



ANNUAL REVIEW

2015

INTRODUCTION



*Rear Admiral Nigel Guild CB
CEng FIET FIMarEST MIMA
FREng, Chairman*

At a time when society is facing ever increasing demands on its time and is provided with a widening spectrum of products and services, it is more important than ever that the Engineering Council delivers on its vision: that society continues to have confidence and trust in the engineering profession. Society assumes that engineers and technicians will undertake their work with diligence and integrity. Professional registration is a mechanism that underpins and allows the public to have this trust.

Throughout 2015, we have worked closely with the 35 Licensed Members, 20 Professional Affiliates and our colleagues in the wider engineering profession to deliver the goals that we set out in our Strategic Plan.

Over the coming year, we will continue to maintain our globally recognised standards of competence and commitment and to encourage the engineering institutions to champion these standards.

The Engineering Council is an effective but relatively small team of volunteers and staff that consistently delivers a high volume of work. It has undoubtedly been a busy and productive year, whether this be delivering our routine activity, or launching new guidance. As we go forward, working in close collaboration with the Licensed Members, we will continue to regulate, serve and promote the engineering profession for the benefit of society.

VISION:

THAT SOCIETY CONTINUES TO HAVE CONFIDENCE AND TRUST IN THE ENGINEERING PROFESSION.

MISSION:

TO MAINTAIN INTERNATIONALLY RECOGNISED STANDARDS OF COMPETENCE AND COMMITMENT FOR THE ENGINEERING PROFESSION, AND TO LICENSE COMPETENT INSTITUTIONS TO CHAMPION THE STANDARDS FOR THE DELIVERANCE OF PUBLIC BENEFIT.



WHAT WE DO

- Develop and maintain common professional standards for engineering competence and commitment
- License professional engineering institutions to professionally develop and assess engineers and technicians against the common standards
- Maintain the national Register of professionally registered engineers and technicians



WHY WE DO IT

- To safeguard the public



HOW WE DO IT

- Self-regulation by peer review

FUNCTIONS OF THE ENGINEERING COUNCIL



1. STANDARDS

Operating under a Royal Charter, the Engineering Council is charged with regulating the UK engineering profession on behalf of society. It ensures that its standards for registration, the UK Standard of Professional Engineering Competence (UK-SPEC) and the Information and Communications Technology Technician (ICTTech) Standard remain fit for purpose (including in a global context) and recognised, and that standards are maintained and appropriately developed, and supported by professional engineering institutions and other stakeholders.

2. LICENSING

The Engineering Council licenses professional engineering institutions to ensure they are efficiently and effectively maintaining consistent standards of competence and commitment for individuals being nominated to the Register, in accordance with UK-SPEC and ICTTech and the Registration Code of Practice.

It also ensures that the engineering community continues to serve the interests of society through appropriate structures and professional behaviours.

3. REGISTRATION

The Engineering Council holds the national Register of those who have satisfied their peers of their competence and commitment as Engineering Technicians, Incorporated Engineers, Chartered Engineers and ICT Technicians.

4. INTERNATIONAL

The Engineering Council ensures that its standards for registration are globally recognised and that the international mobility of engineering professionals is facilitated.

FUNCTIONS OF THE ENGINEERING COUNCIL

STANDARDS

- Consultations and reviews
- Continual improvement
- Guidance



LICENSING

- Licensing activities
- Events
- Governance



REGISTRATION

- The Register
- Communications
- Harmonising data



INTERNATIONAL

- International research
- International recognition
- Member agreements



FUNCTION 1: STANDARDS



THE ENGINEERING COUNCIL ENSURES THAT THE UK'S PROFESSIONAL ENGINEERS AND TECHNICIANS ARE THE BEST THEY CAN BE BY MAINTAINING THE STANDARDS FOR REGISTRATION AND SUPPORTING PROFESSIONAL DEVELOPMENT.

