

A Skills Action Plan for Lancashire's Energy and Environmental Technologies Sector

Draft Report

July 2015



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1. Introduction

Context

Lancashire's energy and environmental technologies (EET) sector employs around 40,000 people in over 5,200 businesses, including major firms such as Springfield Fuels, EDF, AMEC PLC, SITA, Assystem and Westinghouse-Toshiba. Lancaster University and UCLan both have internationally recognised centres of excellence in energy and environmental studies, and Lancashire's colleges provide expertise through, for example, the National College for Onshore Oil and Gas at Blackpool and Fylde College. The sector will play a central role in achieving the LEP's vision to:

*"re-establish Lancashire as an economic powerhouse and a national centre of excellence in advanced manufacturing by maximising its clear competitive strengths and capabilities in the aerospace, automotive, energy and health science related sectors"*¹.

Lancashire's SEP identifies five key opportunities for growth in the EET sector:

- Growth relating to power generation, including a growth in green technologies
- Nuclear, with the presence of Heysham in Lancaster (and expected decommissioning of Heysham 1 in 2019, with Heysham 2 soon after) and the Springfield Fuels site which the capability and capacity to manufacture fuel for all designs of worldwide nuclear reactors
- The area's potential as a site for bringing offshore energy to shore to connect with the National Grid
- The Port of Heysham, which provides logistics support to one of the largest offshore gas fields in UK waters, is well placed to exploit the market opportunities presented by existing and new offshore wind operations and maintenance facilities
- The potential development of shale gas extraction, and work to assess the extent and viability of this economic opportunity.

Developing the action plan

SQW, in partnership with JBA Consulting, was commissioned by Lancashire County Council on behalf of the Lancashire LEP to ***"produce a detailed analysis of skills and employment issues for the Energy Sector in Lancashire and to develop a partnership-based Action Plan to address those issues"***². The resultant plan is set out in this document. It draws on a 'State of the Sector' report, available separately and summarised in the next section, and a series of consultations and meetings with our steering group³.

¹ Lancashire Local Economic Partnership (2014) Strategic Economic Plan, p. 23

² This draft Action Plan for Lancashire's EET sector has been developed in parallel to the Lancashire Employment and Skills Strategic Framework, and a number of other sector-specific skills action plans (including financial and professional services, health, digital and advanced manufacturing).

³ A Steering Group, set up by Lancashire County Council and comprising key providers and employers across Lancashire's EET sector, has been involved throughout the study to inform and calibrate the work.

2. State of the Sector

Nature and scale of the EET sector

Lancashire's EET
sector – key
statistics

Lancashire's EET sector:

- includes around **5,200 firms**⁴
- accounts for around **40,000 jobs**, 6.5% of Lancashire's total workforce and 2.5% of the sector nationally⁵
- has **grown more quickly** in terms of employment (at a rate of 3.1% per annum) than the national average (0.8% pa) since 2009
- is most concentrated spatially in **South Ribble**, with around **one third of EET jobs**; relatively high numbers of jobs also found in the districts of Lancaster, Fylde, West Lancashire and Preston
- **generates around £564m - £2bn in Gross Value Added (GVA)** each year, and is highly productive, with GVA per employee of £35,000 - £65,000⁶.

A number of EET sub-sectors are particularly important to the Lancashire economy, including **nuclear, offshore gas, oil and wind, onshore wind, waste recovery and environmental technology services and manufacture**.

Drivers of change

Drivers of change in the EET sector are international, national and local. At the international level, globalisation, environmental change and carbon emission targets, legislation and regulation all play a strong role. National drivers also include legislation and regulation, such as energy emissions targets, plus economic growth and technical change, consumer demand, prices and fuel poverty. Key requirements include the 2008 UK Climate Change Act setting out an obligation to reduce greenhouse gas emissions by 35% by 2020 and 80% by 2050.

The rollout of smart meters also provides an opportunity for local economic growth and employment. Other examples include the continuation of the Green Deal and changes in building regulations. Water management is likely to continue to grow as government continues to invest in flood risk management.

Location specific
opportunities

National policy has a key role to play in supporting particular sub-sectors within the EET sector. For example, the new government's support for nuclear and shale gas, and tightening of onshore wind development (the first planning consideration being local support) will have important implications for the growth of the energy sector in

⁴ Source: BRES, 2014

⁵ BRES, three-year average, 2011-13

⁶ Source: SQW analysis of data produced by Oxford Economics, 2014. The range reflects a wide and narrow definition of the EET sector used using the sectors available from Oxford Economics' projections, produced for Lancashire County Council.

Lancashire. At the more local level, demand is driven by business performance and local policy (including political drive and public opinion particularly in relation to more controversial energy technologies such as nuclear, shale gas and onshore wind).

