



IN-HABIT – INclusive Health And wellBeing In small and medium size ciTies

D8.17 – Policy Guidelines for the Replication of VIS that Enhance Inclusive Health and Wellbeing

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HISTORY OF CHANGES

Page	Description
2	Update of the VERSION LOG & HISTORY OF CHANGES
4-11	Introduction of the Policy Brief
15	Update of the Executive Summary to introduce the changes in the document
50-67	Revision of Lucca methodology to include some changes
89-97	Introduction of Chapter 4. <i>Cross-city comparison of inclusive health and wellbeing models</i>

LIST OF ACRONYMS

A-NBS	Animal-Nature Based Solution
DIY	Do-It-Yourself
EU	European Union
GHG	Green House Cases
IHAUP	Integrated Human-Animal Urban Policy
IHW	Inclusive Health and Wellbeing
INE	Spanish National Institute of Statistics
ITP	Inclusive Transformation Plan
KPI	Key Performance Indicator
LCA	Local Community Activator
ManUPP	Manager Urban Pet Policy
NEB	New European Bauhaus
NGO	Non-Governmental Association
ROI	Return on Investment
SROI	Social Return on Investment
SWOT	Strength, Weakness, Opportunity, Threat
VIS	Visionary and Integrated Solution
WP	Work Package

Scaling Inclusive Health and Wellbeing: Replicable Solutions from Small and Medium-Sized Cities

How Córdoba, Riga, Lucca and Nitra co-created inclusive health and wellbeing through visionary and integrated solutions



Executive Summary

Urban health and wellbeing inequalities are increasing across Europe, particularly in small and medium-sized cities (SMSCs) that host most of the urban population but receive limited policy support. Over 93.3 million people (around 21 percent of the EU population) are at risk of poverty or social exclusion (Eurostat 2024). Evidence from the IN-HABIT project demonstrates that inclusive health and wellbeing (IHW) can be effectively enhanced through place-based, participatory, and governance-driven interventions, rather than through isolated sectoral actions.

Across four European cities: Córdoba (ES), Riga (LV), Lucca (IT), and Nitra (SK), IN-HABIT tested Visionary and Integrated Solutions (VIS) combining social innovation (“soft” actions) with targeted spatial or infrastructural interventions (“hard” actions). Central to success was the creation of IN-HUBs, inclusive governance platforms bringing together residents, municipalities, civil society, businesses, and research institutions and the GDEI approach.

The project shows that replication is feasible, but only if cities adapt principles rather than copy solutions. This policy brief outlines the evidence, identifies transferable mechanisms, and provides actionable recommendations for policymakers at local, regional, national, and EU levels.

Why this matters for EU policymakers

URBAN CHALLENGE	POLICY GAP	WHAT IN-HABIT DEMONSTRATES
<i>Rising health & wellbeing inequalities</i>	<i>Sectoral, fragmented responses</i>	<i>Health & wellbeing as co-created common pool resources that are spatial, social, and governance-driven</i>
<i>Vulnerable groups and areas</i>	<i>Top-down interventions</i>	<i>Co-produced, place-based transformation</i>
<i>Small & medium-sized cities</i>	<i>Under-recognised in EU policy</i>	<i>SMSCs as innovation laboratories that gather most of inhabitants</i>
<i>Public mistrust</i>	<i>Limited participation</i>	<i>Inclusive governance builds legitimacy</i>

Four cities, four challenges — one shared framework

CITY	CORE CHALLENGE	VIS FOCUS
Córdoba (ES)	<i>Deep socioeconomic vulnerability & stigma</i>	<i>Community empowerment + public space</i>
Riga (LV)	<i>Unhealthy food environments & weak social life</i>	<i>Multifunctional food & community hub</i>
Lucca (IT)	<i>Ageing & social fragmentation Increasing animal presence</i>	<i>Human–animal city model</i>
Nitra (SK)	<i>Integration of minorities & migrants</i>	<i>Community-led inclusive green spaces</i>



Purpose and Target Audience

This policy brief translates IN-HABIT evidence and replication guidance into practical actions for:

- Municipal and regional authorities in SMSCs.
- National ministries (urban development, health, social policy).
- EU policymakers and managing authorities.
- Public health agencies, urban planners, and social innovation practitioners.
- Local stakeholders engaged in urban social transformations.

