

GERMANY

Highlight of developments since the 3rd meeting of the WPMN

The NanoCommission (NanoDialog) continues its work with the help of three working groups:

1. The first Working Group "Opportunities for Health and Environment" concentrates on the question: How can the use of nanomaterials contribute to sustainable economic and social development in Germany, in particular to environmental/health and consumer protection? The Working Group wants to identify and describe selected nanoproducts or applications which deliver a special benefit for the environment or for consumers. These opportunities will be checked concerning their sustainability throughout their life cycle, at least qualitatively.
2. A second Working Group is called "Risks and Safety Research" and consequently deals with the possible risks posed by nanomaterials, especially the gaps in our knowledge, which we need to fill as soon as possible. The aim is to develop a programme for future safety research plus suggestions for concrete projects. Since many products containing nanomaterials are already on the market and we expect a further increase in the future, this working group will assess the risks for some selected nanomaterials based on present knowledge.
3. In order to provide preventive protection to employees, consumers and the environment, a third Working Group develops "Guidelines on the Responsible Use of Nanomaterials". The group started the work on a Guideline for worker protection and is now working on basic principles on which all Guidelines should be based and on indicators to monitor their implementation. The aim of Working Group 3 is, that industry and user companies adopt these Guidelines as a "Code of Good Practice."

The output of the working groups will be summarized in the report of the NanoCommission in summer 2008. This will include recommendations for research priorities, a commitment to the responsible use of nanomaterials based on respective guidelines and a report on nanomaterial based opportunities for sustainable development. In November 2008 a closing event will take place in Berlin.

Since 2007, the "Nano Initiative - Action Plan 2010" gives a framework across all government departments. The leading Ministry "Education and Research" (BMBF) has started this initiative, together with six others (Environment (BMU), Labour and Social Affairs (BMAS), Food, Agriculture and Consumer Protection (BMELV), Defence (BMVg), Health (BMG) and Commerce and Technology (BMW)). The NanoDialog Project is part of this action plan.

Work completed, underway or planned

1. Any national regulatory developments on human health and environmental safety including recommendations or discussions related to adapting existing regulatory systems or the drafting of laws/ regulations/ guidance materials

The Federal Government identified, that - for the moment and based on the current state of knowledge - our legislation can principally protect humans and the environment concerning applications with nanomaterials and that it covers many flexible instruments for this task. At the same time the required tools for example for risk assessment need to be further developed. As nanotechnology will be more and more used in many applications legislation and regulation will need to be checked again in the future, whether they are sufficient to protect man and environment.

Since some of the EU provisions relating to foodstuffs are currently under revision (e.g. food additives, novel foods) not only the German Delegation attached specific importance to a potential need of further clarification and/or more detailed provisions regarding the use of nanotechnologies/ nanoparticles. Specific wording has already been added to some of the proposed regulations under discussion.

2. Developments related to voluntary or stewardship schemes

The Federal Institute for Occupational Safety and Health (BAuA) developed in collaboration with the Chemical Industry Association (VCI) a questionnaire to collect information on exposure of nanomaterials and risk management at workplaces of the chemical industry and research institutions. The feedback from industrial and research companies was evaluated, summarized and published as a report in German in the magazine "Gefahrstoffe-Reinhaltung der Luft" 10/2007, pp. 419-424: [www.technikwissen.de/gest/currentarticle.php?data\[article_id\]=38107&PHPSESSID=45f53091cdd716651169e251e2462e73](http://www.technikwissen.de/gest/currentarticle.php?data[article_id]=38107&PHPSESSID=45f53091cdd716651169e251e2462e73). The English version "Exposure to nanomaterials in Germany – Results of the corporate survey of the Federal Institute for Occupational Health and Safety (BAuA) and the Association of the Chemical Industry (VCI) using questionnaires" is available under: www.baua.de/en/Topics-from-A-to-Z/Hazardous-Substances/Nanotechnology/Nanotechnology.html

3. Information on any risk assessment decisions

Not applicable due to lack of information

4. Information on any developments related to good practice documents

The Chemical Industry Association (VCI) has developed in collaboration with the Federal Institute for Occupational Safety and Health (BAuA) a handling guideline for the responsible handling of nanomaterials during production and use. The draft was discussed at a work shop to consider further input from a variety of stakeholders. A finalized version is available under:

www.baua.de/en/Topics-from-A-to-Z/Hazardous-Substances/Nanotechnology/Nanotechnology.html

5. Research programmes or strategies designed to address human health and/ or environmental safety aspects of nanomaterials

The joint German research strategy, developed by the BAuA (Federal Institute of Occupational Safety and Health) together with BfR (Federal Institute for Risk Assessment) and UBA (Federal Environment Agency) considering health issues of workers and consumers and the environment issues had been discussed with stakeholders from industry, science, policy, and NGOs. The finalized version was published in 2007 and is publicly available on the web site of the BAuA (including a version in English language: www.baua.de/en/Topics-from-A-to-Z/Hazardous-Substances/Nanotechnology/Nanotechnology.html) and UBA (<http://www.umweltbundesamt.de/technik-verfahren-sicherheit/nanotechnologie/index.htm>).

The Ministry of Education and Research (BMBF) is starting a research programme on benefits for environment and environmental safety aspects of nanomaterials, NanoNature.

6. Information on any public/ stakeholder consultation

In 2007, the Federal Institute for Risk Assessment (BfR) issued two projects on public perception of nanotechnology. The first project is an opinion poll in the German public linked with a fundamental psychological study. The results show that the majority of consumers view the development of nanotechnology favourably. However, at present, most of the consumers do not accept the use of nanoparticles in food. The study also revealed that over the last three years consumers have become far more familiar with nanotechnology. Consumers source information from all major media – TV, daily newspaper, magazines. The amount of trust which consumers place in information about nanotechnology depends on where the information comes from. The highest level of trust is enjoyed by consumer associations. The BfR conducted this project together with Vierboom & Härten, Business Psychologists and the University of Bonn.

In the second project the BfR is currently conducting a study on a media analysis of articles on nanotechnology published in German daily newspapers and popular magazines. The project is intended to investigate how nanotechnology is framed in mass media debate, who is taking part in the debate, which arguments dominate and which metaphors illustrate the debate. The project is carried out together with the University of Muenster and will be finished in June 2008.

In the context of the BMBF-project NanoCare on effects of nanomaterials on human health, a stakeholder dialogue has been performed in Nov. 2007, a second one will take place in Nov. 2008. A dialogue with the public took place in April 2008; two additional public dialogues are scheduled for Sept. and Nov. 2008.