Driving Urban Transitions

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FORTHCOMING

3.1 SWOT Analysis of 15minC Strategies – focus group meeting outputs

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1. Introduction

This document provides an overview of the findings from the first **focus group (FG-I) meetings** of the Forthcoming project conducted in the six living lab cities: Las Rozas (Spain), Altona (Germany), Kertváros (Hungary), Settimo Torinese (Italy), Alverca do Ribatejo (Portugal) and Kücükcekmece (Turkiye). The FG-I aimed to discuss **the 15-minute cities concept** (15minC) with the four dimensions of the Forthcoming project, and a **ranking process on KPI clusters**. A total of **8 moderated discussions** with experts took place across the six partners, involving **79 experts**, who represented **academia, local citizens and businesses, mobility service providers, authorities, and municipalities**. This document is structured in such a way that we first present the general methodology sections, followed by the outputs of each Living Lab, and then we present the results and conclusions across Living Labs.

After a brief introduction to the planned living lab activities, the 15minC concept analysis was conducted using the SWOT methodology. Participants examined the strengths, weaknesses, opportunities, and threats of 15minC in four rounds, focusing on the Forthcoming pillars: **density, proximity, diversity/inclusivity, and digitalization**. The Conclusion chapter shows that the 15minC is highly dependent on local specificities in the Forthcoming living lab cities.

The other objective of the FG-I was **to rank the KPI clusters**. There were two methods available for this: a **simple ranking** of the KPI clusters or the so-called **dotmocracy** procedure. The KPI cluster analysis was independent of living lab specificities and followed a uniform methodology, so that **the results could be directly compared**. The **Modal Share cluster was found to be the most valuable** (i.e., most important, most expressive), such as transportation network coverage, percentage increase in the number of trips made using shared services, reduction in Vehicle Miles Travelled (VMT). Further results are presented in the Results chapter.

2. Methodology

2.1. Focus group methodology

The focus group was conducted in a structured way to facilitate effective communication and engagement among participants. The session began with introductions, allowing participants to get to know one another and create a comfortable atmosphere for discussion. After the introductions, a presentation on the Forthcoming project was shared, followed by an overview of plans for local **Living Lab activities**.

The session then proceeded to the two main parts, the methodology for which is detailed in the following sections. Finally, the meeting concluded with a closing discussion, giving participants the opportunity to share their final thoughts and reflections on the focus group. This fostered a sense of closure and community among those involved.

All focus group sessions were conducted in person, utilizing tools such as whiteboards and sticky notes to foster active participation among attendees and ensure everyone had an equal opportunity to contribute. The same goal was served by inviting 6–10 people in advance for each occasion.

2.2. SWOT methodology

The SWOT method is a strategic planning tool used to identify and analyze the planned measures' strengths, weaknesses, opportunities, and threats. **The goal of a SWOT analysis is to leverage strengths, improve weaknesses, exploit opportunities, and defend against threats**. It's commonly used in business planning but can be applied to idea evaluation as well. The analysis often results in a strategic roadmap to guide decision-making. The use of SWOT in expert focus group analysis is advantageous because the methodology is familiar to participants across professions, making the meeting more effective and the results more reliable. In the Forthcoming project, FG-I was organized around local Living Lab activities. Uniquely, during the focus group meeting, **the SWOT was carried out technically in four rounds tailored to each of the four dimensions**. Each Living Lab partner conducted a SWOT analysis in relation to its own planned local activities, described in detail in the Output section of the document.

The **applied definitions of each dimension, according to the Forthcoming proposal,** were elaborated based on the Key Area of Actions defined in the Driving Urban Transitions (DUT) framework. **The 15-minute city concept has four pillars: density, proximity, diversity/ inclusivity, and digitalization**. **Density** refers to densely populated residential and commercial areas, facilitating easy access to services and amenities. **Proximity** emphasizes the location of essential services and resources within a short walking or cycling distance, typically within 15 minutes. **Diversity** is about creating a mix of land uses, including residential, commercial, and recreational areas, to provide residents with various options within their neighborhoods. And **digitalization** is the use of technology to improve connectivity and access to services, making it easier for residents to navigate and use their urban environment.

The assessment focused on the above-mentioned dimensions, considering the following aspects. **Density** was examined to determine the optimal population density per square kilometer necessary to balance economic, environmental, and social sustainability. **Proximity** addressed the need to minimize commuting times, which can enhance economic efficiency and foster close-knit communities through both temporal and spatial interactions. The assessment also emphasized **diversity**, highlighting the significance of mixed-

use planning and the promotion of social and cultural diversity within neighborhoods. Additionally, digitalization was explored, focusing on the integration of digital technology to support the realization of these dimensions, aligning with the Smart City framework.

2.3. KPI methodology

In terms of performance evaluation, potential Key Performance Indicator (KPI) clusters were ranked using either a simple ranking method or dotmocracy.

The simple ranking method involved presenting the KPI clusters, each printed on a separate sheet of paper. After the explanation of each, the first KPI was placed visibly (e.g., on a board or table). As each subsequent KPI cluster is introduced, participants decide whether it should be placed above, below, or between the already ranked items based on relevance or importance. This continues until all KPIs are ordered. The result is a ranked list where the topmost KPI is considered the most relevant with a consensus among participants.

Alternatively, dotmocracy is a simple, participatory decision-making method used to prioritize ideas or options, but also works well as a budget allocation weighting methodology with multiple participants. Participants were given a set of number of stickers (or "dots") and used them to vote on the ideas they supported by placing dots next to their preferred choices on a shared board or wall. Each participant distributed their dots however they like. The options with the most dots are considered the most favored or relevant by the group. This methodology determined the joint ranking based on individual assessments, without reaching a consensus. Local specialties regarding physical implementations can be read in the Outputs chapter.

As a source document, the applied definitions of each KPI cluster are available in D3.2, Definition of the Key Performance Indicators (KPIs) deliverable. The assessment focused on the 8 KPI clusters (13. Table), considering the following aspects of the Key Area of Actions. Proximity refers to the accessibility of transportation, employment, healthcare, education, entertainment, green spaces, and retail for residents through sustainable modes of transport. Inclusivity focuses on meeting diverse needs related to the 15minC, considering factors like economic status, age, gender, and ethnicity while promoting mobility justice and participatory decision-making. Digitalization and MaaS involve using digital technology to enhance proximity and accessibility, ensuring all individuals have equal access to services within a 15-minute journey via sustainable and shared transport options while addressing privacy concerns. Density and Land Use concerns mixed land use in urban environments, enabling a population density that can effectively support essential services and resources. Sustainability and Climate Action aims to lower environmental impact through reduced carbon emissions, improved energy efficiency, and promotion of green spaces and resilient infrastructure. Governance emphasizes transparent and participatory urban management, aligning public policies with sustainability goals and involving citizens in decision-making. Modal Share represents the distribution of different transportation modes used by residents within a short distance, promoting less reliance on cars and encouraging sustainable travel. Finally, Economic Impact refers to the financial effects of urban planning that prioritizes accessible essential services, fostering local economic growth and sustainability.

3. Outputs

3.1. Madrid Las Rozas focus group meeting outputs

3.1.1. Meeting information

Date	Location	Number of participants	Type of participants
29th October 2024	Las Rozas, Spain (Las Rozas INNOVA's Headquarters)	6 experts	Las Rozas Mobility Planning Department (1), PT authority (1), University (1), mobility service providers (2), urban designer (1)
30th October 2024	Las Rozas, Spain (Las Rozas INNOVA's Headquarters)	9 experts	Mobility service providers (3), PT authority (1), University (2), Las Rozas City Council (1), ITS consultant (1), Local citizen association representative (1)
13rd November 2024	Las Rozas, Spain (Las Rozas INNOVA's Headquarters)	6 experts	2 representatives of local shopping centres (2), local business owner (1), director of the local vocational training centre (1), representative of Local Retailers association and city council member for commerce (1)

1. Table Meeting information, Las Rozas

3.1.2. Summary of the SWOT analysis outcomes

All 3 FG followed the same structure, consisting in a short introduction (project and aim of the FG and basic concepts (15minC)) followed by an ice-breaker (self-introduction of the participants, participant profile, signed consent form) and 2 main parts: SWOT Analysis (Case study and ULL SUMP description, than discussion and than the SWOT analyses) and KPI Topics (discussion of the KPI Topics and ranking). Before finishing, some time was also allocated for open questions. The FG lasted 2 hours.

The following outputs have been gathered in the FG regarding the SWOT Analysis targeting the project's central issues.

3.1.2.1. *Density related insights*

Las Rozas has an urban plan that mainly complicates sustainable mobility. It is made up of low-density areas, where cars are often the easiest choice. This in turn complicates the implementation of measures like pedestrianizations. In addition, there are some more dense areas near the roads, which are also subjected to a lot of traffic. This causes PT service to be worse, and complicates the implementation of sustainable modes like BRTs to improve accessibility. The low-density also mean providing PT coverage can be very difficult in some areas. However, some participants considered the was free space which could be reconverted, for example in unused car-parks.

3.1.2.2. *Diversity related insights*

Diversity was widely discussed. Regarding weaknesses (W), participants talked about the socioeconomic segregation of Las Rozas, and the differences between the different areas. They also considered how sustainable mobility in line with 15-minute city concept affects different types of users. For example, they said that elderly people might be more negatively impacted by the pedestrianization if they have mobility impairments, for example bringing shopping home. Taking into account diversity was also important for them when addressing urban design, for example current underpasses and footbridges are considered unpleasant, and might even affect the choice of mode. Children etc. might use their bikes more if they had good cycling infrastructure, and parents feel safer. In this sense, many threats (T) were posed by actual car-use, such as high speed of cars deterring people from cycling, or drivers being a large opposing group to certain measures, to mention a few examples. Another threat (T) was considered to be LEZ affecting lower income groups more than others. On the positive side, current LEZ regulation in Madrid and Las Rozas allows work vehicles to enter whatever their label, to impact on workers less negatively. Other strengths (S) were the possibility of incrementing diversity in terms of urban design and creating greener areas, or the reduction in the digital divide. Most opportunities (O) addressed the potential to increment the diversity of available modes, and the different ways to nudge people towards them.

3.1.2.3. *Proximity related insights*

Regarding proximity, the main weaknesses (W) addressed the many obstacles to proximity in Las Rozas, ranging from existing spatial barriers, poor pedestrian infrastructure, lack of cycling infrastructure, the long distances, to the growth patterns of the municipality. Participants detected some threats (T) for proximity, mainly increasing capacity of roads is often considered a mobility solution while making the problem worse, and how cars are often prioritized before other modes. There were also some strengths (S) pointed out, like the existing pedestrian areas, new cycle lanes, or the positive impact of the existing pedestrian area on commerce. In terms of opportunities (O), participants provided some ideas on how to enable proximity by implementing BRT lines or shuttles to improve connectivity with PT.

3.1.2.4. *Digitalization related insights*

Digitalization was less addressed than the other pillars. Some weaknesses (W) were considered to be data-sharing issues (needed to implement solutions like MaaS), and for example, the lack of real-time information. Along these lines, a threat (T) is that companies will be unwilling to share their data. Only one opportunity (O) was mentioned, which is that the reduction of the digital divide means that innovative and digital solutions can be accessible for a larger part of the population.

3.1.3. Summary of the KPI cluster ranking outcomes

The KPI cluster ranking resulted in the clusters **being ordered** in the following way:

KPI cluster	Ranking	Score
Proximity	***2***	***8***
Inclusivity	6	5
Digitalization and MaaS	5	5
Density and Land use	***3***	***7***
Sustainability and climate action	4	5
Governance	7	4
Modal Share	***1***	***15***
Economic Impact	8	2

2. Table Result of KPI cluster ranking, Las Rozas

Modal share is a considered key, followed by Proximity and Density. There was little consensus regarding Sustainability, Digitalization and Inclusivity, all considered important if not as relevant as the 3 first ones. Governance and Economic Impact came last in the ranking.

During the discussion, participants seemed to be sure that modal share was key, with the conversation addressing the need for multimodality, more transport offer, and with participants even suggesting possible strategies to increase multimodality and the offer of modes in the context of Las Rozas. Proximity was also considered relevant, with many issues resulting from lack of proximity. The long-distance caused by the low-density and the spatial barriers present in the ULL were all pointed out as barriers for proximity. In this sense, density and land-used was also ranked high, and was addressed throughout the conversation frequently. The next 3 clusters were very close, and it was difficult to reach a consensus regarding their position in the ranking. Sustainability and climate action were considered relevant, while some participants did point out that in the context of Las Rozas, due to the low-dense and low-congestion within the municipality, some policies like LEZ might not be viewed as necessary by a large part of the population. Digitalization was also thought of as important, with relevant aspects such as real-time information, or need of MaaS were brought up. Inclusivity and social aspects were also said to be relevant, paying special attention to the needs of more vulnerable users and thinking about children's mobility needs. Governance and economic impact came last. Governance was considered important, with one participant acknowledging how it sometimes hampers the deployment of innovative solutions.

3.2. Hamburg Altona District focus group meeting outputs

3.2.1. Meeting information

Date	Location	Number of participants	Type of participants
27th January 2025	Hamburg	9 experts	representatives from the local transport company, from research, academia and urban planning; representatives from the Traffic and Mobility Transition Authority of the city of Hamburg, as well as from the district of Hamburg-Altona

3. Table Meeting information, Hamburg

3.2.2. Summary of the SWOT analysis outcomes

3.2.2.1. Density related insights

The strengths (S) are the high density supports walkability, mixed-use development, and functional diversity, ensuring services and amenities are easily accessible. A balanced mix of land uses fosters social cohesion and strengthens public transport networks, making mobility more efficient and sustainable. A gradual transition from taller buildings along main roads to lower structures on smaller streets, complemented by quiet green spaces, enhances livability by balancing density and adhering to the principles of small-scale, liveable neighborhoods.

