

# Navigating the 15-minute City

First Learnings and Discussions from the Driving Urban Transitions Partnership

15-minute City Position Paper Edited by Lena Zeisel, Maximilian Jäger, Kristin Hanna













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### **About this Position Paper**

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

The DUT Partnership focuses on three thematic priorities - the Transition Pathways:

- 1. **Positive Energy Districts (PED)**, where we explore innovative solutions for energy efficient cities and climate-neutral neighbourhoods.
- Circular Urban Economies (CUE), where we support green and inclusive communities and neighbourhoods that are sustained by circular resource flows.
- 15-minute City (15minC), where we connect measures of mobility, logistics, public space and planning to promote liveable neighbourhoods and climate-neutral cities.

This Position Paper centres on the 15-minute City Transition Pathway.

With this Position Paper we want to create an overview of our work in the 15-minute City Transition Pathway so far, draw first conclusion and learnings from the first two years of activities, and give an outlook of what can be expected to come. In a co-creation process, we identified and highlighted different perspectives and angles on the 15-minute City concept, brought in by different stakeholders working in the field of urban mobility. Furthermore, we present the results of Critical Issues to operationalise and implement the concept that will require further attention in the upcoming years.

We aim to sharpen and share our positions on the 15-minute City concept and pave the way towards future policy recommendations in DUT: What are thematic priorities, needs for research and innovation, overarching themes, open questions and Critical Issues for urban mobility transitions that we need to address in the next years?

Building on the accomplished work since 2022, the co-creation for this Position Paper took place in the following stakeholder formats during 2023:

- · 2 dedicated 15-minute City AGORA Dialogues
- 1 dedicated 15-minute City Steering Group
- Inputs from interviews, surveys, the 15-minute City Mapping and the ACUTE project teams

We want to thank everyone who took the time to engage with us and contribute to this Position Paper. We look forward to keep up the collaboration and take our ambitions to materialise the urban mobility transition to the next level.

# PART 01 Retrospect



## Part 01 | Retrospect

DUT was launched in 2022, but already since 2020, we have been working together with DUT Partners and our network of committed stakeholders on rethinking the existing urban mobility system, from the lens of research and innovation. Two years after the official start, we want to take a moment to look back at where we come from, explain our position and understanding of DUT's 15-minute City Transition Pathway, and share insights into some of our core activities since.

This part presents the vision and orientation of DUT and the 15-minute City Pathway, and how they connect to the EU Cities Mission. Furthermore, we explain how we work with the 15-minute City concept and how it is embedded strategically and thematically in our activities. We share facts and figures as well as highlights from selected stakeholder events and our first research and innovation calls.





## DUT centres on transformative research and innovation

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. Co-funded by 28 European countries and the European Commission under the framework of Horizon Europe, our consortium consists of over 65 national and regional R&I funders, authorities dealing with urban policy, and research performing organisations as strategic partners.

Building on the work of JPI Urban Europe, DUT managed to extend the reach of JPI Urban Europe, both in the size of our community as well as in the dimension of activities, with our annual R&I calls at the core. DUT Call 2022 brought 48 projects on the way, with a total funding of 60 Mio. Euro. These calls are developed with a real longterm perspective as we will announce our seventh and last call in 2028, and accompany and support the last cohort of funded projects until 2032. Thus, the three thematic Transition Pathways of DUT are guiding our activities for more than a decade, providing continuity under the same umbrella.



**Figure 1:** DUT's 15-minute City Transition Pathway, source: DUT Partnership

DUT sets out to contribute significantly to the EU Mission Climate-Neutral and Smart Cities - which aims to engage and support 100 cities that pilot what it means to be well on the way to become climate-neutral until 2030. Consequently, these cities hope to demonstrate how to adapt regulatory frameworks, implement wide-ranging policies, shape the markets, and much more for the thousands of other cities to follow.

However, with only less than six years left until 2030, we need to realise that still many questions and challenges are unanswered, many necessary policies for urban transitions and their effects remain unsure. What we know is that the transformation process will be an incredibly demanding task, which no single sector or stakeholder group is able to manage alone. All actors need to bring in their strengths and start dancing together.

Driving Urban Transitions, as sizeable transnational R&I programme, is going to leverage its calls, funded projects, capacity and community building activities to contribute significantly to the objectives of the Cities Mission. Researchers and innovation leaders are the ones that develop and bring in new knowledge and data, and help translating and extending good practice examples. In DUT, we hope to connect, fund and raise these initiatives to the next level.



DUT is going to leverage its calls, funded projects, capacity and community building activities to contribute significantly to the objectives of the Cities Mission.

## DUT's 15-minute City Pathway driving urban mobility transitions

The 15-minute City Pathway coordinates and drives DUT's activities on urban mobility transitions. The current mobility system provides city dwellers with essential opportunities to organise and satisfy their daily needs. However, at the same time, it is responsible for several negative externalities, such as high levels of CO<sub>2</sub>-emissions, air and noise pollution, which are significantly worse in urban areas. Furthermore, urban transport systems are not serving all citizens in an equal way, especially disadvantaging vulnerable groups. Transforming urban mobility will be pivotal to meet climate targets and to improve equal access to opportunities, and thereby quality of life in cities.

Here, the 15-minute City concept offered a fresh take on existing urban and mobility planning paradigms. The term "15-minute City" – coined by the urbanist Carlos Moreno – spread since 2016 in Anne Hidalgo's election campaign in Paris, until receiving global attention during the COVID-19 pandemic. At its core, the 15-minute City concept envisions a positive future in liveable neighbourhoods and argues for an ambitious social infrastructure agenda: City dwellers should be able to cover the vast majority of their essential needs (housing, work, food, health, education, and leisure) within a 15-minute radius by walking and cycling, while connecting to larger distances by other forms of sustainable transport.

In DUT's 15-minute City Pathway we connect to the ambition of the concept and see it as attractive narrative advocating the qualities of a polycentric city, consisting of integrated neighbourhoods. We set out to work with the 15-minute City concept in a curious, open-ended manner. Our intention is to discuss urban mobility holistically and beyond the geographic boundaries of cities. To this end, we promote a mosaic of innovations and policies – partially ranging under different names, but following the same objectives – for urban transitions in the field of sustainable urban mobility and transport. Overall, we emphasise the "Avoid" and "Shift" approaches to mobility policy, and focus less on "Improve" (which is in scope of other initiatives, such as the 2ZERO Partnership). We recognise technology as an enabler and instrument for transition, but focus on institutional, regulatory and social innovations.

In 2020, we started setting up the foundations of structures, procedures and contents for the DUT Partnership. Around this time, with the end to co-create input for the thematic scope of the 15-minute City Transition Pathway, we invited a large number of representatives and stakeholders from national and local urban policy to a series of three digital workshops. Based on these outcomes and collected reflections, we created four Key Areas of Action, guiding our activities for the urban mobility transition:

- 1) Sustainable urban mobility
- 2) People-centred urban spaces and planning
- 3) Smart urban logistics, production and service sites
- 4) Urban governance for mobility transition

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In DUT we connect to the ambition of the 15-minute City concept. We apply it in a curious, open-ended manner, and set out to promote a colourful mosaic of innovations and policies for urban mobility transition.



The Key Areas and their first level of building blocks are depicted in figure 2. More information on the underlying rationale, logic and narrative for the Key Areas can be found in the annex.

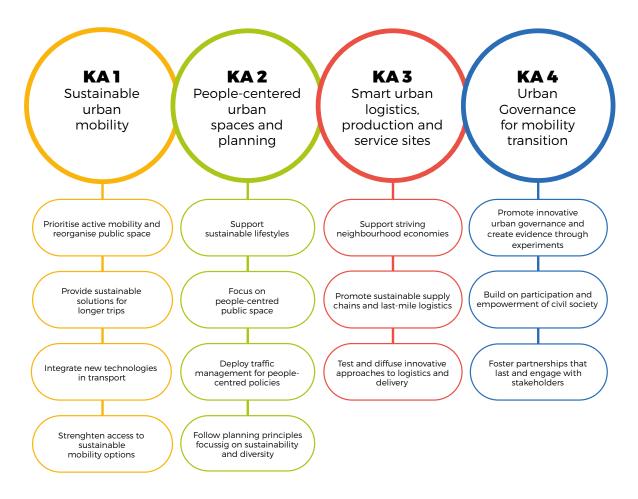


Figure 2: Four Key Areas of Action as thematic scope of the 15-minute City Pathway, source: DUT Partnership

The Transition Pathway's call topics aim to promote and contribute to the transnational learning process on mobility transition, by encouraging experimentation and implementation of approaches on the 15-minute City in co-creative settings. Between 2024 and 2032, about 140 projects are going to explore, analyse, co-create and pilot innovations and policies on the 15-minute City. They set out to demonstrate multiple, possibly diverging pathways by reaching beyond the usual cases and tackling the "hard nuts" and rough edges, where the concept is still not mature or operationalised.

#### **Objective**

Encourage bold concepts and experimenting with innovations for urban mobility transitions in co-creative settings.

Contribute to the transnational learning process for transformation towards climate-neutral, liveable, and inclusive cities.

#### Input

Support implementation by yearly reseach & innovation calls.

Promote mapping, co-creation, and dissimination of international experience on the 15-minute City.

#### Output

Build a 15-minute City **Portfolio and add 10+ learnings** per year tto the starting in 2025.

#### **Outcome**

Deliver **knowledge and experience** of 50+ learnings at the end of the DUT Partnership

Support policy learning, community and capacity building for the transition.

Figure 3: The Mission of the 15-minute City Pathway: From Objectives to outcomes, source: DUT Partnership

Accompanied by measures going beyond traditional R&I programmes, we will collect and synthesise the experiences, knowledge and case studies developed in the projects, to deliver a portfolio of 50+ learnings in the wider field of urban mobility transition. This portfolio will build on existing practices and policies, recognise different urban contexts and focus on transferability of learnings. Consequently, our ambition is to create momentum for the urban mobility transition, so that sustainable modes of transport for people and goods become the first choice in neighbourhoods and cities.

#### **Further Readings**

Moreno, C. (2021): Definition of the 15-minute city. What is the 15-minute city. Link

Driving Urban Transition (2022): DUT Roadmap. Link

C40, Chaire ETI, UCLG, UN-Habitat, Global Observatory of Sustainable Proximities.  $\underline{\text{Link}}$ 

Freudendal-Pedersen, M., Galland, D., Høg, E., Stenum, O. H. (2023): The 15-Minute City: International Experiences. Link

C40 and ARUP, "Green and Thriving Neighbourhoods". Link



## DUT facts and figures: 2 years of DUT and the 15-minute City Pathway in numbers

#### 1) Our stakeholder network

#### **67 DUT consortium partners**

from 28 countries, including 43 European funding agencies involved since the start of DUT, from 28 countries





**55 Cities** from 21 countries involved in the <u>City Panel</u>. As DUT's activities intend to support cities in their challenging transitions, we strongly commit to engage in consulting and co-creating with city representatives to shape and prioritise our activities together.





**20 initiatives** active in the <u>Urban Doers Community</u>. They represent ambitious locally-oriented projects and platforms promoting urban transitions, and were selected from 190 applications; a few examples are:



- Smarter Than Car (AUT) is an advocacy, research, and design group for post-carbon mobility and socio-ecological transformation
- <u>La Papiro</u> (ESP) aims at transforming railway stations into vibrant urban centres as hubs for sustainable services and practices
- <u>Elav Tänav</u> Mobility Interventions for Schools – (EST) develops a set of mobility interventions for schools to shift commuting habits towards sustainable modes of travel



The 15-minute City Pathway coordinates and collaborates closely with **15+ supranational initiatives and platforms** working on the (urban) mobility transition, e.g. EIT Urban Mobility, NetZeroCities platform, CIVITAS programme, POLIS Network, C40 Cities Climate Leadership, ICLEI – Local Governments for Sustainability, CapaCITIES project and others



#### 2) DUT calls and projects

#### **DUT Call 2022**

- 108 proposals received for the 15-minute City Pathway (188 proposals for all three Pathways)
- 23 projects funded in the 15-minute
   City Pathway after 2nd stage evaluations
   (48 projects in total for all three Pathways)
   with approx. 30 Mio Euro

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#### **DUT Call 2023**

- 106 proposals received for the 15-minute City Pathway (183 proposals for all three Pathways)
- 2nd stage still in progress while this document was created

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#### 3) Events and meetings

#### **Events within the DUT consortium**

- 5 DUT Governing Board Meetings, where strategic discussions and decisions take place that concern the whole DUT Partnership
- 8 15-minute City Steering Group Meetings to develop and co-create strategic activities of the Transition Pathway (all online)



#### **DUT event formats with other stakeholders**

- **3 City Panel Meetings** to align DUT's activities with priorities of cities and promote peer learning (2x online, 1x on-site in Vienna), with 100 participants total
- 6 major conferences where the 15-minute City Pathway was present. Meet and discuss with us at Urban Mobility Days, DUT Conference, POLIS Conference, Urban Future and more
- 10 AGORA Dialogues

