

**SKILLS FOR SUSTAINABLE GROWTH**

Consultation response form

JULY 2010

**Skills for Sustainable Growth response form**

If you are unable to use the online comments boxes to record your responses, please complete the questionnaire below and send it to:

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The Department may, in accordance with the Code of Practice on Access to Government Information, make individual responses available on public request.

The closing date for this consultation is 14 October 2010.

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Please tick the option below which best describes on whose behalf you are responding:

<input type="checkbox"/>	General Further Education College
<input type="checkbox"/>	Sixth Form College
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<input type="checkbox"/>	Individual
<input type="checkbox"/>	Local Government
<input type="checkbox"/>	Large employer (250+)
<input type="checkbox"/>	Medium employer (50 to 250 staff)
<input type="checkbox"/>	Small employer (10 to 49 staff)
<input type="checkbox"/>	Trade union or staff association
<input checked="" type="checkbox"/>	Other (please describe): Education for Engineering represents the Professional Engineering Institutions
	<i>About Education for Engineering</i> Education for Engineering (E4E) is the mechanism by which the engineering profession offers coordinated and clear advice on education to UK Government and the devolved Assemblies. It deals with all aspects of learning that underpin engineering. It is hosted by The Royal Academy of Engineering with a wide membership drawn

from the professional engineering community.

This E4E response represents the composite view of E4E members. Members include the 36 Professional Engineering Institutions, the Engineering Council, EngineeringUK and the Royal Academy of Engineering. A full list of the organisations which E4E represents is provided as an appendix at the end of this response form and can also be found at

<http://www.educationforengineering.org.uk/membership/default.htm>

We trust that, in assessing responses to this consultation, the government will ascribe appropriate weight to E4E's response in line with the wide range of contributing Professional Engineering Institutions and organisations.

## Principles for a skills strategy

1. We welcome views on these principles and whether there are others we should consider.

*Page 11, paragraph 7-9*

The professional engineering community, through E4E, welcome the Government's recognition of the importance of skills and the FE sector to the growth of the economy.

The Government has clearly indicated that the continued recovery of the UK will be based on a rebalanced economy with wealth-creating high-value engineering and technology at its heart. Engineering relies heavily on the technicians that graduate from FE provision. If we are to compete in a global economy and be leaders in emerging sectors, such as renewable energies and advanced materials, we will require a more highly skilled workforce, particularly at intermediate (technician) level. Engineering and Technology encompass a very broad range of economically valuable fields from sciences to the creative technical industries. We therefore applaud Government's commitment to raising the skill level of the workforce.

**Increasing intermediate level skills in Engineering and Technology must be a key priority of the Skills for Sustainable Growth strategy.** All our comments and recommendations that follow have this main aim at their core. The following points illustrate our views on some of the general principles of the strategy:

- We welcome the Government's holistic view of the purposes of learning and the focus on empowered and informed learners and employers. We agree with the principle of a credible vocational training offer and we agree with the need to prioritise vulnerable groups.
- We fully support the Government's view that there is a need for high quality impartial information about the different types of training and qualifications, progression opportunities, costs, and what lifetime returns may be. E4E members have striven to raise this issue [cf ETB and Engineering Council annual statistics reports 2005 section 2.4; 2009 section 19] and welcome progress in clarifying this important area (BIS call for further research into wage returns from vocational qualifications – 10/09/2010). In a bid to improve and make more transparent the information on apprenticeship wages, E4E has asked the National Apprenticeship Service to publish a table on its website to show indicative wages for apprenticeships across different sectors.
- Learning, which may include formal training, should lead to a demonstrable gain in skills and understanding. In a working context this might be through being able to undertake a task that the individual could not have undertaken (or not so productively) before the learning activity or activities took place. Investors in People, for example, often ask workers to discuss an example of what they can now do because of what they have learnt (through formal, informal or non-formal means).
- Formal assessment and qualifications can play a part in formally recognising learning and provide the individual with certificated evidence but they are not a requirement in achievement and productive use of increased skills and understanding. Neither is formal training. The recently established Technician Council is clear that demonstrable competence and active commitment to continuing learning is necessary to achieve progression and to enable professional registered Technician status.
- However, gaining qualifications should be encouraged where appropriate and keeping a record of learning, examples of the uses to which it is put and reflecting on what the next steps should be, is vital.
- We agree that some employers need to bring their business management skills up to date. This has been evidenced in Sector Skills Council qualification strategies (for example, resulting in the SEMTA B-IT training roll-out). As well as direct economic benefits, improvement in the culture of more workplaces might help to attract and, importantly, retain skilled and more diverse members of the workforce. Escalating

change in business culture could have greater long-term impact than focusing interventions on entrants.

- As our earlier remarks indicate, formal vocational training is not appropriate or needed by everyone and informal and non-formal learning is also widely recognised as being valuable to individuals and to their employers (cf Inquiry into the Future for Lifelong Learning – Schuller and Watson 2009; ECVET project - European Commission). However, the consultation document only discusses informal and non-formal learning in context of the community. Further consideration should be given to this matter.
- In principle we agree that public funding should be used where it is most needed and where it gives most value. We would argue that at least Level 2 numeracy, mathematics, English language, literacy and ICT user skills are essential for learners in the FE and Skills sector and must always be publically funded.
- We welcome the commission of a review of 14-19 vocational education and have offered the support of the engineering profession to Prof. Alison Wolf as she conducts the review for the Department for Education.

