Breaking the Boundaries: Transformative Innovation for the Global Good

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Two 'rationalities'

- Technical rationality
  - Focus on efficiency and effectiveness
  - Best technological design
  - Most sustainable solution

- Political rationality
  - Focus on barriers
  - Holding on to what we got
  - Most agreeable solution

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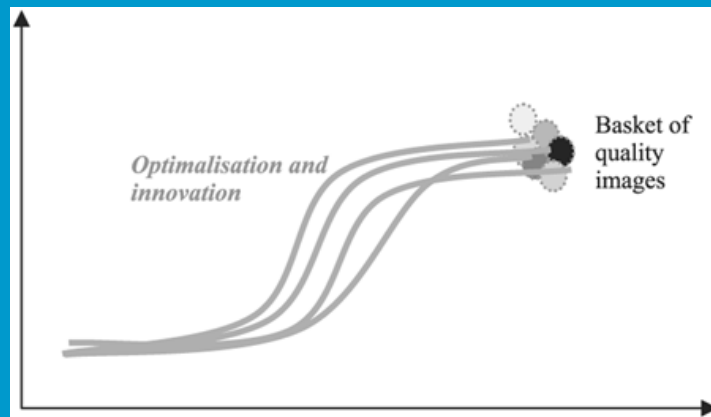# Environmental vs. Innovation policy

- Environmental policies
  - Started in the 1960s and 1970s as outsiders
  - Opponents of economic development
  - Institutionalised in 1980s and 1990s
  - Focus on pollution control and protection of the environment
- Innovation policies
  - Started after WWII, support for industry and 'big science'
  - Assumption on autonomy of market and science
  - Invention more important than innovation (linear model of technological development)

- **A sustainable society can only be reached by sustainable innovations!**
- No linear model: technological and social development are interwoven

- But how can we overcome the institutional separation of environment and innovation?

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Five principles for reconfiguring innovation policy for innovation (1)

Long-term visions   vs.   short term-actions
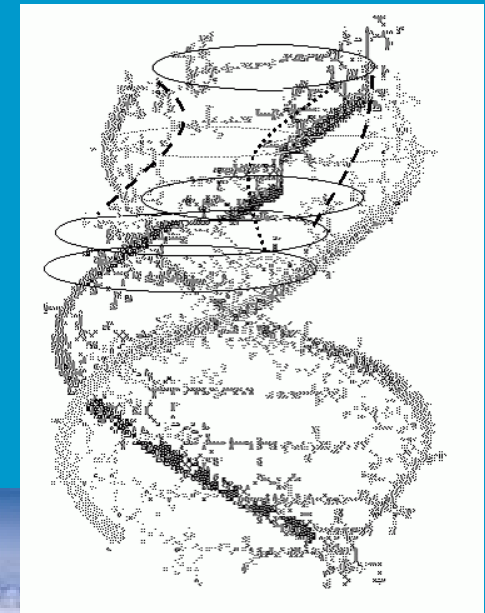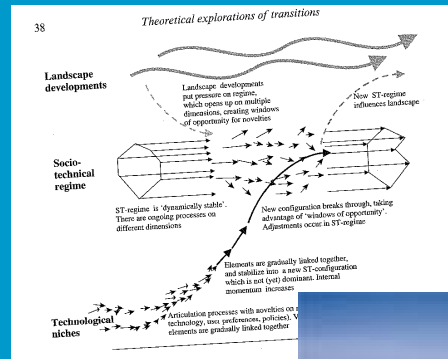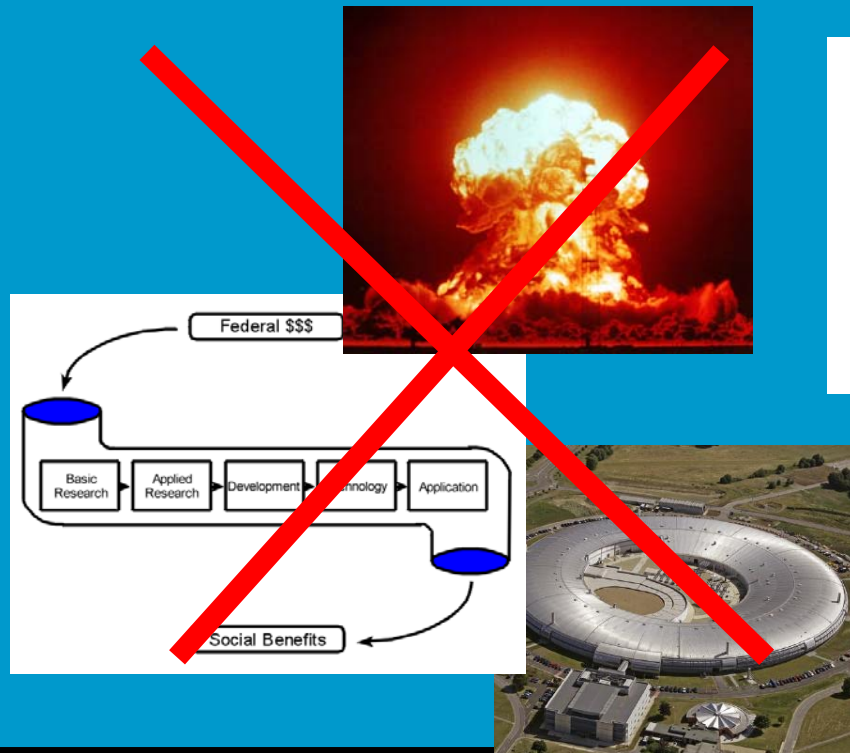(sustainability)   (politics)

Transitions

Hype-disappointment cycle

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Five principles for reconfiguring innovation policy for innovation (2)

A socio-technical approach

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Five principles for reconfiguring innovation policy for innovation (3)

The global and local

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Five principles for reconfiguring innovation policy for innovation (4)

Invention and imitation

Five principles for reconfiguring innovation policy for innovation (5)

Incumbent and emergent

What we need is…

- Effective policy integration
- Stimulating bottom-up initiatives
- Risky investments
- Pragmatic application of policy tools
- Development of stakeholder methods

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Assignments

Innovative projects:

- Green roofs

- Hydrogen fuel cell powered cars

- Sunlight to make fuel from CO_2

- Energy-producing greenhouse (Dutch)

- Carbon capture and storage

- Decentralised waste water purification (Dutch)

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Assignments (2)

- Choose topic/make group

- Identify barriers (e.g.):
    - Institutional context (actors involved such as citizens, governmental agencies, market parties, NGOs)
    - Value conflicts
    - Political support
    - Economic support
    - Legal problems

- Develop a market/political strategy to overcome these barriers in relation to your innovation

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