

fondation  
**SCIENCES**  
  
**CITOYENNES**



Citizen participation in Science,  
towards a new contract Science-  
Society?

Lyon  
7 June 2019



*“to critically question the role of science and technology in the construction of a society and to put science into democracy so that it serves the common good.”*

## **Content of the talk:**

1/ What means science objectivity, scientific rigour or neutrality?

2/ How participatory research is one way of fostering science accountability and making sense for researchers?

3/ What means participation in research?

# What means science objectivity?



*How does participation of citizens in science affects science objectivity?*

**90% of independent surveys show a harmful effect on health of bisphenols at low doses**

**100% of industry financed surveys conclude on the safety of the molecule**

Pierre Meneton, *L'aveuglement de la communauté scientifique et des agences sanitaires*, BIOFUTUR 320, AVRIL 2011

*Citizen science: new epistemological, ethical and political challenges, Lyon, 7th June 2019*

# What means science objectivity?

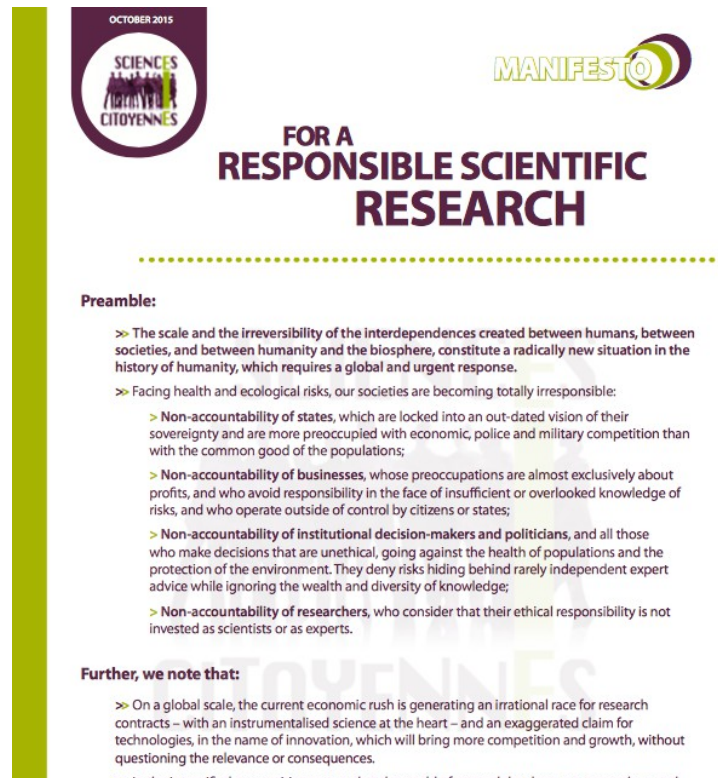
*How does participation of citizens in science affects science objectivity?*

*“Since some carbon emissions cannot be avoided completely (for example in agriculture, **aviation and iron production**), carbon dioxide (CO<sub>2</sub>) would have to be removed from the air, resulting in 'negative emissions' that compensate for the remaining emissions.” European Briefing by the European Parliamentary Research Service, 2015*



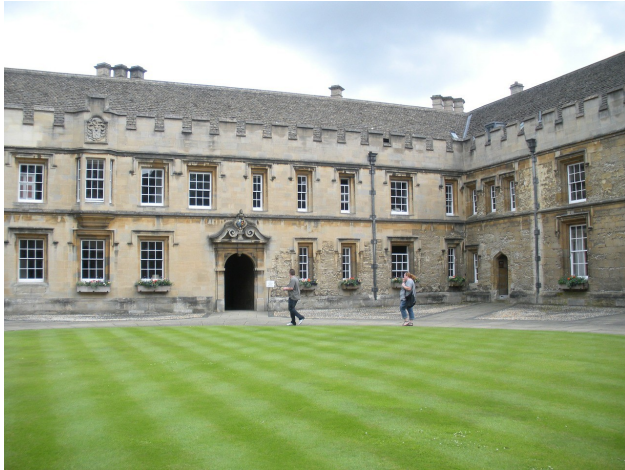
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# What means science objectivity?



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# new participatory research is one way of fostering science accountability and making sense for researchers?



## **1) Participatory research contributes to the “decolonisation” of knowledge ( Hall and Tandon, 2017)**

*“what is understood as knowledge in the universities of our world represents a very small proportion of the global treasury of knowledge”*

*“The act of creating Oxford and the other medieval universities was an act of enclosing knowledge, limiting access to knowledge, exerting a form of control over knowledge and providing a means for a small elite to acquire this knowledge for the purposes of leadership of a spiritual, governance or cultural nature. Those within the walls became knowers; those outside the walls became non-knowers. [...] The enclosing of the academy dispossessed the vast majority of knowledge keepers, forever relegating their knowledge to witchcraft, tradition, superstition, folkways or, at best, some form of common sense. “*

## **2) Producing science for the common good**

## **3) Influencing the research programming**

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# What means participation in research?

