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# Societal Interaction in Sci/Tech Policy Analysis

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*The Danish Board of Technology*

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# Overview of presentation

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- ◆ The Danish Board of Technology
  - Setup, aims, organisation
- ◆ Methodology of TA
  - Relation between problem and method
  - A broad range of methods needed
- ◆ The special qualities of Participation
- ◆ Method examples

# Danish Board of Technology

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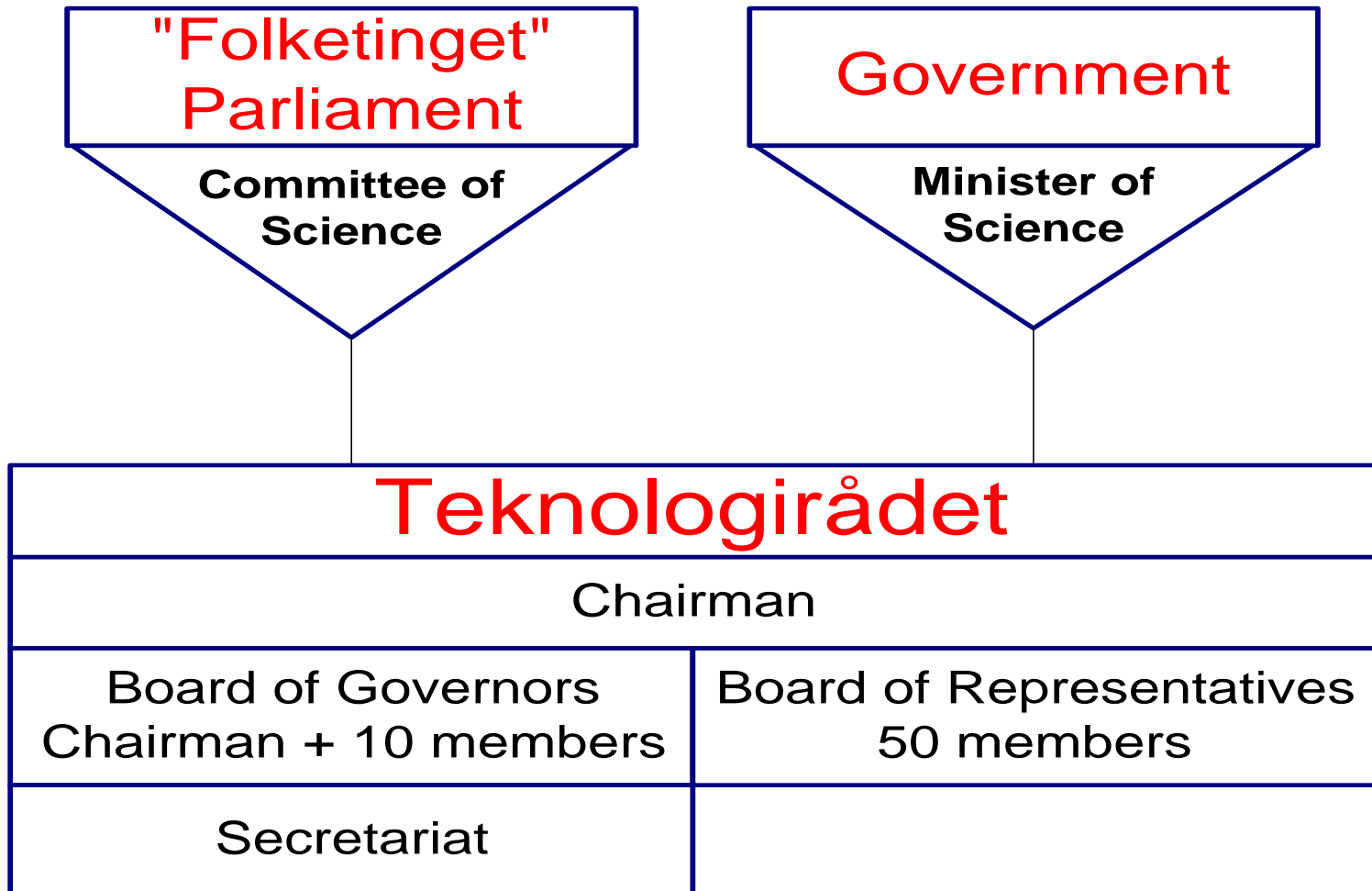
- ◆ Constituted by law 1985 + 1995
- ◆ Self governing, independent institution
  - Connected to Ministry of Science, Technology and Development
  - Formal link to Committee of Science & Technology, Danish Parliament
- ◆ Chairman, Board, and Board of Representatives appointed by Minister and Committee of Science

