



5.1. Methodology for Transferring 15minC Strategies from Core Cities to Suburban Cities.

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List of Abbreviations

Abbreviation	Full Form
15MinC	15-Minute City
CC	Core City
DRT	Demand-Responsive Transport
FG	Focus Group
KPI	Key Performance Indicator
LL	Living Lab
PT	Public Transport
SUMP	Sustainable Urban Mobility Plan
ULL	Urban Living Lab

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Introduction

The growing relevance of the 15-Minute City framework in urban planning highlights the need for effective methods to evaluate whether strategies developed in one city can be applied successfully in another or in different urban contexts. This amounts to a policy transfer, which is a process from where the knowledge obtained about public policies in one geographical context is used to design and develop similar policies in a different area (Marsden & Stead, 2011). Policies and measures that function well in a compact and high-density city setting may not automatically fit the reality of a suburban environment. For example, some suburbs might not have a well-structured participatory process as the main city, or a land-use plan that supports the proposed intervention. For this reason, **a structured approach is required to determine whether strategies can be transferred directly, require adaptation, or should be redesigned entirely.**

Policy transfer implies the need to have good knowledge about the factors that contributed and are determinant for the success of the policy that is being transferred. This implies understanding the ways in which policies can be transferred, which range from a direct transfer to different levels of adaptation (Dolowitz & Marsh, 2000). Understanding what constitutes a successful policy and the factors that are determinant for its success are thus paramount in policy transfer processes (Benson, 2009). The 15-Minute City concept, originally developed by Carlos Moreno (2016), further conceptualized by Moreno et al. (2021), and later operationalized by various European cities (Arias-Molinares et al., 2025), provides a framework for urban proximity planning that emphasizes accessibility to daily amenities within walking or cycling distance. However, the transferability of these strategies to different urban contexts requires systematic evaluation, particularly when moving from core cities to suburban environments (Wang et al., 2025).

Recent research demonstrates the growing importance of contextual factors in policy transfer success. Evans & Davies (1999) emphasize that institutional capacity and governance structures significantly influence whether policies can be effectively transferred across jurisdictions. This is particularly relevant for 15-Minute City strategies, which rely heavily on integrated land use, transportation, and community participation frameworks (Le Clercq & Pereira, 2023). The effectiveness of proximity-based urban planning approaches has been shown to vary substantially based on local socio-economic characteristics, infrastructure conditions, and administrative capacity (Canitez, 2020).

Work Package 5 focuses on developing a Transferability Assessment Method for policy transfer of 15-Minute City strategies to Living Labs. In this context, this report presents a systematic methodology for examining strategies in terms of key performance indicators (KPIs), governance structures, financial feasibility, and contextual alignment. This methodology builds upon inputs from previous Work Packages of this project, including best practices, case study strategies, SWOT analyses, and KPI frameworks.

The method is designed to be replicable, meaning it can be applied across multiple case studies and compared over time, while remaining flexible enough to accommodate the specificities of each context. This approach aligns with recent advances in policy transfer research that emphasize the importance of systematic evaluation frameworks (Schloemer & Schröder Bäck, 2018) and the need for standardized assessment tools in urban planning contexts (Wang et al., 2025).

The work by **Marsden & Stead (2011)** provides valuable insights into **why and how policies are transferred between cities** and is a strong basis for the present report. This document outlines how we can incorporate the key findings from this study into WP5.1.

Policy transfer and replicability involve the process of learning from the policy experiences of others and adapting those lessons to address similar issues elsewhere. Marsden & Stead (2011) highlights that transferring policies offer significant opportunities for innovation and learning by drawing on international knowledge. Their comprehensive analysis identifies seven core dimensions of the policy transfer process: the motivation for transfer, the actors involved, existing constraints, the source of lessons, what is transferred, the degree of transfer, and success measurement criteria (Dolowitz & Marsh, 2000).

Rose (1991) points out that there are different ways of using empirical evidence of programmes in effect elsewhere to create a new programme for adoption at home. The author identifies several types of lesson-drawing:

- *Copying*: merely involves adopting more –or-less intact a program already in effect in another jurisdiction;
- *Emulation*: adopting with adjustments to overcome contextual differences;
- *Hybridization*: when elements of programmes from two different places are combined;
- *Synthesis*: involves drawing lessons on elements of different programmes and combining them to produce a new programme;
- *Inspiration*: involves using programmes applied elsewhere to provide ideas for solving problems in alternative contexts.

Contemporary research has further refined our understanding of these transfer mechanisms. Bulkeley (2006) emphasizes that policy transfer operates through various channels, including direct adoption, policy borrowing, lesson-drawing, and policy convergence, each requiring different analytical approaches. More recent studies on urban policy diffusion highlight the importance of network effects and institutional isomorphism in facilitating knowledge transfer between cities (Vogel et al., 2021).

However, Marsden & Stead (2011) also recognize the limitations of the process of transferring policies, as evidence suggests that policy success in one place does not guarantee similar outcomes elsewhere. Challenges such as differences in institutional, political, and social contexts can hinder direct replication, and the complexities of translating policies across settings often lead to imperfect adaptation. Recent empirical studies confirm these challenges, with Qamar et al. (2023) documenting significant variations in transport policy outcomes across different institutional contexts, while Li et al. (2022) demonstrate that urban planning innovations often require substantial adaptation to achieve similar results in different geographic and socio-economic settings.

According to Benson (2009), where the lesson being drawn exhibits little fit with the receiving context and/or requires significant modification, transfer could potentially prove infeasible, problematic or limit the

degree to which the policy can be successfully transferred. This insight has been reinforced by recent research on 15-Minute City implementation, where Haupt (2023) found that contextual compatibility scores below 60% significantly reduce transfer success probabilities, while Li et al. (2022) demonstrate that institutional capacity gaps can completely undermine otherwise promising policy transfers.

The challenges of contextually appropriate policy transfer become particularly evident in mobility and urban planning contexts. Pojani et al. (2021) notes that transport policies are among the most context-dependent policy areas, requiring careful analysis of local infrastructure, political will, and community acceptance. This is especially relevant for 15-Minute City strategies, which depend on integrated approaches to land use, transportation, and community participation that may not be readily replicable across different urban typologies (Arias-Molinares et al., 2025).

These considerations underscore the importance of developing robust methodologies for assessing policy transferability, particularly when extending successful urban strategies from core metropolitan areas to suburban contexts that may lack comparable institutional capacity or urban form characteristics (Arias-Molinares et al., 2025; Wang et al., 2025).

Conceptual Framework for Policy Transfer

Marsden & Stead (2011) build on Dolowitz & Marsh's policy transfer model, which identifies seven core dimensions influencing the transfer process:

1. **Why transfer?** - Policy transfer occurs due to **dissatisfaction with current policies, political pressures, or legitimacy-seeking**.
2. **Who is involved?** - **Governments, think tanks, consultants, advocacy groups, and international organizations** can play relevant roles in policy transfer.
3. **What constraints exist?** - Political, institutional, financial, cultural, social, and environmental barriers can impact transferability.
4. **From where?** - Lessons can be drawn **locally, nationally, or internationally**.
5. **What is transferred?** - Elements can include **policies, institutions, instruments, ideologies, and operational models**.

6. **How much is transferred?** - Ranging from full replication to hybridization., emulation, inspiration or non-transferability often involving different degrees of adaptation to local contexts.¹²³⁴⁵
7. **How to measure success?** - Policies must be evaluated based on **effectiveness, stakeholder adoption, and local adaptation success.**

These dimensions provide a solid analytical foundation for WP5.1, helping to shape our methodology for transferring 15-Minute City strategies to suburban cities

Transferability Assessment Methodology

The transferability assessment provides a structured framework for evaluating **how existing strategies can** be transferred, or new ones developed to implement them in suburban areas, while ensuring coherence, feasibility, and adaptability. By integrating **quantitative KPI analysis with qualitative coherence and feasibility assessments**, the framework ensures that strategies are not only **technically transferable, but also institutionally, financially, and socially viable.**

¹ **Copying** refers to the direct adoption of a strategy or measure from one city to another with minimal modification, typically when contextual conditions are highly similar.

² **Hybridization** refer to the combination of elements from two different places

³ **Emulation** denotes the adoption of the *underlying principles or approaches* rather than the exact policy instruments, allowing for greater flexibility in design and implementation.

⁴ **Inspiration** occurs when the original case merely acts as a reference or source of ideas without a formal transfer process or structural similarit

⁵ **Non-transferable** policies happen when they exhibit little fit with the receiving context and/or require significant modification. In this case, transfer could potentially prove infeasible, problematic, or limit the degree to which the policy can be successfully transferred.

This method lies in its **decision rules**, which provide clarity and transparency in the evaluation process. At each stage, criteria are rated as fully compatible, moderately compatible, or incompatible. The established thresholds ensure that strategies are not advanced without sufficient evidence of their suitability. They also help distinguish between three possible outcomes:

- **Copy:** Strategy can be transferred with minor modifications.
- **Emulation:** Strategy requires redesign or mitigation to fit the new context.
- **Non-transferable:** Strategy is not suitable for transfer.

This methodology builds upon inputs from previous Work Packages of the project. WP2, the portfolio of best practices (Task 2.3), WP3 contributes successful 15-Minute City strategies from case study areas (Task 3.1), the SWOT analysis results (Task 3.3), and the KPI framework (Task 3.2), which includes both quantitative and qualitative metrics. Finally, WP4 provides the set-up of six European living labs (Task 4.1), and the screening of 15-Minute City dimensions within them (Task 4.2).

The method is organized into two main pathways. The first, **Path A**, is applied when an existing core-city strategy is considered suitable for implementation in suburban living labs. The second, **Path B**, is used when core-city strategies do not meet transferability requirements, or when specific suburban challenges demand entirely new, locally tailored solutions. Both pathways follow the same overarching logic, beginning with the identification of strategies, continuing with an analysis of context and coherence, and concluding with a feasibility check and adaptation phase.

In Path B, the new strategy is typically proposed by local stakeholders, municipal planners, and Living Lab partners in response to the specific structural deficits of the suburban area.

The figure below provides an overview of the Transferability Assessment Methodology, outlining both pathways, their respective steps and outcomes.

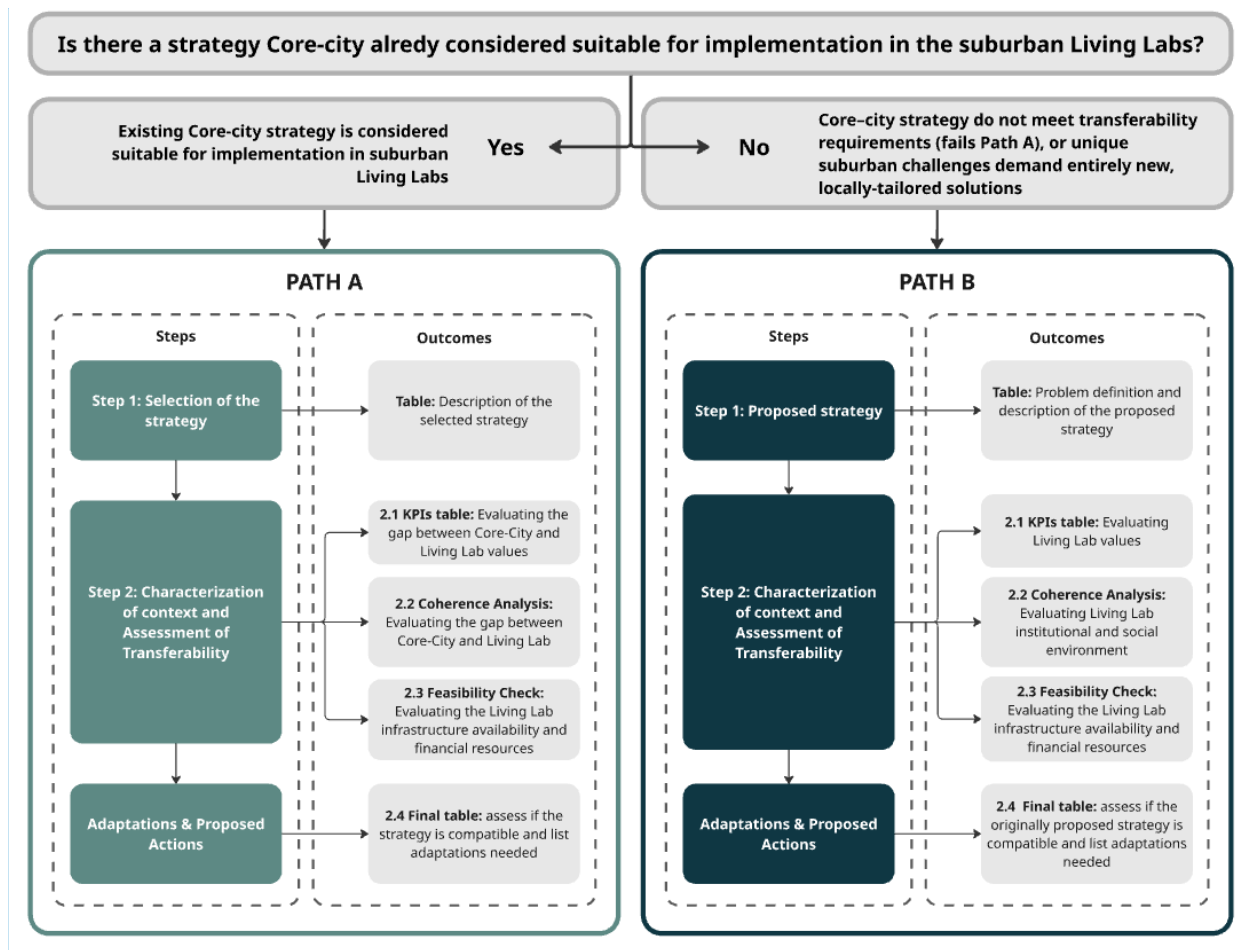


Figure 1: Transferability Assessment Methodology Flowchart^[EC2]

Below we correlate the Conceptual Framework for Policy Transfer with the methodological steps illustrated above.

Methodological Step	Purpose of the Step	Linked Conceptual Dimensions (Marsden & Stead, 2011 / Dolowitz & Marsh, 2000)
Pre-Step (Motivation and Context)	Explain why transfer is being considered, based on dissatisfaction with current conditions, innovation needs, or policy alignment goals.	Why transfer? – clarifies the motivation and rationale behind initiating the transfer process.
Step 1 – Selection of Strategy and Its Actions/Measures	Identify the core-city strategy to be assessed for transfer, clearly defining its objectives,	From where? – identifies the origin of policy learning. What is

	actions, KPIs, and stakeholders. Establishes what is being transferred and from where.	transferred? – defines the content and scope of transfer.
Step 2.1 – KPIs Analysis	Quantitatively assess the compatibility between the Core City and the Living Lab based on demographic, spatial, infrastructural, and design characteristics. Determines technical and contextual fitting.	What is transferred? – evaluates measurable policy components. How to measure success? – examines outcome-oriented indicators of compatibility.
Step 2.2 – Coherence Analysis	Evaluate institutional, governance, and planning coherence between contexts, as well as stakeholder engagement and citizen participation. Ensures institutional and social adaptability.	Who is involved? – identify key actors and governance roles. What constraints exist? – reveals institutional and political barriers to transferability.
Step 2.3 – Feasibility Check	Assess financial and resource feasibility to determine whether the strategy can realistically be implemented in the suburban context.	What constraints exist? – addresses financial and operational barriers. How to measure success? – determines whether enabling conditions exist for effective transfer.
Step 2.4 – Adaptations & Proposed Actions	Integrate findings from previous analyses to determine whether the strategy can be directly transferred, requires redesign (emulation), or is non-transferable.	How much is transferred? – defines the degree of transfer (copying, hybridization, emulation).

Path A: Transfer of Existing Core-City Strategy

In this approach, a strategy is selected from a Core City, preferably in the same metropolitan region, relevant to the specific suburban area (Living Lab). It must have clearly defined objectives, stakeholders, and actions. To assess its transferability, both the area in the Core City where the strategy was originally implemented and the area in the Urban Living Lab where it may be applied are characterized.

Step 1 – Selection of Strategy and Its Actions/Measures

Each case study selects a maximum of two strategies from its Core City to assess. The selection is informed by the successful cases identified in WP3, the enabling factors revealed through the SWOT analysis, and the contextual understanding developed in WP4. **The strategies must have clearly defined objectives, stakeholders, and implementation processes.** To enable transferability, each one should be documented with a structured description (Table1).

Selected Strategy:

Title:

Objectives & Scope:

Actions:

Target KPIs:

Stakeholders:

Table 1: Description of the selected strategy

Step 2: Characterization of Context and Assessment of Transferability

In this step, the characterization of key elements is proposed for: (i) the area within the Core City where the strategy and its actions were implemented, along with its institutional and governance context; and (ii) the area in the Living Lab where the same strategy and actions could potentially be applied, together with its institutional and governance framework. The gap between these two contexts is then assessed.

Step 2.1 - KPIs Analysis

A quantitative assessment is then carried out using a set of KPIs defined in earlier WPs, complemented by additional Urban Design KPIs introduced in WP5.1 to characterize both the core-city context and the Living Lab context. These indicators cover demographic characteristics, land use and urban form, proximity to services and green/blue spaces, urban density, transport infrastructure, availability of digital and multimodal services, and urban design features such as slope or road density.

These metrics are calculated within a 15-minute walking buffer around the implementation area (Figure 1), both in the Core City and in the Living Lab. Whenever possible, the buffer should be based on network distance, as this approach produces more realistic results compared to Euclidean distance. It is recommended to apply the methodology for creating network buffers using OpenStreetMap data, as previously implemented in WP4.

For non-territorialized strategies (e.g., digital tools), the KPIs may not apply to a specific buffer area and can be calculated for the broader LL area.

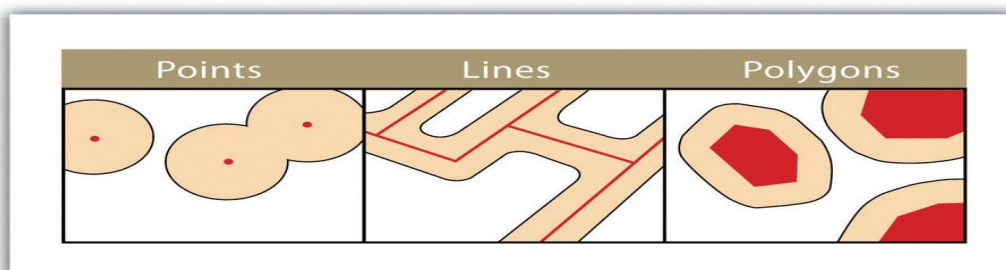


Figure 2: Calculation area: 15-minute walking buffer around a point, a line or a polygon. (Source: Adapted from Campbell & Shin, 2011)

The results are compared, and each indicator is rated as compatible (✓), moderately compatible (+), or incompatible (✗). This approach allows for a subjective assessment of quantitative gaps (but bounded by quantitative indicators), as the scoring relies partly on the qualitative judgment of each partner rather than on standardized thresholds. A more robust approach would involve validating the obtained results through local experts or community input.

This evaluation aims to determine whether the differences observed between the core-city and Living Lab values represent genuine barriers to the strategy implementation, rather than simply contextual variations. In some cases, such differences may not pose an issue, depending on the strategy's objectives.

The relevance of each indicator is directly linked to the strategy itself. Accordingly, the rating (✓, +, ✗) depends on how essential each indicator is to the implementation of that specific strategy. For example, if it is determined that a specific indicator has limited influence on transferability, the Core City and Living Lab values may greatly differ, yet the indicator can still be rated as ✓.

If at least four indicators are fully compatible, the strategy can proceed toward transfer. Otherwise, an adaptation or a switch to Path B is required.

	Measurements	Core-City values	ULL values	Rating
1	Demographic characteristic	Men/women distribution Age Distribution		2 / 2 / +
2	Land use and urban form (density, diversity)	Proximity to Green, Blue and Public Spaces Proximity to Essential Services		2 / 2 / +

		Urban Density	
		Diversity of Land Use	
		Population Density	
3	Transport infrastructure and services	Active mobility Infrastructure Proximity to Public Transport and DRT	2 / 2 / +
4	Digital infrastructure (digitalization)- if applicable	Availability of multi-modal mobility services	2 / 2 / +
5	Urban Design	Average slope Road density Road Intersections density	2 / 2 / +

Table 2: KPIs analysis

Calculation of KPI's

The characterization of transferable strategies requires the collection of relevant data from both the area where the strategy was implemented in the Core City and the area where it is proposed for implementation in the Living Lab. This data is then used to calculate specific KPIs. Some of these indicators were previously applied in WP4 and will also be employed in this assessment, while additional KPIs proposed in T5.1 will complement the analysis.

The following table lists all the KPI's for the Assessment of Transferability to Suburban Areas:

KPI's for Assessment of Transferability to Suburban Areas		
Measurements	Previously proposed in WP4	Proposed in T5.1
Demographic characteristics	Sex Ratio (males per 100 females) Age Distribution (%)	If Age Distribution is not available: Old-age dependency ratio Young-age dependency ratio
Land use and urban form (density, diversity, proximity)	Proximity to Green, Blue and Public Spaces Green spaces Walking and Biking access Blue spaces Walking and Biking access Public spaces Walking and Biking access Proximity to Essential Services Working Walking and Biking access Getting supplies Walking and Biking access	

	Enjoying Walking and Biking access Learning Walking and Biking access Caring/being healthy Walking and Biking access
	Urban Density Total Built-Up Area Ratio Built-up Surface
	Diversity of Land Use Types of Mixed-Use Development combinations
	Population Density (persons/km²)
Transport infrastructure and services	Active mobility Infrastructure Walking Infrastructure 1) roads with sidewalks Walking Infrastructure 2) pedestrian roads/walkable zones Cycling Infrastructure
	Proximity to Public Transport and DRT Public transport access (If applicable) DRT access
Digital infrastructure (digitalization) <i>If applicable</i>	Availability of multi-modal mobility services Availability of Mobility Services Types
Urban Design	Average slope Road density Road Intersections density

Considerations on the calculation of KPIs suggested in T5.1:

Demographic characteristics – applied when Age Distribution is not available:

1. Old-age dependency ratio: The ratio of the number of people aged 65 and over, compared to the number of people between 15-64 years old within the 15-minute walking radius of the strategy location. Unit: Number
2. Young-age dependency ratio: The ratio of the number of people under 15 years of age, compared to the number of people between 15-64 years old within the 15-minute walking radius of the strategy location. Unit: Number

Urban Design:

1. Average slope (Applied in the study of Gaglione et al., 2021 and Rhoads et al., 2023): The ratio of the height increment compared to the analysed area within the 15-minute walking radius of the strategy location. Unit: Degrees ($^{\circ}$).
2. Road density (Applied in the study of Zhang et al., 2023): Road length per km^2 within the 15-minute walking radius of the strategy location. Unit: km/km^2
3. Road Intersections density (Applied in the study of Gaglione et al., 2021): Road Intersections per km^2 within the 15-minute walking radius of the strategy location. Unit: Number/ km^2

Notes for when calculating Road Density and Road Intersection Density KPIs:

Databases like OpenStreetMap may split a unique road in more than one feature. In this sense, it is important to merge coincident endpoints of lines, so they do not count as intersections. Additionally, OpenStreetMap database may include paths that are not relevant for this analysis. Therefore, exclude roads that are inside private parking areas and roads classified as trunk roads and trunk links - these are not considered walkable roads.

