

Responsible research and innovation within the global nanotechnology community

Keld Alstrup Jensen ¹ & Khara Grieger ²

¹ Professor, National Research Centre for the Working Environment (Denmark)

² Assistant Professor, North Carolina State University (USA)

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- Introductory remarks – 5 min.
- Speakers – 2x20 min.
 - Steffen Foss Hansen (Technical University of Denmark)
 - Diana Bowman (Arizona State University)
- Open Q&A and Discussion – 10-15 min.

Introductory Remarks

Responsible development and innovation of nanotechnology

- Responsible innovation begins at the start
 - Assess potential unintended consequences and benefits
 - Engage and involve stakeholders and assess their concerns and acceptance
 - Nano- governance strategies relied on top-down and bottom-up approaches
- Nanotechnology as test case for governance of other emerging tech

Introductory Remarks

- Shift in research and governance over time
 - Initial: Governance of risk (i.e. workers, consumers, environment)
 - Shift to: Governance of innovation, including safe-by-design, social and regulatory dimension
 - Focus now: Safe-and-sustainable-by-design, circular economy
 - EU: test of framework, applicability of methods, transparency, data sharing
 - US (cont.): sector specific research (e.g. nano-sensors, pesticides) across agencies
- Challenges to move RRI and SSbD from substances into products

Introductory Remarks

- “Nano-lessons” learned relevant for research in other emerging tech?
 - Separate research for decision-making from science/knowledge acquisition
 - Improve time and cost estimates for risk assessment research
 - Handle uncertainties more effectively
 - Facilitate data sharing across stakeholders while ensuring privacy
 - Develop fit-for-purpose risk analysis tools tailored to specific needs



Speakers



Steffen Foss Hansen

Associate Professor, Regulatory Engineering, Technical University of Denmark

- Risk analysis and governance of nanotechnologies and emerging materials and technologies
- Decision-making tools under scientific uncertainty

Diana Bowman

Associate Dean for Applied Research and Partnerships, Professor of Law, Arizona State University

- Governance and regulation of innovation, to enhance creativity, improve public health, and stimulate deliberation of the ethical, legal, and societal dimensions of emerging technologies

Q&A