

Feedback

"On my mind" in the last newsletter were this year's admissions figures.

As we all know, to our frustration, the official HESA statistics for the 2012/13 academic year will not be published until April 2014. We therefore undertook to poll our membership to get a sense of the enrolment position compared with 2011/12.

We closed the poll on 31 October. I'm very pleased to report that we received 83 responses from 50 universities – around half of all universities in the UK offering one or more of the engineering disciplines. Thank you to all those who took the time to respond. We reported the results to a record attendance at our Recruitment and Admissions Forum on 7 November. There's more on this later in this newsletter and the summary report is available on the website: <http://epc.ac.uk/recruitment-and-admissions-forum-2012/>.

If we (and indeed Government) are to be able to make good, evidence-based decisions, it's essential we have access to timely information. We've therefore called on both Professor Les Ebdon as Director of the Office for Fair Access and David Willetts to make more detailed information available, more quickly.



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President's Report

In our summer newsletter I spoke of "interesting times" ahead. With the backdrop of shifting sands in the visa regulations, student number control and GCSE and A level examination reform, university recruitment and admissions can, at best, be described as challenging. The potential longer term impact on postgraduate education and engineering departments' finances is concerning and we'll continue to do all we can in pressing our message home to Government of engineering's contribution to economic recovery. I hope we'll be "pushing at an open door" as we're starting to hear others adding their voice to this message from James Dyson's call for tuition fee waivers for all STEM students to the newly-elected President Obama's recognition of technology's contribution to a sound economic future in his acceptance speech! With a Comprehensive Spending Review to be announced in early December (we hear), we won't have long to wait...I encourage you strongly to [keep sending us your impact stories](#) so we can continue with our communications plan.

How we best support our members through these interesting times was the main topic of discussion at the Committee's annual retreat back in September. I'd like to offer my sincere thanks to Dr Jill Stewart and her colleagues at the University of Lincoln whose hospitality was exemplary and hard work in developing the new School of Engineering there, in partnership with Siemens and others, inspiring.

EPC has been playing its part in providing input to consultations based on the considerable experience and evidence of our members. Our response to the A level consultation was made in September and thanks to those of you who waded your way through the 58 page consultation document and made your contribution. Our submission is available on the website at <http://epc.ac.uk/responses-to-consultations/> as is our submission to the IPPR's call for evidence on the future of higher education.

Talking of the website, I'm delighted to say that we launched our new one in September. It's still work in progress but it's already starting to be populated with a host of useful information, as well as providing a portal into the activities of our wider network and access to policy developments etc. You can now also follow us on Twitter and LinkedIn.

There's more on all of these initiatives and activities in this newsletter so it only remains for me to wish you all well for the rest of term and the upcoming festive season.

Professor Helen Atkinson FREng FIMMM, FIMechE, DIC

Dr Jill Stewart of the University of Lincoln and Mr Steve Middleborough of Siemens talked to us about the challenges of establishing a new School of Engineering...

“a clear commitment from both sides to collaboration was key”



EPC Committee members in the Siemens Gas Turbine Hall at the University of Lincoln September 2012.

In Spring 2009, the University of Lincoln was awarded funding to establish a specialist School of Engineering in Lincoln. It was obtained from a number of sources including HEFCE’s former Strategic Development Fund, the European Regional Development Fund (ERDF) and from Lincoln County Council (LCC). Siemens Industrial Turbomachinery has also made a multi-million pound commitment to support the School. In September, the EPC Committee was delighted to be invited to hold its annual Retreat – its annual “awayday” to discuss EPC’s priorities for the coming year(s) – there. The Committee was also fortunate that Dr Jill Stewart, Head of School and Mr Steve Middleborough from Siemens were able to take time out of their busy schedules to talk about how they went about establishing the new School.

The key themes which independently stood out from both Jill’s and Steve’s analysis of the key success factors were the commitment from both partners to collaboration and to find ways to overcome cultural differences to make the project work. Steve also emphasised Siemens’ long term strategic commitment to the School. The whole idea emerged as a result of Siemens’ frustration with the difficulty of recruiting work-ready graduates, particularly in the Lincolnshire Fens area where Siemens had had a long time presence. Siemens had joined with other businesses in the area and the civic voice in Lincoln to first establishing a University and then set about helping to establish a school of engineering. As well as funding for sponsored PhD students and financial support for undergraduates, its financial support included the transfer of R&D equipment as well as location of its product training team at the University. This is an important part of the commitment to on-going sustainability: it means that other large organisations such as Total and Shell send staff to the School for product training meaning that they experience first hand the work of both staff and students there and the opportunity to develop new knowledge exchange relationships.