# Aims & Objectives

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- ◆ Follow the technological development
- ◆ Carry out comprehensive assessments on possibilities and consequences of technology for society and the citizen
- ◆ Communicate results to decision-makers and the population, and to support the technology debate
- ◆ Give advice to Parliament and Government

# Organisation



# The Secretariat

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- Director
- Administrative Staff
  - ◆ 2½ administrative
  - ◆ 1 IT & web
- Project Staff
  - ◆ 7 project managers
  - ◆ 2,5 project secretaries
- Time-limited employment
  - ★ 5-10 students & project consultants
- 10 mill.DKK ~ 175 mill Yen

# DBT principles of PTA methodology

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- ◆ Supply **focus**, needed by decision-makers
- ◆ Use the **knowledge** and **tools** of experts
- ◆ Include **norms and interests** of stakeholders
- ◆ Include **experience** and **values** of citizens
- ◆ Make **transparent and fair** processes
- ◆ Build upon the **democratic traditions**

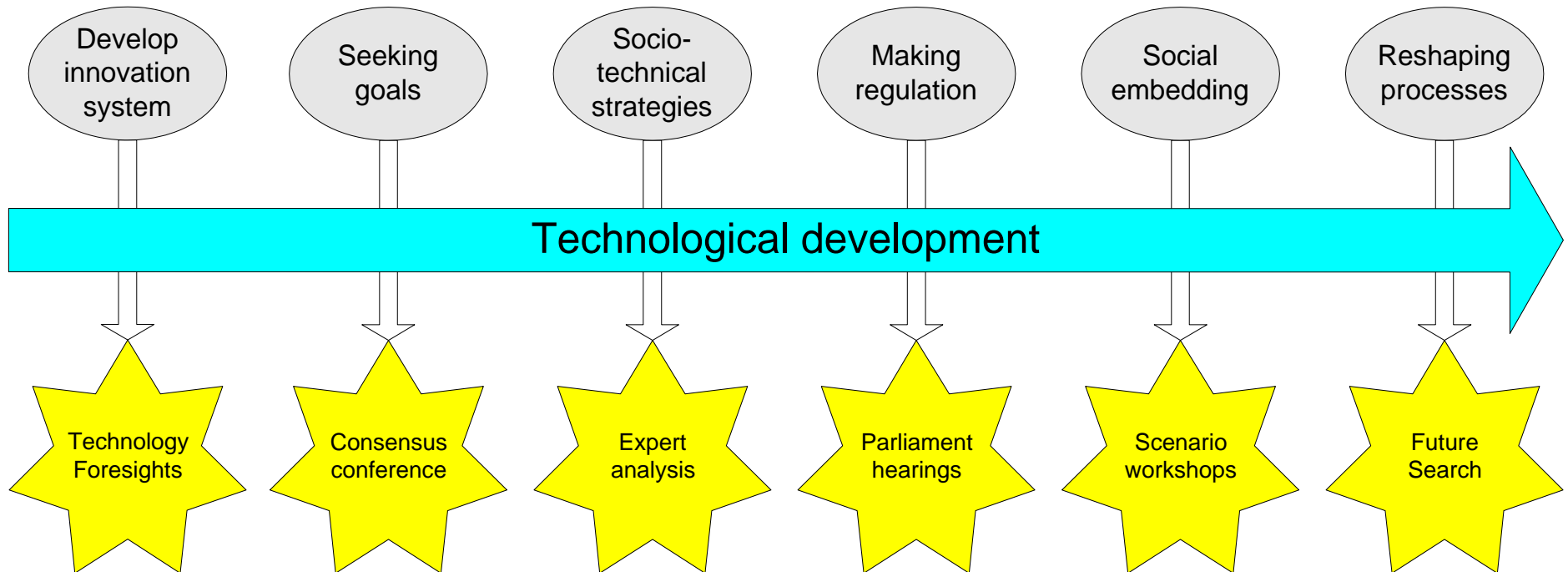
# 3 dimensions of policy analysis

Dimension	Method demand	Actors / functions
Cognitive	Establish knowledge-base; suggest knowledge based solutions	Experts; Users / Operative aims
Normative	Uncover and share norms and values	Citizens; Stakeholders / Networking; Social learning
Pragmatic	Create legitimate and accepted solutions	Decision-makers; Networks; Citizens / Transparent procedures



