

Leverage Points 2019: a transdisciplinary conference, inspiring change

From February 6 to 8, 2019, Leuphana University of Lüneburg hosted the first ever Leverage Points conference on sustainability research and transformation.

On behalf of the whole Leverage Points project team from Leuphana University, members of the team take stock with colleagues from the Bridging the Great Divide project from Leuphana University, and the NaWis network.

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The conference *Leverage Points 2019* attracted 500 people from all over the world, discussing interventions to create and enable radical changes towards sustainability. The 70 sessions covered the themes of rethinking knowledge, restructuring institutions, reconnecting to nature, systems thinking, transformative research practice, and emergent themes. Keynote speakers from a range of disciplines, within and outside of academia, joined us to offer their own perspectives. Through the three days, radical change emerged as the ethos of the conference, which was reflected in both the format and atmosphere of the event, and in the impact to participants. The conference originated from within the *Leverage Points* project, run by Leuphana University, funded by the Volkswagen Foundation. The project was inspired by Donella Meadows's essay on intervening in systems (Meadows 1997). During the past five years, 15 postdoctoral and PhD researchers, and eight professors conducted a joint project on this topic at Leuphana University. The conference was the final part of this project.

A radically different conference

Our experience throughout the project was that genuine transdisciplinary collaboration, on emotive topics, can be challenging

and therefore benefits from a supportive and reflexive environment. We sought to provide such an environment throughout the conference, even as the number of participants rose from 150 to 500! We wanted to create opportunities and structures to support a transdisciplinary conference, providing a venue that has diverse and energizing forms of interaction, exchange and knowledge production.

We built the conference on three pillars: 1. By creating a welcoming and engaging atmosphere, we tried to make people feel instantly at home and to spark different formats to exchange. 2. Accessibility was vital to us, as we wanted to create a diverse and inclusive setting, for instance, by providing an array of means to support parents with small children. 3. Diverse hierarchies – our students made this conference happen, and they were the engine of the conference, both in terms of active participation as well as organization. In particular, they helped link the conference knowledge together by acting as rapporteurs from the sessions.

One huge goal of our conference was to encourage big picture thinking – in a large conference, it is easy for sessions to just happen, and for attendees to become passive in this process. We tried to synthesize and integrate findings from across the entire event. Our graphic facilitators depict-



ed outcomes in keynotes and plenaries, thereby channeling smaller session outcomes towards the guiding questions we set for each day (figure 1, p. 56). Hence we were able to create feedback loops of information, and used the outputs from sessions to connect to the plenary sessions, as well as the graphic interconnections wall. >

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sche Forschungsgemeinschaft (DFG) at Leuphana University of Lüneburg, also investigated a comparative perspective and presented quantitative results from a meta-study at the conference. Following the model of Clark (2007), sustainability science aims for *use-inspired research*. While the academic impact of *basic research* is often assessed through measures like the number of citations per million Euros funding, the societal impacts of *use-inspired research* have also to be assessed on a “societal outcomes index”. This index refers to the depth of societal impact (self-reported but also externally checked) on five dimensions: recognition, discussion, test, application, and continuation.

Mobile Solution Workshop

The conference venue offered the opportunity to test a new tool for transformative research practice, the *Mobile Solution Workshop*. It was developed at Leuphana University, based on existing *Decision Visualization Environment* concepts (John et al. 2018). *Decision Visualization Environments* support research, planning and decision-making at the science-society-policy interface.

Similarly, the *Mobile Solution Workshop* aims to bridge the gap between understand-

ing complex challenges and specific local solutions. However, in contrast to existing concepts our approach enables stakeholders to interact and improve complex models and case study approaches by utilizing five big screens controlled by a mobile computer and tablets. The *Mobile Solution Workshop* was part of the open common space where conference attendees could witness and participate in breaking down and interacting with solutions into comprehensible steps on the screens (figure 2).

In the *Mobile Solution Workshop*, solutions are not pre-defined by scientists, but developed with stakeholders in a workshop setting guided by the visualization of data in order to empower stakeholders in the decision-making process, and to subject models to practical testing. During the conference attendees competed in creating scenarios to reduce carbon emissions in an agent-based mobility transition model developed by scientists from the *Global Climate Forum*, Berlin. Participants were able to create scenarios on the tablets and immediately see the effects of different combinations of policies, events and investment options. Overall, the *Mobile Solution Workshop* represents one of the numerous diverse approaches for interactive knowl-

edge production presented at the conference, aiming to break new ground to overcome the knowledge-action gap. Many people felt empowered by interacting within the model we used as an example, creating visualizations of complex system dynamics. The feedback from the conference highlighted the need for such radical approaches, and exemplified how new interactive formats can not only allow for new interaction between science and society, but also add new components to a conference setting.

Take-home message

We heard from many participants and also from our team how empowered and inspired people felt at this conference. By bringing the different branches of the sustainable science community together for a few days, the potential and challenges of this emerging arena in science became more tangible. Many participants felt encouraged in their radical thinking, and discussed ways to develop it.

Simultaneously, the need to recognize linkages to other fields of research, and to further address the knowledge action gap, became clearer. Overall, the meaningfulness of the leverage point concept became evident, not least because many participants’ paradigms were challenged and mind-sets shifted. To this end, the conference served as a leverage point for its attendees.

FIGURE 2: The *Mobile Solution Workshop*, presented at the *Leverage Points 2019* conference.



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