



**EPC Bulletin | April 2021** | Twitter [@EngProfCouncil](https://twitter.com/EngProfCouncil)

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It has been a busy political environment since our last newsletter, with changes coming thick and fast in relation to research funding, as well as the cancellation of the Industrial Strategy. DfE has sought input on the future of admissions (aka PQA), so thank you to those members who have contributed to the recent EPC member consultation on this critical issue, as well as on the Engineering Council's incoming compensation and condonement regulations.

A torrent of other consultations is expected over the coming months. Our eyes are peeled for opportunities to comment on further reforms to the higher education system, the lifelong loan entitlement, future iterations of TEF and degree apprenticeships.

Meanwhile, EPC has published collaborative research on the experiences and perceptions of European (EU) engineering students and academic staff in UK universities in the context of Brexit and is looking for your support to publish a range of *Engineering Ethics* case studies in collaboration with the Royal Academy of Engineering.

We look forward to bringing you our Congress 2021 Summer Events Series with three online webcasts confirmed for June. Details below.

With such a lot going on, we're delighted to welcome Vicky Howell to the Executive team for six months to support the EPC online project. Welcome Vicky H!

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## **EPC news**

### **EPC RESEARCH: Brexit impact on UK's engineering education sector: Exploring EU students and staff experiences**

We are pleased to announce the publication of the EPC's [joint study](#) with UCL's Centre for Engineering Education on the experiences and perceptions of European (EU) engineering students and academic staff in UK universities.

Progress was delayed by Covid-19 and publication by some administrative red tape, but this exhaustive research is invaluable for understanding the thinking of European students and colleagues. Drawing on surveys, interviews and data analysis the independent research, funded by the Royal Academy of Engineering, was conducted to support an evidence-based approach to the

recruitment and retention of European talent into UK engineering education, research and practice through understanding the concerns and expectations of European students and academic staff.

The findings shine a spotlight on the importance of the long history of collaboration and shared purpose with the UK's direct geographical neighbours to advancing excellence in engineering and engineering research. The research demonstrates that the readiest and most promising opportunities are in preserving and strengthening existing relationships, exploiting geographical proximity, to further research collaborations.

We recommend that to reinforce its leading role in engineering innovation, the UK's new strategy should promote inclusive and mutual agreements in granting access and funds to research collaborations with European partners; support student and staff interchange between the UK and the EU; and facilitate purchase and distribution of specialised equipment and technology. While the opportunities to develop new partnerships with countries outside the EU are desirable and welcome, it would be inadvisable to develop these at the expense of well-established relationships within closer reach of the UK.

The report, [\*Brexit impact on UK's engineering education sector: Exploring EU students and staff experiences\*](#) is available on the [EPC website](#).

#### **EPC RESEARCH: Ethics**

With backing from the Royal Academy of Engineering, the EPC has embarked on a project to produce an engineering ethics toolkit, starting with a teaching resource based on 20 ethics case studies.

Professor Sarah Hitt, NMITE, is leading the project and an Advisory Group of leading experts has been brought together (drawn from academic, industrial and advocacy institutions) to agree a template and oversee the work to create materials covering a range of engineering disciplines and ethical scenarios. Case studies are a common tool for educators seeking to integrate ethical, social, environmental, cultural, and business considerations into technical engineering content.

Aligned with AHEP's focus on sustainability, EDI, and broad and complex problems, this will kickstart an ever-evolving bank of resources to support engineering HE for generations to come, supporting educators whatever their confidence in teaching engineering ethics. It will also "enable the UK to position itself as a leader in advocating for and advancing engineering ethics education."

The first meeting of the Advisory Group was held on 30<sup>th</sup> March 2021 and the second will take place on 5<sup>th</sup> May 2021.

#### **EPC DATA BLOG: Become an expert in UCAS engineering data in ten steps**

With the latest HE data coming at us from all sides, this term's [data blog](#) brings you a mixed media UCAS data masterclass with an engineering focused walk-through and a brief video tutorial. Using our guide, you can quickly and easily produce headline tables and charts filtering UCAS applications and acceptances profiles for engineering, drilling down into a host of variables including the cohort's gender, age and where they are from.

In the meantime, if you'd like to be involved in the development of the interactive data analysis tools planned for EPC online, please [contact us](#).

### **WELCOME: Kickstart**

The EPC is delighted to welcome Vicky Howell, the first of its two new employees from the government's Kickstart scheme. Vicky's role as a Research and Editorial Assistant will see her working on cataloguing the EPC's website content, as well as producing new material including press releases and blog posts.

