



## EPC Bulletin | January 2020 | Twitter [@EngProfCouncil](https://twitter.com/EngProfCouncil)

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Welcome to the new decade. In the news, there was an election (in case you hadn't noticed), a Queen's Speech, movements on Brexit and an announcement on TEF. See below for news...

At the EPC, we have just launched the programme for this year's **EPC Annual Congress 2020 - Industry & Academia: Supercharging the Crucible**, with a host of high-profile and expert speakers headlined by Sir Mark Walport, CEO of UKRI. Join us in Sheffield from 6<sup>th</sup> to 8<sup>th</sup> April. [Booking is now open](#). More details below...

And if you missed it, our engineering enrolments survey findings were released before the festive break, giving us some reassurance about the health of engineering higher education. The survey was launched at the annual EPC Recruitment and Admissions Forum in November.

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## EPC news

### **EPC RECRUITMENT AND ADMISSIONS FORUM:**

The annual Recruitment and Admissions Forum took place at University of Wales Trinity St David's new SA1 Swansea Waterfront development in November, focusing on an unprecedented insight into the latest engineering student demographic profile research. Dr Tim Bullough (University of Liverpool) gave us a whistle-stop tour through his findings in this Royal Academy of Engineering research project into entry qualifications and engineering. We then enjoyed a deep dive into engineering student demographic profile entry requirements, enrolment, continuation and outcome patterns – enabling an evidence-based look at some of the most fundamental questions facing engineering admissions today.

Delegates were also treated to plenaries sharing innovative provision to enable those already in industry to study level 7 and MSE Engineering programmes; encouraging young people into STE(A)M careers; and a behavioural and evidence-driven approach to recruitment and admissions in engineering. The findings of the EPC's annual engineering enrolments survey were also launched.

A summary of the Forum is available to all members on the [EPC website](#), together with the speakers' presentations (available to delegates only).

### **ENROLMENTS SURVEY: exclusive EPC insight into this year's engineering enrolments**

Thank you for your contributions to this year's EPC engineering enrolments survey. The survey gives us all an early temperature check of the health of HE undergraduate and postgraduate engineering enrolments. Our survey is the only place you can gain this insight, many months before enrolment data for 2019/20 is published by HESA. Some of the key findings for this year were:

- Postgraduate enrolments were dominated by Electrical, electronic and computer engineering. Levels of decline versus growth suggest continued relative stability among engineering students.
- There was growth in non-EU overseas postgraduate numbers and in Russell Group enrolments for all postgrads.
- Mechanical engineering remains the sector leader for undergraduate enrolments.
- We were able to separate Degree Apprenticeship and Foundation enrolments from other first degree undergraduates. General engineering dominated the intake.
- At discipline level, General engineering witnessed the greatest net growth. Chemical, process & energy engineering continued a trend of decline with the largest net fall in numbers (followed by Mechanical engineering).

For more detailed analysis, a focus on other undergraduate courses, Electrical, electronic & computer engineering and women in engineering – and the charts and tables – please see the latest [blog](#) on the EPC website.

We'd appreciate your views on the value of this survey and the effort we require from members to contribute to it. During the coming year, we will be reflecting on this and how we can provide the most useful insight to our members going forwards. If you have any ideas at this stage, please do [contact us](#).

## Upcoming events

### **EPC EVENT: Annual Congress 2020 - Industry & Academia: Supercharging the Crucible, 6<sup>th</sup>- 8<sup>th</sup> April 2020**

Confirmed speakers:

- Sir Mark Walport, Chief Executive of UKRI
- Sir Chris Husbands, Chair of TEF and VC Sheffield Hallam University
- Mary Curnock-Cook OBE, Chair of Board, Dyson Institute
- Stephen Isherwood, Chief Executive, Institute of Student Employers
- Vanessa Wilson, Chief Executive, University Alliance
- Dr Joe Marshall, National Centre for Universities and Business

How can academia and industry better work together? The opportunities for teaching, student outcomes, research, knowledge exchange, social impact are all there, but how do we grab them? Understand the challenges, discover solutions and develop your own.

Other high-profile and expert speakers will be confirmed soon. There will also be live debates, presentations, a guided tour of the Advanced Manufacturing Park, the Congress dinner at Sheffield's famous Cutlers' Hall – including the awards of the President's Prize and the Incorporation of the Hammermen of Glasgow Student Prize – and evening entertainment.

The Congress will be held from 6<sup>th</sup> to 8<sup>th</sup> April 2020 at Sheffield Hallam University. It is not to be missed by engineering academics in UK higher education, whether you're a senior professor or have

recently joined the profession. We are offering a limited number of **free places for early career staff** (including accommodation) and big discounts for EPC members and early bird bookings.

