

EVOLUTIONS TOWARDS AN EUROPEAN STRATEGY FOR NANOTECHNOLOGY

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Advances across a wide range of sectors are being enabled through research and technological development (R&D) and innovation in nanosciences and nanotechnologies (N&N). These advances can address the needs of citizens and contribute to the Union's competitiveness and to many of its policies including public health, information society, energy, transport, security, space and sustainable development.

Products based on N&N are already in use and analysts expect markets to grow by hundreds of billions of euros during this decade. Europe must transform its world-class R&D in N&N into wealth-generating products in line with the actions for growth and jobs, as outlined in the "Lisbon Strategy" of the European Union².

On 12 May 2004 the Commission adopted the Communication *Towards a European Strategy for Nanotechnology*³ in which an integrated and responsible strategy was proposed. This aims to reinforce the Union's leading position in N&N R&D and innovation while addressing any environmental, health, safety and societal concerns upfront. In this context, several needs were highlighted: increase investment and coordination of R&D; develop world-class competitive R&D infrastructure or "poles of excellence"; promote the interdisciplinary education and training of research personnel together with a stronger entrepreneurial mindset; provide favourable conditions for industrial innovation to ensure that R&D is translated into affordable and safe wealth-generating products and processes; respect ethical principles, integrate societal considerations into the R&D process at an early stage and encourage a dialogue with citizens; address public health, occupational health and safety, environmental and consumer risks of N&N-based products at the earliest possible stage; complement the above actions with appropriate cooperation and initiatives at the international level.

In its conclusions of 24 September 2004⁴, the Competitiveness Council welcomed the proposed integrated and responsible approach and the Commission's intention to draw up an Action Plan for nanotechnology. The European Economic and Social Committee subsequently issued an opinion on the 15 November 2004 that supported the Commission's proposed approach⁵.

All stakeholders were invited to provide their opinion on the Commission's proposal via an extensive open consultation that closed on 15 October 2004. Over 750 responses were received supporting the elements of the Commission's proposal. This survey has been the largest of its kind in Europe⁶.

¹ The present paper does not represent any commitment on behalf of the European Commission

² http://europa.eu.int/growthandjobs/index_en.htm

³ <http://www.cordis.lu/nanotechnology/src/communication.htm>

⁴ http://ue.eu.int/ueDocs/cms_Data/docs/pressData/en/intm/82067.pdf

⁵ <http://eescopinions.esc.eu.int>

⁶ <http://www.nanoforum.org>

Eventually, we should not forget that the world is one, human health is the same in all Countries and the markets are progressively integrated and globalised. There is therefore scope for doing much work within the framework of international cooperation and first of all to agree upon shared principles as the Commission highlighted in its Communication *Towards a European Strategy for Nanotechnology*⁷ on May 2004 and it was echoed in June in a dedicated international informal meeting held in Alexandria (VA, USA)⁸.

At policy level, the debate should be continued with all stakeholders. The ongoing informal exchange of views is precious in the present preparatory phase, before the debate is brought to a possible formal inter-governmental level. The participations in the nanotechnology session in the V World Social Forum (Porto Alegre, Brazil, January 2005)⁹ and in the UNIDO symposium (Trieste, Italy, February 2005)¹⁰ are examples.

At the level of R&D projects, the EU 6th Framework Programme for Research and Technological Development, which is open to virtually all Countries with -with few exceptions- financial contribution by the EU, offers dedicated funding. A call for proposals¹¹ is currently open.

⁷ <http://www.cordis.lu/nanotechnology/src/communication.htm>

⁸ <http://www.cordis.lu/nanotechnology/src/intldialogue.htm>

⁹ http://www.sociologos.org.br/materias_home/1001_nano.asp

¹⁰ http://www.ics.trieste.it/NewDetails.aspx?new_id=194

¹¹ http://www.cordis.lu/nanotechnology/src/fp6_fund.htm