Rhetorical Shifts, Strategies and Institutionalised Systems of Meaning in the Emergence of the UK Regulatory Regime on Nanotechnologies

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„Nanotechnology Governance Compared",
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1. Argument

How was nanotechnology constituted as an object of governance? On the one hand why on the risk agenda at all, on the other hand why not openly controversial.

Argument

- 2004 Royal Society and Royal Academy Report & subsequent government reports → drew problem definition within risk regulation

- "Responsible Development of Nanotechnologies": wider and more universal socio economic and political demands of technology development were excluded from the debate; Integration of Opposition

- Governance through uncertainty: open, non-defined, a technology in search of its political space

- Within risk regulation debate - normalising of nanotechnology

2. Theoretical Approach:
Poststructural Policy Analysis

- Theory

Regime

structuration   hegemony

Social   Political
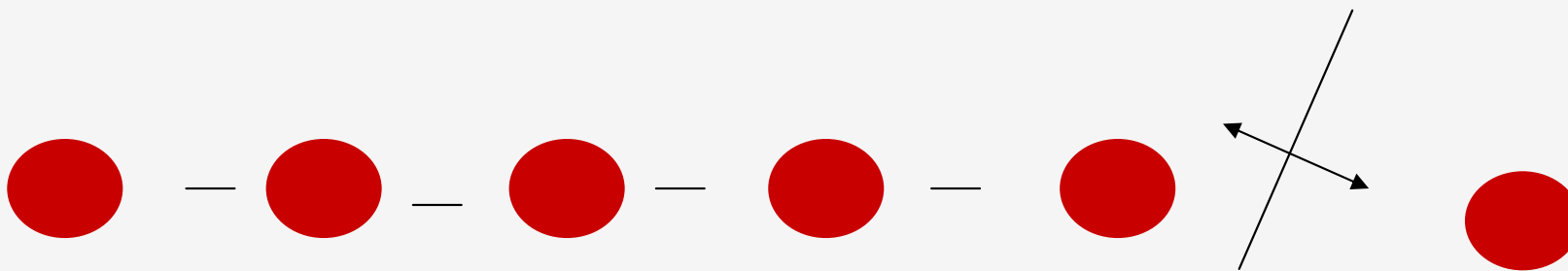Practices   ⟷   Practices
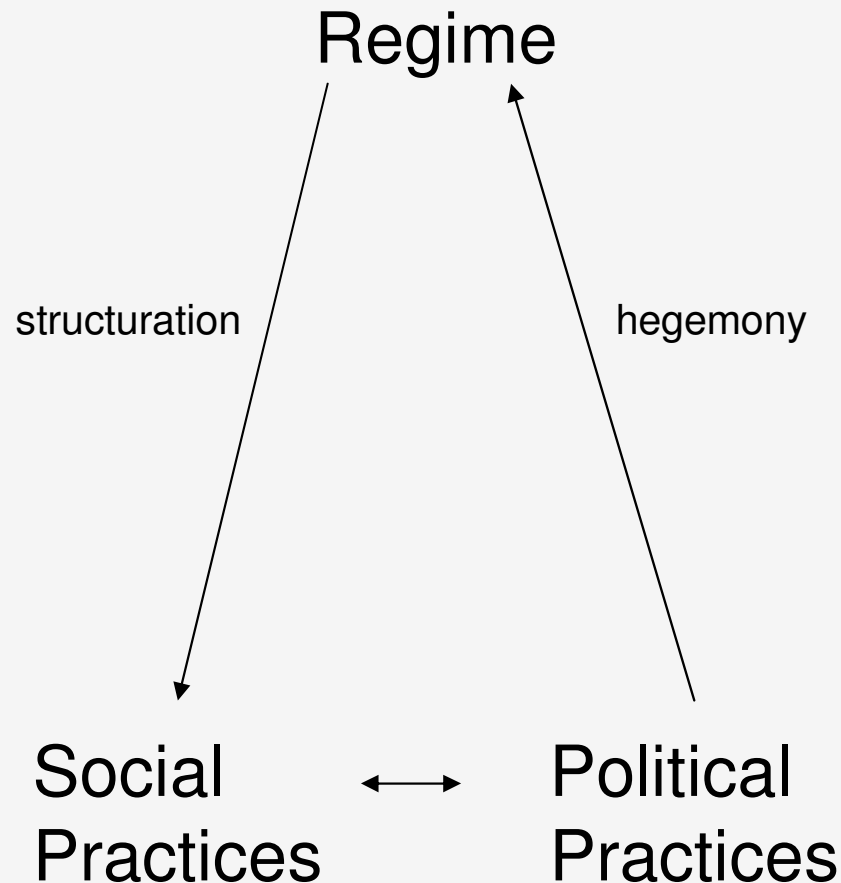
- Social logics grip social practices

- Political logics explain the institution of the social

- Fantasmatic logics account for why political logics signify

3. Theoretical Approach:
Poststructural Policy Analysis

Theoretical Assumption: conditions under which governance takes place characterised by disagreement about means, ends and what the policy problem actually is.

