

DRAFT

Sector Skills Agreement Stage 3: Gap Analysis and Market Testing

**for the building services engineering
sector in Scotland**

October 2007

SummitSkills

1 Contents

1	Contents	1
2	Introduction.....	3
2.1	Our aim for the SSA	3
2.2	Stage 3 background and purpose	3
2.3	Already grounded in opinion and consultation... ..	3
2.4	Moving forward... ..	4
2.5	Structure of the report	5
3	Executive Summary.....	6
3.1	SummitSkills and the building services engineering sector.....	6
3.2	Sector Skills Agreement purpose	6
3.3	Sector Needs Analysis (SNA).....	7
3.4	Assessment of Current Provision summary	8
3.5	Emerging skills priorities.....	8
3.6	Next steps	9
4	Overarching vision for the sector	10
5	Summary of demand evidence base: Scotland Stage 1	11
5.1	Overview of the issues affecting the sector	11
5.1.1	New Entrants.....	11
5.1.2	Business and Workforce Development.....	11
5.1.3	External Influences.....	12
5.2	Geographic context	13
5.3	Consultation on SNA	14
5.3.1	Other issues arising from consultation.....	15
5.4	Conclusions from stage one	15
6	Summary of the supply picture: Scotland Stage 2	16
6.1	Overview of the issues affecting the sector	16
6.1.1	Sector Involvement in Training	16
6.1.2	The Provision Itself.....	17
6.1.3	Profile of learners.....	18
6.2	UK-wide comparison	18
6.3	Consultation on ACP	19
6.4	Conclusions from stage two	20
7	Gap Analysis: comparing Stages 1 and 2.....	22
7.1	Headline issues and skills gaps	22
7.2	Mapping demand to current supply and identifying gaps	24
8	Identified skills priorities and sector programmes: our draft collaborative solutions.....	27
8.1	Skills Priority 1: Professional Image and Competence	27
8.1.1	Aspirational sector image	27
8.1.2	Fresh approaches to diversity	27
8.1.3	Ensuring everyone in the sector is competent.....	28

8.1.4	Public recognition of competence	28
8.1.5	One well-policed competency card.....	28
8.2	Skills Priority 2: Communication and Information	30
8.2.1	SummitSkills knowledge centre.....	30
8.2.2	Provision clarity	30
8.2.3	Apprenticeship cost/benefit analysis	30
8.2.4	Proof that training pays	31
8.3	Skills Priority 3: Training Provision.....	33
8.3.1	Relevant training reflecting NOS at all levels	33
8.3.2	Accredited training mapped to NOS.....	33
8.3.3	Sustainable entry routes.....	33
8.3.4	Wider and sustainable HE provision.....	34
8.3.5	Quality assured training provision including quality marks	34
8.3.6	Renewables and environmental technologies.....	34
8.4	Skills Priority 4: Funding	36
8.4.1	Increased flexibility of funding	36
8.4.2	Redeployment of NEVS funding.....	36
8.5	Skills Priority 5: Management and Leadership.....	38
8.5.1	Progression and development of first line and middle managers.....	38
8.5.2	Developing enterprise skills for SMEs and micros	38
8.6	Underpinning programmes: enabling activity	40
8.6.1	Partnerships	40
8.6.2	Government influence	40
9	Proposed actions and solutions for Scotland.....	41
9.1	Sector background	41
9.2	Scottish stakeholder policies	41
10	References.....	54

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 in-depth employer interviews carried out at the start of the project 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.

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.

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

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 across the sector, allowing SummitSkills to develop a solutions-based approach to these issues.

These meetings were the start 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.

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 here a stage 3 document for Scotland containing themes and ideas that have already been extensively debated by the sector both in Scottish Enterprise and Highlands and Islands Enterprise areas.

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 five which contains solid mechanisms to create a sector that has the right skills, in the right place, at the right time.

2.5 Structure of the report

Following the executive summary, section four presents SummitSkills' overarching vision for the sector across the UK, outlining our skills priorities and the vision on what can and will be achieved if the SSA is successful. To provide background on the research undertaken so far, sections five and six are summaries on the Sector Needs Analysis and Assessment of Current Provision respectively. These sections both also provide some UK comparison of findings, describe the consultation process undertaken at each stage and summarise the main conclusions or recommendations made.

In section seven SummitSkills has taken the findings from stages one and two and identified the gaps arising from the current supply and demand, and which of the suggested sector programmes address these gaps. This leads to section eight, where SummitSkills' suggested skills priorities and sector programmes are presented in full along with proposed action for employers and partners.

Finally in section nine, the draft solutions are broken down into Scotland-specific action plans that demonstrate how the Sector Skills Agreement will be implemented at local level.

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.

There are a large number of small and micro-businesses within the sector with over 90% of businesses employing fewer than 10 people. 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 five, although a number of early quick wins have already been identified and are currently being implemented.

3.3 Sector Needs Analysis (SNA)

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 maximized 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 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 Scotland. Its purpose is to ensure that current and future training provision within the sector in Scotland 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 Scotland included:

- Creating a new superclass specifically for the building services engineering curriculum to remove the confusion that currently exists and allow a more efficient assessment of curriculum trends in the sector by all partners
- Reducing the number of non-economically valuable qualifications and courses that are surplus to employers' needs
- 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 Scotland 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 in Scotland 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 Scotland. 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 Scotland. SummitSkills is keen to emphasise the need for a partnership approach with stakeholders and partners organisations to tackle the issues facing our sector.

Devolution has given Scotland the opportunity to shape distinctively Scottish answers to Scottish questions, with more power to guide action, both directly and indirectly. Issues that have been raised in our consultations and solutions being sought will contribute to the delivery of Scottish Enterprise's Skills Strategy 2007 -2012 and Highlands and Islands Enterprise Network Operating Plan 2007 - 2010, which is aimed at giving Scotland a skills base that is world class whilst recognising people's different needs and situations.

For each of the five skills priorities identified for the sector, a detailed action plan for Scotland 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 Scotland 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 for Scotland, to meet what the employers in the sector have told us they need. With the support of the Scottish Government, trade associations, stakeholders and providers across Scotland, 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 mutually beneficial goals.

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 in Scotland 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 Scotland.

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: Scotland stage one

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 Scotland.

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 28% of companies in Scotland (Scottish Enterprise 20%, Highlands and Islands Enterprise 36%) identifying issues with literacy, numeracy and IT skills.

Regarding **diversity**, 38% of firms (Scottish Enterprise 43%, Highlands and Islands Enterprise 33%) employ women in technical roles and 20% of firms (Scottish Enterprise, 33% Highlands and Islands Enterprise 7%) 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.

