

## UK Deans of Science

### Putting Science and Engineering at the Heart of Government Policy - Response to Call for Supplementary Evidence

1. The UK Deans of Science (UKDS) has members in around 70 HE institutions that have significant science portfolios. Our primary aim is to ensure the health of the science base of the UK through the promotion and support of science and scientists and of science research and science teaching in UK HEIs. We welcome this extension of the Committee's inquiry as it reaches the very "heart" of the matter.
2. It is understandable that the Government wants to ensure that its investment in science leads to new products and services, medical and other advances, and major exploitation of intellectual property. We support the transfer of scientific knowledge to business, industry and the wider community and in particular in support of the UK economy during these challenging times.
3. This submission responds to three of the questions raised by the Committee. In summary we would wish to make the following points, which are further elaborated in paragraphs below.
  - A "great debate" needs to be conducted in as wide an arena as possible as to how best to turn scientific invention into economic and social good and whether the best way to achieve this is through central control of the direction of scientific research and development (paragraph 4)
  - It is not desirable to favour investment in some areas of research to the exclusion of others. Over-direction of the research agenda will fail to make the UK the country of choice for the best researchers (paragraph 5).
  - Government should not dictate the direction of research in universities. Any attempt to do so will undermine their essential autonomy and does not accord with principles of the Bologna Declaration (paragraph 6)
  - Universities are pursuing a range of ways of interacting with business but best practice needs to be identified and disseminated (paragraph 7)
  - Universities must retain their distinction from businesses (paragraph 8).

4. *The form of debate or consultation that should take place and who should lead it*

There are various meetings between small numbers of members of the various stakeholders and occasionally a “consultation” inspired by the Government or other organisation. We suggest a different type of discussion where a large number of interested parties (Government, universities, industry, even the financial sector) meet face to face with a completely open agenda to consider:

- the best ways to turn scientific invention into economic and social good and who should be responsible for doing so
- whether (not how) the Government’s funding should be targeted to perceived competitive advantage.

Such a meeting would have enough talent to discuss the real questions – if it is possible to pick winners; whether or not the UK has a competitive advantage in particular fields; whether it might be appropriate to favour specific areas of research and development.

5. *Whether it is desirable or necessary to favour investment in some areas*

Universities must be accountable for research funding whether from Government or the many other organisations that support their work. It is also right for universities to work with business, to maximize the financial and social benefits of their inventions and intellectual property and to encourage staff to consider the appropriate application of their research. However, we do not believe that the best way to nurture and support research talent in our universities is for Government to prescribe the areas that will be supported. Such a policy incorrectly assumes that the outcomes of research can be predicted - a *non sequitur* - that no completely new areas of research are going to be discovered and that breakthroughs can be predicated in advance even for the most fuzzy, complex, multi/interdisciplinary problems. Over-direction of the research agenda will drive the best researchers from the UK and mean will fail to attract the best from around the world.

6. *Potential implications for UK science and engineering, higher education, industry and the economy*

We note the request to limit this response to 1000 words, so make just one comment - in respect of universities and the Government’s acceptance of the Bologna Process. The Process has its roots in the Magna Charta Universitatum Europaeum (1988) which was signed by Rectors of about 400 universities following celebrations marking the 900<sup>th</sup> anniversary of the University of Bologna. It states, *inter alia*:

- *The university is an autonomous institution.....its research and teaching must be morally and intellectually independent of all political authority and economic power*

- *Freedom in research and training is the fundamental principle of university life, and governments and universities.....must ensure respect for this fundamental requirement.*

These expectations of the independence of universities are explicitly referred to in the Bologna Declaration, signed by the UK and 28 other countries in 1999, and the basis of the Bologna Process. Any further dilution of the Haldane Principle and the imposition of defined research agenda for universities may put the UK outside the Bologna agreement and the European Higher Education Area.

7. Universities are not all the same. They increasingly pursue their own distinctive character but are distinct from business and industry. There is an urgent need for business and industry to identify with the strategy of a university they wish to partner. Only then will agreements of mutual benefit be achieved in a sustainable way.
8. Finally we agree strongly with sentiments expressed in two contributions to the Secretary of State's Higher Education Debate by two very prominent business leaders on the role of universities:
  - "...the overarching purpose of a university is to teach students to be excited by ideas, and to develop the skills of observation and critical thinking to enable them to develop new skills, fresh knowledge and sound judgement throughout their lives, by themselves and for their own sakes" (Marjorie Scardino, CE, Pearson plc)
  - "...universities have a distinct and different role from companies and it would not be good value to turn them into corporate look-alikes" (Sir John Chisholm, Chair Qinetiq Group plc, Chair MRC).

**Prof Ian Haines**  
**Executive Secretary, UKDS**  
**20 April 2009**