Basic information

2006/2004(INI) INI - Own-initiative procedure	Procedure completed
Nanosciences and nanotechnologies: an action plan for Europe 2005-2009 **Subject** 3.50.08 New technologies; biotechnology	

Key players

European Parliament

Committee responsible	Rapporteur	Appointed
ITRE Industry, Research and Energy	RANSDORF Miloslav (GUE/NGL)	23/11/2005

Committee for opinion	Rapporteur for opinion	Appointed
ENVI Environment, Public Health and Food Safety	BUSQUIN Philippe (PSE)	07/02/2006
IMCO Internal Market and Consumer Protection	The committee decided not to give an opinion.	
JURI Legal Affairs	KAUPPI Piia-Noora (PPE-DE)	30/01/2006

European Commission

Commission DG	Commissioner
Research and Innovation	POTOČNIK Janez

Key events

Date	Event	Reference	Summary
07/06/2005	Non-legislative basic document published	COM(2005)0243	Summary
19/01/2006	Committee referral announced in Parliament		
20/06/2006	Vote in committee		Summary
22/06/2006	Committee report tabled for plenary	A6-0216/2006	
28/09/2006	Decision by Parliament	T6-0392/2006	Summary
28/09/2006	Results of vote in Parliament		

28/09/2006	Debate in Parliament		
28/09/2006	End of procedure in Parliament		

Technical information	
Procedure reference	2006/2004(INI)
Procedure type	INI - Own-initiative procedure
Procedure subtype	Initiative
Legal basis	Rules of Procedure EP 55
Stage reached in procedure	Procedure completed
Committee dossier	ITRE/6/32138

Documentation gateway

European Parliament

Document type	Committee	Reference	Date	Summary
Committee draft report		PE369.838	23/03/2006	
Amendments tabled in committee		PE374.013	03/05/2006	
Committee opinion	ENVI	PE370.108	30/05/2006	
Committee opinion	JURI	PE371.966	31/05/2006	
Committee report tabled for plenary, single reading		A6-0216/2006	22/06/2006	
Text adopted by Parliament, single reading		T6-0392/2006	28/09/2006	Summary

European Commission

Document type	Reference	Date	Summary
Non-legislative basic document	COM(2005)0243	07/06/2005	Summary
Follow-up document	COM(2009)0607	29/10/2009	Summary
Follow-up document	SEC(2009)1468	29/10/2009	

Nanosciences and nanotechnologies: an action plan for Europe 2005-2009

2006/2004(INI) - 29/10/2009 - Follow-up document

The Nanotechnology Action Plan 2005-2009 has provided an impetus for a variety of developments, in research and innovation as well as in policy making. After the first two years of the Action Plan, progress in almost every area was identified in the First Implementation Report (COM(2007)0505).

This Communication outlines the key developments during 2007-2009 in each policy area of the Action Plan, identifies current challenges, and draws conclusions relevant to the future European nanotechnology policy.

As a general remark, the past two years have seen a substantial development of nanotechnology, supported by a further growth in research funding and the active development of policy. Novel applications and products of nanotechnology are constantly being realised.

Bringing together public and private organisations across Europe to carry out collaborative research and development is of particular importance in the interdisciplinary approach needed in nanotechnology.

According to the Communication, **support for nanotechnology research under the Community's Framework Programmes has continued to grow**, from EUR 1.4 billion in the four-year period 2003-2006, to more than EUR 1.1 billion in the two-year period 2007-2008. **Further growth is expected in the years up to the end of the 7th Research Framework Programme (FP7) in 2013**. This investment is complemented by significant public funding in Member States, to the tune of more than EUR 2.5 billion in 2007-2008. Private funding, however, still lagged behind public funding in Europe. At the same time, funding was increasing rapidly in other parts of the world, and dynamic new players were coming on the scene.

The Community funding covered a **very wide spectrum**, from fundamental nanoscience to industrial applications, with an increasing emphasis on applications. Much of this funding came from the **cross-thematic approaches** developed in FP7, as nanotechnologies have an interdisciplinary and enabling character and can contribute to different industrial sectors and policy objectives in health, food, environment, energy and transport.

The industrial participation in projects is gradually increasing, having reached 40 %. The Commission is also directly engaged in nanotechnology research through its Joint Research Centre (JRC), whose activities are directly linked to a number of related policy areas.

In conclusion, the Communication considers that **significant progress has been made on all points of the Action Plan**. Building on this, it is proposed to continue and consolidate the present actions in the coming years, with emphasis on:

- deepening the research efforts and roadmaps for **key nanotechnology sectors**, to enhance innovation and competitiveness; whilst advancing fundamental understanding of how nanomaterials throughout their life cycle interact with living organisms, to ensure a high safety level and protection of human health and the environment;
- developing **infrastructures and the educational system** further, consistent with the multidisciplinary character of nanotechnology;
- strengthening the **mechanisms available for industrial innovation**, stressing the concept of open innovation and facilitating technology transfer;
- implementing a **more direct, focused and continuous societal dialogue**; and monitoring public opinion and issues related to consumer, environmental and worker protection;
- continuing to review the **adequacy of regulation**, adapting as appropriate the implementation instruments, proposing regulatory change where necessary, and engaging where possible with international developments;
- **surveying the market for products of nanotechnology**, including their safety aspects, and likely developments;
- intensifying the **research effort on safety assessment**, including risk management, throughout the product life cycle; support the further development and validation of nanomaterial characterisation and test methods;
- enhancing **coordination and exchange of information** with Member States.