35% of firms in Scotland (Scottish Enterprise 37%, Highlands and Islands Enterprise 33%) 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 SVQ is seen by 100% of the sector in Scotland to be the minimum level for a fully trained craft operative. Across this UK, this breaks down to 100% for Northern Ireland and Scotland firms, 96% of Welsh companies and 73% in England.

Looking to the future, 90% of firms in Scotland (Scottish Enterprise 97%, Highlands and Islands Enterprise 84%) 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 practical skills, IT and legislation training. There are little current and future skills needs identified beyond courses already available, no future skills planning and also no evidence of consideration for renewable/new technology skills requirements.

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 Scotland (6%) (Scottish Enterprise 4%, Highlands and Islands Enterprise 8%) 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 28% of the sector carries out any form of **research and development** in Scotland (Scottish Enterprise 23%, Highlands and Islands Enterprise 33%), 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 Scottish 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.

53% of the sector in Scotland (Scottish Enterprise 53%, Highlands and Islands Enterprise 53%) supports the concept that **enterprise and entrepreneurship** is an important factor in business. Fewer companies feel they have the relevant skills to implement an entrepreneurial culture. There is a north/south divide in opinion: companies in the south are significantly more positive towards this concept than the north.

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 (58%) rely on informal benchmarking techniques (Scottish Enterprise 43%, Highlands and Islands Enterprise 74%) and only 15% (Scottish Enterprise 27%, Highlands and Islands Enterprise 3%) 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 15% of the sector in Scotland (Scottish Enterprise 17%, Highlands and Islands Enterprise 13%) 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 for work in Scottish markets, 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 Scottish market may leave the sector vulnerable once foreign competition becomes established.

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 Scottish Government has set a target of 18% of electricity in Scotland to be generated from renewables sources by 2010, with an aspiration to increase this to 40% by 2020. However Scotland does not have the capacity to respond to environmental technology demands due to the lack of installation skills amongst the craft industries. This problem is so acute in Scotland and Wales that it may impede on Government policy in relation to renewable energy generation, as well as opening up the market to foreign competition. To meet the demand for installation and maintenance of renewable energy, more certified training opportunities need to be developed

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.

“Centralise the card system – just one system – needs consultation with the sector”

Highlands and Islands workshop comment

5.2 Geographic context

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	Scottish Enterprise	Highlands & Islands Enterprise	Scotland Average
Employers who felt they had the requisite skills to install environmental technologies	56%	77% Northern Ireland	40% Wales 40% Scottish Enterprise	40%	53%	47%
Employers who carry out formal benchmarking	24%	43% N. West	3% W. Midlands	27%	3%	15%
Employment of migrant workers	25%	67% London	7% E. Midlands	37%	33%	35%
Employers who did not foresee any future skills needs	52%	74% Wales	30% North West	73%	37%	55%
Employers who recruit females in technical roles	26%	55% Yorkshire & Humber	13% N. Ireland	43%	33%	38%

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 work of the five renewable technology academies in Northern Ireland is likely to have a factor on the country's result. In general Wales and Scotland 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 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.

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 of which 60 were undertaken in Scotland (30 in Scottish Enterprise area and 30 in the Highlands & Islands Enterprise area) 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 two in Scotland (in Edinburgh and Inverness) 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. It was hoped that the two events in Scotland would allow differentiation of the proposed solutions between Scottish Enterprise area and Highlands and Islands Enterprise area.

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 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: Scotland 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 Scotland, the employer interviews were once again analysed, along with statistical data from Scottish Enterprise, Highlands and Islands Enterprise and Scottish Funding Council.

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 come legitimate private provision is not adding to the formal qualification base of the sector. If formal mechanisms could be developed to recognise this kind of valuable training, 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. 57% of employers in Scotland would be willing to pay more for their training where it could be shown to improve skills and productivity.

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.

When assessing *employer views on quality of training provision*, there is a high satisfaction rate among employers about the courses provided by both FE colleges and private training providers in the Highlands and Islands and Scottish Enterprise areas. However, employers are less satisfied with the quality of provision in the Highlands and Islands Enterprise area than they are in the Scottish Enterprise area. Generally there is more satisfaction with private training providers than with FE colleges.

Employer views on content of training provision were mixed. 34% of the sector in Scotland feels that the content of provision is not suitable. SVQ 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.

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.

Building services engineering sector curriculum is dispersed among both 'Construction' and 'Engineering' departments and discipline data. This is replicated in the current Scottish Funding Council superclass system, with building services engineering courses being found in a variety of locations. **A new superclass for building services engineering** would enhance and support this excellent tool and provide a single point of analysis for the sector. There is a need to unify course titles for identical courses across different providers to further reduce confusion

Course mapping undertaken by SummitSkills in conjunction with partner trade associations has identified qualifications being delivered in Scotland which are providing the learner with **non-economically valuable skills** (NEVS) for entry in to the sector. A certain amount of current training provision spend in Scotland is leading to NEVS and therefore not relevant for the sector. This could potentially affect the quality of work delivered in the sector and the business stability of bonafide Scottish building services engineering sector companies. Resources currently spent on NEVS could be re-directed to develop provision in other areas such as environmental technologies and business development which are becoming increasingly important for the productivity of the sector.

There are a low number of **higher education** establishments offering building services engineering courses across the UK. Currently within Scotland there is only one provider offering degree provision and it is in the Scottish Enterprise area. This low number is becoming an acute problem for individuals particularly in the Highlands and Islands who need to gain a professional qualification alongside their work.

Providers in Scotland have a range of **quality marks and awards** including Investors in People and SQMS, and are utilising these as part of their monitoring and improvement processes. SummitSkills is keen to ensure that all providers of building services engineering curriculum engage in the 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.

The data for Scotland indicates that the majority of **training provision spend** is on SVQ3 and non-certified SVQ2 apprenticeship courses, which is in line with what SummitSkills would expect to see for the sector. However where expenditure is taking place on courses not leading to a recognised qualification, or a qualification aim is not an SVQ, then this may indicate the presence of NEVS courses. This funding could be directed into other training provision which leads to recognised qualifications required in the sector, especially related to environmental technologies, and business management.

SummitSkills is currently undertaking the development of National Occupational Standards (NOS) for current and emerging environmental technologies. This includes defining competency levels for SVQ levels 3 to 5 and developing one suite of NOS to embrace craft and professional occupations. SummitSkills will support the implementation of NOS by ensuring a competence based approach is embedded with employers and stakeholders. SummitSkills will also ensure that environmental technologies are fully integrated within its activities for Scotland, in particular the careers strategy and apprenticeship training frameworks.

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. Despite various initiatives and mechanisms being introduced to encourage under-represented groups to join the sector, there seems to have been little impact.

