

# Introduction to citizen participation in science and technology

Procida Training Workshop

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## The context

- Drawbacks of the “Public Understanding of Science” or “deficit model” are widely acknowledged
- “Deliberative or participatory turn”
  - Democratic deficit in S & T
  - Environmental crisis and other controversies; learning from the GMO controversy
  - Questioning experts and decision makers in risk assessment and management
  - Activists or concerned groups (“scientific citizenship”)
- Technology Assessment (TA, pTA, CTA, RTTA,...) as a way out

## Varieties of public engagement

- Rowe and Frewer (2000; 2005): about 100 mechanisms
- Public communication, PUS or public instruction model (Callon): TV broadcast, hotline, conferences, etc.
- Public consultation: referenda, surveys, focus groups, etc.
- Public participation, public debate model (Callon): citizens' juries, citizens' and consensus conferences, planning cells, etc.

## A definition

“Public participation” encompasses a group of procedures designed to consult, involve, and inform the public to allow those affected by a decision to have an *input* into that decision

## Benefits expected from public participation in science and technology

- Quality of knowledge (epistemic argument): lay people and stakeholders can contribute to knowledge production and identify solutions which can improve the innovation process; limited rationality; e.g. *lay epidemiology*
- Democratic deficit (normative argument): participation improves democracy and enhances citizenship; *justice, empowerment*
- Political legitimacy (instrumental argument): participation allows a more inclusive governance in a context characterised by a growing complexity and by a loss of public interest in politics; re-inforces legitimacy



« Currently, here is what we know about GMOs...

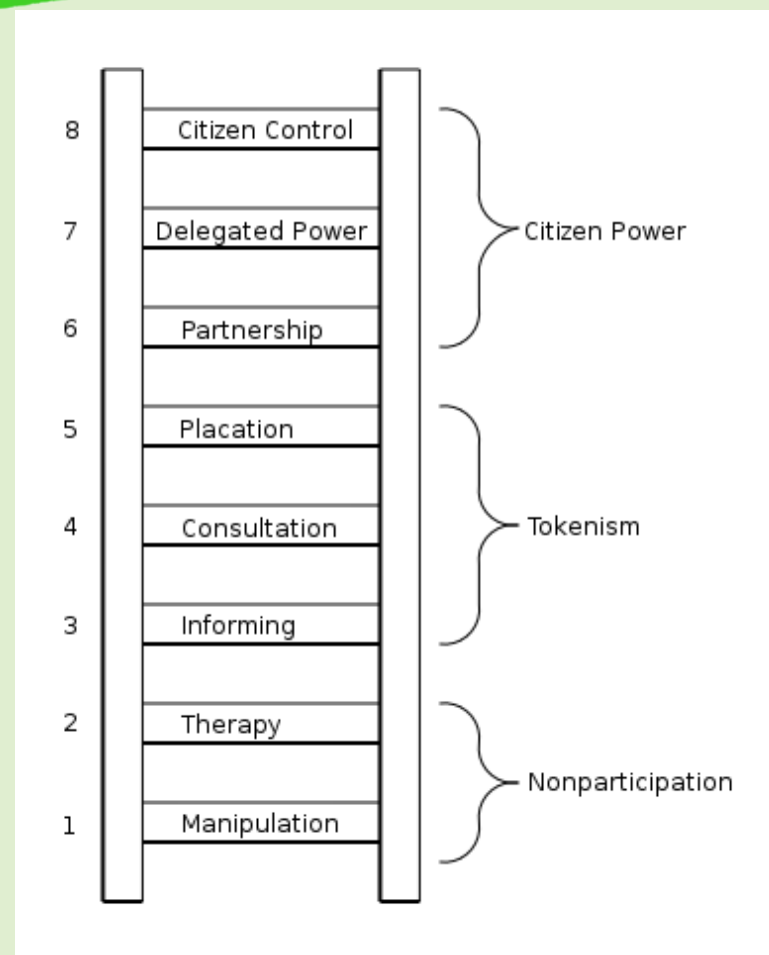
Thus there is no *rational* reason to be frightened! »



**CIPAST**  
citizen participation in  
science and technology

## 2. Potential drawbacks

« **Eight rungs on the ladder of citizen participation** »



A Ladder of Citizen Participation - Sherry R Arnstein

Originally published as Arnstein, Sherry R. "A Ladder of Citizen Participation," JAIP, Vol. 35, No. 4, July 1969, pp. 216-224.