## **Upcoming events**

### **EPC ONLINE EVENT: Congress 2021 Summer Series**

Our two-year EPC Annual Congress theme – **A Better World** – focusing on ethics, sustainability and recovery – will take the form an online series of three free-to-members live webcasts in June 2021, with Chris Skidmore, Chi Onwurah and Phil Baty already confirmed as keynote speakers. They will be joined by other experts to discuss the hot topics. Exact timings to be confirmed after which bookings will open for the following:

#### **Funding Global Research, 8th June 2021**

Keynote speaker: Chris Skidmore, former Universities Minister

#### **Engineering Ethics, 15th June 2021**

Keynote speaker: Chi Onwurah MP

#### **Sustainability, 22nd June 2021**

Keynote speaker: Phil Baty, Chief Knowledge Officer, THE (Times Higher Education)

### **EPC ONLINE EVENT: Annual General Meeting**

Date to be confirmed.

### **EPC ONLINE EVENT: Launch of 'Engineering Opportunity', 25th May 2021, 9.15am**

'Engineering Opportunity: Maximising the opportunities for social mobility from studying Engineering' is a landmark report by the EPC exploring the impact that studying engineering can have on social justice and mobility relative to other disciplines. The report will be launched at this free event for EPC members, VIPs, policymakers and the media. Booking details to follow.

### **EPC ONLINE EVENT: 'Engineering Engineering: a Provocation', 6<sup>th</sup> July 2021, 2pm to 4.30pm**

Professor Kel Fidler, former Vice Chancellor of Northumbria University and Chair of the Engineering Council has written a provocative paper on the future of engineering higher education and its role in meeting skills needs. The EPC will be hosting the paper's release and a discussion of the themes raised. These will be discussed by an illustrious panel. Booking details to follow.

### **EPC EVENT: Congress 2022 – A Better World**

The next physical Congress will now be held at UWE in June 2022.

### **EPC SECTORAL GROUP EVENT: 18<sup>th</sup> International Conference in Manufacturing Research ICMR, 7<sup>th</sup> – 10<sup>th</sup> September 2021**

The ICMR2021 conference, incorporating the 35th National Conference in Manufacturing Research Virtual Conference, will run fully online in September hosted virtually by the University of Derby.

COMeH continues to support the conference team to provide support around publications reviews, technical advice to the online platform and working with the publishers. Further details to follow.

**OTHER EVENT: Engineering Graduates for Industry: Rethinking our Approach to Skills Gaps, Contextualisation and Partnership Date, 14th May 2021 11:30am - 12:30pm**

For decades, industry has reported a graduate skills gap, highlighting a range of ways in which they perceive graduates to be ill-prepared for the challenges they face in their early careers.

This IMechE webinar, the first of a four-part series, will explore this challenge and ask why, with so many attempts to address the gap, the problem persists. The webinar will consider the roles that students, universities, educators, industry, and recruiters need to play in building the professional capabilities of students, and also consider what expectations each of these stakeholder groups can reasonably have of the others.

The session will advocate for a partnership approach to this challenge. It will examine industry working with higher education to create and shape talent pipelines through providing authentic experiences and contextualising learning for students.

For more information or to register, please visit the IMechE [website](#).

**OTHER EVENT: 5th BME Early Career Researcher Conference**

The 5<sup>th</sup> BME ECR conference will take place on Friday 9<sup>th</sup> July 2021. This year's conference, 'Moving on up', will be hosted online by The Open University and the University of West London. Details of speakers and booking are available at [bit.ly/BMEECR](http://bit.ly/BMEECR).

## In the news

**STUDENT FACING: addressing disadvantage**

With a full return to university face-to-face teaching delayed until May 17<sup>th</sup> at the earliest in England, the earlier return of engineering students in the devolved administrations highlights the growing disparities between different cohorts' learning. The EPC EEES Committee will be looking at whether students (particularly those from disadvantaged backgrounds) who have studied at level 3 during the pandemic have specific gaps in their learning that we can support you to address. If you are interested in feeding into this work, please [contact us](#).

### NSS

The Office for Students (OfS) has announced changes to the National Student Survey (NSS) following the publication of the first phase of their review, in which the OfS stands by its position that the survey offers robust and up-to-date data on the undergraduate experience. Whether it will retain the annual census in a similar format or pursue a [more vigorous shake-up](#) remains to be seen. The second phase of the review will focus on specific NSS questions, including the likely removal of references to "satisfaction" (in the all-important question 27) and the introduction of new questions from 2022.