As weaknesses (W), existing neighborhoods often lack space for new mobility services and hubs. Vibrant urban areas face noise issues due to high activity levels. Structural constraints and societal path dependencies—such as property ownership patterns, planning regulations, and historical infrastructure—limit redevelopment potential. Wealth is a defining factor, particularly in certain neighborhoods in Altona and Hamburg, where residents own large plots of land, resulting in lower density. Additionally, major roads (Magistralen) act as barriers to inclusive neighborhoods, particularly for older adults and children, due to their unfriendly pedestrian environments.

Redeveloping brownfields and industrial sites provide opportunities (O) for sustainable urban expansion. Redensification initiatives can optimize land use, supporting compact and efficient neighborhoods. The creation of consumer-free public spaces and elevated green areas enhances social interaction and environmental quality. Overcoming sectoral planning silos and adopting integrated urban strategies can drive sustainable urban development.

Threats (T) are high traffic volumes contribute to noise pollution, reducing residential quality of life. There will be a need for more land area for extensive recreational spaces and green areas' development. Environmental impacts vary significantly, between suburban areas and urban centers. Balancing density with sustainability remains a key challenge for long-term urban resilience.

3.2.2.2. Proximity related insights

Strengths (S) are, that the well-developed urban districts, such as Eimsbüttel, Ottensen, and Hamburg Mitte, already provide strong access to essential services, amenities, and public transport. Ensuring everyday needs are met within a short distance, fosters vibrant local communities.

As weaknesses (W), the rise of e-commerce challenges local businesses and walkable retail environments. Adapting residential spaces to mixed-use development takes time. Major roads create spatial divisions, disrupting accessibility. Additionally, social networks are often more dispersed than the 15-minute radius, limiting the effectiveness of hyper-local proximity.

Opportunities (O) can be considered like enhancing walkability and diversifying mobility options improve urban experience and connectivity. The oversupply of public transport (can) leads to habit changes. Linking 15mC with Transit-Oriented Development (TOD) can create integrated, efficient neighborhoods. Regulatory adaptations, such as "Mobility Amendment" (BAU 6B), can further reinforce sustainable mobility policies. Leading an active lifestyle (e.g., through walking, strolling, and biking) improves quality of life.

As threats (T), the formation of social and economic bubbles may lead to exclusivity, limiting accessibility for a more diverse demographic. Conflicts over land use may arise due to competing priorities, while administrative silos hinder cross-sectoral collaboration necessary for holistic urban planning.

3.2.2.3. Diversity related insights

Strengths (S) were the promotion of walkability and accessibility, ensuring that people of all abilities can navigate urban spaces comfortably which aligns with the UN Convention on the Rights of Persons with Disabilities (UN-BRK).

Weaknesses (W) were that the implementation of 15mC is highly subjective, making coherent and comparable application challenging. Functional diversity is essential, yet it can also lead to gentrification and social segregation. Resistance to change and demographic shifts further complicate the integration of inclusive planning.

Opportunities (O) can be considered that the Deutschlandticket simplifies access to public transport, making mobility more affordable and efficient for diverse demographic groups. Additionally, the implementation of the "Drittelmix" (the one-third mix in individual housing projects with 30 or more residential units—one-third publicly subsidized rental housing, one-third privately financed rental housing, and one-third condominium construction) enhances inclusivity by making 15-minute neighborhoods more accessible and preventing segregation.

Threats (T) were, that the conflicts arise from differing mobility speeds and urban interests. Gentrification risks making 15mC exclusive, particularly in areas like Eppendorf and Winterhude. In large housing estates on city outskirts, 15mC could become a "spatial trap," limiting broader urban connectivity. Demographic changes are creating "islands" or fractures in society, with ageing populations and social divisions becoming more pronounced as many people cannot move into 15-minute neighborhoods due to financial or social barriers.

3.2.2.4. Digitalization related insights

The strengths (S) are the digital platforms, such as Nebenan.de, strengthen local communities by enhancing communication and resource-sharing. HVV switch points provide seamless public transport integration, improving accessibility and multimodal mobility.

As weaknesses (W), Mobility-as-a-Service (MaaS), such as the example of autonomous transport technologies projects, do not always prioritize accessibility, limiting their inclusivity. Digital exclusion remains a challenge, particularly for vulnerable groups such as the elderly and people with disabilities. Commercial mobility service offers tend to concentrate in high-density areas, leaving lower-density regions underserved. Additionally, long-term sustainable offers of digital services can be challenging.

Considering opportunities (O), digital trip planning can optimize mobility, making travel more efficient. Integrated modal transport chains provide a seamless travel experience and reduce car dependency, leading to improved urban spaces. The expansion of remote work allows for greater flexibility, supporting 15mC principles by reducing commute times and fostering local engagement.

Threats (T) are the digital divide remains a critical barrier, particularly for the elderly who may struggle to adapt to digital mobility services. Ensuring equitable access to digital tools and platforms is necessary to prevent social exclusion.

3.2.3. Summary of the KPI cluster ranking outcomes

Participants were provided with a booklet containing the eight main thematic clusters and their sub-clusters, along with KPI examples within the different sub-clusters. This was accompanied by instructions to vote for the sub-cluster(s) they found most relevant for the later phases of the transfer methodology, aimed at successfully applying 15-minute city (15minC) strategies from urban to suburban areas of Altona.

To add a further layer of information to the dotmocracy process, we color-coordinated the participants according to the following representative groups:

- Public sector representatives at the city level of Hamburg - Blue
- Public sector representatives at the district level of Altona - Yellow
- Transport company representative - Red
- Academia, research, and urban planning representatives - Green

Due to time constraints and data handling considerations, only a selected number of sub-clusters and their respective KPIs were presented to contextualize the discussions. Participants were also invited to suggest additional sub-clusters where relevant to the context of Hamburg and Altona.

Below are the key insights from the ranking outcomes:

KPI cluster	*Final result (pts)*	*Ranking*
Proximity	***20***	***1***
Inclusivity	***13***	***3***
Digitalization and MaaS	11	5
Density and Land use	***13***	***3***
Sustainability and climate action	6	7
Governance	7	6
Modal Share	***18***	***2***
Economic Impact	2	8

4. Table Result of KPI cluster ranking, Hamburg

Proximity emerged as the top priority, underscoring the need for well-connected public transport, accessible essential services, and green-blue spaces to enhance urban livability. Notably, participants from transport company and public sector (🔵🔴🟡) placed significant emphasis on public transport connectivity, while researchers (🟢) prioritized more on accessibility to green spaces.

Housing affordability and socio-ecological equity are seen as essential pillars of inclusivity, emphasizing the need for fair access to housing and urban resources. (🟡🔴) Participants from district level public sector and local transport company (hvv) emphasized affordable housing, while (🟢) researchers emphasized more on social inclusion and equity.

Digital solutions for multimodal integration and pedestrian traffic data collection highlight the role of technology in enhancing mobility systems. (🔴🟡) Experts from transport company (hvv) and district level public sector prioritized MaaS integration, while (🔵) city level public sector experts added and emphasized on the methodology and collection of pedestrian traffic data.

Urban density, land use, and flexible building utilization are given the most importance, reinforcing mixed-use development as a core planning strategy. (🟡🟢) Experts from district level public sector and academia highlighted the importance of mix land-use, while experts from transport company (hvv) and both public sector (🟡🔵🔴) emphasized more on building utilization and Flexibility.

Participants from transport company (hvv), city level public sector and academia (🔵🔴🟢) supported climate resilience initiatives as it is an important aspect.

Stakeholder engagement and inclusive decision-making are key governance priorities to streamline urban planning and policy integration. Participants from city level public sector and academia (🔵🟢) emphasized citizen engagement, and breaking down administrative silos.

A strong emphasis given by all the experts on active transportation and sustainable mobility solutions highlights the importance of integrating walking, cycling, and multimodal transport options to reduce car dependency.

Economic impact received the lowest priority, indicating that participants placed greater emphasis on accessibility, mobility, and land use over direct economic measures. Local business growth was mainly emphasized by experts from the public sector.

As general assessment, Proximity and Modal Share are the highest-ranked priorities, reinforcing the necessity for well-connected urban areas that promote active transportation and public transit. Additionally, Inclusivity, Density and Digitalization received moderate emphasis, giving importance to affordable housing, equitable access, land-use flexibility and the need for better integration of MaaS services in fostering liveable neighborhoods. Meanwhile, Governance, Sustainability and Economic Impact received comparatively lower emphasis, suggesting that while critical, they may be seen as enablers rather than standalone priorities.

3.3. Debrecen Kertváros focus group meeting outputs

3.3.1. Meeting information

Date	Location	Number of participants	Type of participants
11st November 2024	**Debrecen, Hungary** (site of DKV Debreceni Közlekedési Zrt., room 208.)	**10 experts**	group leader for city operations, managing director, president of regional organization of Hajdú-Bihar County, transportation engineer, urban development team leader, traffic director, innovation and service development director, dean, assistant professor (settlements and urbanism), master lecturer (transportation and planning)

5. Table Meeting information, Debrecen

3.3.2. Summary of the SWOT analysis outcomes

During the focus group meeting, we employed the methodology of a SWOT analysis to evaluate the potential outcomes of deploying shared and soft mobility solutions in Kertváros as a case study that aligns with the goals of the 15minC strategies. The discussions were conducted with mild moderation, allowing each participant to express their thoughts and opinions freely. We encouraged attendees to write down their ideas while others spoke, and we maintained an impartial and neutral stance throughout the dialogue. Each participant was provided with post-it notes in four different colors to represent various dimensions. The use case related to the 15minC concept, and the four dimensions were introduced, followed by a period for clarification through a brief Q&A session. Ultimately, we conducted four rounds of SWOT analysis tailored to each of the four dimensions.

3.3.2.1. Density related insights (green)

Most people highlighted the recent improvements in the cycle path network and the current plans of the city authorities as strengths (S) supporting this use case. They also noted low vehicle traffic as a strength (S). However, a few opinions suggested that it was challenging to identify any strengths.

A significantly higher number of weaknesses (W) were identified. There was a consensus that the low population density would lead to long walking distances to mobility hubs. Additionally, deficiencies in the road network were highlighted, along with the tendency for road infrastructure to be primarily developed towards the city center. The lack of sub-centers and shared zones was cited as a weakness (W). Respondents expressed concerns about low utilization and uneconomic operation of the potential use case.

Opportunities (O) identified by respondents included the potential for this use case to act as a catalyst for future developments, particularly concerning cycle path networks. There is an expectation that it could lead to increased population numbers and a more balanced distribution of residents.

A threat (T) includes the growing receptiveness of inner-city areas and the rising population in suburban regions. While this is somewhat unrelated to the main dimension, concerns about inadequate traffic management, increasing traffic conflicts, and the uneconomic operation of systems were raised.

3.3.2.2. Proximity related insights (blue)

The consensus on the strengths (S) of this use case is significant, and it would eliminate the need to travel to the city center, as nearly all jobs and services could be accessed locally, thereby reducing commuting.

The primary weakness (W) identified is the lack of decentralization, along with limited services and job opportunities. One individual pointed out that mobility hubs could become a nuisance for local residents.

In terms of opportunities (O), opinions fell into three categories. Some emphasized the potential for a modal shift away from car dependency, others highlighted potential savings in time and money, and the rest envisioned the relocation of services from the city center as a positive opportunity.

Two main threats (T) were outlined regarding this dimension. Firstly, there is a concern that inner-city areas could become party zones. Secondly, suburban areas might change their function, which would be counterproductive for residents who moved there to escape such conditions. Additionally, there is a risk of isolation if residents are able to access all their needs locally.

3.3.2.3. Diversity related insights (orange)

The strengths (S) identified predominantly point in one direction. Almost universally, participants highlighted the potential for developing cohesive communities, creating a "good place to live," and fostering the emergence of diverse residential communities.

No new weaknesses (W) were identified.

Several opportunities (O) emerged for implementing the use case, including a greater involvement of residents in municipal life, an increased sense of community ownership of the neighborhood, and even enhanced public safety, which some participants hope for.

Additionally, no new threats (T) were identified.

3.3.2.4. Digitalization related insights (purple)

The strengths (S) identified present a mixed picture. It was noted that the knowledge necessary for digitalization is already available, which could enhance the digital city—an initiative that is increasingly being utilized by a growing number of people. This development may also promote sustainable transportation options and reduce travel times.

However, some weaknesses (W) are linked to these strengths. In many cases, the developments are difficult to trace. A practical weakness (W) mentioned is the challenge of presenting travel discounts within this environment as well as issues related to the reliability of the communication network.

The opportunities (O) discussed a common theme, as they all pertain to the establishment of a coordinated, multimodal community system, either through route planning or the adoption of mobility applications.

The primary threat (T) highlighted by the audience is that not everyone has access to smart devices or possesses the necessary skills to use them.

3.3.3. Summary of the KPI cluster ranking outcomes

During the focus group meeting, the ranking of selected KPI clusters (groups of KPIs) was conducted with the help of the dotmocracy methodology.

Dotmocracy is a decision-making tool that allows a group to prioritize a list of options democratically. It can be considered as a quickly executable budget allocation type of weighting methodology. While this can be used as a voting tool generally, in this case every dot was counted, not just those for the winner.

Each participant received a number of dots equal to the total number of KPI clusters, which was specifically 8. Before starting, we explained each KPI cluster in detail, providing examples to enhance understanding. Following this, we held a quick Q&A session to clarify any questions participants had. The process began with the first round, where participants placed half of their dots. After this initial round, we tallied the results. Next, there was a second round in which participants placed the remaining 50% of their dots, followed by counting the final results. To wrap up, we held a brief feedback session to gather participants' thoughts on whether they were satisfied with the outcomes.

