Designing a sustainable European Centre for Risk Management & Safe Innovation in Nanomaterials & Nanotechnologies (EC4SafeNano)

Risk management, Context and objectives

- Risk management for a Safe innovation needs that we:
  - **Understand** risks and benefits → assess risks
  - Identify and **implement** risk **reduction strategies** → manage risks
  - **Communicate** on residual risks → accept remaining risks

- **Huge knowledge** on characterization, hazards, diagnostic (science)
- **Little effective use** of it for operational risk management (expertise)

- **Objectives for an effective Risk management implementation:**
  - **Bridge the gap** between research and application (public, private),
  - **Bridge the gap** between knowledge on risks and risk management,
  - **Balance** between Science and Appliance

  *in a sustainable way:*
  - building Efficient & Sustainable process
  - building harmonized & shared expertise
  - at EU scale but internat. connected
Context: Recommendations made by Closer to the marker roadmap (CTTM)
Andreas Falk, Christa Schimpelet al. Roadmap (CTTM), 2016. @ www.nanosafetycluster.eu

- **Aim:** Market implementation of scientific knowledge:
- **Objective:** Solid operational knowledge: scientific expertise & datasets

  - **Way:**
    - Dialogue between science, industry, public bodies, civil society
    - Inclusive European approach + strong global interaction
    - Bundling activities: Hub of best-practice & national networks

- **Outcomes:**
  - Easy-to-apply safety thresholds
  - Benchmarking of skills and jobs
  - Alternative solutions with discussions.
  - Harmonized tools and methods:

  ➔ Needs a clear risk and safety framework
EC4SafeNano at glance

CSA NMBP27-2016 → Consortium & Support Action build sustainable network in the framework of enhancing nanosafety expertise at EU level

Dates: 1st Nov. 2016 to Oct. 2019
Budget: EU funds 2 M€

15 Partners (13 MS) 44 Associated partners (21 countries) an large IAB

EC4SafeNano will promote a harmonized vision of expertise in risk assessment and management for the public and private sectors to enable the safe development and commercialization of nanotechnology.

EC4SafeNano objective is to gather stakeholder needs so as too knowledge and tool available to build harmonized services in risk assessment and management, but also to define a sustainable governance of such structure and demonstrate its efficiency on some case studies.
EC4SafeNano, a large Partnership

44 Worldwide Associated Partners … Still Open to interested parties

15 EU EC4SafeNano Partners the core Group

MS National hubs Existing & new initiatives
EC4safeNano Concept, gathering needs and knowledge

- A Core group of experts providing support for both public & private sectors
- A large group of stakeholders including service providers and end users
- Gathering needs, tools and resources from:
  - Research centres, universities
  - Industries, organisations
  - Technological Centres
  - Society, NGOs, Policy makers...
- Gathering and building harmonised expertise for:
  An operational use in risk assessment and management
EC4SafeNano, an expertise building & delivery structure

Knowing
- All Needs from stakeholder → map of the demand

Gathering
- All Available expertise, resources & facilities → map resources

Developing
- Good practice & technical contents, training prog → Build services
- Advice on the development, implementation and harmonization of expertise
- Enhance access to expertise, capabilities and infrastructures
- Give Feedback on research needs to enhance the operational expertise

Providing
- The capabilities offered at EU level, supported by benchmarking exerc
- Building a governance for upgrading these capabilities → Build a structure

For:
- Member States (MS), EC and EC Agencies
- Industry, safety providers, training org.,...
- Civil society (NGOs, groups of citizens)
### EC4safeNano, Main Actors – Roles & involvement