CONSULTATIONS AND REVIEWS



Alongside standards-related work, we contribute responses to key external consultations, reports and reviews to give the engineering profession a voice. In 2015, these included involvement in government-instigated work towards developing engineering conversion courses for non-STEM graduates and contributing to the Wakeham Review of STEM degrees and employability.

Important consultation responses included those to the Department for Business, Innovation and Skills (BIS) on the future governance arrangement for the Trailblazer Apprenticeship programme, and to HEFCE's consultation about future quality assessment arrangements in higher education.

CONTINUAL IMPROVEMENT

In 2015, we established a Technicians and Apprenticeships reference group to take a strategic look at technician matters as well as a professional development steering group with strong employer representation, to provide direction for this area of work. Twenty-nine professional engineering institutions and Professional Affiliates now offer

mycareerpath[®] to their members. The number of users of the online professional development recording system has grown to over 16,500. Monitoring and auditing functions have been developed to support institutions in their sample monitoring of CPD records, a requirement from January 2017.

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GUIDANCE

We published a new *Guidance on whistleblowing* outlining the professional obligations of engineers and technicians and describing the process to follow when confronted by a potential whistleblowing situation. Three handbooks have also been published to help organisations that are developing technician-related Apprenticeships and qualifications to seek approved

status for technician registration. In addition, jointly with the Higher Education Academy (HEA), we have published a mapping document to help teachers in higher education identify how their experience could provide evidence for professional registration as a Chartered Engineer.



GOING FORWARD:

The Engineering Council will continue to maintain internationally recognised standards of competence and commitment as described in UK-SPEC and the ICTTech Standard.

FUNCTION 2: LICENSING



WORKING WITH THE INSTITUTIONS AND MANY EXPERIENCED VOLUNTEERS, THE ENGINEERING COUNCIL ENSURES THAT PROFESSIONALS WHO ARE ENTITLED TO USE OUR POST-NOMINALS MEET THE HIGHEST STANDARDS OF EXPERTISE IN THEIR FIELD.

LICENSING ACTIVITIES

Licensing is a key day-to-day activity, ensuring our Licensed Members maintain consistent standards of competence and commitment for their registered members. Alongside the significant task of conducting five year and interim licence reviews, we constantly strive to improve the way we work and collaborate as

effectively as possible with all our stakeholders.

In 2015, a number of improvements were made, which included a review and refresh of the Licensing Manual and the introduction of an Approvals for Professional Affiliates Manual.

During the year, the Engineering Council successfully conducted four five-year licence reviews and carried out 12 interim reviews. In addition, reviews of four of the organisation's Professional Affiliates were carried out and two new registration agreements were awarded.

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EVENTS

The Engineering Council holds workshops throughout the year designed to share good practice and develop engagement across the engineering community. Over 90 institution staff and volunteers attended the workshops,

representing 23 licensed institutions and 13 Professional Affiliates.

Other events run by the Engineering Council included a Professional Affiliate seminar and volunteer seminars.



“Very useful conference, reinforcing some understanding and highlighting and clarifying other areas that were less clear.”
– PA seminar

GOVERNANCE

The Engineering Council provided advice to seven institutions on their proposed amendments to Bye-laws and charters, including one application for a Royal Charter. The organisation has also liaised with institutions on specific proposals, including one for discipline-specific registers.

In response to the Charity Commission’s document on public benefit reporting, a *Guidance note on public benefit* has been drafted, advising institutions on how to prepare their statements on public benefit for inclusion in reports, and the importance of clearly stating their charter and

charitable status on websites, in annual reporting and other governance documents. The guidance will be circulated in 2016.

GOING FORWARD:

The Engineering Council is committed to seeking and promoting excellence in the licensing of competent institutions through effective and efficient processes.

FUNCTION 3: REGISTRATION



BY CONSTANTLY REVIEWING AND IMPROVING ITS PROCESSES, THE ENGINEERING COUNCIL ENSURES THAT ITS OPERATION IS DELIVERED IN AN EFFICIENT AND EFFECTIVE MANNER.

