



# ANNUAL REVIEW

# INTRODUCTION



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

**At a time of national and international change, the engineering community must work together to meet the new challenges and opportunities that lie ahead. In support of this, the Engineering Council will continue to ensure that the systems and processes for professional registration are robust and fit for purpose, thereby providing the assurance that our professionally registered engineers and technicians are skilled and competent to safeguard our society.**

Throughout 2016 we worked closely with our Licensed Members, Professional Affiliates and colleagues in the wider engineering profession to deliver the goals that we set out in our Strategic Plan.

In 2017 we are working towards the revision of the UK Standard for Professional Engineering Competence (UK-SPEC). It is essential that this core Standard remains current and that the competences, obligations and behaviours required of applicants to become professionally registered are up to date. This globally recognised Standard is the very foundation of the Engineering

Council's work and we will continue to maintain and champion it throughout 2017 and beyond. We will also look ahead to the development of our next Strategic Plan that will set out our vision until 2020.

The Engineering Council is a small but efficient team and it has undoubtedly been a busy and productive year, delivering routine activity as well as initiating and developing new projects. As we go forward, working in close collaboration with the engineering community, 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.



- 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



- To safeguard the public



- Self-regulation by peer review

# FUNCTIONS OF THE ENGINEERING COUNCIL

## 1. STANDARDS

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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 for 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

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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, the ICTTech Standard and the Registration Code of Practice.

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

## 3. REGISTRATION

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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

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The Engineering Council is an active member of international organisations and agreements, ensuring that its standards for registration are globally recognised and that the international mobility of engineering professionals is facilitated.

## STANDARDS

- Consultations and reviews
- Continual improvement
- Guidance and quality assurance



## LICENSING

- Licensing activities
- Events
- Governance



# FUNCTIONS OF THE ENGINEERING COUNCIL



## REGISTRATION

- The Register
- Communications
- Projects



## INTERNATIONAL

- International events
- European relationships
- International 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:

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Alongside standards-related work, we contribute responses to key external consultations, reports and reviews to give the engineering profession a voice. In 2016 this included contributing to the Wakeham Review of STEM degrees and employability. The resulting report found positive links between accredited degrees and employment outcomes.

Other consultation responses included on the new Hereford engineering university, the Shadbolt Review on computer science degree accreditation, a government-led Higher Education consultation on teaching excellence and the Post-16 Skills Plan. We also contributed to an Engineering Professors' Council (EPC) working group to pull together information about Degree Apprenticeships for engineering academics.

## CONTINUAL IMPROVEMENT:

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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 20,000. The system now has monitoring and auditing functions to support institutions in their sample monitoring of continuing professional development (CPD) records.

Feedback from users led to further development work, including a 'quick CPD report' button.

We are leading an Engineering the Future working group project to develop a *Pathways to professional registration* interactive web page. The resource will help technicians understand the routes to registration and support institutions.

“The number of users of the online professional development recording system has grown to over 20,000.”

## GUIDANCE AND QUALITY ASSURANCE:

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In 2016 we launched our new Guidance on security for engineers and technicians at a well-attended event at the House of Commons. The document outlines six key principles to guide engineers and technicians in identifying, assessing, managing and communicating issues about security and describes their responsibilities to society.

An independent report explored whether Engineering Council licensing processes could be used to build a model for providing external quality assurance (EQA) of Apprenticeship end point assessment for schemes that lead to registration as an Engineering Technician. A task group is investigating the possibility with work continuing into 2017.



### **GOING FORWARD:**

The Engineering Council will continue to maintain internationally recognised standards of competence and commitment and is due to begin a routine review of UK-SPEC in 2017 to ensure the flagship document remains current.

# 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:

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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 2016 as part of ongoing process improvement we revised our *Licensing Manual* and *Professional Affiliate Manual*. In addition, the Annual Licence Report survey, in which institutions provide updates on their processes

“The Engineering Council carried out 12 five-year licence reviews and six interim reviews, as well conducting reviews of five of our Professional Affiliates.”

and any changes, was carried out online for the first time making it easier to complete.

During the year the Engineering Council carried out 12 five-year licence reviews and six interim reviews, as well as conducting reviews of five of our Professional Affiliates. In addition a review of the Institute of Quarrying was conducted as part of its application to become a Professional Affiliate.





## EVENTS:

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We hold workshops throughout the year designed to share good practice and develop engagement across the profession.

Over 100 institution staff and volunteers attended six Licensing workshops, representing 36 institutions.

Other events in 2016 included the annual Professional Affiliate Seminar, attended by representatives from 17 institutions and two volunteer seminars, with almost 60 attendees at each event.

“Thank you, the day was really informative and helpful. It was very insightful to be able to see how other institutions are working. I have taken a lot away.”

– Workshop feedback

“Excellent format, very informative. Good opportunity to discuss and exchange views.” – Volunteer seminar feedback

## GOVERNANCE:

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The Engineering Council provided advice to nine professional engineering institutions on proposed amendments to their constitutional documents.

