

Bridging the Gap: Funding Transdisciplinary Research for Sustainable Land and Water Management in the EURO-Mediterranean Region



Based on findings from the following projects

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Executive Summary

EU funding increasingly prioritises research addressing complex agri-environmental challenges, such as soil degradation, biodiversity loss, and water scarcity, especially in the EURO-Mediterranean region, known as a climate change hotspot. However, current funding mechanisms often fail to adequately support the unique requirements of truly transdisciplinary research – a crucial approach for driving systemic transformations. This brief synthesises lessons from recent EU-funded projects, with a particular focus on the EURO-Mediterranean region. It analyses existing barriers and outlines actionable recommendations for funding frameworks, while recognising the specific resources and long-term commitment required for successful collaboration. These recommendations focus on funding framework conditions, emphasising the process quality of science-practice interfaces in transdisciplinary research projects and capacity building.

Introduction

Leaders of participatory approaches from a diverse range of EU-funded projects on Sustainable Land and Water Management for Combatting Land Degradation convened in July 2025 to discuss current challenges and lessons learnt in participatory research processes. Participants, bringing together diverse knowledge from different research experiences and representing disciplinary, interdisciplinary, and transdisciplinary modes of research, identified unique boundary conditions and requirements for each research mode when interacting with non-academic actors. This policy brief synthesises those experiences and proposes targeted funding conditions to support effective transdisciplinary projects in order to unlock the full potential of true science-practice collaboration and accelerate the transition towards sustainable agriculture.

The Current Landscape: Stakeholder Engagement in EURO-Mediterranean Funded Agricultural Research

Stakeholder engagement is increasingly recognised as vital for generating relevant, robust, and actionable research outcomes. The EU Mission Soil Health and Food as well as EU funding programmes, such as those under Horizon Europe's Cluster 6 (Food, Bioeconomy, Natural Resources, Agriculture and Environment) as well as the Partnership for Research and Innovation in the Mediterranean Area (PRIMA), actively encourage multi-actor approaches and co-creation of knowledge. Multi-actor approaches in research projects can range from disciplinary approaches – focusing on specific scientific questions with stakeholder consultation (e.g., assessing the performance of drought-tolerant crop varieties) – to interdisciplinary projects that integrate multiple scientific perspectives with stakeholder participation (e.g., evaluating the socio-economic impacts of different land use practices) - up to developing learning spaces where knowledge co-creation and social learning are enabled.

Co-creation of knowledge necessitates transdisciplinary approaches, actively involving a diverse range of non-academic actors – farmers, local administrators, policymakers, citizens, NGOs, and businesses – working as equal partners throughout the entire research process. This approach values contributions from many

different areas of expertise and promotes learning between researchers and stakeholders. It is designed to address real-world challenges with an explicit focus on societal relevance, developing a hybrid knowledge which combines scientific rigour with lay knowledge embedding local perspectives, conditions and needs. The goal is to create actionable knowledge and develop locally adapted, long-term solutions. This collaborative model is essential for tackling systemic and interconnected challenges like soil health degradation, biodiversity loss, and water scarcity, central to the European Green Deal objectives. Even in transdisciplinary research projects, usually all research modes - disciplinary, interdisciplinary and transdisciplinary – are utilised at different stages, depending on the respective research focus and objective and reflecting the inherent complexity of addressing real-world problems.

Engaging non-academic stakeholders in research projects comes with significant methodological and implementation barriers. Despite growing demand, currently, a gap exists between EU funding priorities and the realities of implementing truly transdisciplinary research projects. Although Horizon Europe offers financial support for third parties, its open calls primarily target EU citizens, which doesn't align with the intercontinental nature of many projects. Moreover, restricting project frames, persistent disciplinary silos and limited transdisciplinary capacity hinder genuine collaboration and inhibit the potential for realising lasting impact of such projects.



