.3%. In terms of its relative importance in the region it exceeds the national average, accounting for an estimated 7.3% of total Northern Ireland GVA, compared with a UK average of 6% last year. Despite this, output per capita is only about 93% of the UK average at around £1,230 (2000 prices).

There are a large number of small and micro-businesses within the sector with over 90% of businesses employing fewer than 10 people. This model of SME/micro businesses across the UK is continued within NI with 1551 business reporting activity within our footprint. The majority of these firms are small – 59% have five employees or fewer and less than 3% have more than 50 employees.

The sector comprises a diverse and continually expanding part of the UK economy covering a wide range of skills providing essential design, installation and maintenance services for industrial, commercial and domestic clients.

Building services engineering permeates the whole of society and industry in the United Kingdom. It plays a major role in the areas of sustainable development and energy efficiency. Without the activities of this sector, the whole of the UK economy would cease to function.

3.2 Sector Skills Agreement purpose

The purpose of the Sector Skills Agreement is to understand the skills issues facing our employers and to work with them and stakeholders to develop solutions which, when delivered over the short, medium and longer term, will lead to significant skills improvement in the sector and longer term productivity benefits for the sector.

The process has five key stages:

1. Sector Needs Analysis: an assessment of the sector's skills needs over the short, medium and long term future
2. Assessment of Current Provision: a review of the current training provision for the sector in terms of range, nature and employer relevance
3. Gap Analysis: a review of the main gaps in the current provision compared to employer demand and the development of employer driven solutions to address these
4. Development of collaborative action between employers, stakeholders, providers and funders to engage employers in the sector to increase investment in skills
5. Production of a final Sector Skills Agreement for the building services engineering sector with detailed costed solutions which employers will work with key stakeholders to deliver.

The process will move to implementation across the UK at regional and national level after stage 5, although a number of early quick wins have already been identified and are currently being implemented.

3.3 Sector Needs Analysis (SNA) summary

The SNA identified the skills needs that the building services engineering sector currently as related to improving productivity and business performance, as well as looking at the skills needs of future new entrants to the sector. From this research, the following issues were identified:

- Training is needed to meet skills deficiencies in environmental and renewables technologies across all the industries within the sector where current levels of activity are rising quickly and it is envisaged will rise further as the UK approaches the 2010 Kyoto performance assessment.
- The globalisation threat is a real one, however the sector largely perceives this not to be the case. This threat is greatest in relation to environmental technologies, with German and Danish companies already beginning to enter the market and approaching Government agencies looking for partnership agreements
- Absence of current and future skills planning makes the sector reactive to emerging markets such as renewables rather than proactive, resulting in a weakened capacity to meet future client demands.
- There is a lack of any robust form of management focus in relation to competitor analysis, competitive advantage and formal benchmarking. This is preventing strategic thinking and is contributing to productivity issues
- The sector is in need of a fundamental overhaul of the current curriculum content and requires business focused in-company training to meet the needs identified
- The basic skills of new entrants to the sector and the IT skills of experienced staff need to be improved to ensure productivity returns are maximised from capital investment in new technology

- Engagement in research, particularly with Higher Education Institutions, is needed to increase the innovative ‘value-added’ nature of what the sector offers in products and services to clients.
- There is a surprising degree of uniformity of the needs and feelings from companies across the sector. Traditionally the electrotechnical, heating & ventilating, air conditioning & refrigeration and plumbing industries have stated considerable differences in their needs and issues. The emerging data indicates that the whole sector faces similar issues and challenges and there is minimal variety between industries.

3.4 Assessment of Current Provision (ACP) summary

The Assessment of Current Provision, which was the second report in the process of creating a Sector Skills Agreement, further developed this work for Northern Ireland. Its purpose is to ensure that current and future training provision within the sector in Northern Ireland is ‘fit for purpose’. SummitSkills has researched what training is on offer and, from an employer’s perspective, it has assessed whether it meets the future need of the industry.

The recommendations made supported a demand-led approach, creating ‘skills of economic value’. Key recommendations for Northern Ireland included:

- Reducing the number of non-economically valuable qualifications and courses that are surplus to employers’ needs.
- Developing a ‘job ready’ strand for the Training for Success initiative in order to equip learners with transferable skills to enter employment within the sector. Research has also shown that high numbers undertaking a full time stand alone technical certificate do not move into full-time employment and therefore have little prospect of gaining a National Vocational Qualification.
- Timely updating of the sector’s national occupational standards and qualifications which will be addressed as part of the Sector Qualifications Strategy to create a clear and coherent structure for the sector’s qualifications.
- Urgent development of national occupational standards for environmental technologies to ensure that the skills are available across the sector in Northern Ireland to design, install, commission and maintain these new and emerging technologies so that the sector can compete in a global market against foreign competition
- Greater partnership between employers and providers to ensure provision is truly responsive to meet the changing needs and demands of employers.
- Developing a sustainable network of higher education training provision to assist more people within the sector to achieve professional qualifications.

3.5 Emerging skills priorities

Taking the findings, recommendations and feedback from stages one and two SummitSkills was able to map out the main issues affecting the sector and link this to the suggestions that had generated from the consultation so far. A clear series of priorities emerged, and under those 20 programmes that could be developed to support and address these priorities. These priorities and programmes form the basis of the Sector Skills Agreement for Northern Ireland.

Here we detail the five skills priorities and what they mean for the sector:

Skills Priority	Number of sector programmes and objective
Professional Image & Competence	Five sector programmes that will promote a positive image of the sector to attract and develop a skilled, sustainable workforce
Communication & Information	Four sector programmes to create a knowledge centre for all sector skills development needs
Training Provision	Six sector programmes to enable pro-active, high quality training provision that meets the sector's priorities
Funding	Two sector programmes to create a structure of flexible funding to support fast-changing skills needs
Management & Leadership	Three sector programmes to ensuring the sector has the skills to plan and develop profitable and competitive businesses

Each of these priorities, a detailed description of how they link back to the evidence uncovered so far and the 20 sector programmes that sit under the priorities can be found in section eight of this report.

3.6 Next steps

In producing this report we now have a much clearer picture of building services engineering sector and the challenges it faces in Northern Ireland. SummitSkills is keen to emphasis the need for a partnership approach with stakeholders and partners organisations to tackle the issues facing our sector.

Devolution has given Northern Ireland the opportunity to shape distinctively NI answers to NI questions, with more power to guide action, both directly and indirectly. The DEL Skills Strategy published in November 2004 focuses on the need to create the new skills needed by industry whilst supporting the raising of skills within the current workforce. Indeed, this strategy was a fore-runner to the Leitch Review and laid out at an early stage the themes which will be the key drivers of our sector skills agreement for Northern Ireland

For each of the five skills priorities identified for the sector, a detailed action plan for Northern Ireland has been proposed with potential solutions to address the skills needs identified. These have all been derived from the extensive employer consultation and feedback undertaken already, together with the views of stakeholders.

These proposals need to be finalised with the relevant parties and firm commitment to action agreed. The actions also need to be prioritised so that a programme of work can be finalised for Northern Ireland for the coming year, taking account of areas of work already in progress such as the National Occupational Standards review for the sector which will feed into the wider Sector Qualification Strategy.

From the extensive and detailed research phase over the last year, the Sector Skills Agreement process now moves into a very practical period of delivery, to meet what the employers in the sector have told us they need. With the support of the Department for Employment & Learning, trade associations, stakeholders and providers, SummitSkills will pilot, develop and deliver a range of solutions which will be of real value to the employers across the sector and help to improve and further develop the skills of the sector to meet the changes ahead.

4 Overarching vision for the sector

In creating a Sector Skills Agreement for building services engineering, SummitSkills aims to use authoritative research and extensive consultation to identify skills related issues facing the sector and produce workable solutions to provide employers with the skills they need to develop their business.

The SSA will be the first overarching, coherent and all-encompassing strategy to address the sector’s future skills needs. It will be a strategy that all parties commit to and implement in order to achieve the mutually beneficial end goal.

Horizon, the project name given to the SSA, conveys the fact that we are looking towards a brighter future for the sector, with an agreement that will bring all industries together, to one common focal point.

Where previously the different industries within the building services engineering sector - electrotechnical, heating and ventilation, air conditioning and refrigeration and plumbing – have traditionally seen themselves as independent industries with unique issues, the Sector Needs Analysis research revealed a surprising degree of homogeneity that exists broadly between all of the industries within the sector. Having identified that the sector as a whole faces similar issues and challenges, we can be confident in bringing these groups of employers together to work jointly as they move forward.

Taking the findings, recommendations and feedback from stages one and two SummitSkills was able to map out the main issues affecting the sector and link this to the suggestions that had generated from the consultation so far. A clear series of priorities emerged, and under those 20 programmes that could be developed to support and address these priorities. These priorities and programmes form the basis of the Sector Skills Agreement for Northern Ireland.

For each of the five skills priorities that have been generated we have a vision for what can and will be achieved if the SSA is successful:

Table 1 Skills priorities and vision

SKILLS PRIORITY	VISION
Professional Image & Competence	A positive image of the sector is promoted to attract and develop a skilled and sustainable workforce
Communication & Information	A one-stop knowledge centre for all building services engineering skills development needs
Training Provision	Pro-active, timely high quality training provision that meets the sector’s fast-changing priorities
Funding	Flexible funding to support the skills needed to develop business and workforce
Management & Leadership	Ensuring the sector has the skills it needs to plan and develop profitable and competitive businesses

Each of these priorities, a detailed description of how they link back to the evidence uncovered so far and the 20 sector programmes that sit under the priorities can be found in section eight of this report.

5 Summary of demand evidence base: NI

5.1 Overview of the issues affecting the sector

The aim at stage one was to research, analyse and present a robust evidence base on the current and future skills needs for the sector. Following comprehensive data collection through employer interviews, statistical analysis and literature review, a series of clear themes emerged. SummitSkills grouped a number of these strands into three overarching areas: **new entrants; business & workforce development and external influences.**

For fuller detail behind any of the issues described below, please reference SummitSkills' Sector Needs Analysis for Northern Ireland.

5.1.1 New Entrants focused on the existing skills of the workforce, the profile of people coming into the sector and future skills requirements.

The **basic skills** of new entrants appears, in the eyes of the sector, to be getting worse, with 33% of companies in Northern Ireland having major concerns at the low level of literacy and numeracy of new entrants.

Regarding **diversity**, only 17% of firms employ women in technical roles and 17% of firms also have employees from ethnic minority groups working in technical roles. Many companies state that they do not receive applications from these groups but would be prepared to employ them if they did.

17% of firms in Northern Ireland stated they employ **migrant workers** at present, with London (67%) and Scotland (35%) being at the highest end of the scale. This highlighted a need for qualification mapping for migrant workers to enable them to receive the correct and fair rates of pay. Access to English for Speakers of Other Language courses and health & safety training is also needed to enable clear communication and safe working on site.

An assessment of the perceived **skills requirements** for the sector showed that Level 3 NVQ is seen by 100% of NI contractors as the minimum level for a fully trained craft operative. This compared to 100% also in Scotland, 96% of Welsh companies and 73% in England.

Looking at **future growth**, 64% of firms in NI and 77% of firms across the UK believe the sector will grow in the short to medium term (up to five years). This optimism is likely to influence labour planning and recruitment, therefore SummitSkills recommends that funders and policy makers fund the most optimistic numbers for apprenticeships, provided in the main for this report by Experian.

5.1.2 Business and Workforce Development encompassed all the elements that an employer needed to consider in order to be productive. From the research it was clear that whilst theoretically, business management techniques such as competitive advantage analysis, benchmarking and retirement planning would be beneficial to an employer, there was a distinct lack of adoption of these techniques amongst the sector.

When asked about **current and future skills needs**, the majority of firms identified current skills based around communication skills, IT and multi-skilling. There are little current and future skills needs identified beyond courses already available and little future skills planning.

Partnering and partnering techniques covers only 2% of the sector currently whilst 70% are still in competition with each other. In Northern Ireland and some regions in England there is real concern that competition is so fierce that it is damaging the sector and reducing training budgets, as companies cut margins to the bone to win contracts to stay in business. Only a minority of the sector in NI (3%) engages in **supply chain management** techniques to bargain with suppliers. Price is still the major bargaining factor with clients. The sector needs to move towards a more value-added approach to procurement, but persuading clients to move away from bottom line analysis may be difficult.

Only 30% of the sector carries out any form of **research and development** in Northern Ireland, within little partnership between higher education and the industry. Bringing the sector together with Higher Education would help to develop innovative products, practice and services and in turn this will help improve the sector's productivity.

The **IT skills** levels of the workforce must be maintained in order to maximise on productivity increases gained through items such as laptops and PDAs especially as NI employers are undertaking considerable investment in this area. Basic skills in IT, particularly for mature workers, need to be developed otherwise operatives will be unable to efficiently use new technologies purchased by firms, and in turn companies will lose productivity.

60% of the sector in Northern Ireland supports the concept that **enterprise and entrepreneurship** is an important factor in business, and feel they have the relevant skills implement an entrepreneurial culture. It is vital to support this perception with targeted training designed to support the ongoing development of management and leadership skills, to allow industry to plan and develop profitable and competitive businesses.

There is evidence that companies within the sector lack a clear and scientific focus on what their **competitive advantage** is. Most companies identify quality and service as their main advantage over competitors; however this appears to be demonstrated through anecdotal evidence as opposed to clear strategic planning or benchmarking. **Formal benchmarking** is one technique that could be employed by the firms to identify their competitive advantage. However, most (66%) rely on informal benchmarking techniques and only 7% in formal benchmarking. This raised the question, if the sector's companies don't know what their competitors are doing, how can they determine what their competitive advantage is?

5.1.3 External Influences consisted of those factors affecting businesses in the sector but beyond its direct control.

The issue of **globalisation** is not currently on the sector's radar, with only 25% of the sector across the UK (63% in Northern Ireland) feeling that their company was at threat from overseas competition. However the reality is that through open tendering systems companies may experience rivalry from abroad, particularly in the area of new and environmental technologies where competition from the Scandinavian and German markets is particularly intensive. Consultants within the sector are more aware of the issues surrounding globalisation than the craft industries, and this may be due to the nature of the industry, where work is being carried out abroad and returned via the internet. The lack of concern about global firms entering the market may leave the sector vulnerable once foreign competition becomes established.

In addition, the all-Ireland affects of globalisation have as yet not been fully considered by Northern Ireland companies. The NI construction industry is forecast to out-perform the Republic’s over the next five years and this could lead to a shift in the current proportions of cross-border activity undertaken by building engineering services firms, which is currently in Northern Ireland’s favour.

