



Zurich-Basel Plant Science Center

IDP BRIDGES Summer School
September 21 – 25, 2015
Einsiedeln



Tackling Wicked Problems

contact information:

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1. About the Summer School

Benefits

By the end of the summer school students will:

- Understand the key features of wicked problems and the implications for practice of defining a problem as wicked
- Understand the interconnected nature of organisations and environments, e.g. emergence, feedback, chaos and self-organisation and how understanding these properties help us shape responses in wicked problem situations
- Apply systems thinking and practice, i.e. learn to think more holistically and work more collaboratively to avoid systemic failures
- Develop a common language, common understanding and an agreed way to manage complex systems in a participatory approach
- Apply decision making tools for choosing between different options for action, and
- Understand approaches for transformation into society and policy.

Outcomes

Students will be put in groups of 4-5 persons at the start of the summer school according to their preferred case study, working in this group throughout the week. The case studies serve to apply the newly acquired skills and tools. Outcome is a summary with a description of the problem and of the different steps applied.

2. Schedule

Day 1:

Mon 21	Topic	Speaker
10:00 – 10:30	Welcome Getting to know each other. Aims of the week	Organisers
10:30 – 11:00	The Grand Challenges	Gerd Folkers
11:00 – 12:00	Wicked Problem Framework	Melanie Paschke
12:00 – 13:15	Lunch	
13:15 – 14:00	Introduction to Case study group work	Andrea Pfisterer
14:00 – 18:00	Complexity Games	Robin de Carteret
18:00	Dinner	
20:00 – 22:00	Improvisation and Collaborative Creativity	Robin de Carteret

Day 2:

Tue 22	Topic What is?	Speaker
8:30 – 9:15	Introduction to Transdisciplinarity and Problem framing	Christian Pohl
9:15 – 11:15	Case studies: keynotes plus discussion	C. Garcia, A. Dray, A. Pfisterer, L. Last
11:15 – 12:15	Framing research questions for your case study	
12:15 – 13:30	Lunch	
13:30 – 18:00	Eight steps for tailoring your research questions to societal knowledge demands	Christian Pohl
18:00 – 19:00	Dinner	
20:00	Introduction to Systemic inquiry	Martin Reynolds

Day 3:

Wed 23	Topic What could be?	Speaker
8:30 – 12:00	Applied systems thinking: Systemic inquiry methods	Martin Reynolds
12:00 – 13:00	Lunch	
13:00 – 18:00	Group work	Martin Reynolds



18:30 – 20:00 Dinner

20:00 – 21:00 **Keynote: Puzzling and Modulating. Tentative** Peter Stegmaier
Governance of Innovation Dynamics

Day 4:

Thu 24	Topic Social change: What can be?	Speaker
9:00 – 12:00	Applied ethics for decision making	Ivo Wallimann-Helmer
12:00 – 13:00	Lunch	
13:00 – 15:00	Approaches for social learning and system transformation	Julia Backhaus
15:00 – 18:30	Group work	
18:30 – 20:00	Dinner	
20:00 – 21:00	Evening free /Group work	

Day 5:

Fri 25	Topic	Speaker
8:30 – 9:00	<i>Rooms checkout; clean</i>	
9:00 – 12:00	Group presentations and discussion	Students
12:00 – 13:00	Lunch	
13:00 – 14:30	Synthesis	Organisers

3. Speakers

Julia Backhaus

BSc and MPhil in Science and Technology Studies, both from Maastricht University.

At the International Centre for Integrated assessment and Sustainable development (ICIS) at the University of Maastricht (NL), Julia is currently working on her doctoral thesis and is involved in teaching. Her research focus is on transition efforts towards more sustainable living practices. She aims to shed light on what individual actors or actor groups consider to be at stake and how they assume change can be brought about. The goal of this work is to explore the power of shared views and assumptions and the dynamics between diverging or conflicting ideas how sustainable living can be achieved.

Robin de Carteret

Physics degree and an MSc in Holistic Science from Schumacher College.

Educator, facilitator and consultant in participative education, complexity science and sustainability. He specialises in using experiential activities for investigation, learning and communication. He has worked free-lance since 2011 delivering workshops in System Thinking acting to bring about change from a living systems view of the world and has worked as a sustainability educator for over 15 years. He also teaches performance improvisation and was co-founder of Transition Leicester, applying a systems perspective to reviving local communities. Website: www.systemsgames.org.uk.

Gerd Folkers

Professor of pharmaceutical chemistry since 1991

Director of the Collegium Helveticum since 2004. Jointly sponsored by ETHZ and the University of Zurich, this research institute explores new scientific perspectives through transdisciplinary processes.

His key interests in terms of basic research on the interplay between science and the humanities is the relevance of models, collections and their interpretation, with particular emphasis on human modelling. During his career, Folkers has also trained in the philosophy and history of science.

Melanie Paschke

PhD in Ecology and environmental sciences.

As director of the Zurich-Basel Plant Science Center, Melanie is fundraising and enabling large-scale training and research programs on European and national scale.

Melanie is also an educator in all areas of academic professional conduct and transferable skill development with more than 30 training workshops, summer schools and seminars taught in previous years. She developed curricula for graduate and post-graduate training including two PhD programs (Plant Sciences, Science & Policy) and one post-doctoral career development program (PLANT FELLOWS) and is mentoring fellows in advancing the next steps of an academic or non-academic career.



Andrea Pfisterer

PhD in Ecology. As the former coordinator of the PhD Program Science & Policy, she has developed and established the curriculum of this PhD program, setting up the courses and organising workshops, public events and summer schools. Organising the summer schools on such policy-relevant and transdisciplinary topics as 'Food Security', 'Bioeconomy' and now 'Tackling Wicked Problems', widened her horizon for the challenges of transdisciplinary work.

Christian Pohl

Lecturer and senior research fellow at the TdLab (Transdisciplinary lab) at the Department of Environmental Systems Science ETH Zurich. He studied environmental sciences and wrote a doctoral thesis on uncertainty in environmental assessments. His main interest is transdisciplinarity as an intellectual tool to address socially relevant issues, like environmental problems or sustainable development. In his research, he accordingly focuses on transdisciplinary research as a process of knowledge co-production that interrelates research and societal change towards sustainable development.

Martin Reynolds

PhD in International Development at the Institute for International Development Policy and Management (IDPM) at the University of Manchester. Senior Lecturer and Postgraduate Qualifications Director in Systems Thinking in Practice at The Open University, UK. His teaching and research focus on issues of critical systems thinking in relation to international development, environmental management, and business administration. He provides workshop design, support and facilitation for professional development in systems practice and critical systems thinking.

Peter Stegmaier

Assistant Professor at Science, Technology, and Policy Studies at the University of Twente (NL). Peter studied sociology, social psychology, law, and economics at the University of Munich and at Goldsmiths' College in London.

His research interests include social theory and methodology, knowledge and normativity, theories of action and institutionalization, phenomenology, philosophical anthropology and neurology, and the sociologies of science, governance, innovation and citizenship, as well as that of music.

Ivo Wallimann-Helmer

PhD in Philosophy, specialisation in political philosophy and applied ethics. Director of the Program "Advanced Studies in Applied Ethics", hosted by the Centre for Ethics, University of Zurich. In his current research project he focuses on democracy and climate change.