

# WP3 Sustainable development through transdisciplinary research: Overview

Focus Area 1: Sustainable development through transdisciplinary research

WP3: Sustainable development through transdisciplinary research (M6-M36)

Task 3.1 (M6-M12)

Analyse and categorise transdisciplinary approaches including structures, strategies, study cases and terminology used for different transdisciplinary approaches

D3.1  
(M12)

Task 3.2 (M6-M36)

Development of a framework for transdisciplinary research processes and integrated knowledge exchange between science and society

D3.2.1  
(M24)

D3.2.2  
(M24)

Task 3.3 (M6-M36)

Explore approaches to sustainability

D3.3.1  
(M36)

D3.3.2  
(M36)

Task 3.4 (M6-M36)

Develop transformation toolbox for transdisciplinary research

D3.4.1  
(M36)

# WP3 Sustainable development through transdisciplinary research: Overview

## // Main Objective WP3

The main aim of this Work Package is to develop a menu of pathways for universities to better address sustainable development through transdisciplinary research.

Work is oriented towards two main areas: 1) structures, strategies and initiatives related to transdisciplinary research, and 2) sustainable development.

## // Specific Objectives

**03.1** Mainstream, optimise and provide structures for institutionalising knowledge exchange between science and society by addressing structures, strategies and case studies/pilots within the Alliance

**03.2** Promote and enhance the international knowledge exchange between science and society within the Alliance

**03.3** Foster a common understanding of the relevance of and encourage the use of transdisciplinary approaches within ENHANCE universities as a way of solving 'wicked problems' for sustainable development, including challenges and bottlenecks.

# WP3 Sustainable development through transdisciplinary research: Activities & Outcomes August 2022 (M1)-February 2023 (M18)

// **Task 3.1 (M6-M12)** Analyse and categorise transdisciplinary approaches including structures, strategies, study cases and terminology

// **Task 3.2 (M6-M36)** Development of a framework for transdisciplinary research processes and integrated knowledge exchange between science and society

- **Mapping** (inc. 20 case studies)
- **Survey** (40 cases mapped and categorised)
- Structured **interviews** on select projects
- **Workshop** jointly with WP2 (Oct 2022) on mapping methodology and
- **Workshop** (May 2022) on categorisation, analysis and comparison.
- **Miroboard** collaborative working platform

**D3.1 (M12) Discussion, comparison and analysis of transdisciplinary approaches in ENHANCE partner universities**  
Comparison and analysis of the mapped transdisciplinary initiatives, exploring the different models of cooperation and approaches to transdisciplinarity in ENHANCE. Including glossary of key terms.

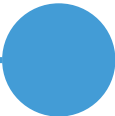


*Transdisciplinary Walk & Talk in Berlin, September 2022*

## **WP3 Walk & Talks**

Format developed for exchange of best-practice, to strengthen networking within ENHANCE on transdisciplinarity and increase understanding of different approaches to co-creation with society across the Alliance.

# WP3 Sustainable development through transdisciplinary research: Activities & Outcomes August 2022 (M1)-February 2023 (M18)



- **Methodology** developed along two paths:
  - 1) Develop a broad shared understanding of transdisciplinarity
  - 2) Identify good practice examples - defined with regard to levels of engagement and societal impact.
- Informed by ongoing **mapping** exercises (WP2 and WP3), **interviews**, **WP meetings** and **workshops**, **bilateral exchanges**, **Walk & Talks**.
- Clustering of mapped initiatives according to **level of engagement** and **societal impact** (plus relevant structural factors) ongoing via collaborative Miroboard.