4 AGORA Thematic Dialogues to advance the 15-minute City Pathway, with 150 participants total

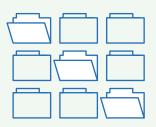
- "Pathways to 15-minute Cities" (May 2021)
- ▶ "Making use of the 15-minute City" (May 2022)
- "15-minute City a concept for all?" (May 2023)
- "Critical Issues of the 15-minute City" (October 2023), focused on the Position Paper at hand

6 AGORA Strategic Dialogues to connect the three Pathways, with 190 participants total

- ▶ "Identifying the crossroads between urban circularity, mobility and energy" (February 2022)
- > 3 AGORAs on the DUT Call Scoping in 2023 (February 2023)
- ▶ 2 AGORAs on the DUT Call Scoping in 2024 (January 2024)
- 3 Urban Lunch Talks on topics of the 15-minute City Pathway Link

#### 4) Curious details

- The 15-minute City Pathway team spent
   45 total days travelling for meetings and events
- As of March 2024, we have accumulated
   26 GB of data in 500 folders and 3,700
   documents on the 15-minute City Pathway





## Co-creation is our core identity – highlights from dialogues and events since the beginning of DUT

During the first two years in the DUT Partnership, the 15-minute City Pathway team was able to host a great number of events and exchanges. There we could discuss diverse aspects of urban mobility transitions and potential futures with stakeholders from many countries and different backgrounds. Most of them were oriented towards three main objectives:

- Co-creating and reflecting the position and development of the 15-minute City Transition Pathway - these inputs are used to shape and sharpen the strategic positioning of the Pathway, and serve as foundation of our work, e.g. for the DUT Roadmap or our Annual Work Plans.
- 2. Working on inputs and defining priorities for **DUT Call topics** here we engage in a wide range of discussions and consultations with stakeholders from city administrations, initiatives and platforms active in the field of urban mobility as well as DUT Partners. Our calls build on challenges and priorities of problem-owners, mainly being city administrations and urban practitioners.
- 3. Reaching out and disseminating our activities we coordinate and organise sessions at thematically connected conferences, participate in workshops of allied initiatives and try our best to link and align to existing platforms and organisations in the field of urban mobility.



As you can imagine, there is a lot of information and data produced that does not always find its way into the public, but is rather used for internal needs and procedures. In this Position Paper, we wanted to take the opportunity to (not-representatively) select and present a few events that were special to us – either due to good energy and inputs received, or very worthwhile results.



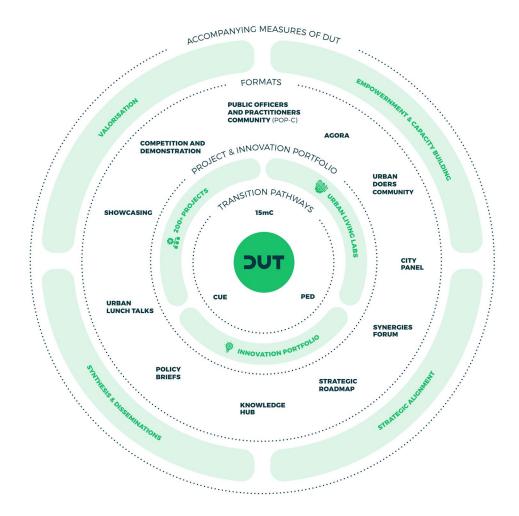


Figure 4: DUT instruments and formats to drive urban transitions, source: DUT Partnership

#### Where do mobility, energy and circularity priorities intersect?

AGORA Strategic Dialogue: "Identifying the crossroads between urban circularity, mobility and energy", February 2022, online

An ever-important topic in DUT is to identify and make use of intersections and thematic overlaps between the three Transition Pathways. To this end, in February 2022, DUT welcomed more than 40 participants to a digital workshop. In the days before the workshop, participants were invited to build thematic clusters with predefined statements – based on key focus areas for urban circularity, mobility and energy transition – to then formulate cross-cutting themes.

These suggestions are depicted in Figure 5, where frequently highlighted thematic overlaps between the 15-minute City Pathway (orange) and topics of circularity (green) as well as with energy transition (red) can be found. The percentages express that e.g. whenever policies to strengthen neighbourhood centres were named, 50% of times they were connected to climate adaptation and social cohesion issues, 67% to blue-green design, and 42% to behavioural aspects of energy use. Issues on public space, community building and inclusion, as well as the functional mix of uses in a city, were especially often selected, as they offer good starting points for cross-sectoral action.



Issues on public space, community building, inclusion and mix of urban functions offer good starting points for cross-sectoral action

		Circular Urban Economies							Positive Energy Districts (PED)						
		Climate adaption and social cohesion	Urban symbiosis across sectors	Blue-green design for regenerative sectors spaces	Cities as resource mines	Digital economy and resource sharing	An urban living environ- ment with circular ideal	Nature-based solutions tor urban food systems	PED behavioural aspects	Energy communities tor community-driven transit	Moderation of PED imple- mentation	Integration of mobility in PEDs concepts	Adding blue-green infra- structue for PEDs	Energy efficiency in existing structures	Energy flexibility strategies
15-minute City	Strengthen a neighbourhood's socialcentre(s)	50%		67%					42%						
	A fair (re)distribution of urban public space	44%													
	Plan for a mix of urban fuctions and uses			42%					42%	42%					
	Sustainable mobility for the outskirts											63%			
	Replacing trips with clicks			43%		43%									
	Working on a city for everybody	38%		46%						38%	62%				43%
	Green urban logistics							50%							40%
	Rethink daily mobility routines											50%			

**Figure 5:** Thematic intersections between the 15-minute City Pathway and circular economy and energy transition topics (only statements > 35% are depicted), source: DUT Partnership

Building on these results, the AGORA Dialogue continued with eight group discussions on these intersections. The groups were asked to create narratives linking mobility, energy and circularity, as well as a compelling headline for them. Some examples include "harvest the potentials of a city as a mosaic", "it is all about the right mix!", "build capacity for city led innovation" or "get infrastructure conditions right!" The second half of the AGORA then focused on priorities and key levers for action.



#### How can faster speed of implementation and inclusivity be balanced?

DUT Launch Event "Speeding up mobility transitions. Balancing implementation efficiency and social acceptance", October 2022

In October 2022, we officially launched the DUT Partnership by uniting our community and stakeholders at a conference in Brussels. There, the 15-minute City Transition Pathway organised a breakout session, on how to speed up the implementation of urban mobility transitions. Building on critical reflections of the concept and experiences from policy level on ambitious climate action – brought in by the City of Alba Iulia and the European Commission – the discussion evolved around central challenges and barriers. Main statements and take-aways include the following aspects:

The urgency for promoting urban resilience and sufficiency is clear.
 For this, innovations are needed, especially in governance, and financing of implementation, further underlining the importance of policy learning and co-created solutions. However, change needs to be taken step by step, and has to build trust and partnerships, to hopefully achieve a domino effect in the right direction.

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Innovations are needed, esp. in issues of governance, policy learning and financing of implementation.

- When discussing mobility transition and public acceptance, we should not too narrowly focus on transport, but rather take socio-economic issues and bigger societal events into account. These usually do not originate in the mobility sector, but represent big barriers or potential windows of opportunity for change (e.g. COVID, digitalisation, war in Ukraine).
- As climate change threatens to exacerbate existing issues of inequality and unequal distribution of opportunities, participatory and democratic tools (e.g. Oxford's "Street Voice Citizens" Jury) show promising results on the neighbourhood level. For local interventions, it is central to identify and work with "ambassadors" and gatekeepers.
- Focus on win-wins and co-benefits. Cities need to communicate with citizens and demonstrate the benefits of active mobility and public transport to enjoy a good life locally.
- Co-creative and experimental environments, such as pilots or living labs, offer better contextualisation and set a path for continuation. However, an important question is, how to replicate and scale up these experiences.



**Figure 6:** Impressions from the 15-minute City session, source: Maximilian Jäger

#### $\Omega\Omega$

Frame and operationalise the 15-minute City concept further, by creating context-specific and people-oriented approaches, good practice and tools

#### What are key issues and challenges of the 15-minute City concept?

AGORA Thematic Dialogue: "15-minute City - a concept for all?" & ENUAC mid-term meeting, May 2023, Bucharest

Back-to-back to the ENUAC project mid-term meeting, we organised an AGORA Dialogue to discuss common features and open challenges of the 15-minute City concept in both research and urban policy. Central areas of debate focused on the need to frame and operationalise the concept further, by creating context-specific and people-oriented approaches, good practice and tools. Thematically, it goes beyond urban mobility and planning topics, and is perceived as much more, building on a strong social infrastructure agenda. Neighbourhoods, which offer a mix of functions, attractive, inclusive public spaces, and streets with priority for active and shared mobility, are seen as key levers to implement proximity policies.

#### **Social justice**

- Inclusion of cycling accessibility in the 15mC definition
- Socio-economic diversity Importance of community driven development
- Addressing (green) gentrification Does investment in public space quality lead to rising prices?
- Inclusiveness Is the 15mC for all?

#### **Context-specificity & participation**

- Responses / actions must be **context-specific** (x-minute City)
- Relevance of community-driven development Participation, co-creation, co-design
- Develop methods to capture (the diversity of) specific local needs
- Understanding different needs and lifestyles

#### Importance of public space

- Reclaiming public space for marginalised voices and communities
- Shared e-charging Infrastructure and cars
- Flexible & multi-functional use of space, facilities and infrastructure

#### Walkability

- Quality of walking distance just as important as quantity (e.g. experience, security, opportunities)
- Key aspects: Access, quality of built environment, connectivity of a city & infrastructure

#### **Open challenges & critical issues**

- Which forms can the 15mC concept take in specific urban areas?
- How to address destructive narratives & conspiracies, and underlying fears of change?
- How can we move beyond a Eurocentric approach and include experiences from the Global South?
- How to go beyond the next buzzword What needs to be done for implementation?
- Diversify communication by incorporating locally used terms (e.g. quartier, barrio)
- Integration of mobility for people & goods Cities addressing logistical needs for people & goods;
   Consideration of space for building materials; Adapting to changing shopping habits & demographics
- Identify and address potential impacts, adverse effects & trade-offs
- Efficient & sustainable transport linking 15mC neighbourhoods
- Need to involve more and different disciplines

#### Framing of the concept

- Shift from mobility-centred to small-scale, neighbourhoodbased urban regeneration with a focus on social services
- Distinction between building new and transforming existing neighbourhoods
- Use 15mC as an umbrella term for different cross-sectoral policies
- Need for a common definition of 15mC to help clarify for practitioners and researchers
- Recognition of different pathways to achieving a 15mC neighbourhood
- Accessibility by proximity
- Clarifying the aims and meaning of the 15mC concept

**Figure 7:** Discussion results on focus areas and open challenges for the 15-minute City concept, source, DUT Partnership



The next day, the three Romanian Mission Cities Cluj-Napoca, Suceava and Bucharest (Sector 2) joined us to share insights from their local approaches and barriers in relation to the 15-minute City. When asking them to express a central local challenge, the underlying theme of local mobility policy become rather clear:

- Cluj-Napoca: "Towards a walkable city: between public policy and mindset"
- Suceava: "A shift in mindset, moving away from the car"
- Bucharest (Sector 2): "How do we help people accept losing 'their' parking space"

Based on these inputs, we then dug deeper into six Critical Issues for implementing the 15-minute City concept, which thematically led the way to this Position Paper.

#### How can cities best learn from each other?

DUT City Panel meeting: "Bringing climate action into practice: How to work with best cases examples?", June 2023, Vienna

Since summer 2022, we invite cities from the DUT City Panel to bring in and reflect local priorities for research and innovation, and other activities in DUT. The City Panel meets twice a year, once online in autumn, and once on-site in early summer. In 2023, we organised the first City Panel on-site meeting in Vienna and welcomed 21 representatives from 14 cities and nine countries.



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Cities learn best from practical experience on "translating" and mainstreaming successful projects

Figure 8: The City Panel on-site meeting 2023 in Vienna, source: DUT Partnership

Above all, we strived to create a programme centred on offering opportunities for peer-to-peer exchange, discussions on learnings and experience from implementing local projects, and site visits on ambitious local projects in Vienna. Above all, we raised questions on how to build on learnings of single projects and good practice to promote implementation at scale. Highlights were presentations deliv-

ered by City Panel members, which demonstrated successful experience of such "translation" and mainstreaming efforts:

- Umea (SWE) on their approach to emphasise social sustainability and gender perspectives in the realisation of their "5-km city"
- Utrecht (NED) on two critical features for their city development strategy the barcode system for securing a local mix of functions and a digital twin platform.
- Tartu (EST) on their ambitions to realise a holistic Positive Energy District as well as the challenges in doing so
- Roseto (ITA) on rolling out energy community initiatives
- Roubaix (FRA) on their education and incentive programme "From Zero Waste to Circular Economy"

These practical insights were followed by rounds of discussions to dig deeper on how to come from an idea to impact. The next day we organised site visits to ongoing transformations of the Viennese Inner-Favoriten district, which ranged from Vienna's first Superblock to large-scale city development projects, renewable energy developments and temporarily used buildings.



