Capacity building for transformational leadership and transdisciplinarity

Two new academies support future change agents: The Postdoc Academy for Transformational Leadership is designed to develop the next generation of leaders in sustainability and transformation research. And the platform tdAcademy aims to be a continuously evolving knowledge base for transdisciplinary research.

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Sustainability science as a mode of user-inspired basic research (Clark 2007) calls for new approaches to research addressing the manifold challenges of social-ecological systems (Lang et al. 2012). Scholars in sustainability science increasingly call for interdisciplinary and transdisciplinary research approaches that are problem and solution oriented and involve practitioners and researchers from different disciplines alike to better understand complex social-ecological problems (von Wehrden et al. 2018, Miller et al. 2014).

Such research approaches require specialists from multiple disciplines who are able to balance disciplinary expertise with proficiency in inter- and transdisciplinarity and knowledge integration which in turn necessitates new skills, structures and institutional support (Fam et al. 2017). New and targeted educational – or more broadly capacity building programs – are needed to empower change agents accordingly (Gordon et al. 2019).

Transformational leadership in a transdisciplinary environment

Lessons learnt from experiences with inter- and transdisciplinary research in sustainability science are now available, arguing what is needed to address complex social-environmental problems and to better prepare the next generation of academics in sustainability science (Schmidt et al. 2018, Görg et al. 2014, Fam et al. 2020). This need is also increasingly acknowledged in educational formats in postgraduate education which emphasize approaches across disciplines and epistemological perspectives (Lyall and Meagher 2012). At the same time, the manifold tensions that come with such research approaches are stressed. Dana Fam et al. (2020) identified tensions of individual versus team expectations and outcomes, disciplinary versus inter- and transdisciplinary outcomes, and learning versus research objectives as particularly challenging.

Early career researchers (ECRs) who are striving for their place in academia in sustainability science face one particular additional challenge: finishing their PhD and getting a tenured position. This challenge is the tension that exists between traditional expectations of the academic system with its metrics and indicators and the increasing demand for socially relevant research and outcomes and thus a very different kind of impact. To best support such future change agents calls for formats that enable capacity building for transformational leadership in which mutual learning from and with peers is encouraged, which encourages space for reflection and fosters steps to become more autonomous and self-responsible.

In what follows we want to introduce two formats designed by several partners that explicitly address this tension and are targeted for postdocs who are aiming for a career in sustainability science and in the second case also for advanced researchers.

The Postdoc Academy for Transformational Leadership

The Postdoc Academy for Transformational Leadership is designed to empower the next generation of leaders in sustainability and transformation research. It is an initiative of the foundation Robert Bosch Stiftung, jointly run by the foundation and four academic partners.

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The Postdoc Academy for Transformational Leadership has initiated a new program cycle with 20 participants each year since 2018. The third cohort of participants will have their first seminar in October 2020. The fourth call for participants will open in December 2020. This way, a network of promising leaders in sustainability and transformation research will be established over the next few years. This network is expected to play a significant role at the interface of science, society, and policy at the national and European level.

Fellowship program and capacity module of the platform tdAcademy
The recently established platform tdAcademy, initiated by the Institute for Social-Ecological Research (ISEO), Leuphana University of Lüneburg, Oeko-Institut and the Center for Technology and Society (ZTG) at the Technische Universität Berlin, aims to be a continuously evolving knowledge base for transdisciplinary research, as well as a platform for its global community to reflect on existing concepts and methods, discuss the latest insights, and develop new ideas. Accordingly, the tdAcademy has three objectives:

- First, consolidation and further development of the state-of-the-art insights concerning four issues relevant for transdisciplinary research: societal impact, scientific impact, context dependencies, and new formats.
- Second, providing high quality capacity-building opportunities (e.g., summer schools or workshops) for transdisciplinary researchers, especially at the early-career level.
- Third, supporting and further developing the global transdisciplinary research community by providing a space for exchange, reflection, collaboration, and new ideas.

ECRs will play an important role for the tdAcademy because they are at the leading edge of developing, discussing, and conducting transdisciplinary research, as well as initiating research collaborations. It enabled, for instance, the postdocs of the first cohort to meet regularly and plan publications in journals like Nature Sustainability. The postdocs of the second cohort received support to present their work at the International Sustainability Transitions Conference in August 2020.

1. [www.bosch-stiftung.de/postdocacademy](http://www.bosch-stiftung.de/postdocacademy)
2. [www.td-academy.org](http://www.td-academy.org)
We are excited to learn from the future experiences within the fellowship program, with more flexible formats that will involve researchers and actors across different career levels and with an even broader spectrum of backgrounds.

Conclusion and Outlook

The experiences of the first cohorts of the Postdoc Academy as well as the insights of TransImpact – the precursor project of the Platform tdAcademy – clearly confirm the need and benefit for capacity building, empowerment and networking opportunities particularly for ECRs. Yet, the experiences also highlight that these formats and spaces need to be shaped in a fundamentally different way than “educational” offers on the graduate and partly post graduate level. Although capacity building and the complementing existing competences in the sense of continuous/lifelong learning play an important role, a genuine mutual learning process between all actors involved, community building and the provision of spaces for the exploration of interfaces and new ideas are a particularly important further enhancement. In this sense we are also excited to learn from the future experiences within the fellowship program, with more flexible formats that will involve researchers and actors across different career levels and with an even broader spectrum of backgrounds.

The two formats described are not meant to compete with established and successful formats such as the TD Summer School at Leuphana University of Lüneburg or the TD Winter School designed by the TdLab at ETH Zurich but wants to complement them. As mentioned, one task of the tdAcademy is to make these different formats and offers accessible in a structured way to a broad (research) community and create a space for exchanging experiences among the ones involved in realizing them.

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References

Clark, W. C. 2007. Sustainability science: A room of its own. Proceedings of the National Academy of Sciences (PNAS) 104/6: 1737–1738.
Farn, D. et al. 2020. Interdisciplinary and transdisciplinary research and practice: Balancing expectations of the “old” academy with the future model of universities as “problem solvers”. Higher Education Quarterly 74/1: 19–34.
Farn, D., T. Smith, D. Cordell. 2017. Being a transdisciplinary researcher: Skills and dispositions fostering competence in transdisciplinary research and practice. In: Transdisciplinary research and practice for sustainability outcomes. Edited by D. Farn, J. Palmer, C. Riedy, C. Mitchell. London: Routledge: 77–92.
Gordon, I. J. et al. 2019. Forging future organizational leaders for sustainability science. Nature Sustainability 2/8: 647–649.
Görg, C. et al. 2014. Engaging local knowledge in biodiversity research: Experiences from large inter- and transdisciplinary projects. Interdisciplinary Science Reviews 39/4: 323–341.
Lang, D. et al. 2012. Transdisciplinary research in sustainability science: practice, principles, and challenges. Sustainability Science 7: 25–43.
Lyall, C., L. R. Meagher. 2012. A masterclass in interdisciplinarity: Research into practice in training the next generation of interdisciplinary researchers. Futures 44/6: 608–617.
Miller, T. R. et al. 2014. The future of sustainability science: A solutions-oriented research agenda. Sustainability Science 9/2: 239–246.
Schmidt, L., K. Hartberger, S. Kobbe, T. Falk, M. Wesselow, C. Schumann. 2018. Stakeholder involvement in transdisciplinary research: Lessons from three projects on sustainable land management in a North-South setting. GAIA 27/3: 312–320. DOI: 10.14512/gaia.27.3.12.
von Wehrden, H. et al. 2018. Interdisciplinary and transdisciplinary research: Finding the common ground of multi-faceted concepts. Sustainability Science 14: 875–888.