



The Need and Opportunity for International Dialogue on Impact of Nanotechnology on Environment, Health & Safety (EHS)

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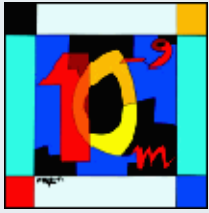
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***Scope-East International Conference
Moscow, 3-4 December, 2007***

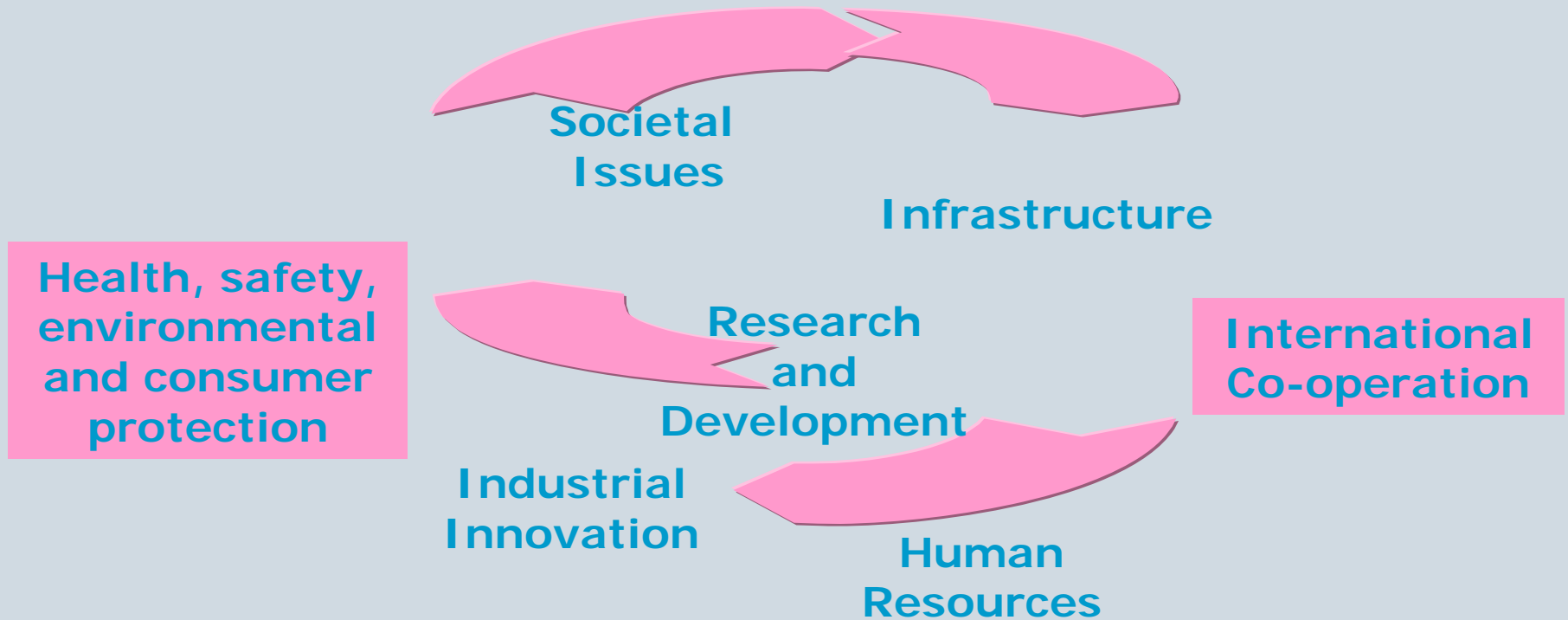
Need of international dialog on nanosafety

- ***An increasing role of N&N in technological and societal developments over the next decades***
- ***A high level expectations of N&N among the scientific community, industry and the general public in the world***
- ***Expected great market of products containing nanomaterials and need of the single common approach to standards, nomenclature, metrology***
- ***Growing of public interest and concerns over impacts of nanotechnologies with regard to environment, public health, and safety (EHS)***
- ***A proper exchange of information and communication strategies between main world players in the area of N&N***