**Figure 9:** Answers to the question "Which are the most relevant learning formats for experts in city administrations?", source: DUT Partnership

#### What does the 15-minute City mean in African contexts?

Workshop on 15-Minute Cities in Africa: "Transitions towards 'safe, affordable, accessible, and just neighbourhoods for everybody", September 2021, online

In September 2021, as a contribution to the African Mobility Month 2021, we were invited by Start International and ICLEI Africa to a digital workshop with 30 partic-



ipants. The aim was to explore the 15-minute City concept in relation to African cities and to identify key entry points for its application. After impulses for discussion were delivered by DUT as well as by colleagues from Cape Town, Nairobi and Kampala, participants firstly discussed their vision towards a sustainable, liveable and inclusive city. Their statements highlighted:

- Aspect of accessibility less traffic, safer and cleaner streets, reliable and cheap public transport, safe sidewalks and bicycle lanes, better access to basic services
- More integrated urban planning mixed use development, greener cities, less sprawl, decentralisation and better distribution of opportunities, more options close by
- Social connection and quality of life better sense of community and connection to place, more opportunities for encounters, more inclusive and socially equitable spaces, more time for family and friends, fresh post-colonial visions, less stressful city life

When identifying priority areas to make this vision a reality in the African context, the discussions focused on the importance of being sensitive to the local context urban challenges. This includes the co-production of long-term visions, considering informality, and empowering civil society organisations to have a stake in the planning processes. Many comments also entailed a profound cultural change in cities, which come with de-stigmatisation of public transport, implementing good local leadership and governance, and the need of low-cost solutions, which are mostly quick to implement. In comparison to the European debate on the 15-minute City concept, many inputs were eye-opening, digging deep into essential differences, such as the high emphasis of improving traffic safety, influences of rainy seasons on the cityscape, potential conflicts between urban greening and need for firewood, and high significance of creating access to basic infrastructure (e.g. water provision, health care).

## Research and innovation calls as ultimate positioning in DUT

At the core of the DUT Partnership are its yearly R&I calls. By funding transnational projects, we set out to promote interdisciplinary and co-creative approaches that explicitly engage stakeholders in order to build on their challenges and needs. Thus, we aim to develop skills and tools that facilitate urban change, boost needed urban transformation and bring existing and new knowledge and evidence into action.

With the end to jointly create a challenge-driven R&I programme for urban transitions, DUT expands on inputs of urban problem-owners and aligns with national and regional DUT Partners from 28 European countries. Thus, we take eight months for each call development process, usually starting in September and completing in April of the following year, to give enough space for engaging a wide range of stakeholders, reflecting our positions, and formulating attractive and relevant call topics.



Mobility transition in African cities implies a profound cultural change - de-stigmatising public transport, implementing good local leadership and low-cost solutions



DUT Calls align 40+ funding agencies from 28 European countries in a co-creative process from September to April of the next year

#### Challenges (Sept-Nov)

- DUT's multi-annual call agenda
- DUT national partners
- Inputs from City Panel, NetZeroCities, city networks, transnational partners etc.

#### Priorities (Dec-Jan)

- Stakeholder
- Consultation
- AGORA Dialogues

## **Topics** (Feb-Apr)

- DUT national partners
- Call writing team

Figure 10: From challenges to call topics: DUT's call scoping process, central instruments and stakeholders, source DUT Partnership

In the end, finalised and aligned DUT Call Topics are key discussion outputs, through which the DUT Partnership positions itself and communicates its thematic priorities for a year, on which transnational consortia may apply in a two-stage process. For the 15-minute City Transition Pathway, figure 11 highlights the Call Topics and central aspects for the years 2022 to 2024.

#### **DUT Call 2022**

- Strengthen the mix of urban functions and services (22 proposals received, 3 selected for funding)
- Foster sustainable options for personal mobility and logistics in urban outskirts (and beyond) (48 proposals received, 12 selected for funding)
- (Re)imagine urban public spaces and streets for vibrant, sustainable neighbourhoods (38 proposals received, 8 selected for funding)

#### DUT Call 2023

- Integrated policies and evidence to reduce car-dependency (44 proposals received)
- Mobility and planning policies for proximity-oriented developments (25 proposals received)
- Empower people for urban mobility transitions (37 proposals received)

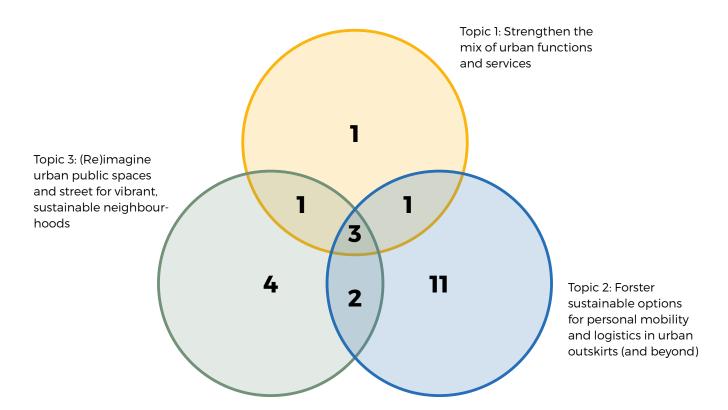
#### **DUT Call 2024**

- · Advancing urban mobility innovations for inclusive and youth-centric mobility systems
- Reconsidering urban mobility systems towards system innovation and proximity policies for sustainable city regions
- · Evidence for the urban mobility transition data and indicators for effective decision-making



At the time of creating this Position Paper, the evaluation process for Call 2023 is still ongoing, the results of Call 2022 already give a perspective on a promising first cohort of DUT-funded calls:

- **23 projects** started working on mobility transition challenges in beginning of 2024 which are almost half of all projects in DUT (48 in total).
- 5 of them apply an innovation-oriented approach (focus on developing, improving, testing practical solutions), 18 a research-oriented approach (analysing, creating a better understanding and knowledge).
- 30 Mio. Euros of funding will be distributed among them until end of 2026.
- They mobilise 300+ project partners from 18 EU and 4 non-EU countries.
- **30%** of all partners are either public institutions or city administrations (however most as cooperation partners, thus not receiving funding).
- While each Call Topic received submissions, the most attractive by far for applicants was Topic 2 on sustainable mobility options in the urban outskirts (see Figure 11). Eleven projects decided to focus on this issue, and a total of 17 projects in Call 2022 will tackle challenges around mobility in lower-density areas.



**Figure 12:** The distribution of 15-minute City projects funded in DUT Call 2022, according to their selected topic(s), source DUT Partnership



Figure 13: Key Words from all 23 15-minute City projects from DUT Call 2022

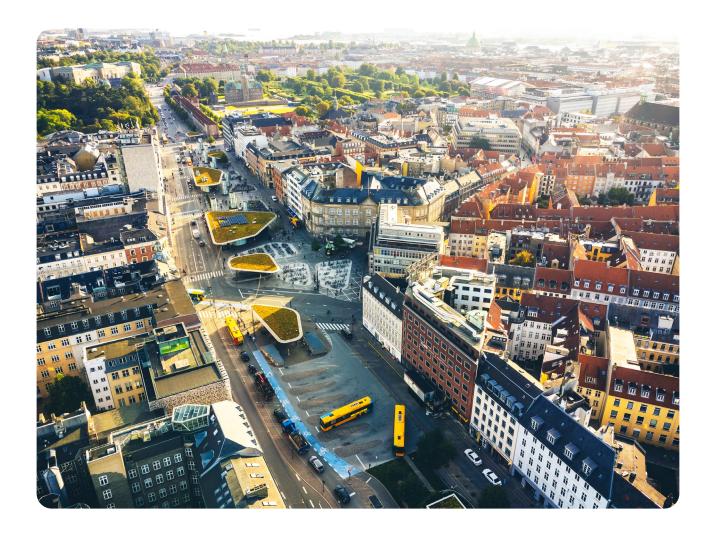
These facts and numbers of the first DUT-funded projects allow us to look to the future with great anticipation. We are excited for many more DUT calls and project cohorts in the upcoming years, and will give our best to accompany and support their efforts, translate and disseminate relevant good practice, learnings and results.

# PART 02 Perspectives



## **Part 02** | Perspectives

The 15-minute City has become a prominent term in city planning and policy making. Examples for 15-minute Cities or concepts with similar underlying ideas can be found all around the world. However, the 15-minute City is not perceived, understood and implemented by everyone in the same way. When talking about positions, we need to look beyond our own horizon and perceive the 15-minute City concept from different angles. That is why we asked different stakeholders from our wider community to tell us about their approach to urban mobility in general and the 15-minute City concept specifically. We were particular interested in how they experience the discourse in their national and/or professional context.





## Research Perspective: Contribution from the ACUTE Knowledge Hub

Authors: Alain L'Hostis (Université Gustave Eiffel), Ndèye Aïta Cissé (Université Gustave Eiffel), Maxime Hachette (Université de technologie de Compiègne), Enrica Papa (University of Westminster), Sylvain Petitet (Cerema Territoires et ville)

While the academic literature on the 15-minute City is growing, and the concept is gaining momentum in current urban practice, the link between ongoing research and the practices of urban professionals is neither direct, immediate nor straightforward. This contribution aims to fill this gap by reporting on the key findings of a series of seminars organised by the authors, which served as dynamic forums, bringing together urban practitioners and academics. The seminars were organised as part of the wider ACUTE (Accessibility and Connectivity for Urban Transformation of Europe) project, which aims to promote the exchange of experience between practitioners from institutions, the private sector, NGOs, citizens and the research community on urban and mobility issues.

The ACUTE project is a multi-stakeholder project composed of partners of five European countries, coordinated by BOKU – University of Natural Resources and Life Sciences, Institute of Production and Logistics, Vienna (AT). Its partners comprise Université Gustave Eiffel (FR), Cerema (FR), Latvia University of Life Sciences and Technologies, University of Latvia, RISE – Research Institutes of Sweden, University of Westminster (UK), Malmö University (SWE), K2 (SWE), Power Circle (SWE), University of Innsbruck (AT) and Graz Energy Agency (AT).

#### **ACUTE** aims at:

- Informing non-academics about a wide range of the latest research about Accessible and Connected City
- Providing documentation and scientific support to practitioners in their daily practice
- Collecting 15-minute City's experiences, to group in a single location and contribute to overcoming the fragmentation of knowledge on the 15-minute City topic

The development of the knowledge hub involved a comprehensive approach, encompassing an extensive review of the literature and an exploration of current research projects. The knowledge hub is actively shaping its identity through seminars, facilitating a direct exchange of insights, experiences, and perspectives; we seek to forge a more seamless connection between the evolving body of research on the 15-minute City and its practical integration into urban planning and development. Since the project began at the end of 2022, two seminars – one in Milan (03/2023) and one in Antwerp (10/2023) – open to scientists and practitioners, and a workshop, have been organised. The seminars attracted 115 academics and 33 practitioners from 14 countries.



The 15-minute City raises many research questions and appears to be a solution for making cities more accessible.

#### **First Results**

The ACUTE project identified five research topics:

- 1) Defining the 15-minute city
- 2) Selecting the transport modes of the 15-minute city
- 3) Integrating proximity into urban planning
- 4) Supporting inclusiveness in the 15-minute city
- 5) Evaluating the 15-minute city

#### 1. The definition of the 15-minute City

In the scientific literature, the 15-minute City tends to be defined as accessibility through proximity, as opposed to increasing accessibility through mobility. A consensual basis for the definition considers the access to essential services in less than or equal to 15 minutes on foot or by bicycle, but the recent research developments add an emphasis on the issues of decarbonation and inclusiveness. Faced with the challenges of adapting cities to climate change and combating urban sprawl, the concept of the city of proximity is receiving renewed attention in urban planning. This is due to its relevance to the challenges of reducing CO<sub>2</sub> emissions in mobility practices, as well as in terms of inclusiveness, both for people with reduced mobility and for groups identified as vulnerable. The latter are confronted with an urban design, and a spatial and temporal distribution of amenities that are often not adapted to their needs, and this has repercussions on their mobility behaviour.

#### 2. What modes of transport for the city of proximity?

An urban design that encourages cycling, walking and access to public transport services is at the core of the city of proximity, which also includes universality and inclusiveness. Proximity entails also an idea of flexibility that feeds on the idea that essential services vary according to the urban context. To implement the 15-minute City model, it is essential to integrate proximity in the broad sense of the term (i.e. geographical, spatial, social, perceptual and temporal) into urban development.

#### 3. Integrating proximity into urban planning

To integrate proximity into urban planning, public authorities must intervene to create accessible, safe and well-served neighbourhoods for pedestrians and cyclists, as well as high quality public spaces and services that encourage local life. This can be quantified by assessing accessibility and urban conditions, both within cities and in outlying areas. There needs to be constant dialogue between public authority decision-makers and the needs of users, particularly groups identified as vulnerable because of their gender, physical and/or mental conditions and socio-economic conditions.



#### 4. Supporting inclusiveness in the 15-minute city

Participating in urban life implies being able to access activities and public space. In this regard, many inequalities exist: women, for instance, often refer to the feeling of security as a barrier to movement, to access and finally to taking part to urban activities. Identifying the needs of vulnerable groups is essential to making the city of proximity inclusive. In addition, the integration of the gender dimension plays an important role, particularly as there is a lack of knowledge about the link between gender and walking. With this in mind, a gender-specific walkability indicator has been developed in Milan around the collaborative application "Wher", as part of the European project STEP UP. This application aims to map the perceptions of safety in public spaces of people who identify themselves as women.