Step 2.2 - Coherence Analysis

Following this, a **Coherence Analysis** is undertaken. While KPIs measure physical and demographic conditions, coherence analysis evaluates the alignment of institutional and governance structures, planning alignment, consistency with existing projects, citizen participation, and stakeholder involvement. The aim is to ensure that the strategy fits within the political, institutional, and participatory framework of the suburban context. This ensures that even if the physical conditions are similar, the institutional and social environment is equally capable of supporting the strategy. A minimum of three positive ratings (✓) is required to move forward.

Criterion	Description	CC	LL	Rating	Notes
1 Governance Structures	Are municipal policy instruments & technical capacities compatible with 15-Minute City goals?			? ? +	Identify required policy or capacity differences.
2 Alignment with Planning Goals	Do local planning objectives and SUMP/land-use plans support this intervention?			? ? +	Reference specific planning documents or policies.
3 Alignment with Existing Projects	Does this action complement ongoing local projects compatible with 15-Minute City goals?			? ? +	List relevant projects and how they synergize.
4 Citizen Participation	CC: Was there a structured participation process to implement			? ?	Summarize key focus-group insights

	the actions of the strategy? If positive, which were the feedback? LL: Does the municipality have regular and structured participation process? Was there any participation process regarding this intervention or similar? If positive, did the feedback from previous participatory processes endorse this intervention?	+	and formality level of participation.
5 Stakeholder Involvement	CC: Have key stakeholders (i.e. private sector, civil society, academia, local organizations) been engaged, with clear roles defined for implementation? LL: Are there stakeholders (i.e. private sector, civil society, academia, local organizations) who are interested in or engaged with the implementation?	?	Note which stakeholders are on board and any gaps to address.

Table 3: Coherence analysis

Step 2.3 - Feasibility Check

Then, the qualitative assessment is completed through a **Feasibility Check**. Even when a strategy is technically and institutionally viable, it can only proceed if funding streams exist to support its implementation. The method therefore requires identifying whether resources are available, whether they can be redirected from similar initiatives, or whether new funding opportunities must be secured. All conditions must be rated positively to proceed. If constraints are identified, the strategy requires redesign or mitigation.

Criterion	Description	LL	Rating	Notes
Budget & Funding	Are financial resources or funding streams available for this action? Could funds allocated to similar plans or objectives also support this action? Is there existing funding opportunities aligned with the goals of this action? What sources of funding have been identified for similar initiatives that could also be applicable here?			

Table 4: Feasibility Check

Step 2.4 Adaptations and Proposed Actions

Finally, based on these evaluations, the methodology identifies the need for adaptations merging all into one table. Fully compatible strategies may be copied. Moderately compatible strategies require emulation, involving redesign or mitigation. Non-transferable strategies must be replaced or rethought.

The proposed adaptations or mitigations for each measurement will serve as inputs for developing new actions derived from the Core City initial strategy, reflecting the various possible degrees of adaptation.

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	2 + 2	
Planning Alignment		
Projects Alignment		
Citizen Participation		
Stakeholder Involvement		
Demographic Characteristics		
Land use & Form		
Transport Infrastructure		
Digital Infrastructure		
Urban Design		

Table 5: Final table

Path B: Development of New Suburban Strategies

When Path A screenings indicate that strategies are not transferable, or when new approaches are needed to address unique suburban challenges, Path B is applied. This pathway involves **developing a new strategy with defined modular and measurable actions**.

Step 1: Proposed strategy

The selection of strategies is informed by the successful cases identified in WP3, the enabling factors revealed through the SWOT analysis, and the contextual understanding developed in WP4. From this, a problem statement is drafted to capture the suburban challenges. The process begins with a **problem definition**, framed in a clear statement linking local conditions to observed challenges. This ensures that the strategy responds to a real and documented issue. From here, the fundamental components of the new strategy are developed: objectives, scope, actions, target KPIs, and relevant stakeholders.

Step 2: Characterization of context and Assessment of Transferability

New strategies are subjected to a similar assessment process as in Path A, but without the comparison with the CC. The same decision rules apply, ensuring that only strategies which meet minimum compatibility and feasibility thresholds move forward.

Step 2.1 KPI Analysis: within a 15-minute walking buffer around the proposed implementation area. It examines demographic, land use, transport, digital, and urban design dimensions within the Living Lab. The results are assessed whether any of the values are highly unexpected, or deviant and each indicator is rated as compatible (✓), moderately compatible (+), or incompatible (✗). The relevance of each indicator is directly linked to the strategy itself. Accordingly, the rating (✓, +, ✗) depends on how essential each indicator is to the implementation of that specific strategy.

Step 2.2 Coherence Analysis: evaluates governance, alignment with local plans, synergies with ongoing projects, citizen participation, and stakeholder involvement. Each criterion is rated as compatible (✓), moderately compatible (+), or incompatible (✗).

Step 2.3 Feasibility Check: considers infrastructure availability and financial resources, ensuring that proposed actions can be realistically implemented.

In the previous steps, this rating approach (✓, +, ✗) allows for a subjective assessment of quantitative gaps, as the scoring relies partly on the qualitative judgment of each partner rather than on standardized thresholds. A more robust approach would involve validating the rating results through local experts or community input.

Step 2.4 Adaptation and Proposed Actions: determine whether the strategy is fully compatible with the Living Lab, or whether partial compatibility requires adjustments or mitigation measures. The proposed adaptations or mitigations for each measurement will serve as inputs for developing new actions derived from an initially proposed strategy.

Conclusion

The Transferability Assessment Method provides a structured and comprehensive framework for evaluating whether urban strategies can be successfully applied across different contexts. By combining quantitative measures, institutional analysis, and financial feasibility checks, it ensures that decisions are based on evidence rather than assumption.

The method also offers flexibility by distinguishing between transferable, adaptable, and non-transferable strategies. This prevents wasted resources on unsuitable measures while encouraging innovation in the form of newly designed suburban strategies when necessary.

Ultimately, the approach strengthens the capacity of cities and municipalities to adopt **15-Minute City principles** in a way that is realistic, context-sensitive, and sustainable.

1. Madrid Las Rozas assessment outputs

STRATEGY 1 - Path A – Transfer of Existing Core- City Strategy and Its Actions/Measures

Step 1: Selection of Strategy and Its Actions/Measures

Title:	Madrid 360 Zero Emission Zones
Objectives & Scope:	• Transform 170,000 m² into permanent zero-emission zones by pedestrianising ~8 km of roadway. • Eliminate 14.6 million vehicle journeys annually (approx. 40,000 vehicles/day). • Create a network of safe, accessible, barrier-free pedestrian routes to foster micromobility and reduce emissions. • Align with international climate commitments (C40 Leadership Group, COP25) and extend zero-emission zones until 2030. • Ensure citywide coverage, with focus on historic centres, areas lacking pedestrian space, and proximity to key facilities (markets, schools, health centres, public transport).
Actions:	1. Pedestrianisation of streets and plazas. Two phases were carried out, first light implementation (via signage and closures) and second final pedestrianisation (changing pavement, refurbishing space).
Target KPIs:	Main KPI groups: Demographic characteristics; Land use and urban form; Transport & active mobility infrastructure; Digital infrastructure; Urban Design. <i>(See Section 2.1 - KPIs Analysis for the detailed breakdown and values).</i>
Stakeholders:	Madrid City Council, citizens, business owners/managers • Political actors: Madrid City Council & District councils. • Interested parties: Residents, neighbourhood associations and Local businesses & hospitality sector

Table 6: Description of the Strategy 1 for Madrid-Las Rozas

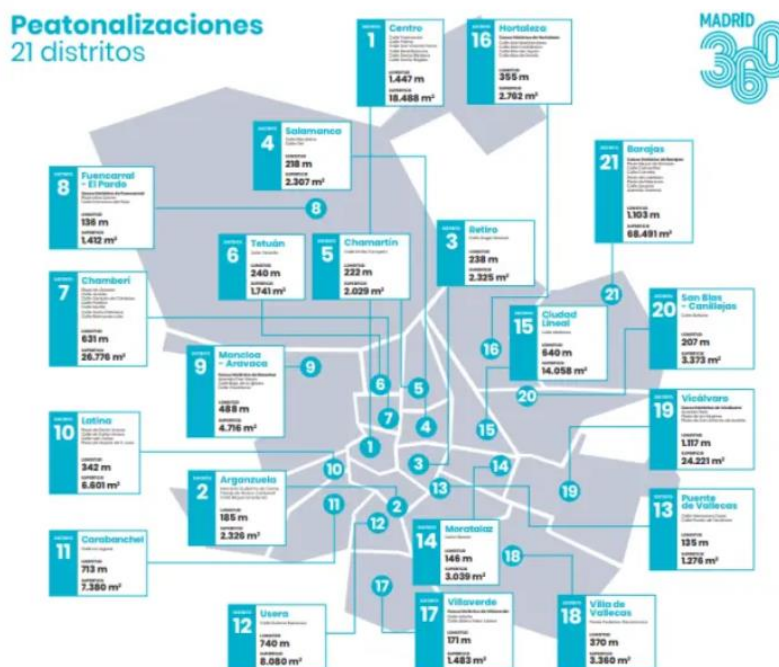


Figure 3: Madrid's Zero Emission Zones plan

Step 2: Characterization of Context and Assessment of Transferability

2.1 KPIs Analysis

This intervention builds upon pedestrianisation efforts carried out in recent years in **Madrid** under the Madrid Zero Emission Zones plan. One of the actions was the removal of traffic in six streets leading to Olavide Square in Madrid. The project involves removing cars from six of the eight streets leading to Olavide Square, converting 361 meters of roadway into pedestrian streets. This district is primarily an upper middle-class residential area, with local businesses and small shops. Olavide Square itself serves as a central meeting point for residents, featuring amenities such as abundant seating, trees, a fountain, and a playground. It represents a traditional Madrilenian neighbourhood. Similar neighbourhoods can be found in other cities, as the area reflects a typical upper middle-class environment with mixed land uses and dense building. Another action that serves as a reference for transferability is the pedestrianisation of the Puerta del Sol area, where existing pedestrian space has been expanded and the last remaining traffic lane has been fully closed to vehicles. As the city's symbolic heart and the geographic "kilometre zero" of Spain, Puerta del Sol is one of the busiest public spaces in the country. The project redeveloped 5,546 m² of space and removed nearly one kilometre of roadway, culminating decades of progressive pedestrianisation by permanently eliminating car access. This intervention also interrupted a key east-west traffic corridor, significantly limiting private vehicle movement through the area.

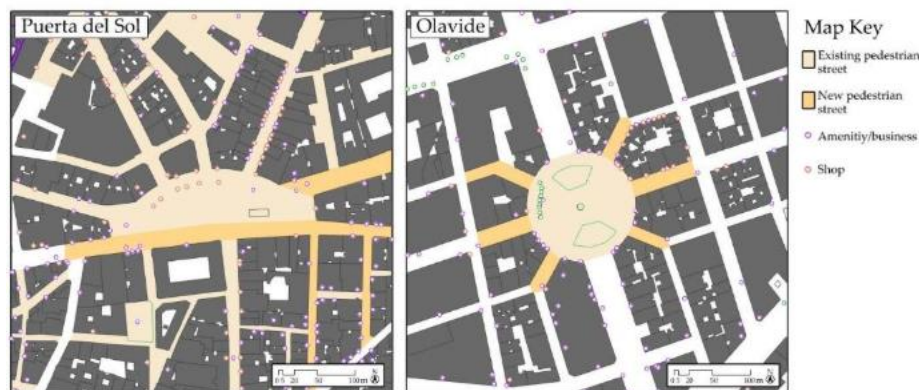


Figure 4: Olavide pedestrianisation
Source: (Brownrigg-Gleeson et al., 2023)

In Las Rozas, selected streets in two very different areas would be pedestrianised:

1. Expand existing pedestrian area in central Area in Las Rozas. The goal is to create larger pedestrian areas in the town centre. This would promote active mobility and use of public space, which in turn could be beneficial for local businesses, increasing their visibility and promoting local trade. Reconverting a small carpark into a square could be considered as an extra part of the pedestrianization action. Proposals are highlighted in Figure 3.
2. Pedestrianise a street in the residential area of La Marazuela, turning it into a green axis linking the neighborhood nursery, a small park and the new sports centre. See Figure 4.

The aim is to create safer and more enjoyable public spaces. To support this transformation, traffic flow in surrounding streets will be reorganized to prevent congestion and maintain accessibility. The redesign of streets and pavements will ensure accessibility for people with reduced mobility, while the installation of urban furniture such as benches, lighting, and waste bins will encourage citizens to use and enjoy these areas. In addition, trees and greenery adapted to local weather conditions will be introduced to improve comfort and environmental quality. The main stakeholders involved include political actors such as the Las Rozas City Council and Las Rozas Innova, as well as residents, neighborhood associations, local businesses, and the hospitality sector.



Figure 5 - Pedestrianisation proposal (1)

Note: The legend outlines proposed pedestrian priority zones and altered traffic routing.



Figure 6 - Pedestrianisation proposal (2)

Note: The legend outlines proposed pedestrian priority zones and altered traffic routing.



Figure 7 - Pedestrianisation proposal 15 min buffer in CC and LL

Note: The legend outlines proposed pedestrian priority zones and altered traffic routing.

Measurement categories	Specific measurements (e.g.)	CC Value	LL Value	Rating	Notes
Demographic characteristics (e.g., age)	-Men/women distribution	91.22%	94%	✓	
	-Old-age dependency ratio	0.177	0.397	+	
	-Young-age dependency ratio	0.223	0.232	✓	

Land use and urban form (density, diversity)	-Proximity to Green, Blue and Public Spaces	78.05	93.66	+
	-Proximity to Essential Services	81.6	93.75	+
	-Urban Density (Total Built-Up Area Ratio %)	86.96	94.08	+
	-Diversity of Land Use			✓
	-Population Density (inh/km ²)	28672	6982	×
Transport & active mobility infrastructure	-Active mobility Infrastructure	5.48	5.12	✓
	-Proximity to Public Transport and DRT	92.70	96.66	✓
Digital infrastructure (digitalization) - if applicable	-Availability of multi-modal mobility Services	Urban/interurban buses, metro, Car-sharing services, bike sharing	Urban/interurban buses, Train Car-sharing services, Car-pool service	+
Urban Design (slope, road density)	-Average slope	2.3	3.8	✓
	-Road density			
		8.144	4.207 km/km ²	+
	-Road Intersections density	821.608	325.26 node/km ²	+

Table 7: KPIs analysis for Madrid/Las Rosas

2.2 Coherence Analysis

Criterion		CC Context Summary	LL Context Summary	Rating	Notes
Governance Structures	Are municipal policy instruments & technical capacities compatible with 15-Minute City goals?	Yes.	Yes.	⊕	-Technical expertise - Strong Leadership

Alignment with Planning	Do local planning objectives and SUMP/land-use plans support this intervention?	Yes, Madrid's SUMP includes several measures that target improving walkability, and have undertaken a plan to increase pedestrian streets in each district of the city.	Las Rozas updated its SUMP in 2022, and includes a section dedicated to fostering active mobility and improving conditions for pedestrians, although it does not explicitly mention pedestrianization efforts. Regarding land-use plans, there are measures promoting active mobility (i.e. burying road infrastructure to overcome existing spatial barriers and create public space for pedestrians).	 Las Rozas SUMP. https://www.lasrozas.es/sites/default/files/inline-files/PMUS%20Las%20Rozas_Diagn%C3%B3stico.pdf Las Rozas Urban Planning Document: https://www.lasrozas.es/urbanismo-conservacion-y-medio-ambiente/urbanismo/PGOU#collapse9
Alignment with Projects	Does this action complement ongoing local projects compatible with 15-Minute City goals?	Yes.	Yes, however it must be noted that ongoing projects do not mention the 15mC explicitly to a void unwanted backlash, however many	 In SUMP: -Bicycle lane expansion -Improving walkability -Urban renewal in Las Matas area

			measures, such as expanding cycling infrastructure or improving walkability are directly aligned with it.		
Citizen Participation	CC: Were there a structured participation process to implement this strategy? If positive, which were the feedbacks? LL: Does the municipality have frequent and structured participation process? Was there any participation process regarding this intervention or similar? If positive, did the feedback from previous participatory processes endorse this intervention?	There is a participation process, however the approach it follows is more consultive than co-decisive.	Las Rozas has The “De Vecino a Vecino” (“From Neighbor to Neighbor”) Program serves as a meeting point between the Mayor, local councillors, and residents. Its aim is to listen to citizens’ suggestions, explain municipal plans, and promote dialogue and participation.	?	-
Stakeholder Involvement	CC: Have key stakeholders been engaged, with clear roles defined for	Yes, the main stakeholders needed for implementation belonged	Yes, the main stakeholders would be coordinated by Las Rozas. In view of the	?	Still based on hypothesis and inputs from other activities related to the project. See LL Context Summary for more info.

implementation?	to the City Council or were	FGs results, we also believe
LL: Are there stakeholders who are interested in or engaged with the implementation?	coordinated by them.	citizens and businesses would be accepting of the measure. if properly informed and included in the process.

Table 8: Coherence analysis for Madrid/Las Rosas

2.3 Feasibility Check

Criterion	Description	LL Context Summary	Rating	Notes
Budget & Funding	Are financial resources or funding streams available for this action? Could funds allocated to similar plans or objectives also support this action? Are there existing funding opportunities aligned with the goals of this action? What sources of funding have been identified for similar initiatives that could also be applicable here?	There are two main funding sources: 1. Next-Generation Funding available for urban renewal schemes, which could include pedestrianisation actions. 2. The Madrid Region and sometimes the Ministry for Transport provide similar funding opportunities, although grants must be applied for and are not guaranteed	?	

Table 9: Feasibility Check for Madrid/Las Rosas

2.4 Adaptations & Proposed Actions

After the KPIs calculation, coherence and feasibility assessment, it was determined whether adjustments or mitigation measures were needed.

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	?	
Planning Alignment	?	

Projects Alignment	?	
Citizen Participation	?	
Stakeholder Involvement	?	
Demographic Characteristics	?	
Land use & Form	+	Based on the project's concept, there is a mismatch between the CC and the LL'S land use and urban form. However, we do not consider this to be pivotal for the transfer of pedestrianization, furthermore because the proposed action builds upon the only pedestrian street in Las Rozas, expanding it as explained in previous sections. Therefore, we believe this measure could be successful despite the different land-use and urban form.
Transport Infrastructure	?	
Digital Infrastructure	+	There are less multimodal options available in the LL as is to be expected; however, it is considerably well served by PT, and also has some shared mobility options. However, as mitigation, we have taken into account that the pedestrianisations should not be inconvenient for PT and only hamper private car use. For these reasons, the defined streets to pedestrianise do not cause any disruptions in PT routes.
Urban Design	+	Considering the scope of the intervention, we do not believe the differences regarding intersections and density to be crucial for transferability, and should not pose a threat to the pedestrianisation.

Table 10: Adaptations & Proposed Actions for Madrid/Las Rozas

In view of this, our decision is to copy the strategy.

Summary: All coherence and feasibility criteria are met (✓). Adaptations are needed primarily for land use form (+), digital infrastructure (+), and urban design (+). Overall, the strategy is highly transferable.

2. Hamburg Altona District assessment outputs

STRATEGY 1- Path A – Transfer of Existing Core- City Strategy and Its Actions/Measures

Step 1: Selection of Strategy and Its Actions/Measures

Title:	Multifunctional Neighbourhood Hubs Network
Objectives & Scope:	The objective is to conceptualize and pilot the implementation of multi-functional neighborhood hubs, including offers regarding mobility, logistics, and social/cultural aspects for the population. The scope is to develop and demonstrate a replicable and scalable model for multimodal and interconnected neighborhood hubs at the district level - combining urban mobility, logistics and social functions in one location
Actions:	1. Pilot and test new multimodal mobility services (shared bikes, cargo bikes, e-scooters, EV charging) at neighborhood scale 2. Establish micro-depots and parcel lockers to support zero-emission last-mile logistics 3. Create barrier-free, attractive and safe public spaces at and around the hubs 4. Integrate the hubs digitally with Hamburg's MaaS platforms (e.g., HVV app, and HVV switch app) to enable seamless intermodal journeys 5. Include spaces and facilities for neighbourhood meetings, educational, cultural, and social initiatives to strengthen the community dimension and social cohesion 6. Cooperate with local partners and social organisations to embed the hubs in neighbourhood life and ensure inclusive access
Target KPIs:	Main KPI groups: Demographic characteristics; Land use and urban form; Transport & active mobility infrastructure; Digital infrastructure; Urban Design. <i>(See Section 2.1 - KPIs Analysis for the detailed breakdown and values).</i>

Stakeholders:

- MOVE21*: Hamburg city's Ministry of Economy and Innovation (BWI), District-Office Altona's Public Space Management Department (Mobility Section), Hamburg Senate Chancellery, DB InfraGO AG, Hafencity University
- IGES Mobility, vhh.mobility, Hanseatic Help e.V, MOIA, Kurier AG, tricargo AG, Logistik-Initiative Hamburg Management GmbH, Hermes Germany GmbH, GLS General Logistics Systems Germany GmbH & Co. OHG, CityLog GmbH, City Express Logistik GmbH, first mile, DER HAFEN HILFT!, Polycarbonara, Karin und Walter Blüchert Gedächtnisstiftung, Stadtreinigung Hamburg, DeinTopf e.V

*MOVE21: Multimodal and Interconnected Hubs for Freight and Passenger Transport Contributing to a Zero Emission 21st Century, an innovation project funded by the European Commission: <https://move21.eu/>

Table 11: Description of strategy 1 for Hamburg/Altona

Step 2: Characterization of Context and Assessment of Transferability

2.1 KPIs Analysis

For this assessment, two fully implemented and functioning multifunctional hubs were selected in the Core City (in our context, the higher density areas of Hamburg-Altona), according to the following map. The selected hubs were developed and implemented by the MOVE21 project, funded by European union's Horizon 2020.