Demand for skills

Future UK demand

The future scale of demand from the EET nationally is uncertain. Cambridge Econometrics and Oxford Economics, two well regarded forecasting houses, predict markedly different trends for the UK⁷: Cambridge Econometrics, as part of their Working Futures publication for UKCES, expect to see an increase in energy sector jobs nationally of 33,000 (8%) in the decade to 2022 (to a total of 423,000 jobs); whereas Oxford Economics forecast a decline in employment of 32,900 (-8%) in same period.

Whatever the direction of travel for the sector as a whole, both figures are outweighed by a **significant level of replacement demand across the sector nationally (of around 143,000) by 2022⁸**. This issue of replacement demand is likely to affect the energy sector disproportionately more than the rest of the UK economy because it has a relatively older workforce. As illustrated in Table 2-1 below, replacement demand will cover all occupations.

Table 2-1: Net employment change and replacement demand by broad occupational groups for the energy and utilities sector⁹ in the UK, 2012 - 2022

SOC2010 Major Groups	Net change (i.e. 'new' demand) (000s)	Replacement demand (000s)	Total requirement (000s)	% of total requirement
1. Managers and Senior Officials	10.5	18.0	28.4	16%
2. Professional Occupations	12.2	20.8	33.0	19%
3. Associate Professional and Technical Occupations	7.7	18.3	26.0	15%
4. Administrative, Clerical and Secretarial Occupations	-4.0	14.6	10.6	6%
5. Skilled Trades Occupations	0.8	20.7	21.5	12%
6. Personal Service Occupations	2.1	3.5	5.6	3%
7. Sales and Customer Service Occupations	2.1	7.6	9.7	6%
8. Transport and Machine Operatives	-0.5	25.6	25.1	14%
9. Elementary Occupations	1.8	13.9	15.8	9%
Total	32.6	143.1	175.7	100%

Source: SQW analysis of UKCES (2014) Working Futures data

⁷ Both projections use the same broad definition for the energy sector. This covers SIC 05-09 (Coal, oil & gas; Mining & related), SIC 35 (electricity, gas, steam and air con) and SIC 36-39 (water supply, sewerage and other remediation activities)

⁸ Source: UKCES / Cambridge Econometrics (2014) Working Futures

⁹ Data has been selected from the UKCES database for Coal, oil & gas; Mining & related; Electricity, gas, etc; Water; Sewerage; and Waste management

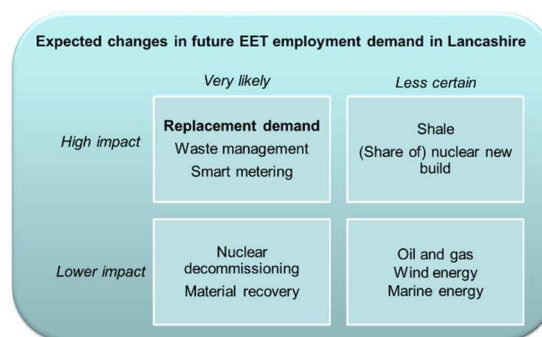
Future Lancashire demand

Using Oxford Economics projections, **expected employment growth in Lancashire ranges from 7% between 2012 and 2022** (an increase of around 500 jobs to 8,100) based on a narrow definition of the sector¹⁰, **through to 23%** (an increase of 12,000 jobs to 68,300) using a wider definition¹¹. In terms of the sub-sectors, the **greatest proportional increase in employment between 2012 and 2030 is in the 'architectural/engineering, scientific R&D and professional scientific' and 'building construction, engineering and specialised construction activities' sectors.**

In addition to net change, **replacement demand is expected to generate around 2,900 job openings in the EET sector by 2022 across Lancashire – this accounts for around 80% of the total requirement for labour between 2012 and 2022**¹². For net new jobs, 74% will be in managerial, professional and technical occupations (cf 33% of replacement demand), whereas over one-fifth of replacement demand in the sector (c. 600 jobs) will be for process, plant and machine operatives.

The scale and certainty of future demand, by key EET sub-sectors

The way in which the expected changes in demand above map onto Lancashire's EET sectors is difficult to quantify – in part because some future developments are more certain than others, often related to public policy decisions. Nuclear new build and shale, for example, could have a high impact on demand, but at the moment the timing and scale of that demand is uncertain. We can be relatively certain, however, that replacement needs across the EET sector will have a high impact on recruitment and skill demands looking forward.



¹⁰ OE projections for Lancashire are only available at 2-digit SIC codes. The narrow definition includes Mining and quarrying (SIC 05-09), electricity, gas, steam and air con (SIC 35) and water supply, sewerage and other remediation activities (SIC 36-39), matching the UK definition above.

