EBERHARD KARLS UNIVERSITÄT TÜBINGEN

INTERNATIONALES ZENTRUM FÜR ETHIK IN DEN WISSENSCHAFTEN

# Democratisation of Sciences

## Participation and Transdisciplinarity

**Post-normal science and its ethical aspects - Doctoral projects and other projects in the making**
**Altonaer Stiftung für philosophische Grundlagenforschung, 17.-19. September 2012**

**18.09.2012, Simon Meisch**

# Democratisation of Science

# Democratisation of Science
# Extended peer review

- Core element: extended peer community

- "The dynamic of *resolution of policy issues* in post-normal science involves the *inclusion of an ever-growing set of legitimate participants* in the *process of quality assurance* of the scientific inputs." (Funtowicz, Ravetz 1993: 752)

- "This *extension of legitimacy* to new participants in policy dialogues has important implications both for society and for science. With mutual *respect among various perspectives and forms of knowing*, there is a possibility for the development of a genuine and effective democratic element in the life of science." (Funtowicz, Ravetz 1993: 741)

- "Thus post-normal science is indeed a *type of science*, and *not merely politics or public participation*. However different from the varieties of problem solving that have now become entrenched and traditional, it is a valid form of enquiry, appropriate to the needs of the present." (Funtowicz, Ravetz 1993: 750)

# Democratisation of Science
# Political Agenda

- PNS more than mere science, it definitely involves a political strategy:
  "values are not presupposed but are made explicit"
  "consisting of all those with a stake in the dialogue on the issue"

- "Only a *dialogue between all sides*, in which scientific expertise takes its place at the table with local and environmental concerns, can *achieve creative solutions* to such problems, which can then be *implemented and enforced*. Otherwise, *either crude commercial pressures, inept bureaucratic regulations, or counterproductive protests will dominate*, to the eventual detriment of all concerned." (Funtowicz, Ravetz 1993: 751)

- Scientific knowledge of better quality for better governance and more relevant and robust innovations and institutions.

# Democratisation of Science
# Blind spot?

▪ Clarification of basic concepts

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N- 5020 Bergen - Norway

## The Landscape and Isobars of European Values in Relation to Science and New Technology

## (Value Isobars)

A research project funded by the European Commission, June 2009- November 2011

### Goal

The goal of this project is to provide the blueprints for a value-based and value-informed new and flexible governance of the science-society relation in Europe.

The study shall identify necessary research tasks in order to move from a generic understanding of value-based and value-informed governance to more specific mechanisms of governance that improve current practice.