THE REGISTER

We work with institutions to improve the systems and processes that support the national Register. In close collaboration with these institutions, we completed a thorough cleanse of all registration data and a number of processes that support the Register have been automated, making them quicker, easier to use and more reliable. We also held a number of workshops and training sessions to support institution staff in using the new systems. In response to feedback

from institutions and the Board, we have developed our reporting tools for the Register and can now generate more detailed, insightful reports and trend analysis based on live data.

In 2015, there were 9,333 new registrations, up 3.2% compared to 2014. This was made up of 1,981 new Engineering Technicians, 1,401 new Incorporated Engineers, 5,872 new Chartered Engineers and 79 new ICT Technicians. Ten percent of new registrations were women.



COMMUNICATIONS

In the summer we launched our new website. The redesigned site includes a number of new and enhanced features such as a navigation panel for specific audiences, a Twitter newsfeed, interactive and engaging content and improved search engine optimisation, making it more visible online.

We also commissioned three promotional videos. The first of these, about the Engineering Council, was completed and published in 2015. The second, focusing on the value of professional registration and the process to gaining it, and third, a case study film, will be released during 2016.



HARMONISING DATA

As part of the ongoing work to map the UK's engineering profession, a steering group was established comprising of representatives from the Engineering Council, EngineeringUK and the Royal Academy of Engineering. Its first task was to agree the engineering occupational footprint using the Standard Occupational

Classifications (SOC), as identified by the Office for National Statistics (ONS). This work is nearing completion. The next task will be to agree the industry footprint using the ONS Standard Industrial Classifications (SIC).

In November, the Engineering Council liaised with the ONS, and has agreed to act as a stakeholder

in the revision of the SOC2010. The Engineering Council will lead on this through the joint steering group and will issue a collaborative response to the ONS in 2016.

GOING FORWARD:

The Engineering Council will continue to develop, improve and digitise key processes.

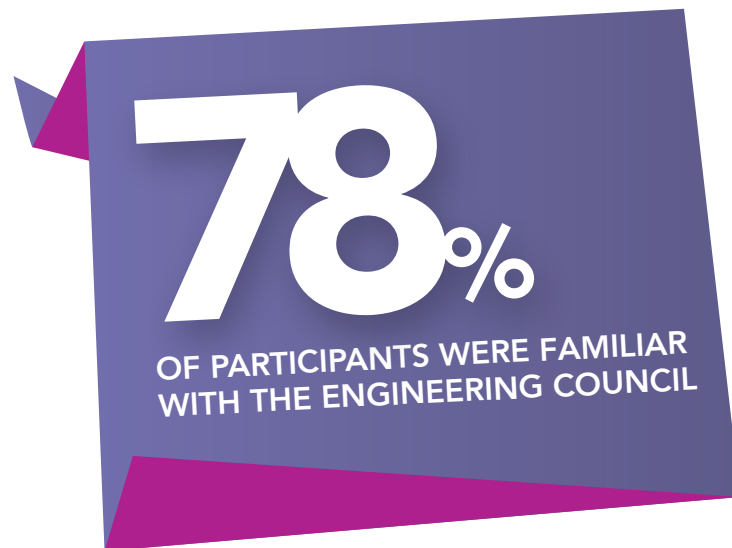
FUNCTION 4: INTERNATIONAL



BY ENGAGING WITH KEY INTERNATIONAL ENGINEERING BODIES, THE ENGINEERING COUNCIL ENSURES THAT ITS STANDARDS ARE GLOBALLY RECOGNISED, FACILITATING CROSS-BORDER MOBILITY OF ENGINEERING PROFESSIONALS.

INTERNATIONAL RESEARCH

In our work to promote the understanding and value of the UK registration model in other countries, we commissioned research to ascertain how other nations value and perceive it. The research involved interviews with over 80 decision makers and influencers in the engineering sector from 44 countries. The findings will contribute to future activities aimed at promoting the value of the UK registration model to other nations.