The underlying concept behind the ranking was to identify and emphasize the key areas (as possible KPIs) that should be the focus of developments related to the 15minC concept. This approach aims to address factors, such as accessibility, sustainability, ensuring that urban planning efforts prioritize the needs of residents and enhance their quality of life within a compact and efficient urban environment. By concentrating on these critical aspects, the ranking intends to guide future initiatives and innovations that align with the principles of the 15minC.

With this in mind, we have achieved the following results.

KPI cluster	Half time result (pts)	Final result (pts)	Ranking
Proximity	***9***	***18***	***1***
Inclusivity	0	1	8
Digitalization and MaaS	4	5	5
Density and Land use	7	15	4
Sustainability and climate action	***7***	***16***	***3***
Governance	2	4	6
Modal Share	***9***	***18***	***1***
Economic Impact	2	3	7

6. Table Result of KPI cluster ranking, Debrecen

The top KPI clusters are proximity, modal share, sustainability and climate action, and density and land use. Proximity related KPIs might be average distance residents need to travel to reach the nearest public transport stop, average walking time to essential services, number of pedestrian-friendly squares created annually. Modal share related KPIs might be transportation network coverage, percentage increase in the number of trips made using shared services, reduction in Vehicle Miles Traveled (VMT). Sustainability and climate action related KPIs might be ratio of m2 of green areas land use per total area, increment in traffic calming zones, energy use of vehicles. Finally, density and land use related KPIs might be diversity of land use, digital Integration, public space utilization, traffic calming zones.

3.4. Turin Settimo Torinese focus group meeting outputs

3.4.1. Meeting information

Date	Location	Number of participants	Type of participants
11st December 2024	**Torino, Castello del Valentino, Italy** (Politecnico di Torino)	**12 experts**	board member, manager (2), director (4), technician, architect expert of active mobility and coordinator, vice president (2), president

7. Table Meeting information, Turin

3.4.2. Summary of the SWOT analysis outcomes

The meeting took place in Castello del Valentino, at Politecnico di Torino. The meeting started with a presentation of the project by Cristina Pronello and a discussion on the 15minC. During the debate a set of elements arose:

- the concept of the 15minC is a concept not really entered in the sociotechnical context of Turin and Piedmont; the participants did not agree with each other fully on the definition of the 15minC;
- the 15minC in suburban areas must deal with the lack of high-level public transport alternatives, with the consequence of exacerbating car presence and car dependency;
- the 15minC should be seen also as the re-functionalization of street public space from a mere transit area to a social area – as it was before the eve of the car;
- the 15minC must deal both with the rarefaction of services in non-central area and the need for social hubs where public services can be delivered at a lower cost for providers.

Participants were asked to choose two strategies emerged from the discussion to complete a SWOT analysis on them. The two strategies were:

1. the multi-functionalization of public buildings (schools, sport facilities, etc.) as the hubs of social services and engines of urban regeneration;
2. put pedestrians first: the walkability of the city as the top priority of any public space and urban renewal project.

After the debate and the two proposals, the debate swung towards the SWOT analysis and the KPI ranking.

In synthesis, the SWOT analysis on the 1.strategy found that, as the quantity and location of schools are already optimally distributed (S), the positive impact on environment and health (S) of such a policy could create a consensus to further deepen and enlarge other projects in the future (O); moreover, the synergy among services is seen as an opportunity for making the most of the somehow scarce funding of projects in the Italian environment (T). This is linked to the need for more public expenditure on maintenance of facilities (T) and the possibility that without a good communication plan for the project, it could spark a

harsh debate against the proposal (T). The difficulty of managing shared space (W), especially at night (T), is paired with the importance of putting the proposals in the existing planning, without making an isolate intervention (T), because it could get to a lack of development in the surroundings (W). The reduction of car use in the surroundings of the project area could also be a difficult action to create consensus on the intervention (T) and its implementation (T).

The SWOT analysis of the 2nd strategy focused on the possibility of creating a network between different perspectives (urban planning, mobility, culture) (S), where the quality of life (S) and safety of users can be enhanced (S) and public space between users can be redistributed (S). At the same time, there is the need to put the proposal in a broader planning of transport (W) which could be tricky in terms of consensus (T) and governance (T). Costs of implementation and maintenance could also play a role (T). The proposal could still be useful because it fits existing strategies (O) and local businesses could benefit from it (O).

3.4.3. Summary of the KPI cluster ranking outcomes

The participants worked on ranking on the proposed KPIs and the following ranking resulted:

KPI cluster	Ranking
Proximity	5
Inclusivity	*1*
Digitalization and MaaS	7
Density and Land use	6
Sustainability and climate action	*2*
Governance	4
Modal Share	*3*
Economic Impact	8

8. Table Result of KPI cluster ranking, Turin

The KPI ranking was quite straightforward. Participants mostly agreed on the ranking with a few exceptions. “Inclusiveness” was seen as the most important KPI, with the more public technicians (the municipality and regional employees) putting it in a more secondary position. “Sustainability and climate action” was also put in first or second place by most participants. “Modal share”, coming third, shows the importance of car use reduction in a car-dependent and car-abusive country as Italy. “Governance” is put in fourth place. “Proximity” and “Density and Land use” were put at fifth and sixth place, but with a sharp difference of opinions: some participants were more keen on putting proximity in first or second place, but most stakeholders were maybe brought to think that given the already dense and mixed environment of most Italian suburbs (which are, in the case of Turin at least, really different from the US ones), proximity was not a significant indicator.

3.5. Lisbon Alverca do Ribatejo focus group meeting outputs

3.5.1. Meeting information

Date	Location	Number of participants	Type of participants
29th November 2024	Vila Franca de Xira, Protugal (Fábrica das Palavras - Biblioteca Municipal e Equipamento Cultural)	10 experts	researchers, urban planners, transport operators, policymakers, land developer, project partners

9. Table Meeting information, Lisbon

3.5.2. Summary of the SWOT analysis outcomes

The structured discussion was held in November2024 to support the implementation of 15-Minute City (15minC) strategies in Vila Franca de Xira. The session brought together a diverse group of local experts—researchers, urban planners, transport operators, policymakers, land developer, project partners—to analyze and prioritize key urban planning, mobility, and sustainability measures.

The Focus Group Discussion was a multiphase conversation helped capture participant perspectives on local opportunities, challenges, and goals.

During the SWOT Analysis, four A2 sheets were dedicated to each core dimension of the 15minC concept—Density, Proximity, Diversity, and Digitalization—to identify strengths, weaknesses, opportunities, and threats through collective brainstorming.

3.5.2.1. Density related insights

Strengths (S): Supports the 15-Minute City by ensuring sustainable essential services and public transport through high density. Enables economies of scale, enhances service efficiency, and promotes multifunctional development aligned with urban objectives.

Weaknesses (W): Peripheral areas with low density struggle to sustain services and implement density strategies. Lack of land-use policies, inadequate infrastructure, urban growth dynamics based on low-density peripheries, which create enormous difficulties in providing proximity services. Deficits in public transport and active mobility infrastructure limit effectiveness.

Opportunities (O): National and international funding can support densification and sustainable expansion. New infrastructure projects and public demand for quality spaces provide avenues to enhance urban density. Neighborhood revitalization and sustainable transport integration bolster long-term resilience.

Threats (T): Uncontrolled urbanization and over-densification may lead to real estate speculation, territorial imbalances, and reduced social cohesion. High housing costs could drive populations away, while bureaucratic barriers and pollution issues require effective management to maintain quality of life.

3.5.2.2. *Diversity related insights*

Strengths (S): Enriches urban environments with varied services and fosters social and cultural integration. Enhances public transport and urban spaces' resilience, supports mixed-use developments aligned with the 15-minC concept, and strengthens community bonds.

Weaknesses (W): Mismanaged diversity can lead to conflicts and social inequalities. Equitable service access is challenging, especially without specialized infrastructure. Rapid diversification without planning may overload territories and reduce service quality, and urban planning may lack the agility to support diverse environments.

Opportunities (O): Attracting diverse populations can enhance cultural richness and set urban examples. European support for territorial requalification and public space improvement and rehabilitation can foster diversity. Investments in diversified services and infrastructure promote sustainable growth and better quality of life.

Threats (T): Ethnic or socio-economic segregation can create unequal opportunities and tensions. Real estate speculation and overdiversification may lead to dysfunctional spaces and rising housing costs. Lack of urban planning controls and extremism can undermine diversity efforts and sustainability.

3.5.2.3. *Proximity related insights*

Strengths (S): Central to the 15-Minute City, reducing motorized traffic needs and fostering social interactions by placing essential services nearby. Supports pedestrian-friendly environments, efficient public transport, and enhances quality of life through high population density near transport hubs.

Weaknesses (W): Challenges include distance from employment and education centers, limited public transport, and service diversity. Excessive proximity can infringe on privacy, create service imbalances, and overload infrastructure, compromising service quality.

Opportunities (O): Investments in cycling, pedestrian infrastructure, and active mobility, supported by national and European funds, can enhance proximity benefits. Urban densification and improved public transport networks can bolster accessibility, reduce CO_2 emissions, and strengthen local identities.

Threats (T): Disinvestment in younger populations, inadequate transport, an ageing population with mobility issues, and climate change risks can undermine proximity efforts. Resident resistance to denser areas and financial constraints may also impede initiatives.

3.5.2.4. *Digitalization related insights*

Strengths (S): Enhances urban living through improved access to information, better decision-making, and efficient public transport with real-time information to the users and operators. Promotes environmental sustainability via teleworking, e-shopping, and telemedicine (among other), while supporting vulnerable populations with mobile services.

Weaknesses (W): Can exacerbate social inequalities by excluding those with low digital literacy or limited technology access. Increases vulnerability to cyber-attacks and technical failures, entails high implementation and maintenance costs, and may reduce face-to-face interactions. Raises privacy and data security concerns.

Opportunities (O): Lisbon Metropolitan Area has a strong digital infrastructure ideal for advancements like smart energy and traffic systems. Emerging business models and available national and European funding can drive economic growth and inclusive technological progress.

Threats (T): Resistance to digital adoption, increased risk of cyber-attacks, privacy breaches, and social fragmentation due to rising inequalities. Excessive digital reliance may diminish quality of life and social cohesion, requiring a balanced technology integration approach.

3.5.3. Summary of the KPI cluster ranking outcomes

Dotmocracy (KPI Prioritization) was applied during ranking. Participants used a voting process to rank Key Performance Indicators (KPIs) relevant to each 15minC dimension, ensuring an inclusive, data-driven approach to defining priorities and informing decision-making.

The KPI clusters and their corresponding main KPIs were included in a reference booklet alongside sub-KPIs. Participants were instructed to vote solely on the main KPIs within each cluster to streamline the decision-making process and focus on the most critical indicators. The final rankings derived from this process (as an average) are detailed below.

KPI cluster	Final result (pts)	Ranking
Proximity	*17*	*1*
Inclusivity	8	7
Digitalization and MaaS	6	8
Density and Land use	10	5
Sustainability and climate action	11	4
Governance	9	6
Modal Share	*16*	*2*
Economic Impact	*12*	*3*

10. Table Result of KPI cluster ranking, Lisbon

Proximity emerges as the top priority, indicating strong support for accessibility to essential services, green spaces, and public transportation. Close behind is Model Share, reflecting widespread emphasis on active transportation, public transport, and promoting sustainable travel modes. Economic Impact ranks highly as well, underscoring the importance of local business growth and employment opportunities. Sustainability and Climate Action and Density and Land Use both receive moderate average votes, highlighting commitments to emission reduction, resource efficiency, and balanced urban development. Governance and Inclusivity also hold a significant place, focusing on strategic policies, equitable housing, and social equity. Lastly, Digitalization remains essential but has the lowest average votes, suggesting that while smart solutions are valued, they may be seen more as enablers than standalone priorities.

3.6. Istambul Kücükcekmece focus group meeting outputs

3.6.1. Meeting information

Date	Location	Number of participants	Type of participants
10th January 2025	Istanbul, Turkey (İstanbul Metropolitan Municipality)	19 experts	Municipal and other stakeholders' representatives including urban planners, engineers (transportation, geomatics, industrial, civil)

11. Table Meeting information, Istanbul

3.6.2. Summary of the SWOT analysis outcomes

To gather expert insights on the 15-Minute City (15mCity) concept and its potential implementation strategies within the ULL, a focus group meeting was held on January 10, 2025, at the IMM headquarters.In the SWOT analysis, the four pillars of the 15mCity concept – Proximity, Density, Diversity, and Digitalization – were presented to the expert group, along with their potential areas of application. Additionally, A2 sheets were distributed to the expert group for them to record their opinions regarding the core pillars in relation to the SWOT analysis. In the SWOT analysis, stakeholders from both the Küçükçekmece Municipality and the Istanbul Metropolitan Municipality (IMM) were provided with different colored post-it notes. This way, their opinions were categorized based on their local perspective and the broader context of Istanbul. In the below sections results of the SWOT analysis are given.

- Density was presented as *"finding the optimal people per km^2 in order to balance economic, environmental and social sustainability"* to the participants in the focus group meeting. Density is a critical factor in urban planning, particularly within the framework of the 15minC concept. Achieving an optimal population density helps balance economic growth, environmental sustainability, and social well-being. A well-planned density distribution ensures accessibility to essential services while preventing issues such as overcrowding and resource depletion. This section presents a SWOT analysis of density based on insights from the Istanbul Metropolitan Municipality (IMM) and Küçükçekmece Municipality.

- Proximity is defined as "Both temporal and spatial, to reduce commuting time and its economic impact and promote close-knit communities and social interaction" to the expert group. The SWOT analysis of proximity within the 15minC framework reveals its multifaceted impact on urban living. While it offers substantial benefits in terms of accessibility, social cohesion, and environmental sustainability, addressing its weaknesses and threats is crucial for its successful implementation. By leveraging opportunities and mitigating challenges, proximity can serve as a cornerstone for creating more livable and equitable cities.