Emerging biotechnologies with dual use problematic and security technologies (biometrics) shall serve as pilots to test the validity of the framework.
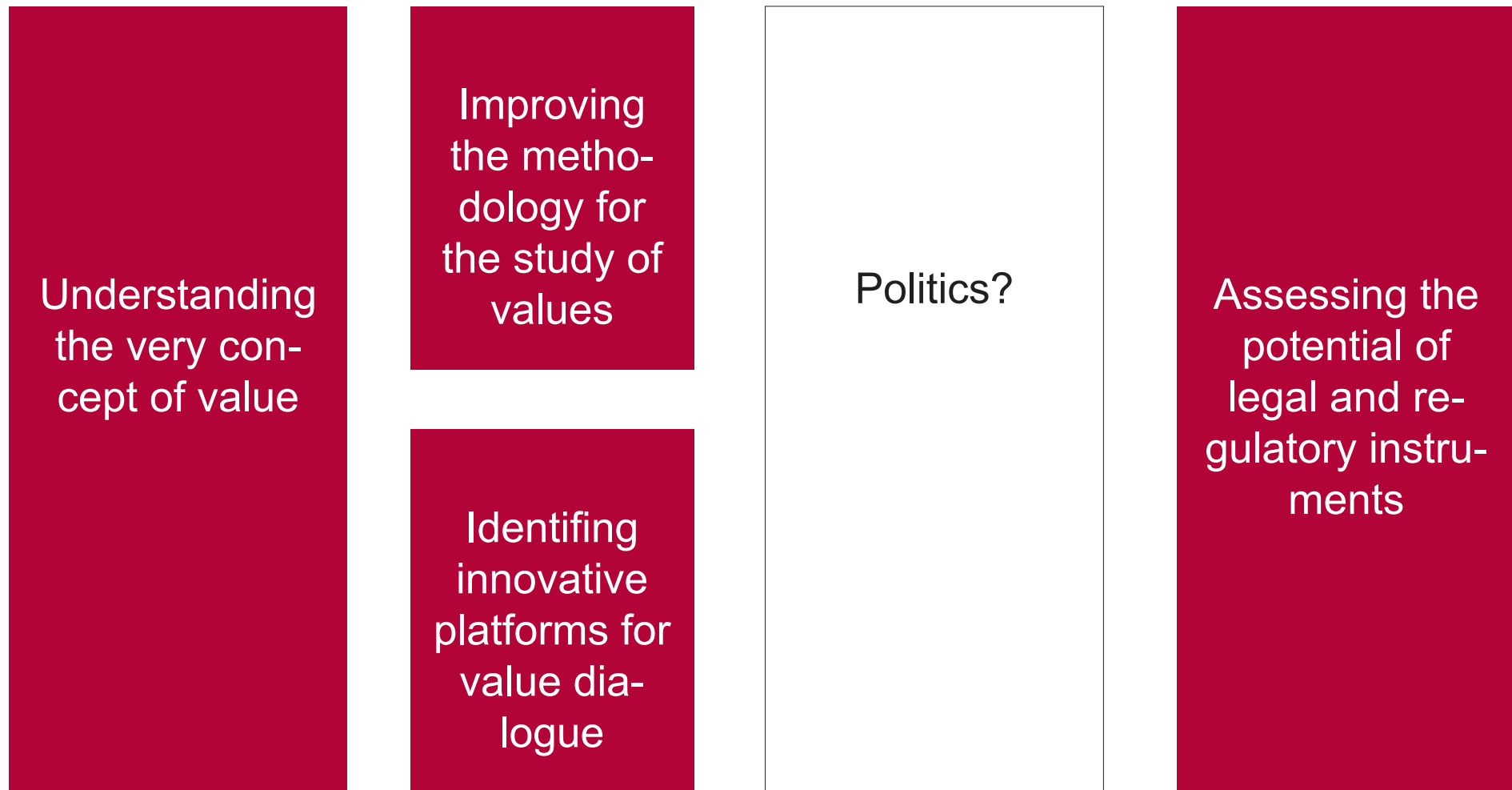
The key research challenges are:

- understanding the very concept of social/ethical values in both socio-political and philosophical respect

- improving the methodology for the study of values

- identifying innovative mechanisms of platforms for value-based dialogue in civil society and citizen consultation

- and assessing the potential of legal and regulatory instruments, including soft-law, to provide value-oriented framework orientation for scientific and technological development.

# Democratisation of Science
# Blind spot?

Understanding the very con-cept of value

Improving the metho-dology for the study of values

Identifing innovative platforms for value dia-logue

Politics?

Assessing the potential of legal and re-gulatory instru-ments

## Democratisation of Science
## Political Agenda - Two points to consider

1. Improving the governance of science: We want science (PNS) to contribute to solve urgent social problems:

- How can this better knowledge be fed into the policy process?
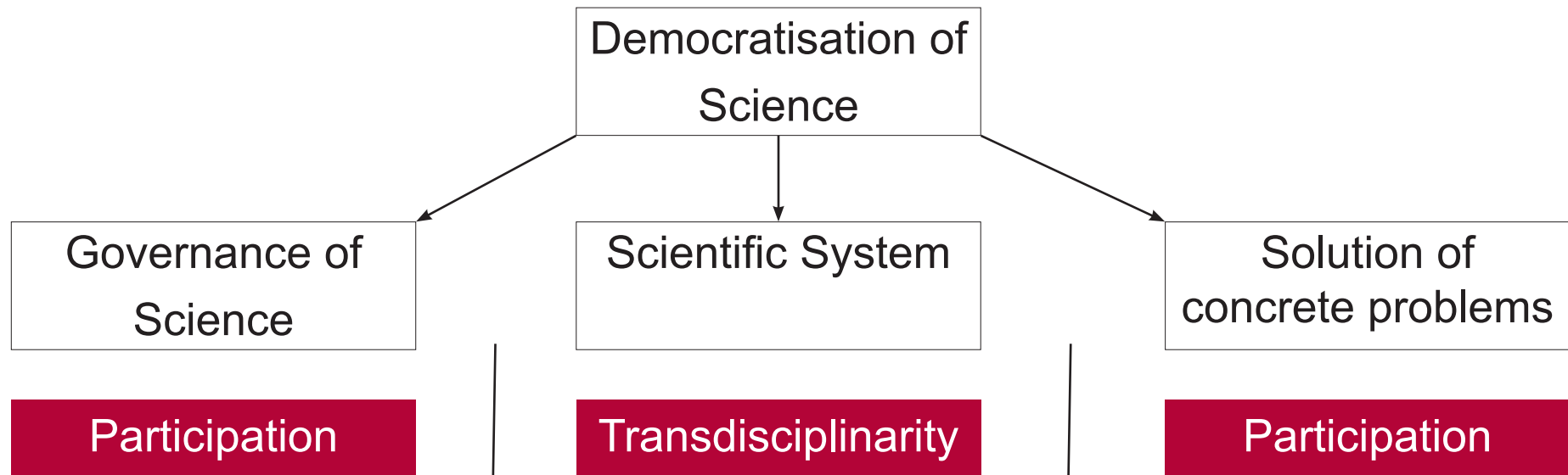
- What to do with power differences?