Following an analysis of the *mode of delivery and age of participants* in sector courses, the curriculum for the building services engineering sector within Scotland is dominated by apprenticeship training that uses part time day release to deliver the off the job element. There is a strong full time provision, making up 12% of the total curriculum delivered. Regarding the age of participants, the vast majority of learners on apprenticeship schemes are, as expected, under 25.

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. 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.

Recommendations	Short/ Medium or Long Term Priority
<p>Recommendation 1: SummitSkills recommends that the Scottish Funding Council incorporates the proposed new TH superclass for provision into its database, standardises course titles for ease of identification and provides headline data in an accessible form for partners and stakeholders.</p>	<p>Short term. SFC, SummitSkills and interested partners and stakeholders work together to create new superclass, standardise qualification titles and provide easy to access headline data.</p>
<p>Recommendation 2: SummitSkills recommends that a dialogue is commenced between partners, stakeholders and providers to determine the way forward for NEVS provision within the sector, ultimately with a view to reducing and/or preventing any further proliferation of NEVS courses.</p>	<p>Short term. SummitSkills will work with SFC, SQA, partners, stakeholders and providers to agree a strategy to address the problems of NEVS courses currently within Scotland.</p>
<p>Recommendation 3: SummitSkills will work with stakeholders in Further Education and Higher Education in Scotland to seek to develop a network of providers offering degree and sub-degree courses within the two enterprise areas and the development of alternative 'distance learning' delivery modes etc. where applicable.</p>	<p>Medium 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.</p>
<p>Recommendation 4: SummitSkills will work with partners to develop credit-accumulation transfer² 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: SummitSkills will work closely with partners and the training provider network to make sure that the quality of training that the sector receives will maintain the willingness of the sector to invest in it.</p>	<p>Short term. SummitSkills work with partners and stakeholders to analyse quality of sector provision in the LECs, allowing a development plan to be produced.</p>
<p>Recommendation 6: SummitSkills will work with partners, stakeholders and providers to seek a more effective use of the qualification structure, to bring more non-NEVS programmes where possible into recognized qualifications frameworks.</p>	<p>Short term. SummitSkills will work with SFC, awarding bodies, partners and stakeholders, to produce a plan to re-designate non- NEVS curriculum currently not leading to a recognised qualification into a recognised qualification .</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 Government 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>

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

<p>Recommendation 8: SummitSkills will continue to work with partners and stakeholders to increase the engagement of women and ethnic minorities by facilitating innovative progression pathways into the sector.</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.</p>
<p>Recommendation 9: SummitSkills will work with partners to develop and maintain sustainable entry and progression routes into the sector for learners, particularly where applicable adult entrants over 20 years of age are seeking entry to the sector.</p>	<p>Medium to long term. SummitSkills will continue to work with partners and stakeholders to facilitate and develop sustainable entry routes particularly for adult learners into careers within the sector.</p>
<p>Recommendation 10: SummitSkills will work with partners, stakeholders and providers to ensure that quality of provision remains good and constantly improves to meet the needs of the sector's learners and employers.</p>	<p>Medium to long term. SummitSkills will work with partners, stakeholders and providers to maintain and improve quality of provision for learners and employers.</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.</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 will 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.</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 13 SummitSkills will continue to work with partners to ensure that the required skills can be 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

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.

In addition a high level of concern has been expressed across the UK regarding the development of sustainable entry routes into employment within the sector. The use of standalone technical certificates lifted from an approved framework 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, whilst delivering the required level of high quality new entrants needed by employers to support a growing sector.

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.

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

In addition the building services engineering sector has a number of training needs, which can be categorised under two significant headings: new and environmental technologies and business acumen.

New and environmental technologies

The building services engineering sector has a major role to play in the development of new and environmental technologies within Scotland, to directly contribute to the environmental strategies of the Scottish Government, 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 Scotland and the UK, with the Olympics in 2012 expected to exacerbate the situation. It is therefore imperative that the sector within Scotland improves its skills in environmental technology installation.

Currently the data returns from Scotland on courses currently receiving public funding failed to identify any courses that specifically undertook environmental technologies training. As currently the National Occupational Standards (NOS) are being developed this is perhaps not too surprising, but leaves the sector vulnerable to competition and being unable to respond to developments within the market in renewables technologies that many companies identified within the SNA.

The lack of formalised qualifications within an accredited qualifications framework means that currently the sector is relying on manufacturers and some private companies to carry out non-accredited installation training. This training develops specific product skills but possibly fails to develop generic skills in these technologies. In addition there is no way to quality-assure the end product. There is no development of these skills in the generic apprenticeship schemes currently, which suggests that the sector is not developing the new skills at entry level to the sector. All these issues identify a significant gap between requirement and provision currently which needs to be addressed urgently.

To ensure full integration of these technologies into existing occupational activities will require 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.

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

The building services engineering sector has significant productivity issues surrounding business management and acumen, however currently the data returns from Scotland 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 SVQ 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.

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.

There is therefore a fundamental and wide gap between what the sector needs to improve productivity through enhanced business acumen and currently what is on offer at all levels for the sector. As with the environmental technologies issues, urgent action is needed to address these gaps.

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.

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.

“Changing the image of the sector is vital to attract workforce of the future who can operate and compete on a world stage”

Scotland 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

People that only hold a technical certificate are working as self-employed in the sector. Because customers do not have a clear understanding of what a competent craftsman 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.

“Image and awareness – need sustained effort to win hearts and minds”

Scottish Enterprise Area
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 misperception 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: 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>Learndirect advice line: provide clear advice and guidance to all enquirers</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>

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 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.

“SummitSkills to help make the sector aware of new developments in timely fashion, to help firms to plan ahead. Alert the business opportunities”

Highlands and Islands
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 funding bodies 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.

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 SFC and SQA to remove out of date curriculum from the Super class 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>SQA and other relevant nations funding bodies: work with SummitSkills to develop clarity in the sector provision available.</p> <p>Scottish Government : consider the apprenticeship cost benefit models developed to achieve a funding balance for employers.</p> <p>RSP/ RDA: 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>Trade 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>

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.

***“Providers to
standardise training to
create a common quality
across UK”***

Scottish Enterprise Area
workshop comment

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.

8.3.3 Sustainable entry routes

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 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.

“Ensure that the qualifications required by the sector are provided so that the sector clearly understands what is available and what is appropriate and equally what is not.”

Highlands & Islands
Enterprise Area
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 in Scotland are generally very satisfied with the quality of service and teaching provided by FE colleges and private training providers. 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 action for employers	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>SQA: 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 for the sector</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 and implemented; 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>

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.

“Funding for adults to retrain and enter the industry”

Scottish Enterprise Area 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>SFC: 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>Scottish Government:: help to ensure the total funding available for the sector is maintained</p> <p>Trade Unions: to 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>

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.