In response to the Charity Commission’s guidance on public benefit reporting, *Guidance on Public Benefit* was published and circulated, advising institutions on

how to prepare their statements on public benefit and the importance of clearly stating their charitable status.

The *Statement of Ethical Principles* document, first published in collaboration with the Royal Academy of Engineering in 2014, was reviewed by a task group,

a launch of the updated Statement is planned for 2017. The *Guidelines for Institution Code of Conduct* document was revised to include a clause regarding security and the *Guidance on Disciplinary Procedures* and *Internal Guidance Note on Professional Body Governing Documents* underwent routine revisions.

### 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:

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“The number of new female registrations increased by over 19% compared to 2015, with women representing almost 11% (1,072) of all new registrations in 2016.”

We work with institutions to improve the systems and processes that support the national Register. A key initiative of the Registration team in 2016 was closer engagement with professional engineering institutions to understand processes and develop a collaborative approach.

We carried out a cleanse of international records as well as a rolling programme of improvement work driven by institution feedback and internal initiatives to continually

make the Register more efficient and easy to use. This work included the automation of reinstatement processing and improvements in the way that record amendments are displayed and stored.

In 2016 there were 9,937 new registrations, up 6% compared to 2015. This was made up of a record 2,383 new Engineering Technicians, 1,354 new Incorporated Engineers, 6,077 new Chartered Engineers and 123 new ICT Technicians.

**9,937**  
NEW REGISTRATIONS  
— IN 2016 —

The number of new female registrations increased by over 19% compared to 2015, with women representing almost 11% (1,072) of all new registrations in 2016.

## COMMUNICATIONS:

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“We pulled together a special web page in support of National Women in Engineering Day, supported by three female Board Members.”



Two new videos were launched in 2016, an animated video on the value of professional registration and a case study film. A new engineering news page was published on our website featuring news and updates from the engineering community and the Engineering Council's

rebranded eNewsletter, *Engage*, was first issued in May as a digital, bi-monthly publication.

We pulled together a special web page in support of National Women in Engineering Day, supported by three female Board Members.

During 2016 the Engineering Council's Twitter account gained 4,000 new followers and engagement on the company's LinkedIn account resulted in more than 500 new followers.

## ICT PROJECTS:

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Infrastructure work started on the Engineering Council's new extranet site, MyEngC, including building the user management system, establishing the layout and constructing all page templates.

More improvements were made to the Engineering Council's online registrant search facility, RegPlus, and work continued to refine and improve the processes that support the Register, including updates to how and where historical data is stored, reconciliation processes and automated reinstatements.

The Engineering Council's new Qualifications and Programmes Database will combine the existing Academic Courses Accreditation Database (ACAD) and Technicians Database. A prototype database has been constructed and tested with delivery expected in 2018.

### **GOING FORWARD:**

The Engineering Council will continue to develop, improve and digitise key processes and promote the value of professional registration to the engineering community.

# 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 EVENTS:

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The Engineering Council was involved in numerous international conferences and meetings in 2016, raising the profile of professional engineers in the UK. These included presenting at a workshop in Kuala Lumpur organised by the British High Commission in Malaysia, in partnership with the Institution of Engineers Malaysia, and speaking at the China Association of Science and Technology (CAST) Symposium in Beijing on innovation and diversity. We also took part in events in New Delhi and Florida on the topic of accreditation and hosted a visit of the Botswana Engineers Registration Board.



## EUROPEAN RELATIONSHIPS:

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The Engineering Council is a pro-active member of the General Assembly of the European Federation of National Engineering Associations (FEANI) and FEANI's Northern Group, attending National Members Forum, General Assembly and Executive Board meetings.

We continue to support work to develop a new database to host the FEANI INDEX of recognised engineering programmes and programmes accredited to the EUR-ACE® Framework Standard. This joint initiative between FEANI and the European Network for

Accreditation of Engineering Education aims to raise the profile of these useful reference tools.

## INTERNATIONAL AGREEMENTS:

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As a founder member of the Agreement for International Engineering Technicians (AIET), work continued in 2016 towards setting up an international register of engineering technicians. The register will facilitate international mobility of engineering technicians by recognising professional competence against an international standard.

As the UK partner in the International Engineering Alliance (IEA), we continued our engagement on the three international Accords of Dublin, Washington and Sydney. In 2016 new (provisional and full) members were welcomed into the Washington and Sydney Accords.

“The register will facilitate international mobility of engineering technicians by recognising professional competence against an international standard.”

### **GOING FORWARD:**

The Engineering Council will continue working to promote the understanding and value of the UK registration model in other countries, which helps registered UK engineers and technicians wishing to work abroad.

# 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:

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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](http://www.engc.org.uk/ethics)



## RISK:

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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](http://www.engc.org.uk/risk)



## SECURITY:

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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](http://www.engc.org.uk/security)



## SUSTAINABILITY:

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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](http://www.engc.org.uk/sustainability)



## WHISTLEBLOWING:

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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](http://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](mailto:marketing@engc.org.uk)



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