- Diversity is defined as *"addressing the need to foster mixed-use planning and social and cultural diversity within neighborhoods"*. Diversity is an essential aspect of sustainable urban development, contributing to social cohesion, cultural richness, and economic vitality. In the context of the 15minC concept, diversity emphasizes mixed-use planning and the integration of various social, cultural, and economic groups within neighborhoods. A well-planned diverse urban environment fosters

inclusivity and enhances the quality of life for all residents. This section presents a SWOT analysis of diversity based on insights of participants.

- Digitalization is defined as *"aligned with the Smart City concept, makes it possible for the three previous pillars to become a reality"*. Digitalization plays a key role in modern urban development, supporting the realization of the 15minC concept. By integrating smart city solutions, digitalization enables more efficient urban management, enhances accessibility, and improves the overall quality of life. The use of digital tools in transportation, communication, and municipal services can help optimize urban functions and foster greater inclusivity. This section presents a SWOT analysis of digitalization based on feedback from participants.

3.6.2.1. Density related insights

As strengths (S), a well-managed urban density can lead to efficient mobility, economic opportunities, and enhanced accessibility. Proper density distribution supports diverse transportation options and promotes social activities by fostering interactions among residents. Additionally, having a mix of high-density and low-density areas ensures a balanced urban fabric that caters to various lifestyle preferences.

While density offers multiple advantages, it also presents significant challenges, as weakness (W). Overcrowding in public transportation, insufficient green spaces, and excessive private car dependency contribute to urban stress. The lack of proper public spaces and security concerns further affect the quality of life in high-density areas.

A well-planned density structure can provide multiple opportunities (O) for social integration, economic growth, and access to cultural and educational facilities. By leveraging density effectively, cities can foster inclusivity and enhance the quality of life for residents.

Despite its advantages, poorly managed density can lead to severe urban challenges, as a threat (T). Traffic congestion, pollution, and inadequate infrastructure are major concerns in highly populated areas. Furthermore, issues related to security, illegal housing, and inadequate public services can negatively impact residents' quality of life.

3.6.2.2. Proximity related insights

The strengths (S) associated with proximity underscore its potential to foster a more sustainable and community-driven urban life. Reduced travel times, diversified mobility options, and improved environmental conditions collectively enhance the overall quality of life within the 15minC model.

While proximity offers many benefits, addressing weaknesses (W) is essential to ensuring equitable and effective urban development. Strengthening transport integration, increasing green spaces, and mitigating socio-economic disparities can help optimize the advantages of proximity in urban settings.

The proximity concept presents various opportunities (O) for enhancing urban living. By minimizing travel time, residents can engage in more social and recreational activities, fostering a stronger sense of community. Additionally, improved accessibility to health and employment facilities enhances overall well-being. The area's proximity to major transportation networks and economic hubs further facilitates job creation and economic development. Furthermore, reduced transportation expenses and carbon emissions align with sustainability goals, making proximity a key driver in building resilient urban environments.

Mitigating the threats (T) requires comprehensive urban planning and policy interventions. Addressing traffic congestion, improving pedestrian infrastructure, and enhancing public safety measures are essential steps toward maximizing the benefits of proximity while minimizing its associated risks.

3.6.2.3. Diversity related insights

As strengths (S), Diversity enriches urban life by fostering a dynamic and inclusive environment. It encourages interaction among different cultural and socio-economic groups, leading to greater social cohesion and mutual understanding.

While diversity provides many benefits, it also presents weaknesses (W) such as social inequalities, integration issues, and disparities in access to resources.

Diversity presents opportunities (O) for economic growth, social innovation, and the development of multicultural communities. Cities that embrace diversity can leverage it to attract talent, tourism, and investment.

As threats (T), unmanaged diversity can lead to social fragmentation, inequality, and conflicts. Addressing these threats requires proactive urban policies and community engagement strategies.

3.6.2.4. Digitalization related insights

As strength (S), digital transformation in cities can bridge social and economic gaps, offering new opportunities for residents to engage with their surroundings. The adoption of advanced communication technologies has the potential to enhance inclusivity and eliminate disparities.

Despite its advantages, digitalization also presents certain weaknesses (W). Issues such as data privacy concerns, financial costs, and infrastructure limitations can hinder its widespread adoption.

Digitalization creates numerous opportunities (O) for enhancing urban life. From enabling remote work and education to improving municipal services, its applications are vast.

While digitalization brings numerous benefits, it also introduces certain threats (T) that must be carefully managed to ensure a secure and inclusive urban environment.

3.6.3. Summary of the KPI cluster ranking outcomes

In the KPI cluster ranking, eight main KPIs were presented to the expert group. These indicators include proximity, inclusivity, digitalization, density and land use, sustainability and climate action, governance, modal share, and economic impact. Subsequently, the expert group ranked the importance of these clusters in relation to the Küçükçekmece ULL through a voting process.

The results are shown below.

KPI cluster	*Final result (pts)*	*Ranking*
Proximity	***10***	***3***
Inclusivity	9	4
Digitalization and MaaS	6	6
Density and Land use	***12***	***2***
Sustainability and climate action	8	5
Governance	6	6
Modal Share	***14***	***1***
Economic Impact	5	8

12. Table Result of KPI cluster ranking, Istanbul

4. Results

Among the two methodologies used, KPI ranking is suitable for comparing local results and determining an overall aggregate result. Although there were local differences in the ranking methodology, the content of the clusters and the list-like nature of the final results were similar across the living labs.

The simple ranking method provided less information than the dotmocracy approach, where each cluster received a unique score. Therefore, we decided to use only the rank of the clusters for international comparisons. It means that the ranking resulted from a close competition or a significant difference did not matter.

The results of the KPI rankings are shown in 13. Table. 1 to 8 represents a simple position on a leaderboard, where 1 is the most important and 8 is the least; the projected values are collected based on the ranks they received at the workshops. When two clusters tie for the same position, they share the higher rank, and the next cluster is ranked as if those positions were taken. The joint result is an overall result, indicating the podium members.

KPI cluster	*Spain*	*Germany*	*Hungary*	*Italy*	*Portugal*	*Turkiye*	*joint*
Proximity	2	1	1	5	1	3	**2**
Inclusivity	6	3	8	1	7	4	**5**
Digitalization and MaaS	5	5	5	7	8	6	**7**
Density and Land use	3	3	4	6	5	2	**3**
Sustainability and climate action	4	7	3	2	4	5	**4**
Governance	7	6	6	4	6	6	**6**
Modal Share	1	2	1	3	2	1	**1**
Economic Impact	8	8	7	8	3	8	**8**

13. Table Overall table of KPI ranking results by case studies

The **Modal Share cluster ranks highest in importance across all countries**, reflecting a strong focus on transportation mode distribution. **Proximity and Density Land Use follow in ranks 2 and 3**, emphasizing accessibility and urban planning in mobility strategies. **Sustainability and Climate Action holds a mid-level joint ranking of 4**, highlighting varied national priorities in environmental policies. **Inclusivity** and **Governance are ranked 5 and 6**, respectively, indicating they are important but not the primary focus. **Digitalization and MaaS are the 7**, while **Economic Impact has the lowest ranking at 8**, suggesting that economic considerations may be less immediate than social, environmental, and infrastructural aspects. The results indicate that **Modal Share and Governance have the lowest variations, showing strong consistency**. Digitalization, MaaS, Density, and Land Use also exhibit stable importance across countries. Proximity, Sustainability, and Climate Action show moderate variations, while Economic Impact and Inclusivity have the highest deviations, indicating significant fluctuations in their rankings among different living labs. **This suggests a consensus on Modal Share and Governance, while Inclusivity and Economic Impact are a bit context-dependent**.

When examining country ratings, Turkey and Spain achieved rankings that were closely aligned with the overall average, falling within a range of plus or minus two positions from the joint values. **Out of the 48 rankings, only five fell outside this range.**

1. In Germany, 'Sustainability and Climate Action' KPI category was significantly below the average value.
2. In Hungary, 'Inclusivity' ranked last, while the average position was fifth.
3. In contrast, Italy had 'Inclusivity' in first place, with 'Density and Land Use' ranked lower.
4. In Portugal, 'Economic Impact' was particularly significant compared to the overall ranking.

5. Conclusion

The living labs discussed during the FGs present contrasting strengths and challenges in sustainable mobility, urban planning, and digitalization, shaped largely by their urban density and infrastructure. Experts from Hamburg-Altona and Lisbon-Alverca do Ribatejo mentioned that **higher-density areas naturally support walkability, mixed-use development, and efficient public transport**. Other attendees of FGs from Madrid-Las Rozas and Debrecen-Kertváros, **where the living lab has lower density characteristics, highlighted the struggle with car dependency and service accessibility**. **High density also brings risks of congestion**, mentioned in Istanbul-Küçükçekmece, requiring careful urban management.

According to the local FGs reports, **public transport effectiveness varies significantly**. Hamburg-Altona and Lisbon-Alverca do Ribatejo reported **benefits from well-integrated networks**, and Istanbul-Küçükçekmece experts mentioned that **heavy congestion reduces efficiency**. In Madrid-Las Rozas, there **are challenges with good public transport due to the living lab's urban layout**. The Deutschland ticket was mentioned in Hamburg-Altona, demonstrating how **policy can enhance accessibility**. In contrast, suburban areas in Turin-Settimo Torinese and Lisbon-Alverca do Ribatejo **still grapple with gaps in service coverage**. Areas with ongoing revitalization efforts, such as Debrecen-Kertváros and Turin-Settimo Torinese, focus on **improving infrastructure and redistributing populations to enhance connectivity**.

Urban diversity and socioeconomic factors further shape mobility patterns. Istanbul-Küçükçekmece and Madrid-Las Rozas discussed **inequalities in transport access, particularly affecting vulnerable groups**. In contrast, Hamburg-Altona and Lisbon-Alverca do Ribatejo mentioned the **relevance of inclusive housing policies and mixed-use developments to create more balanced urban environments**, though gentrification remains a shared concern.

Digitalization presents both opportunities and threats. Areas with **advanced technological integration can improve accessibility but risk widening social inequalities**, as mentioned in Lisbon-Alverca do Ribatejo and Hamburg-Altona. FGs of Madrid-Las Rozas and Istanbul-Küçükçekmece stated that **the struggle with real-time data availability and digital infrastructure gaps could limit their ability to implement smart mobility solutions effectively**.

The reports showed varying degrees of adaptability toward the 15-minute city concept. While both groups of experts of Turin-Settimo Torinese and Lisbon-Alverca do Ribatejo agreed on the relevance of exploring strategies for proximity-based urban living, Madrid-Las Rozas' and Debrecen-Kertváros' practitioners have also separately concluded that there are substantial structural limitations. **The reuse of public spaces emerges as a common opportunity, yet governance, funding, and administrative silos remain persistent challenges across multiple cities**.

Ultimately, **sustainable urban mobility depends on striking a balance between density, accessibility, and infrastructure investment**. High-density cities must address congestion and gentrification risks, while low-density areas need innovative solutions to reduce car dependence and enhance public transport viability. **Digitalization offers a pathway for all cities to optimize mobility, but its success relies on equitable implementation and governance.**

Annex

1. Madrid Las Rozas

1.1. List of participants

Name	Entity/Sector of activity
Blanca Pastor	Las Rozas Mobility Planning Department
Adriana Cortez	University. Researcher
Mª Teresa Antón	PT authority
Bruno Espinar	Mobility service provider
Andrea Palaín	Urban designer
Elisa Briales	mobility service provider
Rosa Maria Felix	Local citizen association representative
Montserrat Andujar	PT authority
Jesús Ruiz	University. Researcher
José Pérez	Mobility service provider
John Herrera	Mobility service provider
Cristina Rodriguez	ITS consultant
Eugenio Sanz	University. Researcher
Antonio Ramos	Las Rozas City Council
María Castillo	Mobility service provider
José Guillermo Bernal	local business owner
José Luis Málaga	director of the local vocational training centre
Cristina Sánchez	representative of Local Retailers association
Jose Manuel Suarez	representative of local shopping centre
Silvia Condado	representative of local shopping centre