A 15-minute walking buffer was created around the two intervention sites Kaltenkirche platz Hub and Holstenstraße hub in CC to assess the area's accessibility, land use diversity, and proximity to essential services.

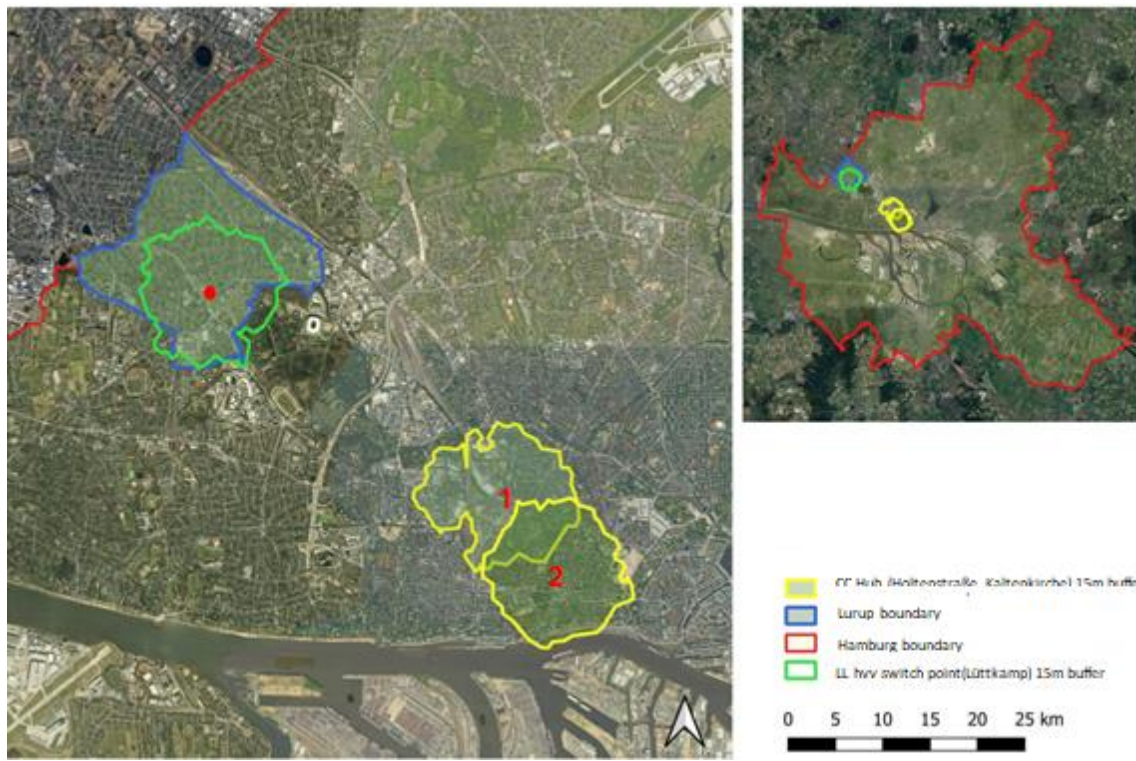


Figure 8: Selected Multifunctional Hub location in the CC, ULL and their buffer zones

Note: The map indicates the spatial distribution of mobility hubs and their catchment areas.

In the ULL, an initial assessment of the priority sites for the multifunctional neighborhood hubs can be inferred from the existing HVV switch points and from the suggested locations given by RISE Gebiet Lurup (integrated urban development in the sub-district of Lurup) and MOVE21 in the ULL.

The HVV switch point at Lüttkamp is located adjacent to an existing bus stop in the centre of Lurup, within a diverse surrounding area that includes residential neighbourhoods, commercial facilities, healthcare facilities, educational institutions, and public open spaces.



Figure 9: Aerial view and street view showing the surrounding area characterization of the Lüttkamp HVV switch point.

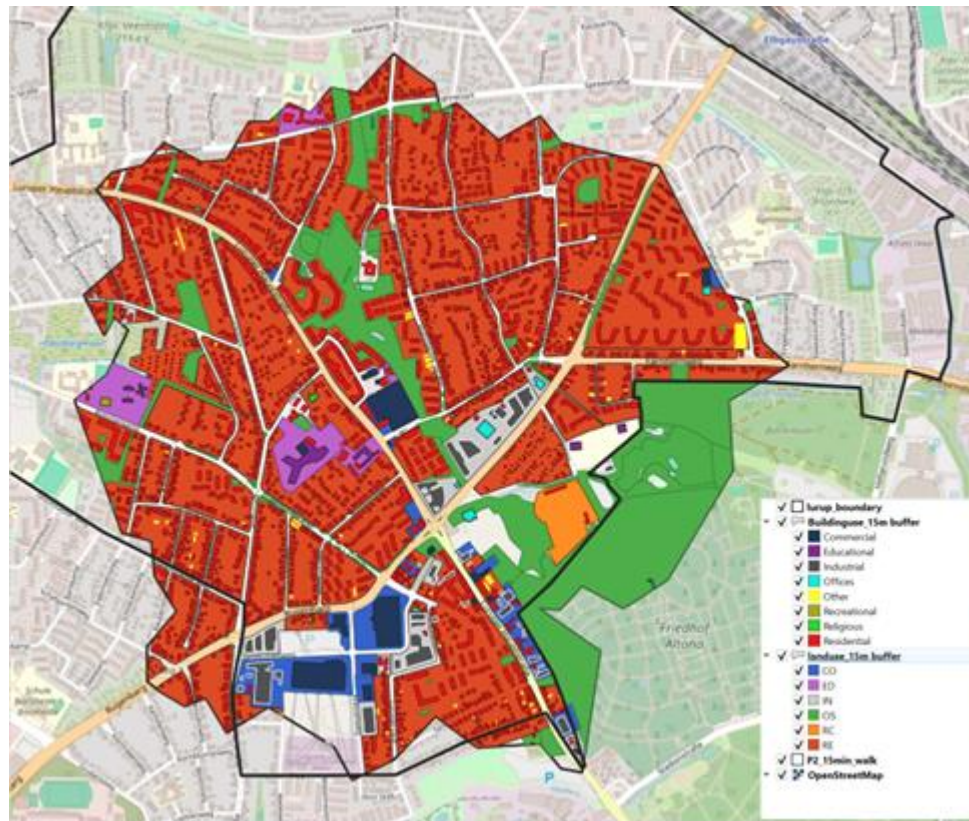


Figure 10: Land use map of the Lüttkamp HVV switch point and surrounding 15min buffer area.

Note: Legend categories denote distinct land use classifications such as residential, commercial, and public spaces.

The surrounding area offers a wide range of facilities, including pharmacies, grocery stores, clothing shops, bakeries, health centres, and more, as illustrated in Figure 2. Although not clearly visible in the land use map above due to outdated data, the area near the switch point also includes a gym and several educational institutions. However, there is a noticeable lack of recreational and social spaces beyond the existing parks and open areas in the neighbourhood.

Furthermore, as indicated by the KPI on the *Availability of Multi-Modal Mobility*, the Lurup area lacks direct train station connectivity, with public transport currently relying solely on bus services.

Measurement categories	Specific measurements (eg.)	CC Value	LL Value	Rating	Notes
	-Men/women distribution	0.93%	0.96%	✓	

Demographic characteristics (e.g., age)	-Age Distribution	0–17: 17.6 %	0–17: 20.4 %	✓	
		18–24: 7.2 %	18–24: 7.7 %		
		25–29: 6.5 %	25–29: 6.1 %		
		30–49: 29.4 %	30–49: 28.2 %		
		50–64: 21.1 %	50–64: 19.6 %		
		65+: 18.1 %	65+: 18.0 %		
Land use and urban form (density, diversity)	-Proximity to Green, Blue and Public Spaces	95.37%	99.66%	✓	
	-Proximity to Essential Services	100%	99.91%	✓	
	-Urban Density	27.64	15.56	✓	
	-Diversity of Land Use	12	10	✓	
	-Population Density	4516.21	846.33	✓	
Transport & active mobility infrastructure	- Active mobility Infrastructure	37.19%	30.03%	✓	
	-Proximity to Public Transport and DRT	100%	100%	✓	
Digital infrastructure (digitalization) - if applicable	-Availability of multi-modal mobility Services	S-Bahn, Bus; Bike sharing, e-scooter, Car sharing; <i>U-bahn (new metro line in planning)</i> ,	Bus; Bike sharing, e-scooter, Car sharing,	+	LL doesn't have any train connectivity inside the boundary area.
Urban Design (slope, road density)	-Average slope	3.88°	3.93°	✓	
	-Road density	43.71 km/km ²	42.42km/km ²	✓	
	-Road Intersections density	1141.06 no/km ²	914.66 no/km ²	✓	

Table 12: KPIs analysis of strategy 1 for Hamburg/Altona

2.2 Coherence Analysis

Criterion		CC Context Summary	LL Context Summary	Rating	Notes
Governance Structures	Are municipal policy	Yes, Hamburg- including Hamburg-	Yes, Lurup is included in many of the CC	?	

	instruments & technical capacities compatible with 15-Minute City goals?	Altona- has many municipal policy instruments tackling Smart City initiative aligned with 15-Minute City goals, such as the Mobilitätswende (Mobility Transition) strategy and the “Klimaplan”. LGV and BSW come as technical capacities targeting those goals, as well as the digitalization effort from HVV.	initiatives, with special attention from the district Altona.
Alignment with Planning	Do local planning objectives and SUMP/land-use plans support this intervention?	Partially to yes, the action is aligned with Hamburg’s SUMP focus on multimodal mobility, densification of services, and social inclusivity. The hubs are not specified in formal land-use instruments, requiring adaptation.	Yes, Lurup is also covered by Hamburg’s SUMP, focusing also on mixed-use development, public space activation and accessibility and social infrastructure enhancement on targeted programs under RISE and the district of Altona, supporting the intervention. +
Alignment with Projects	Does this action complement ongoing local projects compatible with 15-Minute City goals?	Yes, it complements the project Mobilitätswende Hamburg and Klimaplan; alongside HVV’s current project of HVV switch points and EU-funded projects such as MOVE21 and RISE – all compatible with 15-Minute City goals, promoting multimodal accessibility and short-distance services	Yes, it complements MOVE21, RISE Lurup and RISE Osdorf-Lurup, alongside community initiatives with the inclusive neighborhood infrastructure goal, such as Stadtteilhaus Lurup and LURUM – all compatible with 15-Minute City goals ?
Citizen Participation	CC: Were there a structured participation	Yes, Mobilitätswende Hamburg consultations, Smart City participation,	Yes, especially with the Luruper Forum initiative, RISE, and mobility ?

	process to implement this strategy? If positive, which were the feedbacks? LL: Does the municipality have frequent and structured participation process? Was there any participation process regarding this intervention or similar? If positive, did the feedback from previous participatory processes endorse this intervention?	and district-level planning dialogues. Feedback concerned with the expansion of multimodal accessibility, climate protection, and local services strengthening – aligned with the strategy; public spaces, car-use restrictions, and integration of social functions are also included.	related projects (e.g., Verkehrsberuhigung Langbargheide). Feedback highlights the improvement of public transport access, safer active mobility routes, and stronger neighborhood places – closely aligned with and supporting the strategy; traffic redistribution and loss of parking are also included.	
Stakeholder Involvement	CC: Have key stakeholders been engaged, with clear roles defined for implementation? LL: Are there stakeholders who are interested in or engaged with the implementation?	Partially, although key stakeholders – such as City of Hamburg, LBV, HVV, RISE, and MOVE21 – are engaged, roles for implementing multifunctional hubs, beyond MOVE21 project runtime, have not yet been defined, requiring further clarification	Yes, they are interested and engaged. Bezirksamt Altona, RISE, and community organization, such as Luruper Forum and Stadtteilhaus Lurup are actively involved in the implementation of strategies as such.	+

Table 13: Coherence analysis of strategy 1 for Hamburg/Altona

2.3 Feasibility Check

Criterion	Description	LL Context Summary	Rating	Notes
Budget & Funding	Are financial resources or funding streams available for this action? Could funds allocated to similar plans or objectives also	Yes, several funding sources could support this action – including the	☐ Yes, especially MOVE21 and RISE, who have	Existence of the action plan and attention to the LL by the MOVE21 strategies was part of the assessment that

support this action? Are there existing funding opportunities aligned with the goals of this action? What sources of funding have been identified for similar initiatives that could also be applicable here?	Klimaplan, Mobilitätswende Hamburg, and EU-funded projects such as MOVE21 and RISE. MOVE21 has already dedicated fundings to the actions in the CC.	already planned multifunctional neighborhood hubs and mobility hubs, respectively, for the ULL.	led to the selection of the actions and the LL
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Table 14: Feasibility Check of strategy 1 for Hamburg/Altona

2.4 Adaptations & Proposed Actions

After the KPIs calculation, coherence and feasibility assessment, it was determined whether adjustments or mitigation measures were needed.

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	?	
Planning Alignment	+	Specification of hubs in the formal land-use instruments
Projects Alignment	?	
Citizen Participation	?	
Stakeholder Involvement	+	Clear roles for key stakeholders should be defined for implementing multifunctional hubs, that better clarify the coordination between mobility, social service, and land use
Demographic Characteristics	?	
Land use & Form	?	
Transport Infrastructure	?	
Digital Infrastructure	+	
Urban Design	?	

Table 15: Adaptations & Proposed Actions of strategy 1 for Hamburg/Altona^[EC3]

Emulation of the strategy:

Considering the MOVE21 strategy of a multifunctional neighborhood hub in the context of Lurup, the following adaptation is proposed as an emulation of the strategy.

Objective and scope:

Updating and upgrading the local mobility infrastructure while integrating social services and inclusive urban design, by updating and adapting existing mobility hubs (i.e., HVV switch points) into a multifunctional neighborhood hub. The scope combines urban mobility, land-use planning and social services, integrated in a neighborhood-scale.

Actions:

- Adding more charging stations, expanding capacity of current mobility options in the HVV switch point (i.e. mobility hub), and better connection to the public transportation network
- Redesigning to accommodate more multimodal mobility options in the HVV switch point (i.e., bike sharing, car-pooling, biking docks, scooters parking stations) as a multimodal mobility hub
- Improving urban design for better barrier-free accessibility, safety and user comfort on bus stops and permanence places
- Integration of the different mobility options with the municipality MaaS (i.e., HVV app) and inclusion of digital signage
- Redesigning of vacant building spaces into neighbourhood meeting places for social, educational and cultural initiatives (e.g., Stadtteilhaus Lurup)
- Including social services to promote it as a social hubs (e.g., MOVE21) , such as a meeting place for the coordination of social services, counselling services, and support for initiatives of local non-profit organisations and other social cooperations (e.g., LURUM, LuruperForum)

In addition to the stakeholders involved in the MOVE21 strategy, there should also be the inclusion of HVV, shared-mobility operators (i.e., StadtRAD, Bolt, Voi, Tier, Miles), LuruperForum, Stadtteilhaus Lurup and LURUM in the emulated strategy.

Summary: Coherence is strong across governance and projects. Planning alignment and stakeholder roles need refinement (+). Feasibility is confirmed. Key adaptations include specifying hubs in formal land-use instruments and defining clearer stakeholder roles.

STRATEGY 2 – Path B – Development of New Suburban Strategy and Its Actions/Measures

Step 1: Problem Definition & Strategy Design

Draft Problem Statement:

The LL, Lurup, is marked by disperse land use, fragmented urban fabric, wide roads, and car dependency, leading to a prioritization of private vehicular traffic overactive means of transportation. During two site visits conducted around main mobility axes in this sub-district (Fahrenort, Elbgastrasse, and Luruper Hauptstrasse), it was noted that a large number of observed public spaces and houses contain first parking lots and subsequently display bike parking spaces or other urban amenities. The observed area also presented a high number of vehicles on the streets, of multiple sizes and types—from motorbikes to trucks—alongside proportionally narrow sidewalks without an adequate buffer zone. Not only does the heavy circulation of vehicles generate noise pollution and occupy a large area of urban space, but it also decreases the feeling of safety in the shared space. The wide streets, mostly occupied by car lanes, also constitute a barrier to walkability between the different areas and result in the presence of large intersections on major wide roads, reducing the pedestrian-friendly aspect of the area.



Figure 11: Luruper Hauptstrasse. Source: Authors, 2025.



Figure 12: Lüttkamp.
Source: Authors, 2025.

When assessing the local needs of the stakeholders, it is possible to understand the emphasized necessity for the improvement of walkability, quality of life, safety, connectivity, and green spaces in both Altona and Lurup. The table below summarizes the main relevant points for the selection of the strategy, raised by stakeholders during both the focus groups and subsequent exchanges, as well as during an assessment carried out by Luruper Forum in 2021.

Main relevant opportunities in Hamburg and Hamburg-Altona (SWOT analysis - FG)	Top priorities in Hamburg and Hamburg-Altona (KPIs ranking – FG) (votes/participants)	Local demands for urban planning in Lurup (ULL) (Luruper forum 2021)
Public transit oversupply can change user habits positively; Enhancing walkability and diverse mobility improves urban quality; Major roads disrupt walkability and local connectivity; Social networks often extend beyond 15-minute range, reducing effectiveness; Noise pollution from traffic degrades residential life;	Proximity to Public Transport (8/9); Active Transportation (cycling and walking) (8/9); Modal Shift Towards Sustainable Transportation (7/9);	Mobility: Integration between the different transport modes to stations, essential services, and the city center; Efficient reliable local public transport; Reduction of traffic in the sub-district; Social inclusivity and Livability: Reduction of motorized traffic in the district, by improving functions diversity and active infrastructure; Quality of life, safety, and health protection in residential areas: by noise, pollution protection, speed

limits, green improvement
alongside the redesign and
refunctioning of **Luruper
Hauptstrasse** (part of the Hamburger
Mobility Transition Strategy)

Table 16: Main relevant points for the selection of the strategy, raised by stakeholders.

The mentioning of the improvement of urban quality, safety, walkability, and greenery, associated with the desire for better connectivity, more active and diverse mobility, and reduction of traffic in the neighborhood, suggests that the area requires measures to improve the quality of the active infrastructure connecting the different POIs in Lurup. Therefore, our main proximity issue is a “relational proximity” aspect surrounding active mobility in the residential quarters. In other words, everything can be understood as mostly accessible according to the proximity analytical results, yet when proximity is observed in relation to the perception while walking or biking, the area can be substantially improved. Luruper Hauptstrasse (highlighted in the image below) illustrates the issue well, as it is also marked by high traffic of vehicles, including buses and trucks, and car-centered intersections, affecting directly the relational proximity via active mobility mentioned above. The street was pointed out as a top concern for the stakeholders, being described by Heike Bunte, head of active mobility department at the district of Altona, as a “physical and visual barrier” dividing the northwestern and southeastern areas. The impact of such a barrier can also be noticed in the activities happening on the street itself, as it concentrates on both sides several POIs for communities in Lurup (e.g., community school and centre - LURUM, schools, churches, Lurup center, and others), which are also divided by this barrier.

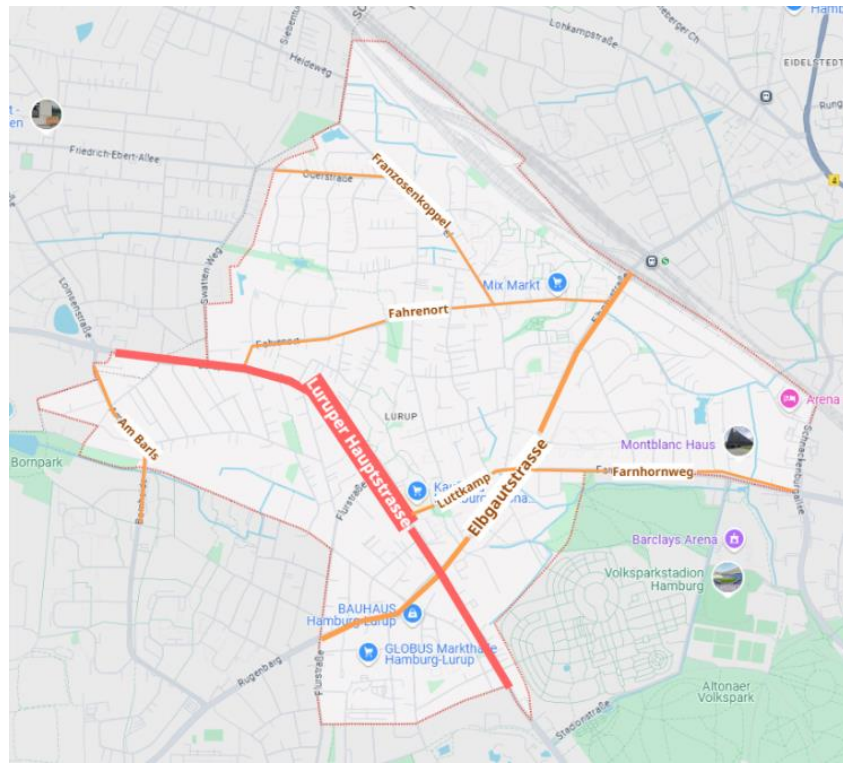


Figure 13: Major roads in Lurup, highlighting heavy traffic (Elbgautstrasse and Luruper Hauptstrasse).
Source: Authors, 2025

Measures to improve the relational proximity in the area should include safer measures for sidewalks - especially around schools - and proper biking infrastructure when observed in association with the speed, presence, and prioritization of cars in the neighborhood. The issue raised by the stakeholders with noise pollution due to traffic – which not only degrades the residential life but also decreases the quality of walking and cycling on roads in Lurup – has an additional direct impact on the relational proximity aspect. Overall, indicating the need for traffic calming measures and alternative routes for diverse mobility.

