

Response to the *Next steps* consultation on *improving Research Councils' effectiveness*

The Royal Society is strongly aware both of increases in R&D expenditure in recent years and of plans for further growth in the years to come, including the Treasury target that total UK expenditure should reach 2.5% of GDP by 2014. We have welcomed this. We recognise, too, that increased expenditure brings increased responsibility to ensure that the expected beneficial outcomes are delivered and that management processes are as efficient and effective as possible. The Government's continuing commitment to R&D, evidenced in the *Next steps* document published jointly by the Treasury, DTI, DFES and DH, is therefore rightly accompanied by questions designed to engage the scientific community in a constant search to secure the best results from the growing expenditure. This is not just a matter of simple financial prudence: a really effective Science Base is vital to the long-term well-being of the UK.

The primary aim of Science Base policy must be to ensure that UK research is as good and fit for purpose as it can be by international standards. In the context of large facilities, this means that we make the right choices about which facilities to build and support. This involves inspired insight into where the most far-reaching research opportunities lie.

Next steps raises four main questions. This submission deals with the questions related to large facilities; we are responding separately to the others. We welcome the opportunity to respond, and hope that the further development of the proposals will take full account of these inputs from the scientific community. At this stage, we draw attention to the following main points.

- 1 *Next steps* makes some observations about current deficiencies (#3.9 – 3.11) and proposes a single management structure for large facilities as a solution. It is vital that the Government should present, in rather greater detail than the necessarily condensed form of *Next steps*, the evidence underpinning its views about the deficiencies and about the belief that the single management structure would be an overall improvement and, for example, would deliver better engagement with industry. Any change of this sort carries significant frictional costs, which can be reduced if those affected are convinced there will be long-term benefits.
- 2 In our view, the main deficiency that needs to be addressed is the lack of a clear mechanism for setting priorities for investment and exploitation across the full spectrum of large facilities. Such decisions have to accommodate scientific opportunities, the potential for industrial benefit and the need to optimise international negotiating positions, and therefore require a corresponding breadth of perspective. We would therefore support some form of large facilities coordinating body that could undertake this role.
- 3 Given such a body, one could either leave the existing research council structure much as it is or combine elements of it into a council charged with implementing the agreed priorities for large facilities. If this latter route is taken, it will be important to specify (and justify) which large facilities are managed or overseen by the council.

- 4 It will also be important to determine whether the council should have responsibility both for providing facilities and for funding researchers who wish to use them. The arguments for keeping these functions separate are that they require different management skills, that the range of disciplinary expertise needed to assess applications from potential users may be much greater than the range needed to run facilities, and that a dedicated fund for potential users could act against the practice that research funds should be allocated competitively. On the other hand, where the users are closely involved in specifying and creating a facility the balance of advantage may lie in keeping the two functions together.
- 5 The greater coherence arising from the work of a large facilities coordinating body should make it easier to strengthen interactions with industry. Engagement with industry can take several forms, eg allowing industrial researchers access to the facilities, training staff through involvement in cutting-edge projects and pushing the limits of technology through procurement programmes associated with developing facilities.
- 6 The Government will make public the responses it receives to the present consultation, and should also explain how they have fed into the eventual decision. This would be consistent with guidelines on use of scientific advice in policy-making, and would help build support for proposed changes. The responses will also be relevant to the implementation phase.

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