The development of sustainable relationships was also at the core of the decision in the planning of how space is used in the School. Siemens staff and University staff are mixed together as part of one team, rather than separated on different floors to facilitate daily contact.

The core characteristics of the undergraduate programmes are a) the inclusion of work experience and b) the arrangement of the

Key success factors

- **Jointly-agreed objectives and milestones with regular review**
- **Co-location of staff**
- **Block-mode teaching**
- **Embedded work experience for UG programmes**
- **Commitment to collaboration**

In short...

October 2012

“We need to compete with the best skills and the best technologies. What we are seeing in aerospace and defence, and in civil and defence nuclear as they get off the ground, is that an increasing level of higher skilled employees is required. That means that I am looking for employees with experience and competence. This is probably common across many engineering sector employers, but I am finding it harder and harder to get that type of competence and experience.” Andrew Churchill, Managing Director, JJ Churchill Ltd. In our last newsletter we reported on our submissions to the House of Commons Inquiry into Engineering Skills. The next phase began on 24 October with the Science and Technology Select Committee meeting to hear oral evidence. There will be a series of these sessions which we’ve been flagging on the website [with links to the transcripts](#).

November 2012

We have added our voice to [the letter](#) co-ordinated by CaSE protesting the cut in to the Parliamentary Office for Science and Technology’s budget (POST). Part of a savings programme being introduced across the House of Commons, the office is facing a 17% cut in its budget by 2014/15. Having already taken a voluntary reduction of 7%, it means that POST could potentially lose almost a quarter of its budget and impact severely the quality of science advice to the Government. There is little enough science and engineering experience in Parliament, yet science and technology issues are increasingly integral to policy and economic development.

In short...

There is widespread concern about the lack of progress on funding for postgraduate education. On 17th October, the Westminster Higher Education Forum convened a conference to discuss the way forward. With speakers from both inside and outside the sector, there was a very wide range of perspectives with some passionate advocacy of the need to support postgraduate study in the UK. But, our roving reporter reports – no answers yet – not even the beginning of some answers... and depressing. HEFCE are aware of this, and are tasked with publishing a funding statement for 2015-on in the Spring of 2013. Watch this space...

The NUS has put off announcement of its own proposals which, we hear, is for Government loans, plus a cap on numbers. Again, we'll report back...

...on a more positive note: the Chancellor, George Osborne has recently publicly affirmed his support for new vocational qualifications in engineering to "help Britain thrive in the global economy". EPC has been working with colleagues from around the engineering network through Education for Engineering, an organisation hosted by the Royal Academy of Engineering, for some time on this issue so this was welcome news.

core study elements into blocks so that it is easier for both full-time and part-time students to study side-by-side. This has proved to be popular and beneficial for both groups of students.

Excellent research is also a fundamental part of the partnership with both "blue sky" and more business-oriented immediate problem-solving having a place in a jointly agreed plan. This plan also contains a set of agreed outcomes and milestones which are reviewed regularly.

But Jill and Steve were also open about the challenges. They admit that the cultures of the two organisations were different and a commitment to continue talking and compromising were essential. Planning for future staffing has also been challenging against the backdrop of sectoral funding change and uncertainty of student demand. That said, the first intake of students has just started its final year and will graduate in July 2013 and there are now a total of 90 undergraduate and postgraduate students in the department. The development of a bank of staff in the local area who can work flexibly and offer specialist support – from in-session mathematical support to technicians - has been crucial to making it all work.

It's clearly been quite a journey and hard work – but – as Jill put it – a once-in-a-career opportunity to create a brand new School and programme offering from a blank page and the enthusiasm and sheer energy of all those involved in the School is palpable. A real success story which was underlined in October when the University of Lincoln was named as one of Siemens' principal partner universities alongside several much longer-established universities. Newcastle, Sheffield, Loughborough and Oxford Universities were also recognised as principal partners with Manchester and Cambridge Universities awarded global ambassador status.