# Demand and response

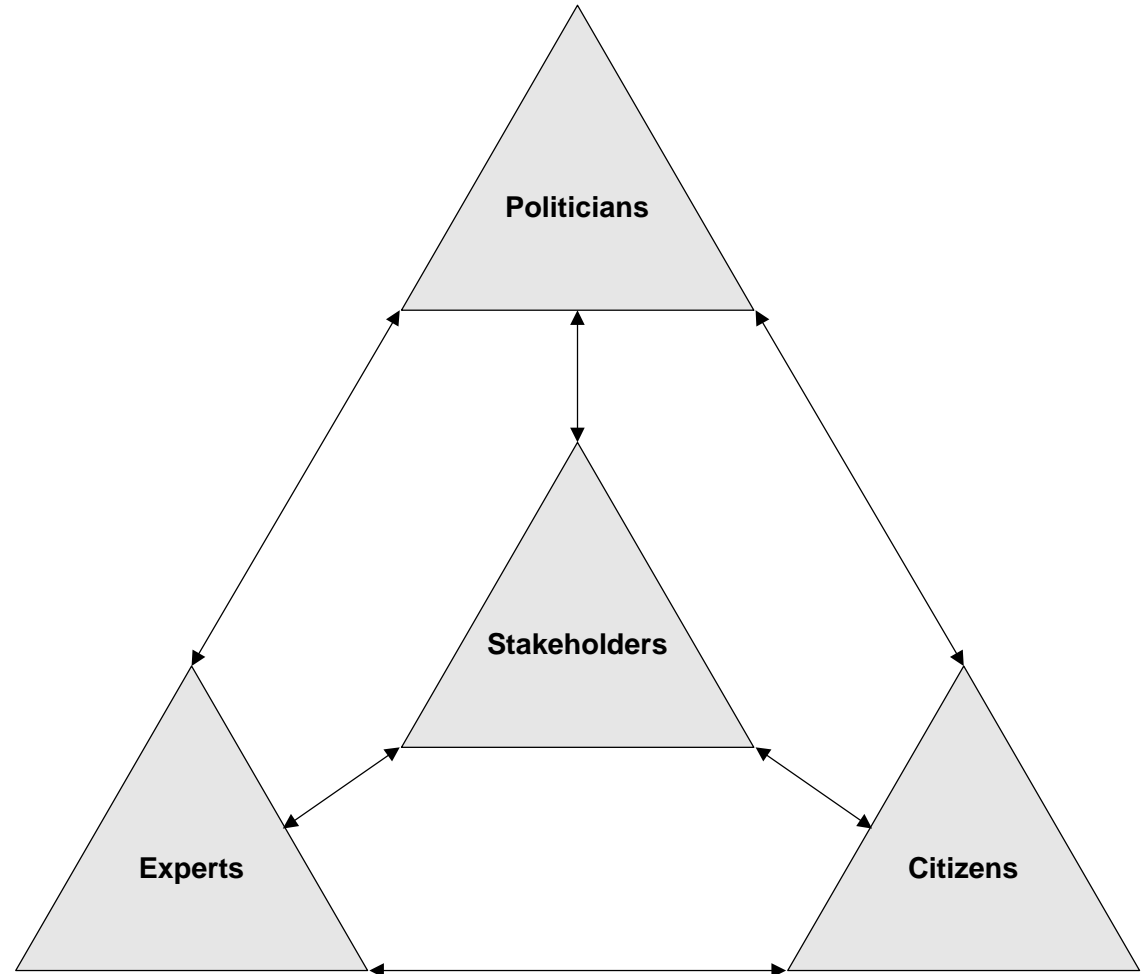
## Development and implementation of technology



**Processes - rooms for analysis and dialogue**

# Technology assessment is communication

- ◆ Rules of communication depends upon the involved actors
- ◆ No universal communication tools



# Aim & situation determines the tool

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- ◆ Do we look for knowledge, norms or solutions?
- ◆ Whom should speak with whom?
- ◆ Point of technology innovation
- ◆ Timing
- ◆ State of political/public/scientific debate
- ◆ Governmental policies / political agenda
- ◆ What role can be played?
- ◆ What does it take to intervene?
- ◆ Demands for credibility
- ◆ .....