New **environmental technology** and the drive to reduce carbon emissions is one of the single biggest factors currently affecting the sector. The UK’s energy policy commits to cut CO2 emissions by 60% by 2050, in addition the Northern Ireland Executive is spending £59m over the next two years to develop and implement renewable energy in the country and specifically within new dwellings. However, Northern Ireland does not have the full capacity to respond to environmental technology demands due to the lack of installation skills amongst the craft industries. 77% feel they are comfortable in environmental skills, however these appear to be restricted to existing legislative-driven technology such as condensing boilers. Less are confident in skills such as solar and photovoltaic. To meet the increasing demand for installation and maintenance of renewable energy, ongoing regulated training provision need to be expanded on the already established model of renewable energy installer academies in the country.

Government regulation was found to be causing problems for the sector, with competence schemes and issues around bureaucracy, red tape and increased costs being cited. There is also concern about insufficient inspection of competence cards taking place on site leading some of the sector’s companies to question the relevance of the system, or continue with renewal.

5.2 UK comparison

This section presents simply a flavour of the national and regional comparisons that were highlighted as part of the research and is not intended as in-depth analysis. For a more detailed geographical breakdown and analysis of the sector and employers’ attitudes and habits please see the UK Sector Needs Analysis.

Table 2 UK comparison for selected SNA questions

Skills issues	UK average	High	Low	Northern Ireland
Employers who felt they had the requisite skills to install environmental technologies	56%	77% Northern Ireland	40% Scottish Enterprise	77%
Employers who carry out formal benchmarking	24%	43% North West	3% West Midlands	7%
Employment of migrant workers	25%	67% London	7% East Midlands	17%
Employers who did not foresee any future skills needs	52%	74% Wales	30% North West	50%
Employers who recruit females in technical roles	26%	55% Yorkshire & Humber	13% Northern Ireland	17%

It was extremely interesting to compare nations and regions around the UK. Quite often the tale behind the statistics also further explained what the reasons might be for those findings. The fact that the North West carries out the highest percentage of formal benchmarking may mean that best practice can be shared across nations and regions once further development starts in this area. The findings relating to female employment reflect regions where specific promotions of women into the sector have

been pioneered such as Yorkshire & Humber by the Regional Development Agency and other partners.

In environmental technologies, Scotland (40%) and Wales (42%) had the lowest percentage of employers who felt they were adequately skilled, and both were outperformed by England in this area. This poses a problem to Scottish and Welsh Assembly Government as both see the development of renewable energy as being a major part of their environmental strategies.

The work of the five renewable technology academies in Northern Ireland is likely to have a factor on the country's high positive result for this question, and SummitSkills will be building on this work as a key element of its Sector Skills Agreement in Northern Ireland.

5.3 Consultation on SNA

SummitSkills recognised that a detailed Sector Needs Analysis report may not be suitable for all audiences. Different levels of detail were required by different stakeholders. To allow the SNA issues to be communicated to a wide range of viewers, SummitSkills produced a 'key issues' document which succinctly summarised the issues facing the sector. This was distributed with the main report to provide recipients with a choice of the SNA detail or an edited but comprehensive overview.

The employer interviews undertaken at the start of the project formed the core of SummitSkills' employer engagement, but this was just the start. With the 'bottom-up' ethos of the Sector Skills Agreement for building services engineering in mind, SummitSkills undertook extensive consultation on its draft Sector Needs Analysis reports. An event was held in each nation (including one in Belfast) and nine English regions, where employers joined other partners and stakeholders to discuss SummitSkills' findings so far and suggest solutions to the skills issues the sector is facing.

These events not only allowed SummitSkills to confirm the SNA findings with the sector, but also allowed employers to get involved in the Sector Skills Agreement from the outset and playing an active role in its development. The output from these workshops allowed a 'Viewpoint' document to be produced which summarised the solutions generated by each group. This document was distributed within each region and nation to gather views from a wider audience than could attend the initial workshop.

In addition to this specific project consultation, SummitSkills also brought the SSA to the attention of employers and gathered views through its normal engagement channels – including partnership groups, employer forums, trade association meetings, college steering groups, individual visits and industry interest groups.

5.3.1 Delegate suggested 'quick wins' and 'long hauls'

At the consultation events delegates were asked to suggest some 'quick win' and 'long haul' solutions for the Sector Skills Agreement. These have been considered by SummitSkills and incorporated into the thinking when developing the Northern Ireland action plans:

Table 3 Northern Ireland delegates' quick win and long haul solutions

QUICK WIN SOLUTIONS	
Funding and training provision	<ul style="list-style-type: none"> • Employers take more notice of trainers and attach more importance to it. • Agreement on apprenticeships - an employer led scheme. • SSA must be the results of a complete agreement between SSCs/ WDFs/ Training providers and government- funding must be adequate and fair to match agreed outcome. • Operative (short) certification policed by employer union body. • Introduce employer led modern apprenticeship to level 3.
New entrants	<ul style="list-style-type: none"> • Create level playing field to ensure that the sector has the right skills amongst all employers regarding skill cards. • Employer led training gives young people purpose and motivation- employed from day one is a show of commitment from employer and apprentice. • Essential skills champions' project. Speak to small employers and one man band types to get total picture of training needs- most industries are small to medium enterprises.
Industry profile and role models	<ul style="list-style-type: none"> • Continue to lead a holistic response/dialogue within the industry.
Engagement and partnership working	<ul style="list-style-type: none"> • Produce literature aimed at young people. • One body representing the industry. • Completion of employer led agreement for Northern Ireland. • Consult effectively with employers to take their views on board.
LONG HAUL SOLUTIONS	
Standards and qualifications	<ul style="list-style-type: none"> • Increase basic levels of entry standards for all new entrants. • Employer led apprenticeships- increased training. • Employers must embrace recruitment to ensure a stream of competent persons for a sustained workforce.
Recruitment into sector and industry image	<ul style="list-style-type: none"> • Industry to promote better to get higher calibre of entrant to the industry. • Address industry image, better recruiters. • Consult industry at all times, listen to their needs. • Raising image and awareness of industry especially with children and young people. • Develop better careers 1AG. • Find ways of funding/ implementing strategies for securing a quality image for the whole renewable energy sector.
Provision and funding	<ul style="list-style-type: none"> • Ongoing research- globalisation and small employer in Northern Ireland. • Use employer, trainers and student feedback to continue analysis on needs and key issues- this should take priority. • Ongoing regular communication between all parties- readiness to change if not working. • Ensure that training provision meets the needs of employers and creates pathways from school and career guidance through new entrants, to CPD and management level. • Communication strategy with changing information which is relevant. • Have standards in construction industry and particularly electrical HVCA and plumbing via sector councils.
Government influence	<ul style="list-style-type: none"> • Common cross sector qualification frameworks, multi skilling of operatives. • Improvement in procurement- contractors bidding for government work should enjoy some preference via pre-qualification tender, procedures.

5.3.2 Other issues arising from consultation

When discussing the sector's skills issues at the consultation workshops, the notion of a training fund was suggested at a number of the events as a way of ensuring that employers train their staff. The underlying idea behind this was that if businesses were forced to contribute to a central training fund then they would be more likely to carry out training to make a return on their investment.

This issue was raised enough times to be noted within this report, however because it has not been included as a sector priority or programme as it is not SummitSkills' responsibility or position to implement such a scheme. Discussions are already underway between some of the sector's trade associations and their member firms on a potential training fund for the sector. If and when a decision is made by the majority of employers in the sector, SummitSkills will then decide how best to proceed with this matter.

It is important to note here that this is just an issue that may affect England, Scotland and Wales. The building services engineering sector in Northern Ireland has clearly stated that it does not wish to be involved in a levy-type system.

5.4 Conclusions from stage one

The research conducted at stage one identified a number of issues where the building services engineering sector is performing poorly, which goes some way to explaining why the sector, along with the construction industry, is not performing well against other European competition, and why SummitSkills believes that the productivity assumptions for the sector are too optimistic. SummitSkills believes that the globalisation threat is a real one. This threat is greatest in new environmental technologies, where capacity is significantly lower than what will be needed if the UK is to meet the targets it agreed to at Kyoto. Evidence that German and Danish companies are already beginning to enter the market has been given to SummitSkills by Government agencies that have been approached by companies looking for partnership agreements.

The sector lacks any robust discernible form of management focus in relation to competitor analysis, competitive advantage and formal benchmarking, which is preventing strategic thinking and is likely to contribute to the productivity issues discussed throughout the report. A lack of current and future skills planning makes the sector reactive to emerging markets such as renewables, rather than proactive, and a failure to link future skills to training matrices and from them to business plans is a further weakness in the future success of the sector.

SummitSkills believes that the sector is in need of a fundamental overhaul of the current curriculum content and an extension of business focussed in-company training to meet the needs that this report has identified. Maintaining and improving skills levels is a challenging but necessary task, if the current prosperity enjoyed by the sector is to be maintained.

It was encouraging that during the thirteen workshops conducted across the UK at the end of stage one, audience and employer views resonated with the findings to date, confirming that these were skills issues that the sector itself identified with.

6 Summary of the supply picture: NI Stage 2

6.1 Overview of the issues affecting the sector

The aim at stage two was to assess the extent and quality of current training provision and determine whether existing supply is sufficient to meet short and long-term skills needs in the sector. For Northern Ireland, the employer interviews were once again analysed, along with statistical data from Department of Employment and Learning, UCAS, Experian and HESA.

As with the SNA, at this stage SummitSkills produced a report for each English region and nation of the UK. Due to the differing education and funding systems across England, Wales, Scotland and Northern Ireland, there were a number of distinct areas that would affect one country specifically. However a number of issues were consistent across the UK. The various strands were grouped into three themes: **sector involvement in training, the provision itself and profile of learners.**

For fuller detail behind any of the findings and issues described below please reference SummitSkills' Assessment of Current Provision.

6.1.1 Sector Involvement in Training analysed the employer interviews and their comments on a number of areas related to training provision. Here SummitSkills also presented a draft cost model on employer spend on training.

Employer use of training providers is good, with the share of total training carried out being split between FE colleges, private providers, manufacturers and universities. However, training that was immediately relevant to businesses is being placed before formal qualifications, and areas such as manufacturer training and some legitimate private provision is not adding to the formal qualification base of the sector. The Qualification & Credit Framework being developed by CCEA is a mechanism to recognise this kind of valuable training so skills development of this type can officially contribute to the sector's skills base.

There is some work to be done on *employer willingness to pay for training*, especially in the case of Modern Apprenticeships. SummitSkills' Sector Needs Analysis saw the majority of employers across the UK citing Level 3 as the sector standard. Only 37% of employers in Northern Ireland would be willing to pay more for their training. Concerns about the revised training provision structure may fuel employers' reluctance to pay more, as the Training for Success initiative does not operate on a similar model for both the mechanical and electrical industries. Also, funding support through 'Training for Success' is end-loaded and achievement-based, and does not consider employer costs incurred in the initial years of employment.

For the ACP SummitSkills created a 'work-in-progress' model that looks at *employer spend on apprenticeship training*, time allocated to mentoring and in-house training spend. A considerable amount of money (in this case via an employee's time) is spent on in-house mentoring throughout the course of the training programme. There are many hidden costs associated with training staff and employers are already making a significant contribution. Currently there is significantly less funding per apprenticeship in NI than in England (approximately £5000).

When assessing **employer views on quality of training provision**, generally there is more dissatisfaction with the quality of service and teaching provided by further education than private training providers. A high level of satisfaction has been achieved by ETT, the electrical training body. Mechanical employers have recently established a similar body to act as the managing link between industry and the delivery providers (PMST). The activities of the Renewable Energy Installer Academy network, has successfully developed a skilled workforce capable of installing emerging technologies.

Employer views on content of training provision were mixed. Qualification content in particular is seen as being in some cases out of date or not suitable enough for the needs of the sector. Curriculum is generally thought to be in need of review to take account of the changing needs of the sector relative to new technologies and renewables and removing material which is out of date. Technician curriculum seems satisfactory, although there is slight concern that some of the material taught is too specialised and out of date. SummitSkills has already begun to address some of these issues as part of the Sector Qualifications Strategy. SummitSkills is also currently working in conjunction with the Renewable Energy Installer Academy to research the ongoing needs for training in emerging environmental technologies.

6.1.2 The Provision Itself presented data and recommendations on the number and type of building services engineering courses available to employers and if they were providing the right kind of skills that the sector needs.

Based on the data provided, there appear to be a number of qualifications currently in the system in England and Wales that have not been funded (and therefore we assume have not been run) for a considerable amount of time. SummitSkills will work with DEL using English and Welsh data to more accurately identify the situation in Northern Ireland. If there is no demand for this curriculum we suggest that it is no longer relevant to the sector. By **reducing the number of courses and qualifications** that are surplus to employers' requirements, we can concentrate on those that truly meet the sector's needs.

There is a real need to **develop a 'job ready' strand for the Training for Success initiative** in order to equip learners with transferable skills to enter employment within the sector. This job-ready provision must support the Modern Apprenticeship programme. Currently technical certificates delivered in a standalone mode are seen by employers as not producing economically valuable skills and not meeting their needs. Research has also shown that high numbers undertaking a full time stand alone technical certificate do not move into full-time employment and therefore have little prospect of gaining a National Vocational Qualification.

Whilst it was not possible to evaluate the current **training provision spend** in Northern Ireland, possible savings have been identified in England and Wales which may be of interest to policy makers in NI. Any funding that leads to non-economically valuable could be redistributed to much needed training provision elsewhere in the sector such as environmental technologies (solar panels, photovoltaic panels for example), business management, benchmarking, supply chain management and apprenticeships for adults.

There are a low number of **higher education** establishments offering building services engineering courses. This low number is spread unevenly around the UK, although Northern Ireland would appear to be reasonably well catered for at technician level, unlike in England and Wales. There would also appear to be undergraduate and postgraduate provision within the province, making Northern Ireland one of the best catered for nations in the UK for building services engineering provision. There is however a weakness in the mapping of Level 3 provision to HNC/D, which needs to be improved.

A detailed report has been commissioned to look at the key statistics affect both HE and FE provision and will be published as a supplementary document to the Stage 3 report.

Regarding **quality marks and awards**, within the existing 16 FE college structure, a number of providers have a range of marks and awards such as Investors in People, Charter Mark and European Foundation for Quality Management (EFQM) award. A number of existing providers have achieved recognition for innovative teaching and learning practice. However none of these awards relate specifically to the building services engineering sector. There is scope for more providers to achieve relevant quality marks and provide innovation in teaching and learning for our sector, as part of the ongoing college restructuring.

SummitSkills is currently developing National Occupational Standards for **renewable technology activities and occupations**. The Renewable Energy Installer Academy (REIA) is continuing to develop progressive training provision to meets the needs of the sector's employers. SummitSkills, Energy and Utility Skills and Action Renewables are currently conducting a research project to determine employer needs for qualifications based on the design and specification, service and maintenance and commissioning of domestic systems. For higher level qualifications, SummitSkills has had initial discussions with Belfast Metropolitan College to help determine the structure for a Foundation Degree in renewable technologies.

6.1.3 Profile of learners looked at age and diversity of students and how they attended courses (full time, part time etc.).

