D7
ULL's structure in each city

Disclaimer

Co-funded by Erasmus+. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

Partners

	University of Cyprus (UCY)	Cyprus
	Brandenburg University of Technology Cottbus–Senftenberg (BTU)	Germany
	Consiglio Nazionale Delle Ricerche (CNR)	Italy
	Social Fringe: interesting untold stories (SF:IUS)	Croatia
	Palermo Urban Solutions Hub (PUSH)	Italy
	Urban Foxes	Belgium

Associated Partner

	AESOP Thematic Group for Public Spaces and Urban Cultures (TG PSUC)	

Deliverable No.	D7
Relevant Work Package:	WP2 Education in Living Labs Framework
Medium:	Publication
Dissemination Level:	Public
Document Version:	Draft
Date:	14/11/2024
Author:	Bram Dewolfs
Document Description:	This document gathers context-based information and identifies the relevant stakeholders of the four PS-U-GO ULL. It also covers the selection, development, and organization of tools and methods to enhance participation through an open process, ensuring balanced and broad representation. Emphasis will be placed on inclusion and gender dimensions, aiming to identify a balanced group of stakeholders and developing a hybrid participatory toolkit through appropriate activities, time, and space.

Version	Issue Date	Reviewer(s)/ Contributor(s):
1.0	14/11/2024	Christine Mady, Christina Panayi, Emilia Pardi, Stefania Ragozino, Tihomir Viderma, Tomislav Augustinčić

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Activity 2.3 "Setting up the ULL in each city" and Deliverable 7 "ULL's structure in each city" build on existing knowledge of situated learning and related educational approaches, integrating these insights with the Urban Living Labs (ULL) methodologies to be developed throughout the project. This deliverable examines the structure and methodologies of ULLs in four distinct contexts: Naples (Italy), Nicosia (Cyprus), Palermo (Petralia Sottana, Italy), and Cottbus (Germany). Drawing insights from the PS-U-GO project, training courses, and theoretical frameworks, it provides a comprehensive roadmap for implementing and managing ULLs effectively. Activity 2.3 aims to develop a detailed structure for the ULLs based on each context, including a detailed day-to-day schedule, specific tools and methods to be used, a stakeholders list and any other important information for the implementation of each ULL.

The key objectives are:

1. Develop stakeholder engagement strategies grounded in the Quadruple Helix Model, incorporating academia, industry, government, and civil society.
2. Design hybrid participatory toolkits that combine digital and analog methods, ensuring accessibility and adaptability.
3. Foster long-term sustainability by embedding inclusivity, gender equality, and iterative learning into ULL operations.
4. Address critical questions around failure, subjectivity, diversity, and power dynamics to create resilient and adaptive systems.

1.INTRODUCTION

Context and Background

Urban Living Labs (ULLs) are increasingly recognized as transformative platforms for urban governance, innovation, and participatory planning. These labs provide real-world environments where experimentation, co-creation, and stakeholder engagement converge to address complex urban challenges. Unlike conventional top-down planning approaches, ULLs foster collaborative processes that empower communities to participate actively in shaping their urban environments. This participatory ethos bridges the gap between theoretical urban planning and tangible community benefits, ensuring that solutions are not only innovative but also contextually relevant and sustainable.

This deliverable examines the structure and contexts of ULLs across four diverse contexts: Naples, Nicosia, Palermo (Petralia Sottana), and Cottbus. Although following a similar roadmap and predefined set of values, each ULL represents a unique approach to urban challenges, shaped by local dynamics, stakeholder composition, and thematic focus. At the same time, the uniqueness of each ULL is brought into play for the entire educational process through the tools and methods of communication and confrontation provided by the project. By analyzing these cases, this report aims to provide a comprehensive understanding of ULL methodologies, including stakeholder engagement strategies, participatory tools, and frameworks for fostering inclusivity, sustainability, and long-term impact.

The Purpose of this Report

The primary objective of this report is to develop an adaptable framework for ULLs that addresses immediate urban needs while contributing to long-term community resilience. This framework is informed by insights from the PS-U-GO project deliverables, particularly D5 and D6, and uses the created framework built in the Miro board during activity 2.3 as well as reflections from participatory training sessions. The report also integrates critical questions compiled by our partner SFIUS during the Brussels' Training course, and lessons learned, emphasizing the importance of iterative learning and reflexivity in ULL processes. Some of the key considerations include:

1) How can ULLs address immediate community needs while fostering long-term impact?
2) What strategies ensure inclusivity and diversity in participatory processes?
3) How can ULLs navigate challenges such as limited resources, power dynamics, and stakeholder fatigue?
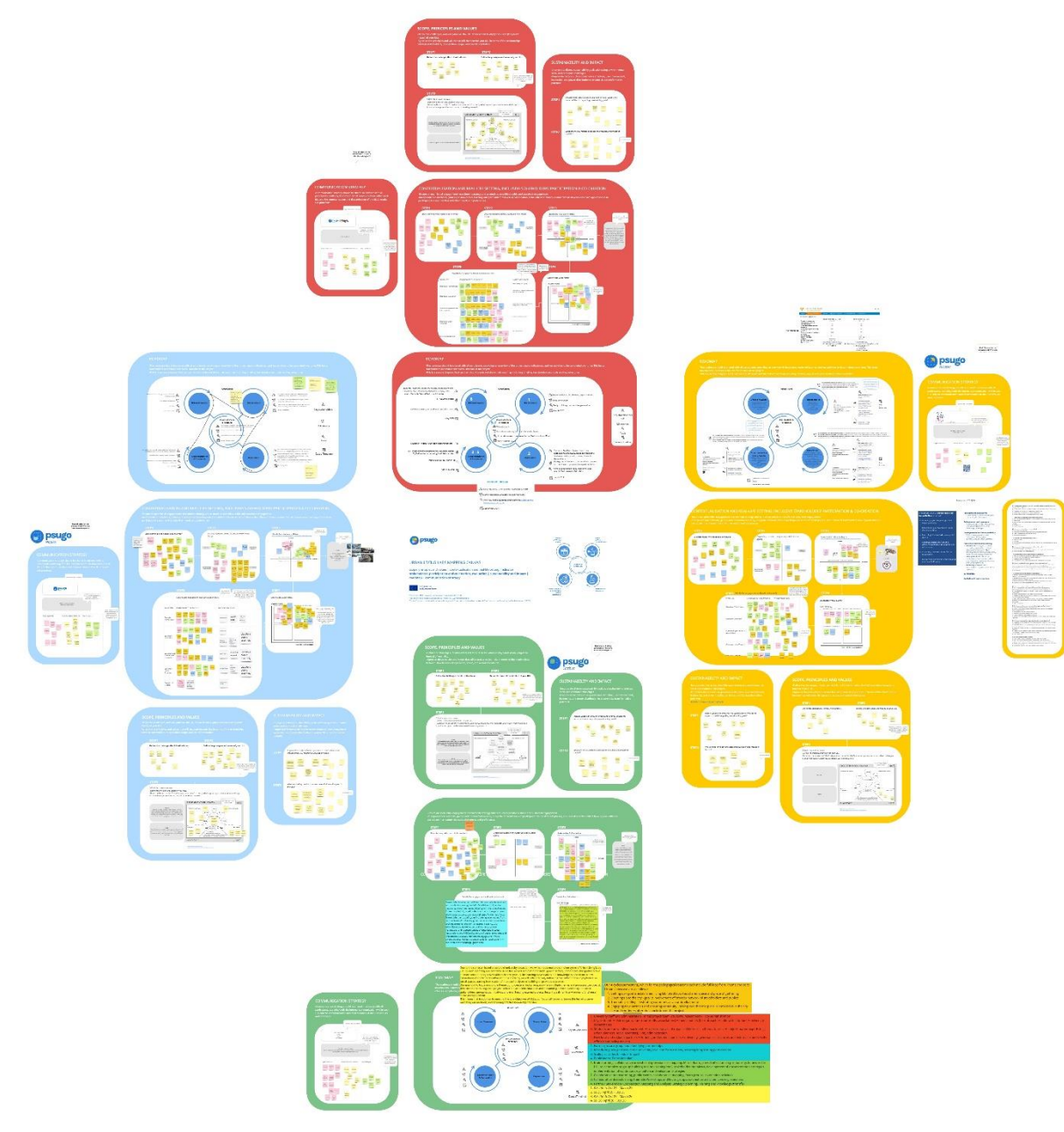
Figure 1: The created framework for ULLs built in the Miro.