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>A core team</strong></td>
<td>A core team comprised of public (or public-oriented) organizations already providing support to all stakeholders in the field of risk management.</td>
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<tr>
<td><strong>An enlarged community of Associated Partners</strong></td>
<td>An enlarged community of Associated Partners through the creation of 5 Focus Networks around common interests and activities.</td>
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<tr>
<td><strong>A network of national platforms and international networks</strong></td>
<td>A network of national platforms and international networks, to ensure sharing of information, best practices, tools, from the global to local scale. Some of the national platforms are expected to become national hubs that could mirror the European hub at national level.</td>
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<td><strong>An organization capable of managing access to data and knowledge</strong></td>
<td>An organization capable of managing access to data and knowledge through a collaborative model for the operation of the Centre. The key points will be to define a legal entity, establish governance and operating procedures.</td>
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<tr>
<td><strong>A demand-driven Centre</strong></td>
<td>A demand-driven Centre providing the best resources and capabilities available to address the needs of stakeholders.</td>
</tr>
<tr>
<td><strong>A Sustainable Open Alliance (Centre)</strong></td>
<td>A Sustainable Open Alliance (Centre) of organizations, able to gather, structure, harmonize and enhance the overall expertise in risk assessment, risk management, environmental assessment and safe innovation.</td>
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</table>
EC4SafeNano, main Actors and hubs

EU Center – HUB
- Core incl. 28 heads of national hubs
- Associated partners

Cross links

EC4Safe Nano

EU
- Platforms
- Federations
- Agencies
- Indiv. Organiz
- Others

EU Country i
- National HUB
- Other national Platforms
- Federations
- Agencies
- Indiv. Organiz
- Others

International
- Platforms
- Federations
- Agencies
- Indiv. Organiz
- Others

Focus Networks
- Research
- Policies and regulations
- Education and training
- Standardization and certification
- Technological innovation

Chair
Chair
Chair
Chair
Chair
EC4SafeNano, Project general description

**STEP 1: Knowing the needs and the resources**
- **WP1**: Identifying what knowledge, tools and services stakeholders (private & public) require to safely manage nanotechnology
- **WP2**: Mapping the available resources addressing Risk management and Safe innovation

**STEP 2: Developing and testing of the services**
- **WP3**: Building the services the various market actors (private & public) require to safely manage nanotechnology
- **WP4**: Testing the capability to deliver services and benchmark

**STEP 3: Creating the sustainable structure**
- **WP5**: Towards sustainable activities (implementation, exploitation and business plan)

**NETWORKS**
- **WP6**: Networking platforms and engaging stakeholders, dissemination
A Joint calls associated to EC4SafeNano, for what?

- Test / demonstrate the services built by EC4SafeNano so as to the governance for a sustainable structure
- Have the capability to develop new solutions (services, tools) to provide better expertise → outcomes of the Join call
- Help organizing/ building new expertise capabilities for MS
- Organized outside EC4SafeNano but in liaison with EC4SafeNano
- Under Funding from all interested stakeholders (MS agencies, ministries, consortia, organizations…)

Target objectives:

10 funding entities for join call of few M€ funds, ready to be launch mid 2017 & engaged beginning 2018
A Join call to enhance the outcomes & feasibility demonstration of EC4safeNano

- Mapping of Needs
- Identification of needs and interested parties
  - Funding sources needs
- Selection of relevant topics for service delivery demonstration
  - Funding entities rules for appliance
- Launch of the joint calls
  - Sci. Comity and funding entities
- Evaluation of proposals answering the joint call
  - EC4SafeNano outcome
- Contract preparation, project evaluation
  - Join Call coordination
- Monitoring the performance of the project and the joint call
  - EC4SafeNano gouvernance demonstration

EC4SafeNano Coordination

Feasibility Demonstration

EC4SafeNano rules

EC4SafeNano outcome
EC4SafeNano Final remarks

The principle, definition & feasibility demonstration of an European Centre for Risk Management & Safe Innovation (EC4SafeNano) will be made, thanks to:

- The commitment of well recognized organizations
- The involvement of a large community of stakeholders
- All together

- To better identify the needs and the Sci. & Tech knowledge
- to build an efficient & reliable expertise on nanosafety to achieve the smarter decisions for risk assessment, risk management and safe innovation
- To build sustainable principles for a Centre going beyond this funding EU opportunity and operating for years
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