

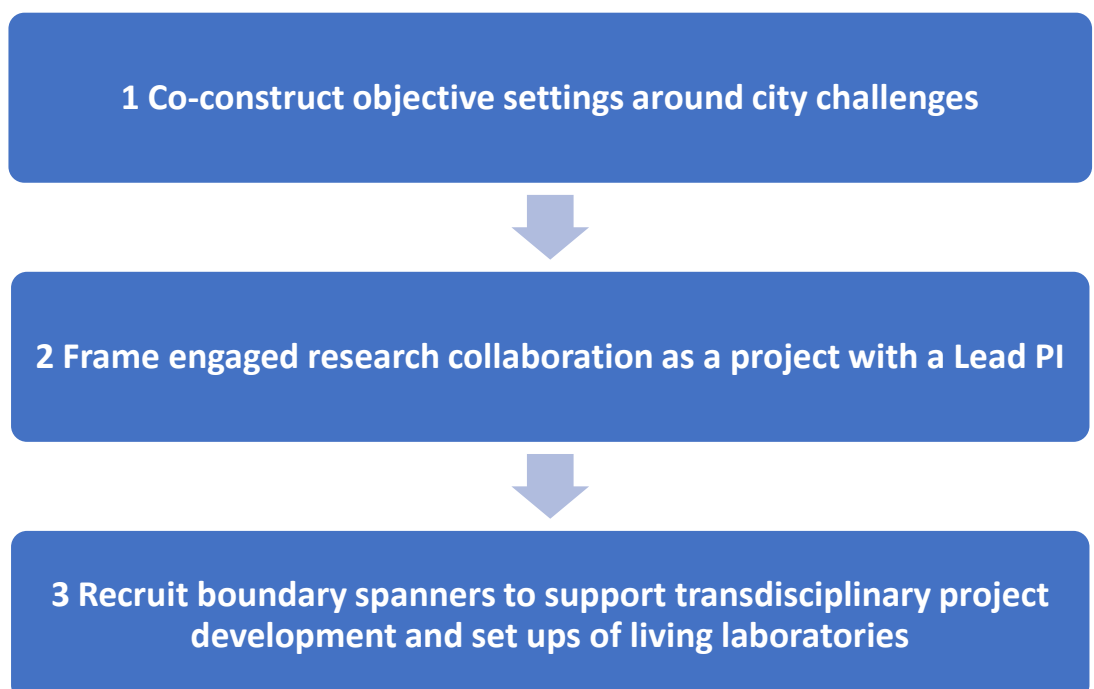
Effective Infrastructure for City-Engaged Transdisciplinary Research Project Development

City-engaged research integrates diverse academic disciplines with urban stakeholders to address complex urban challenges. This policy brief outlines the recommendations of UNIC the European University of Post-Industrial Cities to develop robust research infrastructure that supports city-engaged research that fundamentally is transdisciplinary. The developers of the city-engaged research infrastructure emphasize the need for a dedicated centre, transdisciplinary project development experts, research funding specialists, close interaction with city or municipality development strategists, expertise in setting up living laboratories, and in co-creation methodologies.

Background

Post-Industrial Cities face multifaceted issues such as the changing economy, and deep technological and structural changes. City-engaged research leverages the expertise of various disciplines and the insights of urban stakeholders to create solutions. Effective research infrastructure is crucial for driving this collaborative approach.

Based on the shared experiences of the Engaged Research Officers of The European University of Post-Industrial Cities: Towards a collaborative approach and structure for engaged research (UNIC4ER) H2020 SwafS project, this policy brief presents three key recommendations to promote the development of joint research infrastructure for driving transdisciplinary research in a European University alliance.



What makes city-engaged research transdisciplinary¹?

Transdisciplinary research projects address societal challenges, such as cities' challenges, and especially complex challenges, such as post-industrial cities' challenges. Transdisciplinary research projects further aim to be ongoing shared learning processes for researchers and the societal stakeholders, like in CityLabs living laboratories. Transdisciplinary research projects take a normative approach, such as, to respond to city challenges by creating holistic solutions.

Transdisciplinary research per se appreciates different ways of thinking, knowing and doing, such as in RDI projects with city partners and societal stakeholders participating. In transdisciplinary research, attention is needed to relationships, power relations and trust among the researchers and with the societal actors, exactly like in city-engaged research. Transdisciplinary research seeks to provide a systemic understanding of a challenge, and determine what could be done and how best to achieve this outcome. In city-engaged research projects, research brings cities, municipalities, communities, citizens, NGOs and private businesses, students, teachers, researchers, and academic professionals to work together to collectively identify societal challenges and opportunities, and to seek solutions to these by exchange of theoretical knowledge, methodologies and practical experiences. Finally, transdisciplinary research is always context dependent, but it also strives to achieve outcomes that can be utilized in other contexts as well. Meanwhile contributing to UNIC cities' challenges, city-engaged research generates knowledge relevant for post-industrial cities in general.

Figure 1. City-engagement steps for transdisciplinary research projects.



References¹

Network for Transdisciplinary Research (2024) Partnering for Change: Link Research to Societal Challenges. td-net of the Swiss Academies of Arts and Sciences.

Australia National University Transdisciplinary Working Group (2023) A framework for building transdisciplinary expertise.

Bammer, G. (2020) Choosing a suitable transdisciplinary research framework. Summary of an article in GAIA. In: Integration and Implementation Insights blog.