Another example of a tool for measuring inclusiveness is the IAPI (Inclusive Accessibility by Proximity Index) indicator developed as part of the European EXTRA project, which combines walkability, access to services in 5, 10 and 15 minutes, and the perception and quality of the urban environment, according to transport mode and conditions, walking, reduced mobility and cycling. The city of proximity is also a city where children can move around safely, using the modes mentioned. However, it is observed that children's use of public spaces is strongly influenced by their parents' perception of their safety.

#### 5. Evaluating the City of Proximity

Two explicit approaches to evaluating the city of proximity using indicators were presented at the ACUTE seminars:

- The "Women's Walkability Index" (WWI), currently being developed as part of the STEP UP project, will combine perception and GIS measurements to access facilities as part of a 15-minute City approach
- 2. The IAPI (Inclusive Accessibility by Proximity Index) developed as part of the Extra project and mentioned above from the point of view of inclusiveness, aims to assess the impact of experiences of travelling on foot, by bicycle or with reduced mobility in the streets of Bologna.

#### **Remaining challenges**

During one workshop, a discussion on the issue of the diversity of urban contexts evolved. The 15-minute City is generally recognised as a suitable urban model for dense urban areas, but also suitable for smaller size urban cores where the full range of basic services can be found in a compact setting. The challenge of improving the connectivity and accessibility of peripheral areas brings the notion of adaptability and flexibility to urban contexts to the heart of the 15-minute City concept. Solutions are envisaged for peripheral areas:

- Setting up multimodal hubs integrating shared mobility systems, micro-mobility and public transport services
- Development of pedestrian and cycling infrastructures
- Improving the reliability of mobility information using digital solutions

At the workshop, practitioners expressed a very strong concern about the various expressions of social resistance and backlash against the 15-minute city in European cities. This is a clear expression of the need for knowledge about these phenomena.

Several contributions proposed digital tools to facilitate the daily management of mobility, with a focus on prioritising active transport modes. However, these solutions may be limited in that they are less inclusive in their use.

The notion of proximity is central to the definition of the 15-minute City. Proximity planning is much more feasible in dense, multifunctional urban spaces than in peripheral, low-density areas. The most striking aspect found during our investigation is the idea that the research on the 15-minute City concepts tend to put the focus on particular, contextual needs, as opposed to a standardised, uniformed, functional approach. The concept also raises the question: The 15-minute City, for whom? Developing transport infrastructure and linking it to urban development designed by and for users seems relevant to achieve the goal of improving accessibility and inclusivity of cities.

The concept of the 15-minute City raises many research questions and appears to be a solution for making cities more accessible. In this perspective, it is important to think about ways to avoid the fragmentation of knowledge in order to promote links between research and practice in urban planning and mobility. The permeability between research and practice is necessary for the implementation of resilient actions to make cities more accessible and inclusive. The ACUTE project aims to create a knowledge hub to strengthen the link between research results and urban development issues.

#### **Further Readings**

Büttner, B. & Seisenberger, S. (2023): The Inclusive ± 15-Minute City, Link

Choubassi, R., Gorrini, A., Gargiulo, C., Guida, C., Andreola, F.N., Muzzonigro, A., Gargiulo, E., Walker, J. (2023). Walkability for Women and the 15- minute City Framework: The STEP UP Project. <u>Link</u>

Lanza, G., Pucci, P., Carboni, L. (2023): From mobility to accessibility by proximity: an Inclusive Accessibility by Proximity Index (IAPI)". <u>Link</u>

L'Hostis, A., Cissé, N.A., Hachette, M. (2023). The 15-Minute City: A New Avatar of Proximity and a Pillar of the European Urban Transition. <u>Link</u>

Rauli, A., Büttner, B. Silva, S, Seisenberger, S. (2023): Defining Proximity-centred Accessibility. Link

Wassim, H. & L'Hostis, A. (2022). Mobility Hubs, a Lever for More Sustainable Mobility? Link



## City Perspective: Contribution from the 15-minute City Mapping Team

Authors: **Benjamin Büttner** (Technical University of Munich), **Sebastian Seisenberger** (Technical University of Munich), **Cecília Silva** (University of Porto), **João Filipe Teixeira** (University of Porto), **Enrica Papa** (University of Westminster), **Mengqiu Cao** (University of Westminster)

The 15-minute City mapping intends to provide an overview of existing 15-minute City concepts and policies in Europe, but also on other continents. The resulting state-of-the-art shows which topics related to urban mobility transitions and transformations of public space the individual cities address and how much the 15-minute City concept has spread in recent years. Additionally, concrete policies that can serve as inspiration for other cities are being collected. We - the mapping team - consist of researchers from the Technical University of Munich (Germany), the University of Westminster (UK) and the Instituto da Construção Sustentável, Porto (Portugal).

We used various methods to collect as many 15-minute City concepts as possible. We searched scientific articles with the help of internet search engines and carried out a survey, which we distributed to planners and scientists worldwide. We tried to search as broadly as possible for cities that pursue concepts with similar goals to the 15-minute City (e.g., 20-minute Neighbourhoods and Superblocks). In a snowball process, new terms were constantly integrated into the search. In the next step, policies and practices on the case studies were collected from various sources and characterised with the help of 24 criteria, 12 at the city level and 12 at the individual policy level. This information was then used to classify the cities based on their propensity to adopt the innovative practice of the 15-minute City.

We identified 98 case studies worldwide, of which 94 cities remained after we removed the case studies without sufficient data. Within the case studies, we found around 414 associated policies. The large number of cities identifying with 15-minute principals shows that the concept is gaining traction - particularly in certain world regions. Of the 98 case studies, 58 are in Europe (Figure 13). The advantage of our broad search strategy was that we identified many case studies with similar but different terminology, such as 15-minute Life Circles in China, Complete Neighbourhoods in the USA, and 10-minute Towns in Norway. However, overall, it was evident that the concepts are predominantly widespread in Europe and the Anglo-Saxon countries, with only a few case studies identified in Latin America and none in Africa.

Despite the varying terminology, the definitions of individual concepts exhibit relatively similar formulations. The most common can be summarised as ,all residents can reach everyday facilities on foot (or by bicycle) within XX minutes. A focus on typical planning principles such as spatial proximity and land use mix is also characteristic. However, some individual case studies emphasise affordability and community building more strongly, thus leaning more towards social issues. However, the similarity among most concepts reinforces the assumption that they have the same underlying idea.



Leading cities build on strong political commitment and close collaboration between public authorities and academia



Figure 14: Geographical Mapping of Case Studies

By examining individual cities regarding their propensity of innovation, we obtained a nuanced understanding of the spread of the 15-minute City concept. As is expected in innovative practices, some cities are taking the lead (for example: Paris, Barcelona, Melbourne, classified as Innovators, or Milan, Shanghai, Zagreb, classified as Early Adopters). They have implemented policies that radically differ from current planning practices and cover all key areas (KAs) of DUT's 15-minute City transition pathway: This leading position is primarily sustained by a political commitment that recognises the pressing need for genuine transformation in urban mobility and a good understanding regarding needs for spatial proximity. Furthermore, close collaboration between public authorities and academia, and between different departments of public authorities are key factors to this rapid deployment.

Examining specific policies reveals a strong emphasis on promoting sustainable mobility (KA 1) and people-centred public spaces (KA 2), with 33% and respectively 38% of all identified practices. The topic of logistics (KA 3) has been scarcely considered by cities so far. Practices related to logistics in the 15-minute city were found for only 21% of the cities. Similarly, for the theme of Governance for mobility transitions (KA 4), we could only identify dedicated policies in 48% of the cities. Therefore, there is a particular need for further development and assessment of the concept and research on innovative measures, especially regarding logistics and urban governance.

The rapid proliferation of the 15-minute City concept within a short timeframe emerged as a notable revelation during our research. The emergence of innovative practices like the ,Pact Proximité' in Paris, which empowers districts to play a more



active role in shaping their built environment, suggests a positive trajectory for the concept's further development. Likewise, there is a growing trend of policy transfer and local adaptation, exemplified by Vienna's adoption of Barcelona's superblocks under the term ,Supergrätzl'. However, our analysis indicates that most cities are still in early development stages, requiring significant adjustments to embrace more radical and holistic approaches that cover all Key Areas of action and lead to a genuine transformation.

#### **Further Readings**

Büttner, B., Seisenberger, S., Larriva, M. T. B., De Gante, A. G. R., Ramírez, A., Haxhija, S. (2022): ±15-Minute City: Human-centred planning in action, Link

Lu, M. & Diab, E. (2023): Understanding the determinants of x-minute city policies: A review of the North American and Australian cities' planning documents, <u>Link</u>

## National Perspective: Contributions from national DUT Partners

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The discussion about the 15-minute City is a central topic of urban development and mobility transition that is attracting attention worldwide. The following contribution presents insights into the current discourse on the 15-minute City concept in different countries from the perspective of the national DUT partners. The contributing partners represent a broad spectrum of organisations, including funding agencies, city administrations, universities and government departments. The expertise of the respondents ranges from research funding management to transport planning and mobility innovation. The areas of work include local, regional and national levels, depending on the field of activity.

Some countries take concrete steps to realise the vision of the 15-minute City, others are facing opposing political debates

From Germany to Slovakia, Belgium to Turkey, countries around the world are dealing with the implementation and impact of the 15-minute City concept. In Germany, the focus is on sustainable urban mobility, which is also emphasised in the current coalition agreement of the German government. Although the concept of the 15-minute City is not explicitly mentioned, many German cities such as Munich, Hamburg, Berlin and Cologne are implementing initiatives with similar underlying ideas: Efforts are being made to improve the accessibility of key facilities through the extension of cycle paths, the enhancement of public transport, and the design of public spaces.

Similar initiatives also exist in other European countries, such as Belgium. For instance, the Mobiscore system in Flanders and Brussels evaluates the accessibility of residential addresses by public transport and important facilities, such as schools and shops. Furthermore, the city of Milan in Italy has already begun planning neighbourhoods outside the historic centre to create new public spaces and reduce commuter and car traffic.

The discussion on the 15-minute City is shaped by different political and social contexts. While in some countries the discussion on the 15-minute City concept is positive and politicians have already put it on their political agenda, in other countries there is strong polarisation and political disputes about the implementation of measures to promote the 15-minute City. Citizens tend to see the concept as a utopian vision, even if they are curious about the initiative.

An important aspect is the role of government and local authorities in developing and implementing 15-minute City policies. Some countries have national strategies and action plans for sustainable urban development in general. These often emphasise the importance of integrating different modes of transport, creating green and public spaces, and promoting healthy and active lifestyles, but the concept of the 15-minute City is usually not mentioned by name.

It also shows that one major challenge is to ensure that the interests and needs of all stakeholders, including citizens, are adequately taken into account. This requires close cooperation between governments, local authorities, experts and civil society to ensure a participatory approach and promote the uptake of the 15-minute City. Projects such as Walk Urban, with the Municipality of Genoa (Italy) as a project partner, are already trying to address this by considering the needs and requirements of the local population in terms of pedestrian accessibility in the urban environment.

Research in the field of urban mobility shows that many of the measures discussed in the 15-minute City are already being analysed and developed, even if the concept itself is not explicitly mentioned. However, aspects such as the promotion of public transport or the creation of green spaces are often considered in isolation, without a link to the overall idea of the 15-minute City. It is therefore important to integrate research findings and identify synergies between different approaches to urban mobility.

In summary, the discussion about the 15-minute City concept is gaining momentum worldwide. While some countries are already taking concrete steps to realise the vision of the 15-minute City, others are facing political debates and challenges. However, it is emphasised that current challenges, such as the development of public transport infrastructure, have a higher priority than the concrete implementation of the 15-minute city concept, although these aspects are also included in the concept. For this reason, the concept is often not directly addressed, but rather implicitly considered in other contexts.

## European Perspective: Contributions from Transnational Initiatives

Within the European context, there are several projects, networks and initiatives with whom that the 15-minute City Pathway exchanges and collaborates. We share the common goal of engaging stakeholders in the field of urban mobility, promoting knowledge and building capacities to collectively advance mobility transitions towards more sustainable and liveable cities. We invited our 15-minute City Pathway network to give an overview on their takes and activities for the urban mobility transitions, and, more specifically, the 15-minute City concept. Below you find the summarised answers of representatives of six initiatives that answered our survey.



**PNO** is a consultancy working in the field of innovation on the regional, national and European level. In DUT, we mainly connect to their lead in the ENTRANCE project, offering a European matchmaking platform to accelerate market access and scale-up of sustainable transport solutions.

**ALICE** is a European platform for research, innovation and market deployment in the field of logistics and supply chain management. As ALICE considers innovation as an enabler for more efficient logistics, it is at the core of their activities.

**TRT TRASPORTI E TERRITORIO SRL (TRT)** is a consultancy specialising in mobility and transport economics, planning and modelling. DUT was in close exchange with TRT due to their coordinating role in ELTIS and the SUMP Platform for European projects.