Regarding **diversity**, access to the sector is still dominated by white males. The problems of diversity are worse in Northern Ireland than elsewhere in the UK, with almost no engagement by women and ethnic minorities in some industries in the sector. Despite various initiatives and mechanisms being introduced to encourage under-represented groups to join the sector, there seems to have been little impact. The sector also undertakes very little activity with local schools promoting sector career opportunities.

Following an analysis of the **mode of delivery and age of participants** in sector courses, the sector within Northern Ireland has a very traditional entry route to employment through under-19 apprenticeships with employed status. There are very few adult learners entering the sector. This model has been driven by existing DEL apprenticeship funding arrangements, which is currently under review and will be determined by the outcomes of the comprehensive public spending review.

6.2 UK-wide comparison

Because of the different education systems and funding bodies across the four nations of the UK, the Assessment of Current Provision generated more distinct differences across the UK than was found at the Sector Needs Analysis stage.

Many findings were consistent, for instance the general lack of diversity in the sector, insufficient higher education provision, the high level of in-house training undertaken by employers, and the general higher level of satisfaction with private providers when compared to FE colleges. However, some recommendations were specific to that country based on the findings, for instance the recommended new ‘superclass’ for building services engineering courses in Scotland or the commitment to develop job-ready provision for Northern Ireland’s Training for Success programme.

Whilst English government committed fully to an implementation plan following Lord Leitch’s recommendations on employer-led skills strategy, other nations have not publicly endorsed Leitch and therefore consideration was being given to this when developing each ACP. The DEL Skills Strategy published in November 2004 focused on the need to create the new skills needed by industry whilst supporting the raising of skills within the current workforce. This strategy was a fore-runner to the Leitch Review identifying at an early stage similar conclusions to those of Leitch and laid out the themes which are the key drivers of the Sector Skills Agreement for Northern Ireland.

Social justice and skills driven by the individual are significant issues in Wales, Scotland and Northern Ireland, so recognition of these facts played a part in developing solutions for the sector in these countries. In Wales, improving the basic skills of the population is a major challenge, as is developing the Welsh language across the country. Renewable energy appeared high on all agendas, which underlined the importance of developing a skilled workforce to meet this intense and concentrated government push.

Regarding employer views, this table presents simply a flavour of the national and regional comparisons that were highlighted as part of the research. It is not intended as in-depth analysis; for a more detailed geographical breakdown and analysis of the sector and employers’ attitudes and habits please see the UK Sector Needs Analysis.

Table 4 UK comparison of selected ACP questions

Key sector issues	England	Northern Ireland	Scotland	Wales
Employers willing to pay more for training	42%	37%	57%	28%
Employers who carry out In-house training	74%	73%	82%	73%
Employers who use manufacturers for training	34%	17%	27%	23%
Employers who felt content of training provision was suitable	36%	57%	67%	68%
Employers who had experienced problems with quality of training in FE colleges	52%	40%	27%	45%
Employers who had experienced problems with quality of training with private providers	8%	17%	7%	5%

The consistently high level of in-house training undertaken highlights the importance of ensuring that where appropriate this training, along with manufacturer and other training, is accredited so that it formally contributes to the sector's skills levels. A clear pattern has also emerged across the UK with employers being more satisfied overall with the quality of training from private providers than further education colleges.

As the SSA moves forward it is vital to work with partners across the UK to develop not only overarching programmes where employers are experiencing similar issues, but also tailored programmes where necessary to meet needs in a specific nation or region.

6.3 Consultation on ACP

In order to communicate the findings of the ACP, a second set of 'key issues' documents were produced for the ACP alongside the more detailed reports, to provide an alternative level of detail to SummitSkills' various audiences. The four-page document summarised the issues facing the sector and outlined the recommendations being made at this stage.

Once again the employer interviews undertaken at the start of the project were key to understanding the needs of the sector. The feedback given during the interview to questions related specifically to training provision were analysed and detailed within the reports. At this stage SummitSkills undertook a detailed consultation exercise across the UK. An event was held in each nation and nine English regions where employers joined other partners and stakeholders to discuss the findings so far and SummitSkills' recommendations.

These events allowed SummitSkills to confirm the ACP findings with the sector, and also allowed employers for a second time to participate in the Sector Skills Agreement. By this stage a sense of 'ownership' was clearly developing with employers taking a leading role in the project. Meetings between stakeholders to discuss the ACP were extremely beneficial in allowing different parties to understand and appreciate each others' positions and priorities.

The output from these meetings allowed a second 'Viewpoint' document to be produced which summarised the solutions generated by each group. This document was distributed within each region and nation to gather views from a wider audience than could attend the initial workshop.

Some early success has already been achieved as a result of these meetings, with SummitSkills being asked to input into funding bodies' planning cycles to affect what will be delivered for 2007/2008.

In addition to this specific project consultation, SummitSkills also brought the SSA to the attention of employers and gathered views through its normal engagement channels – including partnership groups, employer forums, trade association meetings, college steering groups, individual visits and industry interest groups.

6.4 Conclusions from stage two

Using the findings at stage two, a series of recommendations were outlined and short, medium and long term priorities were identified. At present SummitSkills has identified short term to be recommendations which can be completed in a year, medium term to be completed within two years and long term longer than two years.

Table 5 SummitSkills' ACP recommendation summary

Recommendations	Short/ Medium or Long Term Priority
<p>Recommendation 1a: SummitSkills recommends that sector curriculum that has not received funding in the last three academic years is removed from the DEL funding database, once an identification exercise with the DEL has taken place.</p> <p>Recommendation 1b: Future changes to sector curriculum need to be reviewed and approved by SummitSkills to ensure it is fit for purpose for the sector.</p>	<p>Short term. Removing identified curriculum from the DEL database if necessary should be implemented as soon as practically possible.</p>
<p>Recommendation 2a: Technical certificates should only be funded as part of a full framework apprenticeship or as part of a National Vocational Qualification. All funding for technical certificates as a standalone qualification should not be considered by DEL.</p> <p>Recommendation 2b: SummitSkills would like to work with DEL to develop a progressive pre-apprenticeship model for the building services engineering sector.</p>	<p>Short term. SummitSkills will work with the DEL to produce an action plan to identify potential entrance to the sector for a small number of non-employed status learners.</p>
<p>Recommendation 3: SummitSkills will continue to work with stakeholders in Further Education and Higher Education to seek to develop/maintain a network of providers offering degree and sub-degree courses within Northern Ireland. The development of foundation degrees may facilitate this process further.</p>	<p>Medium/Long term. Providers need to be convinced of the financial viability in running HE programmes within the building services engineering sector. Partners and stakeholders may need to work together to facilitate the development of sustainable funding sources to maintain curriculum offer. This is not as critical an issue in Northern Ireland, as it is in mainland UK.</p>
<p>Recommendation 4: SummitSkills will work with partners to develop credit-accumulation transfer and quality assurance for manufacturers and non qualification based courses from private training providers.</p>	<p>Medium term. Working with partners and stakeholder to develop credit accumulation transfer for manufacturer training, and develop new occupational standards for new and environmental technologies. This will be developed further in SummitSkills' Sector Qualifications Strategy.</p>
<p>Recommendation 5: It is vital to get the sector's curriculum and training structure right on a similar model across the whole sector to L3 so that employers can see the benefit and value in training. SummitSkills will work closely with the DEL, partners and the training provider network to implement this in conjunction with industry recognised training bodies.</p>	<p>Short term. SummitSkills work with the DEL, partners and stakeholders to analyse quality of sector provision in the province, allowing a development plan to be produced.</p>
<p>Recommendation 6: SummitSkills proposes to work with DEL, partners and stakeholders to identify curriculum spend and appropriateness of curriculum, and work with partners, stakeholders and providers to seek if necessary, a more effective use of funding to increase the sector's productivity performance and skills levels within Northern Ireland SummitSkills will apply to the DEL for additional funding to undertake this activity.</p>	<p>Short term. SummitSkills will work with partners and stakeholders, and particularly the DEL to produce a plan that allows planning to be mapped out as soon as practically possible.</p>
<p>Recommendation 7: SummitSkills will develop these models further to assess the total costs of training on employers. This information will be used work with the DEL to achieve a wider recognition of and sensible balance between employer and government contributions to training.</p>	<p>Medium term. SummitSkills will work with partners and stakeholders and in particular the sector's trade associations to develop and refine the various funding models currently being developed to analyse employer contribution to training.</p>

<p>Recommendation 8: SummitSkills will continue to work with Careers Service NI partners and stakeholders to increase the engagement of women and ethnic minorities by facilitating innovative progression pathways into the sector in Northern Ireland.</p>	<p>Medium to long term. SummitSkills will engage in more research on issues surrounding ethnic minorities, as well as continuing to work with partners, stakeholders other SSCs and employers in encouraging engagement in the sector from non-traditional groups. This problem is more acute in Northern Ireland than anywhere else within the UK</p>
<p>Recommendation 9: SummitSkills will work with partners, stakeholders and providers to develop sustainable entry and progression routes into the sector for the required* number of non-employed status learners within the province. This will equip them with the pre-requisite skills to allow them to enter a full employed Modern Apprenticeship while at the same time seeking to avoid the problems and difficulties that have been experienced in England and Wales, which are detailed within this report.</p> <p>*SummitSkills will advise partners on the required numbers based on the latest LMI data.</p>	<p>Short Term. SummitSkills will work with the DEL as described in recommendation 2</p>
<p>Recommendation 10: SummitSkills will work with the Education and Training Inspectorate, DEL, partners and stakeholders to seek to improve and develop the quality of provision within the province through the IQRS Standard.</p>	<p>Medium to long term. SummitSkills will work with the DEL, partners, stakeholders and providers to achieve the best result for the sector based on quality, local employer requirements and geographical spread.</p>
<p>Recommendation 11: SummitSkills will work with providers to increase achievement of quality marks. Essentially it is believed that if more providers achieve these standards then it should raise the overall quality baseline of the sector's provision in Northern Ireland.</p>	<p>Short to medium term. SummitSkills will work with partners and stakeholders to encourage the provider network to engage in the acquisition of more appropriate quality marks.</p>
<p>Recommendation 12: SummitSkills and partners will work with both the respective recognised training bodies and with providers to continue to improve the quality of both the administration and teaching of those courses.</p>	<p>Short term. SummitSkills will continue to work with partners and stakeholders to improve quality of providers where employers have indicated a quality concern as identified in the research.</p>
<p>Recommendation 13: SummitSkills will work with the bodies responsible for qualifications to update the existing qualifications in line with the sector's requirements to address the issue of unsuitable curriculum content. This would also include the development of new content to meet needs in areas such as environmental technologies.</p>	<p>Medium to long term. SummitSkills will work with partners and stakeholders to create a flexible framework that allows the sector's qualifications to respond rapidly according to technological advances and new skill sets.</p>
<p>Recommendation 14: SummitSkills will work with the DEL, trade union Unite and employers through their industry recognised training bodies to support and encourage both new entrants and existing employees, to improve their basic skills for personal development and enhance the sector's productivity.</p>	<p>Short to medium term. SummitSkills will continue to work with partners to develop and implement provision to help employees in the sector improve their basic skills and to promote the benefits of this to employers to see wider engagement in this activity.</p>
<p>Recommendation 15: SummitSkills will continue to work with Action Renewables and the REIA network to ensure that required skills are developed to support the continual development of these emerging technologies.</p>	<p>Medium to long term. SummitSkills will work with partners and stakeholders to establish adequate training provision to ensure employers can gain the required skills needed to design, install and maintain emerging renewables systems.</p>

7 Gap Analysis: comparing Stages 1 and 2

This gap analysis identifies issues that arise from SummitSkills' Sector Needs Analysis and Assessment of Current Provision. The main gap areas are summarised together and then tables are presented with details of employer demand, the current sector situation and the resulting gap. Each gap is then directly linked to a proposed sector programme to be taken forward to address and reduce the gap. These programmes are then grouped into the five skills priority areas already summarised. These priorities and programmes form the basis of our Sector Skills Agreement.

7.1 Headline issues and skills gaps

7.1.1 Attracting new entrants

Issues raised by employers highlighted concerns around the level of literacy and numeracy, employability and attitudinal skills of some of the new entrants, and the need to be able to attract good quality applicants into the industry in order to be able to deliver the increasing demand for building services engineering.

Employers perceive that sector employment opportunities are viewed as a lesser alternative to progressing into further and higher education, Enrolments historically show a lower academic level of new entrant being attracted to the sector than expected by employers. In addition the numbers of young females seeking employment within the sector has remain at extremely low levels (less than 1 %) over the last four years for both craft and professional occupations.

To attract a suitable level of new entrant to the sector, high quality careers information and guidance must be made available to local schools highlighting the numerous careers available within sector. These messages need to be circulated throughout the whole year and not as currently delivered during the period of March through to September. Only with proactive marketing of potential employment opportunities within the sector will the required level of candidate that is expected by employers be delivered.

With the school population in NI forecast to decline in future years, a parallel programme focused on reducing the numbers of school leavers who complete post primary education with a low base level of qualifications is required. The introduction of a vocationally based 14-16 diploma delivered across NI schools may assist with this objective.

7.1.2 Sustainable entry routes

Across the UK a high level of concern has been expressed regarding the development of sustainable entry routes into employment within the sector. The use of standalone technical certificates lifted from an approved framework within England and Wales as detailed within the ACP has not resulted in the full progression of learners into employment with low numbers progressing to achieve the level 3 qualifications which industry has deemed demonstrate the required level of competence. SummitSkills is committed to working with providers and stakeholders to develop a sustainable entry route into the building services engineering sector to ensure that real opportunities are created, delivering the required level of high quality new entrants needed by employers to support a growing sector.

In relation to Northern Ireland, through detailed LMI SummitSkills has been able to clearly identify the new entrants requirements on a sub regional basis between 2008 – 2012. Taking into account anticipated inflows and outflows from the sector due factors such as retirement, migration etc. we forecast a recruitment requirement of around 1,600 electrical trades and installation and over 900 for plumbing and HVAC trades over the five year period.

This suggests that the annual recruitment requirement for the building services engineering sector is quite small, at around 300 for electrical and installation trades and under 200 for plumbing & HVAC trades, but the need is for a highly skilled workforce, trained ideally to at least NVQ3 level. With the development of the Training for Success strategy moving apprenticeships to fully employed status from day one, an innovative programme is required under the job ready programme to equip learners with the skills required by employers, thus enhancing employment opportunities for candidates who have been unable to gain initial employment. Such a programme must deliver key transferable skills without diluting the Modern Apprenticeship programme by producing an underclass of new entrant with low or poor skills levels. SummitSkills and its employers are committed to working with DEL to develop such a framework which both equips the learner with skills attractive to employers within the building services engineering sector whilst giving them a high degree of transferable skills which can be translated into other industries

7.1.3 Qualification structure and content

A key area to be addressed was the need to review our existing qualifications to allow them to reflect current industry practice, remove out of date material, and develop new qualifications and training to allow sector employers to be competent to design, install, service and maintain the new range of microgeneration renewable systems needed to meet Government energy targets.