The Higher Education Policy Institute has published an [article](#) written by EPC Chief Executive, Johnny Rich on the interim plans for reform of the National Student Survey, unpicking DfE's unexpected claim that the NSS was responsible for "[dumbing down standards](#)".

## **INDUSTRIAL STRATEGY**

The government has scrapped its flagship industrial strategy and replaced it with [Build Back Better, Plan for Growth](#), a new cross-government framework for “driving economic growth, creating jobs and supporting British industry”. Apart from a little noise from business media, you’d be forgiven for not having noticed such a major policy shift, which lacked the fanfare of its introduction.

You may also not have noticed that Emma Hardy has stepped down from her role as Shadow Minister for Universities. She has been replaced by Matt Western.

## **RESEARCH FUNDING**

The government’s target of 2.4% of GDP being spent on R&D by 2027 has been bolstered by a new policy intent to define the UK as a “science and tech superpower” by 2030. However, the associated research and development funding focuses on incentives for innovative business rather than higher education.

So, with the Industrial Strategy no longer in place to join the dots, where does that leave higher education? Well, disruptive HE research will take its lead from the new Advanced Research and Invention Agency (ARIA) – an independent research body which will fund high-risk, high-reward scientific research from 2022, experimenting with funding and awarding methodologies to drive innovation without fear of failure. And, following sector pressure and a pre-Easter announcement of an additional £250m in 2021/22 from the Department for Business, Energy and Industrial Strategy, a policy U-turn sees the government claiming an increase to HE research funding in real terms. This means Horizon Europe will now seemingly be funded without cutting any existing budgets at UKRI.

Confused? Read an [EPC blog](#) on research funding on our [website](#) which explores in which direction research funding is actually heading.

The EPC is already working with the Royal Academy of Engineering through its Education and Skills Committee to influence the development of the new R&D roadmap and the new ARPA funding model. Meanwhile, Funding Global research will feature in our EPC Congress Summer Series sustainability debate (see below).

## **KEF: first publication**

The Knowledge Exchange Framework (KEF) finally lives and breathes! Research England’s inaugural release includes data dashboards and reflective documents provided by most universities that underpin the top-level metrics.

As called for by the EPC in our [evidence](#) to the TEF Metrics Advisory Group in 2018, KEF debunks the usual university rankings in favour of an approach which enables higher education institutions to examine their own performance on knowledge exchange and the civic permission and understand how this compares to similar institutions (presented as a cluster) as regards to size, funding, and mission. For more information, visit the [KEF website](#).

The EPC welcomes that KEF highlights the importance of universities in their local economies and the key role of mid-sized teaching focused universities in supporting local growth and regeneration.

We are also pleased that a new [inquiry](#) for the Higher Education Commission, co-chaired by Chris Skidmore, will be looking into the vital role universities’ research can play in helping regional economies to grow. The inquiry will look into how to improve collaboration between universities and industry, increase the commercialisation of the UK’s cutting-edge research, and develop hubs of R&D in all regions of the UK.

The EPC Research, Innovation and Knowledge Exchange Committee will be leading on this work on behalf of our members.

### **ENGINEERING BRAND MONITOR: Advance HE review**

You may be familiar with EngineeringUK's Engineering Brand Monitor; an annual survey of perceptions of STEM education among young people, their parents and teachers. It has been announced that Advanced HE will review the Engineering Brand Monitor to better understand the interplay between race, ethnicity, social background and aspirations to pursue engineering as a career. The 2019 report can be downloaded from the EngineeringUK [website](#).

### **MICRO-CREDENTIALS**

The Government's White Paper, Skills for Jobs, and its interim response to the Augar Report have implications for the development of more flexible approaches to learning and foretell a rising demand for flexible, short term learning opportunities to cater to a wider group of learners. A recent [QAA report](#) defines the terms 'micro-credentials' and 'modular qualifications' and identifies some of the challenges to the development of units or modules of credit-bearing learning. You may also be interested in a recent related Wonkhe [blog](#).

The Engineering Council has also asked us to inform you of a European Association of Institutions in HE (EURASHE) [consultation event](#) on 30<sup>th</sup> April and [survey](#) in response to an expected European Commission Open Public Consultation.

## **Consultations**

### **COMPENSATION AND CONDONEMENT: Engineering Council regulations**

The updated Engineering Council policy on compensation and condonement from September 2022 continues to cause concern among our members, presenting significant challenges for some engineering departments.