¹¹ The wider definition includes activities such as installation, engineering and specialised construction, architectural activities, and scientific R&D. These figures exclude replacement demand

¹² Data on replacement demand sourced from Cambridge Econometrics projections for UKCES (2014) Working Futures

Supply side provision in Lancashire

Further and higher education specialisms

Lancashire's education providers offer expertise that is highly relevant to the EET sector. The supply from local Further Education (FE) and Higher Education (HE) provision was generally considered to be high quality by those consulted as part of this study, but there were still concerns that the volume of graduates (nationally) will be insufficient to meet future demands of the EET sector.

Further education, and apprenticeships

In 2013/2014, there were 23,000 'learner starts' in EET-related subjects¹³ at FEIs (on education and training courses, community learning and workplace learning), and 2,000 apprenticeship starts in EET-related subjects, across Lancashire¹⁴. When compared to the level of anticipated replacement demand in technical occupations¹⁵ in Lancashire's EET sector to 2022, the annual supply looks broadly sufficient (and net new demand in these occupations in the EET sector is expected to be very low), particularly as employers will also look to experienced people to fill these vacancies.

Learners on EET-related courses have a younger age profile than learners across all subjects, and are more likely to enter full-time employment. The majority of EET-related apprenticeships were at an intermediate level, although large numbers of learners also studied at an advanced level. The average qualification success rate for apprentices studying 'Engineering and Manufacturing Technologies' was 76% (higher than the overall success rate for apprentices in Lancashire)¹⁶. Despite this some providers commented that demand from employers for apprentices was higher than the number of applications.

Higher education

According to HESA data, 92 graduates from HEIs (based anywhere in the UK/abroad) were working for EET firms based in Lancashire six months after graduation in 2012/13. This is based on a survey with a response rate of 69%, so a grossed up estimate of the **total number of graduates working for EET firms (broadly defined) in Lancashire is around c130**. Of these: 40% also studied in Lancashire (any subject), and 27% studied elsewhere in the North West; 50% were in professional occupations within the EET sector. Just over one-quarter (27%) studied engineering and technology (especially chemical, process and energy engineering, but also mechanical, general, electrical engineering and physical geography sciences). Other popular subjects, in order of popularity, included physical sciences,

Supply side provision across Lancashire

Further Education

- Blackpool and Fylde College: a range of other relevant courses (e.g. Domestic Energy Assessors, Mechanical Engineering, and Environmental Science); UK hub for the National College for Onshore Oil and Gas; Energy Skills HQ planned
- Runshaw College: apprenticeships in engineering, and four year degree programme in Energy Engineering
- Burnley University Technical College: courses with a focus on nuclear and green industries
- Lancaster and Morecambe College: a focus on nuclear engineering in partnership with EDF Energy
- Preston College: renewable energy centre

Higher Education

- Lancaster University: Renewable Energy Group and 'Energy Lancaster' research centre, plus 'internationally excellent' research in Earth Systems and Environmental Sciences and Mathematical Sciences
- University of Central Lancashire: internationally recognised centre of excellence in energy and environmental studies, home to the John Tyndall Institute for Nuclear Research.

¹³ Science, Engineering and Manufacturing Technologies

¹⁴ Source: ILR Data Cube

¹⁵ Proxied by SOC 4. Administrative and secretarial; 5. Skilled trades occupations; 7. Sales and customer service; 8. Process, plant and machine operatives

¹⁶ Source: Statistical First Release, Skills Funding Agency/ONS

architectural, buildings and planning, biological sciences and business and administrative studies.

Using a similar approach it appears that around 270 graduates from HEIs based in Lancashire were working in the EET sector (anywhere in the UK or abroad).

When we compare these figures to the level of net new and replacement demand for higher level occupations¹⁷ in Lancashire's EET sector, it appears that the volume of graduates recruited by Lancashire's EET firms is considerably lower than the level of projected demand through to 2022, at around 20% on the broad definition (even allowing for many of these opportunities probably requiring experienced hires).

Current landscape of wider support initiatives

National initiatives

Nationally, a wide array of initiatives are being implemented to address skills issues in the EET and related sectors. These include:

- On apprenticeships, industry designed Degree Apprenticeships in Nuclear, Power Systems and Electronic Systems Engineering, introduced in March 2015, Apprenticeship Trailblazers (although at present relevance to EET is limited to 'power network technician'), and Apprenticeship Hub schemes.
- STEM programmes, including STEM ambassadors
- Activities led by Sector Skills Councils, such as EU Skills' Talent Bank, and Cogent's Gold Standard
- Actions included in the Nuclear Energy Skills Alliance Action Plan (published in April 2015), which relate to sector attraction, recruitment and retention, and professional development.

Local initiatives

In addition, the Lancashire LEP is leading on a number of initiatives agreed through their Growth Deal and European Structural and Investment Fund (ESIF) strategy that relate to the EET sector. These are summarised in Figure 2-1.

