

ENGINEERING THE FUTURE



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Science and Technology

I pay tribute to the Science and Technology Committee and especially to Phil Willis, my predecessor in the old Parliament, which took considerable interest in Engineering. In one year the Committee produced two major Engineering Reports: “Engineering: Turning Ideas into Reality”, March 2009; and “Putting Science and Engineering at the Heart of Government Policy”, July 2009. One of the conclusions was that the name be changed to the Science, Engineering and Technology Committee which the new Committee may wish to revisit.

The Report “Engineering: Turning Ideas into Reality” focussed on the relationship between Engineering and Government Policy and brought Engineering to the forefront. It demonstrated that policy makers, and members of the public, may both overlook the

importance of Engineering and Engineers. Engineering isn’t just a sub-discipline of Science. It is a vibrant pursuit in its own right which brings a different perspective to the table.

The fundamental purpose of Engineering is improving human life, as in healthcare, energy security, water supply, communications or capping oil pipelines; there is no doubt that Engineers are vital to the functioning of society. If one looks at the efforts of both military and civilian Engineers in Afghanistan – Engineers also improve governance by their efforts.

Engineers are the people that make things happen and because of its inherently practical nature, Engineering advice has to be of great value to Government. Sometimes Scientific advice alone just won’t do.

This all seems so obvious. Yet the Engineering Report identified significant flaws in the way Government used, or did not use, Engineering advice. The report contains shocking examples where Government announced an objective without clearly showing how it was going to achieve it. For example Eco Towns would cost tens of millions of pounds, yet there was little evidence that they could achieve the aim to be “zero-carbon” towns as there was no Engineering input to the Eco Towns Steering Committee. Other examples of bad practice indicated a chronic devaluation of Engineering advice to Government.

The Committee’s recommendations received a mixed welcome. The Government agreed that

Engineering advice in policy making was absolutely crucial. However, it differed from the Committee on how the use of it should be improved.

The Government rejected all the Committee’s recommendations for appointment of Chief Engineering Advisers to Departments. It also discarded the proposal that there be a Government Chief Engineer. There is no Chief Scientific or Chief Engineering Adviser in the Treasury which sticks out like a sore thumb as the only Department without a CSO. It is a matter of serious concern that there is no formal route for scientific or engineering advice in what is probably the most important Department of all.

A key recommendation was that the Government Office for Science (or, as the Committee would have preferred, the Government Office for Science and Engineering) be placed in the Cabinet Office. This was not a new idea, the Committee previously suggested this in 2006. It still hasn’t happened. When recognising the importance of the advice given to the Prime Minister by the Government Office for Science, this is a point that the new Committee may wish to reiterate.

However, it is not all doom and gloom. There is now a better understanding of Science and Engineering expertise within the Civil Service. Sir John Beddington, the Government Chief Scientific Adviser, has been working to identify and bring Scientists and Engineers, who are from similar professional backgrounds, together in a “career home” within the Civil

Service.

However merely bringing people together is not, in my view, sufficient. Engineering expertise must also be specifically sought, valued and used in the Civil Service.

One impact of the Engineering Inquiry was the way it highlighted the need for the Engineering community to come together, which has manifested itself most notably in the formation of the “Engineering the Future Alliance”. This brings together key Professional Organisations to speak with a single, strong voice to Government and to Select Committees.

Never before has the voice of engineers been so important. We are in a difficult economic climate and are undergoing a firm squeeze on public finances. There is a raging debate on the relationship between Science and Engineering and Economic Growth. The relationship is difficult to quantify, but one thing is clear. Engineering can provide a link from ideas leading to economic growth and a better future. As Lord Mandelson aptly put it: “If you really want to change the world, choose a career in Engineering. And I mean Real Engineering, not Financial Engineering.”

It is the job of the new Science and Technology Committee to scrutinise Science and Engineering Policy and hold the Government to account. The Committee will be formed soon and I am keen that we get cracking on this very important job. I look forward to discussing how we can work together to improve the relationship between Engineering and Policy.