Name	Entity/Sector of activity
Belén González	city council member for commerce

14. Table List of participants, Las Rozas

1.2. Photos of the event and of the final materials

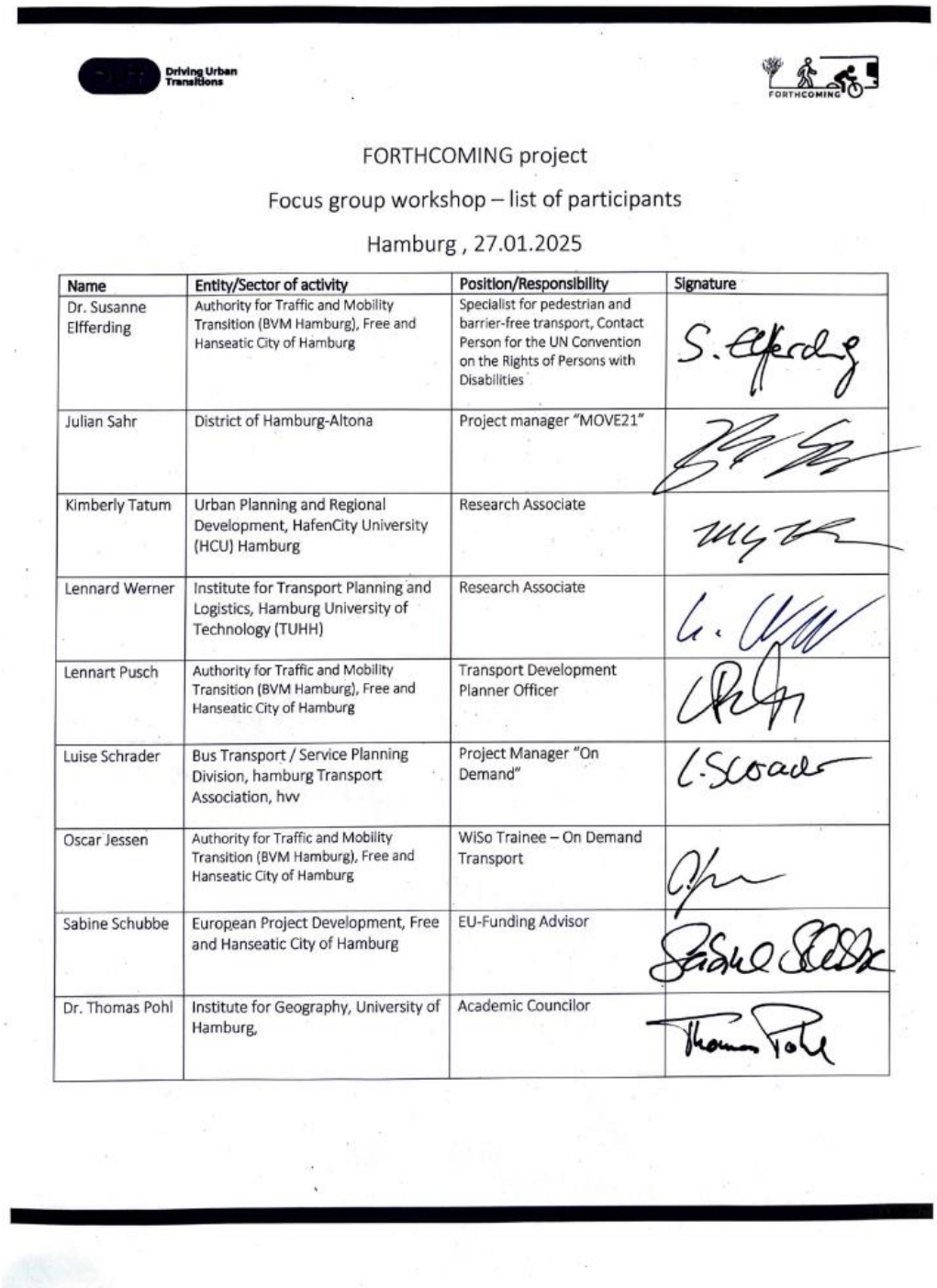
1. Figure Venue of the 1st focus group meeting, Las Rozas

2. Figure Venue of the 2nd focus group meeting, Las Rozas

3. Figure Venue of the 3rd focus group meeting, Las Rozas

2. Hamburg Altona District

2.1. List of participants



Driving Urban Transitions

FORTHCOMING

FORTHCOMING project

Focus group workshop – list of participants

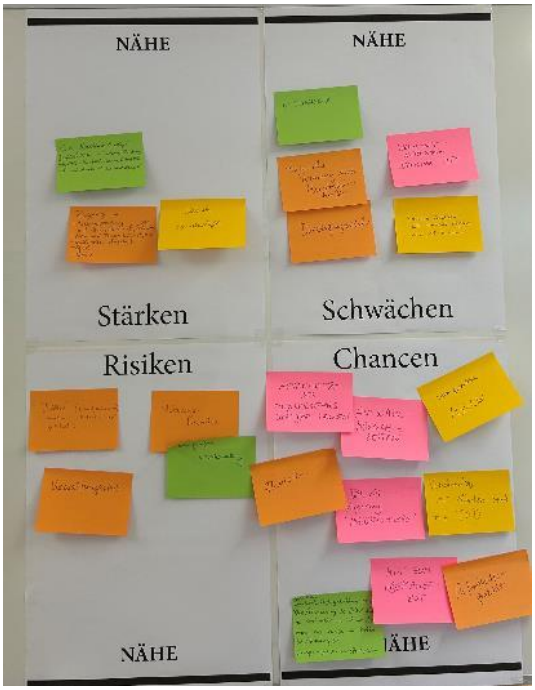
Hamburg , 27.01.2025

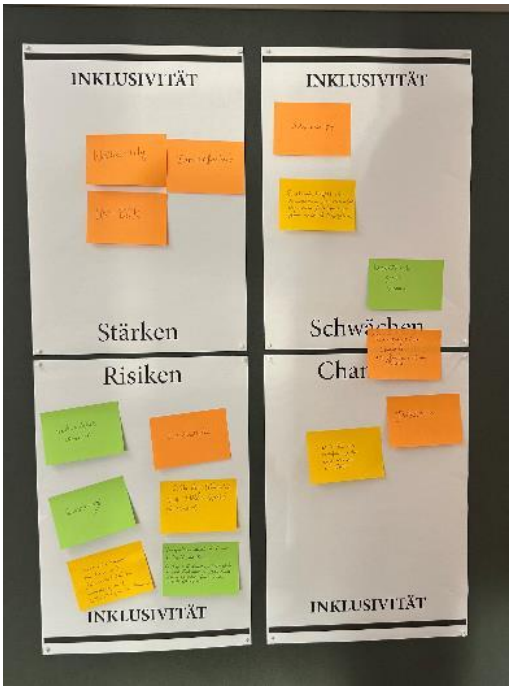
Name	Entity/Sector of activity	Position/Responsibility	Signature
Dr. Susanne Elfferding	Authority for Traffic and Mobility Transition (BVM Hamburg), Free and Hanseatic City of Hamburg	Specialist for pedestrian and barrier-free transport, Contact Person for the UN Convention on the Rights of Persons with Disabilities	
Julian Sahr	District of Hamburg-Altona	Project manager "MOVE21"	
Kimberly Tatum	Urban Planning and Regional Development, HafenCity University (HCU) Hamburg	Research Associate	
Lennard Werner	Institute for Transport Planning and Logistics, Hamburg University of Technology (TUHH)	Research Associate	
Lennart Pusch	Authority for Traffic and Mobility Transition (BVM Hamburg), Free and Hanseatic City of Hamburg	Transport Development Planner Officer	
Luise Schrader	Bus Transport / Service Planning Division, hamburg Transport Association, hvv	Project Manager "On Demand"	
Oscar Jessen	Authority for Traffic and Mobility Transition (BVM Hamburg), Free and Hanseatic City of Hamburg	WiSo Trainee – On Demand Transport	
Sabine Schubbe	European Project Development, Free and Hanseatic City of Hamburg	EU-Funding Advisor	
Dr. Thomas Pohl	Institute for Geography, University of Hamburg,	Academic Councilor	

4. Figure Signed list of participants, Hamburg

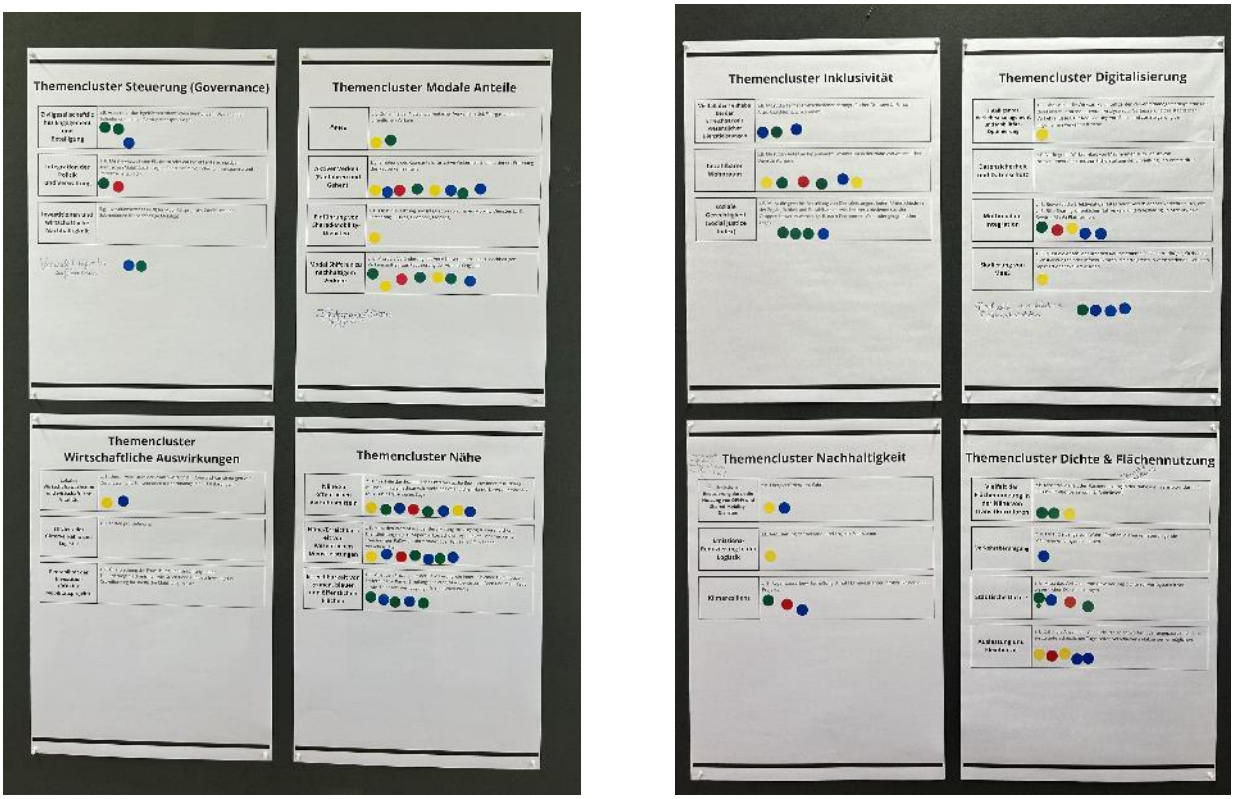
2.2. Photos of the event and of the final material

5. Figure Venue of the focus group meeting, Hamburg





6. Figure Final materials of the focus group meeting (SWOT), Hamburg



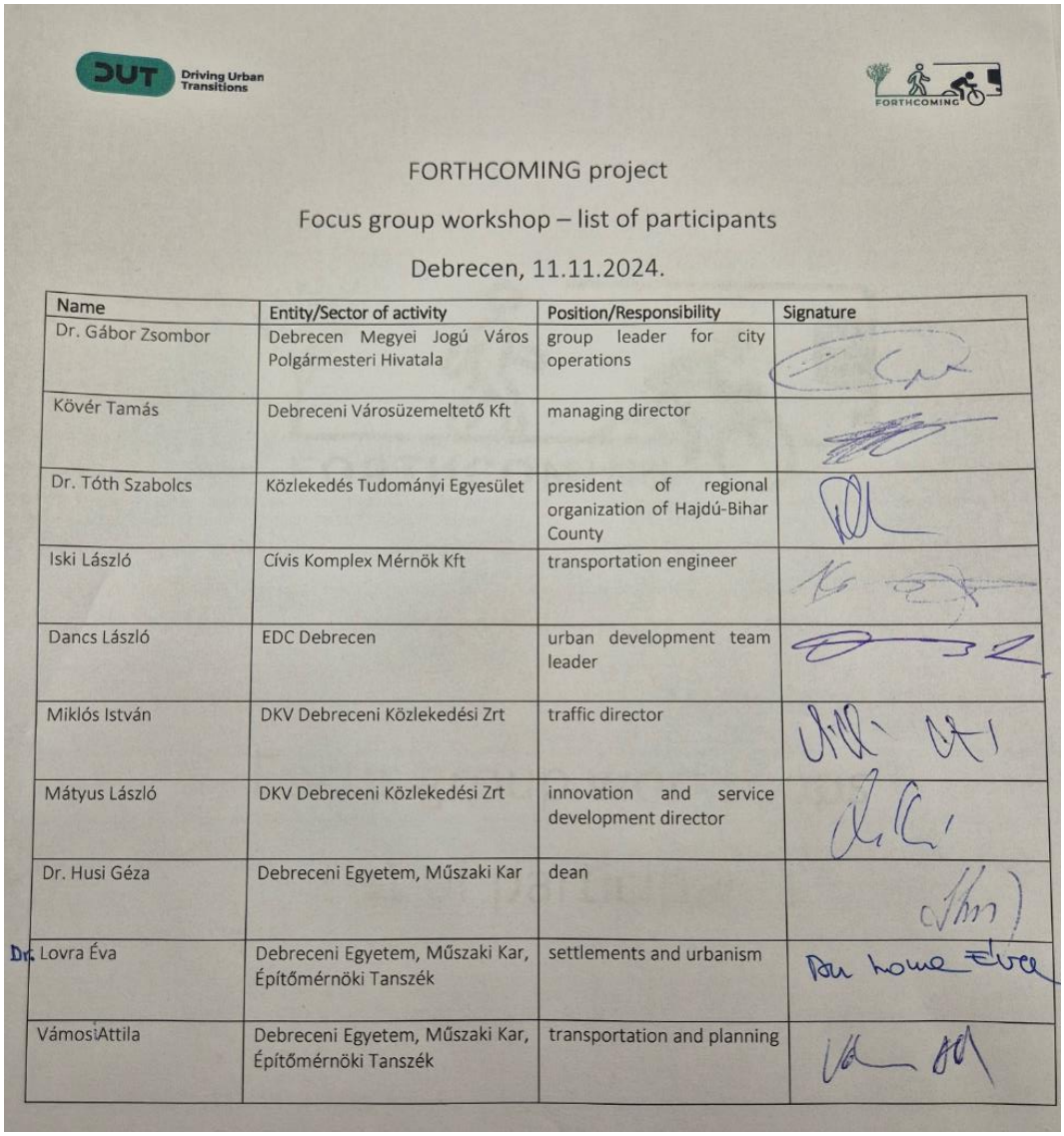
7. Figure Final materials of the focus group meeting (KPI ranking), Hamburg

3. Debrecen Kertváros

3.1. List of participants

Name	Entity/Sector of activity	Position/Responsibility
Dr. Gábor Zsombor	Debrecen Megyei Jogú Város Polgármesteri Hivatala	group leader for city operations
Kövér Tamás	Debreceni Városüzemeltető Kft	managing director
Dr. Tóth Szabolcs	Közlekedés Tudományi Egyesület	president of regional organization of Hajdú-Bihar County
Iski László	Cívis Komplex Mérnök Kft	transportation engineer
Dancs László	EDC Debrecen	urban development team leader
Miklós István	DKV Debreceni Közlekedési Zrt	traffic director
Mátyus László	DKV Debreceni Közlekedési Zrt	innovation and service development director
Dr. Husi Géza	Debreceni Egyetem, Műszaki Kar	dean
Dr. Lovra Éva	Debreceni Egyetem, Műszaki Kar, Építőmérnöki Tanszék	assistant professor (settlements and urbanism)
Vámos Attila	Debreceni Egyetem, Műszaki Kar, Építőmérnöki Tanszék	master lecturer (transportation and planning)

15. Table List of participants, Debrecen



FORTHCOMING project

Focus group workshop – list of participants

Debrecen, 11.11.2024.

