

Selecting the Method: The Quest of the holy TA Grail

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Zentrum für Technologiefolgen-Abschätzung
Centre d'évaluation des choix technologiques
Centro per la valutazione delle scelte tecnologiche
Centre for Technology Assessment

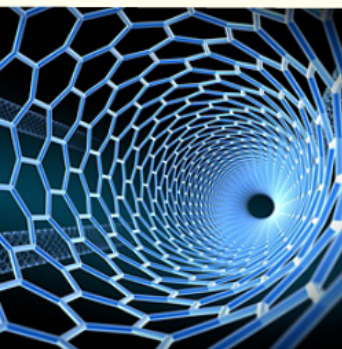


There is no "right" method: a same issue can be addressed by many methods



Human Enhancement

- Serious Games: SuperHuman (Rathenau)
- Studies: TA-SWISS, STOA
- Workshops: STOA Workshop in European Parliament



Nanotechnologies:

- Fact-sheets, dossiers: NanoTrust (ITA)
- Studies: Nanofood (TA-SWISS), TA on Nanotechnology (KIT)
- Participatory processes: publifocus (TA-SWISS)

A project can use several methods

Study on 2nd generation biofuels :



- Literature research
- Life cycle assessment of 2nd generation biofuels
- Scenario based analysis of future prospects

The future of Internet:



- Fact sheets
- Expert interviews
- Participatory processes ("consensus conference light" + focus groups with young people)

Methods

- Scientific TA Methods**
- Mainly used for technology-driven issues to:
- Collect data and provide knowledge on science and technology developments, their impacts (on economy, environment, health, etc.), the related ethical or juridical questions, the interests and values at stake, etc.
- Examples of methods:
- Delphi
 - Modelling and simulation
 - Discourse analysis
 - Experts interviews
- Interactive / participatory methods**
- Mainly used for problem-oriented issues for:
- Conflict management and resolution
 - Bringing together scientific expertise and citizens views
 - Involving stakeholders
 - Mobilizing citizens for shaping future technologies
- Examples of methods:
- Consensus conferences
 - focus groups
 - expert hearings
 - scenario workshops

Frame conditions

- What is the mission of the TA organization?
- What is the institutional form of the TA organization (independent, related to science, related to Parliament, etc.)?
- For which system is usually working the organization?
- Which expertise is available within the TA organization?
- Budget and resources available?

The issue at stake

- Is the issue technology-oriented or problem driven?
- Who are the central actors and what positions do they take?
- What is the stage of the policy-making process? How intense is the political debate?
- How far is the issue discussed in society? Is it conflictual?

What is the problem?

- Lack of knowledge (on scientific, social or policy aspects)?
- Lack of awareness about the issue at stake?
- Lack of debate?
- Conflicts around the issue?
- Policy needs to be questioned?
- Policy-makers need to take action?
- Etc.

Defining the goal of the project

Project Name	Project Description	Project Objectives	Project Deliverables	Project Stakeholders	Project Risks	Project Budget	Project Timeline
TA Project X	Analysis of technology Y impacts	Identify key stakeholders, assess risks	Report on impacts and recommendations	Government, Industry, Academia	Low public awareness, conflicting interests	€50,000	6 months
TA Project Z	Participatory design of technology W	Engage citizens, co-develop scenarios	Participatory design process report	Citizens, Government, Industry	Low citizen participation, complex technology	€75,000	9 months

The project

- Method(s)**
Choose, adapt or create a method or a set of methods
- Procedure**
- Time frame and steps
 - Budget and personnel
 - Involved actors (called in that order, unless they intervene)
 - Collaborations, synergies
- Quality Criteria**
- Scientific quality criteria:
- Objectivity (neutral facts and opinions)
 - Availability (open access)
 - Interdisciplinary (joint analysis of scientific disciplines)
- Interactive quality criteria:
- Involves all participants (as user and/or trainer)
 - Critical (deliberate) dialogues or debates
 - Openness and transparency (of the process)
- Project management quality criteria:
- Feasibility (linked to the ongoing debate or to scientific advice scenarios)
 - Communication

Designing a TA project

- Delphi
- Modeling and simulation
- Discourse analysis
- Experts interviews.

