Closer to the Market (CTTM) Roadmap

NanoSafety Cluster; October 7, 2014, Syracuse, Italy

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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

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Building capacity for formalisation of jobs

- Risk monitoring
- Risk control
- Risk prevention
- Risk mitigation

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Building capacity for formalisation of skills

- Standardizaton
- Education
- Training
- Certification

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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

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International cooperation

- What is the current situation – US, Asia, Latin Amerika
  - 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 collabotion
  - 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 new-comers
- Feedback for fixing next research priorities
- Assistance to regulators
- Training
- Certification of skills

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Expected outcome

- Guidance to market actors (industry, public authorities)
- Best practice
- Standards, technical approvals
- Environment protection
- Operational certification systems

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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.

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SENN2015

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

The Congress is organized by the Finnish Institute of Occupational Health

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Closer to the Market Roadmap

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