Core to this activity is the development of a revised sector qualifications strategy (SQS). SummitSkills is currently completing a review of the sector's national occupational standards, the underpinning structure of all existing qualifications. SummitSkills has over the last six months undertaken a UK-wide consultation process (including two workshops within NI) with industry to revise these standards to include both the integration of emerging technologies and identify a suitable assessment method to demonstrate the required level of competence.

This activity will inform the revised SQS which will deliver a simple, transparent and understandable structure for training and competence within the sector. It will also develop a method of accreditation for in-house and manufacturer training used by industry to raise the skills level of the existing workforce. The new SQS will also identify courses that require funding by DEL to support the sector. Overall, the full implementation of the SQS will be vital to enhance the understanding and participation of employers within the training model. Courses which are not included within the Sector Qualification Strategy that are identified as producing Non Economically Valuable Skills (NEVS) should not attract funding allowing targeted funding of the courses valued by employers.

Employers interviewed as part of the SSA process requested an easy to access method of finding the right provision within each region and nation of the UK. With full implementation of the SQS, SummitSkills can translate this provision onto a web-based search engine providing employers with a simple route to providers within their locality.

To assist with the developing and implementing the SQS, a sector-wide panel of employers, stakeholders and providers will be formed to discuss the needs of the sector, enhance communication between employers and providers and identify key training needs and the potential solutions required. This activity will be highlighted in the year 1 plan of the SSA.

In terms of specific training needs, the following activities will be addressed within the first year of the SSA in NI:

- Use of accreditation of prior learning to provide recognition for existing workers
- Focus on raising the literacy and numeracy of existing workers
- Progression from craft level 3 to higher education for existing workers
- Enhance sector specific provision for level 4 and level 5

Concern was also raised about the lack of training on supervisory and management skills, the business development areas of benchmarking and supply chain management, and the need for more higher education provision to address the gap in design skills. Employers were also keen to see a sensible balance struck between employer and government contributions to training.

7.1.4 New and environmental technologies

The building services engineering sector has a major role to play in the development of new and environmental technologies within Wales, which will directly contribute to the environmental strategies of the Northern Ireland Executive, which has identified significant investment in renewables technologies in the run up to the assessment of Kyoto priorities in 2010. The actual business readiness of the sector however may be running behind that of the developing market as a significant number of companies claim to have some of the skills required to install the new technologies.

This leaves the sector open to global competition as building services engineering companies abroad, particularly in Germany and Denmark but also the rest of Europe, have more advanced skills in environmental technologies, and already European companies are winning contracts for installation to environmental technologies in NI and the UK, with the Olympics in 2012 expected to exacerbate the situation. It is therefore imperative that the sector within Northern Ireland continues improves to lead the UK with its skills in environmental technology installation.

With this gap identified across the whole of the UK, work is already moving forward in Northern Ireland through Action Renewables, who has developed a suite of qualifications targeted at the craft operative level across the full range of technologies and has delivered currently over 400 registered competent operatives. This accredited training package has been driven by the grant system applicable to NI, with only installers who have completed the pre-requisite training package being eligible to install under the reconnect grant scheme.

With the removal of the grant system for the installation of renewable technologies within the domestic environment in April 2008, targeted training interventions are needed to support employers wanting to develop the necessary skills required in these areas.

Collectively, government must work with the outputs from the SSA to ensure that legislation in the form of competent persons schemes continue to drive training. Employers who invest in training are unable to compete against low cost unqualified

labour. Only with a holistic view from government with a collective policy will employers be able to make the required investment in the future skills of the sector's workforce, and demonstrate a clearly defined level of competence to its customer base.

In addition SummitSkills, in conjunction with EU Skills and Action Renewables, is currently working on NI-specific LMI to establish how best to progress from this base level of training. To ensure full integration of these technologies into existing occupational activities will be delivered by the revision of National Occupational Standards and new entrant qualifications to raise general awareness and post apprenticeship a full suite of qualifications not only at installer / craft level but also for design and marketing.

This activity is ongoing whilst the Sector Skills Agreement is being developed and will play a fundamental part of the final SSA implementation during the first year.

7.1.5 Business acumen

The Sector Needs Analysis utilised the business model developed by Professor Porter of Harvard University to measure the productivity and competitive advantage performance of the sector within the UK. International benchmarking data suggests that the UK and Scottish construction industry generally is performing at a lower productivity rate than the majority of its European competitors, making the potential threat from globalisation even worse. Generally, the building services engineering sector is generally performing badly in:

- defining competitive advantage
- formalised benchmarking
- competition analysis
- research and development
- succession planning
- current and future skills analysis
- first line supervisor and middle management training

All the factors listed above are contributing to the sector performing below its optimum level and its poor productivity performance against its competitors in Europe and the USA.

The building services engineering sector has significant productivity issues surrounding business management and acumen, however currently the data returns from Northern Ireland, England, Scotland and Wales highlight very few funded courses that contain a management and business focus within them and a very low take-up of these courses, with courses closing across the UK, rather than opening.

There are a number of generic courses such as the NVQ 3 in supervisory management managed by the Chartered Management Institute. However, there seems from the SNA to be little appreciation of these courses, although there is a desire for a sector specific qualification. Currently management training on the HNC and at degree level is not built around the sector, but is more generic in nature and is more construction than building services engineering related, with the exception of perhaps the MSC in Construction Management courses.

Concerns from contractors about BEng/BSc graduate courses within the ACP, suggests that undergraduate programmes are also too highly focussed on the design and consultancy industry within the sector, rather than the needs of the contractors, generally although not specifically related to management and business acumen.

There is therefore a fundamental and wide gap between what the sector needs to do improve productivity through enhanced business acumen and currently what is on offer at all levels for the sector. In conjunction with its industry stakeholders SummitSkills will determine a structure for a sector specific level 4 / level 5 management provision for Northern Ireland.

7.2 Mapping demand to current supply and identifying gaps

Taking the findings from stages one and two, the tables below details the sector demand, the current supply and the resulting gap, i.e. what is needed. Finally in the last column we detail the suggested solution to address this gap. In section eight SummitSkills presents these solutions as suggested sector programmes and details the actions and outcomes of this activity.

Skills Priority 1: Professional Image and Competence

Sector Demand	Current Supply	Gap – what is needed?	Solution/Sector Programme
Improved sector careers guidance and marketing to establish the sector as an aspirational career choice.	Parents, careers advisors and students rarely understand sector careers. Misperceptions deter many suitable people considering sector careers.	Careers advisors and students with a clear understanding of career routes and options. A sector that is recognised as a profession of choice.	Aspirational sector image
Transform the attitudes of students and parents from all backgrounds towards the sector.	Girls, ethnic minorities and their mentors have a negative perception of the sector leading to an under-representation of these groups in the workforce.	To attract the necessary quantity, quality and diversity of people into the BSE sector at all levels.	Fresh approaches to diversity
A way to recognise achievement in terms of qualifications, standards and training which is fit for purpose and meets employers' needs.	People in the sector have a range of experience, some are partly qualified or with no qualifications or recognition of competency.	Flexible methods to up-skill and recognise competence for different groups or categories of workers.	Ensuring everyone in the sector is competent
A common understanding of competence across the sector which is easy to understand and communicate.	Customers do not have a clear understanding of competence in the sector and so do not know how to check competence before awarding work contracts.	A mandatory, fully registered and qualified workforce which is recognised by the workforce and the public to raise the image of the sector.	Public recognition of competence
Benchmark existing skill card schemes for the sector and harmonise into a single skill card.	There are a variety of sector competency cards which have little recognition or understanding by customers. Employers are frustrated at the many cards not actively policed.	One skill card which recognises competency across the sector is valued by the workforce and understood by customers.	One well policed competency card

Skills Priority 2: Communication and Information

Demand	Current Supply	Gap – what is needed?	Solution/Sector Programme
A one stop knowledge centre for sector skills matters.	Information on skills development is scattered across a variety of sources and is difficult to assess.	A business focused national hub for sector skills knowledge, development and support, providing authoritative sector insight and market intelligence.	SummitSkills knowledge hub
Clarity on providers, authorised progression pathways and availability of public funding.	A significant number of sector courses and qualifications which are surplus to employer requirements.	Employers with a clear understanding of available provision and how it fits with their business and employee needs.	Provision clarity
Working models which review all costs, including employer contributions, of apprenticeship training.	Employers in the sector make a significant contribution to staff training and development, especially supporting and mentoring apprentices. This contribution is not understood or recognised by Government.	A robust model to assess the total costs of apprenticeship training to help achieve a sensible balance between employer and government contributions to training.	Apprenticeship cost benefit analysis
Demonstrate the benefit of training to employers to clearly define the contribution training makes to increased productivity and profitability.	Employers need convincing about the business benefits of training to fund more than they do currently.	Employers to value technical and business training, train their staff and fund training to increasing levels.	Proof training pays

Skills Priority 3: Training Provision

Demand	Current Supply	Gap – what is needed?	Solution/Sector Programme
Qualifications need to be updated and maintained regularly to reflect the real world requirements of employers.	Qualification content is seen as being in some cases out of date or not suitable for the needs of the sector.	A completed sector qualification strategy which meets the needs of the sector and is updated in a timely fashion.	Relevant training reflecting NOS at all levels
A system to allow in-house and other non-qualification based courses to be formally accredited/recognised	Non-qualification based training is not currently monitored or recognised formally across the sector.	A credit accumulation transfer mechanism to monitor employer manufacturer and non qualification based courses.	Accredited training mapped to NOS
Authorised entry and progression routes that support the required number of people into the sector on an annual basis	Currently across the UK there is an overuse of standalone technical certificates where learners are not progressing into sector employment and do not gain an industry recognised qualification	Recognised entry and progression routes to maximise recruitment and retention of a wide range of sector applicants, minimising potential for partly trained staff. Linking requirements to LMI to ensure maximum recruitment and retention for a specific number of people.	Sustainable entry routes
UK-wide HE provision which is relevant to the real world.	A low number of HE establishments offering sector courses spread unevenly around the UK, with some regions with no provision at all.	A sustainable network of providers offering degree and sub-degree courses within all regions and nations.	Wider and sustainable HE provision
Review existing training inspection regimes provide support to improve. Consider feasibility and usability of a quality mark scheme for the sector.	The take up of quality marks by providers across the sector is varied.	Employers with confidence that FE, HE and private training providers deliver quality training which reflects up to date legislation.	Quality assured training provision including quality marks

Skills Priority 3: Training Provision cont...

Demand	Current Supply	Gap – what is needed?	Solution/Sector Programme
National occupational standards for current and emerging environmental technologies to embrace craft and professional occupations.	NOS and qualification content are out of date in relation to renewables and environmental technologies in the sector.	Updated NOS and qualifications which reflect the sector's changing needs in relation to renewables and environmental technologies.	Renewables & environmental technologies

Skills Priority 4: Funding

Demand	Current Supply	Gap – what is needed?	Solution/Sector Programme
Flexible demand-led funding.	Current funding mechanisms do not fully meet sector needs. There are special requirements for funding to support areas which are not the norm. e.g. mature adults.	Public funding for training that delivers maximum benefit to businesses and individuals.	Influencing flexibility of funding
A more effective use of public funding to meet the needs of the sector, increase productivity and skills levels.	Some current training provision spend is directed towards skills that are of no economic value to the sector.	All public funding is used to support training recognised by the sector and demanded by employers.	Redeployment of NEVS funding

Skill Priority 5: Management and Leadership

Demand	Current Supply	Gap – what is needed?	Solution/Sector Programme
Effective continual professional development opportunities for craft operatives to technician and first line management.	There is a skill gap between craft and first line supervisory levels which is currently not being addressed.	Improved succession planning in SMEs with increased use of supervisory training for first line managers to create greater effectiveness and productivity for the sector.	Progression and development of first line and middle managers
Tools to prepare current and future managers of SMEs and micros with the skills to thrive in a competitive market	The sector is very reactive to new opportunities	Equip people with business skills to increase competitiveness and proactively develop new business opportunities.	Developing enterprise skills for SMEs and micros
Address the skills needed for business managers and leaders to realise the benefits of management and leadership training for their companies.	There is a general lack of the use of general business skills across the sector.	The sector is proactive in the exploitation of innovation, service and business competitiveness.	Developing skills to increase competitiveness of the sector.

In section eight to follow, SummitSkills expands on the sector programmes and presents more detail on how activity is structured under each of the five skills priorities.

8 Identified skills priorities and sector programmes: our draft collaborative solutions

Taking the findings, recommendations and feedback from stages one and two SummitSkills was able to map out the main issues affecting the sector and link this to the suggestions that had generated from the consultation so far. A clear series of priorities emerged, and under those a number of programmes that could be developed to support and address these priorities.

In this section we map out those priorities and explain the programmes. These priorities and programmes form the basis of our Sector Skills Agreement. At the end of each sub-section, SummitSkills has created a table for each skills priority which identifies the priority and within it at national level the programmes (presented here as draft solutions), along with partner involvement, timescales and the positive impact that activity will make if it is successful.

Whilst the tables are generally applicable to the whole of the UK, at the bottom of each table SummitSkills has summarised proposed year one activity for Northern Ireland. This information is elaborated on within the NI-specific action plans in section nine.

8.1 Skills Priority 1: Professional Image and Competence

Sector image and competence was a hot topic at the workshops around the country. It was felt that in order for the sector to recruit and train the right level of personnel, the public needed to have an image of building services engineering that is professional, aspirational and competent. All around the UK, stakeholders were calling for the promotion of a professional image and the development of a competent workforce.

The strength of feeling around this topic also linked to some of the issues identified in the SNA and ACP reports: concerns around competence card inspection, lack of basic skills of new entrants and the lack of diversity within the sector.

Within this priority are five sector programmes:

8.1.1 Aspirational sector image

It is difficult for people on the outside of the sector – parents, careers advisors and students – to understand building services engineering careers and the routes to enter the workforce. Lack of clarity, awareness and misperceptions deter many suitable and high-achieving people from considering sector careers. This programme will promote an aspirational sector image by improving building services engineering careers guidance and active marketing to establish work in the sector as an aspirational choice for high-achievers.

“Industry to promote better to get higher calibre of entrant so that people see it as a real career – all parts of the sector to come together as one”

Belfast workshop comment

By developing sector ambassadors, updating careers materials and implementing a sector marketing campaign we aim to ensure that careers advisors and students have a clear and current understanding of the sector’s career options to position base as the occupation of choice for 16-21 year olds.

8.1.2 Fresh approaches to diversity

Females, ethnic minorities and their mentors either have no understanding of or a negative perception of the building services engineering sector, which has led to an under-representation of these groups in the workforce. Migrant workers that may be qualified at home have no way of recognising their skills in the UK. Taking fresh approaches through diversity will transform the attitudes of students and parents towards vocational and professional careers in the sector. We will conduct research on diversity and recruitment patterns, develop a migrant work qualification framework and promote the sector to under-represented groups to attract, recruit and retain a diverse workforce.