Relevance of Inclusivity and Gender Equality

Inclusivity and gender equality are central to the ULL framework presented in this report. Urban challenges disproportionately affect marginalized groups, making it imperative that ULLs adopt approaches that amplify underrepresented voices. Co-creation processes must reflect diverse perspectives, fostering equitable participation

in decision-making and implementation. This report underscores the importance of hybrid participatory toolkits—comprising both traditional and digital methods—to engage stakeholders effectively. These tools must be accessible and adaptable, ensuring that all participants, regardless of their technical proficiency or resources, can contribute meaningfully.

Structure of the Report

The report is organized into the following chapters:

A. Contextual Analysis of ULLs: Provides detailed insights into the unique contexts of Naples, Nicosia, Palermo, and Cottbus, highlighting their thematic focuses, challenges, and opportunities.

B. Stakeholder Engagement Strategies: Examines how the Quadruple Helix Model fosters collaboration among academia, industry, government, and civil society, addressing barriers to inclusivity and participation.

C. Participatory Tools and Hybrid Toolkit: Outlines a comprehensive toolkit that integrates digital and analog methods for theme choice, exploration, experimentation and co-design, showcase, and evaluation.

D. Recommendations and Future Directions: Proposes actionable strategies for scaling ULLs, fostering long-term engagement, and integrating emerging technologies.

A Vision for the Future

This deliverable envisions ULLs as dynamic, adaptive systems capable of addressing the multifaceted challenges of urbanization. By prioritizing co-creation, inclusivity, and sustainability, ULLs can transform urban governance into a participatory process that empowers communities, fosters innovation, and ensures resilience. The lessons drawn from the four ULLs analyzed in this report provide a foundation for expanding this model to other urban contexts, promoting equitable and sustainable development on a global scale.

2.CONCEPTUAL FRAMEWORK

The conceptual framework underpinning this deliverable is rooted in the principles of Urban Living Labs as dynamic, inclusive and real-life environments for testing and implementing urban innovations. ULLs are defined by their emphasis on co-creation, inclusivity, and experimentation, fostering collaborative relationships among stakeholders.

Key characteristics that shape the framework include:

a) Real-Life Contextualization: ULLs operate within specific urban environments, directly engaging with local communities to address contextual challenges and opportunities. This real-life setting ensures that interventions are practical and impactful.
b) Inclusive Stakeholder Engagement: Diverse stakeholder participation is central to ULLs, ensuring that voices from local communities, governments, businesses, and academia are equally represented. The inclusion of marginalized groups and the promotion of gender equality are critical to this process.
c) Experimentation and Learning: ULLs prioritize iterative experimentation, allowing for continuous improvement and learning. This process enables stakeholders to test, evaluate, and refine solutions collaboratively.
d) Sustainability and Impact: ULLs aim to achieve long-term sustainability by integrating economic, social, and environmental considerations into their processes. By fostering a sense of ownership among stakeholders, ULLs ensure the continuity and scalability of their initiatives.

This framework serves as a foundation for analyzing the structure and methodologies of the four ULLs examined in this deliverable.

3. LOCAL CONTEXTS AND STAKEHOLDER ENGAGEMENT

ULL Naples: Lido Pola Permanent Laboratory (LP^2)

The Naples ULL will be a natural evolution of the ULL "LP^2 – Lido Pola Permanent Laboratory" project funded by the Italian Ministry of Culture, Call "Creative Living Lab IV Edition", promoted by the Community of the Lido Pola Urban Commons and by associations 4Raw City Sound Studio, Jolie Rouge APS and Needle Scampia, with the scientific support of CNR-IRISS. The Lido Pola Community hosting the ULL Naples is one of the Urban Commons in Naples recognized by the City Council located in Bagnoli, a beautiful but depleted neighborhood on the west coast of Naples (Italy) characterized by a long history

(1903–1992) of production and withdrawal of a heavy metallurgy plant, as well as by a strong activism starting from the first workers' movements.

The ULL Naples will be (re)settled with the aim of addressing the sea accessibility, one of the issues currently challenging the more and more privatized and over-touristified Naples. The Neapolitan Collective Mare Libero, Pulito e Gratuito, a branch of the National Committee Free, Clean and Free Sea, contributes to the process of democratizing the sea resource with the support of the Neapolitan Urban Commons Network, and it will be one of the protagonists of the ULL Naples.

In addition to researchers and the Lido Pola Community, the ULL will involve students from the Department of Architecture (Federico II University of Naples), social, environmental and economic operators and committee, and public institutions in a real-life experimentation.

The gender dimension will be addressed by the presence and commitment of the transfeminist collective Sororidad, which is one of the spontaneous groups born within the Lido Pola Community that will contribute to the ULL Naples activities. Stakeholder engagement in Naples is central to the success of LP² and involves a diverse network of collaborators. Local resident groups, deeply rooted in the community, provide essential insights into the needs and aspirations of the population. Their active participation in workshops and territorial surveys ensures that interventions reflect the lived experiences of those most affected. Cultural organizations, including artists and activists, contribute through storytelling initiatives and public art projects, which serve as both a medium for expression and a tool for building social cohesion. Municipal authorities play a critical role in aligning the lab's activities with urban policies and regulatory frameworks, while academic institutions provide technical expertise, particularly in the application of participatory GIS tools for mapping spatial inequalities and planning urban interventions.

The methodologies employed in Naples reflect a commitment to co-creation and iterative learning. Participatory GIS mapping has been instrumental in identifying areas for intervention, allowing stakeholders to collaboratively visualize and address spatial inequities. Creative workshops, such as storytelling sessions and cultural festivals, have not only amplified the voices of marginalized groups but also fostered a sense of community ownership over the transformation process. These activities demonstrate the importance of starting with "small wins," such as coastal clean-ups, to build momentum for larger-scale changes.

Despite its successes, LP² faces significant challenges, including bureaucratic delays in land-use negotiations and tensions between private developers and community

interests. The lab's ability to remain flexible and adaptive, often described as "planning for chaos," has been crucial in navigating these obstacles.

By embracing spontaneity within a structured framework, LP² has created space for innovation and resilience, ensuring that the lab remains responsive to the evolving needs of the community. This approach aligns with reflections from training courses, which emphasize the importance of designing for unpredictability while maintaining a clear and consistent vision.

Reflections from Training Course:

How can we ensure that we not only address immediate community needs but also contribute long-term?

The Naples ULL exemplifies the principle of "starting small but thinking big." By focusing on immediate challenges such as coastal accessibility while envisioning broader urban transformation, the lab builds a foundation for sustained impact. Dialogue with the community, acknowledging diverse voices, and fostering independence from institutions ensure that the solutions remain sustainable over time.

ULL Nicosia: ULLoi Aglantzia - A(U)LL in Aglantzia

"A(U)LL in Aglantzia" is a collaborative initiative between the [Department of Architecture at the University of Cyprus](#) and the [Municipality of Nicosia](#), specifically focusing on the Aglantzia Municipal district. Its primary goal is to foster active citizenship and community engagement, encouraging residents, -particularly young people- to take ownership of public spaces and work collectively to enhance the quality of life in their neighborhoods. The ULL will also involve the [Youth Board of Cyprus (ONEK)](#) and [Cyprus Youth Council](#).

Located on the northeastern edge of Cyprus's capital, Nicosia, Aglantzia is a vibrant community with a population of approximately 20,000. Known for its rich history, which dates back to the Byzantine era, Aglantzia's name is believed to derive from "aglanti," meaning "lookout" in ancient Greek, reflecting its historical role as a vantage point. The area is home to a diverse community, including both locals and international residents, drawn by its educational and economic opportunities. Aglantzia features a dynamic blend of residential neighborhoods, commercial hubs, and cultural venues, while the Athalassa National Forest Park and the University of Cyprus enrich the area with natural beauty and youthful academic energy.

The ULL will be situated in the center of Aglantzia, within the [HyBuild](#) building, an innovative, energy-efficient facility that integrates advanced technologies for renewable

energy production and smart energy management. This building, funded by the European Union's Horizon 2020 research and innovation program, is part of an international research project which involved University of Cyprus as a partner. Positioned next to a public square, it seeks to draw the community together and foster greatersocial interaction.

Stakeholder engagement in will be characterized by a mix of digital and traditional methods. Digital platforms, including Miro, will be used for workshops and brainstorming sessions, enabling broader participation and flexibility. These tools are complemented by on-the-ground efforts, such as community surveys and neighborhood forums, which capture the perspectives of residents who might otherwise be excluded from digital processes. Youth groups are particularly targeted in the lab's activities, participating in educational workshops that raise awareness about sustainability and empower them to take active roles in shaping their environment.

More reflections from Training Course:

How can learning outcomes be accessible and shared?