Building on achievements so far and with these needs in mind, the Commission is considering proposing a **new Nanotechnology Action Plan** that would be one of the driving forces of the European Research Area and address important societal and environmental issues.

Nanosciences and nanotechnologies: an action plan for Europe 2005-2009

2006/2004(INI) - 28/09/2006 - Text adopted by Parliament, single reading

The European Parliament adopted a resolution on the Commission Communication on an action plan on nanosciences and nanotechnologies, based on an own-initiative report drafted by Miloslav **RANSDORF (GUE/NGL, CZ).** (Please see the summary dated 20/06/2006.)

Nanosciences and nanotechnologies: an action plan for Europe 2005-2009

2006/2004(INI) - 07/06/2005 - Non-legislative basic document

PURPOSE: to present a European Action Plan for nanotechnologies, 2005-2009.

CONTENT: this action plan is being presented on the back of a 2004 Commission Communication “Towards a European Strategy for Nanotechnology”, which highlighted the need for Europe to reinforce its leading position in N&N technologies, whilst at the same time addressing any environmental, health, safety and social question raised in connection with the use of nanotechnologies. It is also a response to a conclusion issued by the European Competitiveness Council, in which it welcomed the Commission’s intention to draw up a nanotechnology action plan.

In preparing this action plan, the Commission has defined a series of inter-connected actions for immediate implementation based on a safe, integrated and responsible N&N strategy. To begin with the action plan focuses on Europe’s need for knowledge, hence priority being given to research and development. In order to achieve this goal the Commission will reinforce the role of N&N in the EU’s 7th Framework Programme by doubling the budget in comparison to the 6th framework programme. It also proposes to support specific research into nanoelectronics in order to stimulate industrially relevant research in a technologically mature field and to provide for the foundation for a next generation of electronics. It will also boost support for collaborative research into “particular engineered nano-scale entities” and their possible effect on human health and the environment through toxicological and eco-toxicological studies. The Commission will also foster the development of European Technology Platforms in the field of, for example, nanomedicine. In return, the Commission calls on the Member States to increase public investment in N&N research, corresponding to increased R&D expenditure to match the 3% Barcelona objectives, to try and minimise a duplication of effort (possibly through the ERA-NAT scheme), and to promote N&N activities by raising awareness for nanotechnology amongst universities and R&D institutes.

A second action is to focus on a nanotechnology infrastructure and the establishment of “Poles of Excellence”. To achieve this aim the Commission will establish a map of existing European N&N infrastructure and explore ways in which this can be improved upon through an exchange of best practice. Special attention will be given to the role of SME’s. In addition, the Commission will offer support to trans-national networking as well as the integration of resources across the university and research institute spectrum. Member States are being called upon to launch the construction of new inter-disciplinary N&N infrastructures as well as encourage the creation of Poles of Excellence

A third action being proposed is the interdisciplinary nature of human resources and Europe’s need to foster creativity. Under this heading, the Commission recognises that the generation of knowledge depends very much on up-to-date education, training and life-long learning. As such the Commission will promote the dissemination of educational and training best practice, explore ways in which to encourage the development of cross-border thematic networks and promote the creation of an interdisciplinary European N&N award. Marie Curie actions such as the creation of fellowships stimulating trans-national, doctorate-level programmes will also be encouraged. Member States, in turn, are called upon to foster interdisciplinary training and education with a particular focus on physics, chemistry, biology, toxicology and eco-toxicology.

Under the heading “Industrial Innovation: From Knowledge to the market”, the Commission is hoping to encourage a better dissemination of results so that N&N research can translate into commercially viable, inherently safe products for processing. To do so, the Commission will foster the industrial exploitation of N&N research by bringing stakeholders together to exchange best practice for the commercialisation of N&N technology. It also intends to increase industrial involvement in EU R&D projects and to support the creation of a web-based “Digital N&N Library”. A further proposal is the establishment of an N&N “Patent Monitoring System” to work through the European Patent Office. As far as the role of the Member States are concerned, the Commission calls on the Member States to reach an agreement, as soon as possible, on the adoption of the Community patent.

As well as focusing on the research aspect, the Commission recognises the importance of integrating social concerns relating to the use of nanotechnologies and wants to encourage the development of a society where the public, scientists, industry and financial operators feel comfortable in dealing with issues associated with N&N. A further area in need of examination under the action programme relates to public health, safety and environment/consumer protection. Here, the Commission wants to guarantee that all N&N applications must comply with the highest level of public health and safety. The Commission also notes that some nanotechnology applications may cover certain aspects of the REACH legislation. Lastly, the Commission action plan, includes an international dimension.

To conclude, an integrated strategy can not be implemented in a linear fashion but requires coherent and co-ordinated action. In light of increased societal interest in nanotechnologies, it is important that any action be as visible as possible. As such the Commission proposes that it focus on:

- Monitoring and overseeing the implementation of the actions plan.

- Report on progress made within the plan every two years.

- Perform a range of activities to foster a useful as well as profitable exploitation and application of nanotechnology in the EU.