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Lessons from Practice: Navigating the Science-Practice Interface

Recent research projects funded by the EU on Sustainable Land and Water Management for Combatting Land Degradation reveal distinct benefits and challenges across different multi-actor approaches:

Disciplinary perspective: Stakeholder engagement through targeted consultation at specific points of the project provides valuable reality checks and user feedback on specific innovations, allowing the researcher to get an understanding for different perceptions, user needs and context. However, research necessitates adapting to stakeholder input, which may require new tools and capacities, whilst increasing the overall complexity of the problem. This can extend the research scope beyond original disciplinary boundaries and timeframes.

Interdisciplinary perspective: Stakeholder engagement through involvement of stakeholders in specific project tasks can facilitate impactful innovation and raise awareness about complex issues such as soil health. Multi-actor approaches allow for testing which information and arguments resonate with different actors and the public. However, engaging meaningfully with stakeholders requires specialised skills, time and resources. It also necessitates longer time horizons since field work and frequent engagement of stakeholders is time intensive, for researchers and stakeholders alike. The research system often does not promote field-based research due to publication timelines and by primarily disciplinary focuses of reviewers.

Transdisciplinary perspective: Stakeholder engagement through co-design and co-production delivers locally adapted, relevant, and actionable solutions, fostering wider acceptance and creating opportunities for out- and upscaling. However, differing stakeholder needs require careful consideration and solid local social capital embedded in the project is essential for building trust. Furthermore, project designs must be flexible and resources must be adaptable to the course of the decisions taken in collaboration with stakeholders. Managing expectations is crucial, as outcomes are often defined during the process, and inherent power imbalances must be addressed through training,

facilitation, conflict mediation and continuous reflection. Overall, transdisciplinary projects require different phases, tasks, and timelines compared to conventional research, often extending beyond the typical duration of 3 to 4 years of EU projects. For example, a preliminary phase is essential for co-developing a broad project framework with all participating stakeholder groups, as well as across distinct demonstration sites with different socio-economic and environmental settings. Throughout the project, consistent communication and a genuine interaction on equal terms are vital. In order to allow for long-lasting impact, follow-up projects must build on the established momentum and capacities, while addressing evolving needs. Moreover, continued communication and knowledge sharing should extend beyond the project's formal end. Transdisciplinary research requires a considerable time and personnel resources from stakeholders and researchers. If not managed carefully, stakeholders may feel overwhelmed and disengage over time (stakeholder fatigue).

Key Challenges: Experiences consistently demonstrate that building and maintaining robust science-practice partnerships requires significant time and sustained funding, dedicated resources for process management as well as specific expertise and skills. Albeit universal, these challenges increase with the level of stakeholder integration.

