US-EU Risk Assessment Community of Research

Breakout Group Summary

Tuesday December 3rd 2013

Co-Chairs: Derk Brouwer and Mark Wiesner

Leadership Team: Christine Hendren

Risk Assessment CoR Progress

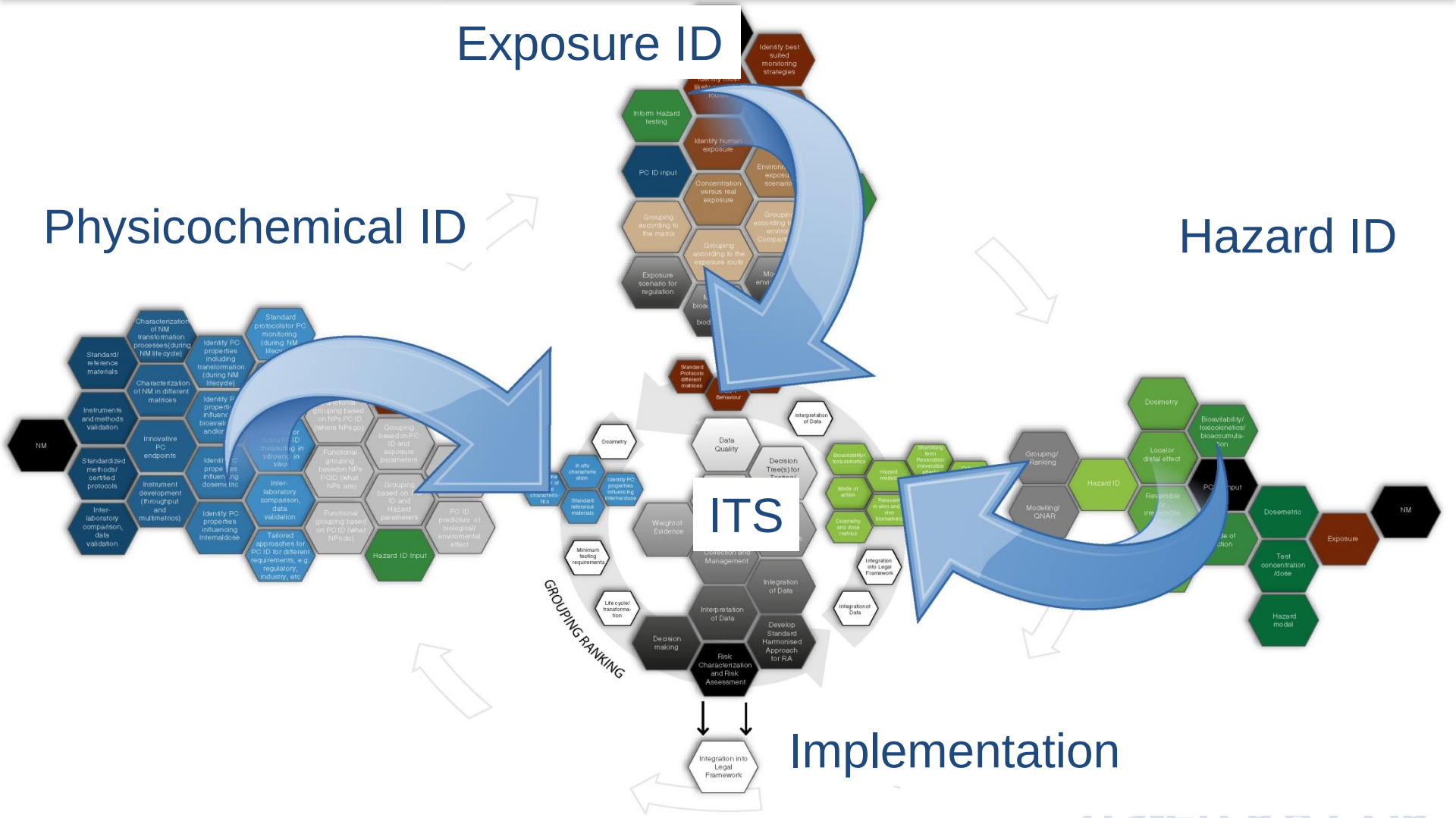
Focus was on identifying **priority** issues to address and engage with as a community.