Along with these funding pots, the action plan could be funded through:

- Employer and individual (including through loans) contributions¹⁸
- Influencing and bending mainstream delivery
- In-kind contributions, for example, through employer and provider participation on the EET Sector Skills Development Group, and employer engagement in actions such as student placements/projects and 'meet the employer' events/presentations.

¹⁷ SOC 1. Managers, directors and senior officials; 2. Professional occupations; 3. Associate professional and technical

¹⁸ This chimes with the LEP's Growth Deal commitment to "recognise where the private sector has a responsibility to invest in skills provision and work with business and the skills system to realise that investment"

Figure 2-1: Planned interventions linked to EET skills in Lancashire



Source: SQW review of Lancashire's Strategic Economic Plan, Growth Deal and European Structure and Investment Funds Strategy

Skills issues, gaps and shortages in Lancashire's EET sector, from demand-side and supply-side perspectives

Table 2-2 summarises the key skills issues facing the EET sector in Lancashire. **Many of the issues raised in Lancashire were broadly similar to other parts of the UK** – so, whilst national policies/interventions should help Lancashire's businesses, Lancashire will face wide competition for people with skills that are in short supply.

Table 2-2: Skills issues, gaps and shortages in Lancashire's EET sector

Issue	Description / specifics
1. Shortages in specialist technical skills	Lack of new and experienced engineers (especially QA/QC, control and instrumentation engineers, civil engineering commissioning engineers, and heavy electrical engineers in the nuclear sector)*, electrical engineers across energy more generally*, safety specialists*, material scientists, specialist welders, , steel fixers, concretors, operatives, scaffolders, IT specialists, industry specific R&D staff, chemists, renewable energies technicians*, smart meters (installers) and waste ¹⁹ . Also, shortages in data science, manipulation and visualisation skills
2. Gaps in multi-disciplinary and softer skills	The need for multi-disciplinary and transferable skills* Ability to manage and commercialise innovation in the sector* Softer skills, such as communication and team working* High calibre management competencies, especially in newer EET sub-sectors, including project management skills* with the relevant sub-sectoral knowledge Client-facing business skills*

¹⁹ For the wind sector specifically, skills shortages are in in composite manufacturing, advanced manufacturing (e.g. 3D printing of metals), wind turbine engineering, electrical engineering (e.g. for wind turbine maintenance), surveyors and specific wind technology skills

Issue	Description / specifics
3. Issues with new entrants	Difficulties in finding new entrants who are “work ready” (i.e. with basic employability skills, including basic English and Maths) Difficulties in finding engineers with business acumen (i.e. ability to use theory to address real world problems) Issues with graduates lacking engineering hand-skills*
4. Workforce profile	Ageing workforce, and inconsistent succession planning* Mature contractors who are very mobile and seek to maximise short term income* Small labour pool, leading to poaching (which is expected to get worse)*
5. Image issues	Difficulties in encouraging students to study STEM skills (including Apprenticeships), related to poor careers advice* with too much emphasis in schools on academic pathways Low numbers of women studying STEM subjects, working in the EET sector and, where they do work in EET, low numbers returning to work in the EET sector after maternity leave Challenges in retaining EET graduates in [Lancashire's] EET sector – a concern that graduates preferred to move to cities for their first job but may wish to return later Competition from other sectors for EET related graduates
6. Intelligence issues	Lack of articulation/communication between employers and providers in Lancashire, difficulties in understanding what employers need in terms of skills A need to better track developments (such as skills gaps relating to new technologies) and opportunities (for example, in terms of Smart Metering, nuclear new build, or shale), understand lead times following key decisions or events (from the provider and employer perspectives), and respond quickly to changing skills needs where appropriate
7. Supply-side barriers	Difficulties in recruiting sufficient staff to teach EET-related courses at FE colleges in Lancashire, partly due to competition on pay with the private sector

*Source: SQW research. Notes: * Issues which have been reported nationally for the EET sector, but also apply to the Lancashire context (when tested with consultees) are marked with an asterisk.*