Booking is open now so [reserve your place](#) right away. Book by 29<sup>th</sup> February for your double discounted EPC member early bird ticket. More information is available on the [EPC website](#).

### **SECTORAL GROUP EVENTS: PHEE-PHOMME Annual Conference: Challenges for UK Engineering Higher Education, 15th January 2020.**

Are you an academic leader in Electrical and Electronic Engineering or Mechanical Engineering? Why not come to the PHEE-PHOMME Annual Conference to discuss TEF, course accreditation/regulation and REF2021? Hear from keynote speaker Christina Miller – Director of the UK Research Office – on the latest position on UK research with European partners. And from Nick Rogers – Executive Director, Product Engineering at Jaguar Land Rover – on Engineering Skills for Future Vehicle Development.

Bookings are now live for the 2020 conference in central London on 15th January. [Reserve your place now](#). You can download the programme via the [EPC website](#).

### **OTHER EVENTS: International Symposium Engineering Education 2020 (ISEE2020), 9<sup>th</sup> to 10<sup>th</sup> July 2020**

University of Strathclyde is hosting the **7th ISEE: Engineering Education for the 21<sup>st</sup> Century** from 9-10th July 2020. Booking and further details are available [here](#). Papers relevant to the [conference themes](#) are also invited and can be submitted [here](#).

## **In the news**

With the Conservative Party winning a substantial majority in December's election, Gavin Williamson (Education Secretary) and Chris Skidmore (Universities & Science Minister) were both re-appointed and Emma Hardy has taken up the role of Shadow Minister.

### **THE QUEEN'S SPEECH: what this means for engineering**

The Queen's Speech included a host of commitments which will affect HE engineering directly. These included:

- Establishing 20 Institutes of Technology across England - offering higher technical education and training in science, technology, engineering and maths subjects, to give people the skills they need for key sectors such as digital, construction, advanced manufacturing and engineering.
- Prioritising investment in industries of the future where the UK can take a commanding lead – including clean energy, space, design, computing, robotics and artificial intelligence.
- Driving forward development of these technologies by investing in hubs around world-leading universities.
- Working with industry and academics to finalise a new approach to funding high-risk emerging fields of research and technology.
- Reducing bureaucracy in research funding to ensure our brilliant scientists are able to spend as much time as possible creating new ideas.
- Introducing a revised Tier 1 visa system to attract global scientific and research talent.

- Establishing a new National Space Council and launching a comprehensive UK Space Strategy.
- Setting out plans to significantly boost public R&D funding, to accelerate the Government's ambition to reach 2.4% GDP spent on R&D by 2027.

Additionally, key messages for the wider HE context included:

- Committing to making sure higher education funding reflects a sustainable model that supports high quality provision, maintaining our world-leading reputation for higher education and delivering value for money for both students and the taxpayer.
- Ensuring better value for students in post-18 education, have more options that offer the right education for each individual, and remove barriers to access for disadvantaged young people.
- Considering the thoughtful recommendations made in the Augar Review carefully.
- Investing £1.8 billion over five years in a rebuilding programme to upgrade the entire further education college estate.
- Ensuring that our universities are places where free speech can thrive and will strengthen academic freedoms.

Following the Queen's Speech, the PM Boris Johnson reflected on the importance of fast-tracking growth in research and development. These comments echo the thoughts of his advisor Dominic Cummings, who has talked about accelerating the target of 2.4% of GDP spent on R&D by 2027.

The smoke signals from the Government are all very welcome, but there are concerns on two fronts. Firstly, such bold intentions may not be deliverable post-Brexit if the economic impact is as bad as some people predict or if research capacity cannot expand fast enough, especially if the skills pipeline of international researchers starts to dry up. Secondly, Cummings wants to disrupt the channels through which R&D is funded. Whether through direct Government-funded projects or investment incentives to business, traditional research funding may be squeezed rather than expanded.

In any case, the EPC welcomes the Government's stated commitment to engineering, science and innovation, and its acknowledgement that universities play a huge part in world-leading research and innovation. We look forward to continuing to present the engineering community's voice.

#### **BREXIT AND ERASMUS+:**

The background briefing to the Queen's Speech mentioned that the UK "will continue to collaborate internationally and with the EU on scientific research, including with the EU through Horizon". However, full Horizon participation has historically been dependent on freedom of movement. If the Government has to give way on one or the other, the UK is unlikely to end up at the centre of EU funding arrangements.