What is city-engaged research infrastructure?

City-engaged research infrastructure is a framework for research between universities, and their post-industrial cities and citizens, on the cities' challenges. This framework aims to encourage and assist the development of new collaborative engaged research projects. The aim is to engage transdisciplinary research, development and innovation proposals that are based on or inspired by city challenges, include cities as project partners and citizenship in co-creation processes, as well as involve citizens in research activities.

Based on the shared experiences of the eight UNIC universities' Engaged Research Officers, the following recommendations can be given for the development of effective infrastructure for city-engaged transdisciplinary research project development.

1 Co-construct objective settings around city challenges

Transdisciplinary research projects embrace complex challenges, such as post-industrial cities' challenges. These projects further aim to be ongoing shared learning processes for researchers and the societal stakeholders, and therefore roadmaps describing partner cities' challenges were offered to researchers to inspire their projects. However the use of roadmaps can sometimes be considered to limit academic freedom in objective setting for research projects, and concerns can be raised regarding a risk of fostering politically driven research. To start with, we propose to organize trainings on the transdisciplinary research cycle, where research objectives are co-constructed with the stakeholders. At this point, to overcome the confrontation related to the origins of the research objective, project initiatives were called first with a researcher-led approach and then with a second invitation, with a city-challenge-led approach. This dual approach has succeeded to attract a wide array of interested researchers.

2 Frame engaged research collaboration as a project with a Lead PI

Examining complex city challenges requires versatile expertise both in terms of academic disciplines and tacit knowledge. City-engaged research brings cities, municipalities, communities, citizens, NGOs and private businesses, students, teachers, researchers, and academic professionals to work together. A project is an effective format of complex purpose-driven collaborations, and therefore, a seed fund call mechanism was used to successfully catalyze collaborative projects with committed researchers taking the laborious responsibility of coordinating project collaboration.

However, the motivations for project development can vary from developing universities' third mission in general, transdisciplinary research projects attracting competitive funding, citizen science, to challenge-based learning. This can follow that among different universities and academic disciplines, there are different understandings of the term 'engaged research' and how it is designed, delivered, and assessed. Is it City-partner-engaged, Citizen-engaged or Student engaged? To integrate all these elements, training for transdisciplinary project development would be beneficial. However, due to diverse ambitions on developing engagement, a wide array of collaborative initiatives, such as book projects, summer schools, and European Commission funded RDI proposals, were welcomed as long as at least two universities and a societal partner joined up in partnership. Consortium development among university partners is easy when openly sharing invites among the networked Engaged Research Officers team.



3 Recruit boundary spanners to support transdisciplinary project development and set ups of living laboratories

City-engaged transdisciplinary research seeks to provide a systemic understanding of a city challenge, and determine what could be done and how best to achieve this outcome. Local or regional governments, such as city/municipality organizations often manage and monitor the knowledge base on urban development in their area. To inform the engaged research project developers about the current needs for knowledge, the roadmaps were developed together with the city partners. In some cases though, this knowledge management role was in progress and hosted by a CSO with a narrower civil society scope, or positioned at the state level. It is important to address diverse contexts' dynamics in knowledge management in detail, as city-engaged transdisciplinary research is context dependent even when striving to generate knowledge that is relevant for cities in general.

Transdisciplinary research appreciates different ways of thinking, knowing and doing, such as in research, development and innovation projects with city partners and societal stakeholders participating. To enable the invitation of other types of societal partners, a concise mapping of local collaborative structures and ecosystems was conducted to describe the local operational environments and dynamics of university-city collaboration. These descriptions can be utilized in research project development. However it is not always easy for researchers to go for a genuine negotiated win-win situation and articulate a clear gain for the city/societal partner(s) made available by partnering a project. The depth of engagement in projects can vary from Letters of Support from societal partners, to delivering tailored innovation contributing directly to city-partner's urban development.

Boundary spanners are needed to train and support researchers in the identification of available external funding calls, development of city-engaged transdisciplinary research project designs and in setting up living laboratories. Ideally, the boundary spanners can navigate collaboration relationships, power relations and trust among the researchers and with the societal actors, in a sophisticated way. To enable contacting city partners smoothly on incoming project initiatives, the current processes of local university-city collaboration were described. However, the university-city collaboration structures in local urban ecosystems can be in diverse stages, with diverging scopes, and at with different maturity of interaction. In some cases, this can limit the involvement of city representatives, NGOs and other external stakeholder partners, and the project developers might have benefited from CityLabs support developed in the previous stage of European University alliance development project, had it still been in full operation at the time of city-engaged research project development.

Since then, a need for a dedicated Centre for city engagement was concluded, and the UNIC Centre for City Futures has been established to operationalize the framework for city-engaged transdisciplinary research. However, the role of the UNIC Centre for City Futures as the engagement infrastructure may not have been yet familiar throughout the university alliance, due to the Centre being developed piece by piece in diverse projects. The UNIC Centre for City Futures was established by UNIC4ER project, and submitted research, development and innovation project proposals are the spin-off of this Centre. The operations of the Centre are developed further in the second stage of the university alliance including the collaboration with CityLabs, the interface to education integration. As a good model of practice in UNIC, the role of the UNIC Centre for City Futures has been consolidated as the one-stop-shop of city-engaged research and city-challenge-based learning.



city.futures@unic.eu

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