3. Action Plan

Framework

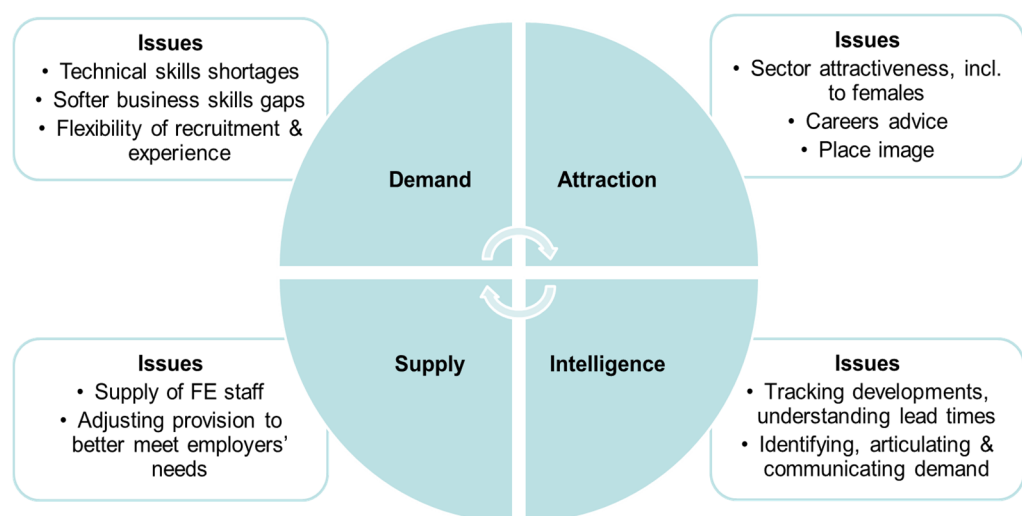
In this section, we present our draft skills action plan for Lancashire's EET sector. This has been split into four thematic areas:

- **Meeting the demand for skills** – focusing on the addressing issues raised by employers around skills gaps and shortages, and growing demand in key areas
- **Attraction** – designed to address issues around sector and location attractiveness, and improve retention and inflows of skills needed by Lancashire's sector
- **Intelligence** – to track sector developments, and improve the understanding, articulation and communication of employer needs to enable providers to respond appropriately
- **Developing the supply side** – ensuring that the supply-side system is equipped the needs of employers

A series of actions have been developed under the four themes, and for each we present the rationale for intervention, a description of each action, outline the desired outcomes and suggest key partners who would take the action forward. Please turn to Annex C for details on the fit between this EET action plan and the draft Lancashire Employment and Skills Strategic Framework.

Given the level of uncertainty in future demand (in terms of timing and scale) across some of the EET sub-sectors, this action plan has purposely been written in a way that is flexible and can evolve over time – the intelligence function will be crucial in driving this adaptability.

Figure 3-1: Framework for skills action plan



Source: SQW

Meeting the demand for skills

Rationale for intervention

Meeting the anticipated levels of replacement demand and current and future skills gaps and shortages will require a range of actions, both immediately and in to the future. These actions address the issues raised above relating to:

- Shortages in specialist technical skills
- Gaps in multi-disciplinary and softer skills
- Workforce profile.

Action 1: Increase provision of short courses to address skills shortages in specific technical skills, and encourage greater take up

Action details

Description	<p>Four actions are suggested:</p> <ul style="list-style-type: none"> • Short retraining courses which focus on specific technical skills, which allow people with more broad-based engineering skills/experience to transfer across to EET and/or become specialised in a technical area with skills shortages. Links should be made to provision being developed by the national Skills Academies • Short courses on softer skills such as project management, commercialisation etc. for those who enter the sector and existing employees • Taster courses provided on a very short term basis (i.e. weeks) at no/low cost to encourage interest in specified areas – advertised at job fairs, in job centres etc. The intention being that people will then be more willing to invest, perhaps through loans, in more substantial retraining courses to enable them to work in the sector • Post Graduate Certification (PG Cert) courses should be promoted to industry to demonstrate success in filling industry identified gaps. These are shorter and less expensive than full postgraduate courses requiring less funding and investment of employee and employer time. They are sponsored by an employer, with a number of their staff being provided with places <p>Employers are key to this strand. Groups should be convened, through the Sector Skills Development Group described below, for employers to demonstrate their commitment to meet specific needs, input to course design alongside providers and, in cases, to funding. Larger firms should be called upon to promote take up by their supply chains.</p>
Performance indicators	<p>Performance indicators could include:</p> <ul style="list-style-type: none"> • Number of courses developed and provided, and take-up • Increased volume of required technical skills • Reduction in employers reporting skills gaps and shortages
Key partners	Employers, FE and HE providers, National Skills Academies, LEP

Action 2: Apprenticeships - greater promotion and take up

Action details

Description	<p>There is scope to expand the number of Apprentices, in line with Government policy. Key actions should include:</p> <ul style="list-style-type: none"> • Greater promotion of the benefits of Apprenticeships to young people in schools, including the possibility of earning above the minimum trainee level and job prospects
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	<ul style="list-style-type: none"> • Encouraging large firms to work with their supply chains to expand the total number of apprentices recruited, either through encouragement or the larger firms over-recruiting and training Apprentices who will then go and work in the supply chain • Encouraging larger employers to consider using higher level Apprenticeship models (incl. Degree Apprenticeships) to complement planned graduate recruitment. The Apprenticeship model offers the advantage of having greater control over the training received and more certainty about the young person staying with them at the end of the training. • Promoting to employers the flexibility built in to Apprenticeships and the development of Trailblazer Apprenticeship frameworks, whereby they can tailor some elements to their needs and negotiate the cost to them. This is likely a role for the local Hub as it crosses sectors.
Performance indicators	<p>Performance indicators could include:</p> <ul style="list-style-type: none"> • Increase in number of applications for Apprenticeship places • Increase in the number of Apprenticeship places offered by the sector (including higher level and degree apprenticeships) • Increased number of trailblazer frameworks relating to EET
Key partners	Training providers, FE Colleges, employers