The A(U)LL in Aglantzia prioritizes transparency and accessibility by documenting its processes and outcomes in interactive formats. Interactive and user-friendly digital platforms ensure that insights are not only accessible to participants but also scalable to other ULLs.

ULL Palermo: Madonie Living Lab (MaLL)

The Madonie Living Lab (MaLL) operates in a rural context, addressing the unique challenges of the Madonie district near Palermo. These include depopulation, economic stagnation, and limited access to resources, which collectively threaten the region's long-term viability. The lab's mission is to empower rural communities through participatory governance, entrepreneurship, and sustainable development. By fostering collaboration among municipalities, cooperatives, and educational institutions, the MaLL creates opportunities for innovation and capacity-building in a region often overlooked in urban planning discourses.

Stakeholder engagement in Palermo is tailored to the geographic and socio-economic realities of the district. Mobile labs and itinerant workshops enable the lab to reach dispersed communities, ensuring that even the most remote stakeholders have a voice in decision-making processes. Local cooperatives and small enterprises are central to the lab's activities, benefiting from programs such as the Ideas Accelerator, which provides mentorship and funding for innovative projects. Educational institutions also play a vital role, offering capacity-building workshops and technical support to local entrepreneurs and governance bodies.

The MaLL employs a data-driven approach to inform its interventions. A community database has been developed to capture local needs and track the impact of initiatives, providing a solid foundation for evidence-based decision-making. However, logistical constraints and a history of skepticism toward external initiatives pose challenges to building trust and sustaining engagement. The lab's adaptability and focus on localized solutions have been key to overcoming these barriers, demonstrating the potential of mobile labs to bridge the gap between institutional frameworks and community needs.

Training course reflections have underscored the importance of iterative learning and "designing for chaos." By remaining open to unexpected developments and continuously refining its methodologies, the MaLL has been able to respond effectively to the evolving needs of the community while maintaining its long-term vision.

More Reflections of the TC:

What if we do not succeed?

In Palermo, success is measured not by immediate outcomes but by incremental progress. Engaging with stakeholders, fostering dialogue, and building trust are seen as valuable steps, even when initial goals are not fully met. This approach encourages resilience and iterative learning.

ULL Cottbus: CoCo Stadtlabor

The CoCo Stadtlabor in Cottbus represents a dynamic initiative aimed at addressing the socio-economic transformations of a city whose economy and identity have been affected by the coal phase-out. As the second largest town in East Germany's state of Brandenburg, of population close to 100,000, Cottbus has been marked by decades of structural transformations. From the economic and demographic decline of the 1990s in light of the shift to market economy, to the recent phase out of coal mining and coal-fired power generation, Cottbus's prosperity and identity that were largely built on energy-intensive industries were shattered. As 'transition' seems to have come to reside permanently in the city, its social space is caught in a tension between the positive notions of innovation, diversified population (and workforce), growing student population and successfully implemented examples of urban and social design, and troubled waters of disappointment, uncertainty, reactionism and fear of the other. Rooted in the need to reimagine urban spaces in the wake of the coal industry's decline coupled with a growing rate of unused commercial space, CoCo focuses on repurposing one such a store into multifunctional hub that prioritizes inclusivity, sustainability, and innovation. Led by BTU Cottbus-Senftenberg, the lab seeks to integrate research outputs into actionable urban solutions. COCO_Commoning Cottbus is about the production of shared physical space of encounter and collaboration between the

university and broader society. It seeks to nurture new forms of exchange beyond academia by empowering students to apply and expand their knowledge close to the city's everyday life, both within curricular and extra-curricular activities. Initiated by BTU's Chair of Urban Management, this urban living lab aims to put the students of architecture, urban planning and design, civil engineering as well as students of other disciplines in touch with urban dwellers to jointly detect, articulate, discuss and address plural challenges in urban space. By activating a growing network of local stakeholders and developing low-threshold participatory activities, at COCO, students and urban dwellers alike engage in collective learning, sharing knowledge, collaboration and experimentation to various urban themes.

Stakeholders in CoCo Stadtlabor include a wide array of actors, reflecting the complexity and ambition of its mission. Non-governmental organizations (NGOs) and cultural institutions work closely with local businesses and academic partners such as BTU Cottbus-Senftenberg, which contributes expertise in sustainable urban planning and social innovation. These partnerships enable CoCo to integrate both community-driven and evidence-based approaches into its activities. Focus groups and public consultations are central to CoCo's methodology, ensuring that interventions are informed by the needs and perspectives of the local population. Additionally, urban design challenges and cultural events act as entry points for engaging younger audiences and fostering community ownership.

Despite its achievements in engaging students into reimagining urban spaces through action and performative practice, CoCo faces significant challenges. It operates in an increasingly polarized urban context, where stakeholders' commitment to environmental sustainability and innovation are often contested by populist voices mobilized around the skepticism toward renewable energy policies and economic diversification. Addressing this skepticism has required the creation of neutral spaces for dialogue, where stakeholders can discuss concerns openly and collaboratively. The lab's goal is to address these challenges through structured processes emphasizing flexibility and adaptability This means allowing room for spontaneity and iteration, while maintaining a clear vision that mirrors the evolving needs of its stakeholders.

Reflections from training courses further underscore the importance of adaptability in CoCo Stadtlabor's approach. Participants noted that maintaining transparency, fostering trust, and designing inclusive activities are essential for long-term engagement. They can be maintained by creating feed-back mechanisms and joint decision-making moments would be crucial to maintain this. The lab's experience highlights the value of combining innovative and sustainable approaches with an openness to unanticipated opportunities, ensuring that its interventions remain relevant and impactful.

More reflections from Training Course:

How do we deal with issues of subjectivity?

The Cottbus ULL fosters "cross-pollination synthesis" by encouraging diverse stakeholders to co-create solutions. Decision-making processes aim to be democratic in enabling access to information and knowledge, thus ensuring that subjectivity becomes a strength rather than a challenge.

4. PARTICIPATORY TOOLS AND HYBRID METHODOLOGIES

PS-U-GO Urban Living Labs (ULLs) rely on an array of participatory tools and hybrid methodologies to foster stakeholder engagement, ensure inclusivity, and address complex urban challenges. These tools are carefully selected and adapted to the specific needs and contexts of each ULL, enabling collaborative processes that integrate diverse perspectives and expertise. From co-design workshops to advanced digital platforms, these tools facilitate dialogue, creativity, and transparency, making them central to the success of ULL initiatives. Deliverable 5, "Project's ULL Methodologies" also includes a table outlining a variety of tools and methods suitable for each phase of PS-U-GO ULLs implementation. Further expanding on this, additional tools are presented below.

Workshops and Co-Design Sessions

Workshops and co-design sessions form the backbone of participatory processes in ULLs, creating spaces where stakeholders can come together to discuss issues, share ideas, and collaboratively develop solutions. These sessions encourage active participation, breaking down traditional hierarchies and ensuring that all voices are heard.

One particularly effective methodology is the World Café, which was used by several of our partners to foster open and dynamic discussions among stakeholders. This format allows participants to rotate between small group discussions, ensuring a diversity of perspectives is captured and synthesized. Similarly, in Palermo, focus groups have been instrumental in gathering input from marginalized communities, whose voices are often excluded from traditional urban planning processes. These workshops are designed to promote inclusivity, build trust, and generate actionable insights that inform the lab's interventions.

Digital Tools

Digital tools play a critical role in enhancing participation, particularly by lowering barriers for engagement and enabling remote collaboration. Platforms such as participatory GIS (Geographic Information Systems) allow stakeholders to visualize urban challenges and opportunities, making complex spatial data more accessible. This was effectively demonstrated in Naples, where participatory GIS was used to map contested coastal areas and guide reclamation efforts.

Mobile applications and online platforms further enhance collaboration by providing interactive spaces for stakeholders to contribute ideas, vote on proposals, and monitor project progress. Examples include:

Miro: A collaborative online whiteboard that facilitates brainstorming, visual mapping, and co-design in real time. This tool has been widely used in Cyprus previous initiatives to engage stakeholders in urban sustainability projects. [URL: https://miro.com/]

Padlet: An intuitive platform for collecting and organizing ideas. [URL: https://padlet.com/]

Placemaking for Inclusion Cookbook, developed by Urban Foxes, provides digital and hands-on tools to support placemaking. This resource includes templates and activities like City Expedition, Place Evaluation, and Heaven & Hell, as well as an augmented reality (AR) app for engaging stakeholders in interactive urban exploration. The cookbook is available at Urban Foxes' Resource Page. [URL: https://www.urbanfoxes.org/about-3]

By combining these tools, ULLs can ensure that participation is not limited by geographic or technological constraints, making them particularly valuable for dispersed or rural communities.

