

Transdisciplinarity for sustainability transformations

Short description: Sustainability challenges are said to call for a new type of science. Under catchwords like ‘Mode 2’ or ‘post-normal science’, scholars have argued for moving beyond merely scientifically reliable knowledge toward socially more robust knowledge. One important aspect of robust knowledge is that it is tested for validity not only inside the (proverbial) laboratory. The test typically occurs outside the pure realm of science, in a world in which social, economic, cultural, and political factors shape the products and processes resulting from scientific work. Providing solutions for sustainability also implies that research cannot (only) be organized in a strictly disciplinary way, but that knowledge production has to be oriented towards specific social problem areas and political challenges.

In recent years, *interdisciplinarity* and *transdisciplinarity* have become key terms in contemporary reflections on new forms of scientific research and organization. They are frequently seen as effective means of addressing increasingly complex societal problems, the nature of which cut across the boundaries between orthodox disciplinary knowledges. Upholding these noble principles in real-world research and policy processes is, however, far from easy. Research at the chair group of Sustainability Governance has started to ask – in a critico-constructive way – to what extent and under which conditions pioneering cases of new knowledge production can live up to their high normative expectations.

Master theses could be (more or less directly) tied to previous or ongoing ‘local’ research or policy processes, including “*WiNo – Knowledge Dialogue Northern Black Forest*” (www.wissensdialog-nordschwarzwald.de, in German) or “*Freiburg – City of the Future*” (zukunftsstadt.freiburg.de, in German). Alternatively, students could also bring case studies from other cities or countries.

Methods: various (depending on research focus), incl. systematic review, qualitative interviews

References:

- Lang, Daniel J., Wiek, Arnim, Bergmann, Matthias, Stauffacher, Michael, Martens, Pim, Moll, Peter, Swilling, Mark & Thomas, Christopher J. (2012): Transdisciplinary research in sustainability science: practice, principles, and challenges. *Sustainability Science*, 7/1, 25-43.
- Pregernig, Michael (2006): Transdisciplinarity viewed from afar: science–policy assessments as forums for the creation of transdisciplinary knowledge. *Science & Public Policy*, 33/6, 445–455.
- Pregernig, Michael, Rhodius, Regina & Winkel, Georg (2018): Design Junctions in Real-World Laboratories: Analyzing Experiences Gained from the Project Knowledge Dialogue Northern Black Forest. *GAIA*, 27/S1, 32-38.

Starting date: at any time

For how many students this topic is available: several

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