**EUROCITIES** is a network of European cities. Through connecting cities, knowledge sharing, capacity-building and advocacy they support city representatives, policy makers at all levels of governance as well as community and citizens. In the context of DUT, we mainly exchange on priorities for the DUT calls and support each other in dissemination.

**C40** is a global network of mayors of cities that are united in action to confront climate crisis. As a network of city representatives, core activities of C40 include knowledge sharing with cities, peer-to-peer learning and direct support to cities to accelerate their climate actions.

**POLIS** is a network of European cities and regions, working together to promote sustainable urban mobility through innovation. POLIS activities' focus on bringing together relevant stakeholders to openly discuss, exchange and learn by peer-topeer exchange, policy & advocacy, research and innovation in sustainable urban mobility.

While the organisation's target groups and focus areas might differ, they are all committed to making urban transport more sustainable to ensure viable future cities:

#### Challenges in urban transport

All organisation representatives are seeing similar challenges in making cities' mobility and transport climate neutral. One challenge mentioned by several organisation representatives are conflicting policies and the resulting need to align policies along various levels of governance and decision-making processes. Furthermore, collaboration and cooperation between different sectors – especially between the public and private sector – need to be established in order to better align interests. This goes hand in hand with the need to better align the goals of personal mobility (SUMPs) and the mobility of goods (SULPs).

Besides structural challenges, responding organisation representatives see the need to shift the mindset of citizens from personal car ownership to collective and active forms of transport. This requires the simultaneous implementation of several key actions, enabling this shift through policies (e.g. investments in cycling and walking infrastructure as well as adapting land use policies to move away from car-oriented planning). However, there is no single solution approach, as a C40 representative points out, making it necessary to test and assess actions and policies with the local context in mind.



A holistic approach to tackle urban mobility challenges is essential.

#### Views on the 15-minute City concept

When asked about their understanding of the 15-minute City concept, all organisation representatives put an emphasis on active mobility modes, mixed-used neighbourhoods and the improvement of quality of life in cities. It is seen as a promising concept for urban climate action, although it needs to go beyond mobility, applying an integrated approach to policy making to avoid negative impacts or reinforce social injustice, as a representative from Eurocities underlines.

There is a variety of other concept which have similar underlying principles to the 15-minute City concept. Other terms, concepts and policies that the organisations use to tackle challenges of urban mobility include:



#### The Role of Research and Innovation

The organisations see versatile needs for Research and Innovation regarding specific topics of the 15-minute City. Here is an overview on the topics mentioned:



Summing up the inputs of these organisation representatives, it becomes evident that a holistic approach to tackle urban mobility challenges is essential. This requires the coordination of different policy levels and the promotion of cooperation between the public and private sectors. The 15-minute City and similar concepts offer promising solutions for urban climate action, but can only unfold their full potential with an integrated policy design approach that prevent or compensate negative impacts and strengthen social equity.

# PART 03 Insights



# Part 03 | Insights

Since the start of the DUT Partnership, we were able to build a strong and colorful network of stakeholders - including funding and national agencies, city representatives, researchers, activists, etc. - that support the mission of Driving Urban Transitions. Within this network, we are able to gain many insights on current developments, pressing issues as well as needs and preconditions needed in the future.

In this part of the Position Paper, we want reflect on where we stand with tackling the most urgent issues in driving the urban mobility transition. We were especially interested in identifying together with DUT stakeholders Critical Issues that need to be addressed and considered in future activities in the 15-minute City Transition Pathway of the DUT Partnership.





## The Critical Issues of the 15-minute City

For this Position Paper, we define Critical Issues as issues that might affect the successful implementation of the 15-minute City concept and consequently the transition towards more just and sustainable cities. Critical Issues in the context of the 15-minute City are key problems or challenges that are perceived as particularly **urgent** to address and **relevant** for the potentials of the 15-minute City concept to fully unfold, or **complex** to solve.

Based on previous outputs of the DUT partnership and cross-checked with literature and research on the concept, we identified together with our stakeholders six Critical Issues that need to be taken further into account and addressed within our future activities:

- 1. CONTEXT IS EVERYTHING: What do we refer to when we talk about the 15-minute City?
- 2. **SOCIAL JUSTICE:** How might we ensure that the 15-minute City promotes a just urban mobility transition where nobody is left behind?
- 3. INVOLVEMENT OF PEOPLE: How might we ensure that the 15-minute City embraces the variety of urban lifestyles and offers people an active role in the urban mobility transition?
- 4. FROM LOCAL TO BIG PICTURE: How might the 15-minute City look in low-density and suburban neighbourhoods and what is needed for implementation?
- 5. ORGANISING THE TRANSITION: What might the 15-minute City contribute to organising and speeding up the urban mobility transition, tackling the essential and most urgent issues?
- **6. ROLE OF LOGISTICS:** How might the sustainable transport of goods be ensured when people should move less (far) in the 15-minute City?

Considering these short inputs, we asked actors of the DUT community to co-create contributions and positions on the six Critical Issues. This process was kicked off in a DUT 15-minute City AGORA in October 2023.

In this AGORA, the Critical Issues were presented and discussed with the participants. The participants formed writing teams for each Critical Issue and worked on a first rough draft of their contributions in the workshop.

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The AGORA Dialogues are spaces for urban researchers, practitioners, entrepreneurs and more to come together, and work jointly on the most pressing urban challenges.

After the AGORA, the groups self-organised to finalise their contributions on their chosen Critical Issue and to find a common position, addressing five guiding questions:

- 1. What makes these issues critical for the implementation of the 15-minute City?
- 2. Which aspects and challenges should be highlighted?
- 3. Are there real-life examples from cities to illustrate this Critical Issue?
- **4.** How might we find ways to balance potential negative effects of this Critical Issue?
- 5. How might research and innovation help tackle the issue?

The following contributions are the result of this process, reflecting the positions of actors of our community on the Critical Issues.

## **CONTEXT IS EVERYTHING:**

What do we refer to when we talk about the 15-minute City?

When we think about the 15-minute City concept, pictures of lively, pedestrian-friendly and green streets come up quickly. However, a few big questions of the concept remain, which need to be clarified to make it a tool for implementation: 15 minutes - or any other chosen time span - defines a distance that differentiates dramatically when different modes of transport (biking, walking, public transport, car, etc.) are used, and depending on this choice, different means and policies will be needed. Besides the quantity of minutes, we also need to consider differences in people's physical abilities, qualitative aspects of urban infrastructure, such as walk- and bikeability of streets, accessibility of infrastructure or the quality of the reachable offer of services and institutions. Furthermore, and in the context of a larger culture war on sustainability in cities, there is a need to specify the concept of the 15-minute City to make it viable for urban transition, and to address the concerns and underlying fears of inhabitants.

Authors: **Achilleas Psyllidis** (TU Delft), **Georgia Pozoukidou** (Aristotle University of Thessaloniki) and **Christine Fournioux** (Clermont Auvergne Métropol)

We currently lack sufficient evidence to support the notion that 15 minutes, or any other time span, corresponds to what people consider an acceptable time to reach their destinations. What people tolerate as an acceptable travel time distance to daily needs and essential services is heavily influenced by factors like varying physical abilities, demographics, transport mode, trip purposes, mobility habits, infrastructure quality, safety perceptions, and the aesthetic qualities of the chosen paths. Tolerance levels will likely vary from region to region or country to country, making it essential to research and adapt time goals based on trip purpose and population group.



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15-minute City policies strive to foster inclusive communities by promoting accessible, lively spaces and socially cohesive urban environments. However, by prioritizing local trips to activities over longer journeys, such policies risk limiting interaction between demographic groups, particularly those from underserved communities. Involving communities is vital to mitigate these negative effects and regulate the potential aggravation of social segregation.

To facilitate mobility and accessibility transitions, a more precise and well-defined version of the 15-minute City, or an x-minute city in general, is necessary. Given the distinction between time and space, each x-minute city design must be contextualised in terms of the urban form, structure, and landscape to which it leads. Such transitions should consider three key aspects: (1) physical planning, which promotes the shift from mobility-focused planning to a focus on access to local opportunities, (2) community building, which prioritizes community involvement through co-creation processes, and (3) the planning process itself to encourage multi-level governance.

The primary considerations for 15-minute City planning policies involve addressing the varying preferences and tolerance levels of residents and users, including the exploration of underutilised or neglected public spaces, particularly in dense inner-city areas. Commuting from home to work is a significant issue that requires careful consideration to rethink this inflexible daily routine. Establishing a consistent assessment framework is essential to define time spans and spatial configurations, factoring in people's travel time, distance tolerance levels, and local characteristics, as well as benchmarking different neighbourhoods and cities. There is a need for a global collaborative effort to exchange insights on citizen involvement, legislative frameworks, and the diverse impacts of 15-minute City initiatives on urban development, economics, well-being, and health. Leveraging the experiences and public acceptance of individuals residing in 15-minute City

environments is crucial. Personal stories and diverse perspectives can effectively highlight the potential benefits of the model for various groups and lifestyles,

thereby increasing awareness among those unfamiliar with it.

Given the distinction between time and space, each x-minute city design must be contextualised in terms of the urban form, structure, and landscape to which it leads.

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## **SOCIAL JUSTICE:**

How might we ensure that the 15-minute City promotes a just urban mobility transition where nobody is left behind?

The 15-minute City concept sets out to transform our cities. However, big interventions usually come with conflicting objectives, unexpected consequences, and potential rebound effects. One example can be green gentrification, when measures of urban greening potentially contribute to gentrification, thus reinforcing social inequalities (e.g. through rising rents). A 15-minute neighbourhood sets out to give inhabitants the possibility to fulfil their daily needs within walking or cycling distance. These transport modes come with a wide range of benefits for individuals and the urban society. Nevertheless, the focus of the 15-minute City on active mobility raises the question if people with mobility impairments will get left behind when urban space prioritises walking and cycling. It is crucial to anticipate potential rebounds and establish mechanisms that detect and counteract them, to make the urban mobility transition fair, just and is serving all city dwellers, not just the privileged.

Authors: **Enza Lissandrello** (Aalborg University), **Pia Laborgne** (Karlsruhe Transformation Center for Sustainability and Cultural Change) and **Ricardo Pinto de Sousa** (Portugal Directorate of Regional Development)

"The 15-minute model" is a new and innovative concept that has the potential to transform the way we live and work. This approach focuses on proximity and active mobility to create dynamic urban spaces, improve community facilities, and offer more retail options to everyone. Although the benefits of proximity are undeniable, we must also remain aware of any potential negative impacts. By approaching the 15-minute model with a social justice lens, we can strive for a just and equitable society that benefits all, while being mindful of any potential unintended consequences. The "active mobility" principle underlying the 15-minute City model is aimed at promoting shorter commutes and encouraging walking or cycling to one's destination. However, it is important to recognise that this may not be feasible for everyone, given variables such as age, physical and mental abilities, and access to alternative means of transportation. When discussing social justice, it is crucial to take into account the diverse needs and abilities of individuals and strive to create a more inclusive and equitable society through expanded formal public participation procedures.

The 15-minute City model has the potential to significantly improve accessibility to essential services for all, while also enhancing public green spaces. It is crucial to consider and mitigate any unintended negative consequences that may arise from implementing the model, such as (green) gentrification, and urban social inequalities, resulting in escalating housing costs and rents that could prove challenging for many people. It is also important to ensure that the model does not perpetuate existing inequalities and exploitation, but rather promotes a fair and just society that benefits everyone.

The concept of creating a sustainable and accessible 15-minute City is not only about enhancing mobility efficiency and technocratic solutions. It is also about actively engaging with the 15-minute City model to envision a future that prioritises fairness and equality. By empowering marginalised groups to challenge the status quo and integrate their perspectives into future visions, we can align with ethical principles and the needs of intergenerational communities. It is important to note that the 15-minute City idea isn't a one-size-fits-all solution, and instead of relying on predefined models, research and innovation on this matter should

By approaching the 15-minute model with a social justice lens, we can strive for a just and equitable society that benefits all, while being mindful of any potential unintended consequences.



consider developing alternative models for the future, identify critical learning elements and foster ecosystem learning in governance and participation, giving equal priority to the urban environment and just mobilities. It is crucial to view the 15-minute City not as a model promoting a specific vision of "right mobility behavior" or a "good citizen", but as a step towards the transition for inclusive and sustainable urban environment.

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## **INVOLVEMENT OF PEOPLE:**

How might we ensure that the 15-minute City embraces the variety of urban lifestyles and offers people an active role in the urban mobility transition?

The 15-minute City concept applies an optimistic vision for cities, based on active mobility, dense neighbourhoods, social infrastructure and climate change adaptation. Thus, it promotes specific lifestyles, which also comes with disincentivising others. However, this could bring potential for conflict, as public acceptance of policies for urban mobility transitions is essential and people taking over active roles in it will be even more important to ensure that all groups' needs are being heard and considered for necessary changes in urban life.

Different urban lifestyles should be embraced and solutions have to be developed in which all groups of people in a city benefit. It is essential to promote ownership in a 15-minutes City and empower stakeholders in engagement and participation processes that are inclusive and speak to a broad audience.

