

NIA Response to

Nanosciences and Nanotechnologies:

***A Review of Government's Progress on its Policy
Commitments***

by

Council for Science and Technology,

UK Government

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Introduction to the NIA

Formed in 2005, the Nanotechnology Industries Association (NIA) creates a clear single voice to represent the diverse industries' views in the multi-stakeholder debate on nanotechnology, by providing an interface with government, acting as a source for consultation on regulation and standards, communicating the benefits of nanotechnologies and interacting with the media to ensure an ongoing advancement and commercialisation of nanotechnologies.

The unique feature of the NIA is that it provides a purely industry-led perspective derived from the views of the collective membership, which is made up of many varied companies all at different stages of their life cycle and with a variety of interests in the huge range of technologies that derive their benefit from the nanoscale. This enables those seeking comment from industry to have a single point of entry to the industry and avoids the need to approach individual companies for statements on specific issues. In addition the breadth of the membership enables the NIA to put forward strong proposals to government and regulatory authorities to promote an environment that supports the application and utilisation of nanotechnologies. Initial aims of the association are:

- promoting the responsible use of nanotechnology and raising awareness of its many applications in an unbiased way among key audiences within the UK,
- generating position statements and papers in areas relevant to its members and providing responses to consultations exercises,
- technology foresight exercises examining current products, developments and future applications of nanotechnologies with an industry-based perspective on the risk-based classification of emerging technologies including nanotechnology, which is linked to a new hazard assessment methodology as the current project,
- working closely with regulators to represent the interests of the NIA to ensure the future of nanotechnology is secured and to realise its full potential,
- encouraging and stimulating industry participation and support for nanotechnology, and
- providing a forum for discussing topics of relevance to its members.

For further information visit <http://www.nanotechia.co.uk>.

General Comments

The NIA supports the Council for Science and Technology's (CST) Review entitled 'Nanosciences and Nanotechnologies: A Review of Government's Progress on its Policy Commitment'; in this review, the CST has endorsed many comments submitted to the review process by the nanotechnology industries in general and by the NIA in particular.

The NIA agrees with the CST's findings that the UK is losing the leading position it held, when it commissioned and published the Royal Society and Royal Academy of Engineering (RS/RAEng) report entitled 'Nanoscience and Nanotechnologies: Opportunities and Uncertainties' in July 2004. The NIA supports the CST recommendation that more needs to be done to ensure the responsible advancement of nanotechnology innovation in the UK, and, in particular, to assess the potential toxicology and health and environmental impacts of nanomaterials.

Government has made good progress on many commitments, in particularly in the area of metrology. It has to be acknowledge that this initiative secured a world-leading position in nanometrology for the UK, including the chairmanship of both ISO/TC 229 and CEN/TC 352 by UK experts; additional support should be given to this area of research in order to maintain this position.

The NIA does not, however, share the CST's view *'that the substantial pump-priming has achieved its purpose and that there is now sufficient demand from industry to improve our capabilities in nanometrology with only minimal future Government funding [...],'* nor support its recommendation *'that future Government programmes give priority to toxicology, health and environmental impacts rather than metrology.'* The NIA does not approve of the polarisation that appears to underline the recommendation to support either nanometrology or nanotoxicology with Government funding. Strategic future funding of nanometrology is necessary in order to support basic nanotoxicology tests, as well as the development of more complex nanotoxicology methodologies.

The UK Government should establish a nanotechnology funding budget, and ring-fence part of this for lifecycle analyses and risk assessments of novel engineered nanomaterials; the funding could be channelled through industry, in order to provide small nanotechnology companies with support for expensive toxicology tests. A percentage of the budget should also be ear-marked to invest in areas in which the UK nanotechnology industry can be globally competitive, in 5 to 10 years' time. The NIA believes that these areas of competitive advantage should be born out of collaboration between the public and private sector, through the DTI's Micro- and Nanotechnology Knowledge Transfer Network.

Moreover, it would be recommendable for Government to champion nanotechnology and to promote its wealth creation opportunities and potential benefits for health, society, the environment and consumers, in order to secure the UK as a leading player in nanotechnology by stimulating innovation in companies and research in universities and providing the right climate to support these technologies.

In addition, the NIA is committed to streamlining communication channels between the nanotechnology industries and Government and believes that an efficient and expedient approach is needed in order to make nanotechnology more accessible to a wider audience.

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