2. Doing science: We want to include more perspectives into science.

- What does that mean for science (humanities?)?

- If we want to include more stakeholder to an ethical deliberation on (contested) values and norms: How can a transdisciplinary ethics look like?

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# Political Agenda - Two points to consider

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# Democratisation of Science
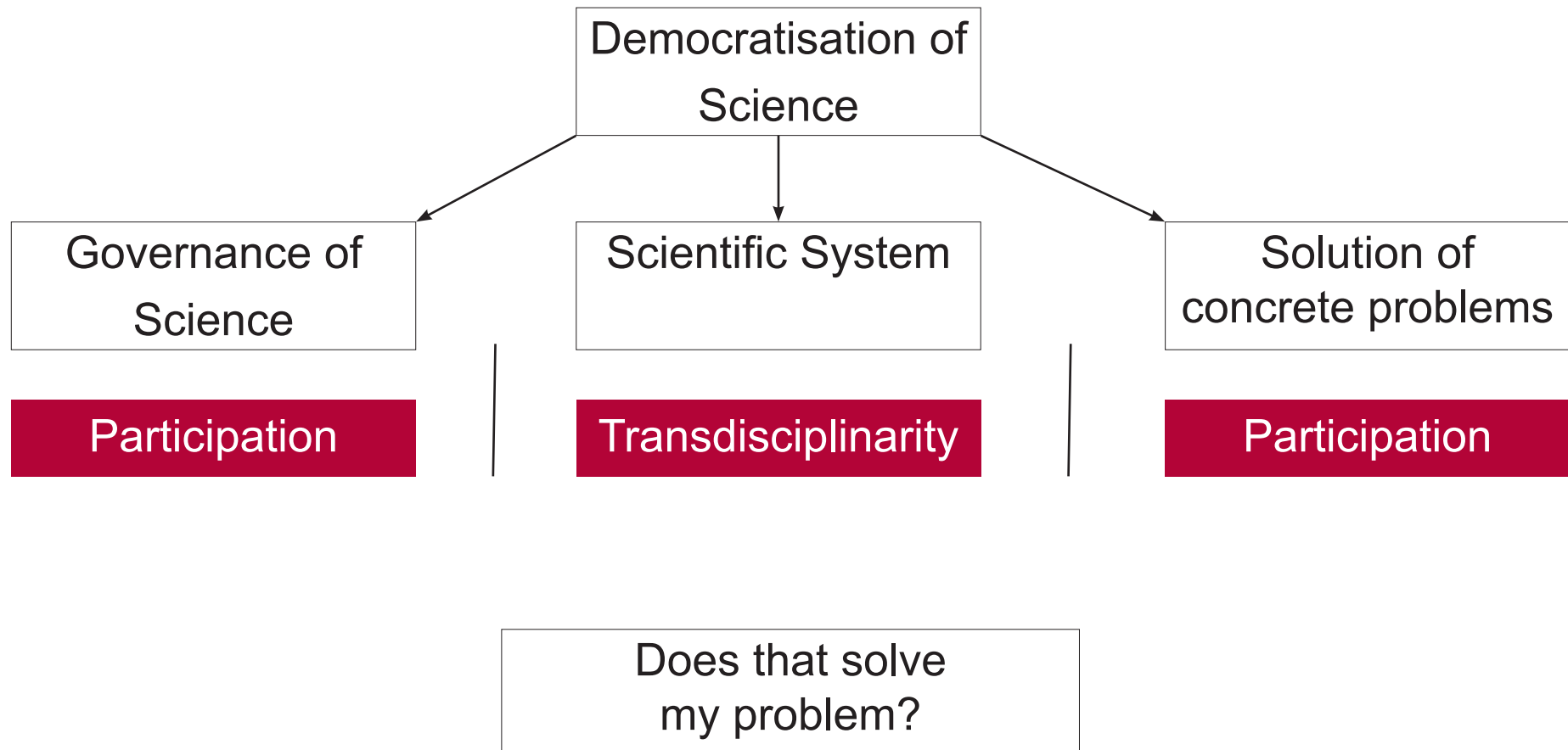
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# Democratisation of Science