Sector attraction

Rationale for intervention

These actions address the issues raised in Table 2-2 relating to:

- Shortages in specialist technical skills (especially relating to lack of engineers with experience)
- Workforce profile
- Image issues.

Action 3: Improving awareness and attractiveness of the EET sector as a career choice, including for women

Action details

Description	<p>The following actions are suggested:</p> <ul style="list-style-type: none"> • Produce EET promotional materials on career opportunities in the sector and disseminate amongst schools, FE colleges and universities. The materials produced should be provided to those delivering national programmes locally, such as STEM ambassadors. • FE/HE, employers and the LEP to participate and support school GCSE/A'level/Careers option days by providing speakers, site visits, projects etc • HE and FE providers to work with employers and schools in promoting National Women in Engineering Day in 2016 to raise the profile of engineering as an opportunity for young women at school and in FE/HE potentially using local role models and providing industry visits and taster courses. Also use initiatives such as WISE (Women into Science and Engineering) to promote EET career opportunities, and provide retraining/refresher opportunities to attract women returners (see Action 1 above).
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Performance indicators	<p>Performance indicators could include:</p> <ul style="list-style-type: none"> • Production and dissemination of promotional material • Increased number of employer/provider careers events • Greater awareness amongst school children and young learners (including women) of the opportunities that are available in EET • Greater application to and uptake of STEM subjects and EET-related Apprenticeship/FE/HE courses
Key partners	FE and HE providers, employers, LEP, Women's Engineering Society, national partners

Action 4: Developing and promoting a coherent message about Lancashire as a place to work in the EET sector

Action details

Description	Develop a strong marketing message regarding the current strength and potential growth of the EET sector in Lancashire and run a local/regional marketing campaign with a particular focus on mobile workers (graduates and experienced people) and experienced returners (for example, using case studies). Promote the latter via alumni networks and potentially a campaign in north east Scotland.
Performance indicators	<p>Performance indicators could include:</p> <ul style="list-style-type: none"> • Production of marketing materials and case studies • Greater interest in the potential for employment within the EET sector
Key partners	LEP, FE, and HE providers, schools

Sector intelligence

Rationale for intervention

This action address the issues raised in Table 2-2 relating to intelligence.

Action 5: EET sector skills development group

Action details

Description	<p>A Sector Skills Development Group, comprising key employers, providers and sector skills representatives, was set up by Lancashire County Council to guide and inform the development of this EET Skills Action Plan.</p> <p>Under this action, the Group will continue in some form (perhaps with some changes to membership) with the following remit:</p> <ul style="list-style-type: none"> • Intelligence gathering on EET employer needs to improve understanding of current and future skills demand²⁰ • Provide a co-ordinated response to skills gaps and shortages, and changing needs – bringing employers together to detail needs • Lead engagement with – and influence of - national activities (e.g. Nuclear Energy Skills Alliance Action Plan), working closely with the LEP Skills Board
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²⁰ As part of the Growth Deal, Government has committed to “improve the provision of skills data for LEPs and will develop and publish new reports that will quantify and assess responsiveness to local skills needs”. The Group should draw on this, alongside evidence from employers across Lancashire (and other published sources).

	<ul style="list-style-type: none"> Lead cross-LEP working on key issues/sub-sectors (e.g. Nuclear Decommissioning) and to create a critical mass for relevant training²¹ <p>In order to deliver against these functions, the Group will:</p> <ul style="list-style-type: none"> include LEP, employer, training provider and FE and HE provider representation – all of whom will make a clear commitment to engage in the group on a regular basis include large employers, as a route to a larger number of employers (including SMEs) through to their supply chain have a direct link to LEP Skills Board, and ability to influence priorities and investment hold quarterly meetings, which will include a rolling update on developments for key EET sub-sectors. When key developments/opportunities come onto the horizon, specific sub-sector group meetings will be triggered to discuss detailed action plans produce a quarterly intelligence document and performance scorecard. This will be short and accessible. Its purpose will be to communicate employer needs, possible developments, timescales and triggers for action by sub-sector. The primary audience would be the LEP Skills Board. It will be disseminated to employers and providers across Lancashire.
Performance indicators	<p>Performance indicators could include:</p> <ul style="list-style-type: none"> Production of quarterly intelligence documents Greater cross-LEP working, building critical mass Improved understanding by providers of employer needs, greater appreciation by employers of supply lead times More responsive and flexible provision, which is (re)shaped to better meet employer needs Industry cite increase in ability to recruit staff with right skills for roles, especially within emerging sectors and new technologies
Key partners	Employers, providers, sector skills councils, local authorities and Local Enterprise Partnership (Skills Board)

The supply system

Rationale for intervention

These actions address the issues raised above relating to:

- Supply-side barriers
- Issues with new entrants coming out of the supply system.