8.1.3 Ensuring everyone in the sector is competent

The sector currently has people with a range of experience, who are partly qualified or with no qualifications or recognition of competence at all. There is a need to recognise these workers and upskill them, to recognise achievement in terms of qualifications, standards and training which is fit-for-purpose and meets employer needs. Through developing flexible upskilling methods and promoting these qualifications, SummitSkills will recognise competence for different groups and categories of workers to ensure everyone in the sector is competent.

8.1.4 Public recognition of competence

Because customers do not have a clear understanding of what a competent craftsperson is, they do not know how to make sufficient checks before awarding work, which leads to a perception of cowboy workforce. By developing a competence assurance framework against which people can be assessed and registered, it will create a mandatory, fully registered and qualified workforce which is recognised by the sector and public, and in turn will raise the image of the sector.

“Government to police schemes more effectively. Less talk more action to stamp out the ‘cowboys’”

Belfast workshop comment

8.1.5 One well-policed competency card

There are a variety of competence cards across the sector which have little recognition or understanding by clients.

Employers are also frustrated about the many cards which are not actively policed. This programme will benchmark existing skill card schemes and harmonise into a new skill card which is well publicised, consistently recognises the competence of the sector, valued by the workforce and understood by customers.

Skills Priority 1: Professional Image and Competence

Promoting a positive image of the sector and develop a skilled and sustainable workforce

The issue		Proposed solution	
<ul style="list-style-type: none"> Lack of awareness and mis-perception of the sector deter many suitable people from considering building services engineering careers. Underrepresented groups have either no understanding or a negative perception of the sector. There are many in the sector with a range of experience but are part-qualified or have no qualifications or recognition of competence. Customers do not have an understanding of competence when awarding work to contractors. There are a variety of competence cards which are causing confusion across the sector. Many cards are not actively policed. 		<ul style="list-style-type: none"> Aspirational sector image: Improve careers guidance and active marketing to establish work in the BSE sector as an aspirational career choice for high achievers. Fresh approaches to diversity: Transform the attitudes of students and parents towards vocational and professional careers in the BSE sector. Ensuring everyone in the sector is competent: Implement ways to recognise achievement in terms of qualifications, standards and training which is fit for purpose and meets employer needs. Public recognition of competence: Develop a competence assurance framework against which people can be assessed and registered. A common understanding of competence across the sector which is easy to understand and communicate. One well policed competency card: Benchmark existing skill card schemes for the sector and harmonise into a new skill card which is well publicised. 	
Proposed action for employers	Proposed action for partners	Impact/outcome if successful	Timescales
<p>Employers to act as ambassadors and role models for the sector with schools.</p> <p>Stakeholder trade associations, including employer members, to market the sector and promote careers information.</p>	<p>Careers & Diversity Interest Group -develop and steer career strategies and diversity research.</p> <p>Training providers: train and prepare new entrants effectively for the sector.</p> <p>Career advisors and organisations to provide up to date information advice and guidance on the opportunities in the sector</p> <p>Schools motivate interest in the sector and vocational qualifications.</p> <p>Trade Union: part of the negotiation of one competency card.</p>	<ul style="list-style-type: none"> Careers routes that are clearly understood by people from all groups and backgrounds to position the sector as the occupation of choice. Flexible methods are established to create a mandatory, fully registered and qualified workforce which is recognised both internally and externally, to raise the image of the sector and its employees. One skill card which recognises competency across the sector which is valued by the workforce and understood by customers. 	<p>Yr 1: careers materials developed; diversity and recruitment patterns researched; Sector marketing programme implemented; Sector Ambassadors developed; Flexible upskilling developed; National Training Awards delivered; Migrant worker equivalence qualification framework produced; existing competency cards benchmarked.</p> <p>Yr 2: flexible upskilling methods implemented; high achiever ambassador programme developed; student & parent initiative implemented; criteria for new harmonised competency card developed; recognised entry and progression pathways promoted; Skills competitions UK and World Skills supported.</p> <p>Yr 3: one competency card implemented for the sector, including marketing campaign and policing mechanism; UK World Skills and UK skills competitions supported.</p>
<p>Year 1 activity for Northern Ireland: secure funding for a sector specific careers adviser; promote interactive careers map, dissemination and promotion of careers guidance and information; promote careers DVD; promote APL schemes; develop SQS; support Action Renewables and REIA in developing self-regulation scheme</p>			

8.2 Skills Priority 2: Communication and Information

Underpinning all of the consultation to date was the need for clear communication to and between all parties involved in the sector, and up-to-date, easy to digest information on skills issues. What emerged from the research was a lack of understanding of business issues such as research & development, benchmarking and competitive analysis and the emerging opportunities and threats related to areas such as these.

Many firms in the sector did not understand fully what training provision was on offer, or the curriculum content within the courses they were aware of. This was teamed with a general unwillingness to pay more for training or recruit apprentices. Consultation around the country revealed that if businesses were made aware of the current training system and the benefits of staff development it may result in a change of approach and attitude.

A series of sector programmes dedicated to communication and information was seen to be vital to remedy these issues:

8.2.1 SummitSkills knowledge centre

Information on skills development in the sector is scattered amongst a wide variety of sources and it is difficult for companies and people to access, resulting in confusion and skills gaps across the sector with firms not taking action due to a lack of knowledge. A business focused national hub with a regional content structure will become a one-stop-shop for the sector's skills matters, using simple language and consistent terminology to help businesses understand benchmarking, supply chain management and other issues. This knowledge centre will provide authoritative insight and market intelligence on building services engineering competitiveness to educate and help businesses plan ahead.

“Partnering – employers to identify need, providers to tailor course, government to support”

Belfast workshop comment

8.2.2 Provision clarity

A significant number of courses and qualifications across the sector are surplus to employer requirements, with confusion over what training and funding is on offer to employers and their workforce. SummitSkills will work with the DEL to remove any out-of date curriculum and develop clarity with providers on authorised progression and funding routes. To assist this, a course database for upskilling the sector will be publicised to employers. Through this activity, employers will have a clear understanding of the provision available and how it fits with their needs.

8.2.3 Apprenticeship cost/benefit analysis

Employers in the sector already make a significant contribution to the training and development of staff, especially in supporting and mentoring apprentices and in-house training. But as yet this is not officially quantified and therefore not understood or recognised by Government. SummitSkills will develop and refine its work-in-progress cost models to place costs on employer support of this kind, which will be promoted to Government in order to help achieve a sensible balance between employer and government contributions to training.

“Produce material in summary format – easy to read and bite-size chunks”

Belfast workshop comment

8.2.4 Proof that training pays

The majority of employers are unwilling to pay more for their training and need convincing about the benefit to business of funding more than they do currently. Through developing case studies that show the benefit of training and clearly defines the contribution that training makes to increased productivity and profitability will provide employers with the proof that training pays. The anticipated result will be employers that value technical and business training and commit to training their staff and fund this training to increasing levels.

Skills Priority 2: Communication and Information

Create a one stop knowledge centre for all building services engineering skills development needs

The issue		Proposed solution	
<ul style="list-style-type: none"> Information on skills development is scattered amongst a variety of sources and is difficult to access, resulting in confusion and skills gaps. Sector LMI is not regularly available. There are a significant number of sector courses and qualifications that are surplus to employer requirements. There is also confusion over training availability and access to public funding. Employers in the sector make a significant contribution to the training and development of staff, especially in supporting and mentoring apprentices, but this contribution is not understood or recognised by Government. The sector needs convincing about the business benefits of training and persuaded to train more than they currently do. 		<ul style="list-style-type: none"> SummitSkills knowledge centre: develop and communicate a one stop knowledge centre for sector skills matters. Implement annual LMI surveys and wider research and share business insights to improve competitiveness. Provision clarity: work with the DEL to remove out of date curriculum from the Learning Aims Database and develop clarity with providers on authorised progression pathways and availability of public funding. Develop and publicise a course database for upskilling the sector. Apprenticeship cost benefit analysis: develop and refine models that review all the costs, including employer contributions, of apprenticeship training. Proof that training pays: develop and communicate employer case studies to show the benefit of training, clearly defining the contribution that training makes to increased productivity and profitability. 	
Proposed action for employers	Proposed action for partners	Impact/outcome if successful	Timescales
<p>Employers provide data on apprenticeship costs to help refine cost models and case studies to show training pays.</p> <p>Stakeholder trade associations contribute data to the knowledge centre and help to publicise its availability and value, and proof that training pays.</p>	<p>DEL QCA and other relevant nations funding bodies work with SummitSkills to develop clarity in the sector provision available.</p> <p>DIUS: consider the apprenticeship cost benefit models developed to achieve a funding balance for employers.</p> <p>DEL: work with the Knowledge centre to refine the sector LMI at regional level.</p> <p>HE / HEFCE: share research data on the sector with the knowledge hub.</p> <p>FE: work with SummitSkills to provide clarity in the provision offered through authorised progression routes.</p> <p>Various LMI sources: work to develop up to date information on the sector.</p> <p>Regional observatories: share information and work with the knowledge hub on sector issues.</p> <p>Unite the Union: help to promote the proof that training pays.</p>	<ul style="list-style-type: none"> A business focussed national hub for skills-related knowledge, development and support, providing authoritative insight and market intelligence on sector competitiveness and skills matters. Employers have a clear understanding of provision and how it fits with their business and employee needs. A robust model that assesses the total costs of apprenticeship training and helps to achieve a sensible balance between employer and government training contributions. Employers value and commit to training, and to fund it to increasing levels. 	<p>Yr 1: national data set for approved qualifications refined; learning databases tidied; course database developed and publicised; Employer/student /provider meetings; 'training pays' case studies developed and publicised; apprenticeship models developed; Business Solutions portal expanded; sector LMI projects implemented.</p> <p>Yr 2: LMI communications plan implemented; Government lobbied for funding balance using apprenticeship model; skills gap matrices for the sector developed; SummitSkills knowledge hub developed.</p> <p>Yr 3: knowledge hub launched linked with observatories and sector; Proactive skills gap planning implemented; E-learning material sourced available through knowledge hub.</p>
<p>Year 1 activity for Northern Ireland: feed NI LMI into central knowledge hub; apply for additional funding to conduct annual research; developing SQS; develop and promote cost models including liaison with DEL; promote benefits of training inc work with MLN; case studies to support and encourage new entrants and existing employees</p>			

8.3 Skills Priority 3: Training Provision

SummitSkills' sector needs analysis at stage one identified a need for business and management provision and renewable energy training. Following this, the assessment of current provision highlighted the strengths and shortcomings of the sector's existing training mechanisms, and revealed the need for a considerable amount of work to address fundamental concerns and areas for improvement. A requirement for sustainable entry routes; more relevant and better quality provision; mechanism to identify informal training, standalone technical certificates and improved higher education provision were all high on the agenda.

SummitSkills' report findings and recommendations were supported by the views of employers around the UK who attended the workshops held to discuss these issues.

Six sector programmes were identified to tackle these issues and create a sustainable training structure for the sector that would benefit both the sector's employers and the wider economy.

8.3.1 Relevant training reflecting NOS at all levels

Qualification content is seen in some cases as being out of date or not suitable for the needs of the sector. With the need for qualifications being driven by external influences such as renewable energy targets, high quality and relevant training needs to be developed within fast timescales. Within this programme of work, SummitSkills will develop a process through its Sector Qualifications Strategy for maintaining and updating qualifications regularly to reflect the real work requirements of employers.

8.3.2 Accredited training mapped to NOS

There is a significant amount of high-quality training that is either non-qualification-based, being carried out in-house or through manufacturers, but does not lead to formally recognized qualifications. Through creating a system of credit accumulation transfer and accrediting training mapped to national occupational standards, the sector can ensure that these types of valuable training can add to the sector's skills base.

“Ensure that training provision meets the needs of employers and creates pathways from school and career guidance through new entrants, to CPD and management level.”

Belfast workshop comment

8.3.3 Sustainable entry routes

Across the UK there are significant numbers of learners on technical certificate courses and other qualifications that lead to non-economically valuable skills and are not suitable entry routes into the sector. The number of people receiving this training outstrips any sector requirement by at least five fold. SummitSkills will work with partners on a national basis to develop authorised entry and progression routes for a specific number of people that have been directly linked to the sector's skills requirements. This will ensure that new entrants have a realistic chance of employment in the sector and employers can support a sustainable number of workers.

8.3.4 Wider and sustainable HE provision

There are a low number of higher education establishments offering building services engineering sector courses spread unevenly around the UK, resulting in some areas with no provision at all. This is an acute problem for individuals who need to gain a professional qualification alongside their work. SummitSkills would like to work with new and existing providers to develop a sustainable UK-wide network of HE

provision which is relevant to the 'real world'. This will bridge the gap between operatives and professionals within the sector and encourage the uptake of higher level qualifications.

8.3.5 Quality assured training provision including quality marks

Employers have a general dissatisfaction with the quality and service and teaching provided by further education, this is combined with a wide variation in the achievement of quality marks by providers. In this programme SummitSkills plans to work with providers to improve the quality of teaching and administration and also encouraging achievement of quality marks. The end result will be that employers will have confidence that FE, HE and private training provision delivers quality training that motivates trainees and maintains good communication links between provider, trainee and employer.

“Training should meet local needs, tailored with employer communication.”

Belfast workshop comment

8.3.6 Renewables and environmental technologies

There is a real government commitment for renewables and environmental technologies but the sector's national occupational standards and qualifications are not up to date in this area, which means the sector is lagging behind in vital skills needed for this new market. By developing and implementing standards and qualifications for environmental technologies that embrace craft, technical and professional occupations, we can ensure these skills are in place. A mechanism will also be put in place to review and update qualifications expediently in this fast-changing arena

Skills Priority 3: Training Provision

Pro-active, timely, high quality public funded provision for all training and fast-changing sector priorities

The issue	Proposed solution
<ul style="list-style-type: none"> Some qualification content is seen as out of date or not suitable for sector needs. New content needs to be developed to meet the changing needs of the sector. Non qualification based training is not currently monitored or formally recognised across the sector. A significant amount of funding is directed at standalone technical certificates* and non-economically valuable skills, which only offer a theory based qualifications and which are not suitable entry routes into the sector. The number of people receiving this training outstrips any sector requirement at least five fold. There very few HE establishments offering sector courses which are also spread unevenly around the UK, with some regions with no provision at all. Employers have a general dissatisfaction with the quality of service and teaching provided by FE. The take up of quality marks by providers across the sector is varied. NOS and qualification content is out of date in relation to renewables and environmental technologies. This means that the skills of the sector are lagging behind the market requirements to be able to design, install and maintain new technologies. <p>* standalone technical certificates do not apply in Scotland</p>	<ul style="list-style-type: none"> Relevant training reflecting NOS at all levels: develop a process to regularly maintain and update qualifications to reflect the real world requirements of employers Accredited training mapped to NOS: develop credit accumulation transfer and ensure manufacturer and non -qualification-based training is mapped to NOS Sustainable entry routes: authorised entry and progression routes into the sector are defined, implemented and promoted for a specific number of people and directly linked to the skill needs of the sector Wider and sustainable HE provision: develop a UK-wide sustainable network of HE provision which is relevant to the real world, including foundation degrees, to help bridge the gap between sector operatives and professionals Quality assured training provision including quality marks: work with partners to improve the quality of teaching and administration and increase achievement of quality standards. Existing inspection regimes reviewed for the sector and support provided to improve them. SummitSkills to decide if it develops its own quality mark scheme for the sector. Renewables & Environmental Technologies: develop and implement national occupational standards for current and emerging environmental technologies to embrace craft and professional occupations. Ensure environmental technologies are fully integrated within other activities such as the careers strategy and apprenticeship training frameworks.