- Interactive / participatory**
- Mainly used for problem-oriented
- Conflict management and resolution
 - Bringing together scientific and local knowledge
 - Involving stakeholders
 - Mobilizing citizens for shaping policy
- Examples of methods
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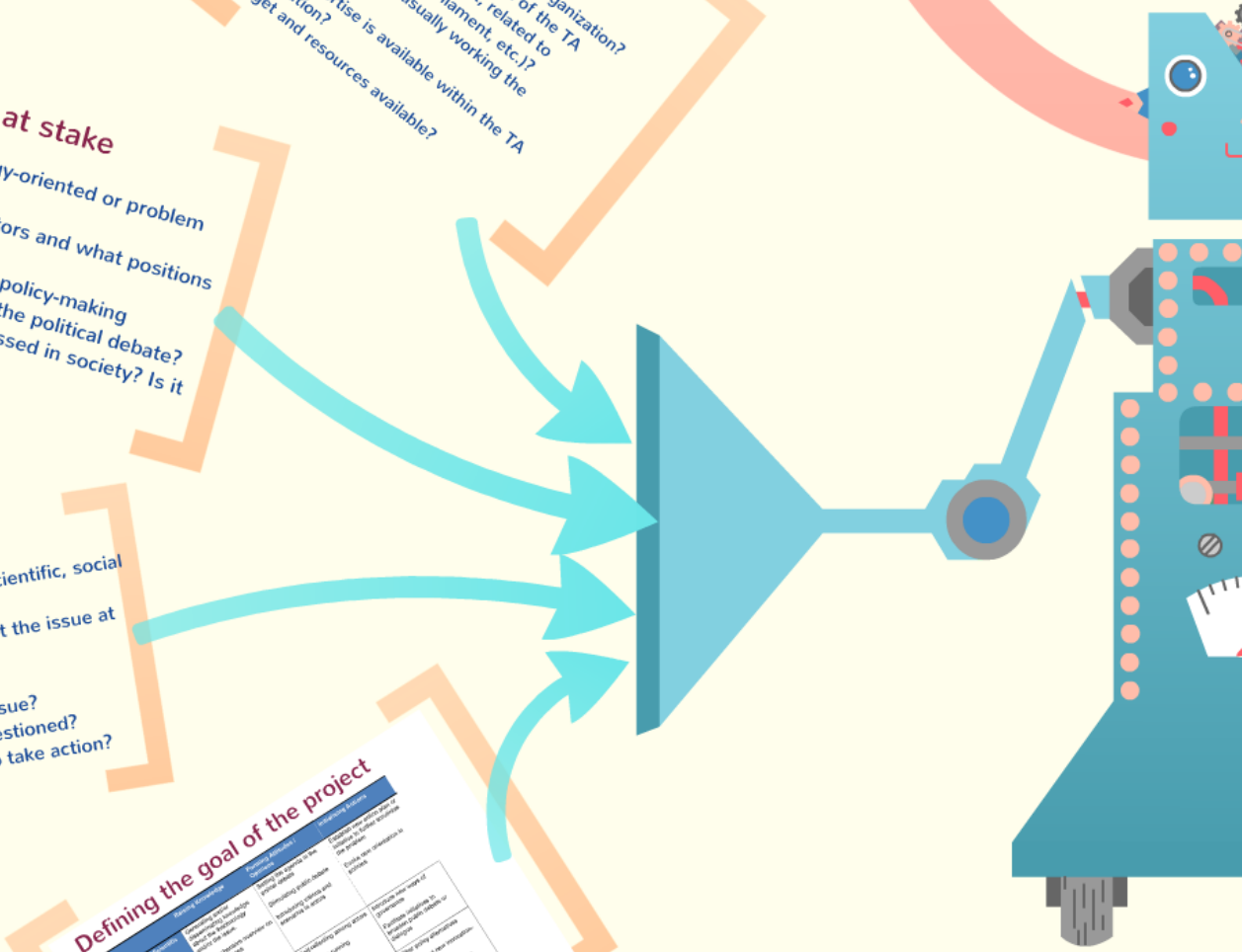
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Defining the goal of the project