1. Tour de Table – gathered priority nominations from all attending members, heard a few slides from each about corresponding projects.

2. Heard 4 presentations of current risk assessment frameworks/approaches: 2 from EU, 2 from US.
    1. Lang Tran – MARINA
    2. Janeck Scott-Fordsman – ITS-Nano
    3. Mark Wiesner – National Research Council
    4. Christine Hendren – CEINT Risk Framework

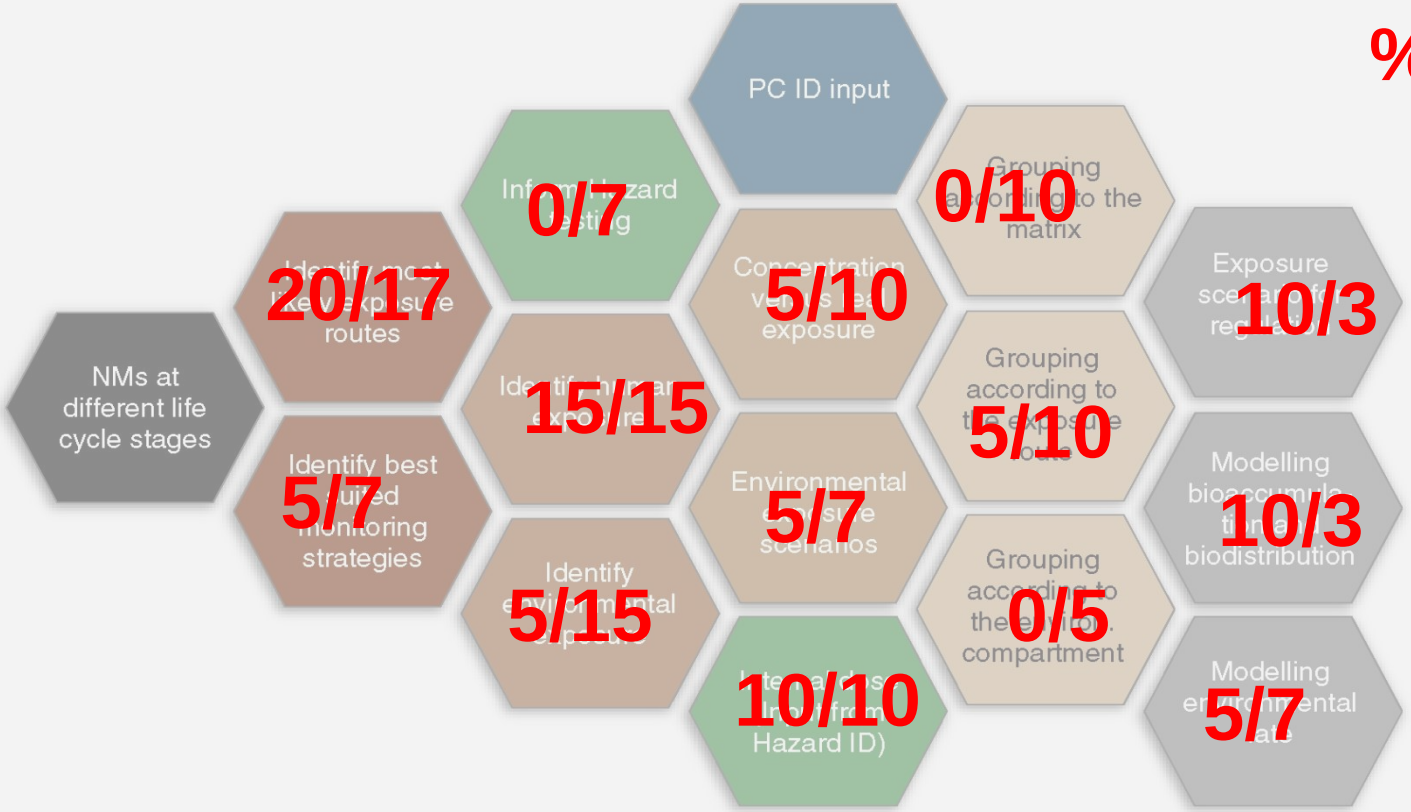
3. Voted on priority areas and discussed directions going forward.

