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Driving Urban Transitions to a Sustainable Future

DUT Partnership in a nutshell



Research, Innovation and Beyond

A public-public partnership to facilitate an innovation eco-system for urban transitions

The Driving Urban Transitions (DUT) Partnership is an intergovernmental research and innovation programme addressing key challenges of urban transitions. Its ambition is to shape and facilitate an innovation eco-system for all urban actors to engage in and benefit from.

With over 60 partners from 28 countries and the European Commission (EC), DUT is committed to addressing urban sustainability challenges and contributing to the European Mission of climate-neutral cities, the European Green Deal, and the Urban Agenda for the EU.

It is a catalyst for transformational change that engages stakeholders in the strategic agenda setting, development and implementation of annual calls, and synthesizes, communicates, and translates the results of funded projects into practice.

By emphasising co-creation and collaboration, DUT is cities across Europe to become more inclusive, resilient, climate neutral and sustainable.

Vision & Objectives

The DUT Partnership steps up the game to tackle urban challenges. Through research, innovation and capacity building we enable local authorities and municipalities, service and infrastructure providers, and citizens to translate global strategies into local action. We develop the skills and tools required to make urban change happen and boost the urgently needed urban transformations towards a sustainable future with enhanced quality of life in cities.

The Importance of Collaboration: DUT Partnership's Approach to Research and Innovation

"If we want to have a chance of achieving the Sustainable Development Goals (SDGs), we need to get our cities right."

– M.M. Sharif in World Urban Forum 2018

The majority of Europeans lives and works in urban areas. While being centres and catalysts for economic activity and generators of a significant portion of European GDP, cities also account for a large proportion of European societies' carbon emissions and face common challenges such as congestion, inadequate housing, air pollution, lack of infrastructure and migration. Furthermore, the wealth created in and by cities is not distributed evenly, as is seen in the fact that almost a quarter of European urban dwellers are at risk of poverty and marginalization.

Addressing these combined and complex environmental and societal challenges is essential to create inclusive, safe, resilient, and sustainable urban areas

and neighbourhoods. The Sustainable Development Goals (SDGs) of the United Nations emphasise that these challenges are global in nature and demand action at all levels.

In response to these goals and the significant societal challenges, Europe has embraced the vision of becoming the first climate-neutral continent by 2050 as put forward by the European Green Deal. Aligned with the European Green Deal, the EU-Mission Climate-Neutral and Smart Cities has been launched with an even more ambitious objective of accompanying and enabling 100+12 cities to become climate-neutral by 2030.

Accomplishing the mission will require mobilising all available resources and knowledge and forming multi-stakeholder alliances for change. A strengthened and integrated knowledge base is needed to overcome the fragmentation of solutions. Even more so, research results must be translated into concrete action, and mechanisms need to be developed to support national and regional initiatives to achieve a sustainable urban future.

The DUT Partnership addresses these needs by bringing together national research funding organisations,

ministries and innovation agencies to jointly develop a European R&I strategy and priorities for urban areas, implementing joint calls and make use and leverage these results by accompanying measures. This way we are able to build on, leverage and complement national and regional efforts by providing a framework for joint action and increased effectiveness on common priorities in an international setting.

Accordingly, the DUT Partnership has defined its intervention logic and objectives as summarised below,

**Objective 1:
Increase the effectiveness of urban solutions, approaches and processes**

City administrations express that integrated planning is crucial for sustainable urban development. This implies the necessity to connect different areas of knowledge and practice, and focus on conflicts between different strategies, policies, and interests. To make this happen, a transformative R&I program with tailored instruments to address the most stressing issues is urgently needed.

Therefore, DUT will take action and launch annual calls for transformative research and innovation projects to provide funding for a diverse array of perspectives, approaches and processes. Projects are required to collaborate across sectors and between different types of actors that are involved in urban transitions.

**Objective 2:
Shape a multi-actor innovation ecosystem on urban transitions**

By creating an urban innovation ecosystem DUT provides opportunities for science, policy, business, and society to interact, collaborate and build capacities to meet the needs of urban actors and society.

DUT will support the involvement of urban actors in co-designed research projects to tackle challenges identified by urban stakeholders and problem owners. Offering urban actors a role in all phases of innovation projects, is also a way of empowering them to take the stage in the transition.