## Some « hot issues » concerning participation

- What is the political legitimacy of PP ?
- How are PP connected to political decision ?
- Which impact for PP on the public sphere, science and technology policy, and innovation processes ?
- Which method to choose, for which objective and in which context ?

### 3. A short glance at pTA experiences

- List of consensus conferences organised in Denmark (1987-2002)
  - Testing our Genes (2002)
  - Roadpricing (2001)
  - Electronic Surveillance (2000)
  - Noise and Technology (2000)
  - Genetically modified Food (1999)
  - Teleworking (1997)
  - The Consumption and Environment of the future (1996)
  - The Future of Fishing (1996)
  - Gene Therapy (1995)
  - Where is the Limit? – chemical substances in food and the environment (1995)
  - Information Technology in Transportation (1994)
  - A Light-green Agricultural Sector (1994)
  - Electronic Identity Cards (1994)
  - Infertility (1993)
  - The Future of Private Automobiles (1993)
  - Technological Animals (1992)
  - Educational Technology (1991)
  - Air Pollution (1990)
  - Food Irradiation (1989)
  - Human Genome Mapping (1989)
  - The Citizen and dangerous Production (1988)
  - Gene Technology in Industry and Agriculture (1987)

- List of consensus conferences organised elsewhere :
  - **ARGENTINA** Genetically modified foods (2000); human genome project (2001).
  - **AUSTRALIA** Gene technology in the food chain (1999)
  - **AUSTRIA** Ozone in the upper atmosphere (1997)
  - **CANADA** food biotechnology (Western Canada, 1999); municipal waste management (Hamilton City/Region, 2000)
  - **FRANCE** Genetically modified foods (1998), Climate Change (2001), Domestic wastes (2004), Public transportation in South East (2006)
  - **GERMANY** Citizens' Conference on Genetic Testing, (2001 Deutsches Hygiene-Museum)
  - **ITALY** Consensus Conference on GMO's
  - **ISRAEL** Future of transportation (2000)
  - **JAPAN** Gene therapy (1998); high information society (1999); genetically modified food (2000)
  - **NETHERLANDS** Genetically modified animals (1993); human genetics research (1995)
  - **NEW ZEALANDS** Plant biotechnology (1996); plant biotechnology 2 (May 1999); biotechnological pest control (Sept. 1999)
  - **NORWAY** Genetically modified foods (1996); smart-house technology for nursing homes (2000)
  - **SOUTH KOREA** Safety & ethics of genetically modified foods (1998); cloning (Sept. 1999)
  - **SWITZERLAND** National electricity policy (1998--conducted in 3 languages with simultaneous translation); genetic engineering and food (June 1999); transplantation medicine (Nov. 2000)
  - **U.K.** Genetically modified foods (1994); radioactive waste management (May 1999)

- Tool box for civil society participation
  - Advisory committees
  - Citizen’s advisory councils
  - Citizen’s jury (including planning cells, etc.)
  - Consensus conference
  - Focus groups
  - Future Workshops
  - Mediation
  - Negotiated rule making
  - Planning for real
  - Public hearings
  - Public survey
  - Referendum
  - Scenario Workshops
  - ...

(Ifok, For the European Conference on Civil Society Participation, June 2003)

## 4. Metaplan presentation

### Metaplan exercise:

- Articulation of individual analysis and group discussion
- Collective elaboration (framing) of an issue

The question you are going to work on:

*“ What do I want to learn about citizen participation in science and technology ? ”*