2. How can we further simplify the skills system, including the number, roles and responsibilities of the many organisations working in the system?

*Page 11, paragraph 7-9*

As acknowledged by the IUSS Committee in its review and report - *Engineering - turning ideas into reality* (March 2009) – despite its breadth and complexity, the UK engineering profession is well coordinated and coherent in its approach and communications. The Engineering Council holds the national registers of Chartered Engineers (CEng), Incorporated Engineers (IEng), Engineering Technicians (EngTech) and Information and Communication Technology Technicians (ICT Tech). It also sets and maintains the internationally recognised standards of competence and ethics that govern the award and retention of these titles.

The professional engineering institutions – licensed and quality assured by the Engineering Council - already scrutinise, map and approve appropriate engineering and engineering related qualifications, programmes such as Advanced Apprenticeship frameworks and employer schemes for simplified access to professional registration as an Engineering or ICT Technician with the Engineering Council (see Q.15 for further details).

The newly formed Technician Council – covering health, ICT, science and engineering sectors – will also help to simplify the landscape by building on the existing professional registration standards to achieve an expansion and development of technician registers across the sectors. To this end, the Council will:

- help facilitate the initial drafting of further registration standards across the sectors and subsectors;
- ensure that appropriate support, professional development and information is made available to technicians;
- drive forward the agenda of promoting the professional status of and recognition for technicians, including marketing and policy influence roles.

3. In view of the current fiscal deficit, what areas of public investment in skills could be reduced and where could private investment be increased? What are the main constraints on changing the balance between public and private investment and how could these be overcome?

As noted above, the Government should prioritise public investment in shifting the balance of low towards intermediate (QCF levels 3 and 4) skills. This is particularly necessary in many STEM fields of economic activity (cf UKCES). The work done by Sector Skills Councils and UKCES to indicate where shortages in valuable skills are occurring or will occur should be taken fully into account if making choices about where return on public funding can best be maximised. Whilst a threshold entitlement to public funding for core literacy, numeracy, ICT and other work and wellbeing learning must be retained, public investment in skills and qualifications which are projected to have a less significant impact on economic growth or the skills and qualifications are at a higher level (say, above level 5) could be reduced. This latter budget could be taken up in a greater proportion by private (employer, individual, voluntary sector etc.) investment.

### **A respected and credible training offer**

4. How could the Apprenticeship programme be improved? What can be done to increase the proportion of apprentices progressing to Level 3 and beyond? What and how should employers contribute to Apprenticeships?

Page 13, paragraph 12-18

We fully support the view that Apprenticeships should be the primary work-based learning route and agree that more people should have access to Apprenticeships at every level. We make the following comments with regards to the consultation:

- Whilst the National Apprenticeship Service (NAS) is making strong headway on this, there is a lack of understanding among young people, current workforce, parents and the public about exactly what an Apprenticeship involves, its value and the prospects it confers. As the new Specification of Apprenticeship Standards rolls out in the shape of new frameworks, the NAS should be afforded greater resource to develop stronger messages about the lifetime benefits for individuals and employers of this route into or within employment.
  
- There is still a lack of transparency around apprenticeships for individuals, particularly around wage returns over a lifetime. This lack of transparency can be contrasted with substantial efforts made to advise Higher Education applicants of the likely lifetime returns to them in return for fees and other costs they must contribute to. If more able individuals are to be attracted into the Apprenticeship route then greater detail of likely returns is required. Chart 2 in the consultation document is itself a useful way of raising attention to the differential wage returns to qualifications for intermediate skill levels. For greater transparency, a lot more detail should be shown on this chart. E4E has called on the National Apprenticeship Service to provide more transparency on apprenticeship wages across different sectors to highlight the earnings potential in engineering occupations. We have asked for a table of indicative wages to be placed on their website. Whilst set at a very high level of generalisation, the visual data in chart 2 could also usefully contribute towards some transparency in informing NAS service users. It is notable that those qualifications shown as having the higher estimated wage returns, particularly at level 3, are (or have been – e.g. ONC) very popular within engineering (which is a well-paid sector) and that an NVQ2 in the workplace provides much better prospects than an NVQ2 (presumably not in the workplace, but as NVQ is an assessment of working competence is hard to imagine how there can be any (genuine) NVQs awarded outside of workplace learning. It is also crucial that employers provide more high quality Apprenticeship places. We urge BIS and DfE to take forward their very useful work in researching the lifetime returns to individuals and employers of vocational and occupational qualifications (cf DIUS - Fong and Phelps 2008. McIntosh, S. (2007). *A Cost-Benefit Analysis of Apprenticeships and Other Vocational Qualifications*. DCSF) and are pleased to note recent intention to do so (see earlier).

