Project Concept Note

Strengthening Capacites on Interdisciplinary and Transdisciplinary Research in Universities

1. Project Rationale and Background

Universities play a central role in generating knowledge to address complex societal challenges such as climate change, public health crises, food insecurity, digital transformation, and social inequality. These challenges transcend disciplinary boundaries and require integrated scientific approaches that combine natural sciences, social sciences, humanities, engineering, and stakeholder knowledge. Despite widespread recognition of the importance of interdisciplinary and transdisciplinary research, many universities remain structurally and institutionally oriented toward discipline-based research models.

In many higher education systems, particularly in low- and middle-income countries, researchers lack formal training in interdisciplinary methodologies, co-production of knowledge, and stakeholder engagement. As a result, universities struggle to participate effectively in international research programs that increasingly prioritize interdisciplinary and transdisciplinary approaches. There is therefore a pressing need for targeted capacity-building initiatives that strengthen individual competencies, institutional frameworks, and organizational cultures that enable integrative research.

2. Project Aim and Objectives

The overall goal of the project is to strengthen the capacity of universities to design, implement, and sustain high-quality interdisciplinary and transdisciplinary research that addresses complex societal challenges and contributes to sustainable development.

The project seeks to enhance researchers' skills in interdisciplinary research design and transdisciplinary knowledge co-production, strengthen institutional support structures for interdisciplinary collaboration, and embed interdisciplinary and transdisciplinary principles into university research policies, incentive systems, and doctoral training programs. In doing so, the project aims to improve universities' competitiveness in international research funding and increase the societal relevance and impact of academic research.

3. Target Groups and Beneficiaries

The primary beneficiaries of the project are early-career and mid-career researchers across disciplines, doctoral candidates, research group leaders, and university research managers. Secondary beneficiaries include university leadership, research support offices, and external stakeholders such as policymakers, industry partners, civil society organizations, and local communities who engage in transdisciplinary research processes. At a broader level, national research systems and society at large benefit from strengthened university capacity to generate actionable, socially relevant knowledge.

4. Project Approach and Methodology

The project adopts a participatory, practice-oriented, and systems-based approach to capacity building. It combines formal training, experiential learning, institutional development, and policy dialogue to address capacity gaps at individual, organizational, and systemic levels. Training activities will focus on interdisciplinary research theory, integrative research design, mixed-methods approaches, collaborative leadership, stakeholder engagement, and impact evaluation.

Transdisciplinary components will emphasize co-creation of knowledge, ethical engagement with non-academic actors, and mechanisms for translating research into policy and practice.

The project will use real-world societal challenges as learning laboratories, enabling participants to apply interdisciplinary and transdisciplinary methods in practice. Cross-disciplinary teams will be supported in developing pilot research concepts that integrate scientific excellence with societal relevance. Institutional mentoring and peer-learning platforms will facilitate knowledge exchange among participating universities and foster long-term collaboration networks.

5. Key Activities

Core activities include the development and delivery of modular training programs on interdisciplinary and transdisciplinary research, tailored to different career stages. These modules will be integrated into existing postgraduate research development programs where possible. The project will establish interdisciplinary research labs or communities of practice within participating universities to support sustained collaboration beyond the training phase.

Capacity building at the institutional level will involve strengthening research support offices at universities to better assist interdisciplinary proposal development, team management, and stakeholder engagement. Policy dialogues and strategic workshops will be organized with university leadership to review the full process of development and its results, and reform iinternal structures criteria accordingly well as , the funding allocation mechanisms that support interdisciplinary work. The project will also facilitate engagement with external stakeholders through co-design workshops and collaborative research planning sessions.

6. Expected Outputs and Outcomes

The project will result in a cohort of researchers trained in interdisciplinary and transdisciplinary research methods, equipped with practical tools for integrative research design and stakeholder collaboration. Universities will develop or strengthen institutional guidelines, support services, and governance frameworks that enable interdisciplinary research. Pilot interdisciplinary research concepts and proposals will be developed, increasing universities' readiness to compete in international funding programs.

In the medium to long term, the project is expected to contribute to cultural change within universities, normalizing interdisciplinary collaboration and transdisciplinary engagement as core components of research excellence. Improved research quality, increased societal impact, and stronger university–society linkages are anticipated outcomes.

7. Innovation and Added Value

The project's added value lies in its integrated capacity-building model that simultaneously targets individual competencies, institutional structures, and research culture. By embedding transdisciplinary principles and stakeholder engagement within academic training, the project moves beyond traditional skills-based approaches and fosters genuine knowledge co-production. The emphasis on institutional reform ensures sustainability and systemic impact beyond the project duration.

8. Sustainability and Scalability

Sustainability is ensured through the integration of training modules into existing university programs, the establishment of permanent interdisciplinary support structures, and the development of institutional policies that incentivize interdisciplinary research. The project's modular design allows

for replication and scaling across universities and national research systems. Open-access training materials and toolkits will facilitate wider adoption and long-term impact.

9. Alignment with International Agendas

The project aligns with global priorities such as the Sustainable Development Goals, UNESCO's Recommendation on Open Science, and international research funding frameworks that emphasize interdisciplinary, mission-oriented, and impact-driven research. By strengthening universities' capacity to address complex challenges, the project contributes to knowledge-based sustainable development and evidence-informed policymaking.

10. Indicative Implementation Timeline (24 Months)

Months 1–3	Needs assessment, baseline analysis, curriculum design, stakeholder mapping.
Months 4–10	Delivery of training modules, establishment of interdisciplinary labs, strengthening of research support offices.
Months 11–18	Development of pilot interdisciplinary research concepts, institutional policy dialogues, proposal mentoring.
Months 18–24	: Evaluation, consolidation of institutional reforms, dissemination, sustainability planning

11. Conclusion

Building effective interdisciplinary and transdisciplinary research capacity is essential for universities to respond to contemporary societal challenges and to remain competitive in an evolving global research landscape. This project offers a comprehensive and sustainable approach to capacity building that strengthens individual skills, institutional systems, and research cultures. Through targeted training, institutional reform, and stakeholder engagement, the project will enable universities to become more innovative, inclusive, and impactful actors in the global knowledge ecosystem.