The strategy below should, therefore, tackle the quality of the active mobility infrastructure between main residential POIs – such as educational and mobility – in order to enhance the multiple aspects, mentioned above, surrounding the improvement of relational proximity (i.e., walkability, safety, noise pollution, and greenery). Luruper Hauptstrasse and major roads were pointed out as the main focus points of the issue, leading to the additional focus of overcoming the physical and visual barriers with the redesigning of intersections along active mobility paths. A similar strategy was implemented in the surroundings of the LL and informs the selection of the strategy and intervention area for Lurup.

Title: Educational and Mobility Ribbon

Objectives & Scope:

Connecting the local educational facilities with each other and with the transportation network via green, safe and attractive routes, where active mobility is prioritized - creating a continuous “educational and mobility ribbon”. The improvement of intersections on main roads is to be focused in order to overcome major physical and visual barriers across the ribbon. The scope combines school-route safety, multimodal connectivity, public space design, and intersection upgrades integrated at a neighborhood scale in Lurup.

Actions:

1. Redesign to include, widen or improve sidewalks and cycling paths and infrastructure in the ribbon, alongside ensuring barrier-free design
2. Reinforce the presence of green, playing and permanence spaces along and surrounding the educational-mobility ribbon, by connecting the existing green and public spaces to the ribbon and designing new ones in between
3. Upgrading lighting, signage, and urban furniture in paths and streets through the ribbon
4. Traffic calming measures, such as “Tempo20”, modal-filters, speed bumps, and one-way systems throughout the ribbon
5. Redesigning intersections (i.e., Lattkamp intersection) into protected, pedestrianized and cyclist-friendly intersections, with curb extensions, raised crossings, corner refuge islands and set-back crossings at major roads
6. Improve signage at intersections, with count-down signals for cyclist and pedestrians, and diagonal and all-green pedestrian crossings at high volume intersections

Target KPIs:

Main KPI groups: Demographic characteristics; Land use and urban form; Transport & active mobility infrastructure; Digital infrastructure; Urban Design.

(See Section 2.1 - KPIs Analysis for the detailed breakdown and values).

Stakeholders:

Bezirksamt Altona, BSW, BSB, RISE-Gebietsmanagement, Montag Stiftung Jugend und Gesellschaft, Stadteilschule, steg Hamburg, BIG Stadtebau, Bürgerhaus Bornheide, Jugend- und Bildungseinrichtungen, residents and students through participatory processes.

Table 17: Description of strategy 2 for Hamburg/Altona

Step 2: Characterization of Context and Assessment of Transferability

2.1 KPIs Analysis

For this analysis, the path recommended for the educational and mobility ribbon in Lurup was selected, following the connection between the existing mobility and educational points of interest in the area. The resulting area of analysis is depicted in the following figure.

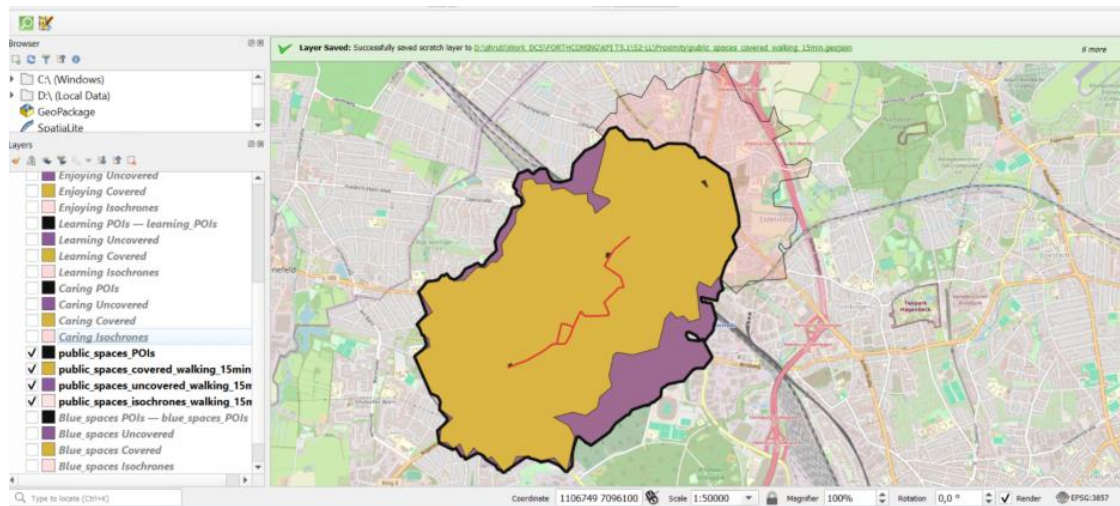


Figure 14: Coverage report for public spaces assessment with isochrone and selected path for analysis.

Source: Authors, 2025.

Measurement categories	Specific measurements (eg.)	LL Value	Notes
Demographic characteristics (e.g., age)	-Men/women distribution	0.96%	Due to the lack of high-resolution demographic data for the study area, the data for Lurup were used instead.
	-Age Distribution	0–17: 20.4 % 18–24: 7.7 % 25–29: 6.1 % 30–49: 28.2 % 50–64: 19.6 % 65+: 18.0 %	
Land use and urban form (density, diversity)	-Proximity to Green, Blue and Public Spaces	97.05 %	

	-Proximity to Essential Services	98.95 %
	-Urban Density	15.51%
	-Diversity of Land Use	10
	-Population Density	687.77
Transport & active mobility infrastructure	- Active mobility Infrastructure	14.2% (cycling) 62.6%(walking)
	-Proximity to Public Transport and DRT	100%
Digital infrastructure (digitalization)- if applicable	-Availability of multi-modal mobility services	S-Bahn, Bus; Bike sharing, e-scooter, Car sharing
Urban Design (slope, road density)	-Average slope	3.2
	-Road density	40.63
	-Road Intersections density	844.83

Table 18: KPIs Analysis of strategy 2 for Hamburg/Altona

2.2 Coherence Analysis

Criterion	Description	LL Context Summary	Rating	Notes
Governance Structures	Are municipal policy instruments & technical capacities aligned with 15-Minute City goals?	Yes, Lurup is included in CC's and local initiatives from RISE and Bezirksamt Altona's neighborhood planning. RISE, steg Hamburg mbH, BIG Stadtebau and Montag Stiftung come as possible technical capabilities for such.	?	Integration across education, mobility, and social planning requires further coordination.
Alignment with Planning	Do local planning objectives and SUMP/land-use plans support this intervention?	Yes, RISE and Bezirksamt plans in Lurup and neighboring sub-districts already directly support the educational ribbon strategy, being already in implementation in Osdorf and southern Lurup. The	+	

		integration between educational and mobility, with land-use plans, would need further coordination.		
Alignment with Projects	Does this action complement ongoing local projects toward 15-Minute City conditions?	Yes, it complements directly the local projects carried out by RISE and Bezirksamt Altona, expanding the location and scope of actions developed by RISE Osdorfer-Lurup.	?	
Citizen Participation	Does the municipality have regular and structured participation process? Was there any participation process regarding this intervention or similar? If positive, did the feedback from previous participatory processes endorse this intervention?	Yes, especially with Luruper Forum, RISE and Bezirksamt Altona carrying structured participation formats out in the LL. The issues of safety, mobility, reduction of motorized traffic in the residential quarters (e.g., Verkehrsberuhigung Langbargheide), and youth spaces are often main concerns, resulting in the endorsement of traffic calming (i.e., in Langbargheide, Elbgautstraße, and Luruper Hauptstraße), safer school routes, more green and play spaces, and better connectivity – supporting the strategy.	?	The feedback in the LL also highlights the concern related to traffic rerouting and in maintaining access for cars.
Stakeholder Involvement	Are there stakeholders who are interested in or engaged with the implementation?	Yes, several stakeholders are interested in the implementation of the actions in the LL, including the Bezirksamt Altona with the RISE program, LURUM and Bürgerhaus Bornheide as key social hubs, Luruper Forum, and local schools (e.g., Stadtteilschule Lurup) also playing a key role in identifying the priorities for the ribbon.	?	

Table 19: Coherence Analysis of strategy 2 for Hamburg/Altona

2.3 Feasibility Check

Criterion	Description	LL Context Summary	Rating	Notes
Budget & Funding	Are financial resources or funding streams available for this action? Could funds allocated to similar plans or objectives also support this action? Are there existing funding opportunities aligned with the goals of this action? What sources of funding have been identified for similar initiatives that could also be applicable here?	Yes, there are existing funding streams for this action, within Lurup's and Hamburg's framework and through external or co-financing resources. RISE is the main potential funding source, as it already finances an Educational Ribbon in the neighboring sub-district of Osdorfer Born-Lurup.	?	CC (Hamburg) and its mobility and climate programs (i.e., Hamburg Takt and Mobility Transition Program, and Bündnis für den Rad- und Fußverkehr) and EU and federal programs (e.g., Städtebauförderung, Klimaanpassung im urbanen Raum, and Horizon Europe) can also present themselves as potential funding streams for the actions.

Table 20: Feasibility Check of strategy 2 for Hamburg/Altona

2.4 Adaptations & Proposed Actions

After the KPIs calculation, coherence and feasibility assessment, it was determined whether adjustments or mitigation measures were needed.

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	?	N/A
Planning Alignment	+	N/A
Projects Alignment	?	N/A
Citizen Participation	?	N/A
Stakeholder Involvement	?	N/A

Table 21: Adaptations & Proposed Actions of strategy 2 for Hamburg/Altona

No adaptation or emulation is needed at this phase.

Summary: All coherence dimensions are positive (✓or +) and feasibility is fully confirmed. Only planning alignment requires minor attention. The strategy is highly transferable.

3. Debrecen Kertváros assessment outputs

STRATEGY 1 - Path A – Transfer of Existing Core- City Strategy and Its Actions/Measures

Step 1: Selection of Strategy and Its Actions/Measures

Title: Extension of cycling network and enhancement of safety of existing infrastructure

Objectives & Scope: Implementation of a larger, connected network of bicycle lanes to provide uninterrupted and safe opportunity to ride bikes

Actions:

1. Check for bottlenecks, missing parts of the network and unsafe sections
2. Local and/or arterial improvement of cycle network
3. Monitoring the usage and traffic conditions

Target KPIs: Main KPI groups: Demographic characteristics; Land use and urban form; Transport & active mobility infrastructure; Digital infrastructure; Urban Design.

(See Section 2.1 - KPIs Analysis for the detailed breakdown and values).

Stakeholders:

Table 22: Description of strategy 1 for Debrecen/Kertváros

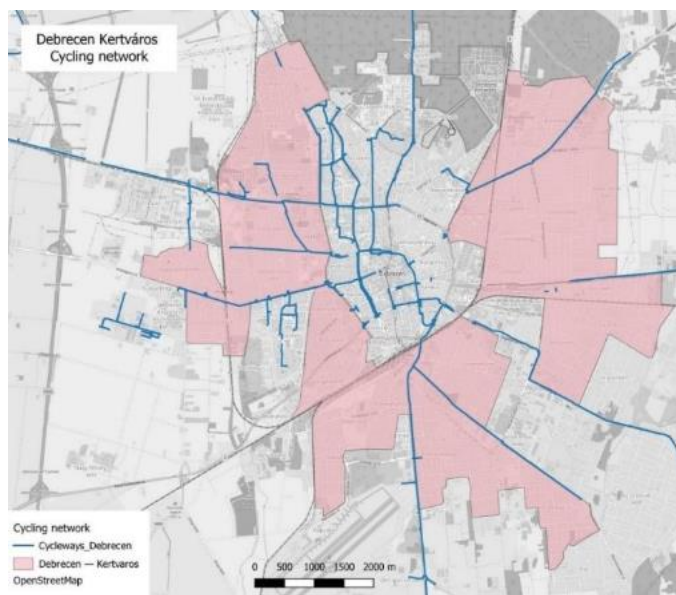


Figure 15: Debrecen Kertváros cycling network

Step 2: Characterization of Context and Assessment of Transferability

2.1 KPIs Analysis

Measurement categories	Specific Measurements (eg.)	CC Value	LL Value	Rating	Notes
Demographic characteristics (e.g., age)	-Men/women distribution	N/A	N/A	?	Values are identical since they are derived from higher-level aggregation; actual values are expected to be very similar.
	-Age Distribution	13.2% 66.6% 20.2%	13.2% 66.6% 20.2%		
Land use and urban form (density, diversity)	-Proximity to Green, Blue and Public Spaces (walking (worst-best)/cycling)	35-90% /98-100%	35-90% /98-100%	?	Values are identical since they are derived from higher-level aggregation; actual values are expected to be very similar.
	-Proximity to Essential Services (walking (worst-best)/cycling)	72-96% /100%	72-96% /100%	?	

	-Urban Density (built-up surface)	99,2m2/pp	99,2m2/pp	?	
	-Diversity of Land Use	N/A	N/A	?	
	-Population Density	3369 persons/km2 (436 regarding the administrative area)	2539 persons/km2	?	
Transport & active mobility infrastructure	- Active mobility Infrastructure	108km 99%	21,6km 100%	?	The length is proportional to the area.
	-Proximity to Public Transport and DRT (proximity of bus services (no DRT))	(estimation)		?	
Digital infrastructure (digitalization)- if applicable	-Availability of Multi	N/A			
	-modal mobility Services	N/A			
Urban Design (slope, road density)	-Average slope	0,1–0,5 %	0,25–0,5 %	?	Road density values are rough estimations.
	-Road density	7,7 km/km2 (1,34 km/km2 regarding the administrative area)	7,8 km/km2		
	-Road Intersections density				

Table 23: KPIs Analysis of strategy 1 for Debrecen/Kertváros

2.2 Coherence Analysis

Criterion	Description	CC Context Summary	LL Context Summary	Rating	Notes
Governance Structures	Are municipal policy instruments & technical capacities compatible with 15-Minute City goals?	yes	yes	?	They are under the same local governance.

Alignment with Planning	Do local planning objectives and SUMP/land-use plans support this intervention?	yes	Yes, among the goals of the Debrecen SUMP in 2024 is the 15-Minute City concept, which aims to transform urban planning to reduce the travel time for services such as shopping.	?
Alignment with Projects	Does this action complement ongoing local projects compatible with 15-Minute City goals?	yes	Yes, the cycling infrastructure development supports the 15-Minute City concept	?
Citizen Participation	CC: Were there a structured participation process to implement this strategy? If positive, which were the feedbacks? LL: Does the municipality have frequent and structured participation process? Was there any participation process regarding this intervention or similar? If positive, did the feedback from previous participatory processes endorse this intervention?	no	No, citizen participation in both locations focuses on information and complaint handling rather than on a proper participation process with e.g. co-creation.	?
Stakeholder Involvement	CC: Have key stakeholders been engaged, with clear roles defined for implementation? LL: Are there stakeholders who are interested in or engaged with the implementation?	yes	Yes, key stakeholders, including municipal authorities and operators of roadways and public transport systems, are actively engaged in the implementation process.	?

Table 24: Coherence Analysis of strategy 1 for Debrecen/Kertváros

2.3 Feasibility Check

Criterion	Description	LL Context Summary	Rating	Notes
Budget & Funding	Are financial resources or funding streams available for this action? Could funds allocated to similar plans or objectives also support this action? Are there existing funding opportunities aligned with the goals of this action? What sources of funding have been identified for similar initiatives that could also be applicable here?	The ongoing intensive development of industrial facilities, including the BMW assembly site and the CATL battery factory, as resulted in enhanced availability of public developments — such as potable water systems and mobility infrastructure. Consequently, both local and national government funding for these services is more accessible compared to other cities of Hungary.	?	

Table 25: Feasibility Check of strategy 1 for Debrecen/Kertváros

2.4 Adaptations & Proposed Actions

After the KPIs calculation, coherence and feasibility assessment, it was determined whether adjustments or mitigation measures were needed.

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	?	
Planning Alignment	?	
Projects Alignment	?	
Citizen Participation	?	
Stakeholder Involvement	?	
Demographic Characteristics	?	
Land use & Form	?	
Transport Infrastructure	?	
Digital Infrastructure	+	To make ?, we need to develop local route planning and wayfinding services
Urban Design	?	

Table 26: Adaptations & Proposed Actions of strategy 1 for Debrecen/Kertváros

Summary: Full coherence across all dimensions (✓) and strong feasibility. The only adaptation identified is the need to develop local route planning and wayfinding services for digital infrastructure (+).

STRATEGY 2 - Path A – Transfer of Existing Core- City Strategy and Its Actions/Measures

Step 1: Selection of Strategy and Its Actions/Measures

Title:	Deployment of shared micro mobility systems (e.g. shared bikes)
Objectives & Scope:	Provide individual and sustainable mobility modes for occasional and short trips
Actions:	1. Learn from private service provider's experience 2. Market-friendly regulation, legislation and campaigns 3. Monitoring the usage and traffic conditions
Target KPIs:	Main KPI groups: Demographic characteristics; Land use and urban form; Transport & active mobility infrastructure; Digital infrastructure; Urban Design. (See Section 2.1 - KPIs Analysis for the detailed breakdown and values).
Stakeholders:	

Table 27: Description of strategy 2 for Debrecen/Kertváros

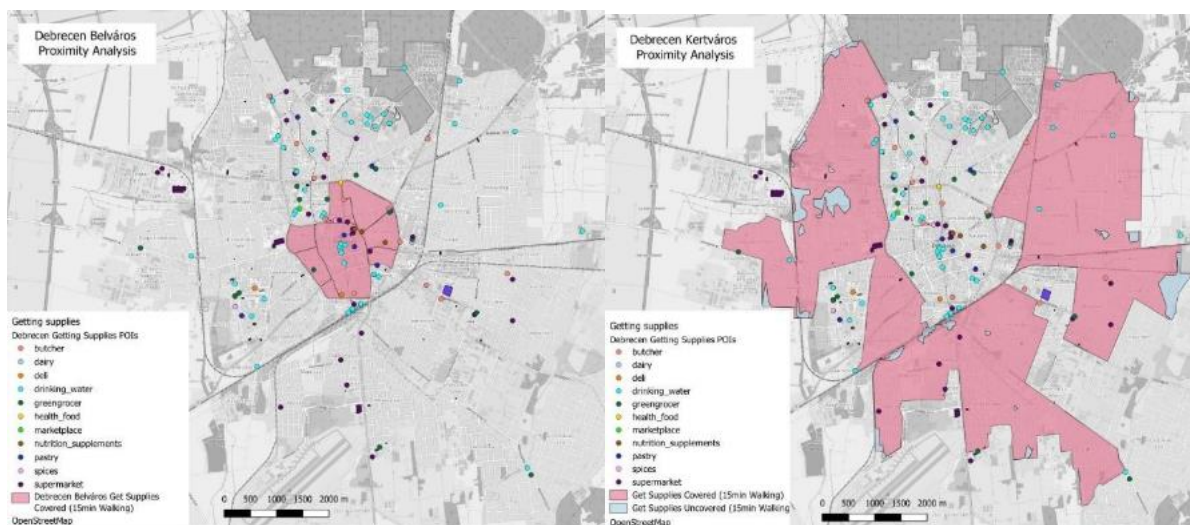


Figure 16: Proximity analysis for Debrecen/Belváros (left) and Debrecen/Kertváros (right)

Step 2: Characterization of Context and Assessment of Transferability

2.1 KPIs Analysis

Measurement categories	Specific measurements (eg.)	CC Value	LL Value	Rating	Notes
Demographic characteristics (e.g., age)	-Men/women distribution	N/A	N/A	2	Values are identical since they are derived from higher-level aggregation; actual values are expected to be very similar.
	-Age Distribution	13.2% 66.6% 20.2%	13.2% 66.6% 20.2%	2	
Land use and urban form (density, diversity)	-Proximity to Green, Blue and Public Spaces (walking (worst-best)/cycling)	35-90% /98-100%	35-90% /98-100%	2	Values are identical since they are derived from higher-level aggregation; actual values are expected to be very similar.
	-Proximity to Essential Services (walking (worst-best)/cycling)	72-96% /100%	72-96% /100%	2	

	-Urban Density (built-up surface)	99,2m2/pp	99,2m2/pp	?	
	-Diversity of Land Use	N/A	N/A		
	-Population Density	3369 persons/km2 (436 regarding the administrative area)	2539 persons/km2	?	
Transport & active mobility infrastructure	- Active mobility Infrastructure	108km	21,6km	?	The length is proportional to the area.
	-Proximity to Public Transport and DRT (proximity of bus services (no DRT))	99% (estimation)	100%	?	
Digital infrastructure (digitalization)- if applicable	-Availability of Multi-modal mobility Services	N/A	N/A		
Urban Design (slope, road density)	-Average slope			?	
	-Road density	0,1–0,5 %	0,25–0,5 %		Road density values are rough estimations.
	-Road Intersections density	7,7 km/km2 (1,34 km/km2 regarding the administrative area)	7,8 km/km2	?	

Table 28: KPIs Analysis of strategy 2 for Debrecen/Kertváros

2.2 Coherence Analysis

Criterion	Description	CC Context Summary	LL Context Summary	Rating	Notes
Governance Structures	Are municipal policy instruments & technical capacities compatible with 15-Minute City goals?	yes	yes	?	They are under the same local governance.
Alignment with Planning	Do local planning objectives and	yes	Yes, among the goals of the	?	

	SUMP/land-use plans support this intervention?		Debrecen SUMP in 2024 is the 15-Minute City concept, which aims to transform urban planning to reduce the travel time for services such as shopping.	
Alignment with Projects	Does this action complement ongoing local projects compatible with 15-Minute City goals?	yes	Yes, the micromobility development supports the 15-Minute City concept	?
Citizen Participation	CC: Were there a structured participation process to implement this strategy? If positive, which were the feedbacks? LL: Does the municipality have frequent and structured participation process? Was there any participation process regarding this intervention or similar? If positive, did the feedback from previous participatory processes endorse this intervention?	no	No, citizen participation in both locations focuses on information and complaint handling rather than on a proper participation process with e.g. co-creation.	?
Stakeholder Involvement	CC: Have key stakeholders been engaged, with clear roles defined for implementation? LL: Are there stakeholders who are interested in or engaged	no	No, general commitment has not reached yet.	?

with the
implementation?

