

# **Future potential - potential futures: The manifold challenges of participatory technology assessment**

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# Obsessed with anticipation?!

- Investment into developing methods and techniques of anticipating futures is not new
- Has strongly intensified over the past decade; in particular, emerging technoscientific fields (e.g. nanotechnologies, ICT) are deeply entangled with future economic and social visions
- future potential of technoscience is increasingly equated with potential (promising) futures
  - Proliferation of national and supranational Action Plans to attain such imaged futures
  - Growing efforts to do assessments about such futures
- “Technologies of hubris” (Jasanoff 2003): “reassure the public, and to keep the wheels of science and industry turning .... develop a series of predictive methods ....”

# The objectification of future

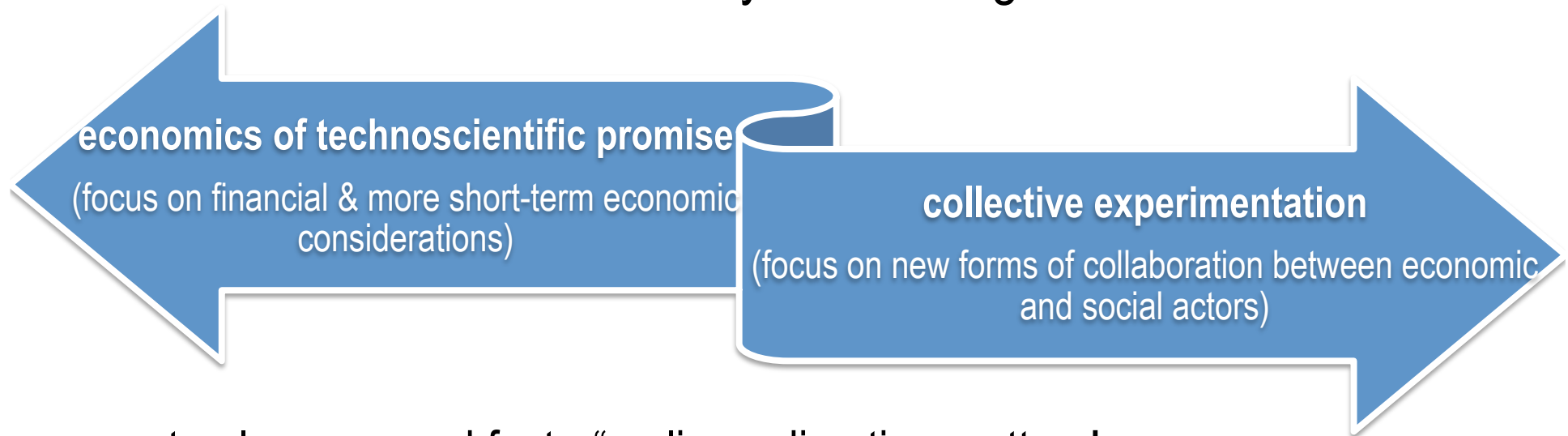
- in the policy realm “future” is increasingly treated as *object* → attach importance of its production and distribution
- Yet, the meaning of the very notion “future” when looking at participatory contexts often remaining obscure
  - a moment in time (event, accident, ...)
  - a specific time-spans which lie more or less ahead (“next-generation talk”; “Innovation Europe 2010”)
  - specific lines of development which extend from the present and flow from a past → imagination of a repetition of structure („learning from history talk“)
  - choice between different futures vs. thinking in variations of one future
  - ...

# Participatory turn: „our future – our assessment?“

- Participation to ‘repair’ science-society relations seen as damaged or too fragile
- Strongly followed the rhetoric of democratisation  
*e.g. “Inventing our future together” (ERA Green paper 2007)*
- model of an “disciplined democracy” – people can only participate if they are educated first

# (Re)-conceptualising Innovation

two ways of thinking



- not only „more and faster“ policy – direction matters!
- distributedness of innovation, multiple actors and routes to what can be considered as success → promoting diversity
- move away from focus on the “3% target” as such to *what is performed* with these 3%

# The politics of anticipation

WHO ?

machineries for making publics

WHEN ?

moments and time frames

WHERE ?

places to speak from

HOW ?

Product or process

# WHO? – „Making publics“

- publics are not „simply out there“, but get formed and performed – as ordinary citizens, stakeholder, patient groups, consumers, ...
  - e.g. survey on attitudes; question: “science makes our ways of life change too fast”; the analysis of the answers to these questions runs as follows: “Women, the oldest populations, those with the lowest level of education, manual workers and persons living in rural areas are the most numerous to feel this way.” (Eurobarometer 2005: 66)*
- „the public“ is often reduced to being one stakeholder among others and narrowed down to specific invited mini-publics, which have to conform to policy makers’ expectations of ‘citizens without prior interests’ in order to gain credibility in the political process
- Important distinctions that matter
  - Invited/uninvited participation (Wynne 2008): who is a legitimate voice of society? Who gets silenced through such exercises?
  - Public/private arenas: issue of access and visibility;
  - Citizens/stakeholders: model of representation for society