A **co-production of knowledge**,  
from **the very definition of the  
scientific question and  
hypothesis**, to the **valorisation  
of results**

*Participation for participaing?  
Arnstein, 1969*



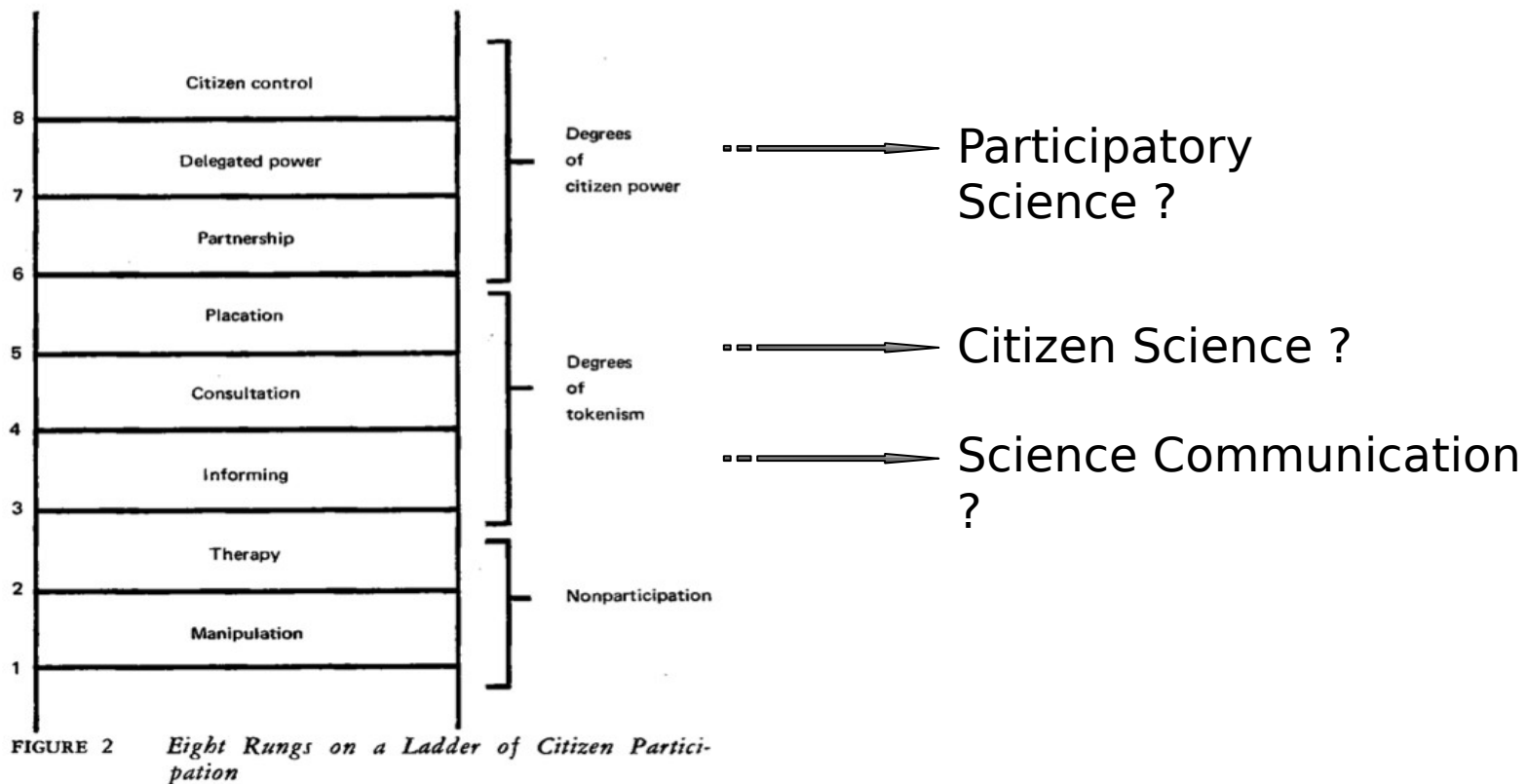
FIGURE 1

*French Student Poster. In English, I participate;  
you participate; he participates; we participate;  
you participate . . . They profit.*

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challenges, Lyon, 7th June 2019*

# What means participation in research?

*Arnstein, 1969*



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# What means participation in research?

## Participatory wheat seed selection in France



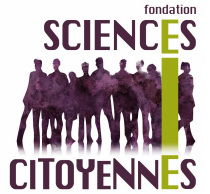
- Farmers grow and select seeds in their own fields
- New scientific methodology
- Seeds resistant to climate change and adapted to organic farming



A successful research thanks to the co-production process

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# To conclude...



**Citizen participation does not downgrade the science objective approach, but participate to a new contract between science and Society**

**“Science is a too serious business to leave it to researchers only”**

## Thank you for listening

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