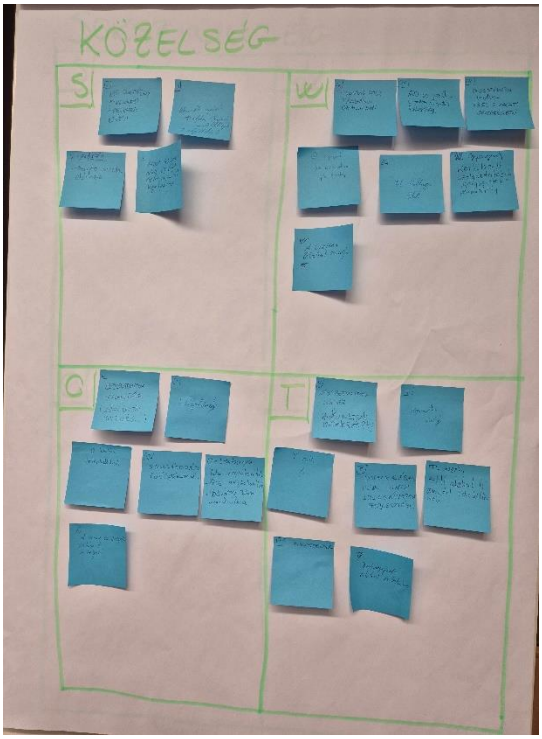
Name	Entity/Sector of activity	Position/Responsibility	Signature
Dr. Gábor Zsombor	Debrecen Megyei Jogú Város Polgármesteri Hivatala	group leader for city operations	
Kövér Tamás	Debreceni Városüzemeltető Kft	managing director	
Dr. Tóth Szabolcs	Közlekedés Tudományi Egyesület	president of regional organization of Hajdú-Bihar County	
Iski László	Cívis Komplex Mérnök Kft	transportation engineer	
Dancs László	EDC Debrecen	urban development team leader	
Miklós István	DKV Debreceni Közlekedési Zrt	traffic director	
Mátyus László	DKV Debreceni Közlekedési Zrt	innovation and service development director	
Dr. Husi Géza	Debreceni Egyetem, Műszaki Kar	dean	
Dr. Lovra Éva	Debreceni Egyetem, Műszaki Kar, Építőmérnöki Tanszék	settlements and urbanism	
Vámosi Attila	Debreceni Egyetem, Műszaki Kar, Építőmérnöki Tanszék	transportation and planning	

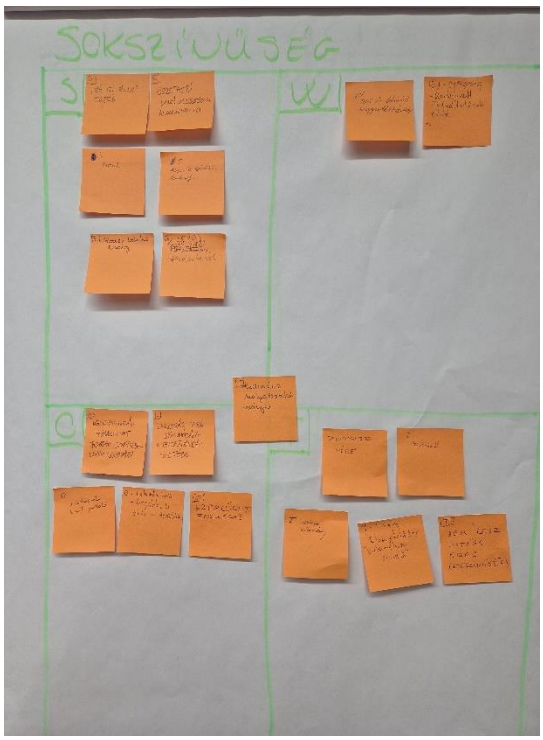
8. Figure Signed list of participants, Debrecen

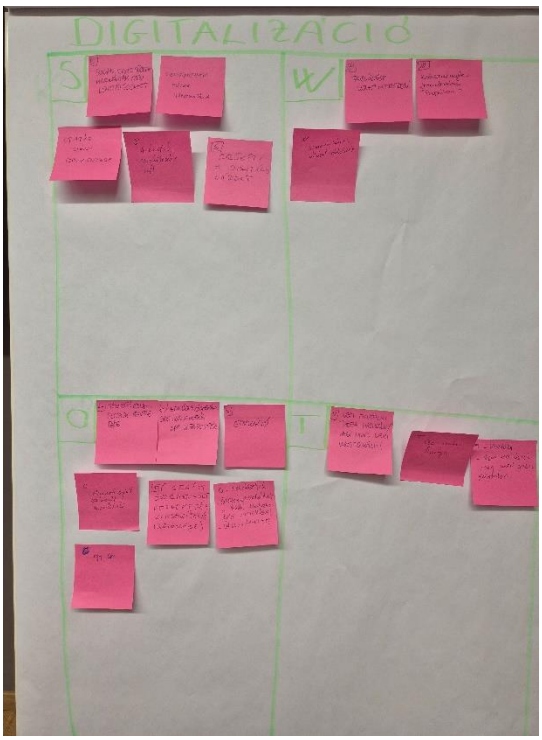
3.2. Photos of the event and of the final materials

9. Figure Venue of the focus group meeting, Debrecen

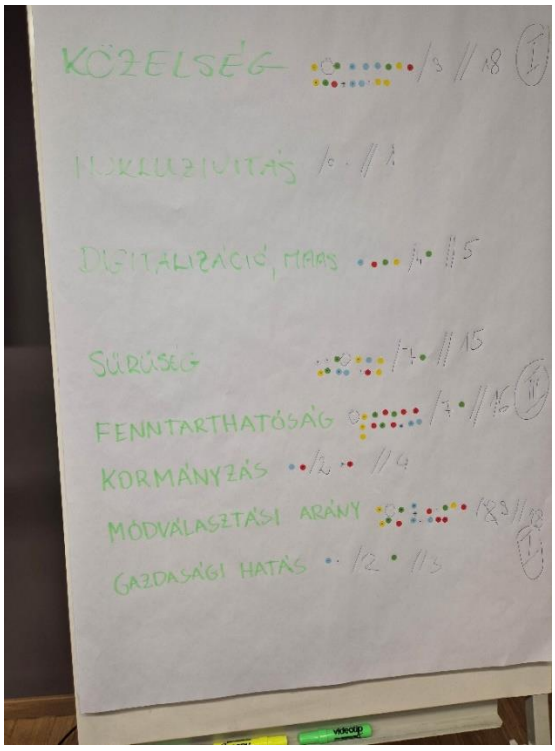
10. Figure Methodology of the focus group meeting (SWOT and KPI ranking), Debrecen







11. Figure Final materials of the focus group meeting (SWOT), Debrecen



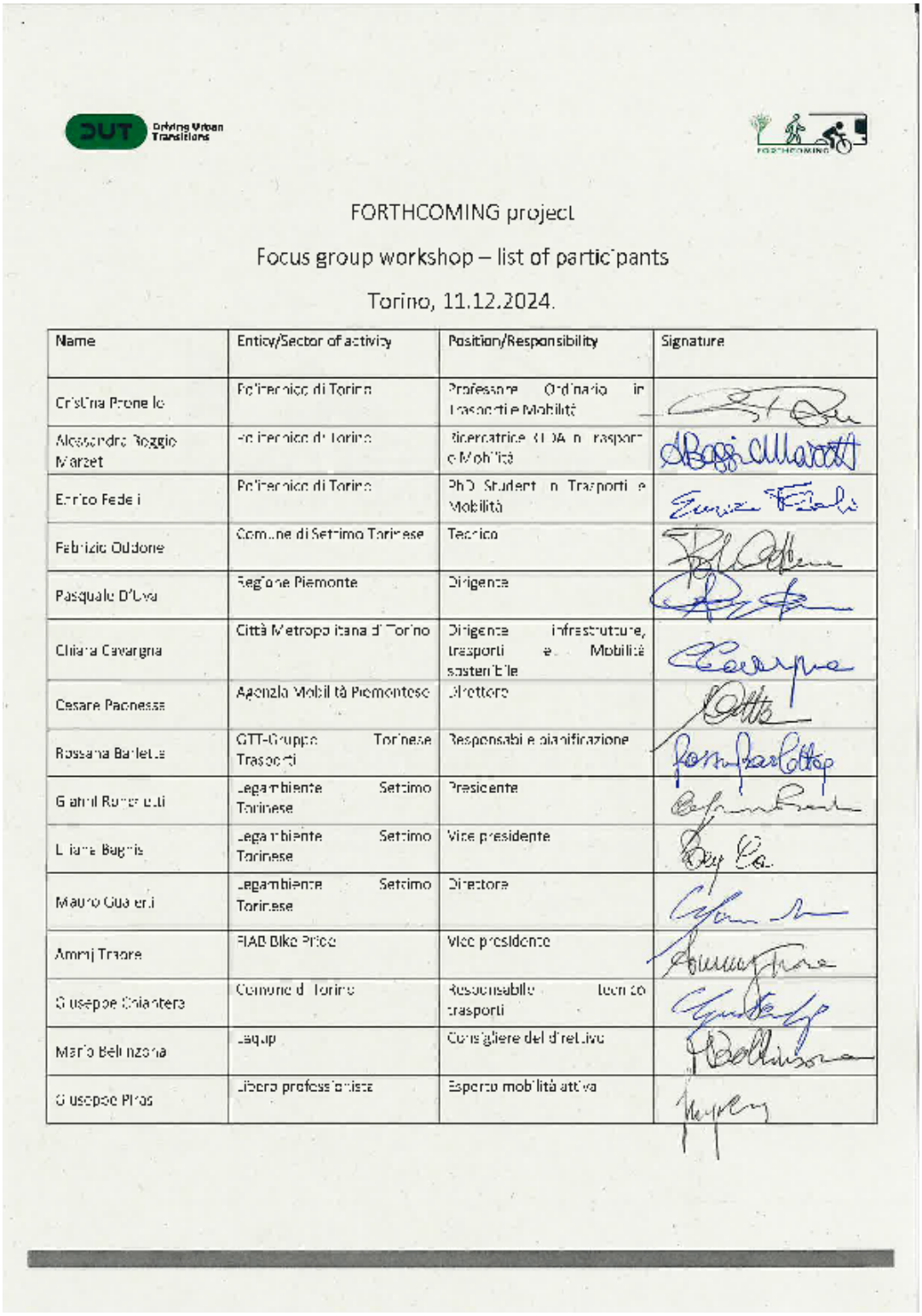
12. Figure Final materials of the focus group meeting (KPI ranking), Debrecen

4. Turin Settimo Torinese

4.1. List of participants

Name	Entity/Sector of activity	Position/Responsibility
Mario Bellinzona	Laqup (Local activist association on public space quality and tactical urbanism)	board member
Chiara Cavargna	Transport and Sustainable Mobility in the Città Metropolitana di Torino	manager
Rossana Barletta	GTT	Director of transport planning
Fabrizio Oddone	Comune di Settimo Torinese	Technician
Giuseppe Chiantera	Torino Municipality	Responsible of Transport and director of Innovative Mobility
Giuseppe Piras	District 7 of Torino Municipality	Architect expert of active mobility and Coordinator of the Mobility Commission
Ammj Traore	Cycling Association Activist (FIAB)	vice President
Gianni Ronchetti	Legambiente (environmental association) Settimo Torinese	President
Liliana Bagnis	Legambiente (environmental association) Settimo Torinese	vice President
Mauro Gualeni	Legambiente (environmental association) Settimo Torinese	Director
Pasquale D'Uva	Piedmont Region	manager of Transport and Infrastructure Planning and Programming
Cesare Paonessa	Agenzia Mobilità Piemontese (AMP)	Director of regional transport authority

16. Table List of participants, Turin



FORTHCOMING project

Focus group workshop – list of participants

Torino, 11.12.2024.