- The STEM FE data project funded by BIS, reporting in the autumn will provide long-awaited and very valuable highly detailed information about the science, technology, engineering and mathematics qualifications taken in the FE and Skills sector. The data include aspects relating to learners and geographical region of provision. A proxy calculation is included that indicates the numbers of Apprentices and Advanced Apprentices coming through the system, by framework. The data will be updated on a yearly basis and will be housed by The Data Service. The project itself is an outstanding example of government and voluntary (in this case, the S,T, E and M community) collaboration.
- We see Technician registration as contributing to encouraging progression to and beyond level 3, such as Advanced through Higher Apprenticeships (level 4). The work of the Technician Council in encouraging Apprentices to become registered with professional institutions will be pivotal in this regard. However, it is also right to emphasise the value of level 2 Apprentices as a stepping off point for those whose are content and stretched at this level.
- We would welcome more opportunity for the engineering profession to be involved in the approval of frameworks as discussed in paragraph 17 of the consultation. In many cases this already happens where professional body expert teams map and approve (or seek improvements to) draft Apprenticeship frameworks and other employer-led programmes towards meeting the Engineering council Standards for Technician registration with their related Sector Skills Councils.
- Registered professional Engineering and ICT Technicians are valued members of the profession. Advanced Apprenticeship can lead directly to registration. Many 'advanced craft' roles within our sectors meet the QCF level 3 descriptor and therefore many advanced crafts men and women are also eligible to apply for Technician registration.
- The term 'employer-led bodies' in paragraph 17 of the consultation is ambiguous. If this term refers to SSC's, then what is described is the current situation as it stands today. If the consultation is not referring to SSC's then we are unsure which bodies would be best positioned to lead this area. For example, we do not believe that individual organisations - such as large manufacturing OEMs (Original Equipment Manufacturers) - leading the design of engineering apprenticeships for the whole sector would necessarily be the best answer. It would also be helpful to have consistent levels of requirements for apprenticeships across the engineering sectors (from Mechanical to Construction and Built Environment to ICT practitioners).
- The web-based apprenticeship development and issuing system being developed by the Alliance of SSCs should help to develop the frameworks swiftly for new and growing occupations. In addition the UKCES work looking at how qualifications can be brought more quickly to market (e.g. National Occupational Standards informed rather than NOS-founded; NOS developed in parallel) should also be of benefit. The QCF will also help if individual units (rather than just qualifications) are eligible for funding.
- We agree that employers should make a contribution to apprenticeships. But it is important to recognise the contribution that employers already make. The EngineeringUK 2009/10 report provides a breakdown of the cost of taking on apprentices for employers (Institute for Employment Research case study; section 19.2.1). The report clearly shows that apprenticeships constitute a significant investment on the part of employers and as noted above, the value proposition of taking on apprentices should be made clear and explicit. Furthermore, employer make contributions through other means, for example through work based assessments. There must be some proportionate application of a contribution so that smaller companies and those providing over-training receive relief from extra payments. Even for large companies with a successful track record there can be difficulties in ensuring training year on year as business ebbs and flows. Some way of helping companies to sustain training programmes (particularly Apprenticeships) needs to be found.

- Another important set of member organisations delivering training are Trades Unions, particularly around health and safety. Trade Unions could lead work in ensuring frameworks meet high quality criteria for (for example) health & safety, employment conditions and the employment rights and responsibilities aspects.

5. We welcome views on how best to support people who might in time benefit from an Apprenticeship but who do not currently have the skills to begin one.

*Page 14, paragraph 19*

We welcome that the consultation is focussed on people (and not just young people) who are clear about their career direction and have potential to benefit and achieve. We believe the following points must be taken into account:

- The skills strategy must prioritise numeracy, mathematics and English for those without the necessary skills to people who might benefit from Apprenticeships.
- We see no reason to call the model 'pre-apprenticeship' – it is simply a course of vocational study which, if valued VRQs and key/functional skills are achieved, has value and longer-term benefits in its own right. 'Pre-apprenticeship' embodies some expectation of automatically proceeding to an apprenticeship. This lacks transparency as employment cannot be guaranteed and, in our view, Apprentices must be employed.
- In the professional engineering organisations' responses to the consultations on the draft Apprenticeship Bill and draft SASE, it was clear that we are not generally supportive of 'programme-led Apprenticeships'. The view was that they were not true 'Apprenticeships' and led to cases of unpaid exploitative labour disguised as 'work experience' (documented by Ofsted in *The impact of programme-led apprenticeships* (2008)).
- Some Apprenticeships include only limited "simulated" experience. This is creating an emerging issue where, for example, some 'qualified' electricians can't perform electrical installations in real, complex contexts. This is a result of achievement in theoretical qualifications with perhaps some simulated 'experience' but little or no practical work-based-learning. SummitSkills has developed innovative QCF qualifications integrating theoretical and work-based-learning. While the qualifications themselves are being welcomed, there has been delay in establishing a *funding mechanism for units* which has caused considerable consternation amongst college providers. This is a practical example of a need to get national policy sequencing right as well as an example of desire within our sectors to move on from theoretical/limited-simulated learning.
- The Apprenticeship pathway needs to be seen as distinct from 'vocational'. A crucial factor in attracting increasing numbers of people to Apprenticeships is to ensure the highly valued Apprenticeship brand is not broadened so far as to be diluted and undermined. As the consultation paper notes (paragraph 22) "a vocational qualification gained in the workplace on average leads to higher earnings for an individual than a qualification delivered in a college". Chart 2 in the consultation paper supports this. Also it is worthy of note that NVQ3, shown in the chart, is an integral part of Advanced Apprenticeship which has a high rate of wage return.
- It is notable, within our sectors, that there are many examples of excellent Apprenticeship provision including British Gas which is featured in Ofsted's review, *Twelve outstanding providers of work-based learning* (Ofsted July 2010). This review should inform policy.
- We broadly support the concept of community based adult education delivered by 3<sup>rd</sup> sector organisations but see our comments at Q 28. We believe that participation in community activities or learning in informal settings such as college and community centres can build confidence. This can act as a springboard to moving learners on to more formal education in the FE and Skills sector. Community based provision often relies on the voluntary sector and is a clear example of the Government's big society

