Core competences in contemporary research and innovation oriented societies

Univ.-Prof. Dr. Ulrike Felt
Department of Social Studies of Science
University of Vienna

ulrike.felt@univie.ac.at
http://sciencestudies.univie.ac.at

European society driven by research and innovation: reflecting the context

- In Europe stronger than ever before research and innovation are seen as central driving forces for societal development – future is strongly constructed as a scientific and technological one
- Visible in key documents
  - at the European level: EU Framework Programme for Research and Innovation "Horizon 2020"
  - But also in National contexts
- Science is expected to addressing the grand challenges – environment, food, energy, …

A special moment in time

- Feeling of crisis (economic, social, ….) which could/should be solved through pushing innovation

➔Major Concern:

Create a supportive environment for science and innovation which will allow its proliferation

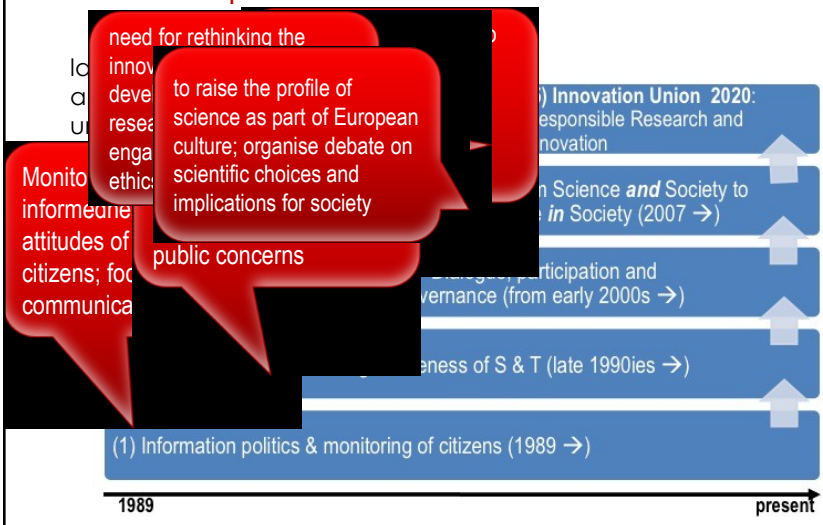
Involve all the necessary stakeholder and reflect the specific needs of society

Looking back: Three decades of debate and programs on science and society

- In the European context there has been a deep concern about how science and technology are perceived and supported by society
- Central focus on ethics, science communication, integrating societal actors into the governance of innovation

➔ Proliferation and diversification of activities as well as a shift in focus

History of policies on science-society issues at the European level



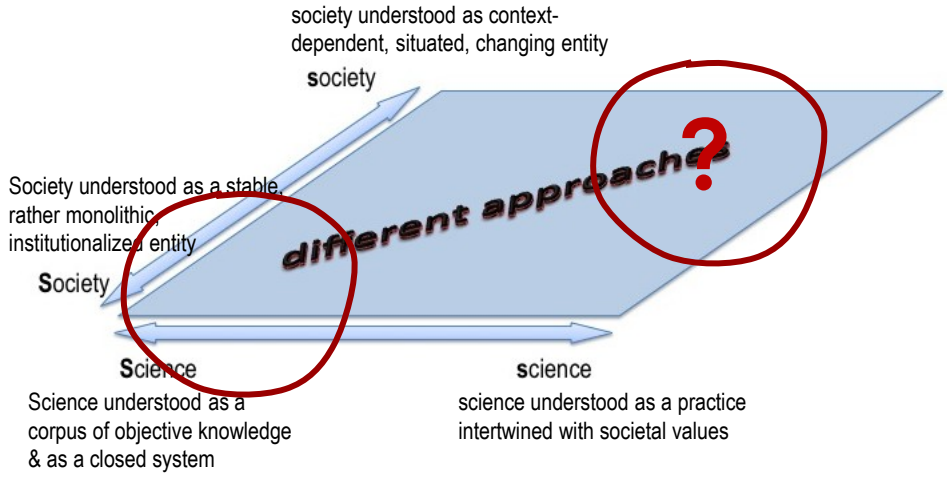
1

Observations

- Shift from communication to integration
- Shift from focus on professional communicators to researchers playing an important role
- Shift towards the need for developing skills
- Shift towards a much more strategic vision of whom to address
- Even though the need for more integration of science and society is underlined, the expected outcomes are often already predefined

Central questions to be posed?

- What is/has been the **understanding of science and innovation** in these policy measures?
- How is **society understood** when taking measures to better integrate science with contemporary societies?
- What is the **role attributed** to researchers and to citizens in these contexts?