Creative Methods

Artistic interventions and creative methodologies are increasingly recognized as powerful tools for community engagement. By leveraging the expressive and symbolic power of art, creativity and gamification, ULLs can foster deeper connections with stakeholders and amplify marginalized voices. In Naples, for instance, music co-production workshops brought together local artists and residents to create shared cultural expressions, strengthening community identity and cohesion.

In Palermo, storytelling sessions and public art installations were used to visualize stakeholder narratives and aspirations. These creative approaches not only enhance community involvement but also make the outcomes of ULL initiatives more tangible and relatable to the broader public.

Evaluation Mechanisms

Evaluation is an integral part of the ULL process, ensuring that interventions remain responsive to stakeholder needs and adaptable to changing circumstances. Feedback loops, which include surveys, focus groups, and informal discussions, are embedded into the ULLs' workflows to capture stakeholder perspectives at every stage of the project.

One innovative evaluation tool is NVivo, a qualitative data analysis software that helps ULLs analyze feedback from workshops, focus groups, and surveys. By identifying patterns and themes in stakeholder input, NVivo provides actionable insights that inform project adjustments and improvements. [URL: https://www.qsrinternational.com/nvivo-qualitative-data-analysis-software/home]

Interactive dashboards, such as those created using Tableau, further enhance evaluation by visualizing progress and outcomes in an accessible format. These dashboards enable stakeholders to track key metrics, fostering transparency and accountability in the decision-making process. [URL: https://www.tableau.com/]

Citizen Science Tools

Citizen science initiatives empower communities to collect and analyze data on urban issues. These tools are particularly valuable for engaging stakeholders in projects related to air quality, traffic monitoring, and walkability studies. Examples include:

WeCount: This citizen science project enables residents to monitor traffic flow, air quality, and active travel demand using low-cost sensors. The data collected informs sustainable mobility policies and urban interventions. [URL: https://we-count.net/]

Telraam: A platform that allows individuals to build and install their own traffic sensors, contributing to a global database on traffic patterns. The data is used to inform urban planning and improve air quality. [URL: https://telraam.net/]

AirVisual: A citizen science platform that enables individuals to measure and monitor air quality in real time. The platform also provides tools for data visualization and analysis, making it an accessible resource for ULLs. [URL: https://www.iqair.com/world-air-quality]

Strava: Strava is not just a fitness tracker but a powerful mobility data platform that Urban Living Labs (ULLs) can utilize to measure and understand mobility patterns. By aggregating anonymized GPS data from millions of users, Strava provides insights into how people move through urban spaces, including popular walking, running, and

cycling routes. This data can be used by ULLs to identify infrastructure gaps, plan sustainable mobility projects, and highlight areas where active transport modes can be encouraged or improved. Strava's Heatmaps feature is particularly valuable for visualizing the intensity of mobility activity in different areas, offering ULLs a data-driven approach to urban planning. [https://www.strava.com/]

Plume Labs' Air Quality App: Plume Labs' Air Quality App offers real-time air quality monitoring that can be seamlessly integrated with ULL initiatives to inform urban sustainability projects. The app provides street-by-street air quality data, covering pollutants like PM2.5, PM10, NO2, and O3. ULLs can leverage this data to link with open-source platforms and inform public awareness campaigns, urban greening initiatives, and policies aimed at reducing pollution. Moreover, the app's data can be incorporated into participatory citizen science projects, enabling communities to actively monitor air quality and contribute to data collection efforts that shape local interventions. [https://plumelabs.com/en/air/]

These tools not only democratize data collection but also empower communities to play an active role in shaping urban policies and interventions.

The Hybrid Approach

Our Urban Living Labs (ULLs) thrive on their ability to integrate both traditional and digital tools into hybrid methodologies, creating participatory processes that are inclusive, adaptive, and effective. This approach acknowledges that stakeholder engagement often requires flexibility, as participants may face technological barriers, geographic constraints, or diverse communication preferences. The hybrid model ensures that everyone, regardless of their background or circumstances, can contribute meaningfully to the co-creation of urban solutions.

A hybrid approach combines the tactile and interpersonal nature of in-person engagement with the accessibility and scalability of digital platforms. For example, in Palermo's Madonie Living Lab, mobile labs provided opportunities for direct interaction with stakeholders in rural and remote areas, complementing digital engagement tools such as open calls provided by digital surveys. This dual strategy allowed the lab to reach underrepresented communities while maintaining broader accessibility for stakeholders who could not participate in person.

In Naples, the use of hybrid methodologies was pivotal in creating inclusive spaces for dialogue and co-design. The World Café method, an inherently face-to-face approach, was enriched with digital tools such as GIS mapping to visualize ideas generated during discussions. This integration ensured that participants could not only share their perspectives but also see how their input directly informed planning and intervention strategies. Similarly, the lab leveraged virtual tools like online surveys and digital

dashboards to maintain engagement between in-person sessions, fostering a continuous feedback loop.

Hybrid methodologies are particularly effective in fostering collaboration across diverse stakeholder groups, each with varying levels of technological proficiency and availability This balance will enable the lab to achieve broad representation and inclusivity in its participatory processes.

Hybrid approaches also enable ULLs to address challenges associated with logistical constraints, such as limited physical space or the need for social distancing during public health crises. For example, mobile apps and augmented reality (AR) tools can be used to create interactive, self-guided experiences that replicate aspects of in-person engagement. Such tools not only expand the reach of participatory activities but also provide innovative ways to engage stakeholders in immersive and creative ways.

The adaptability of hybrid methodologies is evident in evaluation mechanisms as well. Digital platforms like Tableau and NVivo allow for the aggregation and analysis of stakeholder feedback, presenting insights in visually engaging formats that can be shared widely. Meanwhile, in-person follow-up discussions ensure that the nuances of qualitative input are not lost in the transition to digital representation. This integration of methods ensures that both the depth and breadth of stakeholder contributions are captured effectively.

Moreover, the hybrid model enhances resilience by allowing ULLs to continue their work in the face of disruptions. Whether dealing with logistical challenges in rural settings, as seen in Palermo, or navigating the need for remote participation during global crises, hybrid methodologies provide the flexibility to adapt without compromising the integrity of participatory processes.

The hybrid approach exemplifies the ULL commitment to inclusivity and innovation, creating spaces that are both accessible and engaging for a wide range of participants. By integrating the strengths of traditional and digital tools, ULLs not only expand their reach but also deepen their impact, fostering co-creation processes that are equitable, sustainable, and reflective of the communities they serve. As ULLs evolve, the hybrid model will remain a cornerstone of their methodology, ensuring that participation remains at the heart of urban innovation.

5. STAKEHOLDER ENGAGEMENT STRATEGIES

PS-U-GO Urban Living Labs (ULLs) should strive for effective stakeholder engagement to ensure their initiatives are relevant, inclusive, and impactful. Central to this process is the Quadruple Helix Model, which integrates academia, industry, government, and civil

society to comprehensively address urban challenges. By involving these diverse groups in co-creation processes, ULLs can draw on a wide range of perspectives, skills, and resources to develop sustainable and equitable solutions.

Engagement Framework

Stakeholder engagement in our ULLs is guided by a multi-faceted framework designed to foster collaboration, promote inclusivity, and ensure long-term commitment. This framework encompasses strategies for outreach, participation, and sustaining diversity, each tailored to the specific contexts of the ULLs.

Figure 2: Quadruple Helix, Urban Foxes.

Inclusive Outreach

Reaching a diverse array of stakeholders is the first step in building a robust engagement process. ULLs employ multiple channels to engage participants, including social media campaigns, partnerships with certain specialized and experienced organizations, in-person community events, and targeted invitations to ensure that underrepresented groups are included. For example, in the Madonie Living Lab in Palermo, mobile labs and itinerant workshops were critical for engaging rural

communities that are often excluded from traditional urban planning processes. These efforts allowed local cooperatives, municipal authorities, and residents to contribute meaningfully to an extended debate on local sustainable development including new entrepreneurial initiatives and frameworks.

In Cyprus' previous initiatives, outreach efforts were complemented by digital platforms such as Miro, enabling a wider reach across different demographic groups. Recognizing and valuing diverse skill sets and lived experiences is central to ULLs' outreach efforts, ensuring that no voice is overlooked, and all stakeholders feel empowered to participate.

Active Participation

Creating opportunities for stakeholders to actively contribute to decision-making is a cornerstone of ULLs' methodologies. Workshops, co-design sessions, and participatory action research activities provide structured spaces for collaboration. These activities are designed to dismantle hierarchies and foster mutual respect, encouraging participants to share their perspectives openly.