<p>Cooperation model <b>(transdisciplinary)</b></p> <p>--&gt; structure-related providing long-term alliances</p>	<p>Research Centre <b>(inter- and transdisciplinary)</b></p> <p>--&gt; topic- and process-related, providing transdisciplinary processes</p>	<p>Social engagement programme <b>(transdisciplinary)</b></p> <p>--&gt; method-related providing teaching and research training</p>	<p><b>Interdisciplinary</b> network (Eng., Architecture and Design)</p> <p>--&gt; process-related + project-driven, providing interdisciplinary knowledge production in science, technology and innovation</p>	<p>Research laboratory/maker space <b>(multidisciplinary)</b></p> <p>--&gt; method-, process-related providing knowledge production and experimentation with enterprises + institutions</p>
<p>Sustainability and University Governance Office <b>(interdisciplinary)</b></p> <p>--&gt; structure-related, providing governance change and transdisciplinary agenda setting</p>	<p>Research project with <b>inter- and transdisciplinary agenda</b></p> <p>--&gt; topic-, process-related, providing multifaceted toolbox, methods and dialogue with regional partners</p>	<p>Strategic (real-world-lab) platform <b>(transdisciplinary)</b></p> <p>--&gt; structure-related, providing knowledge exchange, testing and evaluating transformation</p>	<p><b>Transdisciplinary</b> formats</p> <p>--&gt; method-related, providing a framework, processes, methods for knowledge integration, exchange</p>	<p>Strategic projects (on <b>inter- and transdisciplinary agenda</b>)</p> <p>--&gt; method-, structure-related, providing research, methods, networks and participation models</p>
<p>Research program <b>(interdisciplinary)</b></p> <p>--&gt; method-related, providing alliances between researchers with a technological profile</p>	<p>Research teams <b>(inter- and multidisciplinary)</b></p> <p>--&gt; structure-, topic-related</p>	<p>Business models and teams <b>(interdisciplinary, technology transfer)</b></p> <p>--&gt; process-related, project-driven, providing business models and scientific business teams</p>	<p>Partnerships (including industries) <b>(inter- and transdisciplinary)</b></p> <p>--&gt; structure-, topic-related providing interdisciplinary engagement of PhD candidates in development work</p>	<p>Central facility <b>(inter- and transdisciplinary knowledge transfer)</b></p> <p>--&gt; structure-, method-related, providing knowledge base, developing and implementing pilot projects, linking centres and services for transdisciplinarity</p>

# WP3 Sustainable development through transdisciplinary research: Ongoing & Upcoming Activities March 2023 (M19)- August 2023 (M36)

// **Task 3.2 (M6-M36)** Development of a framework for transdisciplinary research processes and integrated knowledge exchange between science and society

- The output of Task 3.1 (mapping, categorisation, development of glossary) has begun to inform the identification and development of methods and formats that can be used to support and foster transdisciplinary research at ENHANCE universities.
- The methodology that has been established will inform the next two deliverables, including a catalogue that will systematise further the mapping of transdisciplinary research projects within ENHANCE, collating the results of ongoing exchanges and offering recommendations for how ENHANCE universities can further foster transdisciplinary research projects, drawing on lessons learned from partners and good-practice identified in the mapping phase.
- An external publication will explore how this can be applied to a European pathway on transdisciplinarity, with a focus on how this research mode can be effectively used to drive the sustainable development needed to address today's grand societal challenges.
- Partners are for example engaged in a collaborative exercise to cluster the mapped transdisciplinary initiatives according to level of engagement, driving supporting structures, level of societal impact, and other key factors.
- Increased visibility of these activities is being generated and increased exchange within the Alliance and sharing of best-practice allows for key gaps to be identified and the necessary elements of the framework to be defined.

# WP3 Sustainable development through transdisciplinary research: Ongoing & Upcoming Activities March 2023 (M19)- August 2023 (M36)

## // Task 3.3 (M6-M36) Explore approaches to sustainability

- Within this task we are exploring how universities, and different actor groups within them, understand and apply the concept of sustainability, with the aim of better understanding the institutional, epistemic and practical barriers and enablers relevant to developing sustainable development strategies. We also explore how universities weigh central dilemmas and trade-offs of sustainability goals.
- Task 3.3. will result in a practice-based 'menu' that will highlight potential strategies and pathways for university actors (including university leadership, educators and researchers). To achieve this, we will conduct a series of targeted case studies across the ENHANCE universities, focusing on cases that involved actors understood as best-practice, as well as cases that are understood to be particularly challenging.
- The results of this work will be included in an external publication discussing the approach of universities of technology towards sustainability research and education.

## // Task 3.4 (M6-M36) Develop transformation toolbox for transdisciplinary research

- Throughout the activities in WP3 we seek to contribute to the gradual institutionalisation of transdisciplinarity and one key output will be a 'transformation toolbox'. This will be aimed at European universities of technology and offer recommendations for anchoring transdisciplinarity as a research principle for tackling the SDGs. This will include recommendations for strategic activities, supporting structures and building frameworks for establishing a permanent knowledge exchange between science and society.