The EPC has invited feedback from all member universities via their EPC representative which we will feed into an Engineering Council working group established to review of their policy and associated guidance. Meanwhile, you can see details of the changes in our [guest blog](#) by the Engineering Council's Education and Skills Manager.

### **POST-QUALIFICATIONS ADMISSIONS: DfE consultation**

The Department for Education has launched a consultation on undergraduate admissions, following the commitment from the government to overhaul the university admissions system. It denounces the current system as complex, lacking transparency, working against the interests of some students and encouraging undesirable admissions practices (such as unconditional offers).

This follows proposals by the Office for Students, UCAS and UUK last summer. The DfE consultation is aimed principally at when students receive and accept university offers (not the wider assessment, admission or policy agendas) while claiming to preserve university and UCAS autonomy.

The consultation presented two options, both of which are predicated on exam results, not predictions. The first, "post-qualification applications and offers" resembles Direct Clearing as we know it. It creates a longer application window by moving results dates (not exams) forward to the

end of July and higher education term dates back to the first week of October (by compressing the exam timetable, the marking period and the requirement for UCAS to receive results data well in advance of results day).

The second, “Pre-qualification applications with post-qualification offers and decisions” would mean applications being made during term-time as now but offers being made after results day.

DfE’s consultation closes on 13 May 2021 and the EPC has completed a full member consultation during March and April to seek your views on the specific impact on engineering. For example, what might be operationally unworkable or conceivably undesirable for engineering? Or how could entrance assessments and/or interviews sometimes used in engineering be accommodated?

The EPC executive team is currently working on the response, which we will publish on the [EPC website](#) in due course. We feel it is important to critique the two proposed models separately in an engineering context but – in order to make our collective engineering voice more focused and more valuable – we do not intend to introduce the long and involved wider arguments in detail.

### **FUNDING: Office for Students (OfS)**

The Office for Students (OfS) has published its expected funding consultations, including [proposals on recurrent funding](#) covering cuts to the London weighting and subject funding for creative arts, archaeology, and media studies.

Engineering is a priority subject in the proposals, which increase the budget for high-cost subject funding to £756 million and enhance further the rate of funding for STEM (and healthcare disciplines). This includes all courses that are currently assigned to price groups A or B, plus those in price group C1 that are in computing and information technology.

The EPC is planning a brief response in support of the proposals, but you have until 6<sup>th</sup> May if you want to [respond to the consultation](#) directly.

## **Opportunities**

### **VICE CHAIR: Research, Innovation and Knowledge Transfer Committee**

The EPC Research, Innovation and Knowledge Transfer Committee has a vacancy for a Vice Chair, following early appointment of the previous Vice Chair to Chair of the Committee. If you would like to discuss the work of the Committee, join the Committee, or nominate yourself, please contact [Andy Alderson](#) in the first instance.

### **EMERGING STRONGER: call for case studies and student competition**

You will recall that we published [Emerging Stronger: Lasting Impact from Crisis Innovation](#) in August 2020, to share thinking and practical ideas to help the engineering education community as we transition to online and blended delivery during the COVID-19 pandemic. It features a number of case studies drawn from a range of institutions and the EPC hopes to expand these examples of emerging good practice over time. It’s not too late to submit your case study [here](#).

Also, do you have engineering students who might want to be in with a chance of winning a cash prize? Their learning experience during the pandemic will have been very different to how they imagined it would be, or how they began their studies. By sharing this [link](#) (**deadline April 30<sup>th</sup>**), you

can help them take this opportunity to think about what the most important, valuable and exciting elements of learning to be an engineer are. We want to hear their perspectives on what the future of engineering education should look like after COVID-19

A selection of submissions will be published in the second volume of [Emerging Stronger: Lasting Impact from Crisis Innovation](#).

### **CALL FOR PAPERS: Transferable Skills in Engineering Education**

Institute of Engineering & Technology (IET) Skills and Demands in Industry survey conducted in 2019 reported that 73% of respondents have had problems with candidates for engineering jobs who have academic knowledge, but not the required workplace skills. To be able to develop increasingly complex engineering solutions and products required by the modern society, and to be employable, engineering graduates need both disciplinary competence and transferable skills.

This special session at the 24th International Conference on Interactive Collaborative Learning and 50th IGIP International Conference on Engineering Pedagogy will explore what transferable skills should be and how the acquisition of these skills can be integrated into the curriculum without losing the sight of the intrinsic value of engineering education.

For more information, or to submit a paper, please see the session [website](#). The deadline for papers is June 1st, 2021.



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