Action 6: Introduce mechanisms to increase the number of FE staff teaching EET-related subjects in Lancashire

Action details

Description	<p>Three actions are proposed to ensure that FE colleges have the staff with the skills, expertise and experience to respond to the needs of the EET sector:</p> <ul style="list-style-type: none"> Create a pan-Lancashire pool of EET employers who are willing to release staff to engage in the delivery of EET guest lectures / modules / courses (particularly short courses).
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²¹ This ties in closely with the Growth Deal proposal to establish a multi-LEP network to co-ordinate the development of the nuclear sector in the North of England

	<ul style="list-style-type: none"> • Establish and deliver a marketing campaign to soon to be retirees from EET firms in Lancashire to engage in the delivery of EET guest lectures / modules / courses (particularly short courses) • The creation of commercial courses (linked to Action 1 above) that are delivered by employers as contractors and where prices can be set accordingly. <p>These actions have taken into account – and seek to respond to - the administrative burden on Colleges associated with bringing in non-academic staff to deliver FE courses, and difficulties finding employers with capacity/resources to deliver full courses.</p>
Performance indicators	<p>Potential performance indicators could include:</p> <ul style="list-style-type: none"> • Increase the number of FE staff delivering EET-related courses/modules/lectures, allowing for (a) supply to increase, and (b) FE providers to provide courses in specialist, up-to-date EET to meet employer demands • Increase in the number of employers (a) in the pool, and (b) delivering FE EET-related courses/modules/lectures • Reduction in the number of FE vacancies in EET-related subjects
Key partners	FE Colleges (and the Lancashire FE Networks), employers

Source: SQW

Action 7: Adjust FE and HE provision to better meet employers' needs

Action details

Description	<p>There appears to be a need to increase the volume and quality of graduates entering the sector. Two specific actions are identified:</p> <ul style="list-style-type: none"> • Increase the student experience with industry via projects and placements to help encourage more graduates to go and work there on completion of their courses, and give graduates work experience / business skills. It should also give employers a better chance to influence what is taught via projects (though projects) and assess possible recruits. This could be supported through having a single way in to the system for employers (optional participation to avoid upsetting any existing relationships between firms and HE/FE establishments) and a brokerage function to link opportunities to appropriate courses. This could potentially be developed, co-ordinated and advertised by the LEP • Adjust course curricula to better meet the needs of industry requirements, especially around soft and hand skills. This could evolve over time through the intelligence and co-ordination measures set out below.
Performance indicators	<p>Performance indicators could include:</p> <ul style="list-style-type: none"> • Increase number of student placements and projects between Lancashire's FE and HE providers and EET employers • HE and FE provision targeted towards employer needs • Students gain aptitude and interest in specific industries/firms potentially leading to greater graduate retention
Key partners	FE and HE providers, LEP, employers

Source: SQW

Annex A: Fit with strategic framework

Table A-1 outlines how the actions included in this Skills Action Plan for Lancashire's EET Sector deliver against the strategic priorities set out in the draft 'Lancashire Employment and Skills Strategic Framework, which are as follows:

- **Strategic Priority 1:** Continue to deliver increased levels of attainment by Young People at age 16 and age 19.
- **Strategic Priority 2:** Deliver increased numbers of apprenticeships in the County by growing Level 3 and above apprenticeships for Young People (16-24).
- **Strategic Priority 3:** Train and retrain adults to help them benefit from, and contribute to, economic growth.
- **Strategic Priority 4:** Increase the numbers with higher skills in the workforce by retaining graduates and by increasing take up of higher level education/training by young people and adults.
- **Strategic Priority 5:** Effectively link those who are NEET and/or out of work to employment opportunities in the local economy.
- **Strategic Priority 6:** Increase levels of employer engagement with, and investment in, skills.
- **Strategic Priority 7:** Ensure access to high quality and impartial careers information advice and guidance for all young people and adults aged 14 and above.

