



Newsletter

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NanoCode holds International Conference on 29 September 2011

NanoCode will hold its International Conference in Brussels on 29 September 2011. The Conference will mark the beginning of the final phase of the NanoCode Project and the first of a number of stages concerned with the revision of the EC Code of Conduct for Responsible Nanosciences and Nanotechnologies Research (hereafter referred to as the CoC).



The NanoCode Project has been concerned both with analysing stakeholder attitudes towards the CoC through a series of consultations and workshops across Europe and internationally, and developing proposals for its future revision together with tools to support its use and implementation. Key outputs of the project include a comprehensive set of recommendations to the European Commission, referred to as the Master Plan, and an electronic, self-assessment tool that stakeholders can use to measure their performance against the CoC, called the CodeMeter.

The International Conference will give attendees a first-hand opportunity to shape the final and definitive versions of the Master Plan and CodeMeter, as well as being able to actively participate in discussions about responsible innovation and influence the forthcoming revision of the CoC by the European Commission. The programme of the Conference will also include presentations on:

- steps towards an innovative and responsible European research area by from the European Commission;
- those principles and needs that should guide responsible innovation;
- what responsible innovation really means and on defining “accountability” and “responsibility”;

- the pros and cons of applying the CoC and challenges in its implementation;
- experiences in applying a voluntary industry code.

The afternoon session of the Conference will include a chaired discussion with experts from a wide range of stakeholder groups in different regions on the opportunities and mechanisms to extend the boundaries and scope of the CoC towards responsible innovation across a range of novel technologies.

The NanoCode International Conference is an important event for all those who have an interest in responsible research and innovation. It will form an important milestone in the European Commission's initiatives to facilitate an innovation-friendly and responsible research environment, in efforts to revise and recast the CoC with potentially wider and deeper application, and in discussions aimed at contributing to global initiatives to foster responsible innovation. Attendance at the NanoCode International Conference is open to all interested parties and is free of charge but online registration is required. Early registration is recommended as limited space is available). www.nanocode.eu/eventsreg/



The European Project NanoCode: a multistakeholder dialogue providing inputs to implement the European Code of Conduct for Responsible Nanosciences & Nanotechnologies Research commenced in January 2010. This two-year project is funded under the Programme Capacities, in the area Science in Society, within the 7th Framework Program (FP7).

The CodeMeter – a practical self-assessment tool for gauging responsible innovation performance



Part of the NanoCode International Conference will also describe NanoCode's new tool, the CodeMeter, which is designed to be an easy-to-use, electronic self-assessment tool that enables users to see how well they are performing against the principles of the CoC.

The CodeMeter has been developed as one of a number of tools and recommendations intended to support awareness, implementation and use of the CoC. As a supporting tool to the CoC, it is primarily aimed at researchers in the field of N&N although the concept is capable of being extended to cover responsible innovation across a wider range of novel technologies. The CodeMeter has been designed to be easy-to-use and comprises a number of questions based on the seven broad principles outlined in the CoC: precaution, inclusiveness, excellence, innovation, accountability, meaning and sustainability. The CodeMeter translates these broad principles into a number of criteria that the user can claim compliance with or not in a confidential way, leading to a "score" or profile of performance displayed as a spidergram. Where the user claims compliance, the tool invites them to describe evidence of how this is achieved or, in the case of negative response, brings up a number of suggestions and hints as to how performance may be improved. The CodeMeter may therefore be used as a powerful continuous improvement tool or, potentially, as a useful voluntary tool to demonstrate performance in responsible innovation in a wider context.

The NanoCode International Conference will also provide attendees with an opportunity to comment on and suggest possible further development of the CodeMeter tool in the light of possible revision of the CoC. Any stakeholders interested in testing the CodeMeter are invited to contact the NanoCode Project (coordinator@nanocode.eu) whereupon a draft version will be provided for evaluation and comments.



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Supporting and improving the EU Code of Conduct – Recommendations from the NanoCode Project



A major theme of work within NanoCode has been to analyse users' perceptions and use of the CoC across a number of countries and a variety of stakeholders through a wide-ranging consultation process and series of workshops. These consultations have revealed a number of recurring comments from users and a wide variety of levels of awareness and implementation of the CoC in different countries.

This feedback from stakeholders has now been analysed and forms the basis of a series of recommendations concerning the CoC to the European Commission which are detailed in a NanoCode report entitled the Master Plan. A presentation of the key points in the Master Plan will, again, form an important agenda item during the forthcoming NanoCode International Conference.

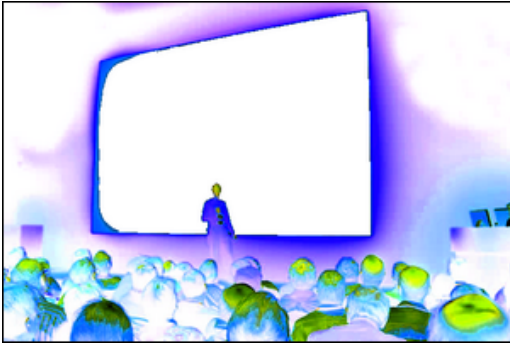
Some key stakeholder perception issues identified during the consultation phase included:

- lack of legitimacy: some stakeholders question whether the field of nanotechnology requires its own code of conduct and suggest that it should be considered alongside other novel technologies;
- lack of practicability: the all-embracing and general character of the principles and guidelines of the CoC, and a lack of support in implementation and monitoring, means that many users are unable to identify specific or verifiable actions in order to comply with it in practice;
- stumbling blocks: certain elements of the content of the CoC have led to a rejection of parts of, or the entire, CoC among some target groups. In addition, language misunderstandings and a lack of comprehensibility have been cited as barriers to implementation;
- lack of pressure to implement to CoC: many respondents suggested that it would be necessary to associate the CoC with incentives, disincentives or penalties (in case of non-compliance) to encourage stakeholders to adopt and comply with it;
- lack of commitment: it was generally considered that a general lack of communication and inadequate dissemination by the European Commission and Member States had given the impression that the CoC was of low priority with commitment, coordination and leadership lacking.

