

**NanoSafety  
Cluster**



# Closer to the Market (CTTM) Roadmap

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# Introduction

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

new technology application → **regulation** → RRR

Development of new rules/practices → **solid scientific knowledge**  
→ **Coordinated contributions from science community**

Safety of a technology → market itself



# Closer to the Market – Scope

## Support the commercialization of new technology

to support the market related aspects by

- providing the technology,
- skills, and
- processes,

necessary for **science-based best NanoSafety practices** in industrial and commercial activities, for sustainable creation of marketable, and for society approved, products, goods and services



# Closer to the Market – Scope

## Support the commercialization of new technology

Setting minimum requirements for

- jobs,
- skills and
- tools

# Building capacity for formalisation of jobs

Risk monitoring

Risk prevention/ Risk minimization

Risk mitigation

Risk communication

- Monitoring of Exposure (benchmark levels)
- Epidemiological studies (using harmonized protocols)
- Data combination of hazard and exposure → Risk assessment → **“safe and/or tolerable”**
- Safety-by-Design
- Control mechanisms and measurements
- Best practice



# Building capacity for formalisation of skills

Standardization

Education

Professional Training and Certification

- Documents on requirements, specifications, guidelines or characteristics
- Informed public
- Workplace safety

# Building reliable tools for nanosafety at work

Risk management model

Safety Data Sheets

Occupational Exposure Limits (OELs) and Tox Reference Values (TRVs)'

- Test, validation and dissemination
- Risk Management Model (RMMe)
  - Occupational Exposure
- Detailed information on health & safety
- Exposure to workers and population
- Translation of scientific data



# Organisation/Inventory

The challenge of managing safety may be 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. EHS-Advance, Nanocentre, NanoHouse, INERIS and CEA,...





# International cooperation

examples of cooperation potential with USA, Latin America, Australia, China

- United States: Community of Research [EU/US-collaboration in the frame of SIINN ERA.Net / ProSafe?]
- Latin America: NMP-DeLa and NANoREG collaboration
- Australian Initiatives: NICNAS; ARC Centre of Excellence in Convergent Bio-Nano Science & Technology
- China: dedicated research calls between certain countries (e.g. FIN, AT, UK, etc.) with China on Nanoscience and Nanotechnology, also addressing NanoSafety

Join forces with NANoREG in building up international cooperation...

## Cooperation expectations to be collected...

- Industry and market view
- Governmental view
- Science view
- European Commission's view



## Fields of Activities

Networking

Assistance to new-comers

Benchmarking

Feedback for fixing next  
research priorities

Data collection

Assistance to regulators

Reporting

Professional Training and  
Certification

Communication

Certification of skills

Validation and  
Standardisation

Pooling funding/ressources  
and international collaboration



## Expected outcome

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

**Best practice**

**Standards, technical approvals**

**Environment protection**

**Operational certification systems**

- SCCS, ECHA, REACH, EFSA, OECD...

1. Tier: Overlook
2. Tier: Closer-Look
3. Tier: Specific Guidance

## Next steps

- Spring 2016 – submission of a CSA-project
- Mid 2016 – project start
- End 2016 – preparation of Research- and CSA-topics for the Dec. 2016-call and next calls, addressing the bottlenecks.

Propose an EU-funded CSA topic bringing together the investment member states have done to build, staff and operate nanosafety management platforms and institutes



# Your Key to the Austrian Research Community

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