Table 29: Coherence Analysis of strategy 2 for Debrecen/Kertváros

2.3 Feasibility Check

Criterion	description	LL Context Summary	Rating	Notes
Budget & Funding	Are financial resources or funding streams available for this action? Could funds allocated to similar plans or objectives also support this action? Are there existing funding opportunities aligned with the goals of this action? What sources of funding have been identified for similar initiatives that could also be applicable here?	Commercial solutions are eager to provide services meaning that right after political commitment the financial sources are available.	?	

Table 30: Feasibility Check of strategy 2 for Debrecen/Kertváros

2.4 Adaptations & Proposed Actions

After the KPIs calculation, coherence and feasibility assessment, it was determined whether adjustments or mitigation measures were needed.

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	+	To make ?, we need more clear legislation environment
Planning Alignment	?	
Projects Alignment	?	
Citizen Participation	?	
Stakeholder Involvement	?	
Demographic Characteristics	?	
Land use & Form	?	
Transport Infrastructure	?	

Digital Infrastructure	+	To make 7, we need publicly open access to bike-sharing systems
Urban Design	7	

Table 31: Adaptations & Proposed Actions of strategy 2 for Debrecen/Kertváros

Summary: Coherence is very strong (✓) and feasibility is confirmed. Minor adaptations are needed, including clearer legislation for governance (+) and publicly open access to bike-sharing systems (+).

1. Turin Settimo Torinese assessment outputs

STRATEGY 1 - Path B: Development of New Suburban Strategies

Step 1: Selection of Strategy and Its Actions/Measures

Draft Problem Statement:

In the case study of Settimo Torinese, a new approach is needed to address suburban challenges. For this reason, it was decided to continue with Path B, which involves developing a new strategy with defined, modular, and measurable actions.

For the Italian case study, a problem concerning poor quality of public transport in suburban/peripheral/low-density areas was revealed through the focus groups in WP3. Two proposed actions regarding Demand-Responsive Transport (DRT) are here considered to tackle this issue: an enhanced DRT service and a better cycling infrastructure for remote industrial areas.

Enhanced DRT with travel data collection

At the present time, in Settimo there are two different DRT services: MeBUS and Settibus.

The MeBUS service is a DRT system provided by the Piedmont Region Transport Authority in the metropolitan area of Turin. Settimo is included in the MeBUS North-East area of Leini, Settimo Torinese, Volpiano, San Benigno, and Chivasso Municipalities.

It provides a flexible answer to the needs of local public transport services made by the Municipal Administrations in the last 15 years, integrating existing public transport services.

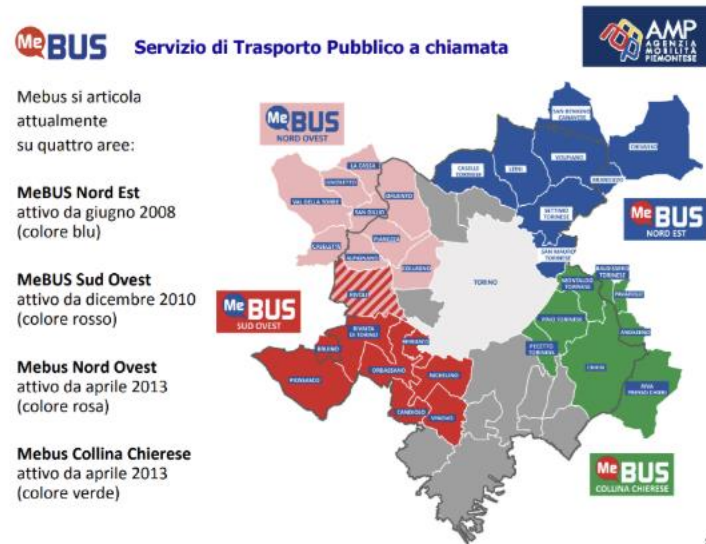


Figure 17: MeBUS: On-demand public transport service
Source: mtm.torino.it

SettiBus, on the contrary, is the on-demand bus service of Settimo Torinese, designed for and by the municipality itself and operated by a local bus company⁶.

The next table summarises the key characteristics of the two services and the main issues of the current DRT.

Service	MeBUS	Settibus	Notes
How to book	Phone Call (800122762)	Mobile app (Android/Ios)	The two services have different types of booking processes; they do not interact and do not blend digital and non-digital booking options (Settibus is only digital, MeBUS only by phone call).
When to book	At least 1 day in advance	On the moment	MeBUS is not convenient for last-minute mobility need
What is it for	Move around municipalities ^[4] in the North-East metropolitan area	Move around Settimo Torinese (in the compact urban area between two standard bus stops of the urban service of Settimo)	Settibus service, which is faster to book and cheaper, neglects important areas (industries, amenities, etc.)

⁶ <https://www.comune.settimo-torinese.to.it/it/page/settibus-servizio-a-chiamata>

Cost	Ticket purchase onboard, 1,7€ same price as a non-urban bus line (>2€); 1€ if the user has a PT pass.	The tickets are cheaper than those of traditional public transport.
Service hours	9-19 from Monday to Friday, 9-14 Saturday. 8-18 from Monday to Saturday	The working hours are designed to meet the needs of travel for work, medical visits, errands and leisure, but focusing on the times of the day when the demand for (already existing) public transport is higher, and they do not promote cheap and flexible use of public transport in the evening, night or holidays/weekends.

Table 32: Key characteristics of the MeBUS and Settibus services

Source: mtm.torino.it

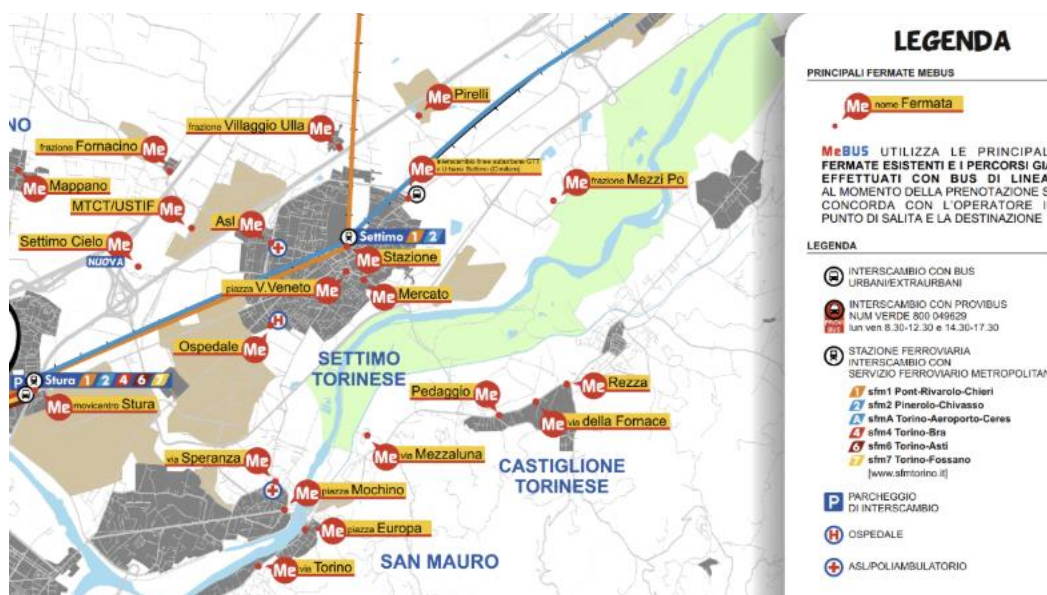


Figure 18: MeBUS DRT Service Area (North-East)

Source: mtm.torino.it

Here connection to the big commercial centre “Settimo Cielo” has disappeared



COME SI PRENOTA?	SAN MAURO	QUANTO COSTA?
CHIAMA IL GIORNO PRECEDENTE IL NUMERO VERDE DALLE 8.30 ALLE 14.30 Numero Verde 800 12 27 62 ATTENZIONE: per viaggiare il lunedì occorre prenotare venerdì mattina	QUANDO SI USA? MEBUS E' ATTIVO NEI GIORNI FERIALI CON IL SEGUENTE ORARIO LUN-VEN 9.00-19.00 SAB 9.00-13.00 ATTENZIONE: il servizio non è attivo nei giorni Festivi e nel mese di agosto	LA "TARIFFA" DI MEBUS E' ANALOGA A QUELLA DEGLI ALTRI SERVIZI DI LINEA EXTRAURBANI 1.20-2.40 € a seconda della lunghezza del viaggio ATTENZIONE: il biglietto si acquista a bordo del bus senza sovrapprezzo www.mtm.torino.it

Figure 20: Settibus Additional Service Coverage

Source: mtm.torino.it

In conclusion, the two services operate on the existing fixed number of stops of the traditional PT network, adding more solutions when PT does not operate, but only at daytime and with significant need for booking on advance. This comes also at a high operational cost, because normal buses are used to run the lines.

For Path B option in Settimo, the option is to imagine a better DRT which can merge the best of two existing options and increase service hours while lowering the costs. We can imagine a DRT which operates even at night and uses its booking platform to collect travel data to support proper public transport planning. The use of different vehicles (cabs, taxis, minibuses) could lower the operational costs, expanding the actual area of operation of Transport Authority and extending subsidies to non-traditional transport operators (currently the two on-demand services are operated by conventional bus operators).

Title:	Enhanced DRT with travel data collection
Objectives & Scope:	Enable low-density areas to have an on demand public transport option outside the schedules of poorly organised public transport lines due to insufficient funding and lack of updated and quality travel survey data. This could enable to cut expenses and to really tackle the actual demand of these areas, enabling also to collect data on actual transport demand in case enough funding for proper PT routes were available.
Actions:	Choose the area covered by the DRT service Choose the business model and service structure (line-based, stop-based, free range etc.) and the pricing, in coherence with available funding to lower the cost of tickets Reach an agreement with PTO, taxis or car rental with driver (NCC, in italian) to state a Contract of Service style of minimum threshold of cabs available, timing etc. Create a platform to book trips and collect data about travel preferences Publicly promote the option
Target KPIs:	Main KPI groups: Demographic characteristic; Land use and urban form; Transport infrastructure and services; Digital infrastructure; Urban Design. <i>(See Section 2.1 - KPIs Analysis for the detailed breakdown and values).</i>
Stakeholders:	Settimo Torinese municipality Città Metropolitana di Torino (Turin Metropolitan City) Taxi drivers and NCC

Table 33: Description of strategy 1 for Turin Settimo Torinese

Step 2: Characterization of Context

Step 2.1 - KPIs Analysis

Measurements	Specific measurements (eg.)	ULL values	Rating
Demographic characteristic	Men/women distribution	48,6% M-51,4% F	B
	-Old-age dependency ratio	42,2%	
	-Young-age dependency ratio	18%	

Land use and urban form (density, diversity)	Proximity to Green, Blue and Public Spaces	57,72%	
	Proximity to Essential Services	94,81%	
	-Urban Density- Total Built-Up Area Ratio	-	?
	- Urban Density- Built-up Surface	-	
	Diversity of Land Use	Very diverse mix	
	Population Density	6,520 (persons/Km ²)	
	Active mobility Infrastructure	Not needed for this strategy	
	Proximity to Public Transport and DRT	79.27%	?
	Availability of multi-modal mobility services	The application for booking the service can be based on actual application used for MaaS	?
	Average slope	Not needed for this strategy	
Urban Design	Road density	Not needed for this strategy	?
	Road Intersections density	Not needed for this strategy	

Table 34: KPIs analysis of strategy 1 for Turin Settimo Torinese

Step 2.2 - Coherence Analysis

Criterion	Description	LL	Rating
Governance Structures	Are municipal policy instruments and technical capacities compatible with 15-Minute City goals?	Yes, currently done with local bus company. Changes in law requirements needed to enable NCC to operate more freely but are beyond municipal agency (national law).	+
Alignment with Planning Goals	Do local planning objectives and SUMP/land-use plans support this intervention?	PUMS CMTO (Città Metropolitana di Torino) calls for a DRT in rural areas	?
Alignment with Existing Projects	Does this action complement ongoing local projects compatible with 15-Minute City goals?	Yes, there are already two DRT services. Revision/inclusion of that service is mandatory to proceed.	?

Citizen Participation	LL: Does the municipality have regular and structured participation process? Was there any participation process regarding this intervention or similar? If positive, did the feedback from previous participatory processes endorse this intervention?	No	?
Stakeholder Involvement	LL: Are there stakeholders who are interested in or engaged with the implementation?	Citizens, local industries in peripheral areas	?

Table 35: Coherence analysis of strategy 1 for Turin Settimo Torinese

Step 2.3 - Feasibility Check

Criterion	LL	Rating	Notes
Budget & Funding	Financial resources for current DRT and actual contract of service	+	Verify how current DRT resources could be made more efficient, reorganising the whole service and making it more complementary. In addition, additional contracts of services should be defined for operators different from public transport companies.

Table 36: Feasibility Check of strategy 1 for Turin Settimo Torinese

2.4 Adaptations and Proposed Actions

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	+	Local environment is ready to implement, but national laws make it difficult to engage NCC. National laws concerning individual public transport/taxis should be changed in Italy to erase boundaries and should be checked the same way for transferability in other countries.
Planning Alignment	?	
Projects Alignment	?	
Citizen Participation	?	Citizen engagement thought surveys
Stakeholder Involvement	?	

Demographic Characteristics	?	
Land use & Form	?	
Transport Infrastructure	?	
Digital Infrastructure	?	Current digital infrastructure for DRT does not comply with the idea of a proper travel data collection, need to be adapted
Urban Design	?	

Table 37: Adaptations and Proposed Actions of strategy 1 for Turin Settimo Torinese

Summary: Coherence is mixed, with governance needing adaptation (+) and citizen participation absent (X). Feasibility is conditional (+). Key barriers include national laws for NCC and a lack of digital DRT infrastructure (X).

STRATEGY 2 – Path B – Development of New Suburban Strategy and Its Actions/Measures

Step 1: Problem Definition & Strategy Design

Draft Problem Statement: Cycling infrastructure for rail-to-work in industrial peripheral areas

For those with a good physical agency, another way to tackle accessibility of low-density or remote areas might be a proper cycling infrastructure to connect important points of interest outside of the compact suburban center. In Settimo Torinese, several big industrial companies had their facilities and production plants built in a peripheral area in the outskirts of the urban fabric. This is the case for two different industrial areas represented in Figure 21 through dotted violet circles: one between Settimo Torinese and Turin; the second in a rural area, encompassed by the Turin-Milan high-speed railway line and the neighbouring A4 highway.

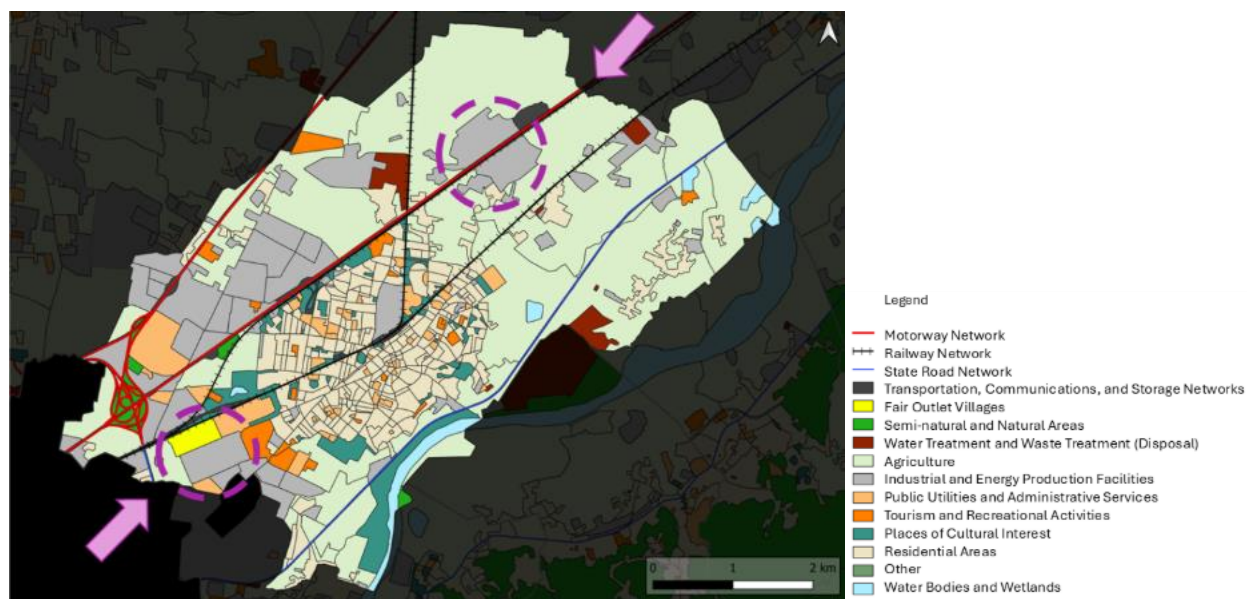


Figure 21: Two selected industrial areas

The project would create new portions of the cycling network in Settimo Torinese municipality and would systematise the existing parts in a structured network of paths connecting the industrial areas to the core center of the municipality and the railway station (on both sides) (Fig. 15).

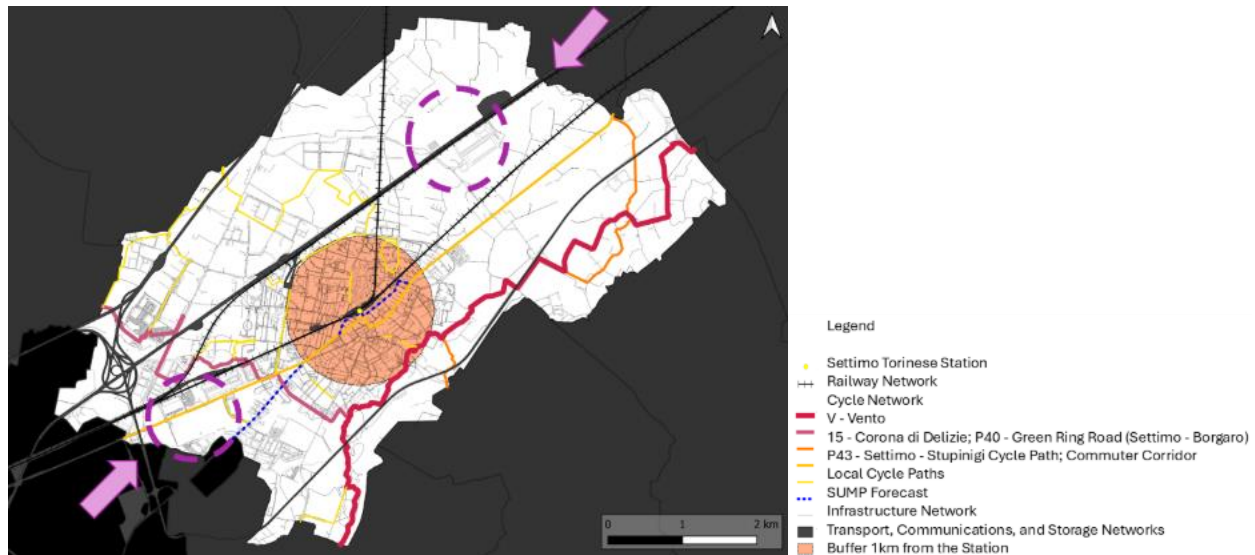


Figure 22: Existing cycle paths

The territory of Settimo Torinese is crossed by cycle paths of different importance, such as sections of National, Regional and Provincial Cycle Routes. In fact, there is the **"V-VenTo" National Cycle Route**, which continues the "20-Aida" Cycle Route, which from San Mauro Torinese to the south, continues northwards, within the territory of Settimo Torinese, and then continues north-east, with the "E8 - Eurovelo 8", in the municipality of Brandizzo. There is also the Regional Cycle Route **"15- Corona di delizie"**, which arrives from Mappano, to the west, and crosses the municipality of Settimo Torinese, from west to east, in the southern part of the municipality, until it reconnects with the National Cycle Route "V-VenTo".

There are also sections of Provincial Cycle Routes, namely those listed below: from south-west, from Mappano:

- **P40 – Green ring road (Settimo Torinese – Borgaro);**
- from the south, from Turin: **P32 – Ciclostrada Settimo – Stupinigi;**
- from the centre to the north, from Settimo Torinese towards Brandizzo: **P43 – San Mauro – Settimo Torinese – Chivasso cycle path.**

In addition, there are sections of cycling infrastructure of local interest.

Cycle paths can be on reserved lanes or shared paths between cyclists and pedestrians, or cycle paths on reserved lanes in green areas.

Furthermore, according to the provisions of the SUMP of the Metropolitan City of Turin, approved in 2022, there are plans to strengthen the commuter corridor that crosses the municipality from south to north, passing through the historic centre. In particular, the P32 route to Via Torino and the route from Strada di Settimo and Via Regio Parco to Via Torino, which join at Via della Repubblica and continue past the station in the centre and then along Via Milano to Brandizzo.

Future interventions will also include cycle paths of supra-local, national and regional interest, and short sections of cycle paths will be included in the CMTO cycle path programme.

The map was created considering the information contained in the tables of the SUMP (in particular Tables 03.1 and 08.1), using shapefiles downloadable from the Piedmont Geoportal and ISTAT (National Institute of Statistics), where necessary, consulting Google Earth, Google Maps or Google Street View. In this project, it was decided to focus on the creation of a cycle path capable of serving the industrial areas on the southern and northern outskirts of the municipality. In particular, highlighting the need for action along the axis of Via Torino and Via della Repubblica to the south of the station, and Via Moglia and Via Brescia to the north of the station (Fig. 16).



Figure 23: Planned cycle paths

In Fig. 17, the southern industrial area is represented, highlighting the southern industrial area through a dotted violet circle and the station buffer through a yellow circle. In Fig. 18, instead, the same area is represented using Google Earth, to better visualise it.