Table A-1: Alignment between EET Skills Action Plan and wider Employment and Skills Strategic Framework

EET Skills Action Plan	Fit with Strategic Priorities Employment and Skills Strategic Framework	Relevant Key Actions in the Employment and Skills Strategic Framework
Action 1: Increase provision of short courses to address skills shortages in specific technical skills	Strategic Priority 3: Train and retrain adults to help them benefit from, and contribute to, economic growth.	<ul style="list-style-type: none"> • Key Action 7: All adults should have the opportunity to retrain at level 3 to secure employment in the major growth and replacement demand sectors: health, visitor economy, advanced manufacturing, finance and professional services, creative and digital and energy/environment. Construction skills will also be required to support the anticipated significant growth in the construction sector. Where appropriate, providers' curriculum offer should support this (re)training activity.
	Strategic Priority 6: Increase levels of employer engagement with, and investment in, skills.	<ul style="list-style-type: none"> • Key Action 5/15: A 'Lancashire Skills Pledge' will be developed by the Lancashire Skills Hub. The Skills Pledge will be adopted by Lancashire Employers as a commitment to workforce development and will result in increased apprenticeship places with local employers.
Action 2: Apprenticeships - greater promotion and take up	Strategic Priority 2: Deliver increased numbers of apprenticeships in the County by growing Level 3 and above apprenticeships for Young People (16-24).	<ul style="list-style-type: none"> • Key action 4: Each existing apprenticeship provider will develop their capacity to deliver higher level apprenticeships. Universities, FE Colleges and private providers will collaborate to develop degree apprenticeship programmes. • Key Action 5/15: A 'Lancashire Skills Pledge' will be developed by the Lancashire Skills Hub. The Skills Pledge will be adopted by Lancashire Employers as a commitment to workforce development and will result in increased apprenticeship places with local employers.
	Strategic Priority 6: Increase levels of employer engagement with, and investment in, skills.	<ul style="list-style-type: none"> • Key Action 5/15: A 'Lancashire Skills Pledge' will be developed by the Lancashire Skills Hub. The Skills Pledge will be adopted by Lancashire Employers as a commitment to workforce development and will result in increased apprenticeship places with local employers.
Action 3: Improving awareness and attractiveness of the EET sector as a career choice	Strategic Priority 4: Increase the numbers with higher skills in the workforce by retaining graduates and by increasing take up of higher level education/training by young people and adults.	<ul style="list-style-type: none"> • Key Action 9: Universities will work with employers to improve the percentage of Lancashire employers who recruit direct from local Universities. • Key Action 10: Lancashire colleges to work with universities to develop their higher level technical specialisms and a curriculum that reflects this.
	Strategic Priority 6: Increase levels of employer engagement with, and investment in, skills.	<ul style="list-style-type: none"> • Key Action 16: Colleges and providers are asked to develop Curriculum Advisory Panels (or similar) of employers in areas of vocational specialism as recommended by the Commission on Adult Vocational Teaching and Learning in its report 'It's about work...(Excellent adult vocational teaching and learning)'
	Strategic Priority 7: Ensure access to high quality and impartial careers information advice and guidance for all young people and adults aged 14 and above	<ul style="list-style-type: none"> • Key Action 18: The Lancashire Skills Hub will identify existing strengths and weaknesses in the current delivery arrangements for 14-19 Careers Information, Advice and Guidance and bring forward proposals for improvement. • Key Action 19: The Lancashire Skills Hub will work with Local Authorities and the National Careers Service provider to review delivery arrangements to ensure that they are responsive to local need at borough and district level.

EET Skills Action Plan	Fit with Strategic Priorities Employment and Skills Strategic Framework	Relevant Key Actions in the Employment and Skills Strategic Framework
Action 4: Developing and promoting a coherent message about Lancashire as a place to work in the EET sector	Strategic Priority 4: Increase the numbers with higher skills in the workforce by retaining graduates and by increasing take up of higher level education/training by young people and adults.	<ul style="list-style-type: none"> • Key Action 9: Universities will work with employers to improve the percentage of Lancashire employers who recruit direct from local Universities. • Key Action 10: Lancashire colleges to work with universities to develop their higher level technical specialisms and a curriculum that reflects this.
Action 5: EET sector skills development group	Strategic Priority 6: Increase levels of employer engagement with, and investment in, skills.	<ul style="list-style-type: none"> • Key Action 17: The Lancashire Skills Hub will work with providers, stakeholders and employers to deliver the Lancashire Sector Skills Action Plans
Action 6: Introduce mechanisms to increase the number of FE staff teaching EET-related subjects in Lancashire		<ul style="list-style-type: none"> •
Action 7: Adjust FE and HE provision to better meet employers' needs	Strategic Priority 4: Increase the numbers with higher skills in the workforce by retaining graduates and by increasing take up of higher level education/training by young people and adults.	<ul style="list-style-type: none"> • Key Action 10: Lancashire colleges to work with universities to develop their higher level technical specialisms and a curriculum that reflects this.

Source: SQW