“Develop management skills within business to help grow and look ahead – could be a shared resource for smaller businesses”

Highlands and Islands 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.

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.

“Need to de-mystify: what is benchmarking? Perhaps call it ‘learn about your business’. Make it sector-specific and relevant to small to medium enterprises. Lose the academic feel.”

Scottish Enterprise Area workshop comment

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>Scottish Enterprise, H&I Enterprise: help to develop an action learning programme for leaders in the sector.</p> <p>Scottish Government:: provide funding for management and leadership training for the sector.</p> <p>Business solutions: develop the business leader development initiative.</p> <p>SFEDI: 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>Kingston College Management Centre: develop the enterprise zone for the sector.</p> <p>Trade Unions: 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>

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 Scottish Government will be central to the whole Sector Skills Agreement process. All areas of the SSA will involve helping the Scottish Government 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 Scottish Government 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 Scottish Government 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 for Scotland

The priorities above have been taken down to Scottish regional level both for Scottish Enterprise and Highlands and Islands Enterprise areas to reflect more closely the proposed collaborative solutions between employers and partners for the sector. These action plans also detail how the proposals link to Scottish stakeholder policy and priorities.

9.1 Sector background

Characteristics of the sector in Scotland include:

- There are 22,900 employees in the building services engineering sector representing around 1% of all Scottish jobs.
- There are significantly fewer female employees.
- Almost two fifths of employees are skilled tradespeople.
- The average weekly full time wage is £401, 2% higher than the Scottish average.
- Where hard to fill vacancies exist, most are hard to fill for reasons other than skill shortages.
- Nearly half of all building services engineering workplaces are participating in the Modern Apprenticeship scheme.

None of the industries within the building services engineering sector are currently in decline and indeed the whole of the sector is currently in a period of growth. The SummitSkills SNA explores this idea of decline and growth and this is highlighted in the fact that 90% of companies interviewed within Scotland believe that the building services engineering sector will continue to grow.

New and emerging markets - environmental and renewable technologies

Scotland is a major driver in the UK for renewable energy generation, and therefore it is argued that it needs a building services engineering sector that is fully conversant with renewables technology and its installation both in large renewable generation and microgeneration. SummitSkills believes that currently the skills available in the Scottish Enterprise and Highlands and Islands Enterprise areas do not have the capacity to meet demand of the type that is being discussed by policy makers in the Scottish Government.

9.2 Scottish stakeholder policies

In seeking to address the issues identified in the work undertaken in Stages 1 & 2 of the Scottish SSA, SummitSkills will be working with and contributing to many Scottish stakeholders' own policies, priorities and programmes.

These include:

Scottish Government; Policies and programmes such as the revitalised Lifelong Learning Strategy, a Smarter Scotland, the new Scottish Skills Strategy, widening access, opportunities for all our young people, determined to succeed, employer/college partnerships, experience counts, climate change and the forthcoming Scottish Climate Change Bill.

Scottish Enterprise; Skills Strategy 2007 – 2012, covering growth, groups and geography with key priorities to help new businesses get underway, support and develop people who are in work, being responsive and flexible to demand, helping people gain the knowledge and skills they will need for tomorrow's jobs.

Highlands and Islands Enterprise; HIE Network Operating Plan 2007 – 2010, whose priorities include improving the operation of the labour market, best start for all our young people, developing people who are in work, narrowing the gap in employment and reducing economic inactivity, building capacity and leadership, increasing use of renewables technology.

Scottish Qualifications Authority; working to deliver initiatives such as *A Curriculum for Excellence*, providing qualifications and support to match the needs of individuals, society and the economy of Scotland, re-designing services and processes to make qualifications better to use, developing a highly-skilled motivated and effective workforce.

Careers Scotland; whose priorities are investing in the workforce of the future, reducing economic inactivity among young people, improving productivity through personal career planning.

learndirect scotland; helping to create, support and sustain a lifelong learning network where learning providers will offer the time, place, pace and style of learning that most closely meets the learners needs.

Scottish Funding Council; whose main role is to distribute funding to colleges and universities in Scotland, with one of its remits being to hold colleges and universities accountable for delivering the quantity, quality and relevance of further and higher education and research sought by Scottish Ministers for achieving best value from public funding, and for managing their financial and other resources in a sustainable way.

Futureskills Scotland; whose aim is to analyse the Scottish labour market to inform policy making in Scotland and further afield. Also to improve the availability, quality and consistency of labour market information and intelligence across Scotland, work closely with Careers Scotland to provide the organisation and its clients with labour market information.

Jobcentre Plus; supporting people of working age from welfare into work, and help employers to fill their vacancies. Key areas for them is providing high quality and demand led services to employers which help fill job vacancies quickly and efficiently with well prepared and motivated employees, and helping unemployed or economically inactive people move into employment.

Trade Unions; the STUC Skills & Lifelong Learning Team supports trade unions in Scotland to encourage and help workers take up opportunities to develop the learning and skills.

The following actions plans detail how we will seek to address these issues through partnerships to encourage employers, stakeholders and key partners to work closely together to provide a well trained and qualified workforce for the building services engineering sector which can make a significant contribution to the wellbeing and economy of Scotland.

SummitSkills Sector Skills Agreement Stage 3 Action Plan for Scotland

Skills Priority 1	Professional Image & Competence
Employer Need	To attract good quality candidates into the sector who will become skilled and competent employees.
Stakeholder Strategies/Policies	<p>Scottish Government: Skills for Scotland, A Lifelong Learning Strategy, A Smarter Scotland, Curriculum for Excellence. Determined to Succeed</p> <p>Careers Scotland: Investing in the Workforce of the Future</p> <p>Scottish Qualifications Authority: providing qualifications and support to match the needs of individuals, society and the economy of Scotland.</p> <p>Scottish Enterprise: Skills Strategy 2007- 2012.</p> <p>Highlands and Islands Strategy – A smart successful highlands and islands.- HIE Network Operating Plan 2007 - 2010</p>

