

HAVE SOMETHING TO SAY?
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LETTERS

RESPONSES TO PROMOTING ENGINEERING

HRH The Duke of Edinburgh's article, 'Promoting Engineering' in *Ingenia 41*, is a call to action for the engineering profession, professional institutions and employers alike. His admiration and respect for the profession came across warmly in personal anecdotes and a sharp recollection of the formation of The Royal Academy of Engineering. He clearly sees engineers at the heart of society with "the complete infrastructure of national life in the hands of engineers".

However, his incisive and very apposite observations centre on the need to recognise that not all of our top engineers will have followed – or will follow – traditional academic routes into the profession; more needs to be done to recognise, promote and build on this in the future. The Engineering Council's routes to registration provide the profession

with a flexible toolkit that allows those without formal academic qualifications an opportunity to qualify and register as CEng.

The real wake-up call is that we all need to promote these better and recognise the value that technicians play in our respective industries, not only as vital skilled and competent individuals in their own right, but also as potential future leaders. Employers have to recognise this and integrate and encourage it rather than leave it to chance. Promoting apprenticeships is one obvious starting point. In recognition of this, the Institution of Civil Engineers (ICE) has developed an Advanced Technical Apprenticeship to be launched this Autumn. The ICE is also advocating, through initiatives such as that at the University of Derby (which has linked ICE's Technician Professional Review with its Foundation Degree in Civil

Engineering), more effective integration of technician professional qualifications with part-time Further Education and Higher Education study.

Employers and professional institutions have important roles to play to make this attractive to the school leaver, who will otherwise miss out on these opportunities, as will the profession. The more enlightened employers already value and develop their technicians.

Tom Foulkes
 Director General, Institution of Civil Engineers



BAE Systems engineering apprentices add the finishing touches to an experimental unmanned aircraft prototype © BAE Systems

The continuing personal interest in engineering taken by members of the Royal Family, and HRH Prince Philip in particular, was wonderfully illustrated by his very personal history of developments in the profession ('Promoting Engineering' – *Ingenia 41*).

While it may have been the case in the past that the profession did not welcome the "hands-on enthusiast", I am pleased to confirm that the Engineering Council and the Institutions have been working hard to recognise apprenticeships and the new Engineering Diploma as gateways to the profession, while developing the 'non-standard option' for those who gained their engineering competence through unconventional careers.

Your readers may also be reassured to learn that there are still over 240,000

engineers and technicians recognised on our register, the vast majority being Chartered Engineers. Although these numbers tend to fluctuate, there has been a downward trend over the past few years, with fewer new registrants joining the register than are dropping off. This trend reflects the ageing demographics of the engineering population, making recruitment amongst today's young generation a key challenge for us all.

Fortunately, UK undergraduate enrolments to study engineering are rising rapidly – to a record 23,790 via UCAS in 2009. In addition, apprenticeships in engineering and manufacturing technologies have risen nearly threefold overall since 2003-04, increasing by 10% in 2008-09.

Almost certainly, the interest and enthusiasm expressed by His Royal Highness

have contributed to the rising status and influence of professional engineers today. We should be proud of the evidence that more young people are electing to study engineering and hope that amongst them are The Royal Academy of Engineering Fellows of the future.

Andrew Ramsay
 Chief Executive Officer, Engineering Council

RESPONSE TO ENGINEERING A LOW-CARBON WORLD

The failure of the Copenhagen climate change summit to deliver a clear and broadly supported agreement will be seen by many as a great disappointment and as a significant loss of momentum in the drive to limit the increase in global warming. On reflection, there is no doubt that two key lessons can be drawn from the Copenhagen experience.

Firstly, it is evident that one process cannot be expected to deliver the kind of energy and economic transformation required, given the political, cultural and economic differences between countries. Considerably more effort needs to be made to respond to the climate change imperatives in other forums besides the G20.

Secondly, the importance of a finance package for developing countries, and the linked issue of monitoring and verification of their emissions plans, will be central to any substantial progress.

However, there was some progress made at Copenhagen, in the form of the so-called 'Copenhagen Accord' which will keep the door open to further decisions being made

at the next ministerial-level summit in Cancun in December 2010.

The Accord was negotiated by a small number of countries, led by the United States, China, India, Brazil and South Africa. The parties to the Accord agree that deep cuts in global emissions are required, with a view to keeping global temperature rise below 2°C, and to cooperate in achieving the peaking of global emissions "as soon as possible". Subsequently, other countries were invited to 'opt in' and support the Accord and, by the end of January, 55 countries – accounting for 78% of global emissions – had done so.

The Accord provides the basis for answering the question 'where do we go from here?' It demonstrates that progress is best made by a small number of key players constructing a path for future action which others can then support, rather than trying to reach an agreement by universal participation.

There are four other key areas on which progress must be made:

- 1 Developed countries must provide a lead by developing and committing to medium term emissions targets.
- 2 Developing countries must form nationally appropriate action plans for emissions mitigation.
- 3 A robust mechanism needs to be constructed for allowing finance to flow from developed countries to developing countries to fund their mitigation plans.
- 4 A way forward has to be found that will allow independent monitoring of emissions reductions in individual countries.

Copenhagen was a setback but not a disaster. We need to learn the lessons from this experience, and ensure that the drive towards this vital global energy and economic transformation is put back on track.

Dr John Roberts FEng
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