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  Participation    Transdisciplinarity   Participation


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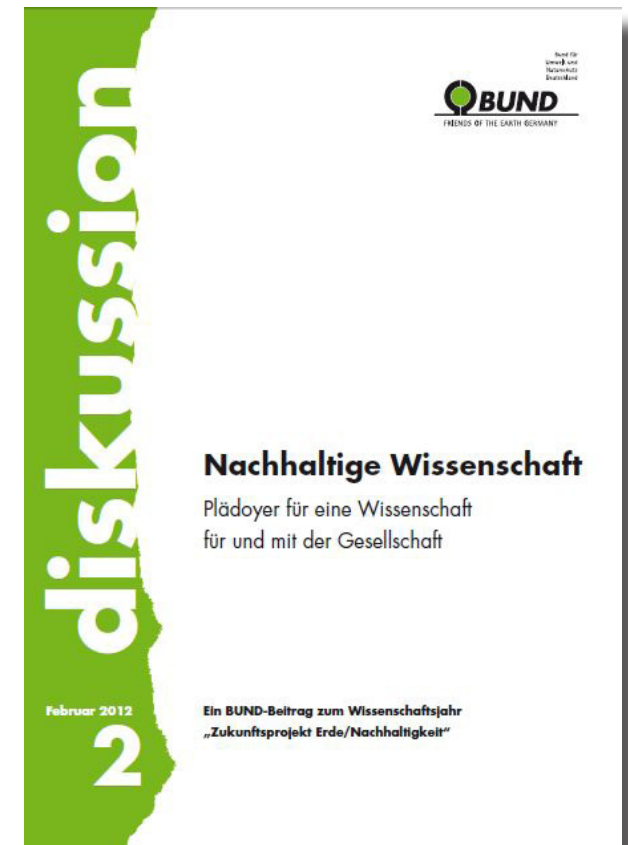```

# Participation

## Participation
## Governance of Science

- Where do the problems come from?

- Where does the money go to?

- Which structures are to be set in place?

  →     Whose values are going to determine the governance of sciences?

- Extended peer review can be an excellent way of creating more legitimate re-search agendas.

  →     By which mechanisms are we going to extend peer review?
  →     How do we feed the values of stakeholders into the political process?

## Governance of Science
## Civil Society Calling!

- Discussion Paper "Sustainable Science. The case for a science for and with society" by *Bund – Friends of the Earth Germany*

- Biting criticism of current governance of science: Lack of methodological diversity, Problems of third party funding and commercial influences on (governance of) science, need for inter- and transdisciplinarity and ethically sound orientative knowledge ... and need for post-normal sciences.

- How BUND sees the development of the sciences:

| 1950s-1970s | 1980s-2000s | task |
|---|---|---|
| State-driven governance of science | Business-driven governance of science | Society-driven governance of science |

diskussion

BUND
FRIENDS OF THE EARTH GERMANY

**Nachhaltige Wissenschaft**

Plädoyer für eine Wissenschaft
für und mit der Gesellschaft

Februar 2012

2

Ein BUND-Beitrag zum Wissenschaftsjahr
„Zukunftsprojekt Erde/Nachhaltigkeit"

# Governance of Science
# Civil Society Calling!

- Statement by *Nature and Biodiversity Conservation Union* to the German Parliament (Standing Committee on Education, Research and Technology Assessment, 27.6.2012)

- "In the end, public money for research predominantly goes either to the re-search and development divisions of private firms or research instutites that are closely related to product development for industry. Governance of science fit for the future has to be more democratic and transparent. Civil society has to be integrated in the definition, implementation and evalution of research projects."