# „WHEN? Moments and time frames

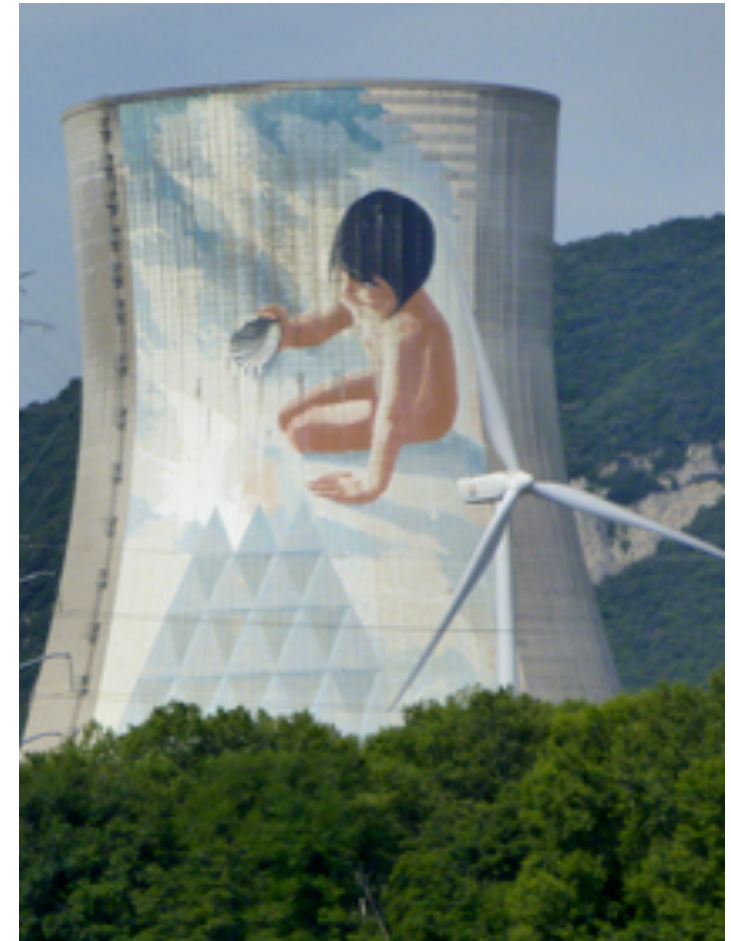
- General debate:
  - participation too far ‘downstream’ in innovation process → risks of particular products or applications are the focus, but no broader issues and societal choices
  - innovation governance should take place more up-stream where research trajectories are still open and decisions concerning reorientations are still amenable
- Problem: these two ideas blend and people are asked about at a very early point in time
- Critique of the very concept of up-stream engagement: buys into the idea that innovation is a „stream“ and one could simply decide where in the flow to best take the „right decision“



# Where? places to speak from

Place matters in at least three ways:

1. ***technopolitical cultures***: way in which national identity is entangled with specific forms of technoscientific development; that in turn frames the way citizens build their individual and collective positions towards these developments (Felt et al. 2010)
2. ***Sociotechnical imaginaries***: “imagined forms of social life and social order reflected in the design and fulfillment of scientific and/or technological projects.” (Jasanoff/Kim 2009)
3. ***Concrete conversation sites***: where participants meet to perform technology assessment exercises as well as how the conversation is structured



Cooling tower of a French nuclear power plant

# Medialization: circulation of techno-social performances and cultural uniformization



Fukushima nuclear accident (03/2011)  
Tokyo's Governor Ishihara drinks  
publicly tap water to „prove“ that it is  
„safe“

Oil pest in the Gulf of Mexico (08/2010):  
US-president Barack Obama swims  
demonstratively with his daughter at Florida  
coasts in the gulf of Mexico



Peak of the BSE Crisis (1990)  
British Minister for Agriculture John Gummer  
eats publicly Hamburger with his daughter  
Cordelia

# How ? – „product or process“

- Asking for consensus and a clear decision vs. looking allowing for more open ended processes of deliberation
- Danger of *consensuing* (Horst/Irwin 2010): loosing out the nuances and differences at a relatively early stage in the process; building of strategic alliances set in

# Always preliminary conclusions: rethinking anticipation & participation

## 1. Adding complexity:

- moving away from the assessments taking place at one moment, one place, with one public and based on the idea of being able to domesticate future  
to
- understanding future as something that is already here, that accompanies our choices, is fluid and multiple ....; it is neither an event, a specific constellation, nor a concrete period to come, but very much a process in which the technological and the social, the material and the imaginary get interwove to make the tissue of an extended present;  
it is about novel forms of co-habitation

## 2. “living with risky systems means keeping the controversies alive, listening to the public, and recognizing the essential **political nature of assessment**” (Perrow 1984: 306) → participation is not an exit for politics to take responsibility for directions taken

# Always preliminary conclusions: rethinking anticipation & participation

3. Understanding participatory technology assessment work as a cultural work and not necessarily mainly as a technical one → essential not to focus on single results, but much more on the values, ambivalences, choices, ....  
Emerging in anticipation work → the process not the product needs to move to the centre of attention
4. „**technologies of humility**“ (Jasanoff 2003) : *„we require not only the formal mechanisms of participation but also an intellectual environment in which citizens are encouraged to bring their knowledge and skills to bear on the resolution of common problems“.*