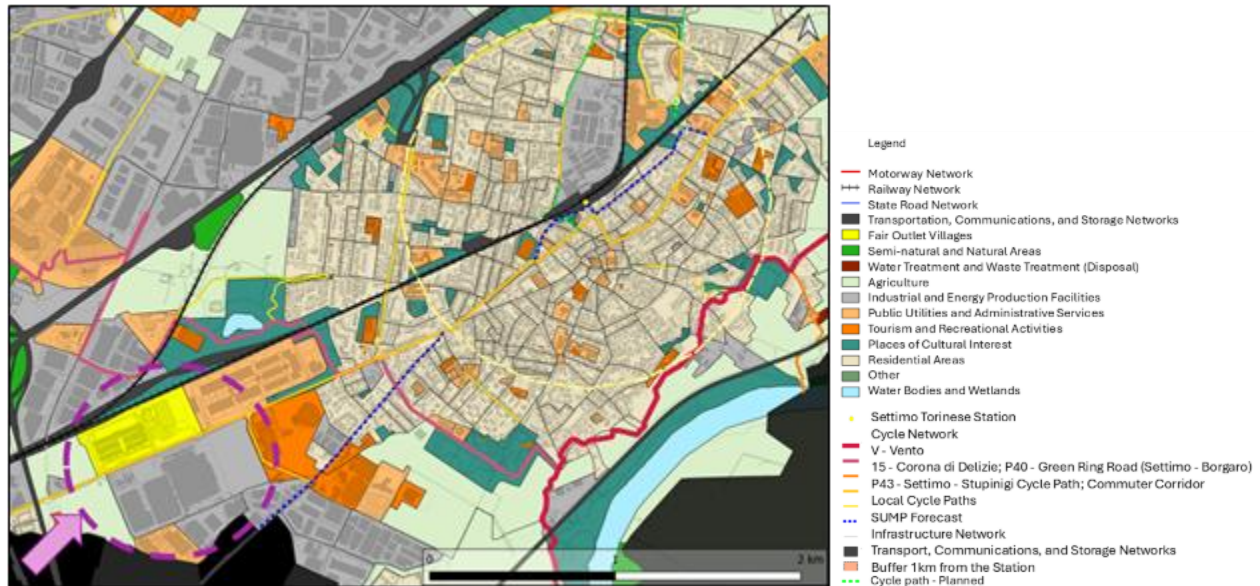


Figure 24: Cycle path to intervene on, at the south of the station



Figure 25: Part of the territory at south of the Station, extracted from Google Earth.

In Figure 26 the northern part of the industrial area, on which the intervention is provided, is highlighted through a dotted violet circle, to better show its location on the territory and, then, visualised using Google Earth in Figure 27.



Figure 26: Planned cycle path, north of the station



Figure 27: Part of the territory north of the Station, extracted from Google Earth

The strategy related to the cycle connection between the railway station and the northern industrial area was evaluated using a 15-minute walking buffer along the cycle path using network distance instead of Euclidean distance, as represented in green in Figure 28.

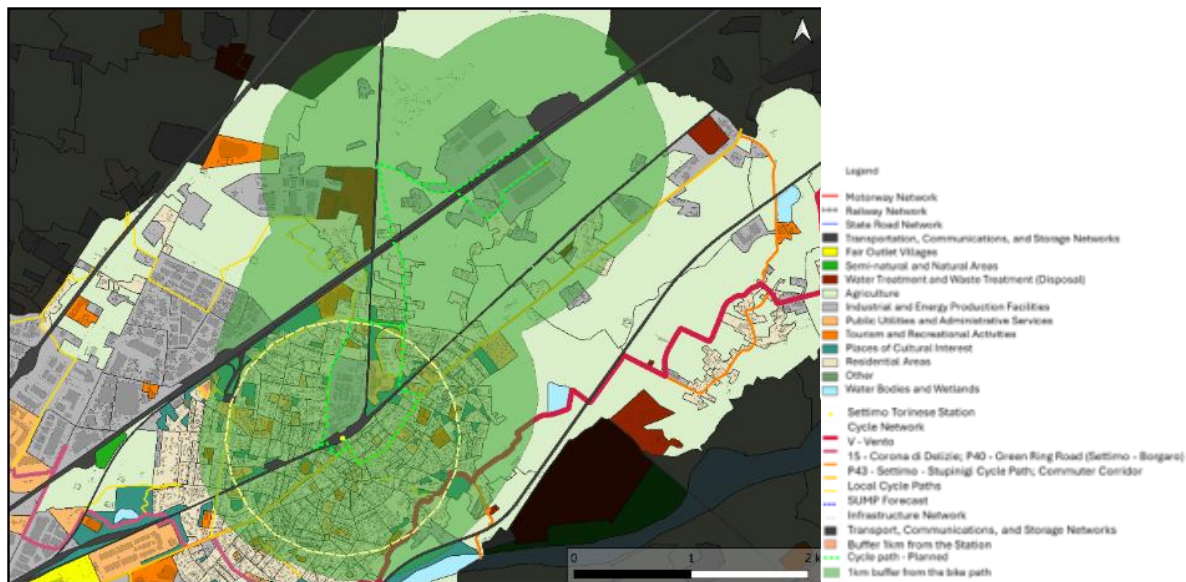


Figure 28: 15-minute walking buffer

Step 1 – Selection of Strategy and Its Actions/Measures

- Title:** Cycling paths from the railway station to the peripheral industrial areas
- Objectives & Scope:** Enable remote industrial areas to be reachable by bike from the railway station, intended as the main PT stop in the suburban area.
- Actions:**
1. Selection of the most peripheral industrial areas
 2. Selection of the best route to serve the areas of interest
 3. Selection of the type of cycle or cycle-pedestrian infrastructure to be built and related vertical signage
 4. Inform and communicate the intention to create cycle paths to the companies operating in the areas of interest
 5. Integrate the future presence of the cycle service into the PSCL (Workplace Travel Plan) of the companies
 6. Inform and communicate the intention to create cycle paths to the entire community of Settimo Torinese
 7. Integrate the future cycle path into mobility platforms

Target KPIs: Main KPI groups: Demographic characteristic; Land use and urban form; Transport infrastructure and services; Digital infrastructure; Urban Design.

(See Section 2.1 - KPIs Analysis for the detailed breakdown and values).

Stakeholders: Settimo Torinese municipality
Città Metropolitana di Torino (Turin Metropolitan City)
Companies through their Mobility Management schemes

Table 38: Description of strategy 2 for Turin Settimo Torinese

Step 2: Characterization of Context

Step 2.1 - KPIs Analysis

Measurements	ULL values	R a t i o n g
Demographic characteristic	Men/women distribution	48,6% M-51,4% F
	-Old-age dependency ratio	42,2% ?
	-Young-age dependency ratio	18%
Land use and urban form (density, diversity)	Proximity to Green, Blue and Public Spaces	57,72%
	Proximity to Essential Services	94,81%
	Urban Density (Total Built-Up Area Ratio %)	- ?
	Urban Density (Built-up Surface)	-
	Diversity of Land Use	Very diverse mix
Transport infrastructure and services	Population Density	6,520 (persons/Km ²)
	Active mobility Infrastructure	0,023% (roads with sidewalks) (%/length) ?

		0,021% (roads/walkable zones) (%/length)	
		0,14% (Cycling paths) (%/length)	
	Proximity to Public Transport and DRT	79.27%	
Digital infrastructure (digitalization)- if applicable	Availability of multi-modal mobility services	Not applicable for this strategy	?
	Average slope	Terrain is flat, no slope	
Urban Design	Road density	0,78 Road density (km/km ²)	?
	Road Intersections density	0,02 Road Intersections density (n ^o /km ²)	

Table 39: KPIs analysis of strategy 2 for Turin Settimo Torinese

Step 2.2 - Coherence Analysis

Criterion	Description	LL	Rating
Governance Structures	Are municipal policy instruments & technical capacities compatible with 15-Minute City goals?	Yes, because construction of cycle paths is already ongoing	?
Alignment with Planning Goals	Do local planning objectives and SUMP/land-use plans support this intervention?	SUMP CMTO calls for TOD and extension of cycling infrastructure; Regional Plan and Guidelines for Cycling Infrastructure are also coherent with the strategy	?
Alignment with Existing Projects	Does this action complement ongoing local projects compatible with 15-Minute City goals?	Local urban planning project involves the creation of bike lanes and paths; the proposed cycling infrastructure already passes through existing paths or lanes	?
Citizen Participation	LL: Does the municipality have regular and structured participation process? Was there any participation process regarding this intervention or similar? If positive, did the feedback from previous participatory processes endorse this intervention?	No	?
Stakeholder Involvement	LL: Are there stakeholders who are interested in or engaged with the implementation?	Citizens, local industries in peripheral areas	?

Table 40: Coherence analysis of strategy 2 for Turin Settimo Torinese

Step 2.3 - Feasibility Check

Criterion	LL	Rating	Notes
Budget & Funding	Funding for cycling paths	?	The envisioned infrastructure does not include major engineering works and can be realised with a low budget; national fundings for cycle paths are now low but regional and local fundings available.

Table 41: Feasibility Check of strategy 2 for Turin Settimo Torinese

2.4 Adaptations and Proposed Actions

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	?	
Planning Alignment	?	
Projects Alignment	?	The project is in part a new proposal referring to the cycle paths already programmed.
Citizen Participation	X	Citizen engagement thought surveys
Stakeholder Involvement	?	
Demographic Characteristics	?	
Land use & Form	?	On a slope, there would only be a short section of the overpass in Via Brescia.
Transport Infrastructure	+	It is possible to carry out the intervention by exploiting all the existing infrastructure works, despite the presence of significant infrastructure barriers such as the motorway and the railway network.
Digital Infrastructure	?	Current digital infrastructure for MaaS does not provide the integration of cycle path layouts into mobility platforms
Urban Design	?	

Table 42: Final table of strategy 2 for Turin Settimo Torinese

Summary: Coherence is generally strong (✓), though citizen participation is absent (✗). Feasibility is positive (✓). Required adaptations include new citizen engagement surveys, transport infrastructure improvements, and MaaS digital integration.

4. Lisbon Alverca do Ribatejo assessment outputs

STRATEGY 1 - Path A – Transfer of Existing Core- City Strategy and Its Actions/Measures

Step 1: Selection of Strategy and Its Actions/Measures

Title:	Uma Praça em cada Bairro – intervenções em espaço público (A Square in Every Neighbourhood - interventions in public spaces)
Objectives & Scope:	Upgrade urban micro-centralities to strengthen community life, stimulate local commerce and community facilities, and create high-quality, inclusive, and safe public spaces. The intervention establishes a vibrant meeting point for the local community, concentrating activity and employment while prioritising walking, cycling, and public transport, and restricting car traffic to foster greener, more comfortable, and people-oriented environments.
Actions:	1. Expansions of sidewalks, creation of cycling infrastructure and bus lanes; 2. Addition of new areas for leisure, rest, and social interaction, including benches, playgrounds and kiosks; 3. Reinforcing local identity and urban character by valuing historical sites, strengthening visual connections, and improving urban design and landscaping; 4. Increasing greenery by planting more trees, adding green elements, and incorporating water features; 5. Improving accessibility and traffic organization by regulating car circulation, reorganizing parking, and ensuring better multimodal connectivity.
Target KPIs:	Main KPI groups: Demographic characteristics; Land use and urban form; Transport & active mobility infrastructure; Digital infrastructure; Urban Design. <i>(See Section 2.1 - KPIs Analysis for the detailed breakdown and values).</i>
Stakeholders:	Lisbon City Council Parish Councils

Table 43: Description of strategy 1 for Lisboa/Alverca do Ribatejo



Figure 29: Comparison between before (left) and after (right) in two intervention cases in Lisbon
Step 2: Characterization of Context and Assessment of Transferability

2.1 KPIs Analysis

For this assessment, six areas in the **Core City** that received interventions of the programme *A Square in Every Neighbourhood* were selected.



Figure 30: Selected squares in the CC and their buffers zones

In the Living Lab, one area was chosen. This area is especially relevant to the municipality of Vila Franca de Xira, because it is also the focus of the ReGreenation project, funded by the Horizon Europe programme.

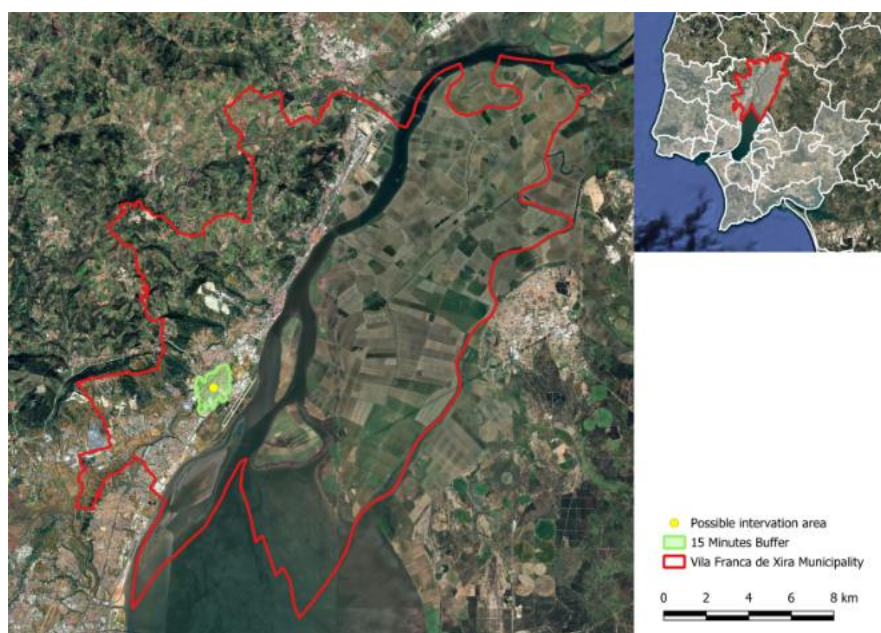


Figure 31: Selected area in the LL and their buffer zone

Measurement categories	Specific measurements	CC Value	LL Value	Rating	Notes
Demographic characteristics (e.g., age)	-Men/women distribution	85,29	90	✓	
	-Old-age dependency ratio	0,40	0,43	✓	
	-Young-age dependency ratio	0,21	0,26	✓	
Land use and urban form (density, diversity)	-Proximity to Green, Blue and Public Spaces	95,59	92,30	✓	
	-Proximity to Essential Services	98,41	97,05	✓	
	-Urban Density- Total Built-Up Area Ratio	90,65	87,8	✓	
	- Urban Density - Built-up Surface	85,35	121,59	✓	
	- Diversity of Land Use				
	-Population Density	12375	6962	×	Although the LL has a smaller density, the projects ongoing in the area can improve that.
Transport & active mobility infrastructure	- Active mobility Infrastructure	7	5.85	✓	
	-Proximity to Public Transport and DRT	100	100	✓	
Digital infrastructure (digitalization) - if applicable	-Availability of Multi-modal mobility Services	Urban bus and Bike sharing stations	Urban bus, Intercity bus and Train	✓	LL doesn't have bike sharing but has a train station, and bike lane nearby that is to be extended
Urban Design (slope, road density)	- Road density	22,38	23,49	✓	
	- Road Intersections density	639,72	241,15	×	This may mean that pedestrian connectivity in LL is considerably lower.
	- Average slope	3,93	4,74	✓	

Table 44: KPIs Analysis of strategy 1 for Lisboa/Alverca do Ribatejo

2.2 Coherence Analysis

Criterion		CC Context Summary	LL Context Summary	Rating	Notes
Governance Structures	Are municipal policy instruments & technical capacities compatible with 15-Minute City goals?	Yes. Lisbon leads initiatives like LxDataLab to support data-driven urban planning aligned with the 15-Minute City concept.	The municipality shares perspectives within Greater Lisbon	?	
Alignment with Planning	Do local planning objectives and SUMP/land-use plans support this intervention?	Yes. Lisbon Strategic Charter 2010-2024, Master Plan, and mobility strategies promote inclusive, accessible, and sustainable development consistent with 15-Minute City principles.	Yes. The 2022 Mobility Plan promotes soft mobility, improved public transport, and reduced car dependency, aligning with 15-Minute City objectives.	?	
Alignment with Projects	Does this action complement ongoing local projects compatible with 15-Minute City goals?	Yes. Projects like “Há Vida no Meu Bairro” aim to enhance walkability and access to essential services through public space interventions rooted in community engagement.	Yes. Recent urban redevelopments (such as the intervention on Av. Engenheiro Vilar Queiroz and on Tagus Estuary Linear Park) demonstrate concrete steps toward sustainable mobility, accessibility, and proximity in line with the 15-Minute City model.	?	

Citizen Participation	CC: Were there a structured participation process to implement this strategy? If positive, which were the feedbacks?	There was a participatory process, but it was criticized for the limited involvement of citizens, especially in the design phase.	The municipality engages residents through meetings occasionally.	+	
	LL: Does the municipality have frequent and structured participation process? Was there any participation process regarding this intervention or similar? If positive, did the feedback from previous participatory processes endorse this intervention?				
Stakeholder Involvement	CC: Have key stakeholders been engaged, with clear roles defined for implementation?	The City Council led the program with support from Parish Councils, who helped identify priority areas and co-organize public sessions.	Private actor already involved in the ReGreenation project could support the implementation.	+	Uncertain
	LL: Are there stakeholders who are interested in or engaged with the implementation?				

Table 45: Coherence Analysis of strategy 1 for Lisboa/Alverca do Ribatejo

2.3 Feasibility Check

Criterion	Description	LL Context	Rating	Notes
Budget & Funding	Are financial resources or funding streams available for this action? Could funds allocated to similar plans or	Regreenation project is funded by the Horizon Europe programme. If it could		Further investigation is required. Discuss with local authorities.

objectives also support this action? also be applied to the strategy is uncertain.

Is there existing funding opportunities aligned with the goals of this action?

What sources of funding have been identified for similar initiatives that could also be applicable here?

Table 46: Coherence Analysis of strategy 1 for Lisboa/Alverca do Ribatejo

2.4 Adaptations & Proposed Actions

After the KPIs calculation, coherence and feasibility assessment, it was determined whether adjustments or mitigation measures were needed.

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	?	
Planning Alignment	?	
Projects Alignment	?	
Citizen Participation	+	Build a structured and in person participation process
Stakeholder Involvement	+	Assess the possibility of participation by ReGreenation stakeholders. Request support from Parish Council.
Demographic Characteristics	?	
Land use & Form	+	The density is rather low in the LL, each is expected as it is a suburban area. Nevertheless, the improvement of the density could be done by changing the macro commercial and logistics spaces and parking lots nearby for accommodation facilities like hotels. Another option would be changing the land use legislation in the municipal master plan to allow the construction of buildings for residential purposes.
Transport Infrastructure	?	
Digital Infrastructure	?	
Urban Design	+	The connectivity can be reduced by the low road Intersections density. This could be mitigated by rising pedestrian accessibility through the improvement of the sidewalks quality and the creating of cycling network.

Table 47: Adaptations & Proposed Actions for strategy 1 for Lisboa/Alverca do Ribatejo

Summary: Coherence is mostly positive, but citizen participation and stakeholder involvement need strengthening (+). Funding is uncertain and requires further investigation. Key adaptations involve structured participation, mitigating land use density gaps, and improving intersection connectivity.

6. Istanbul Küçükçekmece assessment outputs

STRATEGY 1 - Path A – Transfer of Existing Core- City Strategy and Its Actions/Measures

Step 1: Selection of Strategy and Its Actions/Measures

Title:	Street Transformation Program
Objectives & Scope:	Upgrade urban micro centralities to strengthen community life and support local businesses by transforming car-dominated streets into pedestrian-priority zones. The strategy promotes high-quality, safe, and accessible public spaces by reallocating street space for walking, socializing, and cycling. It aims to improve pedestrian comfort, accessibility, environmental quality, and neighborhood vitality.
Actions:	1. Pedestrianization of selected streets, either fully or during certain hours/days 2. Widening sidewalks and removing obstacles/barriers 3. Installing benches, greenery, lighting, and public furniture 4. Creating gathering spaces (e.g., small plazas, event areas) 5. Organizing public participation events to select streets and co-design improvements 6. Implementing signage and enforcement to restrict vehicle access
Target KPIs:	• Main KPI groups: Demographic characteristics; Land use and urban form; Transport & active mobility infrastructure; Digital infrastructure; Urban Design. • • • • •

(See Section 2.1 - KPIs Analysis for the detailed breakdown and values).

Stakeholder:	Kadıköy Municipality (lead implementing agency)
	Istanbul Metropolitan Municipality (IMM) (regulatory support, coordination with mobility master plans)
	Local business owners and shopkeepers' associations (co-design and cooperation)
	Residents and neighbourhood councils (public input and feedback)
	Urban design consultants, accessibility and mobility NGOs (technical design and audits)

Table 48: Description of strategy 1 for Istanbul/Küçükçekmece

Step 2: Characterization of Context and Assessment of Transferability

2.1 KPIs Analysis

For the Street Transformation Program assessment, the selected area in the Core City (CC) is Mehmet Ayvalıtış Square (Caferağa Neighborhood) and its surroundings in the Caferağa neighborhood of Kadıköy, Istanbul. This site was chosen due to its strategic location within a dense, mixed-use urban fabric and its designation as a Low Emission Zone under Istanbul Metropolitan Municipality's Sustainable Urban Mobility Plan (SUMP). The area also served as a pilot site for the Street Transformation Trial Implementation Support Program, where tactical urbanism, accessibility improvements, vehicle restrictions and pedestrian prioritization were tested in coordination with local stakeholders. The selected square is presented in Figure 32.



Figure 32: The Mehmet Ayvalıtaş Square in the CC.

In the Living Lab (LL), a specific area (Maslak Çeşme Avenue - İnönü Neighborhood) was chosen for improvement through pedestrianization. The avenue is approximately 1,100 meters long. The avenue is situated in the eastern center of Küçükçekmece, characterized by high-density and irregular buildings. Also, the avenue is close to small industrial areas and some logistics areas. The selected avenue is presented in Figure 33.



Figure 33: The Maslak Çeşme Avenue in the Living Lab.