Sector Programme	Actions	Led By [Stakeholder/s]	Employer/Stakeholder Engagement/Action	Target Date
1.1 Aspirational sector image	SummitSkills is developing a Scotland 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.	SummitSkills	Careers Scotland/Training Providers to promote.	S
	Ensure Careers Scotland (CS) have the latest information/careers material for BSE to take into schools/careers events.	SummitSkills	Careers Scotland to use latest BSE promotional materials.	S
	SummitSkills to meet with Careers Scotland at least annually to update careers advisors on any changes to the BSE sector.	SummitSkills/CS	Arrange annual updating session.	S
	SummitSkills to provide accurate up to date LMI for use by Careers Scotland in their work with all age career planning.	SummitSkills/CS	Careers Scotland to use LMI from Scottish SSA, and the LMI Scotland BSE Sector Profile.	M
	To co-ordinate products and services between the two organisations to ensure clients needs are met.	CS/SummitSkills	Range of material that suit different client groups.	M
	Assist with the dissemination of Careers Scotland products/activities/events.	SummitSkills	Support as required at Careers Events etc.	M
	Keep each other up to date with not only what is being organized, but what is planned or being considered for events or products.	CS/SummitSkills	Regular communication	S
	Consider the impact of research by other key stakeholders and the impact this could have on our partnership agreement.	Other stakeholders	Communicate research findings and update our agreement where appropriate.	M
	Agree to work jointly where appropriate on issues that affect both organisations, example areas being; employability, employer engagement, determined to succeed, skills for work, vocational pathways, modern apprenticeships, migrant workers, adult returners.	CS/SummitSkills	Joint working as appropriate.	M
	Develop reciprocal links to each others' websites.	SummitSkills/CS	Weblinks established by both organisations	S
	Organise an annual review of our agreement.	SummitSkills/CS	Annual review held	S
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	Careers Scotland/Training Providers to promote in Schools and at Careers Events.	S	

	Promote recently produced Scottish BSE LMI Sector Profiles for use by schools/colleges/careers advisers and local authorities to widen the understanding of the make up of the sector, labour forecasts, types of jobs and skills profiles.	Careers Scotland/schools/colleges/ industry partners.	Careers Scotland/schools/colleges/local authorities to make available to young people.	S
	Under the Determined to Succeed initiative, employer ambassadors to be recruited to go into schools/colleges and attended Careers Events to provide accurate advice on what they can offer, also offer work placements, and CPD for teachers and lecturers to enhance knowledge of current industry practices.	Employers/Government/Local Authorities.	Scottish Government to provide funding to support DtS activities in Local Authorities. Employers to sign on to Ambassador activities.	S/M
	SummitSkills to work with SQA and employers to develop new Skills for Work Courses aimed at giving school pupils a practical experience of the skills required to work in the BSE sector.	SQA	SummitSkills/ employers to assist in the development of the content of these courses.	S/M
	Use Skills Competitions as a way of promoting the best young talent in the sector.	SummitSkills/Training Providers	Employers to nominate suitable candidates and provide necessary support. Training Providers to run the Local competitions and nominate winners to go forward into National & International competitions.	S/M

1.2 Fresh approaches to diversity	SummitSkills Careers & Diversity Group to develop innovative promotional material aimed at attracting more Women and Ethnic minorities to apply to work in the BSE sector.	SummitSkills Diversity Interest Group	Targeted Careers material produced	S
	SummitSkills to do further research on minority group issues within the BSE sector.	SummitSkills/Employers/Trade Ass/Minority Groups	Research undertaken	S/M
	Research shows that at present, where women are attracted to the sector they tend to be mature adults. At present this age cohort are not able to access full mainstream funding from Scottish Enterprise. Open dialogue with Scottish Enterprise to see if this issue can be addressed.	SummitSkills/Scottish Enterprise	More employers taking on mature women	S
	SummitSkills will actively encourage partnership working with Trade Unions and other stakeholders to address this issue.	Trade Unions/SummitSkills/Stakeholders	Equality and diversity issues being discussed and addressed	S/M

1.3 Ensuring everyone in the sector is competent	The BSE sector regards SVQ Level 3 as the competence level for people working in the sector. Anyone completing a Modern Apprenticeship will gain an SVQ Level 3.			
	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.		Training Providers/colleges to promote and offer this service	S/M
	An APL scheme for Plumbing is under development by SummitSkills.	SummitSkills/Training Providers/Industry	Partner organisations to work together to develop a suitable	S

		Partners/Employers	scheme	
	SummitSkills to work with the Union Learning Representatives (URLs) and employers to identify employees training needs and encourage them to develop their skills.	Trade Unions/SummitSkills/Employers	Training needs identified	M
1.4 Public recognition of competence	The BSE sector regards SVQ 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.	Employers/Trade Associations	Public more aware of what constitutes a competent person	M/L
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.	JIBs/Trade Unions	National/Regional JIBs to discuss. TUC/STUC	L

Skills Priority 2	Communication & Information: one stop knowledge base for all BSE skills development needs
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Employer Need	A source of current information on LMI, training, provision and basic business planning and solutions tools.
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Stakeholder Strategies/Policies	<p>Scottish Government – Skills for Scotland. A Lifelong Learning Strategy.</p> <p>Scottish Funding Council. – achieving best value from public funding.</p> <p>learndirect scotland – offering learners in the BSE sector learning that most closely meets their needs.</p> <p>Scottish Enterprise – Skills Strategy 2007 – 2012 – helping people gain the knowledge and skills needed for tomorrows jobs.</p> <p>Highlands and Islands Enterprise – HIE Network Operating Plan 2007 – 2010 - best start for all our young people, and developing people who are in work.</p>
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Sector Programme	Actions	Led By [Stakeholder/s]	Employer/Stakeholder Engagement/Action	Target Date
2.1 SummitSkills knowledge hub	Provision of up to date sector LMI	SummitSkills	Use data from SSA and the Scottish LMI Sector Profiles	S/M
	SummitSkills to launch new sectoral web-based resource - www.solutions4business.info which signposts businesses to the provision and services they need, and can use to deal with specific issues and problems.	SummitSkills	Employers using solutions4business.info web resource	S
	HIE LearningWorks - www.hie.co.uk/learningworks	HIE	Employers using this resource	
	SummitSkills to establish link on our website to signpost Scottish Union Learning website. – www.scottishunionlearning.com	SummotSkills/STUC	Web link provide	S

2.2 Provision clarity	SummitSkills to work with the Scottish Funding Council to set up a dedicated new Superclass as part of their database which will be a common area for all BSE provision. This will make identification and analysis of SFC funded provision easier in the future.	SummitSkills	SFC to hold all BSE information in a common area.	S
	At present identical provision is input under different course titles by providers. SummitSkills to work with providers and SFC to agree the use of common titles for BSE provision.	SummitSkills	SFC to encourage providers to use common course titles	S/M
	At present some SFC funding is being used for provision what is viewed by industry as not economically valuable skills (NEVS) e.g. not leading to employment in the sector. SummitSkills to work with industry partners, SFC and providers to reduce the numbers of such courses being, offered, prevent any new such courses being offered, and re-direct this funding into provision in priority areas for industry such as renewables.	SummitSkills/ Employers/Trade Associations/ Training Providers	Providers to stop offering NEVS courses	M/L
	Build closer links with learndirect scotland to see how both organisations can best promote the breadth of learning opportunities available to employers in our sector.	SummitSkills/ learndirect scotland.	Make full range of learning material/support more visable to employers	S/M
	SummitSkills to provide accurate and up to date LMI for the BSE sector.	SummitSkills/ learndirect Scotland	learndirect to make use of LMI for SSA, and the Scottish LMI Sector Profiles	S
	SummitSkills to promote the range of services offered by learndirect such as; their Individual Advice Line, Business Advice Line, Training Partner Service and SME Support Service, Learning Bytes for Business, The National Learning Opportunities Database,	SummitSkills/ learndirect	Provide a link on the SummitSkills Scottish section of our website to the	S