delivering informal as well as formal (cf the Workers' Educational Association; UnionLearn) lifelong learning opportunities.

6. We welcome views about progression from Level 3 Apprenticeships into higher education, including whether there is demand for Higher Apprenticeships at Levels 4 and 5.

*Page 14, paragraph 20*

- We believe that more Higher-Apprenticeships would be very welcome. The Panel on Fair Access to the Professions called for vocational training routes into the professions (at all levels) and recognised the good progress into Higher Education made through work-based Foundation Degrees (Level 5). The final report of the panel showed that in 2008, around 72,000 students were enrolled on Foundation Degrees, with over half studying at FE colleges. In our sectors HNC and HND remain a popular (often work-based) route. We welcome the recent revisions to the HNC/HND structure (with HNC now sitting at Level 4, HND at Level 5 but with strong progression connection into and between) and hope that many Higher Apprenticeships will include HNC (and HND if the Higher Apprenticeship is also set at a higher level).
- We echo the views of the Panel on Fair Access that Advanced (and, now, Higher) Apprenticeships must be appropriately recognised in the UCAS points framework so that people who qualify as an Apprentice are able, if they so wish, to apply to university degree programmes knowing what UCAS points they hold. We also believe that the skills scholarship concept initially proposed by the Minister of State for Universities and Science while in opposition for funded Apprenticeship Scholarships to higher education should be pursued. We support the concept of 'HE within FE' so that more students including adult learners have the opportunity to progress from vocational study.
- Registered Technicians (the threshold is set at QCF Level 3) are required to commit to regular CPD and their professional engineering bodies provide a wide range of opportunities for them to do this. This can support reasonably achievable steps from an Advanced Apprenticeship and might, for example, include the revised HNC. This in turn could encourage progression through HND to Honours degree level and beyond. It would be necessary to ensure there was adequate funding of part time provision – and more readily available loans for learners - in order to expand progression via the Foundation Degree and HNC/D work-based routes.
- There is anecdotal evidence to suggest that learners undertaking a learning programme via day-release or 'night-school' (whether in workplace, training school or college provider) continue with their studies, albeit in phases as circumstances allow. Robust data on this could be explored in time through the learner record.

7. How should we ensure that training leads to real gains in skills, knowledge and competence and not just the accreditation of existing skills?

*Page 14, paragraph 22-23*

We welcome the Government's commitment to continue support of qualifications gained in the workplace. As noted earlier, training should lead to a gain in useful (and used) skills and understanding.

- In many cases there is a benefit to certificated recognition of existing competence – as in the NVQ assessment system. NVQs or other ways of recognising prior learning, particularly work-place learning, are useful in providing individuals with recognition of their learning and employers with an indication that an individual is deemed competent by a third party.

- The peer review process involved in assessing applicants for professional engineering registration (such as ICT Technician and Engineering Technician) performs much the same task. It involves a rigorous assessment by practising engineers of current competence (including skills, knowledge and understanding) and of commitment to continued learning and to ethical principles. To remain registered, amongst other requirements, CPD must be evidenced. Registration is highly valued by individuals (cf Engineering Council Registrant Survey 2010) and has international recognition. Registration certification can provide employers with the evidence they seek.
- An additional mechanism to ensure that training leads to real gains in skills, knowledge and competence would be through encouraging Awarding Bodies to include tests and practical assessments in their qualifications that are harmonised with the competence assurance requirements necessary to show compliance with regulations and standards relevant to the industry/employer.

We reiterate here the value of different types of learning in the workplace – formal, informal and non-formal. The definitions of these need to be made transparent. The Engineering Council standards for the UK engineering profession, which focus on *outcomes* from formal, informal and non-formal learning, reference the European Commission ECVET project glossary from the following website:

<http://www.ecvet.net/c.php/ecvet/glossary.rsys>

<p>8. How can we incentivise colleges and training organisations to offer a flexible and cost-effective 'needs-led' offer for people who are out of work or at risk of becoming unemployed?</p>
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*Page 15, paragraph 24-25*

All engineering requires mathematics and it is widely recognised that mathematics skills can help people get ahead in work in a wide range of sectors. The government must show a clear commitment to incentivising/funding progression in numeracy and mathematics. The recent ACME paper on post-16 mathematics pathways is an excellent model of progression for mathematics for the FE and Skills sector.