Interactive and creative activities play a vital role in fostering collaboration. In Naples, the use of storytelling workshops and cultural events not only engaged stakeholders but also helped build trust and shared identity. Cottbus' CoCo Stadtlabor will explore the application of board games as a low-threshold methodology for engaging new participants and encouraging stakeholders to explore alternative perspectives, fostering empathy and breaking down power dynamics. Feedback loops, such as surveys and informal discussions, ensure that stakeholder input is continuously integrated into project design and implementation. It is also important to mention that facilitators should co-decide, together with the participants, when the ULLs' activities are taking place. That will not only enable participants to be present but will also increase their level of ownership when considered in the decision-making process.

A critical consideration during workshops and discussions is to ensure that no single group—particularly the most powerful voices, such as policymakers or industry leaders—dominates the process. ULLs must establish facilitation techniques that promote equitable participation, such as structured speaking turns, breakout group discussions, and active moderation. This approach helps ensure that the voices of under-represented or marginalized groups are amplified, fostering a genuinely inclusive dialogue.

Inclusion and Gender Equality in Stakeholder Engagement

Inclusion and gender equality are fundamental principles in the development and implementation of Urban Living Labs. These dimensions not only ensure that all voices are heard but also enrich the co-creation process by incorporating diverse perspectives and experiences. By addressing systemic inequities and fostering balanced representation, ULLs create more equitable, inclusive, and impactful urban interventions.

Balanced and Broad Representation

The selection of stakeholders in ULLs is guided by a commitment to achieving a balanced and diverse group of participants. This involves identifying and engaging individuals and groups across various demographics, including gender, age, socio-economic background, and ethnicity. ULLs adopt outreach strategies tailored to marginalized and underrepresented communities, ensuring their active involvement in participatory processes.

Emphasis on Gender Dimensions

ULLs explicitly address gender dynamics in their engagement strategies, recognizing that urban challenges often disproportionately affect women and gender-diverse individuals. Efforts are made to ensure that these groups are not only included but actively involved in decision-making and co-creation processes.

In Palermo's Madonie Living Lab, for example, workshops are designed to engage women in entrepreneurial initiatives, empowering them to take leadership roles in governance and economic development. Similarly, different ULLs integrate gender-sensitive facilitation techniques, ensuring that discussions and decision-making processes are free from bias and provide equal opportunities for all participants to contribute.

Tools and Methods for Inclusion

To foster inclusion and address gender dimensions, ULLs employ a range of tools and methods, including:

Role-Playing Activities: These activities help participants explore alternative perspectives, breaking down power dynamics and fostering empathy.

Participatory Action Research: Engages stakeholders in identifying and addressing barriers to inclusion, creating solutions that reflect their lived experiences.

Creative Co-Design Sessions: Such as those in Naples and Brussels which use artistic, creative methods to amplify marginalized voices and ensure that gender perspectives are embedded in urban interventions.

Open Processes for Broad Participation

The open nature of ULLs' participatory processes ensures that they remain adaptable and responsive to the needs of diverse stakeholders. By integrating feedback loops, iterative methodologies, and transparent decision-making frameworks, ULLs create environments where all participants feel valued and empowered to contribute. This open approach not only enhances inclusivity but also builds trust among stakeholders, fostering long-term engagement and collaboration.

Inclusion and gender equality are essential for creating Urban Living Labs that are truly reflective of the communities they serve. By prioritizing balanced representation and addressing gender dimensions through tailored tools and methodologies, ULLs can ensure that their interventions are equitable, sustainable, and impactful. This commitment to inclusivity is not only a moral imperative but also a strategic advantage, enriching the co-creation process and driving innovative urban solutions.

Sustaining Diversity

Maintaining diversity is an ongoing challenge that requires intentional strategies and structural commitment. ULLs employ mechanisms such as positive discrimination to address systemic inequities, ensuring that traditionally marginalized groups are actively included.

This approach is evident in Palermo's efforts to engage rural stakeholders through tailored activities and in Cottbus, where NGOs advocate for populations underrepresented in decision-making processes to ensure they have a voice in urban transformation processes.

Reflection and adaptation are integral to sustaining diversity. By creating "diverse things for diverse people," our ULLs hope to cater to the varied needs and interests of their communities. This involves acknowledging and addressing asymmetries in relationships, designing activities that reflect different cultural and social contexts, and continuously challenging biases and privileges that may exclude certain groups.

Reflections from Training Course

The reflections from training courses provide valuable insights into the challenges and strategies associated with stakeholder engagement in ULLs. One of the key questions raised was:

How can we structurally maintain diversity?

Maintaining diversity requires a continuous process of reflection, adaptation, and intentional design. ULLs must acknowledge the asymmetries that exist in relationships and create spaces that allow for genuine participation. This involves designing activities that cater to different skill sets and interests, fostering inclusive environments that reflect the values of equity and mutual respect. The concept of "diverse things for diverse people" highlights the importance of creating varied opportunities for engagement, ensuring that stakeholders from all backgrounds feel valued and empowered.

Training participants also emphasized the role of self-awareness in addressing privilege and bias. By reflecting on their own assumptions and fostering open dialogue, facilitators can create environments where all participants feel safe to contribute. Positive discrimination, when used thoughtfully, can help redress imbalances and promote inclusivity in a way that benefits the entire community.

Examples of Engagement Strategies in Practice

In each ULL, these strategies we be applied in unique and context-specific ways:

Naples: Inclusive outreach efforts in the Lido Pola Laboratory focused on building trust through storytelling and cultural workshops, ensuring that marginalized voices were heard in the co-design process.

Cyprus: A(U)LL in Aglantzia will use a combination of digital tools and face-to-face interactions to engage a wide spectrum of stakeholders, demonstrating the importance of hybrid methodologies.

Palermo: The Madonie Living Lab will employ mobile labs to reach geographically isolated communities, showcasing the value of flexibility and innovation in outreach efforts.

Cottbus: The CoCo Stadtlabor will use board games and cultural events to foster collaboration and empathy among diverse stakeholder groups, addressing power imbalances and encouraging equitable participation.

Conclusion

Robust stakeholder engagement is the foundation of successful ULLs. By integrating diverse voices through inclusive outreach, fostering active participation, and employing strategies to sustain diversity, ULLs can create co-creation processes that are equitable, impactful, and transformative. A key lesson is that facilitators must remain vigilant against allowing dominant voices to overpower discussions, ensuring that marginalized perspectives are given the space to be heard. The lessons learned from training courses and practical applications demonstrate that stakeholder engagement is not a static process but a dynamic and iterative one, requiring ongoing reflection and adaptation. Through these efforts, ULLs can ensure that their initiatives remain responsive to the needs of their communities and reflective of the shared values of inclusivity and collaboration.

6.   SETTING UP THE PS-U-GO 4 ULLs

This overview is based on the current state of the Miro board, which serves as a collaborative and working platform. While the Miro board provides valuable insights into the project's ULLs, it is important to note that the information presented reflects a snapshot in time. As the project continues to evolve, updates and adjustments will be made to align with new findings, stakeholder input, and emerging priorities. This dynamic approach ensures flexibility and relevance, supporting the project's goals throughout its development.

A) ULL Madonie

1. Key Info

Location: Madonie Living Lab, Petralia Sottana, Sicily

Focus/Goal: Address demographic and environmental decline through creative approaches, leveraging local culture and sustainability.