	Network of Branded Learning Centres. www.learnirectscotland.com		learndirect website. Publish the numbers of the Individual and Business training Help-Lines.	
	Look for opportunities to work with learndirect's marketing team to help increase SME awareness of the opportunities available to increase the productivity of their people through training and development.	Learndirect/ SummitSkills	Increased SME awareness of training opportunities	S/M
	Raise employer awareness of provision within HIE by promoting links to HIE's Learning Works website www.hie.co.uk/learningworks	HIE/SummitSkills	Increased employer awareness of course provision in HIE	S
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 Scottish Government and Enterprise Companies on achieving a sensible balance between employer and government contributions to training.	SummitSkills/ Employers/Trade Associations SummitSkills/industry/ government/ enterprise companies	Develop cost models Discuss training contributions with government/enterprise companies	S S/M
2.4 Proof training pays	SummitSkills produced an Interactive Workplace Learning DVD with support funding from ESF and the Scottish Government. This uses film clips and case studies to demonstrate the benefits of training people both in terms of skills added, better motivated people and higher retention rates. SummitSkills undertook a number of face-to-face presentations to employers across the sector to promote this resource. With assistance from Trade Associations and Training Partners this DVD will be sent to as many employers across the sector as possible. Trade Unions could also play their part in promoting this resource to employers.	SummitSkillsTrade Associations/Training Providers/Trade Unions	Trade Associations / Training Providers/ Trade Unions to assist in ensuring as many employers receive a copy as possible	S

Skills Priority 3	Training Provision (Proactive, timely, high quality public-funded provision for all training and fast changing sector technologies)
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Employer Need	Good quality training delivered when required at an affordable price.
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Stakeholder Strategies/Policies	<p>Scottish Government – Skills for Scotland, employer/college partnerships, narrowing the gap in employment and reducing economic inactivity, climate change.</p> <p>Scottish Qualifications Authority - Curriculum for Excellence, providing qualifications and support to match needs of individual, society and the economy of Scotland, redesigning services and processes to make qualifications better to use.</p> <p>Scottish Enterprise – Skills Strategy 2007 -2012 being responsive and flexible to demand, best start for all our young people</p> <p>Highlands and Islands Enterprise – HIE Network Operating Plan 2007 – 2010 – A Smart Successful Highlands and Islands, building capacity and leadership, increasing use of renewables technology, best start for all our young people.</p> <p>Scottish Funding Council – achieving best value from public funding, ensuring colleges manage their financial and other sources in a sustainable way, and the quality and relevance of further and higher education.</p> <p>Jobcentre Plus. – preparing people furthest from the labour market for specific roles, and delivering to employers the trained candidates they need, narrowing the gap in employment and reducing economic inactivity.</p>
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Additional Partner Strategies	Highland Employers Coalition
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Sector Programme	Actions	Led By [Stakeholder/s]	Employer/Stakeholder Engagement/Action	Target Date
3.1 Relevant training reflecting NOS at all levels	SummitSkills are currently undertaking a project to review the content of all its NOS.	SummitSkills	Employers and Industry partners participating in Technical Working Groups/Focus Groups to review the standard	S
	SummitSkills to develop a Sector Qualifications Strategy to show all available provision from craft to professions level, mapped to the Scottish Credit and Qualifications Framework.	SummitSkills/SQA/SCQF	Sector Qualifications mapped to the SCQF	S
	On completion of the NOS review, these will be given to the Scottish Qualifications Authority(SQA) to allow them to update the existing associated qualifications to reflect the required changes.	SQA	SQA to provide updated qualifications	S/M
	SQA to develop new Units to support new technologies such as renewables.	SQA/Industry Partners	SQA to develop new Qualification Units	S/M
	Once Units are developed, work with SQA and Training Providers to develop and accredit suitable training courses. SummitSkills to considered adding these as Optional Units into the appropriate MA Frameworks.	SQA/Training Providers	Training Providers to develop training courses. SQA to accredit training	S/M
	Work with SQA to determine need for new Level 4 & 5 qualifications for the sector.	SQA/SummitSkills/Industry Partners	Examine existing progression arrangements	M
	Work with SQA to develop appropriate Skills for Work courses that will give school pupils the opportunity to gain suitable sector related vocational qualifications. e.g. Intermediate 2 on Energy.	SQA/SummitSkills/Employers	Produce suitable SfW courses for the sector	S
	SummitSkills to work with Enterprise Companies to examine how to provide sufficient training provision for upskilling BSE employees in areas of new technology such as renewables.	SummitSkills/Enterprise Companies	Establish sufficient training provision to meet demand for upskilling existing workforce	S/M

	SummitSkills to continue dialogue with the Scottish Funding Council, Enterprise Companies and Colleges to reduce the bottlenecks in college provision in parts of Scotland.	SummitSkills/SFC/Colleges/ Industry Training Providers		S/M
3.2 Accredited training mapped to NOS	Work with SQA to develop credit-accumulation transfer to accredit and quality assure suitable manufacturer and private provider training.	SummitSkills/SQA	Suitable ad-hoc training accredited and leveled against the SCQF	M
3.3 Sustainable entry routes	BSE sector employers have set minimum entry criteria for new entrants. In all cases potential new entrants must undertake an industry approved pre-employment assessment before starting an apprenticeship. This is to gauge the persons likely ability to achieve an SVQ Level 3 which is the minimum industry recognised standard to work in the sector.	Employers		
	Employers/SummitSkills/Training Provider partners to look at the Scottish Enterprise – Get Ready for Work programme to see if this could be used to (a) improve the current skills of young economically inactive people to a level where they could undertake the pre-employment assessment. (b) alternatively to use the Get Ready for Work programme to place young people with employers initially as an extra pair of hands, allowing the employer to assess their potential to make the necessary step up to MA at a later date.	Scottish Enterprise/ Employers/ SummitSkills/Training Providers	Scottish Enterprise to provide information to employers on the Get Ready for Work programme	S
	Employers/SummitSkills/Training Provider partners to look at the services Jobcentre Plus can provide employers; Advertising jobs and finding people with the right skills to apply for them. Provide support and advice on employing people with disabilities. Working with Local Employment Partnerships to prepare people furthest from the labour market for specific roles, and delivering to employers the trained candidates they need. In the case of the BSE sector, this may be improving a persons current skill level to prepare them to undertake the industry pre-employment assessment, or taking someone on initially as an extra pair of hands and allowing the employer to assess their ability to progress to higher level work.	Jobcentre Plus/Employers/SummitSkills/ Training Providers	Jobcentre Plus to provide information to employers on the services they offer	S/M
	SummitSkills to arrange for Jobcentre Plus to meet appropriate Trade Associations/Employer Forums to allow them to explain their offer. SummitSkills to arrange for similar access for Highlands Employer Coalition.	SummitSkills	Meetings arranged with interested Trade Associations/Employer Forums	S
3.4 Wider and sustainable HE provision	SummitSkills to engage further with HE and FE to ensure there is sufficient provision to provide progression routes from craft to technician and professional levels.			M
	There is a need to work with HE and FE institutions to seek to develop a network of providers offering degree and sub-degree courses across Scotland. The development of alternative distance learning modes of delivery may assist with this issue.			
	At present there is a lack of HE Grad/Post Graduate provision in the sector for those seeking professionally recognition.			
	Discussions opened with Strathclyde University CTA Department to explore development of a Post-Grad. qualification to address the need for people with the necessary knowledge to undertake Design of Micro generation renewable systems.	Strathclyde University/SummitSkills/ Industry Partners	Post-Grad. Qualification developed	M