Proposed employer action	Proposed action for partners	Impact/outcome if successful	Timescales
<p>Employers: contribute to the development of up to date NOS and a process for accrediting training</p> <p>Trade associations: work with SummitSkills to support development and implementation of NOS and qualifications, including HE</p> <p>Manufacturers: contribute to develop an accreditation process for the sector</p>	<p>DEL: work with SummitSkills to remove funding for standalone technical certificates and introduce sustainable entry routes</p> <p>Funding bodies: work in partnership with providers to ensure sector approved qualifications and courses are funded</p> <p>FE: actively remove standalone technical certificate provision and will ensure their provision reflects the latest NOS delivered in a quality and professional way</p> <p>HE/ HEFCE/Professional Bodies: work with SummitSkills to develop sustainable HE network of degree and sub-degree courses for the sector</p> <p>Nations standards bodies: ensure the latest sector NOS are reflected in the qualifications</p> <p>Awarding Bodies: develop qualifications reflecting the latest NOS</p> <p>QCA: work to accredit qualifications for the sector</p> <p>Third party certification bodies: work to develop an accreditation process</p> <p>DIUS: help to ensure appropriate inspection regimes maintain quality provision for the sector</p>	<ul style="list-style-type: none"> A sector qualification strategy which meets the needs of the sector and is updated in a timely fashion. A credit accumulation transfer mechanism to monitor and recognise employer, manufacturer and non qualification based courses Recognised entry and progression routes to maximise recruitment and retention of a diverse range of applicants, minimising potential for partly trained practitioners and linking requirements to LMI A sustainable network of degree and sub degree courses across the UK Employers have confidence that all providers deliver quality training with good communication links between provider, trainee and employer. Updated and maintained NOS and qualifications that reflect renewables and environmental technology skills needs. 	<p>Yr 1: L1/2 entry routes developed; NOS review completed; renewable technologies NOS completed; SQS started; sector-specific criteria developed for quality standard;; professional body forum established; more employers involved in HE</p> <p>Yr 2: New entry routes implemented; SQS continued; LSC standard implemented; fast track accreditation process developed; variety of HE delivery modes developed; Proactive new skills planning for sector undertaken</p> <p>Yr 3: SQS completed; credit accumulation process completed; early adopters of accredited training promoted; CPD passport scheme developed; UK HE network completed</p>

Year 1 activity for Northern Ireland: reviewing NOS including gathering employer feedback through workshops and adding renewable technology, create a BSE training forum, revise assessment strategy based on revised NOS, develop cross-sector job ready framework, develop SQS, establish HE links, establish HE employer forum, Ensure new college structure meets employer needs with ANIC, improve training provision quality and administration, produce LMI report on renewables requirements, work with REIA to develop qualifications, continue work with manufacturers interest group

8.4 Skills Priority 4: Funding

In order to help the sector achieve its aims to create a skilled workforce, a more flexible funding system is imperative. Current structures that include age caps on funding or funding for non-sector approved courses are seen to be restrictive or even detrimental to the sector's progression, development and productivity.

Through the programmes below SummitSkills intends to create a mutually beneficial funding system that not only assists the sector in recruiting, training and developing a productive workforce but also ensures that funding agencies are directing money at skills that will be of economic benefit.

8.4.1 Increased flexibility of funding

Current funding structures often restrict employers in their training efforts and they often have special requirements to fund areas that are not the norm, such as mature entrants. At the same time it is difficult for public bodies to ensure that funding is aligned to employer needs. SummitSkills will develop employer-centric brokerage for building services engineering skills development, supported by flexible demand-led funding, to ensure that public funding for training delivers maximum benefit for businesses and individuals.

“Formal mechanisms to assist employers, for example government incentives.”

Belfast workshop comment

8.4.2 Redeployment of NEVS funding

As detailed in the ACP summary, a considerable amount of current funding is directed at qualifications that are of no economic value and not relevant to the sector. Working with regional partners, SummitSkills will seek a more effective use of this funding and redirect it into areas that will increase the sector's productivity and skills levels. The aim is to ensure that all public funding available to the sector is used to support training recognised by the sector and demanded by employers, with all non-economically valuable skills training eradicated.

Skills Priority 4: Funding

Flexibility in funding to meet fast-changing skills needs to develop business and workforce

The issue		Proposed solution	
<ul style="list-style-type: none"> It is difficult for public funders of training to ensure it is aligned to employer needs. There are also special requirements across the sector for funding to support areas which are outside of the norm e.g. mature adults. A considerable amount of current publicly funded training provision leads to non-economically valuable skills (NEVS) and therefore is not relevant to the sector. There is also a need for new training provision to be funded to meet the changing needs of the sector. 		<ul style="list-style-type: none"> Influencing flexibility of funding: develop employer-centric brokerage for sector skills development, supported by flexible demand-led funding Redeployment of NEVS funding: work with regional and national partners to seek a more effective use of public funding to meet the changing needs of the sector, to increase productivity and skills levels of the workforce 	
Proposed action for employers	Proposed action for partners	Impact/outcome if successful	Timescales
<p>Employers: promote and support authorised entry and progression routes with their providers and help to deliver up to date provision</p> <p>Trade associations: promote and support authorised entry and progression routes with their employers and help to deliver up to date provision</p>	<p>DEL: work with SummitSkills to redeploy NEVS funding with providers whilst maintaining the overall funding for the sector</p> <p>DEL: work with providers to review and reduce all NEVS funding</p> <p>FE providers: actively reduce any NEVS provision and replace it with new provision demanded by the sector</p> <p>DEL: help to ensure the total funding available for the sector is maintained</p> <p>Unite the Union: lobby for flexible funding opportunities for the sector</p>	<ul style="list-style-type: none"> Public funding for training delivers maximum benefit to businesses and individuals. All public funding available is used to support training that is recognised by the sector and demanded by employers. All non-economically valuable skills training is stopped. 	<p>Yr 1: Alternative uses for NEVS funding mapped; NEVS redeployment started; social agenda items identified for funding; common strategy for ESF opportunities developed, brokers working with managing agents modelled; adult retention initiatives developed</p> <p>Yr 2: NEVS redeployment continued; funding opportunities outside academic year developed; fast track process approved for skills gap funding</p> <p>Yr 3: NEVS redeployment completed; further NEVS prevented</p>
<p>Year 1 activity for Northern Ireland: supporting ongoing funding through DEL revised priority areas; working with regional WDFs to determine levels of provision required; develop cross-sector job-ready framework; developing SQS; identify curriculum spend and appropriateness of curriculum and seek effective uses of funding; apply to the DEL for additional funding to undertake this activity; develop sustainable entry and progression routes</p>			

8.5 Skills Priority 5: Management and Leadership

Business management and leadership was a clear theme emerging from the Sector Needs Analysis – a lack of any discernable business planning or management is affecting competitiveness and makes firms vulnerable when pitched against those who are prepared and proactive in this respect. A number of SummitSkills’ stakeholders also have management and leadership as a priority, which will be highlighted through the regional action plans.

Three programmes of work here will underpin SummitSkills’ work in this area to develop and support managers and leaders who will create successful, productive and profitable businesses.

8.5.1 Progression and development of first line and middle managers

There is a skill gap between craft and first line supervisory levels which is not being addressed, and people on the tools being placed in supervisory positions without relevant training, which has a negative impact on staff and business performance. SummitSkills will develop continual professional development opportunities for craft operatives through to technician and first line management to help address this gap. Pilot initiatives in developing business and management skills that are rolled out to encourage take-up will increase the use of supervisory training for first line managers which will lead to not only greater business effectiveness and productivity but also staff motivation.

“Support structure for employers who want to develop enterprise skills.”

Belfast workshop comment

8.5.2 Developing enterprise skills for SMEs and micros

The sector is very reactive to new opportunities and generally SMEs and micro-businesses do not forward plan or proactively manage their business to take external drivers into account. This is affecting the sector’s productivity. In this programme various tools will be developed to prepare current and future managers with the enterprise skills needed to thrive in a competitive market.

SummitSkills will develop and implement pilot initiatives such as the already successful ‘action learning for leaders’ to equip the workforce with the skills needed to proactively develop new business opportunities. National occupational standards will also be developed as part of this activity to create standards that tailor specific entrepreneurial skills to the needs of the sector.

“Employers need to see the benefits of benchmarking, especially smaller firms. Need good communication of routes.”

Belfast workshop comment

8.5.3 Developing skills to increase business competitiveness

One of the major findings of the SNA was the lack of awareness and use of business skills such as benchmarking, competitiveness analysis or future skills planning. Inaction in this respect is creating a reactive sector that is extremely vulnerable to competition both home and abroad. There is a real need to develop skills in this area and help business managers realise the benefits of this work. SummitSkills will do this by developing training and pilot programmes on strategic business planning skills and promote those who are already reaping rewards. This activity will pave the way for the building services engineering sector to become proactive in both management approach and exploitation of business innovation.

Skills Priority 5: Management and Leadership

Ensuring the sector has the skills it needs to plan and develop profitable and competitive business

The issue		Proposed solution	
<ul style="list-style-type: none"> There is a skill gap between craft and first line supervisory levels which is currently not being addressed. People on the tools are being placed in supervisory positions without relevant training to maximise effectiveness and productivity. The sector is very reactive to new opportunities. Generally SMEs and micro-businesses do not actively manage their business to take external drivers into account. As a result the productivity of the sector is low. There is a general lack of the use of business skills across the sector to formally benchmark the effectiveness of businesses and improve competitiveness. The sector uses informal benchmarking rather than formal methods. 		<ul style="list-style-type: none"> Progression and development of first line and middle managers: develop and promote continual professional development opportunities for craft operatives to technician and first line management. Pilot initiatives in business and management skills and encourage employer take-up. Developing enterprise skills for SMEs and micros: develop and promote various tools to prepare current and future managers of SMEs and micros in the sector with the skills to thrive in a competitive market. Develop and use pilots to encourage wider employer take-up. Develop enterprise national occupational standards relevant for the sector. Developing skills to increase competitiveness of the sector: develop benchmarking and strategic planning training to help businesses realise the benefits of management and leadership training and increase competitiveness and productivity. Pilot programmes, document and promote benefits achieved. 	
Proposed action for employers	Proposed action for partners	Impact/outcome if successful	Timescales
<p>Large employers: pilot the first line manager training on key sites regionally.</p> <p>Employers: recognise and understand the benefits of management training and be more prepared to train their staff and then promote the benefits.</p> <p>Trade associations: provide training courses and guidance to their employers to encourage management and leadership development.</p>	<p>DEL: help to develop an action learning programme for leaders in the sector.</p> <p>DEL: provide funding for management and leadership training for the sector.</p> <p>Business solutions: develop the business leader development initiative.</p> <p>MLN: promote to employers the benefits of management and leadership training.</p> <p>DBERR: help to develop leadership skills for innovation for the sector.</p> <p>Unite the Union: promote the benefits of management and leadership training.</p>	<ul style="list-style-type: none"> Improved succession planning in SMEs with increased use of supervisory training for first line managers leading to greater effectiveness and sector productivity. People equipped with increasingly sophisticated business skills to increase competitiveness and proactively develop new business opportunities. The UK BSE sector is proactive in the exploitation of innovation, service and business competitiveness. 	<p>Yr 1; pilot programme for first line managers mapped; benefits of KPI and benchmarking promoted; Solutions for Business website promoted; business benefits for manager/leader training developed and promoted ;'business planning made easy' developed.</p> <p>Year 2; Programme of employers using KPIs and benchmarking reviewed; case studies of first line manager programmes developed and promoted; develop pilot enterprise skills programme developed; wider strategic skills programme developed.</p> <p>Year 3; Implement enterprise skills programme in sector implemented, case studies developed and promoted; wider strategic skills programme in sector piloted, case studies developed and promoted; best practice 'business planning demystified'.</p>
<p>Year 1 activity for Northern Ireland: promoting business solutions leader development initiative; promote action learning for leaders; develop and promote solutions for business website; promote inspirational leadership programme</p>			

8.6 Underpinning programmes: enabling activity

Positioned across all of the priorities and programmes listed above are two areas that are a fundamental part of any activity carried out under the Sector Skills Agreement. Rather than allocate these under one particular priority or programme, it was felt important that the forming of partnerships and exerting influence on government weaved through most if not all of the programmes planned for the sector and will act as enablers to support the various projects being undertaken.

8.6.1 Partnerships

Setting up networks to foster a partnership culture was seen to be vital following the events around the country. There was much enthusiasm for all parties within the sector working together, but a requirement for some coordinated activity to encourage people to work more closely together.

SummitSkills will be setting up various partnership networks as part of the Sector Skills Agreement and also encouraging other parties to do the same. Already in many regions there are successful forums and we want to maximise on this. The SSA implementation groups that will be established as part of this project will also be a core partnership mechanism. Consisting of key local stakeholders and influential employers, these groups will take responsibility for progressing SSA action at local level. They will be the lynchpin of the Sector Skills Agreement implementation on the ground.

Employers, providers, manufacturers, government and other key stakeholders working together: partnership of this kind is the source of a more proactive sector and will enable members to share knowledge and best practice and instill a sense of society into the sector.

8.6.2 Government influence

Ensuring that the sector liaises closely with NI Assembly will be central to the whole Sector Skills Agreement process. All areas of the SSA will involve helping the NI Assembly and its agencies to understand the building services engineering sector and its employer needs. For each skills priority the Government will have a central role, either through learning from the sector and recognising its activity, or directing funding to ensure a structure is in place to support skills development.

In many areas the sector is also looking for the NI Assembly to lead by example to assist the sector in its efforts. Specifying and awarding contracts to firms that can demonstrate clear staff training and development for instance, or creating legislation in consultation with the sector to avoid potential pitfalls when trying to implement on the ground.

Working with the NI Assembly and DEL to influence and liaise in this way will provide the Sector Skills Agreement with a solid foundation from which to work and progress.

9 Proposed actions and solutions: Northern Ireland

The UK-wide priorities detailed in section eight have been taken down to Northern Ireland level to reflect more closely the proposed collaborative solutions between employers and partners for the sector. The action plans to follow also detail how the proposals link to NI stakeholder policy and priorities.