2. Key Stakeholders and Participants

- Students of Fine Arts Academy and University of Palermo
- Local associations and inhabitants
- Madonie Natural Park and Geosite
- Local businesses and cultural associations

3. Timeline

- Theme Choice: To be determined
- Exploration: March - April 2025
- Experimentation & Co-creation: May - July 2025
- Urban Showcase: September 2025
- Evaluation & Feedback: Throughout and post-implementation

4. Key Tools and Methods

- Theme Choice: Brainstorming, focus groups
- Exploration: Field visits, artistic documentation
- Experimentation & Co-creation: Workshops, design jams
- Urban Showcase: Events, exhibitions, videos
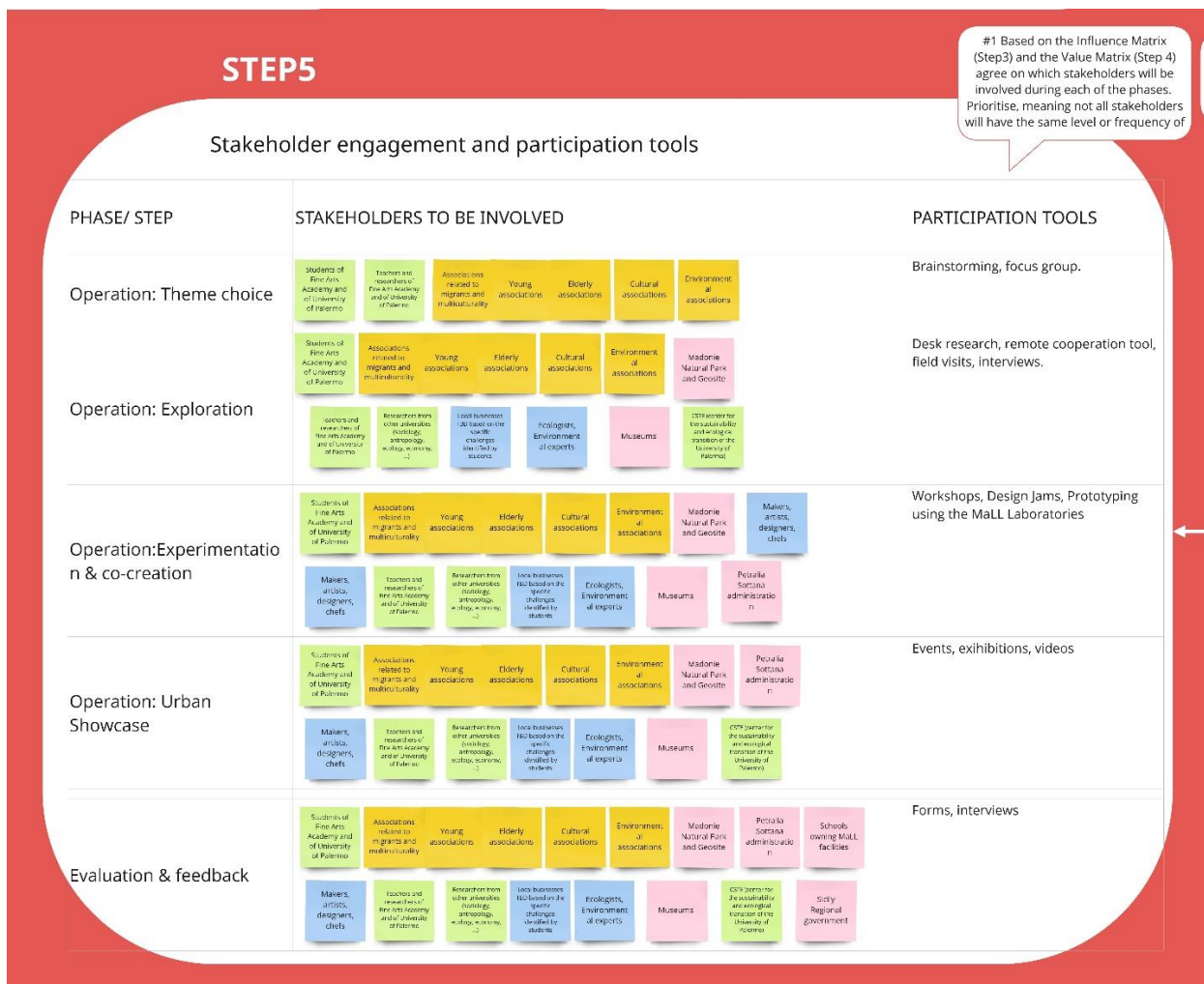- Evaluation & Feedback: Forms, interviews

Figure 3: Miro Board, Stakeholder Engagement and Participation Tools

B) ULL Naples

1. Key Info

Location: Lido Pola - Bene Comune, Naples

Focus/Goal: Support the reclamation and democratization of the Neapolitan Sea as a common resource, enhancing accessibility and promoting sustainable urban living.

2. Key Stakeholders and Participants

- Neapolitan Network Urban Commons
- Lido Pola - Bene Comune
- Mare Libero e Pulito Committee
- Department of Environment, Sea Protection Service, City of Naples
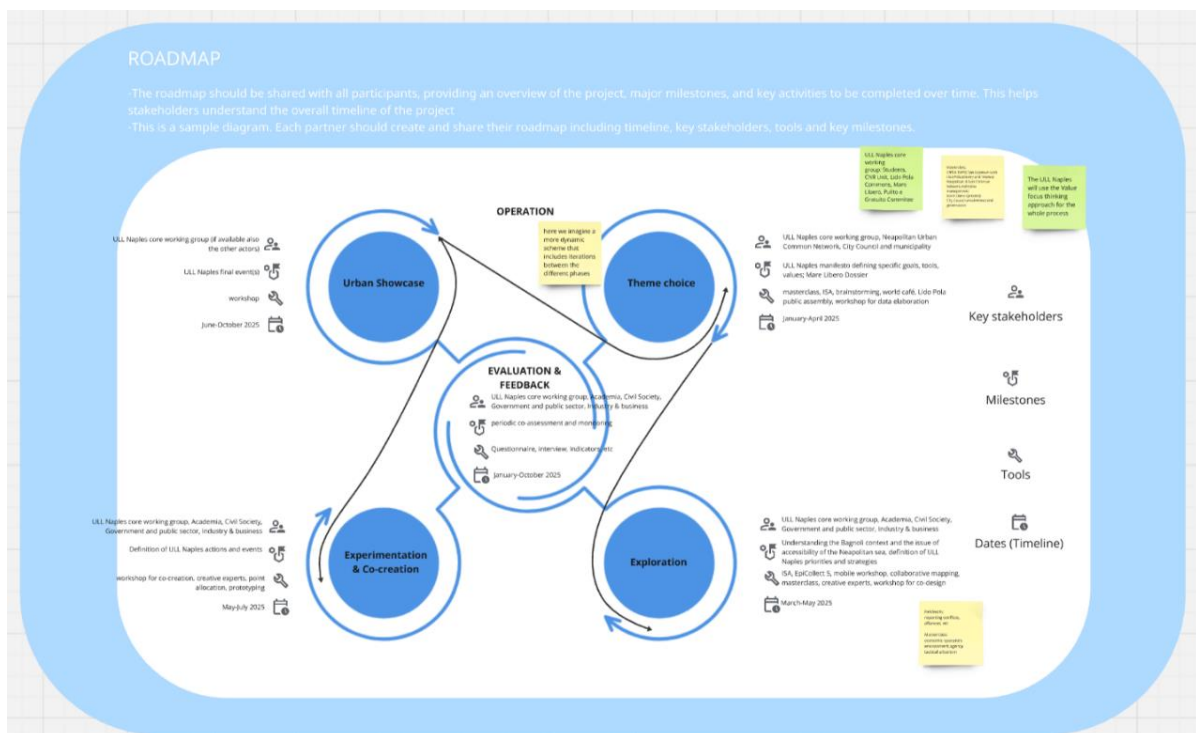- Local government and community associations

Figure 4: Miro Board, Roadmap Canvas

3. Timeline

- Theme Choice: January - April 2025
- Exploration: March - May 2025

- Experimentation & Co-creation: May - July 2025
- Urban Showcase: September 2025
- Evaluation & Feedback: Throughout and post-implementation