3.5 Quality assured training provision	SummitSkills to work with SQA to ensure that all provision links back to NOS and is delivered by approved/accredited training providers.	SummitSkills/SQA	Accredited provision delivered by approved providers.	S/M
	SummitSkills to consult industry on the value of developing a Quality Mark to assess the quality of BSE training providers.	SummitSkills/Employers/ Training Providers	If required, new BSE Quality Mark developed	M
3.6 Renewables and environmental technologies	SummitSkills has developed an Environmental Technologies Strategy to define competence through development and implementation of NOS to ensure employers have the opportunity to develop their workforce, allowing them to advise on, design, install, commission, service and maintain domestic, and industrial/commercial systems which incorporate current and emerging environmental technologies.	SummitSkills	Environmental Strategy in place	S
	SummitSkills is adding renewables technology requirements into the review of its NOS, covering design, installation maintenance and servicing.	SummitSkills/Employers/ Industry Partners		S
	SummitSkills to work through its Manufacturers Interest Group to identify future technologies in order to identify new skills and training requirements for employers.	Manufacturers Interest Group	New skills and training needs identified and developed	M/L
	SummitSkills working with the Scottish Building Standards Agency (SBSA) to look at issues around the integration of renewable energy into buildings.	SSBA		S/M/L
	SummitSkills working with HIE and College providers to ensure there is sufficient training provision on microgeneration systems for BSE employers in the HIE area.	SummitSkills/HIE/ Colleges	Adequate training provision to meet employer needs	S/M
	SummitSkills working with Scottish Enterprise to develop a strategy to provide suitable training provision for microgeneration systems in the Scottish Enterprise area.	SummitSkills/Scottish Enterprise	Adequate training provision to meet employers needs	M
	SummitSkills to work in partnership with the Scottish Government to assist them in meeting their Energy Targets to reduce the levels of carbon emissions, and the increased generation of electricity from non fossil fuel sources, as set out in their Climate Change Bill.	SummitSkills/Scottish Government	Scottish Government Energy Targets achieved	M/L
	SummitSkills working with Government to support the development of new Renewable Microgeneration Certification Scheme.	SummitSkills/Government/ BRE Certification Ltd.	Approved Installer Certification Scheme in operation	M
	SummitSkills is a member of the SNIPEF Renewable Energy Working Group looking at the training requirements of plumbing companies/individuals to be competent to install microgeneration renewables systems.	SNIPEF		S/M
	SummitSkills will be a member of the new Scottish Funding Council HE Energy Forum being set up to promote collaborative and strategic thinking between sectors and employers on course provision relating to the energy industry.	SFC	Identification of course provision needed to meet employer needs	S/M

Skills Priority 4	Funding: flexibility to meet fast changing skills needs to develop businesses and workforce
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Employer Need	A sensible balance between employer and government contributions to training a well skilled and competent workforce.
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Stakeholder Strategies/Policies	<p>Scottish Government – Skills for Scotland, A lifelong Learning Strategy, climate change</p> <p>Scottish Enterprise – Skills Strategy 2007 – 2012 support and develop people in work, being responsive and flexible to demand, helping people gain the knowledge and skills they need for tomorrows jobs.</p> <p>Highlands and Islands Enterprise – HIE Network Operating Plan 2007 – 2010 - A Smart Successful Highlands and Islands, best start for all our young people, developing people in work.</p> <p>Scottish Funding Council – quality and relevance of FE and HE provision, achieving best value from public funding.</p>
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Sector Programme	Actions	Led By [Stakeholder/s]	Employer/Stakeholder Engagement/Action	Target Date
4.1 Influencing flexibility of funding	SummitSkills to discuss with the Scottish Government and Scottish Enterprise the BSE employers desire for equitable funding for apprenticeships regardless of age.	SummitSkills	Meetings with appropriate departments of the Scottish Government and Scottish Enterprise	S
	SummitSkills to support Industry training organizations in seeking an adequate allocation of apprentice funding from Enterprise Companies to meet the increasing demand from employers for training places.	Industry Training Organisations/ SummitSkills/Enterprise Companies	Funding allocation that meets employer demand	S
	SummitSkills & Trade Association partners to work with the Enterprise Companies to secure a funding contribution toward upskilling training for current and new technology training required in the BSE sector. For Scottish Enterprise Glasgow, working through the Construction Action Plan. For Highlands and Islands, working through the HIE Construction and Building Services Action Plan 2006 – 11.	SummitSkills/Trade Associations/Enterprise Companies	Funding contribution agreed	S/M
	SummitSkills to discuss with Enterprise companies possible funding contribution toward management training for the BSE sector.	SummitSkills/Enterprise Companies	Funding contribution agreed	S
	Women trying to come into the sector tend to be mature adults which at present means they would not attract a full mainstream funding contribution from Scottish Enterprise. SummitSkills to seek some mainstream funding to see if this would encourage employers to take on mature women.	SummitSkills/Scottish Enterprise	Possible Pilot funded	S/M
	SummitSkills to ask SQA if they will fund the development of upskilling Units as opposed to full qualifications.	SQA/SummitSkills	New upskilling Units developed	S/M
	SummitSkills to work with the Scottish Government and funding bodies to see how to ensure that funding for renewables training is only available for training that is industry approved, and delivered by accredited trainers.	Scottish Government/Funding Bodies/SummitSkills	Only accredited training funded	S/M
	SummitSkills to work with the STUC and employers to lobby for government funded ESOL training for migrant workers.	STUC/SummitSkills/ Employers	Government funding provided for ESOL training	S/M
	Raise awareness of employers/employees of ILA Scotland funding to help pay for skills development.	SummitSkills to provide link to learndirect scotland website and promote in newsletters	Link provided on SummitSkills website. Article in Skills Insight	S/M