9.1 Nation overview: Northern Ireland

9.1.1 Introduction

Over the next five years the NI building services engineering sector is faced with significant challenges which have been both researched and identified within the early stages of the Sector Skills Agreement process. This process has involved gathering information on the issues affecting the sector and reviewing the current delivery model which supports training within the sector. The work so far has allowed SummitSkills to identify key areas of work that are required both UK-wide and within the unique context of Northern Ireland, to ensure that employers and individuals alike develop and retain the skills necessary to compete in the ever-changing environment.

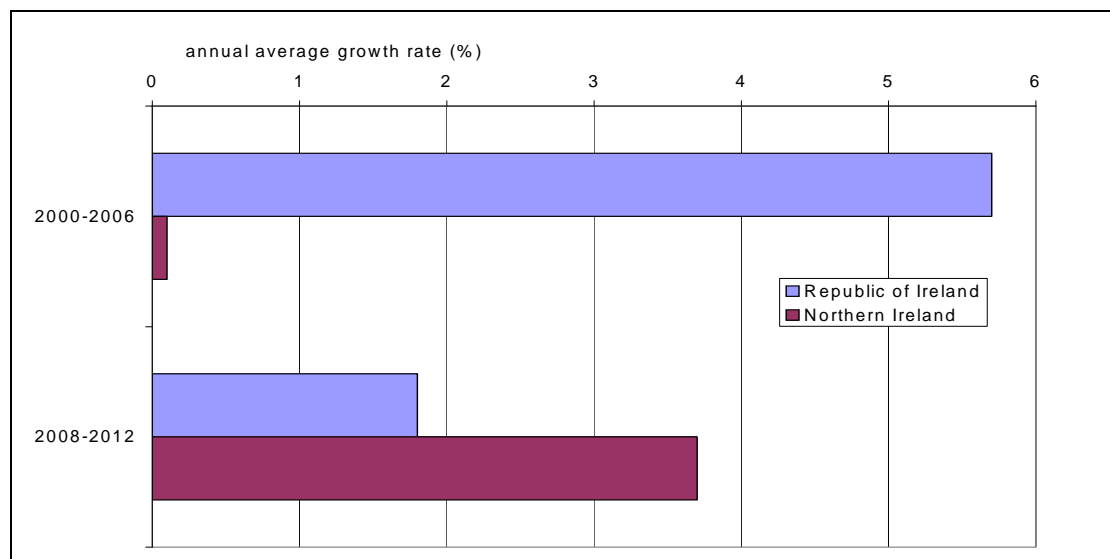
9.1.2 Economic Outlook

Growth in Northern Ireland construction will primarily be driven by the £1.5bn available over 10-years through the *Investment Strategy for Northern Ireland 2005/2015*, designed to upgrade the province's public infrastructure, but also by growth in commercial development as the political situation continues to normalise. Activity within the building services engineering sector is dependent on growth in the construction industry as a whole and as a direct result of this significant investment the sector is forecast for significant growth.

In addition, Northern Ireland employers have in recent years become highly mobile with 44% of employers either currently working or willing to undertake work outside of Northern Ireland.

However the Northern Ireland construction industry is forecast to outperform the Republic's over the next five years and this could lead to a shift in the current proportions of cross-border activity undertaken by building engineering services firms, which is currently in Northern Ireland's favour. This will present local employers with a number of key issues affecting the skills levels of their workforce as NI employers start to feel the full effects of globalisation.

Figure 1: Northern Ireland and Republic of Ireland construction growth rates



One of the key driving factors in the development of a world class workforce is to ensure that the skills developed are not only aligned to the UK but are as a minimum of a similar standard as those being delivered by the ROI.

9.1.3 Employer Demographics

The building services engineering sector in NI is primarily dominated by SME / micro businesses, with 59% of all employers within the sector having five employees or fewer. This pattern of SME/micro business presents real challenges for the development of a skilled workforce with employers driving hard to remain profitable whilst trying to develop the skills required to increase productivity and keep up with the rapidly changing technological requirement of the modern construction industry.

The majority of businesses have developed based around the major conurbations within NI and have been supported by an extensive training network through the existing FE structure. With the ongoing revisions to the FE structure in NI is imperative that a fully collaborative approach is taken by all stakeholders to ensure that the location of future training facilities meets the needs of both employer and learner alike

The development of solutions which are both attractive and useful for employers within the sector will demand a highly flexible approach to address the skills priorities and action plans identified within this report to ensure that the national objectives identified for the BSE sector across the UK can be delivered in such way which supports both the DEL Skills Strategy and the local economic situation.

This approach will not only require to be factored into the solutions developed within this agreement but also are strategically required within the wider policy developed by DEL and the Northern Ireland Assembly.

In summary it is crucial to develop Northern Ireland solutions for the issues affecting the sector and these solutions must be flexible in their delivery and of such a quality to ensure that a truly world class workforce is developed which can compete effectively within the UK and ROI markets.

9.1.4 Annual sector recruitment 2008 -2012

The growth in the sector indicates a need to increase the workforce over the same time period, with the greatest recruitment requirement for electrical and installation trades, estimated at around 300 per year, and 200 per year for plumbing and HV&AC trades between 2008 and 2012. Evidence shows that the highest recruitment requirement is likely to be in the Northern and South Eastern regional college areas, despite Belfast being the main centre for construction activity. This is due to the metropolitan area drawing its workforce from a wider catchment area.

The main requirement of the sector is for a highly skilled workforce with qualifications at and above Level 3. Currently, most further education provision is delivered at Level 2 rather than Level 3. The provision at Level 2 has been mainly driven by a non-employed status funded traineeship through Jobskills. This balance of provision is an issue, as Level 3 is consistently identified as the minimum requirement by employers, and requests to remove Level 2 as standalone qualifications have been made as part of the revised SQS.

Table 6: Forecast new entrant requirement for building services engineering sector 2008-2012

	Belfast Metropolitan	North West	Northern	South Eastern	South West	Southern	NI Total
Electrical trades & installation	308	141	422	370	204	218	1664
Plumbing & HVAC trades	187	55	264	199	92	135	932

Source: SummitSkills, Experian, based on CSN model methodology, 2007.

If the balance of provision is not addressed it will create a shortage of a skilled workforce and hard-to-fill vacancies in the sector.

Training provision currently matches firms geographically, but the workload suggests some college areas are over-endowed with campuses. There may be some oversupply of training in the plumbing and HV&AC trades, but in certain electrical/electronic trades there may be a shortage of provision. The changes to the FE provision model must be driven by well-informed sub regional LMI shared between SSCs and the respective college workforce development forums.

9.1.5 Regional Industry Priorities

For Northern Ireland, the apprenticeship provision model is seen as the crucial priority area for the sector. The building services engineering sector has traditionally used the modern apprenticeship to train new entrants to the sector, ensuring that the skills required are delivered as part of a structured training programme with recognised outputs. The successfulness of this approach is demonstrated by the commitment of the sector's employers to both Electrical Training Trust (ETT) and PMST who manage the delivery of Level 3 Modern Apprenticeships on behalf of DEL.

For example within the electrical industry, Modern Apprenticeships provided by ETT have a significantly higher retention rate (91%) than the overall rates for the subject. This shows that qualifications outside ETT courses delivered by FE colleges have a significantly lower retention rate than the overall rate displayed of 76%.

In the action plans to follow, securing the highest level of new entrant training is a consistent theme. This is reflected through the reviewed and refreshed National Occupational Standards and a simple and transparent qualification structure and

funding model. SummitSkills has already highlighted the crucial role both DEL and Career Service NI have in the delivery of this objective.

The core objective of having a truly competent workforce is acknowledged by local employers and, in conjunction with a high quality apprenticeship provision, targeted training interventions can be realised to raise the skills of the existing workforce. This activity will be driven by ongoing employer engagement and NI-specific LMI that identifies firstly the need and then provides produce a workable and deliverable solution through working in partnership with stakeholders. This approach will include both vocational and personal skills such as literacy and numeracy and management and leadership.

In terms of renewable or emerging technologies, SummitSkills will continue to work in conjunction with the REIA to progressively identify the training needs of the sector and ensure that the skills required by a 21st century workforce are developed and supported within the NI employer base.

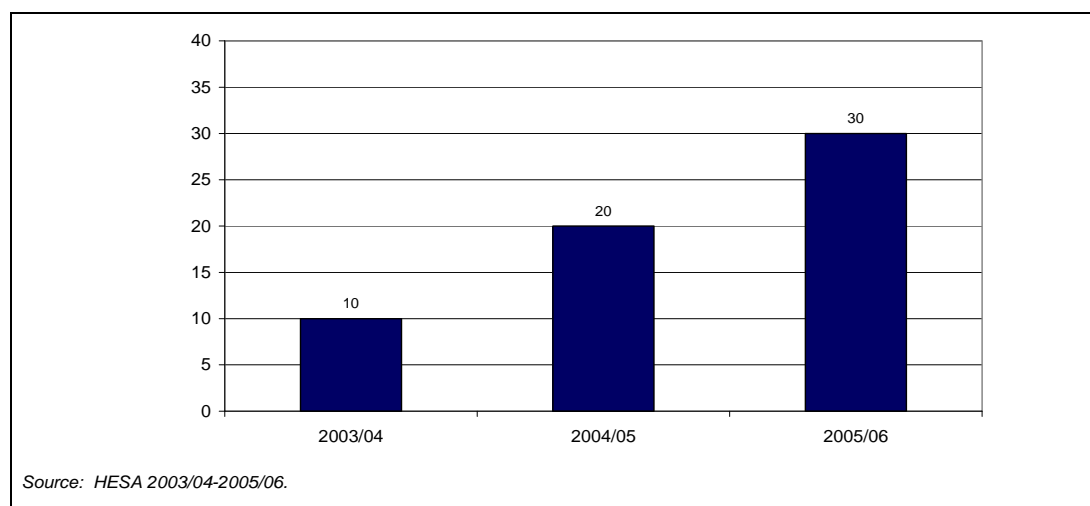
9.1.6 Higher Education

There is only one university – and indeed only one of its campuses – delivering higher education building services engineering courses in Northern Ireland: University of Ulster, at its Jordanstown campus. The limited number of institutions offering building services engineering courses was also noted in the recent SummitSkills study on UCAS applications and acceptances in the UK.

However, as noted below, Northern Ireland has a large proportion of all UK degree students in building services engineering, and there is no corresponding provision in the Republic of Ireland. Hence the provision offered at University of Ulster is hence of strategic importance to the country, indeed, to the UK as a whole.

As illustrated in Figure 2, building services engineering is a small subject of study, with only 30 students in Northern Ireland in 2005/06, although this is a three-fold increase from 2003/04. It should however be noted in relation to UK-wide applications and acceptances numbers from 2005, recently presented in a SummitSkills study, that the 2005/06 number of students – even discounting the EU students not likely to apply through the UCAS system – still represent 40 per cent of all UK building services engineering students at degree level (65 acceptances on degree courses in total).

Figure 2: Building services engineering student numbers, three year comparison



Building services engineering is a very small area of study in comparison with engineering and other construction studies. It represents about one percent of engineering studies, and less than two percent of other construction studies. This is similar to the UK-wide picture, as shown in the SummitSkills study on UCAS applications and acceptances.

Currently there is no natural link from craft level 3 qualifications into higher education.

9.1.7 Stakeholders

The involvement and commitment of SummitSkills' stakeholders will be crucial in delivering a successful Sector Skills Agreement for the Northern Ireland building services engineering sector.

Within the context of this Sector Skills Agreement we have identified the role of a stakeholder within the process to engage openly with partners on common issues affecting the sector and work collaboratively to develop tailored, workable and meaningful solutions to local issues within the wider UK skills agenda.

At this stage we expect the Department of Employment and Learning to agree a general direction of travel and agree our key priorities and programmes. Following a period of negotiation this will develop into firm commitment and an implementation strategy for each of the specific skills priorities, to create a final SSA document that will be delivered.

Other partners will sign up in different ways depending on the programme, their level of involvement and what is required from them. SummitSkills hopes to secure partnership agreements with the following stakeholders to confirm that we can work on and develop the proposals contained with this report:

- Department for Employment and Learning
 - Sectoral Development Branch
 - Training Programmes Branch
- Careers Service NI
- Sector Industry Recognised Training Bodies
 - Electrical Training Trust
 - Plumbing and Mechanical Services Training Ltd
 - CITBNI
- Industry Trade Associations
 - Scottish and Northern Ireland Plumbing Employers Federation
 - Northern Ireland Master Plumbers Association
 - Heating and Ventilation Contractors' Association
 - Electrical Contractors' Association
- Educational Training Inspectorate
- QCA NI
- CCEA
- LSDA NI
- Action Renewables
- ANIC
- Unite the Union
- Management & Leadership Network

9.2 Northern Ireland proposed activity against skills priorities and sector programmes

In the tables to follow SummitSkills presents Northern Ireland action plans for consideration. Under each of the five skills priorities we have detailed the employer need, how it links with existing stakeholder policy, the actions that need to be taken against each sector programme, which stakeholders are primarily involved, potential employer engagement and a target date for the activity.

9.3 Next steps

SummitSkills will now be meeting with stakeholders in Northern Ireland to discuss the proposed action plans and consider what can and will be both committed to and achieved.