Authors: **Tim Jones** (Oxford Brookes University), **Sean Bradley** (Groundwork London), **Elmer van der Wel** (TU Berlin) and **Giuseppe Mella** (City of Venice)

The 15-minute City concept is an optimistic vision for cities based on the provision of goods and services within a 15-minute journey on foot or by cycle from the

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A joint sense of ownership and shared understanding are essential components of an optimal 15-minute City home. To realise this vision, the involvement and empowerment of people are critical as part of a holistic approach to capturing things that are important for neighbourhood cohesion. Community-led processes are required that empower citizens and promote the co-creation of comprehensive solutions from the ground up. These should incorporate mechanisms to ensure seldom heard voices are true stakeholders in the realisation of a tailored vision for the 15-minute City.

The community-led process should begin by developing an understanding of the many factors that shape neighbourhoods and then elaborating a clear set of community-led neighbourhood actions towards the 15-minute City vision. Emphasis is first and foremost on improving the quality of life and ensuring that neighbourhoods thrive through supportive and liveable local environments that develop opportunities for strong social connections both within and beyond the immediate neighbourhood. Involving people means moving beyond engagement towards the systemic involvement of residents and other stakeholders in the planning and decision-making process. This includes working with governance models that are more horizontally structured and lead to effective participation in co-created workshops and discussions. Building trust and a sense of ownership takes time but is essential to effect change, being implemented through a process of social inclusion, thus bringing everyone together, and spending extra effort to involve seldom-heard voices.

To communicate the 15-minute City vision, clear and concise information must be available, accessible, and co-produced by the local community. This communication should not shy away from highlighting the complexities of actually implementing the 15-minute City vision within different urban contexts. Indeed, it is critical to communicate the 'messiness' of people-centred deliberative processes but also the potential of collective effort, from the ground up, to transform local planning. The vision and potential benefits of the 15-minute City should be kept in clear sight. Real-world examples of case studies in other regions should be brought to the fore. This could include success stories from neighbourhoods within other 15-minute Cities that have overcome specific challenges to implement the concept effectively within their specific local context.

Documenting lessons learned from these small-scale experiments is important and should involve local stakeholders and researchers with expertise in robust evaluation. Research and innovation should focus both on consolidating the methods that make communities central to the process and the specific actions that make local living and mobility possible. Small-scale experimental projects can also be developed by the local community to test the potential impact of an intervention, e.g. by using an Urban Living Lab approach. This approach can demonstrate possibilities and challenges, by offering an iterative process, which should first understand the lived experience of a specific community, before testing ideas about how life could be improved in the neighbourhood.

In summary, the 15-minute City concept should be seen as part of a wider set of initiatives to improve community health and wellbeing. Implicit in this approach is a community-led process that is inclusive and sustained and does not shy away from the inherent complexities of achieving the 15-minute City vision. This collaborative element should be deliberative and transparent with democratic and accessible channels of communication. A joint sense of ownership and shared understanding, backed by real-world experimentation and evaluation and tailored to different social, cultural and geographical contexts, are essential components of an optimal 15-minute City programme.



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## FROM LOCAL TO BIG PICTURE:

How might the 15-minute City look in low-density and suburban neighbourhoods and what is needed for implementation?

As a high share of city dwellers opt to live in low-density areas, we observe large flows in and out of cities every day, creating considerable environmental and social impacts. Characterised by high car-dependency and mono-functional structures, these areas are often far from fulfilling 15-minute City principles. It is important to find answers on how to include these areas as well, in an attempt to create a sustainable urban mobility system, even beyond administrative city borders. Furthermore, it is yet to be specified, how 15-minute neighbourhoods will be inter-connected sustainably to reap the benefits of a truly polycentric city.

y shift from centralisation to decentralisation

There is the need to define answers on how different neighbourhoods – in and outside of a city – interact with each other in the 15-minute City concept and to connect its neighbourhood focus into the bigger picture of the urban mobility transition.

Authors: **Yannick Cornet** (University of Žilina) and **José Sequeira** (Galp Energia, SGPS, S.A.)

Putting the home at the centre of a combined approach to mobility and land use planning and around a 15-minute accessibility radial node is an intuitive narrative for citizens to relate to and for planners to implement. But can it be scaled? Can the 15-minute City concept serve to reverse suburbanisation, sprawl, and car-dependent peripheral urban area growth?

The first area of intervention relates to the physical location of workplaces. During COVID, many jobs were virtually relocated to the home and access was limited to local shops or home deliveries. Today, commuting and consuming habits have for the most part returned to their high-mobility, pre-COVID patterns, and so have congestion, air and noise pollution, carbon emissions, and other externalities. There is now an unresolved tension between the newfound freedom from employees to work from home and the requirements from employers to return to the office. Yet remote work arrangements form the basis of scaled up 15-minute Cities in two significant ways 1) it allows for the home to become the actual centre of activity and life, both personal and professional, thus reducing the need for long commuting distances and the resources needed to sustain them, and 2) the relo-

Scaling up the 15-minute City implies a regional cation of work around the home can unlock new local demands for goods and services around home-work locations in suburban towns, rural villages, or co-work locations.

The second area of intervention is mobility replanning and land-use reallocation between 15-minute Cities. Firstly, this requires efficient multidirectional public transport connections to keep living and working areas interconnected, beyond what can be reached by cycling and walking. Secondly, previously unsustainable forms of development can be marked for rezoning, with a view towards rewilding and reversing sprawl as proposed by Isobenefit Urbanism approaches. This is illustrated on a small scale by the dismantling of several urban highways worldwide (e.g. Cheonggyecheon in Seoul, Embarcadero in San Francisco, or The Seine in Paris), by projects that reconnect parks with natural wildlife areas (e.g. Glasgow's Green Network or rail-to-trail conversions), or by vacant land reuse and urban farming initiatives (e.g. Detroit). This type of approach allows for a higher quality of life and easy access to nature by active mobility, but also can strengthen ecosystem resilience in the face of an unfolding climate and biodiversity crisis. Scaling up the 15-minute City concept requires gaining more flexibility in zoning regulations (at regional level), accommodating better for mixed-use developments (at urban level), and allowing for the reallocation of road space (at local neighbourhood level).

The third area of intervention consists of assessing and reducing the risk of unwanted rebound effects. Virtual shopping could undermine the gains achieved by reduced commuting. Relocating outside of cities may revitalise rural areas, which offer better opportunities for local energy or food production, but also may increase a households' ecological footprint or induce less frequent but longer distance holiday travelling (e.g. by plane). Remote working could also exacerbate feelings of isolation, cancelling out the potential mental health benefits of living closer to nature.

Scaling up the 15-minute City implies a regional shift from centralisation to decentralisation. While economies of scale and car-based mobility have achieved unparalleled growth and wealth, decentralisation and diversification can create the necessary conditions to better withstand future crises and achieve economic, social and environmental resilience beyond the local urban level. Implementing this agenda across Europe would benefit from guiding examples and monitoring tools. Regions and cities do not only need a concept, but concrete support with solutions tailored to their needs and capacities. New and systemic research is needed to identify policies with the most significant impacts and to define a phased implementation to their context.

We argue this transformation of functional urban areas (FUAs) into a polycentric development pattern of 15-minute Cities is possible and desirable. However, it will require a range of policies drawing both from digitalisation trends and from rewilding trends aiming to enhance ecosystem resilience, while keeping a close eye on curtailing the risk of unwanted negative rebound effects. Under these conditions, we conclude the 15-minute City concept can contribute to turning large FUAs into a constellation of carbon-neutral, liveable and resilient neighbourhoods in harmony with nature.



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## **ORGANISING THE TRANSITION:**

What might the 15-minute City contribute to organising and speeding up the urban mobility transition, tackling the essential and most urgent issues?

Implementing 15-minute neighbourhoods will require high efforts to adapt and redesign wide areas of our cities, especially streets and public space. Strategies and recommendations will not be enough to transform urban mobility, we need action. It is therefore necessary to implement change through joint efforts of a critical mass that brings the majority of city dwellers along for the ride. This includes behaviour change of citizens and decision-makers, capacity building in cities as well as setting up the right policies and governance.

With the pressures of the looming climate crisis, it is crucial to act now and establish the necessary procedures to implement the transition, to realise the potentials of experimentation and demonstration faster and to ensure public acceptance. This being a huge call, the question remains of how to do so in practice.

Authors: **Suzanne Hoadley** (Polis), **Annika Lundkvist** (Pedestrian Space) and **Lucian Zagan** (Eurocities)

Quite uniquely for an urban planning concept, the 15-minute City has gained enormous traction across a range of stakeholders, from policy makers and transport practitioners to the mainstream media and the general public. Despite generating considerable discussion, dissection, and dissent in certain circles, the question remains: is controversy an impediment, or can it be transformed into an opportunity?

The discourse among professionals is revealing that many of the building blocks needed to achieve the core 15-minute City principle of proximity to services are not necessarily new, including good walking and cycling infrastructure and public transport services, complete streets, integrated transport and land-use planning, multi-functional urban development and polycentric cities, among others. That these planning concepts have been around for a long time gives rise to many questions, namely (i) why the city of proximity is not a ubiquitous reality?; (ii) to what extent can the 15-minute City narrative advance their implementation?; and (iii) which institutional frameworks are most conducive to their implementation?

Having to face the negative effects of excessive car use, cities have turned towards sustainable urban mobility. Sustainable Urban Mobility Plans (SUMP) were proposed as a tool to drive the modal shift towards public transport and active mobility. Still, their impact is still awaiting and significant shifts in mobility behav-

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Extending our focus beyond mobility, the concept prompts a reconsideration of planning in a more integrated manner, aligning city design with the patterns of movement within urban spaces.

iour are scarce. Transportation is ultimately a derived demand that stems from the organisation of city life and how the city responds to the needs of its residents. By extending our focus beyond mere mobility, the concept of the 15-minute City prompts a reconsideration of the planning concept in a more integrated manner, aligning city design with the patterns of movement within urban spaces. Focusing on the proximity of, and access to, local services and amenities, the 15-minute City concept has the potential to accelerate the transition through incentivisation and design rather than top-down enforcement, as there should be less need to use the car for local trips. Consistently building accessibility and proximity into the city fabric will eventually make individual car use in dense urban environments a thing of the past. As we are dealing with extant cities, with patterns and habits already built up into their current functioning, defining transition pathways is essential for ensuring policy coherence and long-term commitments.

Reaction to the 15-minute City concept has faced criticism, with concerns based on erroneous claims about creating ghettos and prohibiting car use. Disinformation poses a threat to its adoption as a public policy, emphasising the importance of communication and engagement. Advocates argue for framing mobility through a quality-of-life lens and addressing the diverse needs of communities for equitable planning outcomes. Increased awareness, media, and storytelling, backed by research and data, are essential for dispelling disinformation and turning controversy into an asset for increased public acceptability.

The 15-minute City is work in progress. Cities implement pilot schemes to gather evidence, make refinements, and iterate before scaling up. Street experiments, temporary and reversible, reallocate space for people, particularly in areas with uncertainty or lacking consensus on effective solutions. Living labs for ongoing experimentation are essential to build an evidence base and develop localised transition pathways, recognising the significance of context. Additionally, research and innovation are crucial to understanding the success or failure factors of past urban design trends, societal changes, and governance capacities in urban transitions.

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## **ROLE OF LOGISTICS:**

How might the sustainable transport of goods be ensured when people should move less (far) in the 15-minute city?

Beside personal mobility, the urban logistic sector will also be important for implementing 15-minute neighbourhoods: If people should be able to travel less (far) to fulfil their daily needs, goods and products will need to come (more often) to them.

The role and potentials of urban logistics within the 15-minute City have to be explored further, including the use of space and production and distribution processes, but also taking into account consumer patterns and behaviour of different target groups within a city.

Authors: **Kristin Hanna** (AustriaTech), **Ghadir Pourhashem** (University of Žilina), **Cruz Borges** (Universidad de Deusto), **Giuseppe Mella** (City of Venice), **Lena Zeisel** (AustriaTech) and **Alexander Chloupek** (AustriaTech)

A central question for implementing the 15-minute City is, how local freight transport can be made efficient and environmentally friendly? In addition to the challenge of the "last mile", questions of parking space requirements and the inefficient use of infrastructure and public space are of central importance.

Innovative solutions are needed to meet the current challenges of urban logistics and to fulfil the requirements of the 15-minute City, particularly with regard to supply chains and goods distribution. A holistic approach takes into account spatial planning, production and distribution processes as well as user behaviour.

Urban logistics that are predominantly based on private transport (trucks, cars, etc.) are particularly problematic, contributing to traffic congestion, increased air and noise pollution and greenhouse gas emissions, space constraints, and inefficient delivery routes and schedules. To address these issues, cities are increasingly looking for sustainable solutions within their scope of action. These include green vehicles, the introduction of zero emission zones, and innovative delivery methods. However, these solutions require specific infrastructure adaptations, including the expansion of electric vehicle charging stations, the construction of micro-hubs, and dedicated infrastructure measures for cycling, walking, and public transport. At the same time, the implementation of rail-based approaches, such as parcel logistics using trams, presents a similar challenge due to capacity bottlenecks.