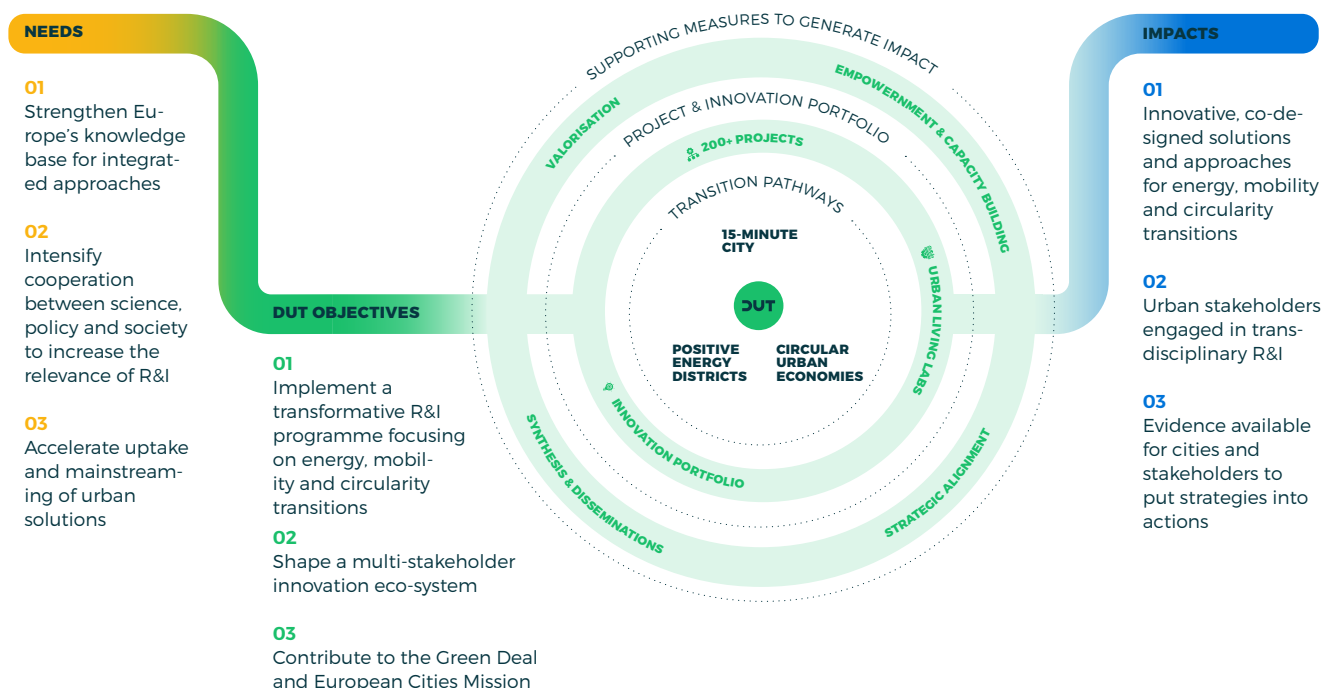
**Objective 3:
Strengthen benefits for neighbourhoods and urban areas across Europe**

The DUT Partnership aims to ensure that good practices and evidence is made available and accessible for urban actors across Europe and support dissemination and mainstreaming of solutions. This contributes to a strong European Research Area and benefits city authorities and administrations of different sizes and contexts.

DUT will also be positioned as the European hub for international cooperation on sustainable urbanisation.

“Transformational change will be local or will simply not be.”

- United Cities and Local Governments in Durban Political Declaration 2019.





DUT building upon three Transition Pathways



The DUT Partnership enables a systemic approach to boost urban transitions through the thematic priorities of the Partnership – the three Transition Pathways. Acknowledging that urban transitions need a holistic approach, the Transition Pathways are seen as three interlinked and jointly developed sub-programs.