Skills Priority 1	Professional Image & Competence: promoting a positive image of the sector and develop a skilled and sustainable workforce
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Employer Need	Building services engineering become the recognised employer of choice, with high quality new entrants to be recruited for all occupations within the sector
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Stakeholder Strategies/Policies	DEL Skills Strategy; DEL Essential Skills for living; DEL Careers Service strategy for NI; DEL FE means Business
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Additional Partner Strategies	Action Renewables Code of practice
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Sector Programme	Actions	Led By [Stakeholder/s]	Employer Engagement/Action
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YEAR 1

1.1 Aspirational sector image	Secure of funding for a sector specific careers advisor for NI to work with schools / colleges in presenting the sector as an employer of choice	Career service NI	
	SummitSkills are developing a NI specific web based interactive Careers Map to assist potential entrants to understand entry routes, and thereafter potential for progression from craft to more technical and managerial positions.	ETT & PMST	Employer board commitment from respective IRTBs
	SummitSkills has signed a memorandum of understanding with Career service NI detailing the activities to be undertaken in the promotion and dissemination of career guidance and information	Career service NI	
	SummitSkills Careers and Diversity group developing a new Careers CD for use in Schools, at Careers Events and by industry training providers to show people what the sector has to offer	SummitSkills	UK SummitSkills Employer interest group

1.3 Ensuring everyone in the sector is competent	However for people in the industry who do not have a Level 3, there are Accreditation of Prior Learning (APL) schemes to enable them to obtain this. Crediting Electrotechnical Competence (CEC) is the APL scheme for the Electrical Industry, and can be accessed through selected colleges. The SummitSkills National Assessment Programme (SNAP) is the APL scheme for the Heating, Ventilating, Air Conditioning & Refrigeration industry, and again can be accessed through selected colleges.	SummitSkills	Local case studies and promotion published
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1.4 Public recognition of competence	SummitSkills will through its SQS develop a simple transparent qualification structure which highlights the industry route to defined levels of competence	SummitSkills	Employer workshops
	SummitSkills will continue to support Action Renewables and the REIA in the development of an Industry self regulation scheme for emerging technologies backed by a qualification structure which defines competence	Action Renewables, REIA, Trade Associations	Employer workshops

YEARS 2 and 3

1.2 Fresh approaches to diversity	Linked to item 1.1 within a NI context use local role models through the processes identified in item 1.1 and presented to Local schools / colleges through the BSE liaison officer	Career service NI		Year 2
	SummitSkills to develop NI specific innovative promotional material aimed at attracting more Women and Ethnic minorities to apply to work in the BSE sector	ETT & PMST	SummitSkills employer interest group	Year 2
	SummitSkills to do further research on minority group issues within the BSE sector. In order to facilitate the development of workable solutions to clearly identified issues	DELNI / Careers Service	Regional activity feeding into UK research	Year 2
1.3 Ensuring everyone in the sector is competent	Working with DEL to raise the base level of literacy and numeracy within the sector through the promotion of essential skills to employers SummitSkills will work with the DEL, trade union Unite and employers through their industry recognised training bodies to support and encourage both new entrants and existing employees, to improve their basic skills for personal development and enhance the sector's productivity	DEL, ETT, PMST, Unite the Union	Employer workshops / BSE guidance leaflets	Year 2
	Provide a consistent and clear pathway for all MA candidates to complete a level 3 NVQ as the minimum output across all occupations within the sector, these pathways will be published in both Web and leaflet format for distribution. <i>This activity must be superseded by the full implementation of the revised SQS</i>	DEL, SummitSkills		Year 2
1.4 Public recognition of competence	The BSE sector within NI regards NVQ Level 3 as the competence level for people working in the sector, and qualifies them to obtain a Competence Scheme Card. The public need to be made more aware of this, and the need to ask for such a Card before placing work with a contractor.	Trade Associations / SummitSkills / DETI	Employer workshops	Year 2
1.5 One well policed competency card	At present each discipline in the sector has their own version of a Competence Card, explore with appropriate Joint Industry Boards if there is scope to develop a common Competence Card for the BSE sector.	Trade Associations/ SummitSkills		Year 3

Skills Priority 2	Communication & Information: one stop knowledge base for all BSE skills development needs
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Employer Need	Need for both up to date regional and national LMI and strategic policy information in a simple and concise manner, this information requires to be presented in a format which can be utilised by both SME and multi national alike.
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Stakeholder Strategies/Policies	DEL Skills Strategy; WDF terms of reference / DEL Skills Strategy; DEL Essential Skills for Living DEL FE means Business
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Sector Programme	Actions	Led By [Stakeholder/s]	Employer Engagement/Action
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YEAR 1

2.1 SummitSkills knowledge hub	Ongoing production of NI specific LMI feeding into a central knowledge hub.	DEL	Employer interviews / feedback
	NI LMI complete September 2007 application for additional funding to be made to conduct this research on an annual basis	DEL	

2.2 Provision clarity	Development of a Sector qualification strategy which translates the need of employers into a simple understandable and workable qualification structure	DEL / QCA	Workshops, Uk and Local
	On completion SQS to be fully implemented in NI with a transparent funding model delivered to support employers	DEL	

2.3 Apprenticeship cost benefit analysis	SummitSkills to work with Industry partners to further develop costing models which show the true cost to employers of training an apprentice. Once developed, to use these to inform discussions with the DEL on achieving a sensible balance between employer and government contributions to training	DEL, SummitSkills	Local case studies and promotion published
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2.4 Proof training pays	SummitSkills to work with Industry partners to further develop costing models which highlight the benefit to both organizational and individual development in having a fully trained and highly skilled workforce	SummitSkills, ETT, PMST	Local case studies and promotion published
	SummitSkills will work with MLN to promote the benefits of training in areas such as management and leadership and the positive impact it can deliver	SummitSkills , MLN	Local case studies and promotion published
	SummitSkills will work with the DEL, trade union Unite and employers through their industry recognised training bodies to support and encourage both new entrants and existing employees, to improve their basic skills for personal development and enhance the sector's productivity	SummitSkills, Unite the Union ETT PMST	Local case studies and promotion published

YEAR 2

2.1 SummitSkills knowledge hub	Development of links to NI & ROI strategic funding organisations to map future business opportunities for local employers	INVEST NI / ROI	
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Skills Priority 3 | **Training Provision:** proactive, timely, high quality public-funded provision for all training and fast changing sector technologies

Employer Need
 High quality training available meeting the need of local employers, this provision must be flexible in its approach and focused on the demand led approach.
 With 73% of employers under taking post apprenticeship manufacturer training it is vital to have this type of training accredited SummitSkills will work with partners to develop credit-accumulation transfer² and quality assurance for manufacturers and non qualification based courses from private training providers
 It is vital to get the sector’s curriculum and training structure right on a similar model across the whole sector to Level 3 and upwards so that employers can see the benefit and value in training. SummitSkills will work closely with the DEL, partners and the training provider network to implement this in conjunction with industry recognised training bodies

Stakeholder Strategies/Policies
 DEL Skills Strategy; WDF terms of reference / DEL Skills Strategy; DEL Essential Skills for Living
 DEL FE means Business; DEL Training for Success
 NI Assembly programme for Government

Sector Programme	Actions	Led By [Stakeholder/s]	Employer Engagement/Action
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YEAR 1 inc annual activity

3.1 Relevant training reflecting NOS at all levels	Review of National Occupational Standards Completed encompassing employer feedback on training objectives 3 workshops in NI 2007 to gather employer views	SummitSkills, PMST,ETT	3 workshops within NI
	SummitSkills is adding renewables technology requirements into the review of its NOS, covering design, installation maintenance and servicing.	SummitSkills	LMI survey
	Creation of a BSE training forum with participation from all industries within the sector and providers (HE & FE), this activity would be linked through the activities of the respective IRTBs charged with the delivery of vocational qualifications for the sector with NI.	SummitSkills	BSE training forum
3.2 Accredited training mapped to NOS	Review of National Occupational Standards Completed encompassing employer feedback on training objectives	PMST,ETT	3 employer workshops within NI
	Revised National occupational standards and assessment strategy integrated into qualifications strategy	SummitSkills	
3.3 Sustainable entry routes	Development of a cross sector Job ready framework for NI to allow a simple Progression route into multiple occupations through the MA frameworks, detailed paper produced and this is an ongoing activity	DEL, E U Skills SEMTA, ETT & PMST	Approval by local employer panels
	Development of a Sector qualification strategy which translates the need of employers into a simple understandable and workable qualification structure	QCA,CCEA	Approval by local employer panels
3.4 Wider and sustainable HE provision	To establish links between employers, FE and HE and promote the development of foundation degrees.	Foundation Degree Forward	
	To establish a Building Services Engineering employer forum for Higher Education in the NI	PMST,ETT	Activity integrated in existing structures

² For instance allowing a manufacturer course to provide credit towards a wider qualification

3.5 Quality assured training provision	Work in conjunction with ANIC to ensure that the new emerging college structure as envisaged through FE means business meets the needs of local employers		Consultation with the respective IRTBs	(Annual activity)
	SummitSkills and partners will work with the recognised training bodies and providers to continue to improve the quality of both the administration and teaching of courses	SummitSkills , ETT, PMST	Employer commitment at board level of IRTBs	(Annual activity)
3.6 Renewables and environmental technologies	Production of the NI LMI report on training needs within this sector, due for completion Nov 2007. this report will both inform and guide the development of ongoing training provision within NI	Action Renewables	Employer Interviews	
	SummitSkills is adding renewables technology requirements into the review of its NOS, covering design, installation maintenance and servicing.	SummitSkills	Employer workshops	
	Work in conjunction with REIA to develop a new suite of qualifications to match the needs of local employers.	REIA	LMI survey	
	SummitSkills to work through its Manufacturers Interest Group to identify future technologies in order to identify new skills and training requirements for employers	SummitSkills	4 meetings per year	(Annual activity)

YEARS 2 and 3

Sector Programme	Actions	Led By [Stakeholder/s]	Employer Engagement/Action	Target date
3.2 Accredited training mapped to NOS	Integration of manufacturer training through accreditation of internal programmes	QCA / CCEA	MIME interest group	Year 2
	SummitSkills will continue to work with the bodies responsible for qualifications to update existing qualifications in line with the sector's requirements, to address the issue of unsuitable curriculum content. This would also include the development of new content to meet changing and developing needs in areas such as environmental technologies	SummitSkills	Feedback from BSE employers forum	Year 3
3.3 Sustainable entry routes	Ongoing Development and implementation of a 14-16 diploma for use in post primary education	CCEA, QCA	Approval by local employer panels	Year 2
	SummitSkills will map and highlight potential entry routes to HE for existing workers, allowing progression from Level 3 skills	SummitSkills		Year 2
3.4 Wider and sustainable HE provision	SummitSkills will continue to work with stakeholders in Further Education and Higher Education to seek to develop and maintain a network of providers offering degree and sub-degree courses within Northern Ireland. The development of foundation degrees may facilitate this process further.	SummitSkills	BSE Training Forum	Year 2
	To promote HE opportunities in Building Services Engineering Sector to a diverse range of new entrants	Careers Service	Case studies released	Year 2
	To promote case studies in the NI for HE provision for Building Services Engineering	Career Service		Year 2
	To improve the entrance of first year entrants onto BSE degrees	Careers Service		Year 2
3.5 Quality assured training provision	SummitSkills will work with the Education and Training Inspectorate, DEL, partners and stakeholders to seek to improve and develop the quality of provision within the province through the IQRS Standard.	ETI, ANIC, DEL, ETT & PMST		Year 2
	SummitSkills will work with providers to increase achievement of quality marks. Essentially it is believed that if more providers achieve these standards then it should raise the overall quality baseline of the sector's provision in Northern Ireland	SummitSkills , ANIC, ETI		Year 2

Skills Priority 4	Funding: flexibility to meet fast changing skills needs to develop businesses and workforce
Employer Need	Local funding mechanisms available to support the growth and business and the development of skills raising the skills level of the existing workforce
Stakeholder Strategies/Policies	DEL Skills Strategy; WDF terms of reference / DEL Skills Strategy; DEL Essential Skills for Living (DEL FE means Business Framework) Developing a Skilled and Adaptable Workforce; DEL Training for Success
Additional Partner Strategies	Revision of the Priority Skills areas WDF's TOR

Sector Programme	Actions	Led By [Stakeholder/s]	Employer Engagement/Action
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YEAR 1 and annual activity

4.1 Influencing flexibility of funding	Supporting ongoing funding through the revised priority skills areas as identified by DEL	DEL		(Annual activity)
	Working with the Regional Workforce development forums to help determine levels of provision and need require across the FE structure, ensure provision is truly demand led	ANIC, DEL	LMI to inform decision makers	
4.2 Redeployment of NEVS funding	Development of a cross sector Job ready framework for NI to allow a simple Progression route into multiple occupations through the MA frameworks, detailed paper produced and this is an ongoing activity	DEL, EU Skills, SEMTA, ETC PMST,ETT	Ongoing employer engagement within existing groups across the sector	
	Development of a Sector qualification strategy which translates the need of employers into a simple understandable and workable qualification structure	QCA, CCEA	BSE training forum to guide employer engagement	
	SummitSkills proposes to work with DEL, partners and stakeholders to identify curriculum spend and appropriateness of curriculum and seek, if necessary, a more effective use of funding to increase the sector's productivity performance and skills levels within Northern Ireland. SummitSkills will apply to the DEL for additional funding to undertake this activity	SummitSkills DEL	BSE Training forum	
	SummitSkills will work with partners, stakeholders and providers to develop sustainable entry and progression routes into the sector for the required* number of non-employed status learners within the province. This will equip learners with the pre-requisite skills to allow entry to a full employed modern apprenticeship, while at the same time seeking to avoid the problems and difficulties that have been experienced in England and Wales	SummitSkills DEL	Conclusions tested with BSE employer Forum	

YEAR 2

4.1 Influencing flexibility of funding	Up-skilling initiatives for BSE employees focused on accreditation of prior skills Ductwork / gas etc. Development of innovative solutions targeted at existing workers within SMEs	DEL/ PMST/ ETT	Employer workshops to identify need
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Skills Priority 5	Management and Leadership: ensuring the sector have the skills they need to plan and develop profitable and competitive business
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Employer Need	Ensuring the sector has the skills it needs to plan and develop profitable and competitive businesses
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Stakeholder Strategies/Policies	DEL Management and Leadership Strategy for NI
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Sector Programme	Actions	Lead by [Stakeholder/s]	Employer Engagement/Action
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YEAR 1 and annual activity

5.1 Progression & development of first line and middle managers	Business Solutions Business Leader Development Initiative: Promoting the flexible programme optimising performance through strategy and the development of individual capability	Business Solutions	Awareness & take up
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5.2 Developing enterprise skills for SMEs and micros	Action Learning for Leaders: Promoting the programme of facilitated processes that allow managers or owners to build their skills and solve their business problems in a group experience format.	SSDA/DEL/MLN	Awareness & take up
	Solutions4Business: Development of the Business Network website – a “search-engine” for the management and leadership advice most commonly faced by businesses employing less than 10 people.	SummitSkills/DEL	Promote to employers through existing forums/ groups

(Annual activity)

5.3 Developing skills to increase competitiveness of the sector	Solutions4Business: Development of the Business Network website – a “search-engine” for the management and leadership advice most commonly faced by businesses employing less than 10 people.	SummitSkills	Promote to employers through existing forums/ groups
	Inspirational Leadership Programme: promote tool that raises awareness of strengths in leadership and enables leaders to be clearer about their most natural leadership styles and strengths so that they can shape their roles and those of their team accordingly.	SfBN/DEL	Awareness & take up

(Annual activity)

YEAR 2

5.1 Progression & development of first line and middle managers	To develop NVQ level 4 or 5 qualification to meet demand and need of the manager of BSE organisation and subsequent promotion /delivery to employers.	PMST/ ETT/ DEL	
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5.2 Developing enterprise skills for SMEs and micros	Business Solutions Business Leader Development Initiative: Promoting the flexible programme optimizing performance through strategy and the development of individual capability.	Business Solutions	Awareness & take up
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5.3 Developing skills to increase competitiveness of the sector	Action Learning for Leaders; Promoting the programme of facilitated processes that allow managers or owners to build their skills and solve their business problems in a group experience format.	SSDA/DEL	Awareness & take up
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Note: All these references are extracted from references found in the relevant Sector Needs Analysis and Assessment of Current Provision reports.