→successful governance must bind at least some of these things together; integrate opposition instead of excluding it.

4. Poststructural Policy Analysis

- The practices that define nanotechnologies and set the boundaries of problem definition are located in government departments, laboratories, scientific journals, research councils, government, parliamentary, coordination groups and the media .

- Data generated at these sites in policy documents and interviews

- Demands played out through rhetorical shifts; logics of equivalences and differences, e.g. analogies, metaphors; arguments, naming, stories.

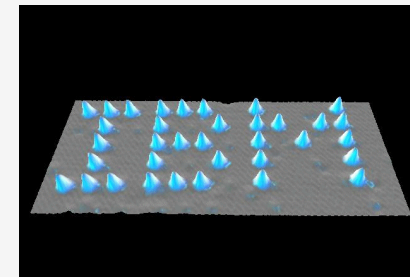# 1980s to 2002: The Rise of Nanotechnology

- Nanotechnology

2002 Taylor Report – New Way of Thinking

1996 POST report shift to future

LINK

1986 precise measurement

Demand: Catch Up!

Year 2003 – Nanotechnology Politicised

- **Demands for innovation, investment, funding**

Actors

- Dep. for Trade and Industry, House of Commons Science & Technology Committee, Foresight Panel, Scientists, National Physical Laboratory, Institute of Nanotechnology
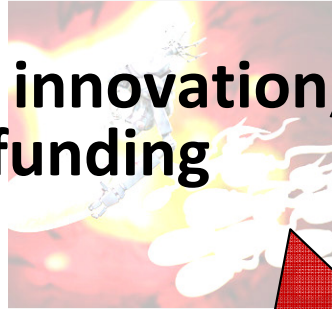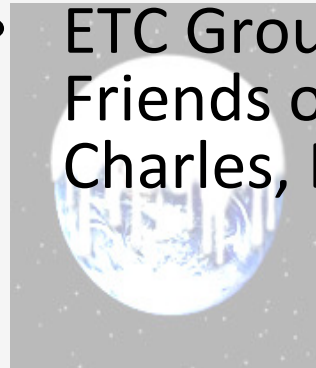
- **Demands for the control of technological development, concerns about human enhancement, surveillance, negative effects on environment**
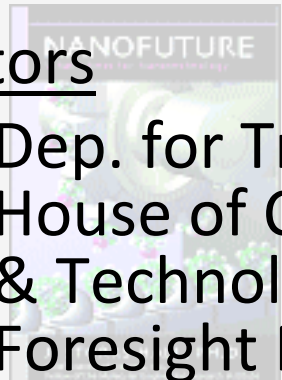
Actors

- ETC Group, Greenpeace, Friends of the Earth, Prince Charles, Bill Joy

LIFE · SCIENCE · GOVERNANCE

"Science Fiction" versus "Real Science"

- *"The pressure originally came from the Prince of Wales to be honest. He said something he read that book about grey goo, you know, and I think he made some, I think, rather ill-considered remarks in public. And the Royal Society and the Royal Academy were under pressure to respond to that. So, one of the first things we had to do was to point out that this was complete nonsense. It was on the same level with being afraid of dinosaurs because you've read Jurassic park, okay?"*

(Interview Quote, Member of the RS/RAEng working group in 2003/2004)

2004 "Responsible Development of Nanotechnologies"

- July 2004, Royal Society and Royal Academy of Engineering Report "Nanosciences and Nanotechnologies: Opportunities and Uncertainties"

- Holistic report but focus on free engineered nanoparticles

- Government: demand for coordination, integration in governance (stakeholder, public engagement)

- Defra, Environment Agency, DIUS - demands: evidence gathering, filling the knowledge gaps; UNCERTAINTY, BALANCE

- Challenged by Discourse Coalition "Action now possible" – Best Practice Guidelines, Voluntary Measures, Adaptive Management

Uncertainty Played Out - Rhetorical Shifts in the "Risk Regulation"-Agenda

- Engineered Free Nanoparticles

- New - not new/nature

- Analogies e.g. Carbon nanotubes: the new asbestos?

- Nanosilver

Lycurgus Cup

Conclusions

- Theoretical assumption that the conditions under which governance takes place are characterised by disagreement about means, ends and what the policy problem actually is.

- With nanotechnology, this is all very much an ongoing process.

- Constant shift between uncertainty and risk maintains this openness, e.g. constant restructuring of the debate, ambiguity of "responsible development of nanotechnologies"

- Nanotechnology governance as a political experiment which tries to keep the governance process open, to allow for plurality and motion