Eligibility for funding for 'return to work' training should be extended to competence-based training required by the prospective employer, rather than limited to (further) Level 2 or Level 3 education, as these latter qualifications may not get the individual into employment.

<p>9. How can we encourage colleges and training organisations to make the transition from learning to work as smooth as possible, enabling progression in the workplace, as well as to further learning?</p>
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*Page 15, paragraph 24-25*

The new Adult careers service should be strongly supported, Rights and Responsibilities in Work should be a core element of many courses of study (not just Apprenticeships) and local businesses could help in the preparation for the work environment. Providing neither service is diluted, an all age careers service would be beneficial. Work placements and paid internships for the FE and Skills sector will also smooth transition but we have concerns about unpaid internships and poor provision of work experience.

Additionally, a smooth transition from learning to work depends very much on competence. Harmonisation between training-assessment and 'industry-recognised competence assurance requirements' will speed the transition to productivity, enabling progression and supporting development.

<p>10. How can we better promote enterprise education in further education colleges and throughout the training system?</p>
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No Comment

### Funding and entitlements

11. Should Government continue with an entitlements based approach? How can we ensure that Government money is targeted where it is needed most and where it will achieve most value?

Page 16, paragraph 29-32

We believe the Government should continue with an entitlements based approach. However, given the fiscal deficit, changes to the current system of entitlements will clearly be necessary and we agree that money should be targeted where it is needed most.

There must be full entitlement to basic literacy, numeracy and ICT skills and first full Level 2 qualifications. However, it is important to note that the number of jobs requiring Level 2 qualifications is diminishing (2010 UKCES National Strategic Skills Audit). Therefore, we would advocate that first full Level 3 needs to remain an entitlement, particularly if the current workforce is to be up-skilled and the requirement for intermediate skills is to be met. However see our earlier remarks concerning valuable skills.

An alternative model would be to provide entitlement in the form of credits in Lifelong learning Accounts but it is not yet clear how economic needs will then be prioritised/incentivised.

### Helping individuals and employers choose the learning they want

12. How can the learning market be made to work more efficiently, effectively and economically and to be more responsive and accountable to demand by individuals and employers, while also delivering value for money?

Page 17, paragraph 33-36

We agree that high quality impartial information about the training opportunities available are necessary to help individuals and employers choose the learning they want. The new adult careers advice service will benefit individuals in this regard. Also the FE STEM data project funded by BIS will provide welcome transparency. This data collection should be maintained and extended to other sectors. The National Database of Accredited Qualifications is also a useful tool.

Regarding the QCF, there has been delay in establishing a *funding mechanism for units* (which colleges could offer in collaboration with employers) which has caused considerable consternation amongst college providers. We urge speedy action to address this.

The consultation document puts emphasis on qualifications, not units and implies that 'qualifications are unitised'. We would rather support the QCF model that 'qualifications are built from units'. This provides the framework with significant flexibility and makes it much more responsive to employer needs allowing qualifications to be built up without the need for creating endless new specialist qualifications.

13. We welcome views on how best to ensure employers are able to shape the skills system to meet their needs.

Page 17, paragraph 37-38

Employers, if they can field expertise and experience in the area, could have a greater voice in the development of curricula and assessment, for example, in membership of standing committees. Employer engagement is probably best facilitated through the Sector Skills Councils and UKCES – this can ameliorate dangers of a limited perspective on what national needs (vs. individual employer/business/sector) are.

Professional Bodies should also be able to contribute.

14. We are interested in views on what more might be needed to make the system responsive to employer needs.

*Page 17, paragraph 37-38*

We welcome the new Specification of Apprenticeship Standards for England (SASE) and believe – providing the original principles such as all Apprentices must be employed are adhered to – provide greater flexibility and simplification for employers. In the same vein, the National Apprenticeship Service (NAS) is already proving highly responsive (cf the ICE Technical Apprenticeship Consortium Project). The quality assurance frameworks in the FE and Skills sector encourage responsiveness.

In addition, there may be a case for more public funding contribution towards short- and part-qualifications. This would particularly be of benefit to SMEs. And more employers could be encouraged to gain Awarding Organisation status.

UKCES work on reducing the time it takes to get a qualification to market should also be pursued as should encouragement to SSCs to continuously update and refine their NOS.

15. Which qualifications have most value for employers and learners? Which do not have value? How do we evolve the Qualifications and Credit Framework so that it focuses on the former and removes the latter?

*Page 18, paragraph 39*

There is a growing subset of qualifications within the engineering and technology subject area that are approved by Professional Engineering Institutions (PEIs). This is enabled through mapping qualifications and programmes (including Apprenticeship frameworks) to The UK Standard for Professional Engineering Competence (UK-SPEC) and the ICT Technician Standard in order to assess the degree to which qualifications, units and programmes meet the competence standards required for registration as Engineering Technician, ICT Technician, Incorporated Engineer or Chartered Engineer.