INTERNATIONAL RECOGNITION

We achieved some milestones on the international front in 2015. In September, Idaho became the first US state to give formal recognition to CEng status in the licensure process, where the engineer must have at least eight years post-registration experience. This may pave the way for other states to recognise UK registered professional engineers.

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MEMBER AGREEMENTS

The Engineering Council became a founder member of the Agreement for International Engineering Technicians (AIET). The Agreement will ultimately lead to the creation of an international register of engineering technicians to facilitate their international mobility by recognising their

professional competence against an international standard.

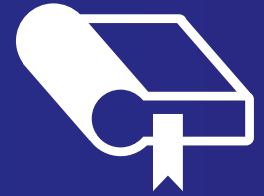
In June, our membership of the International Engineering Technologists Agreement (IETA) was renewed, following a six-yearly review. In addition, following a EUR-ACE® review, we have been given an unconditional

extension. This review has also enabled the label to be opened up to Incorporated Engineer accredited programmes with a sufficient volume of credits on the European Credit Transfer System (ECTS).

GOING FORWARD:

The Engineering Council will continue working to promote the understanding and value of the UK registration model in other countries.

GUIDANCE FOR PROFESSIONAL ENGINEERS & TECHNICIANS



THE ENGINEERING COUNCIL HAS PRODUCED GUIDANCE MATERIAL FOR PROFESSIONAL ENGINEERS AND TECHNICIANS ON THEIR ROLE AND RESPONSIBILITIES IN DEALING WITH ETHICS, RISK, SECURITY, SUSTAINABILITY AND WHISTLEBLOWING.



Ethics

Developed in collaboration with the Royal Academy of Engineering and a number of licensed professional engineering institutions, the *Statement of Ethical Principles* includes four fundamental principles that should guide an engineer or technician in achieving the high ideals of professional life. These express the beliefs and values of the profession, to which the Engineering Council believes all professional engineers, technicians and related bodies should subscribe.

www.engc.org.uk/ethics



Risk

Risk is inherent in the activities undertaken by engineering professionals, and members of the profession have a significant role to play in managing and limiting risk. All professional engineers and technicians are under a personal obligation to maintain and enhance their competence in their area of practice. The generic, top level and profession-wide *Guidance on risk* establishes principles to help professional engineers and technicians ensure that risk is an important consideration in all their engineering activity. The six principles help to guide in identifying, assessing, managing and communicating about risk.

www.engc.org.uk/risk



Security

Security can be defined as the state of relative freedom from threat of harm caused by deliberate, unwanted, hostile or malicious acts. *Guidance on security* for engineers and technicians sets out six key principles to guide engineers and technicians in identifying, assessing, managing and communicating issues about security. It also describes their associated responsibilities to society.

www.engc.org.uk/security



Sustainability

Professional engineers and technicians are increasingly required to play a leadership role in sustainable development, overcoming global challenges such as depletion of resources, environmental pollution, rapid population growth and damage to ecosystems. *Guidance on sustainability* describes the role of engineers and technicians in relation to sustainability. Six principles are provided to help professional engineers and technicians meet their obligations as they seek to achieve sustainability.

www.engc.org.uk/sustainability



Whistleblowing

Whistleblowing is defined by the UK Whistleblowing Commission as 'the raising of a concern, either within the workplace or externally, about a danger, risk, malpractice or wrongdoing which affects others'. *Guidance on whistleblowing* is a leaflet to support engineers and technicians when confronted by a potential whistleblowing situation. It sets out the processes that engineers and technicians should follow in raising such a concern, and where to get advice.

www.engc.org.uk/whistleblowing

Each publication is available online and, in limited numbers, in print. They are all fully compatible with UK-SPEC, and include principles to guide and motivate. Wallet cards are also available to support the risk, sustainability and security guidance materials.

If you would like a copy of any of the publications or wallet cards please contact us on marketing@engc.org.uk



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