# Governance of Science
# Civil Society Calling!



- Project on the Tübingen Civil Clause:
  "Research, teaching and studing at the university shall serve peaceful purposes, enrich the coexistence of the people and perserve the natural resources." (2010)

- Claim by Tübingen students and civil society (peace movement, leftish groups)

- Suspicion: who is funding science?

- Negative Aim: No collaboration with military-industrial complex

- Positive Aim: Education for peace and sustainable development

## Participation
## Solution of problems

- Who defines the problem?

- Whose values, knowledge, interests, experiences are going into the solution of the problem?

- What is the best scientific knowledge to solve the problem?

- Which role does context play?

- Who decides on the rules? Who implements them? Who sanctions them?

- ...

## Participation
## Ethical questions

- By which ethical mechanism can we get to the values of stakeholders and possibly unorganised citizens?

In moral philosophy, many ethicists believe that ethics (or ethical mechanisms) cannot create legitimacy. Legitimacy is bound to democratic institutions.

Ethics can evalutate the moral quality of political decisions but it cannot create legitiate decisions itself because that is beyond the competence of ethics.

- How can we feed the values of stakeholders into the political process that determine the governance of sciences without delegitimising democratic institutions?

- How can we implement socio-technical solutions without ignoring value bindings of society and violating rights?

# Transdisciplinarity

# Transdisciplinarity
# Ethics

- In transdisciplinary science, non-science actors (civil society, politics, econo-my...) contribute to the solution of problems.

- It is about the interaction of science and society and creates a much broader (more legitimate) knowledge base.

- It necessitates new methods how to deal with different forms of knowledge (next to traditional forms of knowledge from hard and soft sciences also local knowledge).

  → What does that mean for a transdisciplinary ethics?

# Transdisciplinarity
# Ethics

- We want to find ethical sound solutions to urgent problems.

- In ethical debate, we will be faced with "thick moral statements": Statement that encompasses a descriptive and a normative element that in everyday usage are connected but that can be separated analytically.

- IZEW: Model of ethical judgement ("Modell ethischer Urteilsbildung") based on Practical Syllogism.

- Mixed ethical judgements: descriptive element - normative element - prescriptive conclusion

# Transdisciplinarity
# Ethics

- Widening the knowledge base of ethics:

1. Descriptive elements: How the world is perceived to be? („facts")
2. Normative elements: What ought to be done? („values")

- Including more people into ethical reasoning can enhance the knowledge base of both and produce more sound ethical judgements. - But:

- How can we come to a conclusion? Is there something like an ethical compromise?

# Transdisciplinarity
# Ethical compromise

- Is there a problem? - There might be!

- If you believe in the existence of absolute values whose validity ("Geltung") is imperative, a compromise in a value conflict seems impossible. If you make a compromise, its validity is not imperative.

- You can go for value generalisation (H. Joas). - Takes too much time.

- You can go for open, transparent deliberation in impartial institutions. - Might be, but outside of ethics.

- Is there anything like an absolute value? - Values can be seen as contextual. We have to look at how value bindings originate. Value priorisation within contexts might be easier.

- And still: what about the conclusion of the mixed judgement?

# Transdisciplinarity
# Ethical compromise

- Depending on a problem's urgency, transdisciplinary ethics might not be possible. The more urgent and pressing a problem is, the less likely transdisciplinary ethics might be possible (boundary crossing).

- We can take the position of an ethical judge, can't we? - No!

- We are taking about their real lifes, their problems. That is not an ethical exercise within the sciences any more. - And now?

- Legitimacy of an social order or technology might not depend on the factor that it realises all possible values and norms that exist in a society. It might be created in open deliberative processes. This, however, takes place in democratically legitimised institutions - outside of ethics.

- By transdisciplinary ethics, we can inform politics on values, value bindings, value meanings and possibly about value hierarchies in different social contexts.

- But then: how to feed it into the political process so that it is not ignored?

# And now?

## Questions answered?
## Does it help?

- Yes:

  → I still think that there is a political side that is beyond science.

  → I think that there is something to do for transdisciplinary ethics.

- No:

  → I think that there is reasoning where you cannot integrate moral issues into ethical debates and do as if this is only an scientific exercise.