Engineering Gateways

Dr Caroline Sudworth

Senior Executive: Education and Skills
Engineering Gateways Project Manager
CBI Statement

Tomorrow’s Growth: New Routes to Higher Skills

“Argues that relying alone on traditional university courses will not meet the growing demand for degree-level technical skills in key sectors like manufacturing, construction, IT and engineering. It says that Government needs to remove a series of barriers to better co-operation between higher education and industry. And it urges ministers to address the 40% drop in part-time undergraduate applicants since 2010-11”
Background: Employer Needs

- Increased technical credibility with customers
- Assurance that the employee has satisfied a rigorous assessment of their engineering competence
- Confirmation that the engineering credentials being claimed are actually held
- Assurance that the employee is keeping up-to-date with professional codes of conduct and has the means to do this

A means to satisfy requirements of the Quality Management Systems standard ISO 9001:2008
The Aims of Engineering Gateways

- Flexible work-based pathways to becoming professionally qualified
- For employees aspiring to IEng or CEng
- Learning and professional development are integrated and rooted in workplace activity
- Employer has direct input to an individual’s further learning and professional development to IEng/CEng
Integrates learning to Bachelors or Masters level learning with supervised work-based professional development that meets requirements for professional registration

- Integrated rather than sequential
- Workplace activity provides the learning and professional development opportunities
- UK-SPEC is central
- Academic award + eligibility to apply for professional review
Typical Process

• Enrol on a degree Bachelors/MSc Professional Engineering
• An initial audit, negotiated learning, learning ‘contract’, development plan
• Academic supervisor, workplace mentor, professional engineering institution advice

• Employer has direct input to an individual’s further learning and professional development to IEng/CEng
Who is it for?

• Individual is:
  ▪ Employed in an engineering function
  ▪ Usually has an accredited initial qualification

• Individual seeks:
  ▪ To becoming professionally qualified
  ▪ Degree related to employment / career path
  ▪ Professional Review & Interview on completion
What about the Employer?

- Employer seeks:
  - To develop staff professionally
  - Degree related to employment / career path
  - Validate the competence of staff through professional review

- Employer Role:
  - Is prepared to support the employee – e.g. fees, resources
  - Can provide activity that will lead to required level of learning
  - Provide in-company mentoring
  - Signs off competences/PEI
  - Liaison with HEI – learning contract, PDA
Academic Partner Role

- Develops the programme to secure internal validation
- Promotion, recruitment, links with employers
- Provides academic supervision
- Assesses prior and future learning
- Mapping, audit, learning contract
- Liaises with PEI on documentation
- Encourages development of required competence, record-keeping
Current Position

- 11 university MSc Professional Engineering programmes
- 1 university BEng Professional Engineering programmes
- c80 MSc Professional Engineering students
- c40 BEng Professional Engineering students
- c8 PEIs have approved programmes; c120 PEI members

- 8 CEng registrations; 1 IEng registration (tbc)

- Range of companies – SMEs and larger (including a BP cohort)
- Extremely positive employers’ feedback – report available
- Website and published guidance material
- University Toolkit available
- High level of interest and commitment
The Benefits

• No loss of time or earnings - more than compensates for fee
• Relevant to participant & employer
• Link with e-portfolios, synergy with mycareerpath™

• Successful completion of learning and development programme: degree and eligibility for Professional Review
• Achieves professionally qualified engineering workforce, more quickly

• Retention of key engineering staff
• Knowledge exchange
• Support and mentoring
The Future

• New Partners
• New Routes to Professional Registration

• The Gateways Toolkit for academic partners – a ‘Route map’, order not prescriptive, prompts/questions to think about, resource, hard and on-line versions

http://gatewaystoolkit.engc.org.uk/
A route to professional qualification for working engineers without the full exemplifying qualifications who are unable to commit to full-time study. Employees are able to demonstrate the required competences for professional registration (UK-SPEC) at the same time as meeting the learning objectives for an academic qualification.

The framework for this route was developed as part of the government’s DIUS-funded ‘Gateways to the Professions’ initiative. ECUK led the work which also involved four universities, three PEIs and employer representatives.

A Learning Contract approach is used and successful completion leads to the award of an appropriate academic qualification and eligibility to apply for a Professional Review Interview with a participating Professional Engineering Institution.

This site provides information for working engineers interested in becoming professionally qualified, and is also relevant for some final year students who are unable to commit to further full-time study. The first participants are enrolled on the MSc Professional Engineering that opens a route to Chartered Engineer. A model is being developed for those seeking to become Incorporated Engineers.

An interim Registration Protocol between ECUK and the Professional Engineering Institutions describes the process for the registration of candidates enrolled on the programmes. Interested PEIs are invited to contact ECUK.