



Closer to the Market (CTTM) Roadmap

NanoSafety Cluster; October 7, 2014, Syracuse, Italy

Kai Savolainen¹ and Sonja Hartl²

¹ Nanosafety Research Centre; Finnish Institute of Occupational Health

² BioNanoNet Forschungsgesellschaft mbH



Finnish Institute of
Occupational Health



Nanosafety
Research Centre





Framework

- The safety of a technology is itself a market
- The level of safety achieved from any application varies with space and time and is related to the quality and benefits the new technology offers, and consideration of safety in them
- Preferentially, each new technology application is based on regulation
- Development of new rules/practices should be based on solid scientific knowledge





Overview on Research Efforts

- Exploratory (basic) research; new knowledge
- Regulatory research:
 - knowledge supporting the development of regulations
 - Measure individual risks (toxicity and exposure)
 - Processes and products safe-by-design
- Regulatory research Projects:
 - NANoREG
 - Supporting NANoREG; 2nd Stage 2014 proposal & Grant preparation Stage
- Long Term: Regulatory Research Roadmap; Contact: Vicky Stone





Closer to the Market - Scope

- Support the go-to-market aspects:
 - provide the technology, skills, processes, necessary for science-based best NanoSafety practices in the industrial & commercial activities
 - setting minimum requirements for jobs and required skills



Building capacity for formalisation of jobs

Risk monitoring

Risk control

Risk prevention

Risk mitigation



Building capacity for formalisation of skills

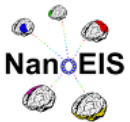
Standardization

Education

Training

Certification

nano
diode



Finnish Institute of
Occupational Health



Nanosafety
Research Centre

BIO
NANONET



Organisation/Inventory

- The challenge of managing safety is given to nanosafety platforms in each country.
- **NanoSafety Research Centers**
 - E.g. Finnish NanoSafety Research Centre , the Danish Nano Safety Centre, Namur nanoSafety Centre, EURO-NanoTox, Veneto Nanotech, LEITAT, RIVM, TNO, EMPA, INRS, DGUV
- **NanoSafety (experts) platforms**
 - E.g. KIR nano; BioNanoNet
- **NanoSafety Collaborations**
 - E.g. Nanocentre; NanoHouse





International cooperation

- What is the current situation – US, Asia, Latin America
 - Research Call between AT – Shanghai (China) on Nanoscience and Nanotechnology
 - SIINN ERA-NET for EU MS and US on potential risks of ENM for environment, human health, and safety
 - EU-Brazilian NANoREG collaboration
 - EU-Korea; EU-Japan
 - ASIAN NANOSAFETY
- Needs
 - A task force for establishing the nanosafety services market?
 - Taking lessons from other risks?



Current bottle-necks (hindering large access to the market)



1) Occupational safety:

- sustainable marketing requires that employees and employers are confident in the safety of the process
- Emerging IARC CNT classification – signal to actors

2) Public safety:

- sustainable marketing requires that consumers are confident in the safety of the products
- See above for IARC (human health/carcinogenicity)

3) Environment



Actions proposed

Networking

Benchmarking

Data collection

Reporting

Communication

Standardisation

Certification

Assistance to newcomers

Feedback for fixing next research priorities

Assistance to regulators

Training

Certification of skills



Expected outcome

**Guidance to market actors
(industry, public authorities)**

Best practice

Standards, technical approvals

Environment protection

Operational certification systems





Next steps (2015)

- Propose an EU-funded CSA topic bringing together the investment member states have done to build, staff and operate nanosafety management platforms and institutes
 - The timeline is to get the topic published end 2015 and the action operational end 2016
 - The aim is to use this CSA to develop further actions
- The platforms provide services and support for stakeholders (e.g. industry, governments, researchers etc.) to create in a sustainable way marketable, societal approved products and goods.





SENN2015

International Congress
on Safety of Engineered
Nanoparticles
and Nanotechnologies
12-15 April 2015,
Helsinki, Finland

JOIN US IN THE DIALOGUE ON NANOSAFETY

The Congress is organized by the
Finnish Institute of Occupational Health

www.ttl.fi/senn2015

e-mail: senn2015@ttl.fi



Finnish Institute of
Occupational Health



Nanosafety
Research Centre





Closer to the Market Roadmap

Contact

Kai Savolainen: Kai.Savolainen@ttl.fi

Sonja Hartl: Sonja.Hartl@bionanonet.at



Finnish Institute of
Occupational Health



Nanosafety
Research Centre