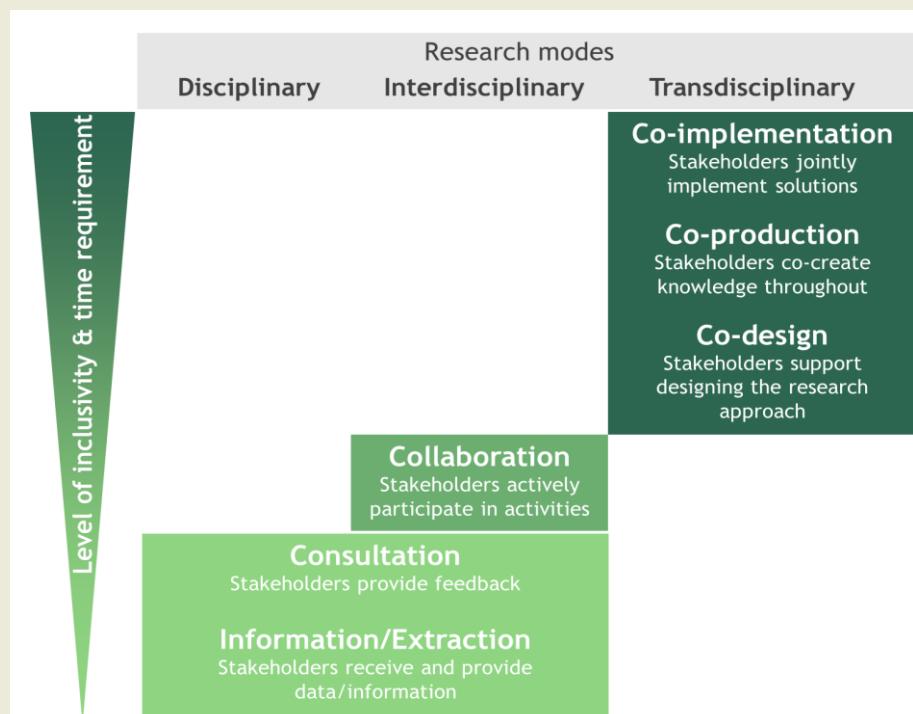


Figure illustrating the different modes of research (their approach) and their respective degree of stakeholder engagement (own elaboration based on Utrecht University / Pathways to Sustainability!).
1 <https://www.uu.nl/en/research/transdisciplinary-field-guide>

Policy Recommendations: Towards a Supportive Funding Framework of Transdisciplinary Agricultural Research

To effectively promote transdisciplinary land and water management research and maximise impact, we recommend EU funding agencies and programs adapt their approach to funding and project support in the following ways:

1. Framework Conditions: Allow for Project Flexibility & Continuity

Recognise Diverse Project Formats: Allow for flexible project designs, phases and budget that accommodate the evolving needs of both scientists and stakeholders, acknowledging that real co-design is time- and skill-intensive. This implies that projects with different disciplinary research modes and durations should not be evaluated with the same expectations.

Extended Funding Structure and Durations: Adapt funding structures to allow for funding of different phases, starting with scoping or pilot studies that identify relevant research questions, networks and project frames, and that lay the foundation for the actual research project. Increase overall funding durations to a minimum of 4-5 years to allow sufficient time for trust-building, iterative learning, and genuine co-production.

Enable Follow-Up Funding: Facilitate follow-up funding opportunities to maintain and deepen established partnerships and prevent the loss of trust and momentum. Explore mechanisms for long-term communication and data sharing outside conventional project funding cycles (e.g., support for ongoing environmental monitoring).

2. Transdisciplinary Mindset: Incentivise Collaborative Process Quality

Make Genuine Co-Creation of Knowledge a Priority: When transdisciplinary research is desired, make the integration of robust science-practice collaboration a central, weighted criterion in the respective funding calls. Evaluate proposals not only on scientific merit but also on the quality of the proposed collaborative process, including stakeholder engagement strategies, plans for managing power dynamics and ongoing

reflexivity. Social innovation deserves to be recognised as equally important as technical innovation.

Allocate Adequate Resources for Social Science and Facilitation: Ensure budgets reflect the need for dedicated social science expertise and professional facilitation to manage complex stakeholder interactions and ensure equitable participation.

Incorporate Stakeholder Funding for Equitable Collaboration

Collaboration: Directly support stakeholder participation through the provision of dedicated funding for natural and legal persons for stakeholder expenses and participation. Investing in stakeholders—through expense coverage or direct stipends—demonstrates a commitment to equitable partnership, strengthens collaborative processes and can foster a more robust engagement.

3. Capacity Building: Invest in Skills and Expertise

Transdisciplinary Skills Development: Invest in training and skill development for both researchers and stakeholders to strengthen transdisciplinary competencies, with a particular focus on youth and empowerment. This includes training in facilitation, mediation, participatory methods, intercultural communication and system thinking. Dedicated resources for youth empowerment (summer schools, mentorship programmes) are also needed.

Conclusion

Transforming European land and water management demands a paradigm shift towards genuine collaboration between science and society. By adapting funding frameworks to better support transdisciplinary research, EU funding agencies and programs can unlock the potential for innovation, accelerate the transition to sustainable agricultural land and water management, and contribute significantly to the objectives of the European Green Deal, Water Resilience Strategy and Horizon Europe. Investing in truly collaborative research is not merely a methodological change; it is a commitment to building a more resilient, equitable, and sustainable future for European agriculture and water resources.