Responsible research and innovation

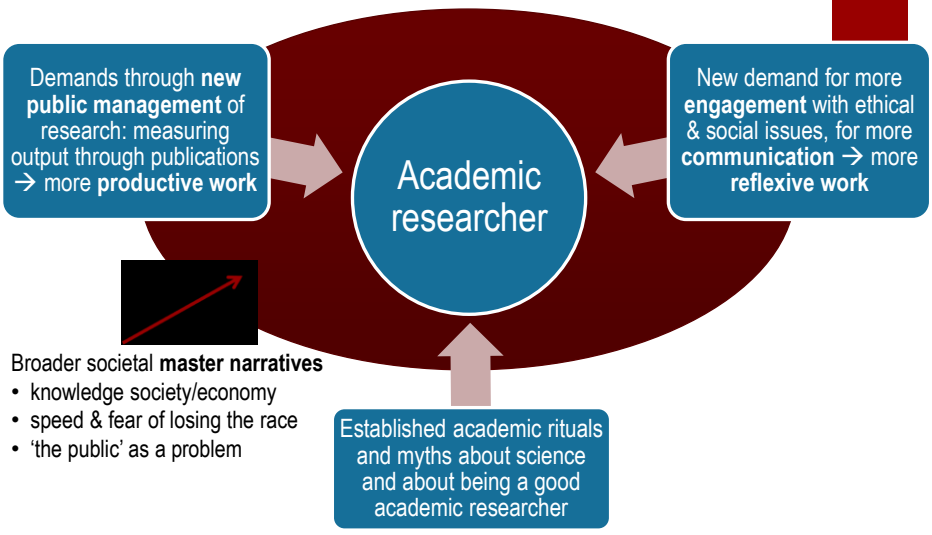
- Paying more attention to the processes of producing knowledge as well as to the innovations
- Become more responsive to societal demands and needs
- Move away from only thinking in terms of market-logic or potential risks and towards broader societal questions → from **innovation governance and not only risk governance**
- Building capacity – investing in people and in their capacity to reflect upon societal demands and needs when doing research – within research and beyond
- Create spaces where such a capacity to reflect can be learned and exercised

Responsible research and innovation

- Even if we reach an agreement that such an approach to research is necessary: there is no easy solution
- We are confronted with diversity within contemporary societies and various groups in a society might have very different concepts of what is "good research", a "good life", a "pressing problem" ➔ **question of value diversity**
- We are confronted with the fact that research and innovation are global enterprises and there might be also a dynamic of offer and demand (see for example the debate on experimental gene therapies offered in India)

Complex demands on researchers/students to address these issues

Being aware of the conflicting demands on researchers



Responsibility conditions

What are the „responsibility condition**s**" we find in contemporary research?

- accountability structures, time structures of contemporary research (projectification) as well as the central role of innovation promises set rather tight conditions for reflexive work

→it often becomes annexed, put in-between, aside, …

or

→formalised: ethics by tick-box, ..., communication for the sake of ‚selling' or ‚seducing'

Some concrete experiences

- Multi-sited process of making researchers and students aware of these new challenges
- Central issue is: capacity building

(1) For researchers:

- Integrating components which reflect the ethical, legal and social aspects (ELSA) of research in the research programs

(2) For students:

- Extension curricula for undergrad students

Integrating ELSA into research – Ideals and expectations

- Some national research councils in Europe support those activities, for example the Netherlands, United Kingdom, Norway, … in the life sciences also Austria
- **Accompany** the process of knowledge production/of innovation
- Creating **change from within**
- Developing the figure of the **citizen-scientist,** the researcher who is aware of these responsibilities

Integrating ELSA into research – Ideals and expectations

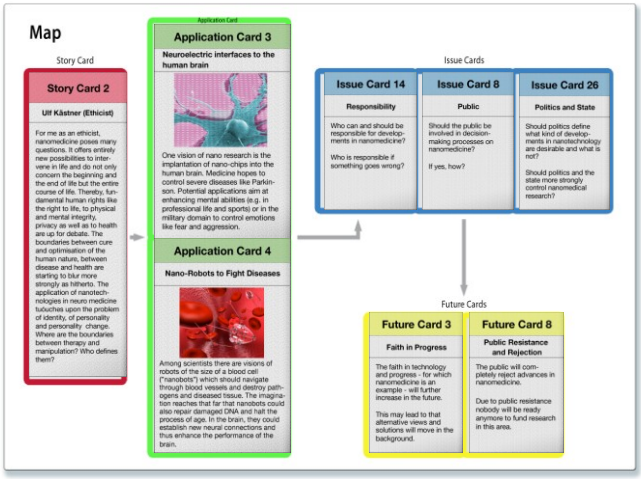
- Create collaborations between researchers in the social sciences/humanities with researchers in the natural sciences
- Challenge: to create a common space of reflection & learning within a project
- How to handle the tension between a market/risk logic to a responsible to broader goals logic?

Round Table discussions with researchers and citizens

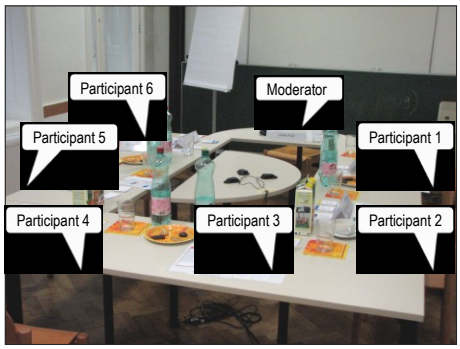
- 7 Round Table meetings of 1 day each
- 14 lay-people from all over Austria und 5-7 GOLD-researchers
- Select people with rather different backgrounds
- Open ended discussion
- Topic: meaning & impact of basic research for society

Card Supported Discussion Method – IMAGINE
Citizen debate

- **Lack of public debate** → participants do come with little imagination
- Content of cards as a result of **prior analysis** → collecting distributed positions and representing them in their diversity
- Create a space of common discussion without experts being present



"IMAGINE" workshops



- Open call for participation; diversity of experiential backgrounds as central principle
- 6 citizens (supported by one moderator) discuss for about 4 hours
- 4 different thematic workshops on nano applications areas

New competences and skills to be developed – working with students and young researchers

Train …

- to analyze & question the relations of science and society → move beyond the classical divides
- to recognize the values embedded in knowledge and innovations we produce: both are never innocent
- to scrutinize the question of benefit for society: ask the questions: Who wins and who looses with certain innovations? Whose values get integrates or are left out?

New competences and skills to be developed – working with students and young researchers

- to work with multiple real cases not get schemata to follow by the rule
- to recognize different forms of knowledge and their logic
- to communicate within the community and beyond about socio-scientific/socio-technical issues