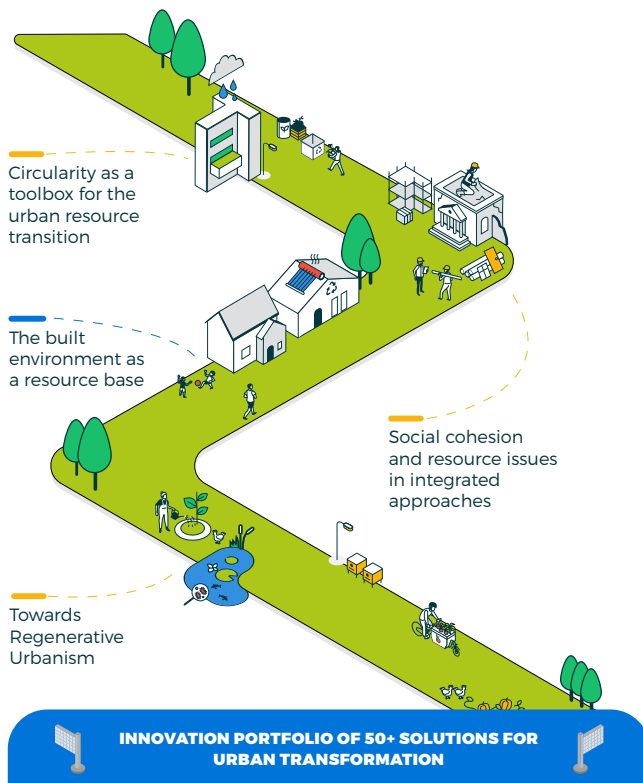
While the Transition Pathways may vary in their thematic orientation, their origins, ambitions, and activities remain the same. They are driven by a mission-oriented approach and a desire to fund projects that shall not only develop new knowledge on urban challenges but also ensure the translation of this knowledge into practice to bring about revised and new processes, working methods and solutions for a sustainable future.

Based on this approach our Transition Pathways have set the mission to support urban transitions by initiating 100 Positive Energy Districts (PEDs) in Europe by 2025 and building up and offer an Innovation Portfolio of 50+ solutions, insights and learnings for each Transition Pathway.



The Circular Urban Economies (CUE) Transition Pathway

We aim to help cities become more resource efficient and reduce their impact on the planet by extending the use of existing resources and closing linear resource flows.



The Circular Urban Economies Transition Pathway (CUE TP) recognises the vital role of cities and urban areas in the global economy's resource use, as they account for the vast majority of global consumption. This consumption implies a considerable strain on the environment, which is why the CUE pathway aims to support cities to become more resource efficient and reduce their impact on the planet.

The built environment as a resource base

CUE focuses on the resource use of cities and urban areas, recognizing that these are massive repositories of buildings, infrastructures, technologies, and material flows. Therefore, the pathway promotes initiatives that extend the use of existing resources through maintenance, renovation, and repair activities, while also aiming to close linear resource flows to reduce waste. By encouraging initiatives that prolong the use of these resources, the CUE pathway seeks to reduce the amount of waste created by urban areas, while also promoting greater resource efficiency.

Social cohesion and resource issues in integrated approaches

But CUE goes beyond just material cycles and recognises the importance of social issues in achieving a circular economy. Thus, the pathway encourages cities to implement circular measures that also address socio-economic inequalities, promote social cohesion, and improve access to urban resources, services, and green areas.

In addition, we view urban areas with a great potential of new principles of urban design that put regeneration in its focus.

Circularity as a toolbox for the urban resource transition

Overall, we do not see circularity as an end goal but rather as a tool for creating healthier, more inclusive, and regenerative urban communities that rely on closed material loops to reduce their environmental footprints. It envisions cities and urban areas with restored natural resource cycles that support a high quality of life for their inhabitants, creating a transformative drive towards healthy, attractive, and green urban spaces.