The new Energy Hub building at the University of Lincoln

Engineering Professors' Council
Promoting excellence in engineering in higher education

HOME ABOUT US OUR NETWORK JOIN US EVENTS EPC PEOPLE EPC PUBLICATIONS MEMBERS' AREA FORUM

Opportunities to contribute and influence
New appointments to UK Research Councils

RESEARCH COUNCILS UK: The appointments Panels for six of the UK Research Councils are inviting applications to fill a number of vacancies on their governing Councils which are expected to arise during 2013. Of particular interest to EPC members will be the academic appointment to the EPSRC. The Secretary of State is seeking to appoint one new member of the Council from the academic community. Applications are sought from very senior practising academic researchers. EPSRC is seeking to fill two further vacancies to its Council, one from the academic/business/industry/public community and one senior industrialist from the business/commercial sector. The people who make up this important governance group are the people who will make decisions about the strategic direction of the individual Research Councils over the coming years so will be vital in influencing how the increasingly squeezed budgets will be spent. Further information on EPSRC Council is available at <http://www.epsrc.ac.uk/about/governance/Pages/default.aspx>. Closing date for applications 19 November 2012.

Comprehensive Spending Review

We hear that the next Comprehensive Spending Review (CSR) which will influence the amount to be spent on publicly funded research for the medium term will be announced before Christmas. EPC is working with a range of science

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Events

- European Network for Accreditation of Engineering Education (ENAE) Annual Conference
- Mathematics Working and Task Group Meeting
- all events

Quick updates

- Great Recruitment and Admissions Forum today. Thanks to our speakers and record number of participants! [View our report](#)
- Next oral evidence session on Commons [View our report](#)

A new website for the EPC...

"a portal into the key developments and activities of our network plus some new services for members"

Sharper-eyed members may have spotted that we have a new website.

Launched in September, the new website, while still work-in-progress, is intended to provide an edited portal into the activities of our wider network and a way in which we can deliver new membership services such as information, data and analysis, more of which on p.5. There's also a facility, through our "Forum" (blog) for you to be able to tell us and other members what's on your mind.



Professor Dik Morling, Kevin van-Cauter, Jack Grove and Stephen Harvey

Recruitment and Admissions Forum 2012

“getting the message to the next generation...”

Our Recruitment and Admissions Forum was held at the newly-refurbished Royal Academy of Engineering on 7th November. This year, we widened the invitation list to include not only Admissions Tutors but heads of admissions and international, outreach officers and other

staff who work closely with Admissions Tutors in the recruitment of engineering students. It was a great turn-out with nearly half of all universities in the UK offering engineering represented and a good mix of staff involved in the recruitment and admissions process.

The Forum opened with Professor Dik Morling, chair of EPC’s Admissions Working Group offering a round-up of the current situation - our concerns about the impact on demand from overseas students as a result of the new and, it seems, constantly changing visa regulations and the effect of the new tuition fees regime. He was also able to feed back the results of EPC’s enrolments poll - more of which on page 5. Kevin van-Cauter of the British Council, Jack Grove of Times Higher Education and Steve Harvey of Cambridge Education then offered their perspectives before coming together as a panel to take questions from the floor.

While the morning could be characterised as examining the vicissitudes of the current policy environment and airing concerns, the afternoon’s sessions focused on taking a more strategic approach and looking at what can be done to ensure the future pipeline of graduate engineers.

Jeremy Buckle, Event Director for the Big Bang Fair, **“We need a hero”** the highly successful event aimed at demonstrating 7 to 19 year olds how many opportunities are there for those who have STEM qualifications, and Laura Chastney, manager of Engineering UK’s “Tomorrow’s Engineers” programme, shared with us their experiences of what works in engaging young people and what doesn’t, plans for both programmes of activity and how universities can get involved, if they are not already.



Jeremy Buckle, Big Bang Fair

Attendees then had the opportunity to discuss ideas in break-out groups and make recommendations about key strategic actions they’d be taking on return to their institutions. Professor Mike Bramhall of Sheffield Hallam University rounded off the day by facilitating a feedback session on the key things they wanted EPC to campaign for on their behalf. There was much focus on the need for a better image for engineering in the popular Press, with a modern champion to whom young people could relate – as one member put it **“all our heroes are dead. Who is today’s Isambard Kingdom Brunel?”**



Attendees at Recruitment and Admissions Forum 7 November 2012

In short...