4. Key Tools and Methods

- Theme Choice: Masterclasses, Lido Pola public assembly, world café
- Exploration: Interviews, surveys, collaborative mapping, mobile workshops
- Experimentation & Co-creation: Public assemblies, workshops, creative expert sessions
- Urban Showcase: Public assemblies, workshops, final actions and events
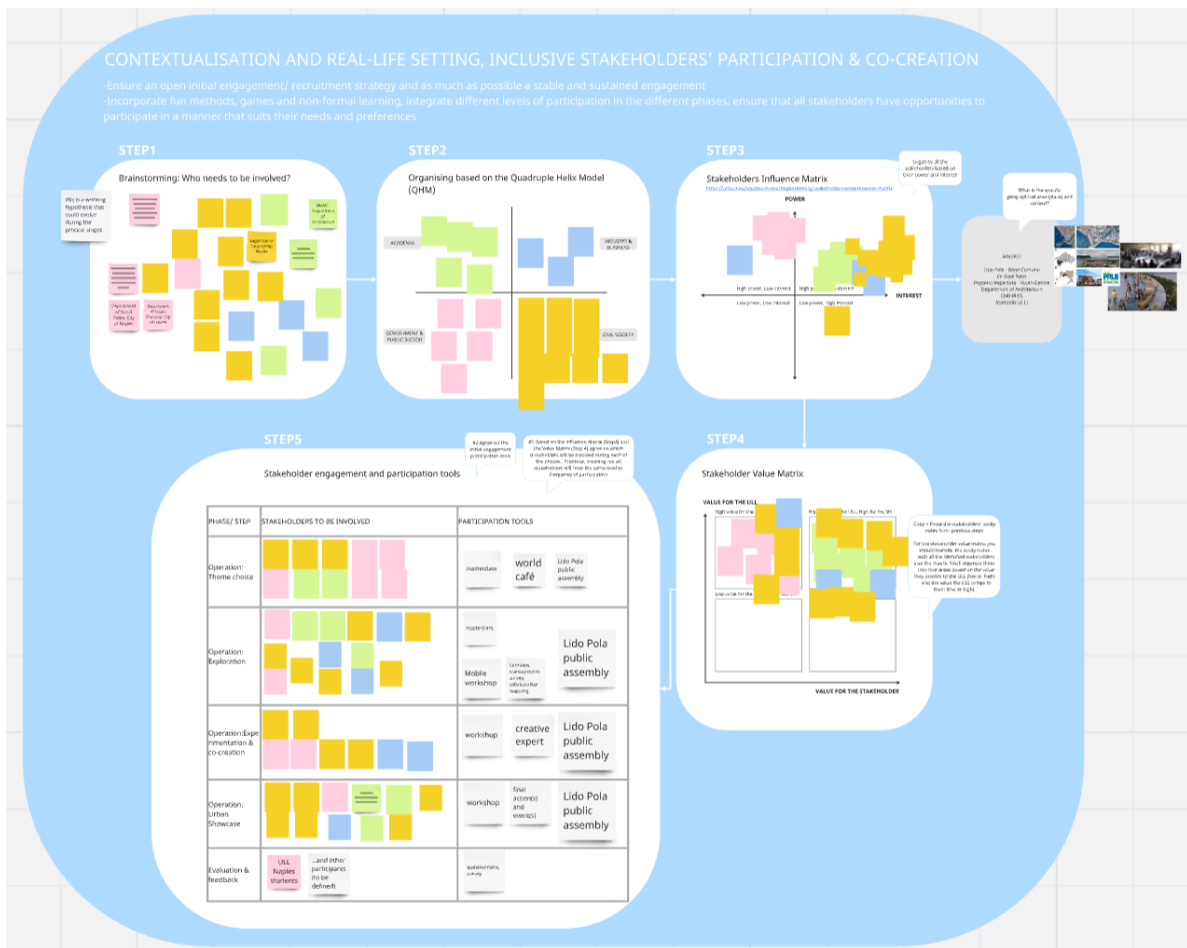- Evaluation & Feedback: Questionnaires, surveys

Figure 5: Miro Board, Stakeholders' Participation

C) ULL Aglantzia

1. Key Info

Location: Aglantzia, Cyprus

Focus/Goal: Engage youth in urban development, focusing on sustainability and community-driven initiatives.

2. Key Stakeholders and Participants

- UCY students (Departments of Architecture, Sociology, Political Sciences)
- Local young people and local schools
- Nicosia Municipality (Aglantzia)
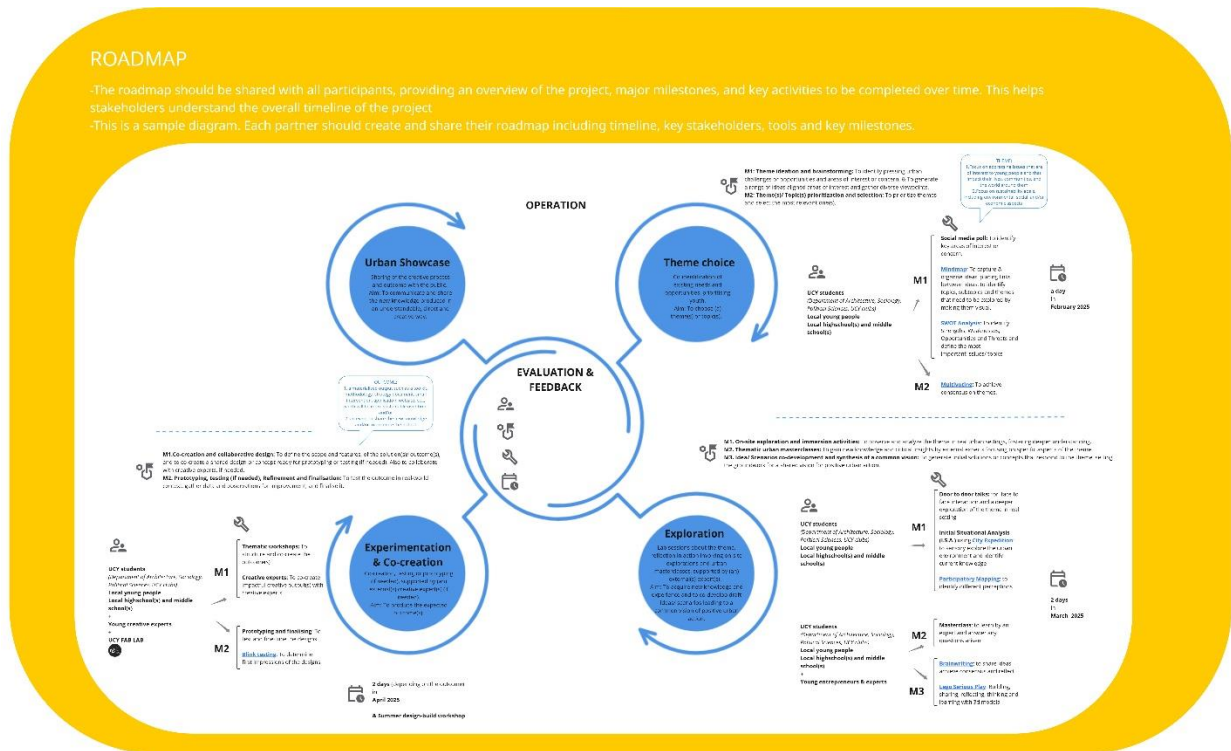- Youth Board of Cyprus (ONEK)
- Cyprus Youth Council

Figure 6: Miro Board, Roadmap Canvas

3. Timeline

- Theme Choice: February 2025
- Exploration: March 2025
- Experimentation & Co-creation: April and June 2025
- Urban Showcase: September 2025
- Evaluation & Feedback: Throughout and post-implementation

4. Key Tools and Methods

- Theme Choice: Workshops, mind mapping, multi-voting
- Exploration: Door-to-door discussions, participatory mapping, masterclasses
- Experimentation & Co-creation: Prototyping, collaborative workshops, creative expert involvement
- Urban Showcase: Public events, thematic workshops
- Evaluation & Feedback: Open discussions, questionnaires

D) ULL Cottbus

1. Key Info

Location: Stadtladen, Cottbus, Germany. This initiative occupies a vacant commercial space in the heart of Cottbus, aiming to create an inclusive non-commercial place for gatherings.

Focus/Goal: The ULL in Cottbus aims to address urban contestations by fostering innovation, inclusivity, and community engagement. The goal is to create a shared space that encourages diverse participation and addresses social and urban challenges through creative and collaborative approaches.

2. Key Stakeholders and Participants

- University Governance: University president and executive board, University Head of Administration.
- Academic Institutions: University institutes and departments, students from various disciplines.
- City Administration: City mayor, city planning department, city officials and urban planners.
- Cultural and Social Organizations: Speicher e.V., Losmachen e.V., Young Caritas, Cottbuser Altstadtverein e.V., Art Museum, State theatre.
- Local Community: Representatives of minority and immigrant groups, local residents, small businesses and market vendors.
- Nonprofit and Social Initiatives: Rosa (non-profit organization), environmental groups, parents and family organizations.