# Some tools at the DBT

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- ◆ Citizen Consultation
  - Consensus Conference
  - Citizen Summit
  - Perspective Workshop
  - Interview Meeting
  - Voting conference
- ◆ Stakeholder involvement
  - Future Search
  - Policy Exercise
  - Scenario Workshop

- ◆ Expert Analysis
  - Work Groups
  - Conferences & Workshops
  - Structured Brainstorms
- ◆ Advisory function
  - Parliamentary Hearings
  - Future Panel
  - Early Warning; Briefings
- ◆ Public Debate
  - Local Debate Fund
  - Debate Products/ [www](http://www)

# Societal interaction in TA

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- ◆ Involve new players to pool knowledge, exchange views and find new paths
- ◆ As independent third part, make platforms for constructive stakeholder dialogue
- ◆ Give voice to citizens. As persons, consumers, taxpayers, and legitimate democratic assessors

# pTA: Expanded TA mission

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- Including open processes of assessment, to:
- ◆ Ensure a common, diverse knowledge-base
  - ◆ Channel dialogues on interests and values
  - ◆ Involve else overlooked players
  - ◆ Be able to deal with uncertainty
  - ◆ Make broadly accepted solutions
  - ◆ Integrate communication into the process

# Impacts of participation in TA

	Raising knowledge	Forming attitudes	Initialising action
<b>Tech/Sci aspects</b>	SCIENTIFIC ASSESSMENT * <b>Technical options assessed and made visible</b> * <b>Comprehensive overview on consequences given</b>	AGENDA SETTING * <b>Setting the agenda in the political debate</b> * <b>Stimulating public debate</b> * <b>Introducing visions or scenarios</b>	REFRAMING OF DEBATE * New action plan or initiative to further scrutinise the problem decided * <b>New orientation in policies established</b>
<b>Societal aspects</b>	SOCIAL MAPPING * <b>Structure of conflicts made transparent</b>	MEDIATION * <b>Self-reflecting among actors</b> * <b>Blockade running</b> * <b>Bridge building</b>	NEW DECISION MAKING PROCESSES * <b>New ways of governance introduced</b> * Initiative to intensify public debate taken
<b>Policy aspects</b>	POLICY ANALYSIS * <b>Policy objectives explored</b> * <b>Existing policies assessed</b>	RE-STRUCTURING THE POLICY DEBATE * <b>Comprehensiveness in policies increased</b> * <b>Policies evaluated through debate</b> * <b>Democratic legitimisation perceived</b>	DECISION TAKEN * Policy alternatives filtered * Innovations implemented * New legislation is passed

# Why participation?

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- ◆ For principle reasons
  - Searching social coherence
  - Managing uncertainty and inequality
  - Involving the involved
  - Citizen and affected as democratic basis
- ◆ And for professional
  - Managing communication
  - Including broad knowledge and value base
  - Ensuring results to have high credibility



# Prerequisites

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- ◆ Political culture of “open democracy”
- ◆ Institutional setting allows for expansion of method range into open TA processes
- ◆ Budget makes public events possible
- ◆ Staff competencies as process managers
- ◆ Involved actors back up initiatives
- ◆ Institution trusted as independent 3<sup>rd</sup> part

# Future Search Method 1

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- ◆ When the situation is blocked
  - Everyone knows the problems
  - No-one are allowed to solve them
- ◆ All actors in the same room for 3 days
  - Takes responsibility for the past
  - Agree on the present situation
  - Agree on vision
  - Make action plans

# Future Search 2

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- ◆ Sustainable hunting in Greenland, results:
  - Education plans on sustainable hunting
  - Rules on weapon use
  - Independent council on sustainable use of nature

# Interview Meeting 1

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- ◆ When polling or focus groups are not enough:
  - Reflected, informed answers needed
  - Qualitative as well as quantitative data
  - The answers, as well as the reasons for the answers

# Interview meeting 2

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- ◆ 25-50 participants
- ◆ 1/2 day:
  - Information on topic
  - Dialogue with experts
  - Filling out questionnaire
  - Group Interviews with 6-8 people groups
- ◆ Animal Cloning, November 2003
- ◆ Nano-technology, May 2004

# Work Plan 2003

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- ◆ Future of the Patenting System
- ◆ Medical Treatment of Life-style
- ◆ Vulnerability of ICT Infrastructures
- ◆ Oil Depletion
- ◆ New Climate – New Strategies
- ◆ Alternatives to Animal Testing
- ◆ Children, health and the Environment
- ◆ Digital Rights and Free Information

# Work Plan 2004

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- ◆ Energy System scenarios (Future Panel)
- ◆ ICT Privacy (Expert Work Group + International Assessment)
- ◆ Globalisation of Knowledge Intensive Work (Expert work Group + Conference)
- ◆ Chemical Producing GMOs (Citizen Jury)
- ◆ Breakdown of private/work borders (Debates)
- ◆ Pervasive Health Care (Workshop and Conference)