Name	Entity/Sector of activity	Position/Responsibility	Signature
Cristina Pronello	Politecnico di Torino	Professore Ordinario in Trasporti e Mobilità	
Alessandra Reggio Marzet	Politecnico di Torino	Ricercatrice (TD-A) in Trasporti e Mobilità	
Enrico Fedeli	Politecnico di Torino	PhD Student in Trasporti e Mobilità	
Fabrizio Oddone	Comune di Settimo Torinese	Tecnico	
Pasquale D'Ova	Regione Piemonte	Dirigente	
Chiara Cavargna	Città Metropolitana di Torino	Dirigente Infrastrutture, trasporti e Mobilità sostenibile	
Cesare Paonessa	Agenzia Mobilità Piemontese	Direttore	
Rossana Barletta	GTT-Gruppo Torinese Trasporti	Responsabile pianificazione	
Gabriel Rumpianti	Legambiente Settimo Torinese	Presidente	
Liliana Bagnis	Legambiente Settimo Torinese	Vice presidente	
Mauro Guaineri	Legambiente Settimo Torinese	Direttore	
Ammij Tnaore	FIAB Bike Pride	Vice presidente	
Giuseppe Chiantera	Comune di Torino	Responsabile tecnico trasporti	
Mario Bellinzona	Legup	Consigliere del direttivo	
Giuseppe Piras	Libero professionista	Esperto mobilità attiva	

13. Figure Signed list of participants, Turin

4.2. Photos of the event and of the final materials

14. Figure Venue of the focus group meeting, Turin

15. Figure Final materials of the focus group meeting (SWOT), Turin

5. Lisbon Alverca do Ribatejo

5.1. List of participants

Name	Entity/Sector of activity	Position/Responsibility
Jorge Baptista e Silva	IST, Instituto Superior Técnico	Researcher
Ricardo Ramalho	CMVFX, Câmara Municipal de Vila Franca de Xira	Planner/Municipality/Project partner
José Gonçalves	CENTI, Centro de Nanotecnologia e Materiais Avançados	Stakeholder/Project Partner
Miguel Angelo Fonseca	DGT, Direção Geral do Território	Planning General Directorate/Policymaking/regulation
Sérgio Pinheiro	TML - Transportes Metropolitanos de Lisboa	Transport Operator
Joana Lima	Instituto da Mobilidade e Transportes	Mobility and transport Policymaking/regulation
Sara Lopes	CMVFX, Câmara Municipal de Vila Franca de Xira	Planner/Municipality/Project partner
Rui Colaço	Instituto Superior Técnico	Researcher
Hugo Brolo	Nhood	Stakeholder, land developer
Júlia Reis	CMVFX, Câmara Municipal de Vila Franca de Xira	Planner/Municipality/Project partner

17. Table List of participants, Lisbon

FORTHCOMING project

Focus Group – lista de participantes

Vila Franca de Xira, 29.11.2024

Nome	Empresa/Setor de atividade	Função	Assinatura
Jorge Bastos e Silva	IST	Prof.	
	CMVFX		
	DGT	Técnico Superior	
	TML		
	IMT		
	CMVFX		

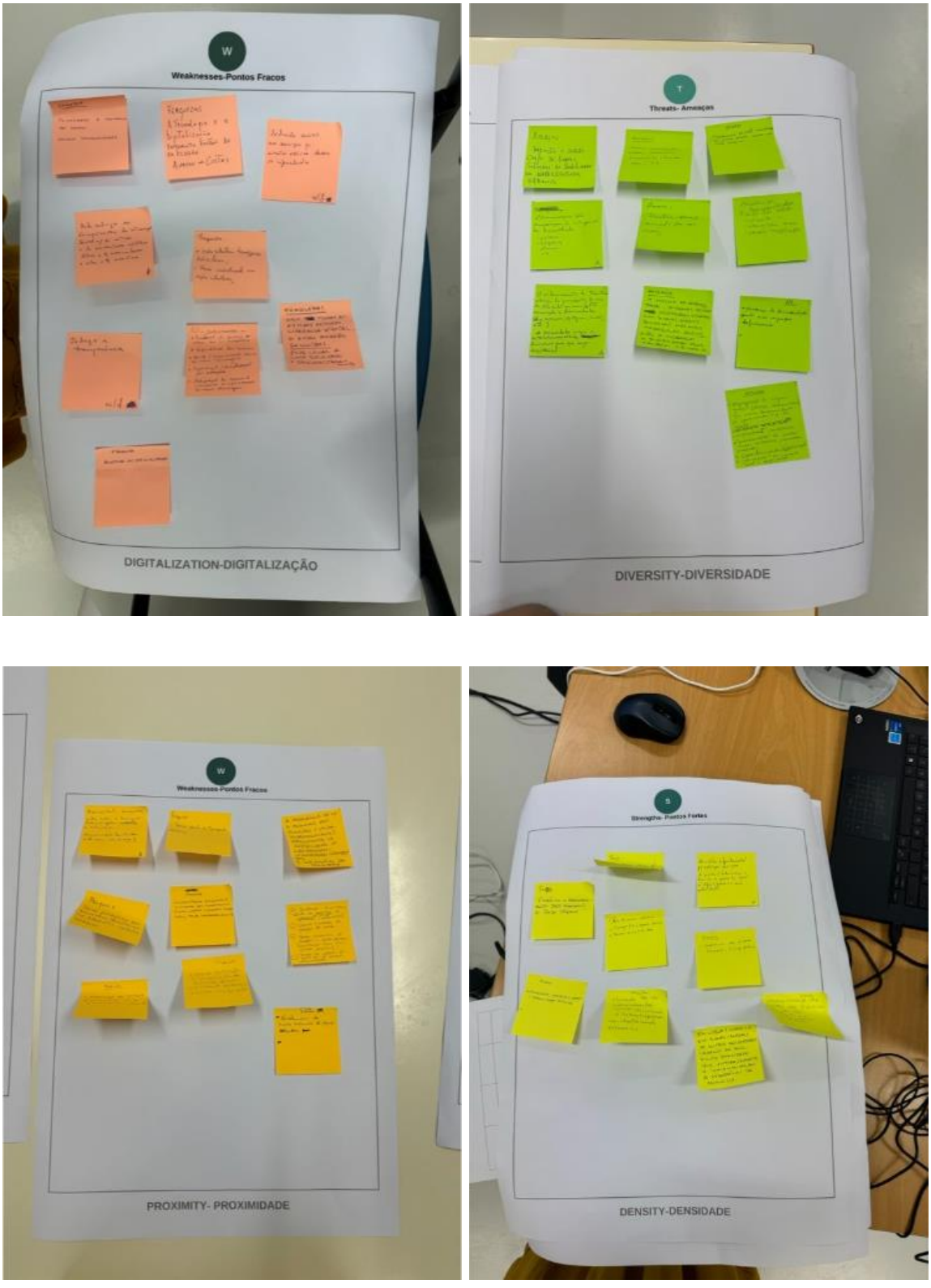
Nome	Entidade/Sector de atividade	Função	Assinatura
RUI COLAÇO	IST / IDD	INVESTIGADOR	

16. Figure Signed list of participants, Lisbon

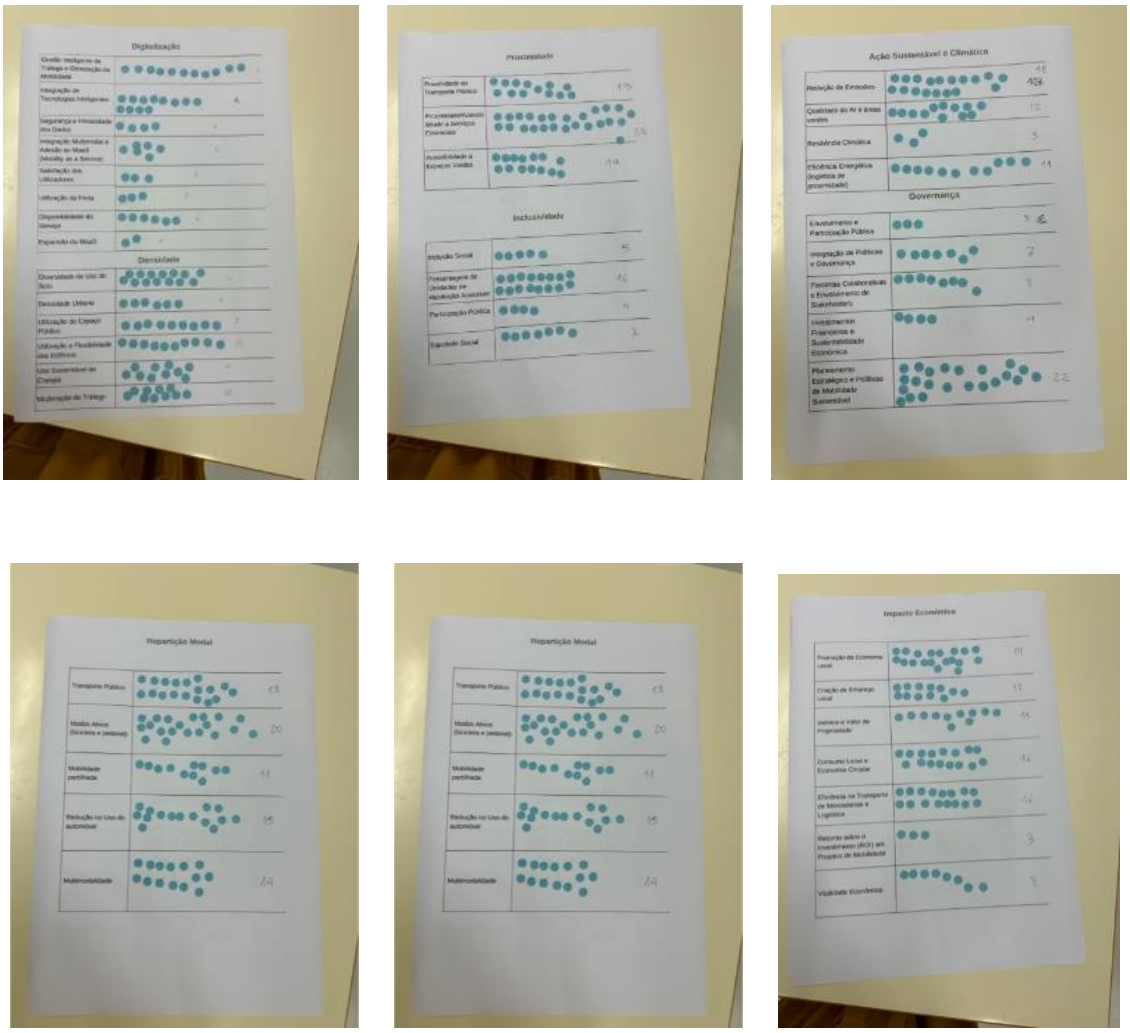
5.2. Photos of the event and of the final materials

17. Figure Venue of the focus group meeting, Lisbon

18. Figure Methodology of the focus group meeting (SWOT and KPI ranking), Lisbon



19. Figure Final materials of the focus group meeting (SWOT), Lisbon



20. Figure Final materials of the focus group meeting (KPI ranking), Lisbon

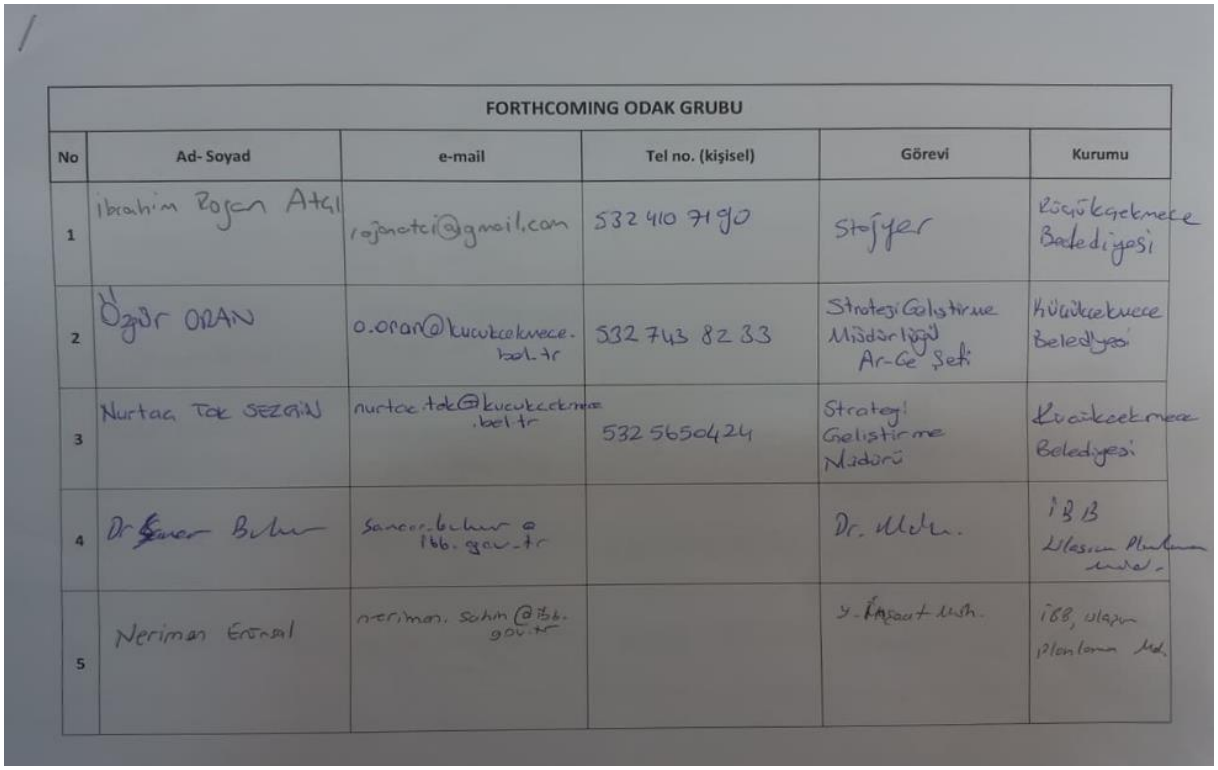
6. Istanbul Küçükçekmece

6.1. List of participants

Name	Entity/Sector of activity	Position/Responsibility
Prof. Dr. Hande Demirel	ITU	Geomatics Engineer
Prof. Dr. Hilmi Berk Çelikoğlu	ITU	Transportation Engineer
Aydın Furkan Terzi	ITU	Geomatics Engineer
Elif Çora	Parabol	Urban Planner
Elif Karagümüş	Parabol	Urban Planner
Melda Horoz	IMM	Manager of Transportation Planning
İlknur Yücel	IMM	Assistant Manager of Transportation Planning
Dr. Sancar Buhur	IMM	Geomatics Engineer
Hale Erez Kürekçi	IMM	Urban Planner
Ozan Külekçi	IMM	Urban Planner
Başak Boztaş Koç	IMM	Urban Planner
Ebru Yılmazlar	IMM	Urban Planner
Neriman Erünsal	IMM	Civil Engineer