Stakeholder / Audience	Typical Concerns	Project Objectives	Integration / Evaluation
Government / Decision Makers	<ul style="list-style-type: none"> • Understanding the problem and its complexity • Identifying stakeholders and their interests • Establishing a common vision 	<ul style="list-style-type: none"> • Define the scope of the project • Identify key stakeholders and their interests • Develop a clear and concise project charter 	<ul style="list-style-type: none"> • Evaluate the impact of the project on the organization • Monitor the progress of the project • Report on the results of the project
Scientific / Academic	<ul style="list-style-type: none"> • Methodological concerns • Data quality and reliability • Theoretical framework 	<ul style="list-style-type: none"> • Establishing a strong theoretical framework • Conducting rigorous data collection and analysis • Developing a clear and concise research plan 	<ul style="list-style-type: none"> • Evaluate the quality of the research • Monitor the progress of the research • Report on the results of the research
Public / Citizens	<ul style="list-style-type: none"> • Understanding the problem and its complexity • Identifying stakeholders and their interests • Establishing a common vision 	<ul style="list-style-type: none"> • Define the scope of the project • Identify key stakeholders and their interests • Develop a clear and concise project charter 	<ul style="list-style-type: none"> • Evaluate the impact of the project on the organization • Monitor the progress of the project • Report on the results of the project



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Defining the goal of the project

	Raising Knowledge	Forming Attitudes / Opinions	Initialising Actions
Technological / Scientific Aspects	<p>Generating and/or disseminating knowledge about the thechnology and/or the issue.</p> <p>Comprehensive overview on consequences</p>	<p>Setting the agenda in the polical debate</p> <p>Stimulating public debate</p> <p>Introducing visions and scenarios to actors</p>	<p>Establish new action plan or initiative to further scrutinize the problem</p> <p>Evoke new orientation in policies</p>
Societal Aspects	<p>Making social conflicts transparent</p>	<p>Self-reflecting among actors</p> <p>Blockade running</p> <p>Bridge building</p>	<p>Introduce new ways of governance</p> <p>Facilitate initiatives to broaden public debate or dialogue</p>
Policy Aspects	<p>Exploring policy objectives</p> <p>Assessing existing policies</p>	<p>Increase comprehensiveness in policies</p> <p>Enhance democratic legitimacy</p>	<p>Filter policy alternatives</p> <p>Implement new innovation-process</p> <p>Initiate new legislation</p>

Methods

Scientific TA Methods

Mainly used for technology-driven issues to:

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Interactive / participatory methods

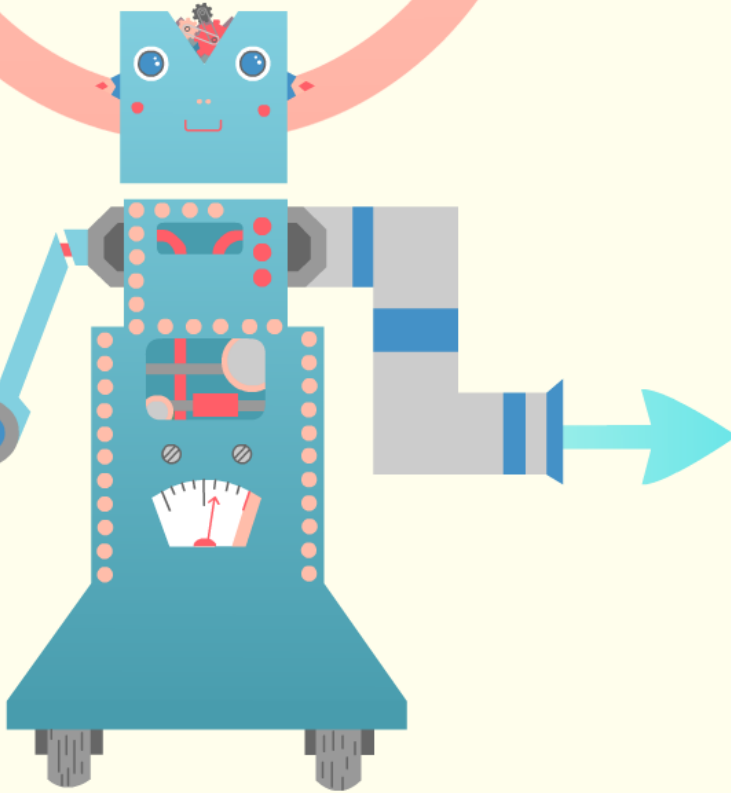
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The project

