Critical analysis after 2 years of CoR activities

C. Hendren, N. Baker, H. Selck, T. Van Teunenbroek and all CoR chairs

Objective:
Recommendations for how to best move forward

CoR purposes:
• Networking (to be further broadened and strengthened)
• Agreement on value of purposes beyond networking but...

... Challenges:
• Resources limitations;
• Lack of clarity in specific purposes, CoR products, near to long term roadmaps;
• Coordination and awareness between CoRs
Recommendations (I)

Necessary conditions to enable forward momentum:

• Centralised organisation and communication of expectations and planned outcomes
• Adapt objectives to resources availability
• Mechanisms of connecting between CoRs: realignment, regrouping of CoRs and cross-CoR activities

Propose specific goals to focus CoR activities:

• Define specific CoR aim
• Define short to long term goals & roadmap
• Annual Progress Report
Recommendations (II)

Mechanisms of connecting between CoRs:

Cross-CoR activities

- NanoEHS Scrimmage activity → will provide further insight on how the CoRs should advance and set goals

Re-alignment and regrouping

- New CoR on Characterisation
- Group modelling efforts with database and ontologies
  - *How? Two strongly linked sub-groups?*
- Refocus Human Toxicity with experimental scope (e.g. biouptake and bioaccumulation, testing, systems biology approaches)
  - *Chairs?*
Proposed CoR re-alignment

1. Risk Management and Control.

2. Risk Assessment

3. Human Toxicity (including biouptake and bioaccumulation, human tox testing, and systems biology approaches)

4. EcoToxicity (including biouptake and bioaccumulation, eco tox testing, and systems biology approaches)

5. Exposure Throughout the Lifecycle (Including nanomaterial release, transport, transformation studies, through to bioavailability estimates)

6. Databases and Computational Modeling for NanoEHS

7. Characterization COR (including material characterization, associated system characterization, protocol development, and linkages with domain expertise CORs)
Recommendations (III)

Suggestions for CoR activities:

• Author a peer-reviewed journal publication discussing harmonization of methods, as a pre-standardization activity that would transparently present future needs.
• Author one or more proposed program announcements outlining harmonization activities for potential adoption by research funding programs in the US and EU.
• Author one or more focus paper(s) or peer-reviewed journal publications on status, state-of-the-art and research gaps within CoRs.
Recommendations (IV)

Other considerations:

- CoR Chair rotation every 2-4 years, with a steering committee including representatives from industry, academia and governments.
- Geographical membership scope: active widening would be valuable but strategically risky because of practical limitations. CoRs and workshop open to all though.
- Administrative support: support provided by Stacey praised by all. More "Stacey's" would be very beneficial.

The future:

- Networking of nanosafety (excellence) centres
- Safe-r by Design