Name	Entity/Sector of activity	Position/Responsibility
Mert Yaman	Kadıköy Municipality	Urban Planner
Büşra Buran	Istanbul Electric Tramway and Tunnel Establishments	Industrial Engineer
Caner Kılıç	Plan24	Urban Planner
Nurtaç Tok Sezgin	KM	Urban Planner
Özgür Oran	KM	R&D Chief
İbrahim Rojan Atçı	KM	Urban Planner

18. Table List of participants, Istanbul



FORTHCOMING ODAK GRUBU

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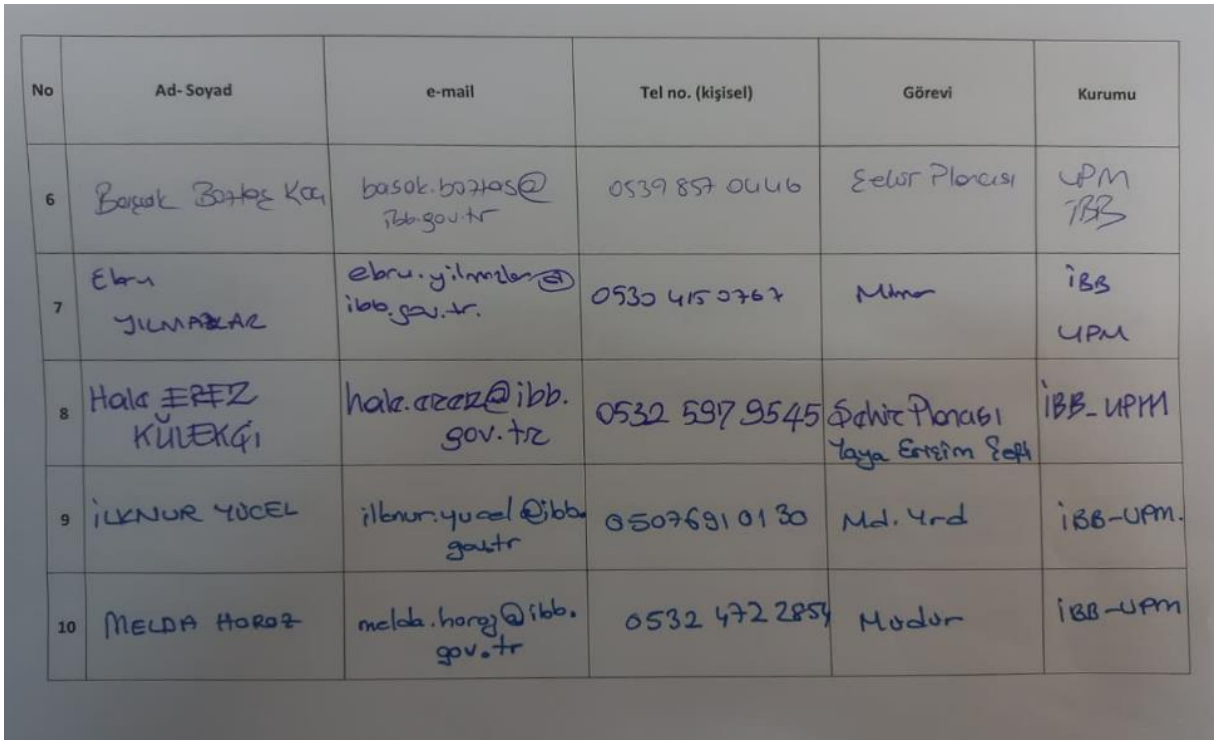
1	İbrahim Rojan Atçı	rojanatci@gmail.com	532 410 71 90	Stajyer	Küçükçekmece Belediyesi
2	Özgür ORAN	o.oran@kucukcekmece.bel.tr	532 743 82 33	Strateji Geliştirme Müdürlüğü Ar-Ge Şefi	Küçükçekmece Belediyesi
3	Nurtaç TOK SEZGİN	nurtac.tok@kucukcekmece.bel.tr	532 5650424	Strateji Geliştirme Müdürü	Küçükçekmece Belediyesi
4	Dr. Şener Bekir	sener.bekir@ibb.gov.tr		Dr. Müdür	İBB Ulaşım Planlama Müdürlüğü
5	Neriman Erdal	neriman.sahin@ibb.gov.tr		Y. Müşavir Müh.	İBB, Ulaşım Planlama Md.



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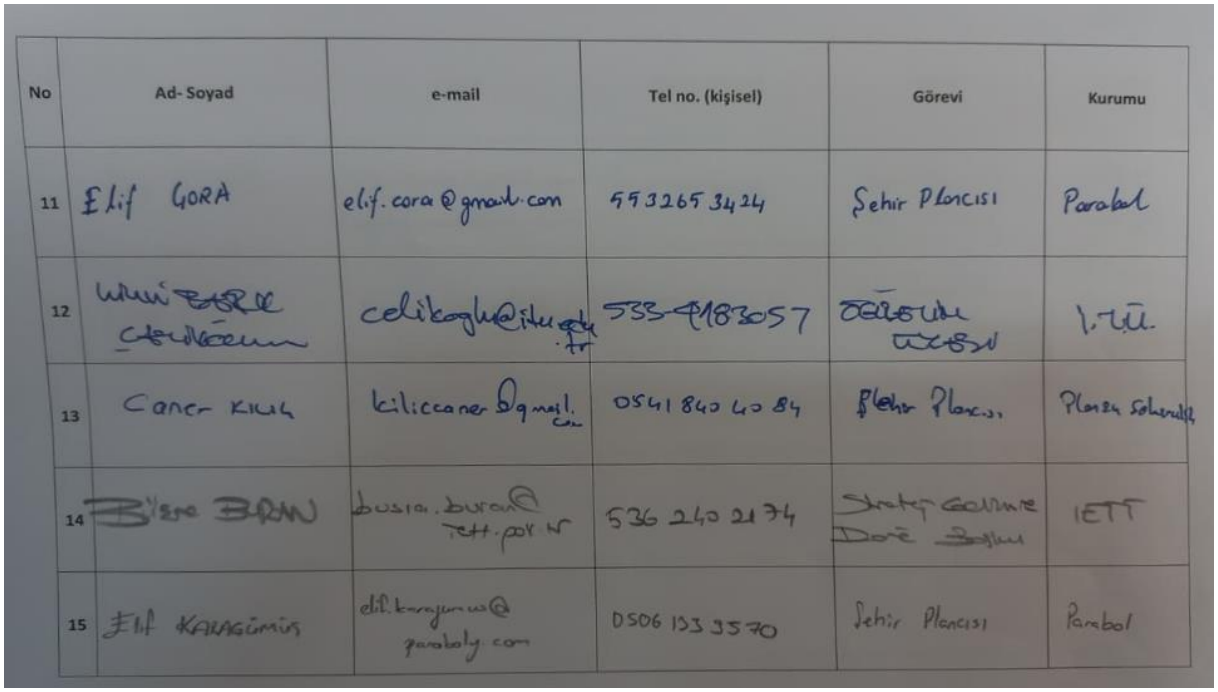
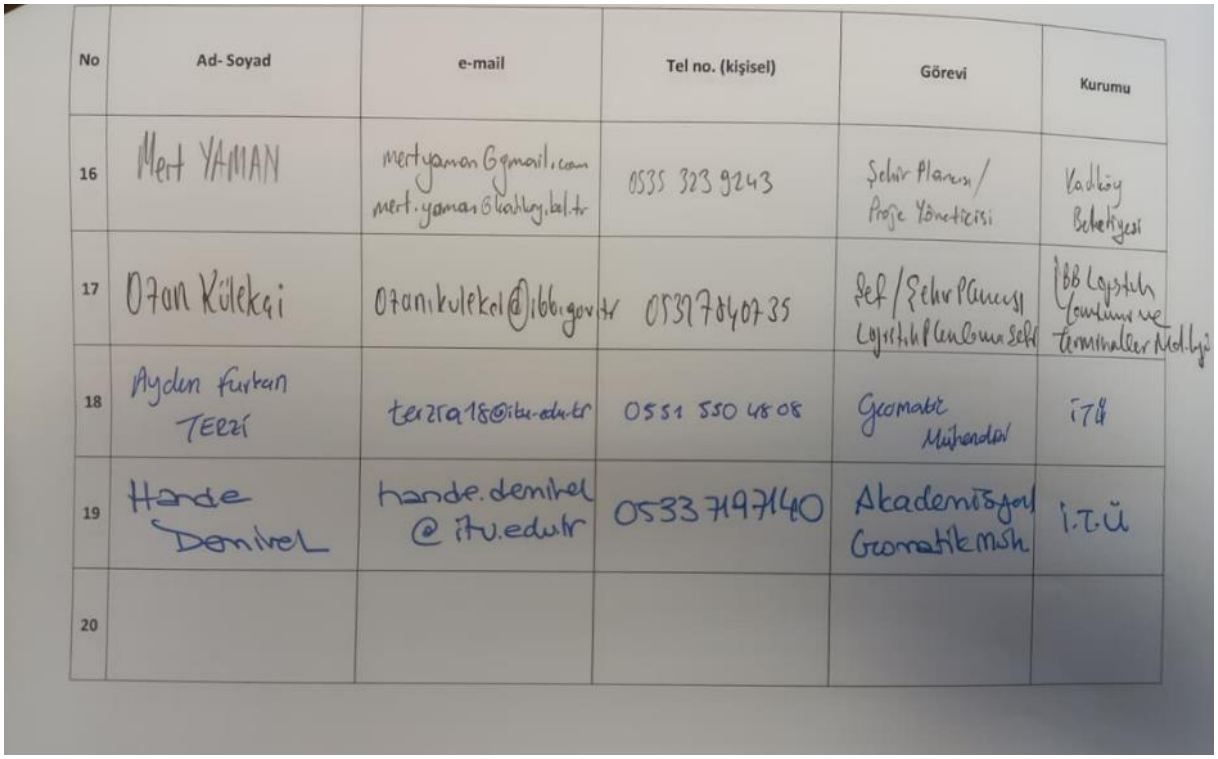
9	İLKNUR YÜCEL	ilknur.yucel@ibb.gov.tr	05076910130	Md. Yrd	İBB-UPM.
10	MELDA HOROZ	melda.horoz@ibb.gov.tr	0532 472 2854	Müdür	İBB-UPM



No	Ad- Soyad	e-mail	Tel no. (kişisel)	Görevi	Kurumu
11	Elif GORA	elif.cora@gmail.com	4913265 3424	Şehir Plancısı	Parabol
12	[illegible]	celikoglu@[illegible].tr	533-4183057	[illegible]	İ.T.Ü.
13	Caner KILIÇ	kiliccaner@gmail.com	0541 840 40 84	Şehir Plancısı	Planya Şehircilik
14	Büşra BURAN	busra.buran@tett.gov.tr	536 240 21 74	Strateji Geliştirme Dairesi Başkanlığı	IETT
15	Elif KARAGÜMÜŞ	elif.karagumus@parabol.com	0506 133 3570	Şehir Plancısı	Parabol

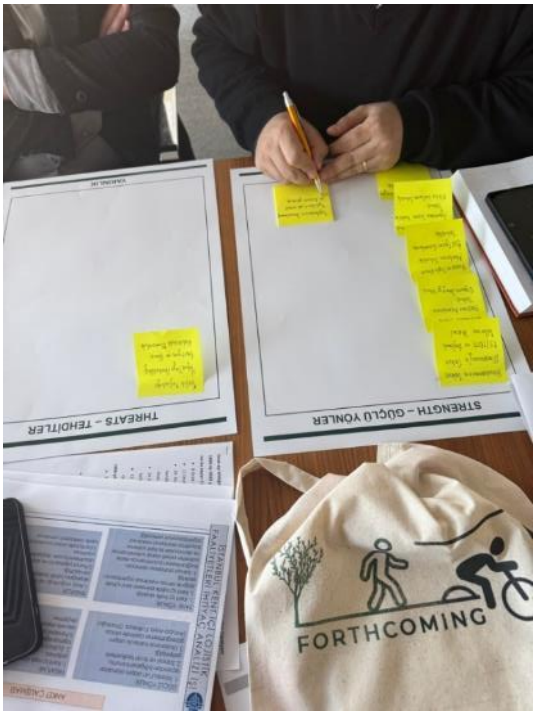


No	Ad- Soyad	e-mail	Tel no. (kişisel)	Görevi	Kurumu
16	Mert YAMAN	mertyaman@gmail.com mert.yaman@kadikoy.bel.tr	0535 323 9243	Şehir Plancısı / Proje Yöneticisi	Kadıköy Belediyesi
17	Ozan Külekçi	ozanikulekci@ibb.gov.tr	05397840735	Şef / Şehir Plancısı Lojistik Planlama Şefi	İBB Lojistik Koordinasyon ve Terminaller Müd.lüğü
18	Aydın Furkan TEKİ	tekfa18@itu.edu.tr	0551 550 48 08	Geomatik Mühendisi	İTÜ
19	Hande Denivel	hande.denivel@itu.edu.tr	05337197140	Akademisyen/ Geomatik Müh.	İ.T.Ü.
20					

21. Figure Signed list of participants, Istanbul

6.2. Photos of the event and of the final materials

22. Figure Venue of the focus group meeting, Istanbul



23. Figure Methodology of the focus group meeting (SWOT), Istanbul