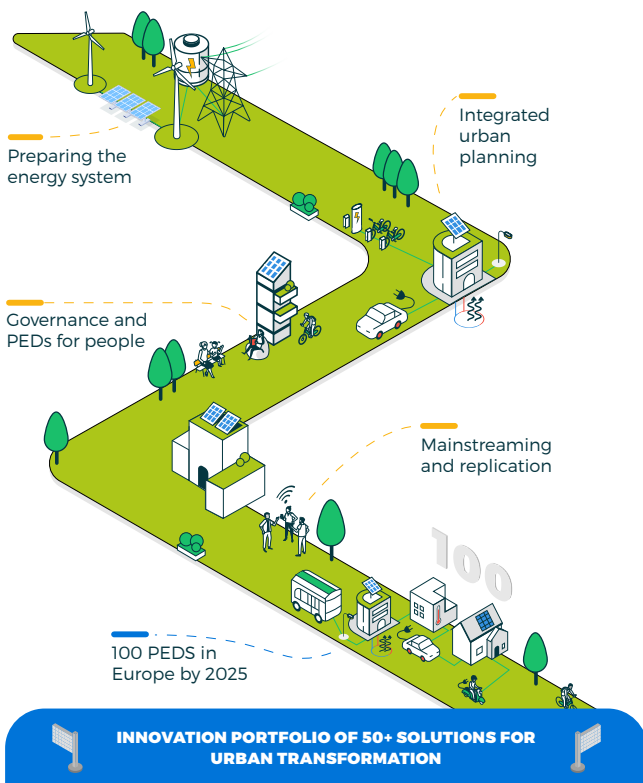
Towards Regenerative Urbanism

The pathway envisions cities and urban areas with restored natural resource cycles that support a high quality of life for their inhabitants. By applying regenerative design principles to create inclusive urban communities, the CUE pathway seeks to create healthy, attractive, and green urban spaces that are both inclusive and sustainable.



The Positive Energy Districts (PED) Transition Pathway

PEDs are energy-efficient and energy-flexible urban areas that generate net zero emissions while managing renewable energy.



PEDs are energy-efficient and energy-flexible urban areas that produce net zero greenhouse gas emissions while actively managing a high share of locally generated renewable energy. These districts require integration of different systems and infrastructures, interaction between buildings and users, and connection with regional energy, mobility, and ICT systems. The ambition is a secure energy supply that supports social, economic, and environmental sustainability and a good life for all.

That's why our Positive Energy Districts Transition Pathway (PED TP) aims to develop innovative solutions for planning, large-scale implementation, and replication of PEDs across Europe. Our mission is to initialise 100 PEDs in Europe by 2025 and contribute to the Mission on Climate-neutral and Smart Cities with an innovation portfolio of PED solutions until 2030.

Preparing the energy system for PEDs

We believe that PEDs represent a powerful tool to decentralise the energy system and optimise basic energy functions, such as reducing energy demand, applying energy efficiency measures, and exploring strategies for the generation of renewable energy on local levels. We are working to prepare the energy system for PEDs and integrate them into the regional energy system to promote energy security and sustainability.

Integrated urban planning, implementation and operation of PEDs

In the PED TP, we recognize that PEDs are more than a technological concept. They require integrated urban planning and design that ensure that PEDs are attractive places for living and working with a high environmental quality. We are committed to promote integrated urban planning, implementation, and operation of PEDs to ensure their success and sustainability.

PED Governance and PEDs for people

Viewing PEDs as a socio-technical concept, we acknowledge that the implementation of PED concepts relies on a close cooperation between citizens, businesses, and the public sector. We are working to advance energy policy and regulation, urban governance, and decision-making processes to ensure the successful implementation of PEDs. We also recognise that a just energy transition calls for successfully tackling of both co-creative organisation of the transition process and the social impact regarding energy security and prevention of energy poverty.