Advanced technologies and digitalisation processes are therefore required to develop more efficient and sustainable logistics solutions in the context of the 15-minute City. This includes, for example, the implementation of intelligent traffic management systems and data sharing that can optimise traffic flow and reduce bottlenecks. Furthermore, collaboration of urban authorities with the private sector is essential, since logistics is a highly privatised sector, and cities need to involve key stakeholders to plan and harmonise urban freight. This change also requires a fundamental shift in consumer behaviour. The role of the end consumer is crucial, especially in the choice of products and the delivery of goods. The acceptance of more flexible delivery times, the use of central pick-up points or the preference for local products play an important role in optimising logistics transport requirements. Especially the latter can be a key objective in creating more sustainable, efficient and resilient solutions for logistics systems in the 15-minute City. By targeting the specific needs and resources of local communities, logistics



Collaboration is essential, since logistics is a highly privatised sector, and cities need to involve key private stakeholders to plan and harmonise urban freight

in the 15-minute City not only enable more efficient supply, but also significantly contribute to the development of a more resilient urban environment. Reducing dependence on distant supply chains promotes logistics that are in line with the principles of the 15-minute City and therefore more sustainable and environmentally friendly. One big challenge on the consumer-side remains however, how "buying local" can become not only the more sustainable but also the more affordable choice.

Research and innovation play an important role in addressing these challenges. It not only enables benchmarking and the collection of best practices, but also the implementation and upscaling of promising solutions in a local context. Local test zones and living labs furthermore provide practical testing grounds, enabling the piloting of new and potentially disruptive solutions and create a space for learning.

In summary, a paradigm shift is needed in urban logistics. This becomes even more crucial in the context of the 15-minute City: New solutions must be introduced in the areas of control systems, production, land use, technology, integrated planning, vehicle design, etc. This requires not only technological innovation, but also rethinking urban logistics structures, particularly in terms of supply chains and infrastructure, to meet the needs of the 15-minute City and its citizens. The involvement of all relevant stakeholders is crucial in this process, to ensure cooperation as well as wide acceptance of new solutions. A clearly articulated political, financial support and implementation assistance as well as citizen engagement, open, proactive communication and raising awareness are essential to drive the necessary changes.

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# PART 04 Outlook



# Part 04 | Outlook

Having reflected on our work so far within the DUT Partnership, exploring diverse perspectives on the 15-minute City concept and deep-diving into Critical Issues, this section draws conclusions for the 15-minute City Pathway and offers an outlook on the years to follow. Here, we set out to summarise our learnings on urban mobility transitions, and explain our perspectives and priorities. As part of this, we elaborate five focus areas, which will steer activities and formats for the 15-minute City Transition Pathway until the end of the DUT Partnership in 2033.



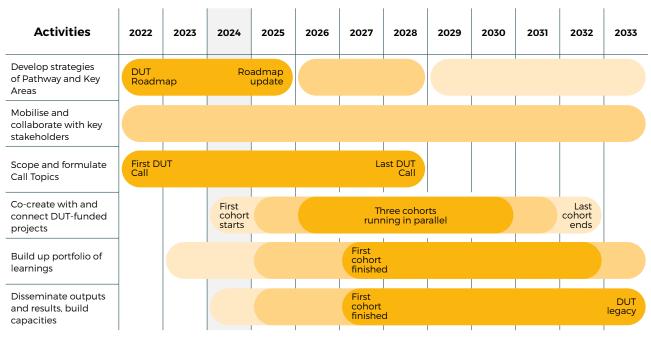


Looking back on the first two years of work in the Driving Urban Transitions Partnership, we see a lot of work done, including elaborating three large transnational calls, bringing together 28 European countries (plus two global partners) on topics of mobility and energy transition as well as urban greening and circularity. We were able to engage and learn from a multitude of stakeholders in workshops and conferences, build collaborations with amazing initiatives, and set up necessary structures to make DUT a success. At the same time, many more ideas remain, questions are still open and opportunities left to make use of.

Now, DUT is entering a new phase in its activities, which will significantly shape how we work in the 15-minute City Pathway. While the first years were widely characterised by building on and extending the internal structures and networks of JPI Urban Europe, in 2024 we can (finally) see the start of the first project cohort funded in DUT. Here, our ambition is to connect the projects between each other to seize existing synergies, learn from their progress, and share their learnings and results actively and widely. In the 15-minute City Pathway, we expect about 20 new funded project per year, which means that between 2026 and 2030, we will work together with three project cohorts or 60 projects at the same time (see figure 15). In 2029, the next big shift of focus in our activities will take place, when we no

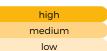


Focus area #1: Co-create with funded projects to build capacities for urban transitions



**Figure 15:** Focus areas of action in DUT and important milestones for the partnership 2022-2033; phases of high, medium, and low intensity

Intensity and focus on activity per year



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Focus area #2: Build on needs of problem-owners and connected action to mobilise, align and collaborate with innovation ecosystems and stakeholders longer develop new calls in DUT, but focus entirely on synthesising project results, disseminating locally contextualised learnings and instruments on a multitude of topics, and building capacities for urban transitions in European cities and beyond. DUT will take up the role as an active "translator" and multiplier of good practice and evidence on urban transitions.

Until then, all our stakeholder format and learnings from funded projects will be used to reflect and improve our yearly research and innovation calls. Scoping and developing call topics will stay at the core of the 15-minute City Pathway until 2028. Here, we promote a culture change in research and innovation policy – both for DUT on a programme level as well as the projects funded by the partnership. This very much affects our internal working procedures and how we interact with external stakeholders:

- We place high importance on putting city administrations and urban practitioners – as problem-owners for urban transitions – at the core of our activities, as well as organisations that work with them for similar ends. We create dedicated formats to invite them to share their challenges, open questions, the obstacles they meet on their way. This is THE central starting point of the work in DUT.
- 2. Urban transitions are usually highly complex and interconnected issues. Therefore, multi-disciplinary approaches and involvement of stakeholders from all sectors of society is required. For DUT this means that we need to continue developing and adapting our instruments to improve covering cross-cutting, cross-sectoral topics, thinking mobility as one interconnected sub-system in the wider urban system. This demands going beyond a sole emphasis of technological innovation (and hopes for "magical" solutions). All the more, DUT Calls address a broad understanding of institutional, organisational, social and system innovation.
- 3. Emphasising this understanding, we do not frame our calls purely as energy or mobility calls, but rather as Positive Energy Districts or 15-minute City. For us, this entails that projects and their activities are spatially sensitive, socially embedded, and context dependent. Thus, the knowledge created will consider local needs and issues, and tackle real-world problems.



Focus area #3: Emphasise crosssectoral perspectives by a holistic understanding of innovation



Focus area #4: Realise transformative research and innovation calls on urban transitions

## This culture change means for DUT that we need to:

- Constantly seek input and contextualisation from actors of urban practice and engage in discussions
- Be reflective and flexible enough to adapt our ways of working and formal requirements (e.g. in varying project durations and cross-sectoral call topics etc.)
- Redefine our expert lists and evaluators, brief them to recognise research and innovation projects that link sectoral perspectives, and value approaches that strongly co-create with local stakeholders
- Find better ways and give more emphasis to accompanying funded projects, and support dissemination and application of results.



These are activities that we will put high value on in the next years in DUT.
 Obviously, for this we need committed allies that pull in the same direction together with us and offer honest feedback, in case we lose track on the way.

On a content level in the 15-minute City Pathway, we emphasise the discourse started on Critical Issues for operationalising and implementing the 15-minute City concept, and will continue to build on it as an integral part of our activities. Reflecting on the contributions from our stakeholders, it becomes clear that Critical Issues must be approached in an interconnected manner, rather than tackled as isolated concerns.

A key takeaway is the vital role of stakeholder involvement in preventing Critical Issues from becoming critical in the first place: It is essential to engage and empower inhabitants of neighbourhoods and cities in the mobility transition. By building on their needs, experience and local knowledge, policy outcomes will be improved and openness for change fostered. This finding reflects a central recurring demand, highlighted in numerous stakeholder formats of DUT.

Accordingly, we plan to emphasise the issue of participation and equality in urban transitions in the 15-minute City Pathway. Reflecting on discussions leading up to this Position Paper, the contributions on Critical Issues as well as the European discourse, it is evident that urban mobility transition can only be sustainable, if they are also just. Placing humans at the centre of these transitions is imperative. In our understanding, this brings matters of social justice, equality, and equitable distribution of resources and space to the foreground. We will support this objective by embracing the Just Transition as a guiding principle for activities in the 15-minute City Pathway and as a fundamental value for working across Transition Pathways.



Focus area #5: Continue elaborating identified Critical Issues and work towards a just mobility transition

# Rationale and narrative for the Key Areas

# Key Area 1: Sustainable urban mobility

Laying it out		Making it work		
What is the 15-minute Cities about? (principles and characteristics)	What do we aim at? (orientation of the call agenda)	Where are we now? (status-quo)	How do we get there? (topics in 15mC TP)	
In 15-minute Cities, city dwellers have the possibility to <b>fulfil their daily needs within comfortable walking or cycling</b> distance. These transport modes offer a wide range of benefits, using less space, creating less noise and pollution, are less expensive, and have a positive impact on personal health.	Prioritise active mobility and reorganise public space (where people live, work or stay), so that walking and cycling are enjoyable and feel safe. In order to seize the potentials of active modes, the current distribution of public space must be widely rethought and reshaped.	In most European cities today, only small segments exist where active mobility is truly prioritised and can be safely used by all groups of society. Most streets are shaped for and dominated by the needs of individual car traffic and implementing changes is a highly contested political area.	Promote walking and cycling and improve related infrastructure at scale by testing approaches and rolling out successful ones broadly (from learning from good practice to temporal interventions to permanent measures) Incentivise change in mobility behaviour and routines (e.g. a culture shift to sharing mentality). Here, work should focus on functions, user groups and areas that would benefit most and are likely to adopt to active modes of transport.  Support alternative perspectives that actively re-imagine today's mobility, existing modes and transport infrastructure.	
In diverse and complex societies, many jobs, schools or amenities will remain outside a 15-minute reach. Thus, attractive opportunities for public transport and mobility services are integral for shaping sustainable mobility behaviour in day-to-day life.	Strengthen access to sustainable mobility options, so that they are an integrated part of public space and are accessible for all. Semipublic and informal mobility services can fill gaps within traditional public transport, especially in sub- and peri-urban areas.	Most European cities benefit from the fact, that their city centres and some main streets already provide high-quality public transport. However, especially low- and middle-density areas have poor public transport accessibility and services are not as inclusive as they should be.	<ul> <li>Improve existing transport services by making them more inclusive and attractive for all.</li> <li>Test and demonstrate new solutions for sustainable transport in sub- and peri-urban areas. This will be a major challenge that needs to be addressed in 15-minute City concepts.</li> <li>Promote the "prosumer" paradigm in mobility (such as ridesharing). Thus, resources can be brought into use more efficiently.</li> </ul>	
While 15-minute City policies are expected to increase local services and quality of stay in neighbourhoods, there will be many reasons and occasions for longer trips. Here, sustainable transport options should be the first and most attractive modes for different circumstances.	Provide sustainable solutions for longer trips between cities, and for leisure and tourism. Sustainable transport links have to be readily available so that flying will be the absolute exception, and individual car mobility can be replaced by other options.	Business- and weekend trips from and to European cities are often done by plane or car. Furthermore, for ourdoor and nature-based tourism, many times driving is the only agreeable option. What is needed are fast, modular alternatives and organisational innovation, as developing large-scale infrastructure in many cases will be too late for consequent climate action.	<ul> <li>Promote swift alternatives to plane and car trips for inter-urban mobility.</li> <li>Develop and demonstrate sustainable options for mobility related to leisure and tourism, based on established best practices.</li> <li>Encourage the diffusion of apt formats to partially reorganise daily activities through virtual mobility, to safe time and fuel.</li> </ul>	
If successful at large, 15-minute cities will nurture mobility demands that are very different from what we encounter today. New technologies are to be integrated in an increasingly intertwined web of public transport and sustainable mobility services	Integrate new technologies to expand and enhance existing public transport networks. This has to be done so that seamless transport experiences are possible and unintended negative impacts of these technologies are reduced to a minimum. Data and information services are recognized as a key enabler for both purposes.	In most parts, Europe can build on an existing public transport system. New technologies provide options that make services more flexible and convenient, fill gaps with low accessibility, and allow for changing or new travel patterns.	<ul> <li>Develop a thorough understanding of changing and newly developing travel patterns and possible benefits for 15-minute City concepts.</li> <li>Make use of data and evidence in shaping the sustainable mobility transition.</li> </ul>	