*The European Policy in Nanotechnology:
integrated, safe and responsible*

<http://cordis.europa.eu.int/nanotechnology/actionplan.htm>



European approach to development of N&N: the background

- ***Adoption of European “Action Plan on Nanotechnology” (7.06.2005). The special section of this document “Public health, Environmental and Consumer Protection” puts stress on the importance of assessment of potential impacts of nanotechnologies on EHS***
- ***European Technology Platform (ETP) on Nanomedicine has started in Edinburg at EuroNanoForum in 6.09.2005. Then other ETPs relevant to different aspects of nanosafety have been launched***
- ***The Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) adopted a document “The appropriateness of existing methodologies to assess the potential risks associated with engineered and adventitious products of nanotechnologies” (10/03/2006)***
- ***EC is going to adopt the Code of Conduct for responsible research in N&N. At a moment public consultations on the Code of Conduct have been launched***

European projects on nanosafety under FP6

NanoDerm (<http://www.uni-leipzig.de/~nanoderm>)

NanoPathology (<http://www.nanopathology.it>)

Nanosafe (<http://www.nanosafe.org>)

Polysoa (<http://polysoa.web.psi.ch>)

Impart (<http://www.impart-nanotox.org>)

Nis-Nest (<http://www.nisnest.gr>)

Nanotransport

ftp://ftp.cordis.europa.eu/pub/nanotechnology/docs/pressroom_projects_nmp6_nanotransport.pdf

FP7 and Impacts of Nanotechnologies on EHS 1-st call (start 22.12.2006)

Impact assessment and societal issues

NMP-2007-1.3-1

Large CP Specific, easy-to-use portable devices for measurement and analysis

NMP-2007-1.3-2

CP Risk assessment of engineered nanoparticles on health and the environment

NMP-2007-1.3-3

CSA Scientific review on the data and studies on the potential impact on health, safety and the environment of engineered nanoparticles

NMP-2007-1.3-4

CSA Creation of a critical and commented database on the health, safety and environmental impact of nanoparticles

NMP-2007-1.3-5

CSA Coordination in studying the environmental, safety and health impact of engineered nanoparticles and nanotechnology based materials and products

HEALTH-2007-1.3-4

CP Alternative testing strategies for the assessment of the toxicological profile of nanoparticles used in medical diagnostics

FP7 and Impacts of Nanotechnologies on EHS 2-nd call (start 30.11.2007)

FP7-NMP-2008-Large-2

NMP-2008-1.3-1 Validation, adaptation and/or development of risk-assessment methodology for engineered nanoparticles

FP7-NMP-2008-Small-2

NMP-2008-1.2-3 Development of technologies converging technologies for the controlled combustion of nanoparticles

NMP-2008-1.3-2 Impact of engineered nanoparticles on health and the environment

FP7-NMP-2008-SME-2

NMP-2008- 3.1-1 Transformation strategies for SMEs in turbulent global market environments – SMEs

FP7-2008-ENV-NMP-2

Nanotechnologies for water treatment (ENV.2008.3.1.1.2; NMP.2008.4.1.2-2)

International Dialog within OECD

- ***The Working Party of Manufactured Nanomaterials (WPMN) was established in 2006 as subsidiary body of OECD's Chemicals Committee***
- ***The aim of WPNM – to promote international co-operation on the human health and environmental safety of MN and involves the safety testing and risk assessment of MN***
- ***The current programme is developing six projects:***
 - 1. An OECD Database on EHS research***
 - 2. EHS research strategies on manufactured nanomaterials***
 - 3. Safety testing of a representative set of nanomaterials***
 - 4. Manufactured Nanomaterials and Test Guidelines***
 - 5. Co-operation on Voluntary schemes and Regulatory Programmes***
 - 6. Co-operation on Risk assessment***
- ***Activities have started to address Exposure Mitigation and Exposure measurement (new!!)***
- ***3-rd Meeting of the WPMN was held 28-30 November 2007 , Paris***