Preparing Mainstreaming and Replication

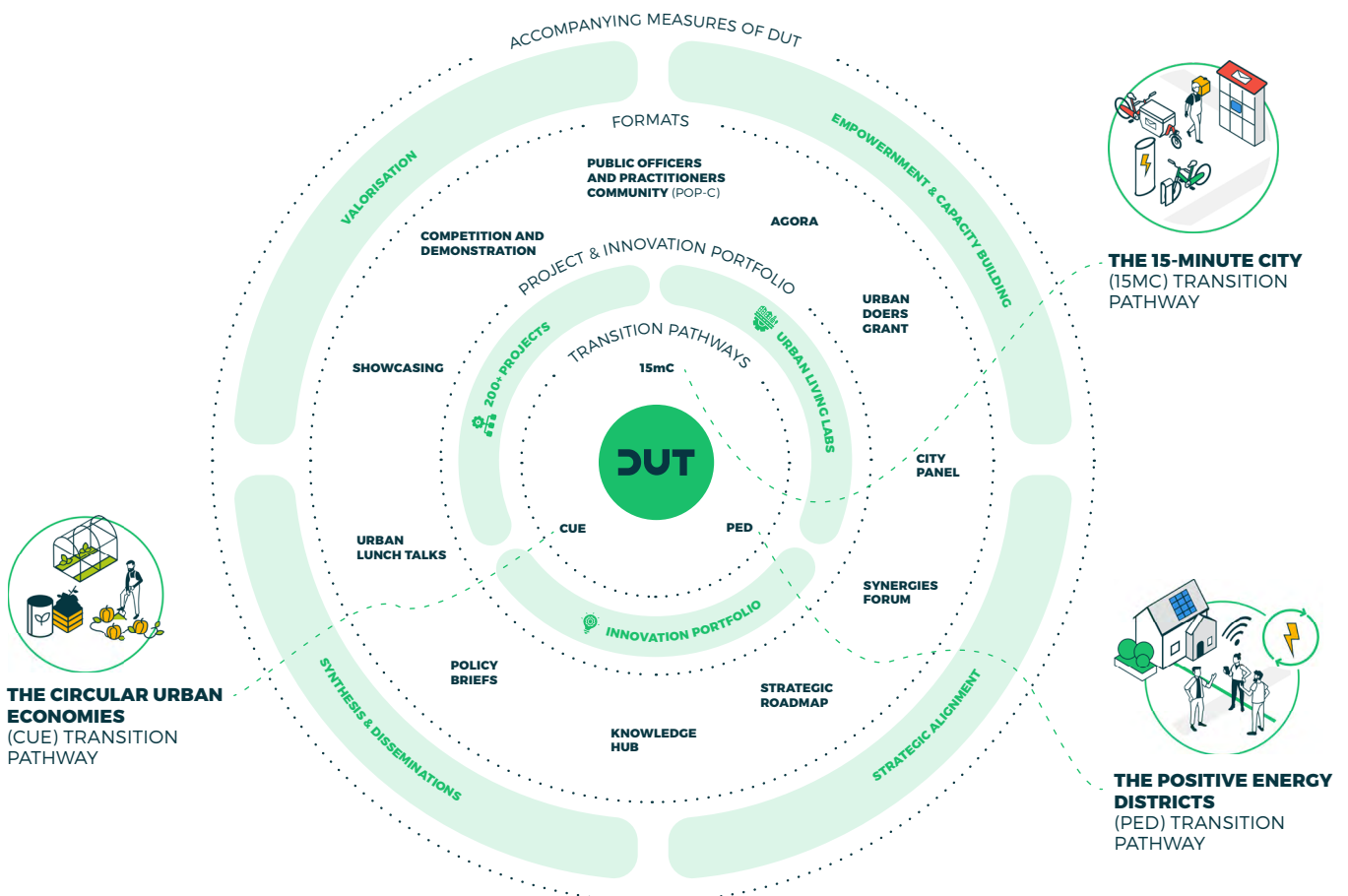
Finally, we recognise that mainstreaming and replication of tested solutions in urban development remains a widely discussed challenge. In the PED TP, we are committed to elaborating dedicated mainstreaming and replication strategies by identifying key components of PED development and elaborating guidelines and schemes for replication. Our goal is to prepare PEDs for widespread development in the urban energy transition.

DUT - a transformative R&I programme

Our Approaches for Urban Transitions to Meet our Mission

In order to achieve our mission, urban transitions require innovative and people-driven approaches which incorporate social and institutional innovation alongside novel technologies. It is necessary to adopt a comprehensive approach that crosses and connects disciplines and sectors that are critical to achieve urban transitions addressed in our Transition Pathways. In response to these requirements and subsequent demands, DUTs research and innovation eco-system, operates along the following set of principles:

- **Challenge-driven formats** are needed to align research and innovation with every day-life problems and opportunities. This calls for a strong role of municipalities and cities in research and innovation projects from the beginning and requires improved framework conditions to **support science-policy-society cooperation**. The gap between research and policy has to be addressed explicitly and efforts are needed to take better use of scientific achievements for urban policy-making.
- While research and innovation create knowledge, technologies, learnings, and solutions for the various urban challenges at hand, **inter- and transdisciplinary** approaches can strengthen the relevance and impact of their outputs. All forms of innovation – social, institutional, systemic, technical, and policy – are addressed by DUT to tackle urban complexity properly and strengthen the potential of the research and innovation eco-system.
- In support of such co-design of solutions and approaches, **local experimentation** is an important element. **Urban living labs** and other experimental formats have shown promising results but have to advance to allow a wider uptake in urban practice and daily business of city administration. Therefore, such experiments need to be well embedded in local governance to inspire and drive urban transformations.
- Finally, an understanding of appropriate conditions for learning and knowledge utilisation are needed to **support replication, scale up and mainstreaming**. Contextual factors determine local urban development, making it difficult to transfer solutions from one city to another. However, it is important to leverage research and innovation results globally by promoting capacity building – based on cities' needs and challenges – to facilitate internalisation into different local contexts. Making **research results** transparent and accessible to all actors and creating **learning formats** that fit the various stakeholder needs is key to ensure that European and national R&I investments are boosting urban transformation.





In line with these principles, the DUT Partnership implements dedicated initiatives to create and oversee an Innovation Portfolio encompassing solutions, insights, and knowledge that can be utilised and adopted by cities throughout Europe. Instead of focusing solely on individual projects and solutions, DUT ensures the realisation of its ambition as a transformative research and innovation programme through the following actions.

Strategic development of the three Transition Pathways

The strategic development of the three DUT Transition Pathways involves activities such as engagement and co-creation with key stakeholders, synthesis of project outcomes, mapping of international approaches, and cooperation with national and transnational initiatives.

Continuous dialogue with stakeholders, especially our City Panel, is key to shaping priorities and developing strategies towards sustainable and liveable urban environments. The TP Steering Groups and Managements work together to conceptualize stakeholder input and develop concepts for the realisation of the CUE, PED and 15mC frameworks.

Synthesis and dissemination of our project results

DUT aims to fund 40+ projects every year, 10 to 15 projects in each Transition Pathway. To create a knowledge base and ensure that projects build upon each other, DUT has several mechanisms in place that allow for the build-up, synthesis, and dissemination of project results. Such formats of DUT include Knowledge Hubs, Urban Lunch Talks, guidance packages and booklets to identify and communicate key learnings across projects. The insights gained from these collaborations contribute to the mission of the Transition Pathways and the Innovation Portfolio, ensuring that project results inform both European cities and the sectoral and urban policies to achieve urban transitions.

Cooperation with other networks and initiatives to create synergies

With its focus to address urban transitions in an integrative way, we provide opportunities for collaboration with other European Partnerships, initiatives of the Cities Mission, and networks. This collaboration takes shape through the Synergies Forum and other engagement formats, fostering alignment and active involvement. Our overarching goal is to foster synergies, leverage collective efforts, and establish connections between research and innovation (R&I) activities and urban policy making across all levels.

Capacity building and empowerment of urban actors

We are offering a wide range of formats to engage with our community. AGORA, our stakeholder mobilisation and engagement platform, facilitates interactive and co-creative open events, bringing together urban actors from different backgrounds. Moreover, our focus extends to empowering and building capacities in city administrations.

The Public Officers and Practitioners Community (PoP-C) serves as a platform and meeting space for people in public administrations to collaborate, exchange concrete good practices, and share experiences, contributing to the development of inclusive and resilient cities. Complementing these efforts is our Urban Doers Grant initiative, which aims to strengthen the capacities of local initiatives and urban change-makers who play pivotal roles in urban transitions but often lack the resources and networks to apply for R&I calls.

Develop and implement a valorisation strategy

DUT aims to promote action towards achieving climate neutrality in cities by exploring and developing instruments and formats for bringing R&I results into cities and urban areas. This strategy aims to bring together researchers, civil society, and entrepreneurs to interconnect technology, society, and economy. The strategy will use exhibitions, showcasing, and competition formats to make the results of DUT-funded projects tangible and visible in local urban contexts, and involve all actors.

Get engaged!



Are you interested?

For more information on the Transition Pathways mission, key areas and call priorities until 2027 have a look at our DUT Roadmap. Read more about the partnerships activities, its principles and approach and our vision to a sustainable future.

dutpartnership.eu/roadmap