

Pathways to Impact:
Knowledge Exchange
Strategies for
Research and
Technology
Organisations

Vision and Aims

How do research findings make their way into business and politics? Which knowledge exchange pathways create a positive and lasting impact on society? How can stakeholders from outside academia actively participate in research and work with scholars to develop new solutions to urgent social, ecological, and economic problems? And how can research institutions actively contribute to the United Nation's Sustainable Development Goals?

The interdisciplinary research project *Transferwissenschaft* aims to offer innovative and future-oriented solutions to these challenges by rethinking and strengthening innovation-focused knowledge exchange between different areas and actors of the German innovation system. We strive to achieve societal impact and knowledge valorisation through a number of channels, namely:

- collaborative research between a public university and a leading non-university research centre within the Fraunhofer Society for the Advancement of Applied Research network. Several units of Technische Universität Berlin and the Centre for Responsible Research and Innovation (CeRRI);
- transdisciplinary research and joint knowledge production through the active engagement of stakeholders from business and industry, society, and politics;
- informing policy making on the regional and national level by providing and sharing knowledge exchange tools, policy advice, and training programs;
- and feeding back insights from empirical research and practical experience into academia.

All research output and briefing papers are published open access, or made available on the project's website (https://www.transferwissenschaft.de).

Target Audience

- Knowledge exchange strategists and managers in Research and Technology Organisations
- Researchers and educators in academia
- Research policy makers

Key Features

Transferwissenschaft follows a unique path to societal impact and knowledge valorisation. The project follows a practice-oriented approach that combines transdisciplinary empirical research with developing new opportunities for teaching and training, and prototyping and testing tools together with knowledge exchange strategists and managers. In doing so, we make sure that the results of our empirical research yield solutions that are validated and tested by prospective users, who will then use our tools, methods, and teaching and training curricula to shape future knowledge exchange policies, strategies, and practices.

Over the past two and half years, a number of pathways have demonstrated a high potential to achieve societal impact and knowledge valorisation, including: (a) shaping policy and knowledge exchange practices through transdisciplinary research; (b) teaching and training curricula; (c) developing and distributing tools and policy guidelines; and (d) developing and testing an actionable strategic framework for mission-oriented knowledge exchange serving a roadmap for knowledge exchange managers in research and technology organisations adapting their organisation's knowledge exchange strategy to fit Sustainable Development Goals.

- (a) Transferwissenschaft's transdisciplinary research methodology guarantees that relevant stakeholders from different sectors of society play an integral part in knowledge production through the integration of their specific knowledge resources and bodies of knowledge. This approach makes sure that relevant stakeholders are involved in the development and testing of knowledge exchange practices and strategies from the very start, thereby being able to negotiate research goals, and integrating insights from our ongoing research into their every-day work.
- (b) Qualified strategists and managers are key to achieving sustainable impact and innovative answers to complex societal challenges. We have developed and successfully tested a seminar for engineering students that aims at building up much-needed knowledge exchange skills for mission-oriented and co-creative collaboration processes. The seminar has been offered as part of the Mechanical Engineering curriculum at Technische Universität Berlin since winter 2019, and is currently completing its fourth teaching cycle.
- (c) Another unique feature of *Transferwissenschaft* is the continuing development of tools and policy guidelines assisting knowledge

exchange strategists and managers to achieve societal impact and policy agenda setting on the regional, national or international level. Over the past two years, our team has developed a number of tools and guidelines that are listed below. In addition, we maintain very close ties with policy makers from Germany by holding regular consultation events, workshops, and conferences.

(d) We developed a framework for the implementation of missionoriented, impact-focused knowledge exchange strategies and practices in universities and non-university research organisations. The framework exemplifies how knowledge exchange managers can meet the expectations posed by the merging policy paradigm by implementing a knowledge exchange-friendly culture and governance; build up organizational competence; identify actors, and build a network of collaborators; and facilitate co-creation. The framework was developed on the basis of expert input and a systematic review of scientific literature.

Our products and outputs, most notably our tools and guidelines, are being used by managers at the Fraunhofer Society headquarters, and will continue to influence the Society's approach to knowledge exchange strategies. Our expertise and insights have also informed the recent work of a policy think tank at the German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung), as well as the knowledge exchange strategy of Technische Universität Berlin.

Achievements & Learnings

- Seminar 'Engineering for Impact' at Technische Universität Berlin,
 Faculty of Mechanical Engineering and Transport Systems (since 2020)
- Foresight project 'Future of Transfer 2030+' (2020)
- Transdisciplinary online workshop 'online workshop 'The Future of Research and Research for the Future' (2020)
- 'Impact Circle: Tool for Integrated Sustainability' (2020-21)
- Toolkit 'Impact Entrepreneurship' (2021)
- Comprehensive strategic framework for mission-oriented knowledge and technology exchange (2021)

Launch Date & Duration

1 June 2019 to 31 Dec 2022

Partners/Sponsors

Project partners

- Technische Universität Berlin
 - Fraunhofer-Institut für Arbeitswirtschaft und Organisation IAO, Center for Responsible Research and Innovation CeRRI

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Further Information

Please find reports and publications at https://www.transferwissenschaft.de.

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