

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