Meanwhile, at the time of writing, the Brexit Withdrawal is progressing fast through Parliament. With the Government's large majority, Opposition amendments are getting short shrift. Among them was a requirement that the Government should negotiate for the continuation of full membership of ERASMUS+, the Europe-wide student exchange scheme. According to the Minister Chris Skidmore, the Government still intends to negotiate membership, even though the Bill does not mandate it to do so.

The EPC has previously been vocal that involvement in Horizon and ERASMUS+ should be protected in any Brexit scenario. We will use every opportunity to continue to press that case.

### **TEF: under threat again?**

The root and branch review of the English TEF by Dame Shirley Pearce, which was to be published last June, has still not appeared although it is said to be languishing completed on desks in the DfE. Whenever it is published, even the slightest criticism or recommended changes would undermine this year's institution-level TEF rating exercise if it were to continue on the same basis.

As a result, OfS has done the pragmatic thing and decided to cancel this year's exercise (contrary to the Education Secretary's request of last September that it should press ahead). Subject-level TEF is, however, still due to be published in 2021, but the results of the pilot exercise are currently being considered. Consultations and changes may be imminent. The EPC will, of course, keep you informed and represent members' views to the Government and OfS.

## **Consultations**

### **IMMIGRATION WHITE PAPER**

The EPC's campaign in response to the Immigration White Paper is ongoing. We welcomed the September 2019 announcement that work visas for foreign graduates be extended to two years and will continue to work with stakeholders to make sure the proposed new fast-track visa for science meets the needs of the UK's engineering and research community. EPC's concerns now focus on the £30k salary threshold (the policy should not exclude the invaluable technicians and early career researchers potentially excluded from this solution) and the deposit. If you think we should be raising further points, please [contact us](#).

## **Opportunities**

### **2020 VISITING PROFESSORS SCHEME: The Royal Academy of Engineering**

The Royal Academy of Engineering 2020 Visiting Professors Scheme opens for applications on 14th February, this year particularly encouraging more applicants from Post-92 Universities and under-represented groups.

The Scheme brings senior engineering industrialists into Universities to enhance both curricular content and teaching and learning approaches in order to develop graduate employability skills. Visiting Professors are appointed for 3 years, with yearly honorarium and expenses up to £10,000 for a minimum commitment of 12 days. If you are interested in the scheme, you can find further details on the [Royal Academy of Engineering website](#).

### **CALL FOR PAPERS: 7<sup>th</sup> ISEE**

The 7th International Symposium of Engineering Education will be held from 9th to 10th July 2020 in the University of Strathclyde, Glasgow.

The conference covers all aspects pertaining to factors affecting the quality and effectiveness of engineering education initiatives. The deadline for abstracts is **20th January 2020**. Abstracts can be submitted [here](#).

### **POSTGRADUATE CONVERSION COURSES: in Data Science and Artificial Intelligence**

The Office for Students £13 million competition to boost the numbers of artificial intelligence and data science graduates over the next three years is still open. [Find out more about the funding competition.](#)

### **RESEARCH PROJECT: The Mental Health and Wellbeing of Engineering Students in the UK**

Robert Gordon University would like to invite engineering students to take part in a PhD study that aims to gain insight into the mental health and wellbeing of engineering students within the UK. The purpose of the survey is to gather information about the mental health and wellbeing of engineering students in the UK and to help design interview questions for engineering students who volunteer to participate in later interviews.

If you are able to share the survey with your students the link is available [here](#). The survey closes on 20<sup>th</sup> January. There are links to a number of sources of support throughout and if student want to speak to someone about the project they can contact [Joanne Tait](#), Robert Gordon University.

### **CALL FOR PAPERS: 1st International Conference on Science and Technology Education STE 2020**

The 1st International Conference on Science and Technology Education STE 2020 will take place in Porto, Portugal, 8-9 October 2020. The focus is on education in science and technology. The conference will provide an international forum for the sharing, dissemination and discussion of research, experience and perspectives across a wide range of teaching and learning issues. The conference welcomes abstracts/papers related to science and technology

- epistemologies (what makes science and technology thinking and knowledge);
- learning mechanisms (how people develop knowledge and competencies);
- learning systems (institutional practices);
- diversity and inclusiveness (how society in general contributes to science and technology processes and products); and
- assessment (development and use of assessment methods, instruments, and metrics).

Authors who wish to make an oral or poster presentation are invited to submit a short abstract (one single A4 page possibly with a diagram and references) in English, by 4 May 2020. The abstracts should be sent electronically to [lucas@fe.up.pt](mailto:lucas@fe.up.pt). The abstract template can be downloaded from the [conference web site](#).



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