The Engineering Council maintains a searchable database of these approved qualifications and programmes. A publically searchable database will shortly be available online<sup>1</sup>. As of early September 2010 there are 161 PEI approved qualifications on the database with 372 PEI approvals. Each record, where relevant, includes a direct link to its counterpart detail in the National Database of Accredited Qualifications (NDAQ), to an approved provider and/or employer. The database also links to the Learning Aim Database (LAD). We anticipate that this facility will prove invaluable as the QCF and SASE roll out and other national online facilities such as the learner record come fully on stream. We suggest that this kind of voluntary effort in maximising ways of linking to nationally provided resources, rather than reinvention and adding to complexity, is something that other organisations could consider.

The BIS-funded STEM FE data project has now demonstrated that a surprisingly limited number of qualifications taken in the FE and Skills sector within S, T, E and M fields are highly popular (i.e. with over 1000 enrolments per year). It seems likely that these are the most valued by employers and learners – although of course a tendency to go with whatever providers, employers (and families) have always done and scale of Awarding Body marketing capacity cannot be ruled out. All of the qualifications listed are taken in a specified academic

<sup>1</sup> Temporary site at: <http://dev.engc.org.uk/PublicSearch/>

year in the FE and Skills sector in England by learners funded by the Learning Skills Council and for 2009/10 the Skills Funding Agency or Young People's Learning Agency and most are listed in the NDAQ. Outside this are of course many valuable qualifications that are non-NQF/QCF – for example, in the IT/ICT sector.

The STEM FE data project has also provided an assessment of the numbers taken in Professional Engineering institutions' approved qualifications. It can readily be seen that some PEIs approve substantially more popular qualifications than others. On the whole the numbers of new Registrants (EngTech and ICT *Tech*) by PEI also reflect the volume of the qualifications popularity (although of course the timeframes are not necessarily the same). We can now also deduce that perhaps less than 8% of new Advanced Apprentices within our sectors are registering. Whilst maintaining quality is of prime importance, we fully expect that these sorts of findings will inform more focused targeting. Without the detailed FE and Skills sector data this could not have been possible. We are extremely grateful to BIS for supporting this important project and hope that it can be rolled out to other sectors.

The NDAQ could be evolved to flag the qualifications which are approved by Professional Bodies. This already happens to some extent at HE level with accredited degree course information on the UCAS database.

As noted earlier, there are many examples of qualifications where Professional Engineering Institutions and the Engineering Council (on their behalf) have worked with Awarding Bodies and Sector Skills Councils (SSCs) to develop qualifications. However more Awarding Bodies and SSCs could be encouraged to engage in early dialogue so that Standards can be unified as far as possible.

16. How can we improve the accessibility and quality of careers information, advice and guidance services for adults?

*Page 18, paragraph 40*

We fully support the Government's recognition of a need for improved accessibility and quality of careers IAG provision both for young people and adults. We welcome Government's commitment to Next Steps as the new provision for adult careers IAG. Whilst we would prefer an all-age service we would not wish to see funds diverted from the adult service towards young people.

We need to ensure that careers advisors have awareness of STEM careers and know where to access information of the various sectors and levels of employment. Sheffield Hallam STEM careers centre, for example, does excellent work in this field. The Professional Engineering Institutions are ready to engage with agencies to provide the necessary information.

There is a need for adults looking for work to develop an understanding of how to research, make judgements about sources and develop individual decision making. These skills should be developed from the early years in Primary education and we are sure that such a curriculum development would be of long-lasting and empowering benefit to individuals as well as in the longer-run substantially reduce costs in terms of individual advice, confidence-building and etc. However many individuals have not had benefit of such learning and perhaps it should be introduced as a fundamental entitlement. This would not only be of benefit to those seeking employment but also develop enquiring minds and more widespread skills in critical analysis of and learning from the vast amount of information available in the digital age.

17. We welcome views on the vision for lifelong learning accounts, and their potential usefulness.

*Page 18, paragraph 41-43*

We fully support Lifelong Learning Accounts and consider that they could be an excellent mechanism to engage adults in learning.

We have concern that with deregulation and the emergence of private sector provision and new training organisations, there is a likelihood of fraudulent claims on LLAs. The compliance unit of the LSC uncovered numerous cases of this type of fraud in the past. We have concerns about knee jerk reactions as, in the past, the government has responded excessively when fraud has occurred. The engineering sector operates in a global market. Many non-EU international students choose to study and seek employment in the UK.

18. We welcome views on approaches to informing learners and employers including how better information can be made available while reducing bureaucracy.