Measurement categories		CC Value	LL Value	Rating	Notes
Demographic characteristics (e.g., age)	-Men/women distribution	80.5	101.2	✓	
	-Old-age dependency ratio	30.01%	7.60%	✓	
	-Young-age dependency ratio	15.59%	27.60%	✓	
Land use and urban form (density, diversity)	-Proximity to Green, Blue and Public Spaces	99.5	49.0	+	The selected avenue in the LL lacks green and public areas. Additionally, the area in the CC is adjacent to the seaside, which enhances accessibility to the blue areas.
	-Proximity to Essential Services	99.9	80.6	✓	
	-Urban Density- Total Built-Up Area Ratio	54.9%	43.8%	✓	
	- Urban Density - Built-up Surface	21.6	24.97	✓	
	- Diversity of Land Use	11	11	✓	Both of two areas shares almost same land use classes such as commercial areas, educational areas, health facilities eg.
	-Population Density (people/sq.km)	18.410,82	38.216,42	✓	
Transport & active mobility infrastructure	- Active mobility Infrastructure	Bike sharing Shared scooters Bicycle roads	Bike sharing Shared scooters	+	Bicycle infrastructure could be enhanced in the LL.
	-Proximity to Public Transport and DRT	100	78.5	✓	

Digital infrastructure (digitalization) - if applicable	-Availability of Multi-modal mobility Services	Light Rail System	Buses	✓	
		Buses	Shared mopeds		
		BRT	Carsharing		
		Shared mopeds	Bike sharing		
		Carsharing	Taxi		
Urban Design (slope, road density)		Bike sharing	Shared scooters		
		Taxi	Ride-hailing		
		Shared scooters			
		Ride-hailing			
	- Road density	35.20	22.78	✓	The road density in the LL area is higher than in the CC area because the LL contains many buildings closely connected by roads. Additionally, the roads in the LL intersect at nearly right angles, forming a denser and more regular street network.
	- Road Intersections density	452	233.90	✓	
	- Average slope	6°.4	6°.6	✓	

Table 49: KPIs Analysis of strategy 1 for Istanbul/Küçükçekmece

2.2 Coherence Analysis

Criterion	CC Context Summary	LL Context Summary	Rating	Notes
Governance Structures	Are municipal policy instruments & technical capacities compatible with 15-Minute City goals?	IMM and Kadıköy Municipality have advanced planning frameworks aligned with 15-Minute City principles, including the Istanbul SUMP, Pedestrian Master Plan, and strategic	Küçükçekmece Municipality has basic strategic planning instruments and follows IMM's broader urban mobility and land-use policies. Also,	✓

		focus on inclusive mobility. There is strong technical capacity for project design and implementation.	their implementation and coordination capacities are developing which could be utilized within the 15-Minute City principles.		
Alignment with Planning	Do local planning objectives and SUMP/land-use plans support this intervention?	The intervention aligns with the Istanbul SUMP (Stage I & II), Pedestrian Master Plan (2022), and Kadıköy Municipality's vision for public space and pedestrianization. The area is also designated as a Low Emission Zone.	Küçükçekmece is included in IMM's regional and environmental plans but lacks specific local plans addressing 15-Minute City goals. Some pilot projects exist, but strategic alignment with SUMP or active mobility policies is limited. However, these pilot projects may precede other initiatives that could achieve the goals of the 15-Minute City	+	Although the 15-Minute City objectives are not explicitly defined in Küçükçekmece, the existing pilot projects lay the groundwork for their potential implementation.
Alignment with Projects	Does this action complement ongoing local projects compatible with 15-Minute City goals?	The Mehmet Ayvalıtış Square project complements IMM's active mobility, public space, and climate resilience strategies. It is also part of EU-aligned tactical urbanism pilots.	In Küçükçekmece, ongoing urban regeneration and mobility efforts include the establishment of new cycling paths, green spaces, and areas for people. However, these initiatives are not	✓	

yet explicitly framed within the 15-Minute City or integrated mobility principles.

Citizen Participation	CC: Were there a structured participation process to implement this strategy? If positive, which were the feedbacks? LL: Does the municipality have frequent and structured participation process? Was there any participation process regarding this intervention or similar? If positive, did the feedback from previous participatory processes endorse this intervention?	A structured and iterative participatory process was conducted in Kadıköy with residents, NGOs, and stakeholders involved in co-design. Feedback emphasized inclusivity, greenery, and safety for all age groups.	Stakeholder involvement in Küçükçekmece is growing but less formalized. Potential exists to engage IMM departments, local NGOs, and residents more actively in planning and monitoring processes.	✓
Stakeholder Involvement	CC: Have key stakeholders been engaged, with clear roles defined for implementation? LL: Are there stakeholders who are interested in or engaged with	Within the IMM, there are different departments focused on pedestrianization, each responsible for conducting related projects.	Küçükçekmece Municipality aims to enhance pedestrianization and implement sustainable urban mobility solutions throughout the municipality.	✓

the
implementation?

Table 50: Coherence Analysis of strategy 1 for Istanbul/Küçükçekmece

2.3 Feasibility Check

Criterion	Description	LL Context Summary	Rating	Notes
Budget & Funding	Are financial resources or funding streams available for this action? Could funds allocated to similar plans or objectives also support this action? Are there existing funding opportunities aligned with the goals of this action? What sources of funding have been identified for similar initiatives that could also be applicable here?	Küçükçekmece Municipality's budget is relatively constrained, with limited dedicated funds for pedestrianization or tactical urbanism projects. However, co-financing through Istanbul Metropolitan Municipality (IMM) is possible, especially for initiatives that align with IMM's Sustainable Urban Mobility Plan, environmental goals, or regional public space improvement projects. National and international sources—such as EU IPA programs, Horizon Europe, or İLBANK urban transformation funds—could be leveraged with proper project development. Past mobility-related pilot projects have received partial support from external grants or regional cooperation schemes.	✓	

Table 51: Feasibility Check of strategy 1 for Istanbul/Küçükçekmece

2.4 Adaptations & Proposed Actions

After the KPIs calculation, coherence and feasibility assessment, it was determined whether adjustments or mitigation measures were needed.

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	+	Capacity-building workshops; appoint project coordination team
Planning Alignment	✓	Integrate project into local plan through IMM support
Projects Alignment	+	Pilot tactical urbanism intervention on selected avenue
Citizen Participation	+	Implement structured public engagement activities (e.g., workshops, surveys)
Stakeholder Involvement	✓	Organize kick-off with defined roles and commitments
Demographic Characteristics	+	Ensure age-inclusive design; monitor equity impacts
Land Use & Form	+	Emphasize multifunctionality in design; enhance land use diversity
Transport Infrastructure	✓	Maintain and expand existing mobility infrastructure
Digital Infrastructure	+	Integrate basic digital tools for mobility and participation
Urban Design	✓	Improve intersection safety; reclaim parking space

Table 52: Adaptations & Proposed Actions for strategy 1 for Istanbul/Küçükçekmece

Summary: Coherence is strong across all dimensions, and feasibility is confirmed despite a constrained municipal budget. Multiple adaptations are identified across governance, demographics, land use, and digital infrastructure to ensure a successful transfer.

STRATEGY 2 - Path A – Transfer of Existing Core- City Strategy and Its Actions/Measures

Step 1: Selection of Strategy and Its Actions/Measures

Title:	Urban Logistics Centers (ULCs) and Micro Distribution Centers (MDCs) for Last-Mile Optimization
Objectives & Scope:	Optimize last-mile delivery processes by establishing MDCs within or near densely populated urban areas (like Küçükçekmece). The primary goal is to reduce the entry of large, polluting freight vehicles into urban cores, decrease traffic congestion, lower emissions, and enable faster, more flexible delivery using light, zero-emission vehicles (e.g., e-cargo bikes, scooters, small electric vehicles).
Actions:	1. Site Identification and Retrofit: Locate small, suitable urban spaces (e.g., underutilized municipal property, parking garage ground floors) in Küçükçekmece for MDC establishment. 2. Operational Shift (Hub-and-Spoke): Goods are consolidated at a larger ULC/major hub (e.g., near İkitelli/Basın Ekspres), transferred to the MDCs by medium-sized vehicles, and then distributed from MDCs using a zero-emission, active mobility fleet. 3. Infrastructure Development: Develop charging infrastructure and secure parking for the zero-emission fleet at the MDCs. 4. Incentivization: Offer incentives (e.g., privileged access/parking/fee reductions) for local businesses and logistics operators adopting the MDC model.
Target KPIs:	• Main KPI groups: Demographic characteristics; Land use and urban form; Transport & active mobility infrastructure; Proximity to Feeder Hubs; Urban Design; Existing Logistics Infrastructure.

(See Section 2.1 - KPIs Analysis for the detailed breakdown and values).

Stakeholder:

- Istanbul Metropolitan Municipality (regulatory support, coordination with mobility master plans)
- Küçükçekmece Municipality
- Local business owners, logistic firms and delivery firms, and shopkeepers' associations (co-design and cooperation)
- Residents and neighborhood councils (public input and feedback)
- Urban design consultants, accessibility, and mobility NGOs (technical design and audits)

Table 53: Description of strategy 2 for Istanbul/Küçükçekmece

Step 2: Characterization of Context and Assessment of Transferability

2.1 KPIs Analysis

Istanbul, with its population capacity, economic structure and scale, production areas, port facilities, and aviation activities, stands as a major production and consumption center. This large volume in consumption and production generates significant logistical activity in Istanbul. Istanbul has numerous freight production and attraction centers, including Organized Industrial Zones (OIZ), customs and free zones, wholesale markets, production and wholesale sites in various sectors, small industrial sites, logistics storage and centers, ports, and airports (Figure A). Additionally, numerous commercial centers and sub-centers create substantial logistical activities due to the daily urban supply chain. The continuous increase in e-commerce volume and daily retail e-commerce activities (such as food and groceries) also result in numerous logistical activities within the city.

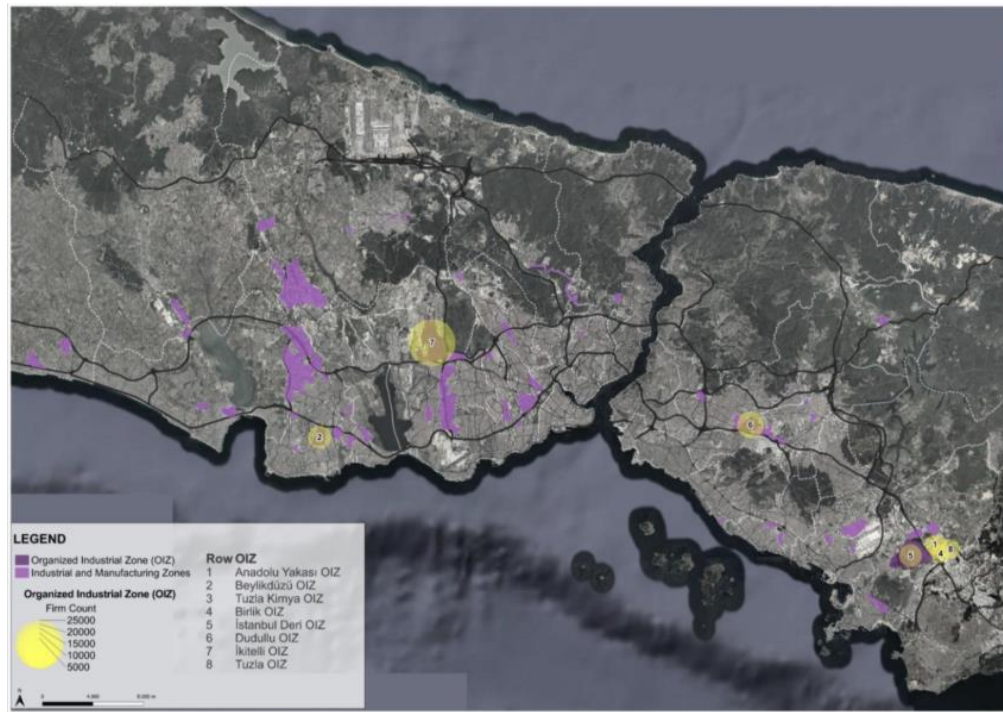


Figure 34: Industrial Areas in İstanbul (IMM 1/5.000 Plans)

The proposed land use allocations in İstanbul's 1/5000 scale development plans reveal a significant preference for industrial areas, which account for 91% of the total proposed area (62.2 million m²), while storage areas comprise only 9% (6.5 million m²). Regionally, the European Side (West İstanbul) is planned to accommodate a larger share, with 45.5 million m² (66%) of the total, while the Anatolian Side (East İstanbul) comprises 23.2 million m² (34%). However, the East has a relatively higher share of proposed storage areas (14%) compared to the West (7%), primarily due to significant allocations in Kartal (1.5 million m², 52%) and Ümraniye (1.76 million m², 32%). These two districts alone contribute over 99% of the East's total proposed storage areas, indicating their strategic importance in logistics and warehousing functions. In contrast, the Western districts overwhelmingly prioritize industrial land. Notably, Büyükçekmece (13.7 million m²), Çatalca (9.7 million m²), and Silivri (9 million m²) are major industrial zones, together accounting for over 70% of the West's industrial land allocation. These districts also offer modest storage areas, but the storage share remains under 15%, reflecting a strong manufacturing-oriented planning approach. Districts such as Bağcılar, Bahçelievler, Bayrampaşa, and Küçükçekmece have no proposed storage areas despite substantial industrial allocations, indicating a lack of integrated logistics planning in these inner-city zones. Overall, the data highlights a limited attention to storage functions, especially on the European side and Küçükçekmece. This pattern suggests the need to balance industrial expansion with adequate warehousing and logistics support, particularly in regions with high freight and manufacturing activity.

İstanbul has historically been an important port city in terms of trade and maritime activities in every period. In the past, the ports located on the Historical Peninsula and the Golden Horn shores were largely

moved from the Karaköy Port (Galata Port) region to the Haydarpaşa Port due to rapidly increasing urbanization, the ports remaining within the city, and the current ports not being able to meet the needs of developing maritime transportation and increasing cargo volume. In the following periods, comprehensive studies were carried out in 1953 and 1967 in order to transform Haydarpaşa Port into a modern port, and studies were carried out in accordance with the needs in the dock, breakwater and field areas, and because of the studies, Haydarpaşa Port became the main port of the city. Due to the rapidly increasing maritime transportation cargo volume in Turkey and the fact that Haydarpaşa Port could not find expansion areas and could not meet the needs of the city, new port investments were started in the Ambarlı Port region in 1989. In 1999, the Tuzla Port region was opened for use. The cargo handled in the İstanbul port area is processed in three port facilities, namely Ambarlı, Haydarpaşa and Tuzla ports. Ambarlı has become İstanbul's primary cargo port, overtaking Haydarpaşa by a wide margin due to rapid expansion in the early 2000s. After the new port investments, the total cargo volume of the İstanbul port area has shifted to the Ambarlı port area to a large extent. Ports are one of the points that produce and attract the most intensive logistics activities along with industrial and production areas. İstanbul, being a commercial gateway due to its location, hosts ports where both passenger and freight transportation is carried out. While Haydarpaşa, Ambarlı and Pendik Ports are logistics ports, İstanbul Galataport is a cruise port for touristic purposes. Opened in 1999 as a result of the inadequacy of the İstanbul Port in 1998, Zeytinburnu Port is the only port in İstanbul that provides both freight and passenger transportation. Ports where cargo transportation is actively carried out as well as fishing ports are shown on the map. (Figure 35)



Figure 35: Current Sea Structures in İstanbul

This strategy directly addresses the primary challenge identified in the context: İstanbul's role as a major production and consumption center generating immense logistical activity, coupled with a severe lack of integrated logistics planning and storage areas in inner-city industrial zones like Küçükçekmece. The MDC strategy provides the crucial "missing link" between large-scale industrial areas (like those in Büyükçekmece and Çatalca) and the high-density consumption centers.

Also, this strategy is selected because Küçükçekmece sits at a critical junction; it has dense residential areas with high last-mile delivery demand, and it is adjacent to major freight generators like the İkitelli Organized Industrial Zone (OIZ) and key transit corridors (E-5, TEM). The MDC model directly addresses the major challenge of heavy vehicles penetrating urban cores, offering a clear path to reduce traffic, noise, and emissions by shifting the final delivery leg to a zero-emission, active mobility fleet (e.g., e-cargo bikes, small electric vehicles).

Measurement categories		CC Value	LL Value	Rating	Notes
Demographic characteristics (e.g., age)	-Men/women distribution	45-55%	50-50%	✓	High population density in both requires efficient, space-saving last-mile solutions.
	-Old-age dependency ratio	30.01%	32.40%	✓	
	-Young-age dependency ratio	15.59%	10.30%	✓	
Land use and urban form (density, diversity)	-Proximity to Green, Blue and Public Spaces	99.5	49.0	+	Finding space for MDCs is challenging in Küçükçekmece, but potentially more feasible than in the highly constrained historical/commercial core (CC). Requires creative site identification
	-Proximity to Essential Services	99.9	80.6	✓	
	-Urban Density- Total Built-Up Area Ratio	54.9%	43.8%	✓	
	- Urban Density - Built-up Surface	18.5	28.5%	✓	
	- Diversity of Land Use	11	11	✓	
	-Population Density (people/sq.km)	18.410,82	17.170,10	✓	

Transport & active mobility infrastructure	- Active mobility Infrastructure	Bike sharing Shared scooters Bicycle roads	Bike sharing Shared scooters	+	The necessary infrastructure (e-cargo bike lanes, charging/secure parking) is currently nascent and needs dedicated development to support the MDC model.
	-Proximity to Public Transport and DRT	100	78.5	✓	
Proximity to Feeder Hubs	- Proximity to Major Freight Corridors (E-5/TEM/İkitelli)	Limited	High	✓	Küçükçekmece's proximity to major industrial/freight corridors makes the 'hub-and-spoke' model highly relevant, using these roads to efficiently feed the MDCs.
Urban Design (Road network suitability)	- Suitability for small electric vehicles	High Suitability	High Suitability	✓	The last-mile delivery component (e-cargo bikes) is well-suited to the dense, often narrow street network typical in Küçükçekmece neighborhoods.
Existing Logistics Infrastructure	- Proximity to existing large hubs	Low	Moderate (Proximity to İkitelli OIZ)	✓	Leveraging proximity to existing external hubs for consolidation before MDC transfer is key to the strategy's success in LL.

Table 54: KPIs Analysis of strategy 2 for Istanbul/Küçükçekmece

2.2 Coherence Analysis

Criterion	CC Context Summary	LL Context Summary	Rating	Notes
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Governance Structures	Central IMM Logistics Management unit is established.	Same as CC. IMM's central unit has authority over the LL area.	✓	Central governmental and technical capacity exists for planning and execution.
Alignment with Planning	Aligned with IMM's Logistics Master Plan (İSTLAP) and SUMP goals (modal shift, emission reduction).	Same. The strategy directly supports IMM's sustainable logistics vision and SKHP goals.	✓	The strategy is a core component of Istanbul's future logistics planning.
Alignment with Projects	Complements existing regulations (e.g., LOGİS) and general smart city initiatives.	Complements local urban renewal and mobility projects in Küçükçekmece by reducing heavy vehicle intrusion.	✓	MDCs inherently reduce the need for large vehicles regulated by LOGİS, easing local traffic.
Citizen Participation	Limited in previous technical projects.	Strong local engagement is required to identify acceptable MDC sites and manage neighborhood concerns (e.g., noise, security) regarding sites near residential areas.	+	Needs a structured approach to secure community support, especially for site identification .
Stakeholder Involvement	Requires strong cooperation between IMM, local municipalities, and private logistics operators.	Requires strong cooperation, particularly with logistics providers operating in nearby industrial zones (İkitelli/Basın Ekspres).	+	Needs to secure buy-in and investment from private logistics firms to change established delivery practices and transition the fleet.

Table 55: Coherence Analysis of strategy 2 for Istanbul/Küçükçekmece

2.3 Feasibility Check

Criterion	description	LL Context	Rating	Notes
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Budget & Funding	Are financial resources or funding streams available for this action? Could funds allocated to similar plans or objectives also support this action?	Potentially. IMM has capital investment capacity for infrastructure. National or EU funding (e.g., Green Deal, Horizon Europe) can be pursued for sustainable pilots.	+	Direct, secure funding for <i>all</i> required MDCs and fleet investment must be confirmed. The strategy relies heavily on finding external or private funding.
	Is there existing funding opportunities aligned with the goals of this action?	Yes. Istanbul SKHP's sustainable goals (low-carbon transition) align with this strategy, making it eligible for relevant funding calls.	✓	
	What sources of funding have been identified for similar initiatives that could also be applicable here?	EU-funded pilots, partnerships with the private logistics sector (PPP model), IMM capital budget.	✓	

Table 56: Feasibility Check of strategy 2 for Istanbul/Küçükçekmece

2.4 Adaptations & Proposed Actions

Measurement	Rating	Proposed Adaptation / Mitigation
Governance Structures	✓	-
Planning Alignment	✓	-
Projects Alignment	✓	-
Citizen Participation	+	Build a Structured Participation Process: Initiate neighborhood meetings and surveys in Küçükçekmece to address site selection concerns and potential noise/security issues related to MDCs, building local consensus before sites are finalized.
Stakeholder Involvement	+	Enhance cooperation btw firms and municipality: Formally engage major courier/logistics companies operating in the İkitelli corridor/Küçükçekmece to co-fund/operate MDCs and commit to fleet transitions and technology sharing.
Space Availability for MDCs	+	Mitigation: Prioritize the use of existing underutilized municipal assets (e.g., ground floor of İSPARK or abandoned structures) for cost-effective site development to reduce land acquisition costs.
Active mobility Infrastructure	+	Mitigation: Integrate the development of charging/secure parking infrastructure for e-cargo bikes directly into the MDC site plans and link them to planned bike route extensions in Küçükçekmece.

Budget & Funding	+	Mitigation: Dedicate a specific portion of the IMM's transportation budget for a pilot MDC in Küçükçekmece and actively apply for EU grants (e.g., LIFE or Horizon programs) for the initial fleet investment.
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Table 57: Adaptations & Proposed Actions for strategy 2 for Istanbul/Küçükçekmece

Summary: Coherence is solid and feasibility is largely confirmed. Similar to Strategy 1, adaptations are necessary in stakeholder involvement, land use multifunctionality, and digital tool integration.

