

Response to the European Commission's consultation on a European Strategy for Nanotechnology

September 2004

The Royal Society welcomes the European Commission's Communication on Nanotechnology and the opportunity to respond to the associated consultation on a European Strategy for Nanotechnology.

As the Commission will be aware, the Royal Society and Royal Academy of Engineering recently published a joint report on nanotechnology: *Nanoscience and nanotechnologies: opportunities and uncertainties*¹. We are submitting the report as the Royal Society's contribution to this consultation. The report focused on the potential health, environmental, regulatory, social and ethical implications of nanotechnologies, so we would wish our submission to inform these areas of the proposed European strategy. The report did not consider amounts or areas of investment in nanotechnologies, issues of infrastructure or technology transfer, but did recognise the potential for nanotechnologies to bring benefits in a wide variety of areas.

In the report we make a number of recommendations, the implementation of which will support the responsible development of nanotechnologies. Our key recommendations and conclusions address:

- The establishment of a research programme to address uncertainties about the health, safety, environmental, social and ethical impacts of nanotechnologies and public attitudes to them.
- The use of life cycle assessment in the development of the products of nanotechnologies.
- A review of the relevant regulatory frameworks to ensure that existing regulations are appropriate to protect humans and the environment from the potential hazards posed by free nanoparticles and nanotubes that we outline in our report. In our fairly limited consideration of regulation, we have identified the need for modifications to the regulation relating to the marketing and use of chemicals (including the development of the new Registration, Evaluation and Authorisation of Chemicals), workplace exposure, cosmetics and end-of-life of products.
- The need for public dialogue around the development of nanotechnologies, at a stage when it can inform key decisions.
- The importance international cooperation in the areas of research, metrology and regulation.

We are pleased to see a number of these issues addressed in the Commission's Communication and trust that they will be included in the Action Plan that the Commission plans to produce following this consultation.

References

- ¹ The Royal Society & The Royal Academy of Engineering (2004) *Nanoscience and nanotechnologies: opportunities and uncertainties*. <http://www.nanotec.org.uk/finalReport.htm>

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