4.2 Redeployment of NEVS funding	Where expenditure is taking place on non industry supported courses (NEVS), work with the SFC and Colleges to reduce these.	SFC/Colleges/Industry Partners/SummitSkills	Reduction in NEVS courses being offered	M
	Re-direct this funding into areas of identified industry need such as renewables technologies and management training.	SFC/Colleges	NEVS funding transferred into new sector priority areas	M
	Work with SFC and Colleges to agree no new course are developed without reference to the BSE sector bodies to ensure they have industry support.	SFC/Colleges/Industry Partners/SummitSkills	Pre-approval of new courses with industry	L

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	Variety of solutions required to suit micro, SME and large companies. Scenario planning, current and future skills needs, retirement and natural wastage, enterprise, competitive advantage, benchmarking, government regulation, diversity.
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Stakeholder Strategies/Policies	Scottish Government. Skills for Scotland . A Lifelong Learning Strategy. Scottish Enterprise – Skills Strategy 2007 – 2012, key priorities to support businesses, support and develop people in work. Highlands and Islands Enterprise.- Network Operating Plan 2007 – 2010 - building capacity and leadership, developing people who are in work Scottish Qualifications Authority - provide qualifications and support to meet the needs of individuals, society and the economy of Scotland.
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Additional Partner Strategies	Institute of Leadership and Management. (ILM)
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Sector Programme	Actions	Lead by [Stakeholder/s]	Employer Engagement/Action	Target Date
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5.1 Progression & development of first line and middle managers	VRQs Level 2 – Certificate in Team Leading – Open & Distance Learning.	Employers	Employers undertaking qualifications	S
	SVQ Level 2 – Team Leading.	Employers	Employers undertaking qualifications	M
	SVQ Level 3 – Management.	Employers	Employers undertaking qualifications	M
	SELECT's HNC in Contracting Management – Day Release at Lauder College, also offered as Distance Learning.	Employers	Employers undertaking qualifications	
	Scottish Enterprise Glasgow's new Construction Management Development Training offers a funding contribution for qualifications that would be suitable for BSE employers(e.g. SVQ Management).	Scottish Enterprise Glasgow	Employers applying to S.Enterprise Glasgow for this training	S

5.2 Developing enterprise skills for SMEs and micros	Launch of the Solutions4Business web based resource. www.solutions4business.info	SummitSkills	Employers using the resource	S
	HIE LearningWorks – www.hie.co.uk/learningworks	HIE	HIE Employers using this resource	

5.3 Developing skills to increase competitiveness of the sector	Solutions4Business – www.solutions4business.info	SummitSkills	Employers using the resources	S
	HIE LearningWorks - www.hie.co.uk/learningworks	HIE	HIE Employers using the resources	
	Learndirect Scotland - www.learndirectscotland.com			

10 References

SummitSkills' Stage 1 Sector Needs Analysis: Scottish Enterprise Area

SummitSkills' Stage 1 Sector Needs Analysis: Highlands & Islands Enterprise Area

Future Skills Scotland (2004) The Building Services Engineering Industry Scottish Sector Profile for 2004, Glasgow, Future Skills Scotland

Hislop 2007, Scottish Enterprise

Scottish Enterprise Skills Strategy 2007 - 2012

Scottish Enterprise Ayrshire (2005) Operating Plan Summary 2005-2006 Kilmarnock, Scottish Enterprise Ayrshire

Scottish Enterprise Borders (2005) Operating Plan Summary 2005-2006 Galashiels, Scottish Enterprise Borders

Scottish Enterprise Dumfries and Galloway (2005) Operating Plan Summary 2005-2006 Dumfries, Scottish Enterprise Dumfries and Galloway

Scottish Enterprise Dunbartonshire (2005) Operating Plan Summary 2005-2006 Cydebank, Scottish Enterprise Dunbartonshire

Scottish Enterprise Edinburgh and Lothian (2005) Strategic Operating Plan 2005-2008 Edinburgh, Scottish Enterprise Edinburgh and Lothian

Scottish Enterprise Fife (2005) Operating Plan Summary 2005-2006 Glenrothes, Scottish Enterprise Fife

Scottish Enterprise Forth Valley (2005) Operating Plan Summary 2005-2006 Glasgow, Scottish Enterprise Glasgow

Scottish Enterprise Grampian (2005) Operating Plan Summary 2005-2006 Aberdeen, Scottish Enterprise Grampian

Scottish Enterprise Lanarkshire (2005) Operating Plan Summary 2005-2006 Bellshill, Scottish Enterprise Lanarkshire

Scottish Enterprise Renfrewshire (2005) Operating Plan Summary 2005-2006 Paisley, Scottish Enterprise Renfrewshire

Scottish Enterprise Tayside (2005) Operating Plan Summary 2005-2006 Dundee, Scottish Enterprise Tayside

Scottish Government Skills for Scotland – A Lifelong Learning Strategy

Scottish Executive, A Smart Successful Scotland, Scottish Executive 2003
Scottish Executive, Life through learning through life, Scottish Executive 2003

Scottish Executive, More Choices More Chances Scottish Executive 2003

Scottish Executive, Social Justice: A Scotland where everyone matters, Scottish Executive 2002

Scottish Executive, The Way Forward: framework for economic development
Scottish Executive 2000

Highlands and Islands Enterprise HIE Network Operating Plan 2007 – 2010

Highlands and Islands Enterprise (2004) Highlands and Islands Enterprise Annual Plan 2004 – 2005 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003a) Highlands and Islands Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003b) Argyll and the Islands Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003c) Caithness and Sutherland Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003d) Inverness and Nairn Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003e) Lochaber Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003f) Moray, Badenoch and Strathspey Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003g) Orkney Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003h) Ross and Cromarty Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003i) Skye and Lochalsh Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003j) Shetland Islands Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

Highlands and Islands Enterprise (2003k) Western Isles Economic Update: October 2003 Inverness, Highlands and Islands Enterprise

SummitSkills' Stage 2 Assessment of Current Provision: Scottish Enterprise Area

SummitSkills' Stage 2 Assessment of Current Provision: Highlands & Islands Enterprise Area

Note: All these references are extracted from references found in the relevant Sector Needs Analysis and Assessment of Current Provision reports.