ITS-NANO Research Prioritisation



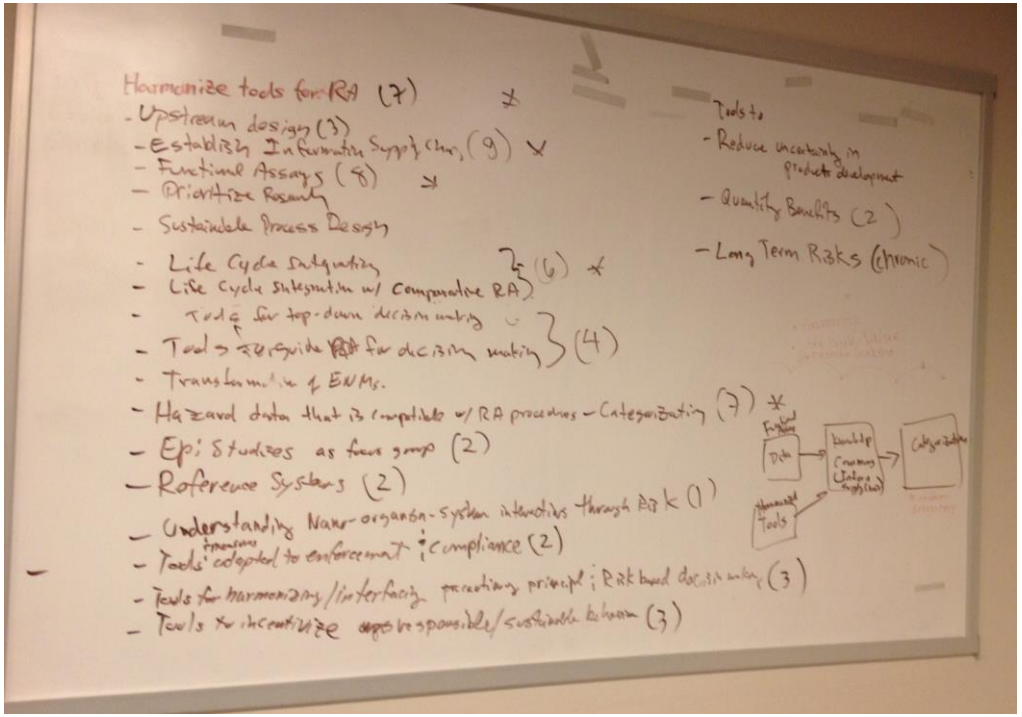
Physicochemical Priorities

Exposure Priorities

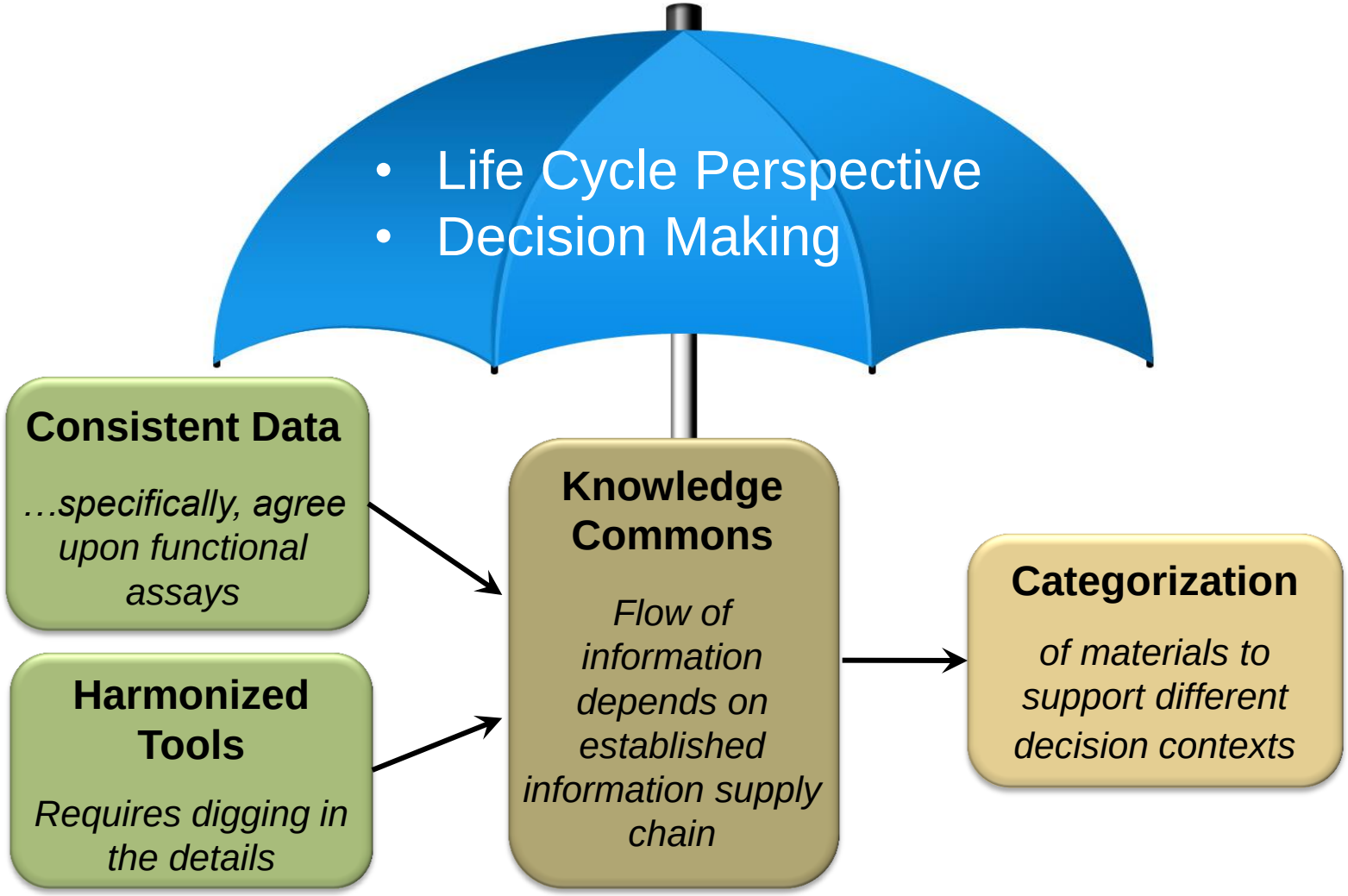


Hazard Priorities

US-EU Bridges



RA CoR Priority Roadmap



Tour de Table

Priority Area	Votes
Establish information supply chain	9
Functional Assays	8
Harmonize tools for risk assessment	7
Categorized hazard data that is compatible with RA procedures	7
Life cycle integration with comparative risk assessment	6
Top down tools to guide decision making	4
Upstream design	3
Tools for harmonizing/interfacing precautionary principal & risk based decision making	3
Tools to incentivize responsible/sustainable behavior	3
Epi studies as a focus group	2
Reference systems	2
Toos and measures adapted to enforcement and compliance	2
Quantify benefits	2
Understanding nano-organism-system interactions through risk	1
Reduce uncertainty in product development	consolidated
Testing strategies for long-term (chronic) risks	consolidated
Sustainable process design	consolidated

Development of top down decision analytical tools to support various decision contexts:

- Upstream decisions to support sustainable product design
- Upstream decision to support sustainable process design
- Risk-benefit trade-offs (including cost considerations)
- Screening, grouping, ranking of risks

Identify/Develop tools to gather and package information sufficient to support various decisions:

- Identify tools for reducing uncertainty
- Identify tools adapted to enforcement and compliance (regulatory structure)
- Identify tools to quantify benefits
- Categorize hazard information for higher utility (screening? Grouping? Ranking?)

Fundamental Knowledge Development:

- Agree upon consistent functional assays; parameters that describe interactions between materials and systems that can be used to predict risks
- Agree upon reference systems and associated meta-data that we will test materials in for consistency
- Focus on relevant transformations and scenarios

Pervasive Commitment to Value Chain and Life Cycle Perspectives:

- Develop details on what it looks like to incorporate life cycle perspectives in risk assessments
- Consider LCA in upstream design decisions of products as well as processes

Conceptual/Philosophical Framing

- Understanding interactions within nature as a baseline;
- Identify tools for harmonizing/interfacing precautionary principal & risk based decision making
- Dependent on data emerging from other areas – must clarify information supply chain to articulate our own COR scope and hand-offs from and to other CORs
  - ☞ E.g. Need chronic, long-term ecotox data
- Need to focus on case study problems – possibly EPI studies?

Idealized Information Supply Chain