In the light of these stakeholder perceptions, a series of recommendations to the EC has been drawn up in the "NanoCode Master Plan: Issues and Options on the Path Forward with the EC Code of Conduct on Responsible N&N Research" that will be discussed during the NanoCode International Conference.

These includes a proposal for a revision of the contents and structure of the EC CoC, the definition of policy actions and tools to improve its implementation as well as options for extending the scope of the CoC to a broader range of novel technologies in the context of responsible innovation (whilst retaining its broad wide thrust across a set of principles).

On the base of the outcomes of the Conference, a final version of the MasterPlan will be prepared and disseminated through a series of national events.



Supporting national initiatives in responsible innovation

The final phase of the NanoCode Project will include a series of national NanoCode Conferences held in the countries of NanoCode partners.

The purpose of these conferences will be to:

- convey the final outputs of the project, i.e. the recommendations concerning the CoC made in the MasterPlan, and the electronic NanoCode tool, to interested national stakeholders;
- to highlight those issues of particular relevance to national stakeholders concerning the CoC and also issues surrounding responsible innovation. These may well vary from country to country depending on the level of awareness of the CoC and level of implementation nationally (this may be from hardly at all, to some practical use of the CoC);
- to identify national routes for awareness-raising, communication, further dialogue, and integration of the CoC and the tools developed by NanoCode into national practice;
- to identify and promote opportunities for facilitating national dialogue concerning the future revision of the CoC.

Details of the various NanoCode National Conferences, together with contact and registration details will be posted on the [NanoCode website](#) as they are confirmed.

Other news



FDA publishes Strategic Plan addressing the regulation of products containing nanotechnology

The US FDA has published a strategic plan in August 2011 that identifies eight priority areas with implications for nanotechnology and nanomanufacturing and in which it will establish or expand its engagement in regulatory activities.

The FDA seeks to foster and advance innovation in the products it regulates and the strategic plan was developed to keep pace with these innovations and incorporate new scientific advances within the regulatory process including developing new tools, standards, and approaches to assess the safety, efficacy, quality, and performance of FDA-regulated products.

The strategic plan identifies eight priority areas in which the FDA will establish or expand its engagement in regulatory activities. One priority area, "Support New Approaches to Improve Product Manufacturing and Quality" will be implemented through the development of improved methods and tools to detect and measure the physical structure, chemical properties, and safety of engineered nanomaterials and complex dosage forms in FDA-regulated products. In another priority area concerning the evaluation of innovative emerging technologies, the FDA recognises the impact of nanotechnology on medical products, and seeks to better understand how nanomaterials are being used in these products.

To support the strategic plan, the FDA has established a number of "Nanotechnology Core Centers" to facilitate investigations on the safety of products that use nanomaterials, establish methods to assess quality and effectiveness of products that use nanomaterials, and identify standards to be incorporated in the preclinical safety assessment of products that contain nanomaterials.

[Advancing Regulatory Science at FDA - A Strategic Plan](#)

Nanotechnology increasingly viewed as beneficial in Australia

A survey carried out in Australia between 2005 and 2011 suggests that Australian citizens are becoming increasingly aware and positive about nanotechnology and, in particular, its potential to improve their lives.



The survey, of around 1100 randomly-selected people, was carried out on behalf of the Australian Department of Innovation, Industry, Science and Research (DIISR) by the company Market Attitude Research Services. The study shows a shift in awareness of nanotechnology, up from 51% in 2005 to 76% in 2011, with 18% understanding some details about the technology in 2011 as opposed to 4% in 2005. When considering particular benefits of technology, such as in medical technologies and potential improvements to the environment, support grew to an impressive 90% and 87% respectively.

The survey results can be viewed in full in the [August 2011 Final Report](#).



What happens to silver nanoparticles during waste water treatment?

Silver nanoparticles are widely used in a variety of consumer products, such as antibacterials in clothing and in surface treatments, and in cosmetics.

But there is a lack of information about how nanomaterials move from manufactured products into the environment and what their impact might be. This has raised fears from some groups concerning potential effects on the environment should the silver nanoparticles enter wastewater treatment plants, e.g. by leaching during the washing of textiles.

New research at the Virginia Polytechnic Institute and State University using x-ray transmission electron microscopy, an extremely sensitive technique that can identify both composition and structure, identified nanoparticles from 5nm to 20 nm in diameter from sludge from a Midwest US treatment plant and confirmed that the particles had a 2-to-1 silver-to-sulphur ratio. The researchers also obtained a crystal structure to confirm that the particles were formed from silver sulphide (Ag_2S).



The researchers suggest that nanomaterials probably entered the treatment plant in the form of silver nanoparticles and then transformed into silver sulphide, as wastewater plants contain high concentrations of sulphide and silver readily binds to sulphur, and also note that the observations underscores some of the complexity in studying the environmental effects of nanoparticles.

The results have been published in the journal [Environmental Science & Technology](#) and will provide scientists with important new information about the life cycle of these nanomaterials.

This newsletter has been prepared by the NanoCode Project consortium.

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