3. Timeline

- Theme Choice: October 2024 - March 2025
- Exploration: April 2025 - September 2025
- Experimentation & Co-creation: October 2025 - March 2026
- Urban Showcase: April 2026 - September 2026
- Evaluation & Feedback: Throughout and post-implementation

4. Key Tools and Methods

- Theme Choice: Collaborative brainstorming sessions, stakeholder interviews, development of documentation strategies.
- Exploration: Public events, collaborative mapping, focus groups, co-creation activities.
- Experimentation & Co-creation: Thematic workshops, co-design sessions, collaborative brainstorming.
- Urban Showcase: Partner/Stakeholder cooperation mapping and analysis, strategic planning, training, and knowledge transfer.
- Evaluation & Feedback: Continuous evaluation and validation strategies, formal and informal feedback through questionnaires and interviews.
- The ULL in Cottbus is designed to be a dynamic and evolving project, fostering a collaborative environment where diverse stakeholders can engage in meaningful exchanges and co-create solutions to urban challenges.
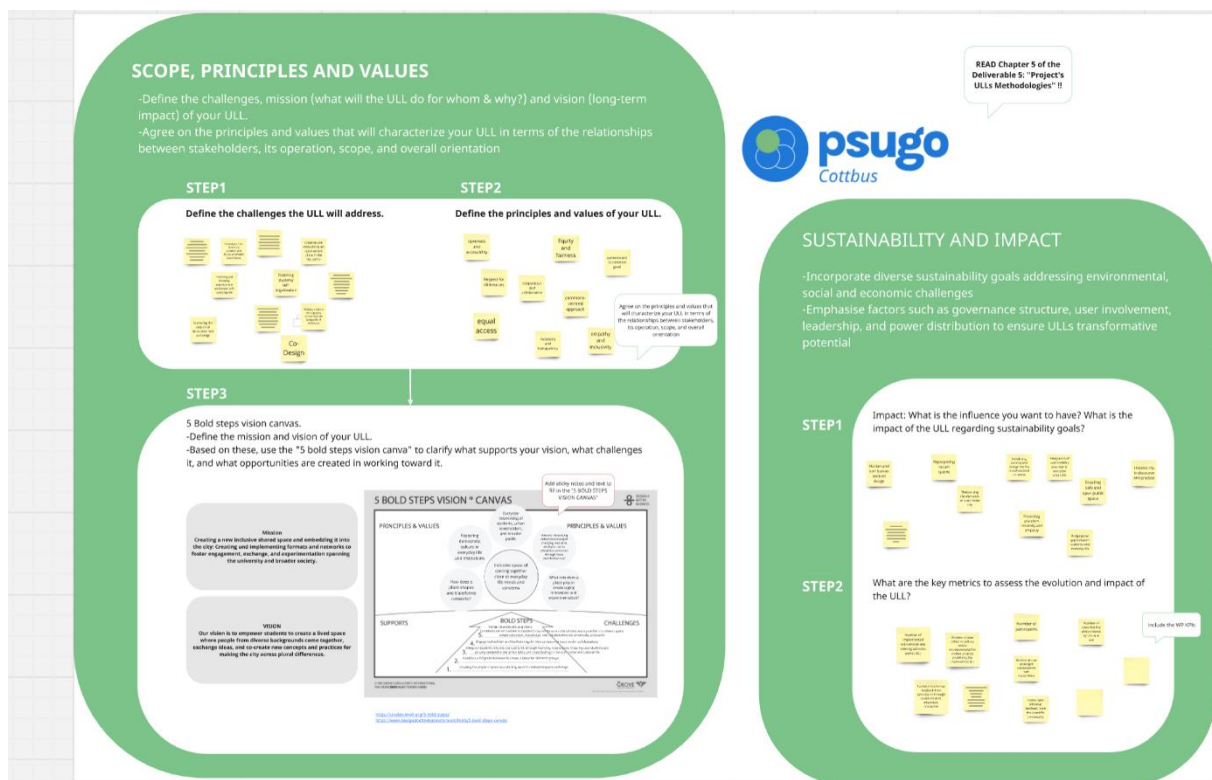

Figure 7: Miro Board, Scope, Principles and Values Board

7. RECOMMENDATIONS

Our Urban Living Labs (ULLs) will depend on the strength of stakeholder engagement to address urban challenges effectively. This engagement is not just about participation—it is about creating meaningful connections, offering personal growth opportunities, and ensuring that stakeholders feel valued and recognized and that this impact is a long-lasting one. The following recommendations emphasize the importance of fostering inclusivity, building sustainable relationships, and creating engaging and rewarding experiences for all participants.

Standardize Methodologies

To ensure consistency and scalability across our diverse ULL contexts, there is a need for a standardized yet adaptable methodological framework. Our ULLs can still:

Develop a shared glossary of terms and concepts, enabling stakeholders from various disciplines and cultural backgrounds to work within a common understanding. This glossary can evolve through regular feedback and be co-created with stakeholders to enhance ownership.

Establish a comprehensive toolkit that consolidates participatory methodologies, creative tools, and digital platforms. Resources like the Placemaking for Inclusion Cookbook by Urban Foxes offer practical templates and activities, such as the AR app and role-playing exercises, which can be easily adapted for different ULLs. Available here:

https://www.urbanfoxes.org/_files/ugd/8410e4_478ba670cf694ff393537eb187e5507d.pdf

Provide guidelines for valorizing stakeholders, addressing questions such as remuneration, recognition, and personal benefits. For example, compensating participants for their time, expertise, or travel can make engagement more equitable, while offering public acknowledgment or professional development opportunities can enhance their sense of value.

Standardizing methodologies while maintaining flexibility for local adaptations will ensure that ULLs remain context-sensitive yet scalable across regions.

Enhance Long-Term Engagement

Long-term engagement requires creating meaningful and enjoyable experiences for stakeholders, ensuring that they feel a sense of purpose and ownership in the projects.

To enhance ongoing involvement:

Personal Growth Opportunities: Offer training workshops, mentorship programs, building a network, and capacity-building activities that allow stakeholders to develop new skills and knowledge.

What's in It for Them?: Address the motivations of stakeholders by clearly communicating the tangible and intangible benefits of participation. These could include networking opportunities, learning new skills, contributing to meaningful change, or even financial compensation.

In Cyprus previous activities, participants were recognized for their contributions to urban sustainability initiatives through community acknowledgment events. It could be even as simple to provide a nice environment and some food and drinks.

Fun and Engagement: Incorporate enjoyable, interactive activities that make participation a positive and memorable experience. Tools like role-playing games, creative storytelling sessions, and city explorations can enhance engagement and foster a sense of community.

Figure 8: the Academy for Urban Action, Urban Foxes

Ongoing Recognition: Establish systems for publicly acknowledging stakeholders' contributions, such as awards, certificates, or media coverage. This not only valorizes participants but also encourages others to join future initiatives.

By focusing on personal growth, fun, and clear benefits, ULLs can transform stakeholder engagement into a rewarding and sustained collaboration.

Leverage Digital Tools

Digital platforms play a pivotal role in ensuring accessibility and inclusivity, particularly for stakeholders who may face geographic or physical constraints. Expanding the use of digital tools can enhance the reach and impact of ULLs:

Use platforms like Miro and Padlet to facilitate collaborative brainstorming and ideation in real-time. These tools are particularly effective in hybrid settings, allowing remote participants to contribute alongside in-person attendees. [Miro: https://miro.com/ | Padlet: https://padlet.com/]

Integrate citizen science tools such as Telraam (for traffic monitoring) or AirVisual (for real-time air quality measurement), empowering communities to gather and analyze data that informs urban interventions. [Telraam: https://telraam.net/ | AirVisual: https://www.iqair.com/world-air-quality]

The strategic use of digital tools ensures that ULLs remain adaptable, accessible, and relevant across diverse stakeholder groups.

Promote Inclusion, Fun, and Diversity

Inclusion and diversity are cornerstones of ULL success, but they must be actively nurtured through intentional strategies and design. To ensure participation is both inclusive and enjoyable:

Adopt positive discrimination measures to actively include underrepresented groups, such as women, youth, and minority communities.

Design activities that are fun, creative, and hands-on, such as the Heaven & Hell and City Expedition exercises from the Urban Foxes toolkit. These methods make participation enjoyable while encouraging stakeholders to think critically and collaboratively.

Reflect on how to valorize stakeholders by offering diverse forms of recognition, from financial incentives to professional development opportunities. For instance, providing small stipends or reimbursing travel expenses can ensure that participation is equitable and accessible to all.

By creating inclusive, engaging, and rewarding experiences, ULLs can ensure that stakeholders feel valued and motivated to contribute meaningfully.

8.   CONCLUSION

This report presents a comprehensive framework for Urban Living Labs, highlighting the importance of participatory methodologies, stakeholder engagement, and inclusivity. ULLs are not just platforms for urban innovation—they are transformative spaces where communities, experts, and policymakers come together to co-create solutions that address pressing urban challenges.

The recommendations outlined emphasize the need for standardization, long-term engagement, and the strategic use of digital tools. By focusing on personal growth, fun, and tangible benefits, ULLs can foster deeper connections with stakeholders, ensuring sustained involvement and impact. Efforts to promote gender equality, inclusion, and diversity further strengthen the foundation of ULLs, making them more equitable and representative.

As ULLs evolve, they must remain adaptable to changing contexts while maintaining their core values of inclusivity and collaboration. By prioritizing stakeholder motivations, recognizing contributions, and creating enjoyable experiences, ULLs can continue to empower communities and drive meaningful urban transformation. This holistic approach ensures that ULLs not only meet immediate needs but also contribute to long-term urban resilience and sustainability, serving as examples of participatory governance in the 21st century.