*Page 19, paragraph 44-46*

The STEM FE data project has revealed that there are some 885 different engineering qualifications at Level 2 and 1,079 at level 3 and 18 Level 2 and 55 Level 3 technology qualifications with enrolments this year in the FE and Skills sector. Of these a limited number appear to be particularly popular. Whilst it is impossible to specify that certain qualifications will enable progression and others will not, providing information about popularity (providing it fits with projected economic realities) can help to support informed decision-making (but also see our remarks at question 16). Similarly, providing information about lifetime returns on qualifications (see our comments at Q4). It is however essential that we have a mechanism to inform individuals and employers which qualifications may best enable them to progress in work, Further or Higher Education. There should also, as proposed, be independently sourced information to provide learners about the quality of FE and Skills sector provision and the training and education opportunities available. Excellent examples of this are HotCourses (<http://www.hotcourses.com>) and the National Apprenticeship Service website (<http://www.apprenticeships.org.uk/>). Initiatives such as the Engineering Council database of approved qualifications can also help (see Question 15 response).

- While we support the need to give greater freedom to college and training organisations to meet learner and employer demand, it will be important to ensure through some sort of planning, incentives or other means that engineering provision identified by UKCES and the Sector Skills Councils as vital to the economy – as well as any other demand from individuals and employers - is maintained within reasonable travel-to-learn distances. This might be in a college, employer premises, independent training establishment, Skills Academy – or indeed online where appropriate to the learning activity

### **Giving colleges and training organisations the freedom to respond**

19. We welcome views on our planned measures for simplification and freeing colleges and training organisations.

*Page 19, paragraph 47-49*

The focus of shifting accountability from Government to service users is important and we would welcome moves to simplify the skills system. This could be done through a single body overseeing the Further Education and Skills system as in the Scottish model.

20. How can we enable colleges and training organisations to be more efficient and responsive to the needs of employers, learners and their community but without adding new layers of control by local bodies?

*Page 20, paragraph 50*

See our responses to Q14 and Q18. Colleges and independent training providers do need to act in local collaboration regarding ensuring sufficient but not over- provision within a travel-

to-learn distance (other than centres providing national courses, Skills Academies and so forth). Some degree of local planning is necessary.

21. What mechanisms could we use to hold colleges and other training organisations to account for their performance in responding to employers' needs and for prioritising training that adds real economic value?

*Page 20, paragraph 49*

The current quality assurance framework appears to be driving up responsiveness.

Before mechanisms can be developed to hold colleges and training organisations to account for their performance, the needs of employers at a local level must first be determined. Historically, FE colleges have relied on this data and the Regional Development Agencies have collected it. There will still need to be a mechanism to collect this information and we expect the Local Enterprise Partnerships to undertake this work. The regional and national data from SSCs and UKCES should also inform these requirements.

The simplest mechanism to hold colleges to account for poor performance in responding to employer needs is to withdraw any public funding from those qualifications which do not meet those needs. However it would be crucial to assure that funding was not withdrawn where economic priority had been afforded but employers were failing to respond. As noted in the consultation document, many employers need further business skills. An incentive scheme might also be put in place for national and regional strategic priorities (such as sufficient technicians for nuclear new-build) similar to HEFCE's strategic margin in the HE sector.

### **Incentives to train in priority areas**

22. Do we need a framework that will enable and encourage employers and individuals to invest in training in priority areas and for colleges and other training organisations to provide appropriate courses?

*Page 21, paragraph 51-54*

We are not certain that a framework would not add yet further complexity to the system. It might also restrict proposed increased freedoms. However a possibility, as has been suggested, would be to weight the required contribution from employers so as to prioritise economically valuable provision. This might particularly help SMEs.

If a framework were to be developed it should have increasing skill levels in STEM, in particular Engineering and Technology, as a central aim.

There is a duty on employers to improve poor working conditions and employment terms and this should be pursued with vigour.

23. Should we promote training innovation, particularly in rapidly changing or wholly new areas of the economy? If so, how might we do this?

*Page 22, paragraph 55*

E4E responded to the recent BIS/DECC consultation on skills for the low carbon economy. In our response we commented that engineers and technicians are able to apply their skills in different circumstances so they will be able to adapt to the rapidly changing or wholly new areas of the economy.

For example, general engineering skills can be applied across both high and low carbon sectors but there will be exceptions where specialist skills will be required. Timely updating of

engineering FE and Skills sector qualifications should, for the most part, ensure the curriculum is in keeping with changes in the engineering sector.

SummitSkills is seeking to establish a low-carbon (green skills) Academy. This sort of initiative, focused initially towards up-skilling those already in the workforce and across a range of disciplines, should be wholeheartedly supported.

24. How can we ensure employers can access high quality labour market information?

*Page 22, paragraph 56*

High quality labour market information is complex and requires expert analysis and interpretation. UKCES and the SSCs should continue with the useful work they do in this respect. The Enterprise Partnerships should also contribute. The information should be made available online for employers to access easily.

### **Encouraging a more productive workforce**

25. What would enable businesses to use skills as a driver of productivity and business improvement?

*Page 22, paragraph 58-59*

We do not believe that it is qualifications or (necessarily) formal training or just the use of skills that are drivers of productivity and business improvement. Rather employer demands for business improvement will be a driver for a higher skilled workforce. As UKCES Ambition 2020 Report (2010) notes, the challenge is to raise the demand for skills by moving up the value chain and encouraging more businesses to adopt high value added skill intensive patterns of behaviour.