## **Key Area 2: People-centred urban spaces and planning**

Laying it out		Making it work		
What is the 15-minute Cities about? (principles and characteristics)	What do we aim at? (orientation of the call agenda)	Where are we now? (status-quo)	How do we get there? (topics in 15mC TP)	
Mobility and mobility needs are widely defined and laid out by urban planning, zoning and building norms. Thus, a 15-minute City approach has to emphasise planning principles that help creating inclusive, sustainable and lively neighbourhoods, offering a broad set of local functions and opportunities for their inhabitants. This involves a polycentric vision, multi-purpose public infrastructure, institutional cooperation, and local participation.	Follow planning principles focusing on sustainability and diversity guiding the way for rethinking urban mobility and services.  A people-centred perspective is needed to redefine and reorient planning instruments, which needs to be done to a wide extent in order to achieve climate neutrality.	Cities in Europe have long been dominated by a car-oriented, functional planning. This lead to economic growth and higher speed, but also to drastic ecological and social consequences, such as urban sprawl, segregation tendencies and lack of quality of life in denser and less privileged areas.	<ul> <li>Foster mixed land-use planning and active management of un(der)utilised spaces to counteract the widely existing separation of functions and un(der)use of existing resources, thus increasing the diversity of local opportunities.</li> <li>Focus urban development on polycentric, transportoriented and location-based policies that help anchoring and improving local qualities and opportunities.</li> <li>Take the Functional Urban Area as baseline for transport planning. Traffic does not stop at the city limits, and so must not the professional horizon.</li> </ul>	
In a 15-minute city, streets and squares prioritise active mobility and offer a high quality of stay, especially in areas of high density and districts most impacted by poverty and effects of climate change.	Focus on people-centred public space. This involves rethinking and reshaping the distribution of public space to improve the needed infrastructure for making it attractive to walk and cycle, as well as raising the quality of stay in spaces that are attractive, safe and adapted to effects of climate change.	The quality of streets and squares for people varies widely between European cities as well as within districts. Pressure on urban space is immense, and many cities are constrained in liveability due to traffic congestion and limited public space for active mobility. Improvements in quality and application of ambitious planning principles are ubiquitously necessary, even in front-runner cities.	<ul> <li>Develop processes and instruments to redistribute public space to reach a fair share of space between the transport modes and to strengthen sustainable transit.</li> <li>Facilitate multifunctional use of spaces, especially by opening up and raising accessibility of public resources (space, amenities, school yards etc.) to all.</li> <li>Strengthen the social function of streets, squares and parks as neighbourhood meeting points and hubs for connecting.</li> </ul>	
Traffic management encompasses all activities to regulate flows and uses of space, and should balance efficiency well with liveability and climate neutrality. Many instruments are needed to implement mobility transitions and reorient streets and squares around local needs.	Deploy traffic management for people-centred policies that consider various mobility needs, choices and opportunities - finding apt solutions for specific local contexts.	Many instruments, measures and approaches exists, but are tested only in a few cases and contexts and hardly documented. More exchange on ideas, data testing and upscaling would be beneficiary for European cities.	<ul> <li>Apply traffic calming measures and strategies for speed reduction to raise quality of stay and security for all groups of society.</li> <li>Enable flexible (digital) management of traffic and public space to implement flexible solutions according to daily rhythms and local needs.</li> <li>Define and apply urban access regulation and management locally for a targeted handling of traffic flows</li> </ul>	
A holistic approach to mobility transition has to put an emphasis on promoting sustainable lifestyles. Only by paying close attention to individual behaviour and making sustainable choices easier and more attractive in all areas, a city can become climate neutral.	Support sustainable lifestyles in all activities in the field of urban mobility. However, the burden of action should not be put on the individual, but has to involve incentives, regulation and infrastructure that enable and encourage sustainable lifestyle choices.	Our mobility habits are putting living conditions and available resources at levels of great risk. Yet they are deeply solidified in our daily routines and thus hard to change. While being a topic of rather wide awareness, its level of complexity and political controversy currently seem to hinder ambitious and coherent action in this field.	Work on mainstreaming the sufficiency paradigm as an ethic paradigm for climate neutrality, which emphasises ways of living within the planetary boundaries.     Encourage sustainable urban lifestyles (e.g. "slow living") in all local policies and communication activities.	

# Key Area 3: Smart urban logistics, production and service sites

Laying it out		Making it work		
What is the 15-minute Cities about? (principles and characteristics)	What do we aim at? (orientation of the call agenda)	Where are we now? (status-quo)	How do we get there? (topics in 15mC TP)	
A holistic 15-minute-City has to have a close eye on proximity to and integration of manufacturing, commercial activities, jobs and services within the neighbourhood level and beyond. A productive mix of uses not only secures local employment opportunities and value creation, but also helps making streets livelier and safer as well as local networks more stable.	Support striving neighbourhood economies to create more local opportunities and lively streets, and shorten trips. Dynamic local businesses create synergies between commerce, services and educational institutions. Modern processes of production and manufacturing bring far less externalities to residential areas and thus can be integrated much more easily than ever.	Centralisation of commercial activities and manufacturing has lead to an uneven distribution of opportunities across districts. This resulted in more mono-functional areas and growing road traffic to reach jobs, shopping opportunities and recreational facilities, which have moved out of traditional city or town centres. Rapidly growing online shopping applies additional pressure on remaining local retail.	<ul> <li>Promote both mix of uses and reuse of vacant commercial spaces and areas to keep the distances between home, work place and local suppliers short and increase walkability.</li> <li>Bring (small) manufacturing and production back to the neighbourhood by developing procedures to mix uses and preserving commercial zones within urban districts.</li> <li>Complement locally needed daily goods and services with mobile offers (and delivery). Connect undersupplied parts of the city with mobile services (such as markets or truckbased offers) that are easy to reach with sustainable forms of transport.</li> </ul>	
Daily needs in a 15-minute City - for obvious reasons - cannot be fulfilled entirely on a neighbourhood-scale, but rely on manifold relations to other districts and regions. However, these exchanges need to be reorganised sustainably as soon as possible. This encompasses regional supply chains and zero-emission logistics, up to green last-mile delivery.	It is key to promote sustainable supply chains and last mile logistics to minimize emissions, traffic, noise and pollution while increasing efficiency in urban distribution. To get there, it needs new organisational models, decentralised infrastructure (neighbourhood hubs etc.) and innovation capacity from service providers, regulators and customers alike.	The continuously growing demand of online shopping lead to more trips, dominantly realised by aged vehicle powered by conventional fuels. Additionally to being mostly organised centrally from a logistic centre, there is little to no cooperation between operators, both leading to long distance trips, often below capacity. Furthermore, the COVID-19 pandemic demonstrated how fragile global supply chains can be in times of crisis, underlining an urgent need for action.	<ul> <li>Support the creation of sustainable local to regional supply chains by building alliances with regional front-runners and key stakeholders.</li> <li>Incentivise and promote zero-emission last-mile logistics and city hubs as part of the key infrastructure for efficient green and decentralised delivery.</li> <li>Base strategies on integrative sustainable urban logistics planning (SULP) for ambitious and coordinated approaches to urban transport of goods.</li> </ul>	
Daily needs in a 15-minute City - for obvious reasons - cannot be fulfilled entirely on a neighbourhood-scale, but rely on manifold relations to other districts and regions. However, these exchanges need to be reorganised sustainably as soon as possible. This encompasses regional supply chains and zero-emission logistics, up to green last-mile delivery.	Test and diffuse innovative approaches to logistics and delivery. The increasing volume of transportation of goods calls for new solutions. Urban areas are apt test beds for experimentation, development and up-scaling of sustainable and innovative logistics solutions. Furthermore, the use of existing resources could be incentivised to share, such as sustainable corporate vehicle fleets, being front-runners of e-mobility.	Especially in the sector of transport of goods, there is both a high need for more efficient operation and a big potential for (ecological) improvements. Many solutions needed for an ambitious mobility transition are conceptualised in studies and projects, but not yet contextualised in different situations and conditions of cities and neighbourhoods, in order to consequently roll them out on a larger scale.	<ul> <li>Integrate hybrid mobility solutions for people and goods, thus saving extra trips by using already existing flows and capacities.</li> <li>Develop models for shared and integrated use of sustainable corporate vehicle fleets (e.g. light trucks), which when accessible to a wider public - have the potential to replace individual vehicles and reduce the overall lower of transport emissions.</li> <li>Test and integrate applications in the 3<sup>rd</sup> dimension (airspace, underground) in 15-minute City logistics systems to possibly relieve road congestion and, as a result, improve quality of life.</li> </ul>	

## **Key Area 4: Urban governance for mobility transition**

Laying it out		Making it work		
What is the 15-minute Cities about? (principles and characteristics)	What do we aim at? (orientation of the call agenda)	Where are we now? (status-quo)	How do we get there? (topics in 15mC TP)	
While many aspects of 15-minute Cities are well established, others are not. To maximize the desired impacts toward climate neutral, inclusive and liveable urban environments, we need to learn fast about practicality of new measures, and reveal unknown rebounds as well as co-benefits.	Promote innovative urban governance and create evidence through experiments. To understand the complexities of urban environments, experiences in real-world settings are indispensable.	Although a long list of good practices in the context of 15-minute Cities exists, they are successful despite of subsidies and a general legal framework that is in many aspects harmful to the environment. To convince more people that leaving the status quo is an option, large-scale experiments are needed, where first-hand experiences are created and stories about them can be told.	Set legal frameworks to encourage testing and experimentation in all aspects of urban policy. Learn in regulatory sandboxes and through experimentation clauses and inspire city administrations to use these tools.  Foster change processes in city administration and strengthen capacities to realise these potentials. Therefore, it is key to focus on cross-sectoral collaboration and challengedriven, mission-oriented policy.  Secure evidence and transparency of policy by applying simulation, modelling and evaluation and communicate results openly.	
Although the 15-minute City is an implementation-centred approach, it is <b>important to work with</b> all kinds of urban stakeholders, to create impact fast and involve them in a wide range of activities. Thus, they can take on the role intermediaries and multipliers to promote and diffuse 15-minute City principles in their area of action.	Foster partnerships that last and engage with stakeholders. The scale of the needed mobility transition requires that many actors share common goals and work towards reaching them.	There is still a long way to go before climate-neutral, liveable and inclusive cities are a reality. <b>The transformation is going to be demanding</b> and the public sector can only influence a minor share of the effort. Therefore, reliable partners and partnerships that last are needed, especially in times of controversy and conflicts of objectives.	Find means to establish strong partnerships with (local) stakeholders and set them up in formats that are meant to empower its members and built to last.  Encourage stakeholders to invest in the sustainable mobility transition. This is a prerequisite as investment decision in the mobility sector are widely realised in the private sector.	
The 15-minute City is a concept that starts from the perspective of people in diverse urban societies. Thus, projects will not only account for existing complexities involved with the mobility transition, but also take people's needs and perspectives as the first steppingstone for tailor-made and local solutions.	Build on participation and empowerment of civil society. Participatory processes are a means to foster ownership for a sustainable transformation and especially bring benedits when implemented on the neighbourhood level (where inhabitants have most lived knowledge and networks).	While being a key aspect of contemporary urban design and mobility planning, participatory projects that go beyond informing the public at large remain the exception. However, participatory processes are key to understand and develop demand-oriented approaches and foster their implementation.	(Co-)Create and promote (local) narratives for the mobility transition that people can go along with and use it to mobilise further.  Take citizens on board in planning processes from the start and put younger generations in the driving seat.  Empower neighbourhood initiatives and make them heard in policy processes, as their knowledge and networks can be decisive for policy.	

# **Meet the team**



## **Maximilian Jäger**

Maximilian works as expert for urban mobility at AustriaTech, and focuses on co-creating innovations for sustainable mobility, engaging and connecting stakeholders with learnings from research and innovation. He coordinates the 15-minute City Pathway and has a background in urban planning, economics and social innovations.

## **Favourite mode of transport:**

- Bike: It is simply the best feeling to sense the wind running through your hair, being able to observe people and buildings, and do it all year round.
- Train: Especially for mid to longer distances it feels like slowing down the hectic daily life and (most of the time) is a great space for concentration, nice talks or just looking out of the window.
- Car: Optimal for weekend trip to the mountains with friends, as you can always turn, stop, and explore. No need to own one myself, though.



## **Lena Zeisel**

Lena holds a Master's degree in Eco Design. She is working as an expert at AustriaTech, amongst others on the topics of urban mobility and mobility innovation. Within these fields, her interest lies especially in sustainability, inclusion and diversity aspects.

## Favourite mode of transport:

- **Walking** is my preferred mode of transport for any activities in my neighbourhood. In other cities, it is the best way to get lost and discover.
- Tram: Within the city, I take the tram as much as I can. I love long tram rides around the city, looking at my surroundings - even if there are faster alternatives.



## **Kristin Hanna**

Kristin works as an analyst at AustriaTech and is part of the DUT 15mC Pathway Team since September 2023. Her focus is on social sustainability and urban mobility. Through her ongoing Masters in Urban Planning, she brings a fresh perspective to complex urban developments.



## **Favourite mode of transport:**

- Tram: I prefer to travel by tram because I think it's the best way to see
  and enjoy the city. The slow ride allows you to take in the surroundings
  and experience the atmosphere of the city.
- **Bike:** I prefer to ride my bicycle, especially in spring and summer. The fresh air and the ability to move around the city make cycling a pleasant experience.
- Walking: Walking is the best way to experience your neighbourhood.
   You can discover hidden corners, meet interesting people, and take in the details of your surroundings.