September 2012: The Royal Academy of Engineering published its report *“Jobs and growth: the importance of engineering skills to the UK economy”*. The report provides clear evidence that the demand for people in Science, Engineering and Technology (SET) occupations exceeds supply and, because the demand is pervasive across the economy, it has persisted even during the current recession. It predicts that as economic growth returns, the demand for engineers and many other SET occupations is likely to intensify. The full report may be found here: <http://epc.ac.uk/useful-policy-papers-and-other-publications/>.

Meanwhile across the Pond, the publication *“Field of Degree and Earnings by Selected Employment Characteristics: 2011”*, based on US Census information, reported that people who majored in engineering had the highest earnings of any bachelor’s degree field, at \$92,000 per year in 2011 and were more likely to be employed full-time, year-round.

So why in the UK is there an almost 13% unemployment rate for engineering graduates (HESA 2010) with, in addition, a proportion of graduates employed in non-graduate level jobs? Professor Helen Atkinson and Martin Pennington of the University of Leicester carried out a HE STEM-funded study investigating the issues that may have impeded employment of over 100 Midlands University graduates and making recommendations. A copy of the full report may be downloaded at: <http://epc.ac.uk/occasional-papers/>

New services for members

One of recommendations from the planning session at the Committee's Annual Retreat in September was provision of additional membership services.

The first of these will be the delivery of benchmarking data. Many members will - either now or in the future - be in the position of having to provide contextual data for benchmarking purposes to support internal planning and resourcing exercises...or you may simply be trying to understand your university or departmental position the newspaper league tables! Over the next few weeks, we will be providing, via the [Members' Area](#) on the website, a series of datasets :

- Applications
- Costs by academic cost centre
- Degree classification
- Employment after 6 months
- Income by academic cost centre
- NSS performance
- RAE08
- Staff numbers
- Student numbers and profiling (level and domicile)
- Student:staff ratios
- Tariff score on entry

These will be tabulated by key engineering discipline and Mission Group. You will need a password to enter the Members' Area. This will have been issued to your institutional contact on receipt of this year's membership subscription. Please contact Vicky Elston:

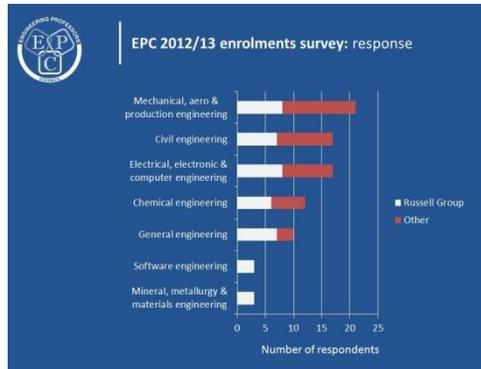
v.elston@epc.ac.uk if you need it to be re-issued and please do let us have your feedback on this initiative.

The official enrolment information for 2012/13 entry to UK universities will not be publicly available until Spring 2014. Given that 2012/13 is a highly unusual year for the sector, we decided to conduct a poll of members to get an early sense of the recruitment and enrolment experience in engineering around the sector. While it was still early in the cycle when we polled members (we asked for numbers based on internal 1 October censuses), we wanted to have something to feed back and discuss at the Recruitment and Admissions Forum.

EPC Enrolments Survey 2012/13

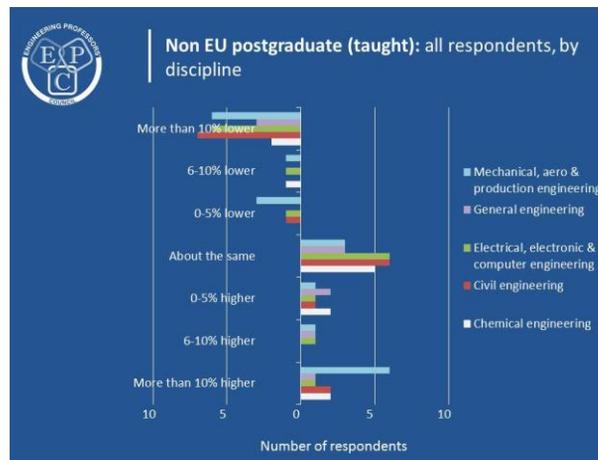
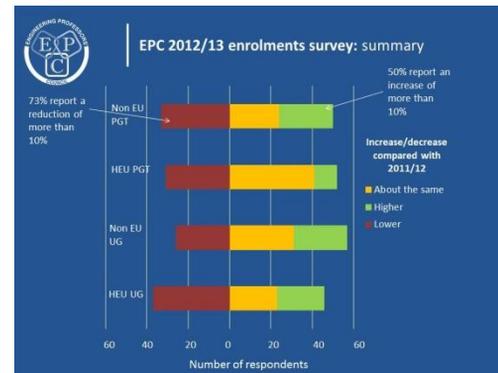
"A real mixed bag of experience with some worrying signs of seepage..."