Large engineering organisations operating in a globalised free market economy recognise that training and up-skilling of the workforce is vital to compete and lead. An example of this is the BAE Systems Skills 2020 Programme.

26. We welcome views on ways in which businesses can be encouraged to increase the UK's leadership and management capability to create better run and more highly performing businesses.

*Page 23, paragraph 60-62*

No Comment

### **Reinvigorating adult and community learning**

28. How could we encourage the development of productive partnerships with third sector organisations?

*Page 24, paragraph 65-67*

E4E members are all voluntary sector organisations. A range of ways that members are already working in partnership are outlined elsewhere in this response. The Professional Engineering Institutions are also often learned societies and have charitable status. They already undertake considerable work using their charitable resources and through voluntary effort. For example, the IET has over 1,000 trained volunteers who support its membership and Registration work. Each PEI provides at least one volunteer as an Engineering Council liaison officer – helping another PEI in its work and seeking consistency of processes and standards across the PEIs.

The STEM FE data project is an outstanding example of productive partnership between BIS and the STEM community – much voluntary effort has gone into it.

The Technician Council, a partnership between business, government and professional organisations, is in an excellent position to promote professional registration to technicians.

These types of collaborations should be encouraged and the contribution of the voluntary sector more widely acknowledged.

29. We welcome views on new ways that colleges could be used to support the community.

*Page 25, paragraph 68-69*

**No Comment**

30. How could adult and community learning be reinvigorated? We especially welcome ideas for how businesses and others could be encouraged to engage in supporting local community learning to help create local ownership and momentum.

*Page 25, paragraph 70-71*

The Worker's Educational Association (WEA) and UnionLearn should be supported.

### **Measuring success**

31. We welcome views on those indicators of success would be most useful to you or your organisation.

*Page 26, paragraph 73-75*

We fully support the use of indicators to measure success but success needs to be defined. For example, progression in numeracy and mathematics should be a key indicator. However, a measure of success in adult community education could be based on attendance and retention, rather than qualifications achieved.

We recommend to you the Inquiry into the Future for Lifelong Learning report 'Learning Through Life' including its model for calculating the wider benefits to learning. We feel that this wider way of looking at costs and benefits should be taken forward.

**Do you have any other comments that might aid the consultation process as a whole?**

Please use this space for any general comments that you may have.

Comments on the layout of this consultation would also be welcomed.

We use this opportunity to reassert some of our key points. Engineering relies heavily on the technicians that graduate from FE and Skills sector provision. If we are to compete in a global economy and be leaders in emerging sectors, such as renewable energies and advanced materials, we will require a highly skilled workforce. We therefore applaud Government's commitment to raising the skill level of the workforce.

- Increasing skill levels in Engineering and Technology must be a key priority of the Skills for Sustainable Growth strategy.
- Employer demands for business improvement will be a driver for a higher skilled workforce.
- The Professional Engineering community value the FE and Skills sector and would welcome a more prominent role in matters associated with its development. We have offered our support to Prof Alison Wolf as she conducts her review of 14-19 vocational qualifications for the Department for Education.
- The work of the Technician Council supported by the Engineering Institutions will be of importance to the promotion of professional Technician registration and progression across science, health, ICT and engineering and must be considered in the skills strategy.
- There is a need for greater transparency and clearer information on the value of individual or discipline specific categories of qualifications to both individuals and employers.
- A more flexible qualifications framework based on the QCF model where qualifications are built up from individual units is far preferable to a proliferation of specialist qualifications.
- The new adult careers service is welcome and we would support all-age careers IAG provision. The engineering community is ready to engage with careers services to provide expert information on our many sectors.

## Annexe

### E4E Members

British Computer Society	Institution of Royal Engineers
British Institute of Non-Destructive Testing	Institute of Acoustics
Chartered Institution of Building Services Engineers	Institute of Materials, Minerals and Mining
Chartered Institution of Highways & Transportation	Institute of Physics
Chartered Institute of Plumbing and Heating Engineering	Institute of Physics and Engineering in Medicine
Chartered Institution of Water and Environmental Management	Institution of Railway Signal Engineers
Energy Institute	Institution of Structural Engineers
Institution of Agricultural Engineers	Institute of Water
Institution of Civil Engineers	Nuclear Institute
Institution of Chemical Engineers	Royal Aeronautical Society
Institute of Cast Metals Engineers	Royal Institution of Naval Architects
The Institution of Diesel and Gas Turbine Engineers	Society of Environmental Engineers
Institution of Engineering Designers	Society of Operations Engineers
Institution of Engineering and Technology	The Welding Institute
Institution of Fire Engineers	
Institution of Gas Engineers and Managers	
Institute of Highway Engineers	Engineering Council
Institute of Healthcare Engineering and Estate Management	Engineering UK
Institution of Lighting Engineers	The Royal Academy of Engineering
Institute of Marine Engineering, Science and Technology	
Institution of Mechanical Engineers	
Institute of Measurement and Control	

### E4E is supported by an Expert Panel whose members include:

Design and Technology Association  
Engineering Professors' Council  
SEMTA  
Specialist Schools and Academies Trust  
STEMNET  
Women Into Science, Engineering and Construction (WISE)