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Procedure

- Time frame and steps
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- Involved actors (what is their role, when do they intervene?)
- Collaborations, synergies

Quality Criteria

- Scientific quality criteria:
- Objectivity (objective facts and opinions)
 - Reliability (peer review)
 - Interdisciplinarity (combination of scientific perspectives)
- Interactive quality criteria:
- fairness (all participants can voice and be heard)
 - inclusion (all relevant actors are on board)
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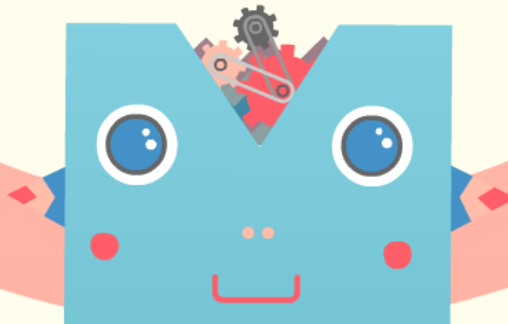
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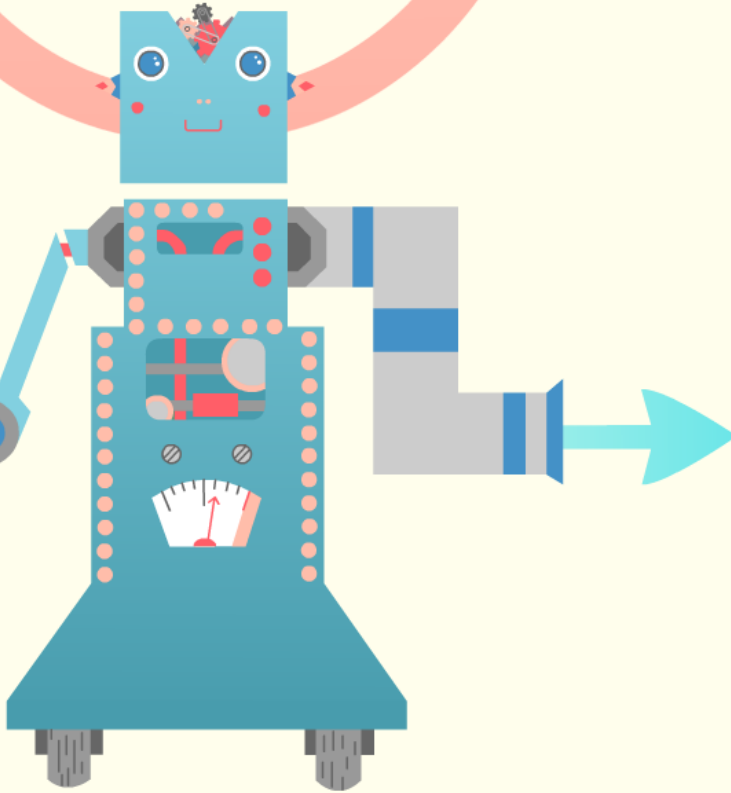
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