We are delighted that 83 departments from just over 50 universities responded, representing around half of universities in the UK with undergraduate (UG) and/or postgraduate (PGT) students registered as studying at least one of the engineering disciplines - thanks to all those of you who took the time to do so.



The headline result seems to be that for undergraduates and home postgraduate taught students, demand seems to have held up better than might perhaps have been expected compared with 2011/12 although there have clearly been winners and losers. More concerning are the worrying signs of "seepage" from the overseas postgraduate numbers. Overseas (non EU) postgraduate

have become an increasingly large proportion of all postgraduate taught engineering students (over 60% according to 2010/11 HESA figures) in recent years and of the 32 respondents who reported lower enrolments than in 2011/12, nearly three quarters recorded a drop of more than 10%. The majority of these were in the larger departments. Digging further into these figures, some disciplines that have enjoyed strong growth in recent



years, at both undergraduate and postgraduate level, civil engineering and electrical/ electronic engineering appear to have seen a downturn this year and it seems there were some strong winners and losers in mechanical, aeronautical and production engineering.

We can only give snapshot of the results here but the full presentation given at the Recruitment and Admissions Forum may be downloaded at

<http://epc.ac.uk/recruitment-and-admissions-forum-2012/>. The password may be obtained from Vicky Elston: v.elston@epc.ac.uk.



Reception for new professors

Don't forget to send us details of any colleagues who have been appointed as professors during academic years 2011/12 or this year. We'll be holding our inaugural reception for new professors at Congress2013.

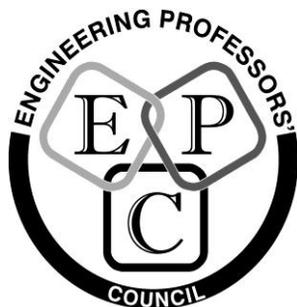
You can do so at:

<http://www.smart-survey.co.uk/v.asp?i=61195woihx>

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Upcoming events

Congress

16th/17th

April, 2013:

**University of
Portsmouth**



Next year, Congress will be hosted by the University of Portsmouth and what better city than the birthplace of Isambard Kingdom Brunel? Over two hundred years after the birth of Brunel, Portsmouth is still a site for world-class engineering projects across all engineering disciplines, from naval through to aerospace and civil engineering. The University of Portsmouth's Faculty of Technology offers programmes in a range of engineering disciplines: computer, electrical and electronic, mechanical and manufacturing, petroleum engineering and product design and innovation, with research centres of excellence in the [Mechanical Behaviour of Materials](#) and in [Manufacturing and Innovation](#). An outstanding example of engineering excellence in Portsmouth is the tallest viewing platform in the UK: the 170 metre [Spinnaker Tower](#), where we will be celebrating the appointment of a number of new professors from our membership and holding the Congress dinner.

Congress will be examining how engineering in higher education contributes to the development of UKPIc through the very broad range of impact mechanisms, but, more importantly, we will take a look at how we can communicate our message in compelling and engaging ways. While the Treasury likes hard numbers, it is essential that we are able to justify them. Quantitative assessment requires heroic assumptions; it's the qualitative evidence that can make the assumptions more meaningful.

Prominent figures from across higher education, business and the media will be giving us their perspectives, and there will be practical "toolkit" sessions to provide the opportunity to discuss, debate and learn - so please [book early](#) – and take advantage of the early bird discount.

We keep an eye on other events offered by other organisations that may be of interest to members and post these on the events section of the website. We have negotiated a discount on some of the events offered by Westminster Higher Education Forum. Do contact us for details.

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