7. Comparative Synthesis of Transferability Assessments

7.1. Comparative Interpretation of Path A Strategies

This section synthesises the comparative findings of all Path A transferability assessments, including Debrecen- Kertváros, Lisbon–Alverca, Istanbul-Küçükçekmece, Madrid-Las Rozas, and Hamburg-Altona. The comparison is structured around three interrelated dimensions: (i) similarities and differences in selected strategies, (ii) contrasts between Core City and Living Lab KPI profiles, and (iii) the ways in which contextual conditions mediate the relationship between strategy performance and final transfer decisions. Rather than treating transferability as a purely technical issue of spatial indicators, the analysis conceptualises it as a relational process shaped by urban form, governance capacity, and the conditions of everyday life. The comparison tables are annexed to the present document.

7.1.1. Strategy Selection as Reflections of Urban Life Orientations

Across all Path A cases, there is a strong convergence in the thematic orientation of selected strategies. All cities prioritise interventions related to active mobility, walkability, and public space quality, underscoring the shared understanding that sustainable mobility and everyday proximity form the backbone of the 15-Minute City. Debrecen emphasises shared micro-mobility and cycling infrastructure; Altona prioritises multifunctional neighbourhood hubs; Küçükçekmece focuses on both street transformation and urban logistics; Alverca targets public-space based micro-centralities; and Las Rozas advances pedestrianisation through zero-emission zones.

Despite these thematic similarities, the functional depth and systemic reach of the strategies vary considerably. Debrecen and Las Rozas pursue relatively mono-sectoral mobility transformations, primarily focused on movement and access. In contrast, Hamburg and Küçükçekmece advance multi-sectoral strategies that tightly integrate mobility with logistics, digital infrastructure, social services, and governance structures. Alverca occupies an intermediate position, where physical public-space regeneration is closely intertwined with social life, local commerce, and everyday centrality. This differentiation in strategic depth is directly reflected in the final transfer decisions: strategies addressing a narrow functional domain tend

to be suitable for copying, whereas those embedded within complex institutional and sectoral interdependencies systematically require emulation.

7.1.2. Core City and Living Lab KPI Profiles: Structural Similarities and Spatial Frictions

Across all Path A cases, the Core City and Living Lab contexts display a high degree of structural compatibility in fundamental demographic terms. Men–women distributions remain highly aligned between Core Cities and Living Labs in all cases, indicating stable population compositions across scales. Similarly, both old-age and young-age dependency ratios show only minor variations between Core Cities and Living Labs. Even in Madrid and Lisbon, where small deviations appear, the range was evaluated as ok (✓). This demographic stability suggests that population structure does not function as a binding constraint on strategy transfer in any of the cases.

In contrast, land use and urban form indicators reveal more pronounced spatial frictions. Proximity to green, blue, and public spaces remains very high across most Living Labs, often exceeding 90% (as detailed in the individual KPI analysis tables), as observed in Hamburg, Lisbon, and Debrecen. However, Madrid and Istanbul display notable differences between Core City and Living Lab values, indicating more uneven access conditions in the Living Lab environments. Proximity to essential services remains consistently high across all cases, confirming that all Living Labs already operate within structurally supportive proximity environments in functional terms.

Urban density indicators, however, reveal significant contrasts. Hamburg, Madrid, Lisbon, and Debrecen all show substantial reductions in population density between Core City and Living Lab, while Istanbul represents the only case where Living Lab density clearly exceeds that of the Core City. These density differentials translate into fundamentally different conditions for everyday encounter, public life intensity, and service catchment dynamics. The data demonstrate that numerical proximity to services can coexist with very different experiential intensities of urban life.

Land-use diversity remains generally stable where measured, with Hamburg and Istanbul maintaining comparable diversity levels between Core City and Living Lab.

Transport and active mobility infrastructure presents one of the strongest areas of structural alignment across all cases. Proximity to public transport and demand-responsive transport reaches or approaches 100% in almost all Core Cities and Living Labs. Active mobility infrastructure coverage also remains broadly comparable between Core City and Living Lab in Hamburg, Madrid, Lisbon. Debrecen, however, stands out with a very strong contrast between its Core City and Living Lab values, reflecting an infrastructural gradient between central and peripheral environments.

Digital infrastructure introduces a further layer of differentiation. While Hamburg and Madrid show moderate gaps in fully integrated multimodal digital systems, Debrecen treats digitalisation as largely non-applicable for its micro-mobility and cycling strategy. In contrast, Istanbul-Küçükçekmece's urban logistics strategy fundamentally depends on digital coordination, data-driven management, and platform-based

delivery systems. This demonstrates that digital readiness operates as a strategy-specific condition rather than a universally decisive transferability factor.

Urban design and network morphology indicators introduce the most visible spatial contrasts between Core Cities and Living Labs. Road density remains relatively stable in Hamburg, Lisbon, and Debrecen, but shows considerable reductions in Madrid and Istanbul. More critically, road intersection density, one of the strongest proxies for pedestrian permeability, declines sharply from Core City to Living Lab in Madrid, Lisbon, and Istanbul. Lisbon exhibits the most pronounced drop, indicating a substantial weakening of fine-grained walkable structure in the Living Lab relative to the Core City. By contrast, Hamburg retains a relatively high degree of network continuity across both contexts.

Average slope values remain low across all cases and vary only marginally between Core Cities and Living Labs, indicating that topographic constraints do not represent a significant barrier for transferring the selected strategies in any of the studied environments.

Taken together, these findings demonstrate that while demographic and functional proximity conditions are highly consistent across Core Cities and Living Labs, substantial differences emerge in population density, spatial connectivity, digital readiness, and fine-grained walkability. These differences do not contradict the presence of a 15-minute territorial structure but rather reveal that the lived quality of proximity, such as its intensity, permeability, and infrastructural support, varies systematically across urban contexts.

7.1.3. Core City and Living Lab Coherence and Feasibility Discussion

Across all Path A cases, governance structures are broadly compatible with 15-Minute City principles. While institutional capacity varies, ranging from the metropolitan strength of Istanbul's IMM to the more locally constrained contexts of Küçükçekmece and Alverca. In the mean time, no case displays a level of misalignment that would block transfer. What differentiates the cases more clearly is their degree of integration into formal planning instruments: Madrid, Lisbon, and Debrecen show full alignment with existing strategic plans, while Hamburg and Istanbul exhibit only partial statutory embedding.

Project alignment is consistently strong. All strategies build directly on ongoing urban initiatives, confirming that Path A transfers function as extensions of existing transformation processes rather than as stand-alone interventions.

Citizen participation emerges as the most uneven dimension. Hamburg, Madrid, Istanbul, and Debrecen display structured or semi-structured participation frameworks, whereas Lisbon–Alverca shows a comparatively weak participatory foundation. This does not prevent transfer but increases the need for procedural adaptation to ensure local legitimacy. A similar pattern appears in stakeholder organisation:

Madrid, Istanbul, and Debrecen rely on clear municipal leadership, while case of Hamburg and Lisbon involve more fluid and complex constellations.

Funding conditions are generally positive but uneven. Hamburg benefits from a highly robust multi-level funding structure, Madrid from Next Generation EU support, and Istanbul from stable metropolitan financing. Debrecen's low-cost strategies achieve high feasibility within existing budgets. Lisbon–Alverca stands out for its financial uncertainty.

Overall, high transferability is associated with the joint presence of strategic plan alignment, stakeholder clarity, and predictable funding. Where one of these dimensions is weaker, transfer remains feasible but requires targeted adaptation.

7.1.4. Contextual Mediation Between KPI Performance, Institutional Readiness, and Strategy Transfer

Across the Path A cases, the comparison between Core City and Living Lab KPI values reveals that numerical gaps between contexts do not lead to uniform transferability judgments. Instead, the same type of divergence—such as differences in density, proximity, or infrastructure provision—can be interpreted as either critical or non-critical depending on the **nature of the selected strategy and the functional role of the Living Lab within the wider urban system**. This confirms that KPI values are not evaluated in isolation but are mediated by strategic intent and spatial context.

Debrecen constitutes the only case where transfer approximates structural continuity. Both selected strategies, such as shared micromobility deployment and extension of the cycling network are embedded within the same municipal governance system, the same SUMP framework, and highly comparable demographic and land-use conditions. The near-identity of CC and LL accessibility patterns, density metrics, and mobility service structures allows the strategies to operate as direct extensions rather than adaptations.

By contrast, Madrid-Las Rozas demonstrates how a pedestrianisation strategy originating in dense metropolitan environments undergoes a clear shift in operational logic when transferred to a low-density suburban context. While public transport accessibility remains relatively strong, the pronounced differences in population density, land-use intensity, and multimodal richness require the strategy to function through selective, corridor-based, and node-specific pedestrianisation rather than continuous urban car-free fabrics. The CC–LL gap therefore does not block transfer, but instead redefines its spatial expression from symbolic metropolitan transformation to localized suburban restructuring.

In Istanbul, the CC–LL contrast is most strongly expressed in environmental quality, green space access, and urban morphology. Here, strategy transfer operates primarily as a corrective intervention. The street transformation programme is not transplanted into a structurally similar environment but is deployed to

compensate for existing deficits in public space provision, pedestrian comfort, and spatial continuity. The effectiveness of transfer, therefore, is not derived from background compatibility but from the capacity of the strategy to directly address place-specific structural weaknesses. By contrast, the urban logistics strategy follows a system-based transfer logic, where feasibility is driven less by urban morphology and more by institutional centralisation, private operator coordination, and digital platform readiness, demonstrating that Istanbul's Path A transfer operates simultaneously through both spatial correction and infrastructural system reconfiguration.

Lisbon (Alverca) illustrates a different form of contextual mediation, where governance and planning alignment remain high, but spatial structure becomes the dominant limiting factor. While institutional readiness supports transfer - leaving aside the financial uncertainty -, the low road intersection density and suburban urban form restrict the walkability logic that underpins the original Lisbon programme of micro-centrality regeneration. As a result, transfer proceeds selectively and conditionally, strongly tied to anticipated densification processes associated with the ReGreenation project. Here, the CC–LL gap reshapes not the legitimacy of the strategy, but its temporal and spatial feasibility.

Hamburg occupies a somewhat distinct position among the cases. Spatial indicators between the Core City hub locations and Lurup are largely aligned, and the existing level of multimodal accessibility supports the basic logic of the multifunctional hub concept. The main limitations for transfer do not stem from weak governance capacity, but rather from the fact that the hub concept is not yet fully embedded in formal land-use instruments and from the need for clearer long-term role definitions among stakeholders beyond the MOVE21 project framework. In this sense, the CC–LL gap in Hamburg is less spatial and more related to planning formalization and long-term institutional arrangements, affecting how firmly the strategy can be integrated over time.

Taken together, Path A cases suggest that strategy transfer is shaped not only by the magnitude of CC–LL differences, but more importantly by how these differences interact with the internal logic of each strategy. Strategies with a strong spatial and morphological focus, such as those in Madrid and Lisbon, appear more sensitive to variations in density, intersection structure, and land-use configuration. In Istanbul, where the strategy is oriented toward public space improvement, transfer is closely linked to the presence of existing spatial deficits rather than to pre-existing similarity. In Debrecen, mobility-based strategies benefit from institutional continuity between the Core City and the Living Lab. In Hamburg, the multifunctional hub strategy appears to be influenced less by spatial differences and more by the degree of formal planning integration and the clarity of long-term institutional arrangements.

7.2. Comparative Interpretation of Path B Strategies

The Path B cases reveal a substantially different transfer logic from Path A, because the strategies are not derived from a Core City model but instead emerge directly from locally identified gaps and structural constraints. As a result, the key analytical question shifts from “Can the LL replicate the CC?” to “Can a new

strategy be internally justified, institutionally absorbed, and spatially operational within the LL's context?" Across Lurup and the two Settimo Torinese strategies, three patterns become evident.

By contrast, both Turins' Path B strategies are explicitly compensatory. The enhanced DRT strategy responds to systemic mobility gaps in low-density and peripheral areas, particularly temporal inaccessibility, fragmented service structures, and limited data feedback for public transport planning. Its feasibility is largely detached from classical spatial KPIs and instead hinges on regulatory adaptability, inter-operator coordination, and digital system integration. The cycling-to-industry strategy, however, is structurally dependent on spatial performance. Here, flat terrain, linear corridors, and the clear separation between residential cores, railway stations, and industrial peripheries directly justify the spatial logic of the intervention, while infrastructural barriers such as highways and rail lines become the key limiting conditions to be mitigated.

In Lurup, the Educational and Mobility Ribbon emerges from the presence of wide traffic corridors, fragmented walking and cycling networks, and strong physical and perceptual barriers along main roads that particularly affect school accessibility and neighbourhood connectivity. Rather than compensating for a lack of basic public transport provision, the strategy targets relational proximity by structurally reconnecting dispersed educational, social, and mobility facilities through continuous, green, and traffic-calmed routes. Its feasibility is supported by district-level governance frameworks such as RISE and Bezirksamt Altona and by established participatory structures, yet it remains dependent on sustained cross-sectoral coordination between education, mobility, and public space actors. In this sense, Hamburg's Path B strategy operates as a spatial integration mechanism for overcoming internal fragmentation.

Taken together, the Path B cases demonstrate that new strategy formation is governed less by comparative spatial performance and more by the type of structural deficit being addressed. Where deficiencies are systemic, as in the Italian DRT case, institutional and regulatory conditions dominate feasibility. Where deficits are spatial, as in Lurup and the Settimo Torinese's cycling strategy, urban form, connectivity, and land-use configuration regain central importance.

8. Conclusion

This research demonstrates that the success of 15-Minute City strategies does not depend on achieving spatial uniformity between urban contexts, but on the strategic alignment between local urban structure, institutional capacity, and the internal logic of each intervention. Path A strategies function through reinterpretation rather than replication, while Path B strategies operate through diagnostic adaptation rather than borrowing.

Together, the findings confirm that effective proximity planning requires not only spatial metrics, but also institutional readiness, governance clarity, and context-sensitive design logic. The 15-Minute City, therefore, should be approached not as a universal spatial model, but as a framework for place-specific negotiation between proximity, governance, and everyday urban life.

Three key theoretical implications emerge from the comparative analysis:

First, the 15-Minute City must be understood as a relational and adaptive framework rather than a fixed spatial template. Proximity is not only a matter of distance or service count, but also of density, street connectivity, environmental quality, and governance capacity.

Second, KPI performance alone is not predictive of transferability. Identical indicator values can lead to different outcomes depending on whether the strategy is corrective, connective, systemic, or integrative in nature.

Third, institutional embedding is as decisive as spatial structure. Hamburg and Lisbon demonstrate that even where spatial conditions are favourable, incomplete statutory formalisation and unclear long-term stakeholder roles can limit the stability of strategy transfer.

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Annex - Comparison tables

Path A Strategies - KPIs Analysis

Measure	Metric	Hamburg			Madrid			Istanbul		
		Neighborhoods			Pedestrianisation strategy			Street Program		
		CC	LL		CC	LL		CC	LL	
Demographic	Men/women	0.93%	0.96%	?	91.22%	94%	?	80.5	101.2	?
	Older/younger	18.1 %	18.0%	?	0.177	0.223	+	30.01%	7.60%	?
	Dependent	7.2%	7.7%	?	0.397	0.232	?	15.59%	27.6%	?
Labor force	Employed	95.37%	99.66%	?	78.05	93.66	+	99.5	49.0	+
	Prioritized	100%	99.91%	?	81.6	93.75	+	99.9	80.6	?
	(Unemployed)	27.64	15.56	?	86.96	94.08	+	54.9%	43.8%	?
	(Unemployed)							21.6	24.97	?
	Direct use	12	10	?			?	11	11	?
Transport & Infrastructure	Regulation	4516.21	846.33	?	28672	6982	?	18.4	10,8	38.2
	Infrastructure	37.19%	30.03%	?	5.48	5.12	?	shBikes, scooters	shBikes, scooters	+
	Priority	100%	100%	?	92.7	96.66	?	100	78.5	?
Infrastructure	Availability	ShBikes, scooters	ShBikes, scooters	+	Urban/Vinter standing	Urban/Vinter parking	+	ShBikes, scooters	ShBikes, scooters	?
	(KPI?)	43.71	42.42	?	8.144	4.207	+	35.20	22.78	?
	Integration	1141.06	914.66	?	821.61	325.26	+	452	233.9	?
Design	Average	3.88°	3.93°	?	2.3	3.8	?	6°.4	6°.6	?

Measurement	Measurement Specific	Istanbul			Lisbon			Debrecen		
		Urban Logistics Centers			Average in Every			Average in Every		
		CC	LL		CC	LL		CC	LL	
Demographics	Mis/bottom	45–55%	50–50%	?	85.29	90	?	13.2%	13.2%	?
	Older age	30.01%	32.40%	?	0.40	0.43	?	66.6%	66.6%	?
	Younger age	15.59%	10.30%	?	0.21	0.26	?	20.2%	20.2%	?
	Urban, cities	99.5	49.0	+	95.59	92.3	?	37.00%	90.0%	?
Urban form	Proximity to	99.9	80.6	?	98.41	97.05	?	72.00%	90.0%	?
	Urban density	54.9%	43.8%	?	90.65	87.8	?	N/A	N/A	?
	Urban density	18.5	28.5 %	?	85.35	121.59	?	197 pp	197 pp	?
	Diversity of	11	11	?				N/A	N/A	?
Infrastructure	Population	18,410.82	17,170.10	?	12375	6962	?	3369	2539	?
	Infrastructure	Bike lanes	Bike lanes	+	7	5.85	?	180	21,6	?
	Proximity to	100	78.5	?	100	100	?	0,99	1	?
	Availability of	50% (High)	Limited LL High	?	Urban	Urban/intercity	?	N/A	N/A	?
Urban design	Road density	15 km2	CC Low	?	22.38	23.49	?	7,7 km2	7,8	?
	Intensity	Urban design	Urban design	?	639.72	241.15	?	N/A	N/A	?
	Average slope	Urban design	Urban design	?	3,93	4,74	?	0,1–0,5	0,5–	?

Path A Strategies - Coherence Analysis

Criterion	Hamburg				Madrid				Istanbul			
	Multifunctional Neighbourhood Hubs				Pedestrianisation strategy				Street Transformation Program			
	CC	LL			CC	LL			CC	LL		
Governance	Small Cities: Local Authorities	Bottom-up	?	(compatible)	(compatible)	?	Mayor's Office	Local Residents	?			
Planning	Aligned with vision and strategy	Strategic	+	Yes	Yes	?	Yes	Included in IM	?			
Alignment	Yes	Yes	?	Yes	Yes	?	Yes	Yes	?			
Participati	Yes	Yes	?	Yes	Yes	?	Yes	Yes	?			
Stakehold	Yes	Yes	?	Yes	Yes	?	Yes	Yes	?			
Criterion	Istanbul				Lisbon				Debrecen			
	Urban Logistics Centers				A Square in Every Neighbourhood				Extension of the existing network			
	CC	LL			CC	LL			CC	LL		
Governance	Central IM established	Small-scale	?	Central IM established	Small-scale	?	Central IM established	Small-scale	?			

Alignment	Alignment with (re)vision	Support the long-term vision	?	Stakeholder involvement	P2033 Mobility secondary	?	SDH 2024 strategy	Support SUMP	?
Alignment	Generalists and experts	Generalists and experts	?	“Habitat” visibility	red, Redent projects	?	mobility & people	direct	?
Participation	Invited in projects	Strong local residents’ participation	+	Participation involvement	Occasional meeting	+	Participation	participated	?
Stakeholder involvement	Participate in negotiations	Participate in negotiations	+	City Council	Representation	+	Stakeholder involvement	Stakeholder involvement	?

Path A Strategies - Feasibility Check

Criterion	Hamburg Multifunctional Neighbourhood	Madrid Pedestrianisation strategy	Istanbul Street Transformation Program
Budget & Funding	MOVE21 & R&D planned 	regional government funds 	for financial support MUPA, potential private partners 
Criterion	Lisbon A Square in Every Neighbourhood	Debrecen Micromobility deployment extension of the cycling network	
Budget & Funding	Local authorities' needs, funded with 	Regular local funding 	

Path B Strategies - KPIs Analysis

Measure	Measure	Hamburg	Turin	Turin
Category	Specific	Education and Mobility	Enhanced Mobility	Cycling paths from the
	Men/women	0.96%	48,6% M-51,4% F	48,6% M-51,4% F
Demographics	Older age	18.0%	42,2%	42,2%
	Younger age	7.7%	18%	18%
	Public spaces	97.05 %	57,72%	57,72%
	Proximity to	98.95 %	94,81%	94,81%
Urban form	Urban density	15.51%		
	Urban density			
	Diversity of	10	Very diverse mix	Very diverse mix
	Population	687.77	6,520 (persons/Km ²)	6,520 (persons/Km ²)
Active mobility	Active mobility	14.2% (cycling) 62.6% (walking)	Not needed for this	0,023% (walks) with (roads/walkable zones) 0,14% (cycling paths)
	Proximity to	100%	79.27%	79.27%
Infrastructure	Availability of	5-Bike sharing, Car	Not applicable for	Not applicable for this
	Road density	40.63	Not needed for this	Terrain is flat, no slope
Urban design	Intensity of	844.83	Not needed for this	0,78 (Road density)
	Average slope	3.26	Not needed for this	0,02 (Road density)

Path B Strategies - Coherence Analysis

Criterion	Hamburg Educational and Mobility Ribbon	Turin Cycling paths with the possibility to collect and
Governance Structures	Bezirksamt Altona, RISE + local schools	Municipal bodies, Civil law
Alignment with Planning	RISE & Bezirksamt already	CMTO SUM, talks for DRT +
Alignment with Projects	Direct continuation of RISE Osdorf–	Two existing DRTs + planned
Citizen Participation	Structured participation via Luruper	No participation strategy for either
Stakeholder Involvement	Bezirksamt, RISE, Schools, Bürgerhaus,	Citizen municipalities +

Path B Strategies - Feasibility Check

Criterion	Hamburg Educational and Mobility Ribbon	Turin Cycling paths with the possibility to collect and
Budget & Funding	RISE + Hamburg mobility + federal + EU	DRT funding regional/local