Perceived risks of nanomaterials and nano-related products

A multinational, mixed method approach was used to consult different stakeholder groups from industry, insurance, research and policy-oriented and civil society organisations, and as well citizens on risk awareness and perception on nanomaterials and nano-related products. The six top risks domains emerged by the consultation cover public, worker and animal health, environmental, economic and ethical and social aspects.

All stakeholders are well aware of Environmental, Health and Safety issues (EHS) and social, ethical and legal concerns/aspects (ELSA) posed by nanomaterials and nanotechnology development in all the application sectors of nanotechnologies. However the level of risk perception varies amongst the different categories. User and society representatives are well aware about the potential impact of NMs, especially the potential adverse effects on worker health, animal health and the environment as all the other involved stakeholder groups. Citizens are asking for information and regulation for safe handling, use, and disposal of NMs and nano-enabled products, in particular for products which may come into contact with the skin or can be inhaled.

Perception of risks (on a scale of 1-very low to 5-very high) deriving from production/use/disposal of NMs and nano-products (Delphi Survey).
Researchers and Industry have high awareness of issues related to workers’ and environmental health, while policy makers and regulators are the least concerned. The development of nanotechnology is considered as a significant opportunity for improving products and systems by almost all the stakeholders. However, the perceived uncertainty on their potential risks is seen as a limit to their penetration in the market.

Which risks are most perceived related to nano-products?

The highest level of risk perception of both the society representatives (Delphi Survey) and citizens (focus groups and online survey) is related to nano-products in direct physical contact with the human body (absorbed through the skin, inhaled, ingested, etc.). These include applications in sectors such as cosmetics, clothes, baby accessories, agri-food, textile and medical products.

In general, the general public feels that the whole of society (and thus also the research community) has a strong responsibility, with a priority to avoid possible adverse effects of nanotechnology on the future generations. Access to reliable information and guidance on safe handling, use and disposal of NMs and nano-related products (sector and application specific) is considered essential by stakeholders.

This is the scope of the caLIBRAte Nano-Risk Governance Portal that will soon be available.

This fact sheet is based on caLIBRAte Deliverable 4.1: Report on workshops stakeholders’ concern assessment and 4.6 caLIBRAte stakeholders profiles: views and perspectives as the result of a collaboration between Dialogik Gemeinnützige Gesellschaft für Kommunikations und Kooperationsforschung GmbH (DE), Assosizione Italiana per la Ricerca Industriala (IT), Steinbeis Advanced Risk Technologies GmbH (DE) and National Research Centre for the Working Environment (DK)

Stay up to date with caLIBRAte at www.nanocalibrate.eu

www.nanocalibrate.eu
Keld Alstrup Jensen
kaj@nfa.dk

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under Grant Agreement 686239