

News release: embargoed until 00:01 on 19 March 2010

Engineering profession launches manifesto for the UK

The UK's eight leading engineering organisations today launch a comprehensive call for action to ensure that engineering makes the maximum contribution to solving Britain's biggest challenges: the economy, the environment, education, infrastructure and public services.

"Engineering the future of the UK – a vision for the future of UK engineering" is published by *Engineering The Future*, a collective body made up of the Engineering Council, EngineeringUK, the Institution of Civil Engineers, the Institution of Chemical Engineers, the Institution of Engineering and Technology, the Institution of Mechanical Engineers, the Institute of Physics, and the Royal Academy of Engineering.

This call for action follows a joint letter from the Presidents of the professional bodies urging the political parties to grasp the fact that engineering holds the key to creating a new, broader economic base.

Lord Browne of Madingley, President of the Royal Academy of Engineering, says "The economic impact of engineering stretches far beyond the measurable output of factory production lines. From agriculture to IT, and from manufacturing to finance, engineering solutions are deeply embedded in every area of economic activity in the UK. Engineers will sit at the heart of efforts to rebuild a balanced economy based on a greater diversity of industries. Engineering solutions will also help to address the grand challenges facing society in the 21st century, including poverty, improved access to food and water and combating climate change."

The overarching theme is that the UK is not fully leveraging the potential of engineering and that radical change is required. Government must play a central role and therefore detailed policy recommendations are provided on five dimensions. These recommendations are party-neutral and discussions are taking place with each of the main political parties as they prepare their manifestos for the upcoming general election.

The manifesto highlights five key policy priorities for government:

1. Sustaining and encouraging investment in the skills for the future: the high-value, technology-based industries of the future demand a more scientifically literate society and a much greater proportion of school-leavers with qualifications in science, technology, engineering and maths, as well as fully-funded university engineering departments. With major skills shortages already clear in technician roles, there is also an urgent need to improve supply of apprenticeships and relevant careers information in schools and colleges.
2. How to make the UK a leader in low carbon technology: technology must make a major contribution to achieving the UK's climate change objectives (of an 80% cut in CO₂ emissions by 2050) and in doing so can rebuild sections of Britain's manufacturing base. The current regulatory framework provides inadequate certainty for investment, especially with regard to the future price of carbon, and government should adopt a more interventionist position, also with regard to research funding for low carbon technology.

3. Ways of capitalising on the value of the UK science and engineering research base: there is a vibrant research base in the UK which has benefited from public research funding in the last decade and provides a reserve of ideas, technology and intellectual property which can boost the country's industrial base. Despite promising initiatives, transfer of knowledge into the private sector is too limited and R&D incentives in the private sector lag behind other major economies – this should be the focus of future government policy.
4. Harnessing the power of public spending to encourage innovation: with a £220 billion annual budget for goods and services, government is the largest customer in the country. Best practice procurement would create the opportunity for more innovative solutions and give a better chance to small and medium-sized enterprises (who win only one in six central government contracts). As well as lowering costs for government, such reforms can harness innovation and “pull” emerging technologies into the wider economy, as seen in the US.
5. Making greater use of engineering advice in government policymaking: a recent House of Commons select committee report on engineering called for more effective engagement between policy-makers and the engineering profession. This is especially important at early stages before policy direction is set. Greater recruitment of trained and experienced engineers into the civil service as well as more systematic use of private sector engineering expertise would be valuable reforms.

Ends

Notes to editors:

1. The leadership of *Engineering The Future* is drawn from the following organisations:
Engineering Council
EngineeringUK
The Institution of Civil Engineers
The Institution of Chemical Engineers
The Institution of Engineering and Technology
The Institution of Mechanical Engineers
The Institute of Physics
The Royal Academy of Engineering
2. The public letter from the Presidents of these bodies reads as follows:

Sir,

There is a growing view that the future prosperity of the UK will require a much more diverse economic base. We need more high-added value businesses and industries to manufacture and maintain wealth-creating products, infrastructure and services fit for the future. Such innovative enterprises will rely on our country's strong engineering expertise, building on our national strengths in science and technology to address the challenges of climate change, boost GDP and underpin social progress at all levels.

The engineering profession is committed to playing its part through a newly formed alliance of professional organisations – *Engineering the Future* - with

a combined membership of over 450,000 engineers. We have pledged to deploy our wealth of engineering expertise in business and academia to help deliver a transformation in the nation's industrial base that will capitalise on the value of UK science and engineering research and initiate a step-change in our economic performance.

It is essential that the main political parties fully grasp the fact that engineering holds the key to creating this new, broader economic base. The UK needs government to use *Engineering the Future* as a key advisor on policy so that our infrastructure, our economy and our energy are all prepared for the challenges of the 21st Century.

Lord Browne of Madingley, President, The Royal Academy of Engineering
Sir Anthony Cleaver, Chairman, EngineeringUK
Professor Kel Fidler, Chairman, Engineering Council
Professor Paul Jowitt, President, Institution of Civil Engineers
Keith Millard, President, Institution of Mechanical Engineers
Ian Shott, President, Institution of Chemical Engineers
Professor Christopher Snowden, President, Institution of Engineering and Technology

3. For a current perspective on engineering from the three largest political parties see the latest issue of Ingenia magazine,
<http://www.ingenia.org.uk/ingenia/articles.aspx?index=589>

For more information about *Engineering The Future*, please contact Tim Julier, Programme Manager, The Royal Academy of Engineering at tim.julier@raeng.org.uk or 020 7766 0655. The manifesto can be downloaded from the following webpage:
http://www.raeng.org.uk/societygov/public_affairs/thefuture.htm

Media enquiries

Please contact Robert Beahan on 01438 767336, 07595 400912 or rbeahan@theiet.org.