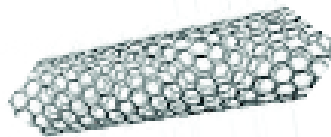


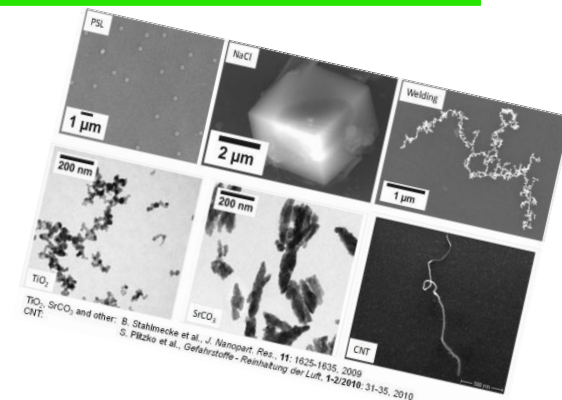
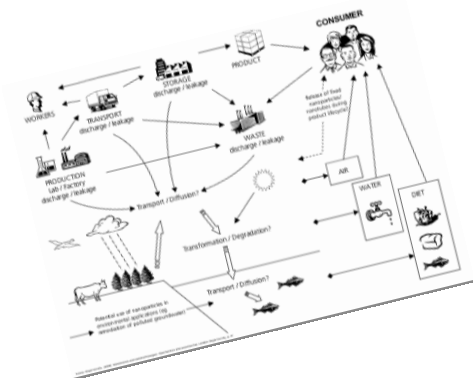
# A Joint Workshop 2012



eu-us  
bridging nanoEHS research efforts

25-26 OCTOBER 2012, HELSINKI, FINLAND

## Workshop Report



# Exposure through the Life Cycle and Material Characterization

CoChairs

Richard Canady

Thomas Kuhlbusch



## Objectives of the session

- Derive a common understanding on the needs with regard to exposure and material characterisation
- Elaborate the next steps
- Identify the main issues to be tackled within this CoR in the next 12 months



# First two efforts for the CoR

- 1) Gathering/providing measurement methods information
  - Part of the information sharing platform
  - ***Gabriele Windgasse***  
“Developing a Resource Tool for Concepts and Methods to Analyze Engineered Nano Materials in Environmental Media Throughout their Life Cycle”
  
- 2) Focus on Fate Assessment
  - A topical area to convene experts
  - ***Geert Cornelis***  
”Environmental Risk Assessment of ENP: fate assessments as the way forward”



Main issues (to be) discussed

**Focus: Exposure**

- Understanding of the potential points in life cycle where exposure can occur,
- Estimation of the likely amounts of exposure and the number of people who will be exposed,
- Consideration of potential for synergistic exposures to other potential toxicants as a consequence of the exposure / release / transformation cycles,



Main issues discussed (continues)

**Focus: Characterisation, analytical methods  
and databases**

- Database on analytical methods and strategies
- Designing a flow chart for analyzing an unknown ENM in any given compartment
- How to handle impurities
- How to handle mixtures



Main issues discussed (continues)

**Focus: Environmental transport and fate**

- What is the most likely speciation?
- Model nanoparticle characteristics
- What is the most likely exposure concentration?
- Model environments and their characteristics
- Model approaches



# Specific goals

## **Context:**

*We are proposing to develop a resource for sharing information and for convening experts. The need is **critical** to understanding real risks of ENP.*

## **Our need from you:**

- Specific feedback on the focus areas
- Ideas on how to support the data generation and database maintenance
  - Who hosts, pays, maintains?
  - How to coordinate with other CoRs?
  - How do we promote efficient gathering and availability? (Wiki, Cloud, International Organization, etc)
- Specifics on the data sets and experts
  - What kinds of data and experts are needed, where are they, how do we get access?
  - Structural components of the data sets – what elements are needed



- Recommendations and conclusions
  - CoR work should focussed on communication / information exchange (possibly beyond who is doing what) we recognize that we will give direction already by choosing focus areas, e.g. Media..; revision and changes will happen with time.
  - collaboration with other CoRs overall important, some specific collaboration were presented and each CoR should define their degree of interaction
  - work directly towards a certain purpose in the near term targeting specific identified needs by stakeholders.
  - theme specific workshops, bring scientists together to takle specific questions important for advances





- Recommendations and conclusions
    - subgroups / focus areas:
      - cataloging reference environments
      - key transformations of NM in the environment
      - cataloging fate and mobility parameters
      - exposure, and more specific bioavailability scenarios (status ?)
- functional assays (describe of what may happen but not understanding basic characteristics) for transformation, transport and effects.

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- Collecting more information on existing resources (project, people, aims, media, results...)
- Identification (further) focus areas for communication platforms and specific workshops
- Funding for workshops
- Make specific proposal to funding agencies for specific calls (bridging research topics and development /maintenance of databases)

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- Time line
  - start with collecting information on projects, who is doing what where..
  - defining projects and workshops for collaboration and developing project proposals (next 3-6 months)
  - target an integrative, topic specific workshop across CoRs already now to take place in the next 3-9 months