“State-of-art” in the area of nanosafety in Russia

- ***Studies of physico-chemical properties of nanomaterials (in particular, nanoparticles) in RAS and Universities***
- ***Specialized working groups aiming at developing of different aspects of nanosafety under the construction in different governmental structures***
- ***Presentation of more and more studies of impacts of nanomaterials on health and the environment during scientific conferences and workshops***
- ***Nanotechnology Action plan for Russia 2015 will contain the special subprogramme covering nanosafety and potential impacts of nanomaterials on EHS***
- ***23 of July 2007 the Federal consumer rights and human well being department (ROSPOTREBNADZOR) issued regulation №54 concerning the inspection of new products containing nanomaterials***
- ***The expert analytical group for “nanosafety” and “nanorisks” based at Centre for Advanced Studies at Saint-Petersburg State Polytechnical University has been established (the head of group is Prof. M. Fedorov, rector of the University)***

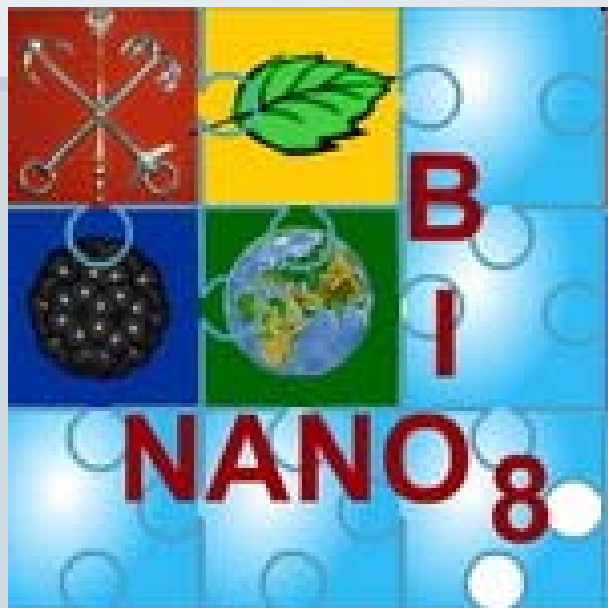
Activities of the expert analytical group in future

- *The publishing of booklet on potential risks of nanotechnologies on EHS encompassing the international experience in this area*
- *Launch and supporting of specialized website containing the important information in the area of nanosafety (Construction of comprehensive data base covering the developments of Russian science)*
- *Dissemination of the information letters in Russian covering different news, events connected with nanosafety*
- *Preparation of leaflets and bulletins on nanosafety in Russian*
- *2-nd International conference on NanoBiotechnologies, Saint-Petersburg, June 16-18, 2008 (www.spbcas.ru/nanobio)*
- *NATO Advanced Research Workshop on Biological and Environmental risks of Nanotechnology, Nanobionics and Hybrid Organic-Silicon devices (Silicon vs. Carbon), June 18-20, 2008*
Both events have been hosted by the Centre for advanced studies

II St. Petersburg International Conference on NanoBioTechnologies

16 -18 June 2008

www.spbcas.ru/nanobio



Main Organizers

- Ministry of Education and Science of the RF
- CAS of Saint-Petersburg State Polytechnical University
- M.V. Lomonosov Moscow State University
- Saint-Petersburg State University for Technology and Design
- Austrian - Russian Working Group

Sponsors

- Federal Agency on Science and Innovations
- Russian Foundation for Basic Research
- Saint-Petersburg City Government



Silicon vs. Carbon

Environmental and Biological Risks of Nanobiotechnology, Nanobionics
and Hybrid Organic-Silicon Nanodevices

St. Petersburg, 18 – 20 June 2008

WELCOME!

A list of coordinated and joint initiatives of global relevance

- ***Exchanging data on research and development activities carried out in different countries***
- ***Generating and Sharing data on the fundamentals of N&N, including infrastructure***
- ***Generating and sharing data on toxicology and ecotoxicology***
- ***Developing common /compatible methodologies for statistical analysis and risk assessment in the field***
- ***Supporting research in metrology and standardization, creating the way for future possible regulatory actions***
- ***Developing common tools and exchanging good practices to increase public awareness and social acceptance on the basis of scientific research and publications***
- ***Education and training for research are highlighted as essential***

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FOR
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