Scope and Objective of the Risk Assessment CoR

**Scope**

Sharing of knowledge and expertise to harmonize and synthesize research on methods and practices for analyzing potential risks for human health and the environment associated with nanotechnology-related hazards and exposure to those hazards during the development, production, use, and disposal of engineered nanomaterials and nano-enable products along the value chain and over the course of the product life cycle.

**Objectives**

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| --- | --- | --- | --- |
| # | Description | Work Product(s) | Working Group Members |
|  | Coordinate with the Ontologies and Databases CoR on terminology and resources and enable *inputs* from the Ecotoxicology Testing & Predictive Models CoR, the Predictive Modeling for Human Health CoR, and the Exposure through the Life Cycle CoR *to be meaningfully analyzed* by methods from the Risk Assessment CoR *in a manner that supports* *informed decision-making* by the Risk Management & Control CoR, |  |  |
|  | Inventory methods and tools available for assessing and comparing potential risks and changes in risk for engineered nanomaterials and nano-enabled products (including applications such as medical diagnostics and treatment), |  |  |
|  | Match tools with end-user mission and decision needs, including the use of appropriate risk definitions, life cycle, and risk ~~and benefit~~ assessment and management tools of appropriate computational complexity, |  |  |
|  | Identify gaps among tools, data, stakeholder missions, and management need, |  |  |
|  | Review data to assess underlying physicochemical parameters and environmental conditions that can be used as predictors of nanoparticle risks, |  |  |
|  | Compare risks associated with engineered nanoparticles with those presented by materials from traditional manufacturing methods and with incidental and naturally occurring nanomaterials and evaluate associated uncertainty, |  |  |
|  | Recommend a framework for including considerations of health and environmental impacts in planning and decision-making for the production, use, and disposal/recycling of nanomaterials and nano-enabled products, |  |  |
|  | Recommend methods for calculating risks that allow for the ability to assess associated uncertainty as well as adapt and update risk estimates as new information becomes available or as stakeholder mission and decision needs change, and |  |  |
|  | Identify steps forward required to produce comparable risk calculations within a defined context or mission. |  |  |

**Work plan**

Initiate focus groups to address either cross-cutting issues, specific objectives, or themes, e.g. human health risk, environmental risk, or epidemiology. The output of the focus groups and their associated time lines might be different, e.g. harmonization of methods and tools, white papers, position papers, example methods, or recommendations for research, etc.