Policy problems

This policy brief translates IN-HABIT evidence and replication guidance into practical actions for:

- **Health and wellbeing inequalities are spatially concentrated**, particularly in vulnerable neighbourhoods, marginalised groups of citizens, and areas affected by rapid economic or demographic change.
- **Sectoral fragmentation** (health, social policy, urban planning, environment) limits the effectiveness of interventions addressing multidimensional wellbeing.
- **Top-down urban regeneration** often fails to build trust, ownership, or long-term sustainability, especially in stigmatised or excluded communities.
- **SMSCs are underrepresented** in EU urban policy frameworks, despite their demographic and territorial importance.

As a result, many interventions remain short-lived, poorly adopted, or socially contested.



Evidence and Insights from IN-HABIT

A comparative, place-based approach

IN-HABIT produced measurable spatial changes and social processes, tailored to context:

- **Córdoba:** addressed deep socio-economic vulnerability and territorial stigma in a neighbourhood by highlighting the role of patios as eco-social hubs, rebuilding trust through sustained co-creation, refurbishing public spaces with inclusive urban furniture, greening and artistic spaces, using art, culture, food consumption, and celebrations, and creating places for socialisation and an eco-social corridor.
- **Riga:** addressed unhealthy diets, social isolation and underused local assets by co-developing Agenskalns Market into a multifunctional food and community hub, combining accessibility and facility upgrades with nature-based solutions and a strong programme of community activities focused on food practices, learning, and local circular economy initiatives.
- **Lucca:** addressed ageing-related isolation and social inclusion and animal presence in cities by developing a “human–animal city” approach, creating animal lines and relational areas that support outdoor activity and intergenerational interaction, and linking these spaces to community services and engagement around the human–animal bond.



- **Nitra:** addressed inclusion challenges (minorities, migrants, and refugees) in a fast-changing city by co-creating reversible, green, and culturally inclusive public spaces, supported by modular small-scale architecture, interactive elements, and continuous community programming and co-management.

Despite contextual differences, all cities applied a shared methodological backbone centred on co-design, co-deployment, co-management and co-assessment, inclusive governance, and adaptive implementation.

What Works: Key Transferable Mechanisms

Inclusive governance through IN-HUBs

- **IN-HUBs** function as public-private-people partnerships gathering members from the 4-helix sectors to build trust and ownership.
- They ensure horizontal decision-making, reduce institutional dominance, and embed community knowledge.
- Governance is polycentric and flexible, evolving with project needs.
- Volunteer work complements investment.

Policy uptake: Governance design is as important as funding or infrastructure.

Local Community Activators

- LCAs connect residents and interventions, helping keep engagement continuous over time.
- They support the IN-HUB work by mobilising participants, facilitating communication, and fuelling the co-creation cycle.
- LCAs adapt engagement to local realities (access, timing, formats) and promote inclusiveness.

Policy uptake: LCAs are essential “human infrastructure”. Securing funds to hire them reduces the risk that participation becomes one-off and that interventions lose ownership after delivery.

Combining “soft” and “hard” VIS

- **Soft VIS:** workshops, cultural activities, healthy habits, education, animal-assisted services, storytelling, capacity-building.
- **Hard VIS:** refurbished public spaces, green infrastructure, multifunctional markets, animal lines, and modular urban furniture.

Soft interventions prepare social conditions for hard investments, increasing acceptance, care, and long-term use.

Policy uptake: Infrastructure alone does not generate wellbeing outcomes nor care or sense of place.



Integrated co-methods

Participation extended beyond consultation to include: **co-design, co-deployment, co-management and co-assessment.**

The following approach built trust, skills, and ownership, particularly among groups traditionally excluded from policymaking.

- 1. Understand the local context.** Carry out a participatory diagnosis to identify local needs, vulnerabilities, and assets using qualitative and place-based inputs.
- 2. Identify and engage key actors.** Map and involve the relevant stakeholders (including less visible groups and more vulnerable ones) to ensure meaningful participation and shared ownership.
- 3. Build inclusive governance.** The IN-HUB model. Engage representatives of the 4 helix to enable transparent coordination and decision-making across sectors and the community.
- 4. Co-design an action plan.** Co-create a feasible Inclusive Transformation Plan (soft and hard actions) aligned with local priorities, responsibilities, and available resources
- 5. Co-deploy the actions.** Deploy actions collaboratively, supporting participation, volunteer work, capacity building, communication, and ongoing adjustments during delivery.



- 6. Co-manage the results.** Establish shared arrangements for use, maintenance, and stewardship of outcomes so results can be sustained over time and create a sense of ownership.
- 7. Co-evaluation and monitoring.** Monitor and evaluate progress against agreed indicators and participatory methods, using findings to drive continuous learning and improvement.

Policy uptake: Listen to and engage with end users at all stages. Participation must be institutionalised, not occasional.

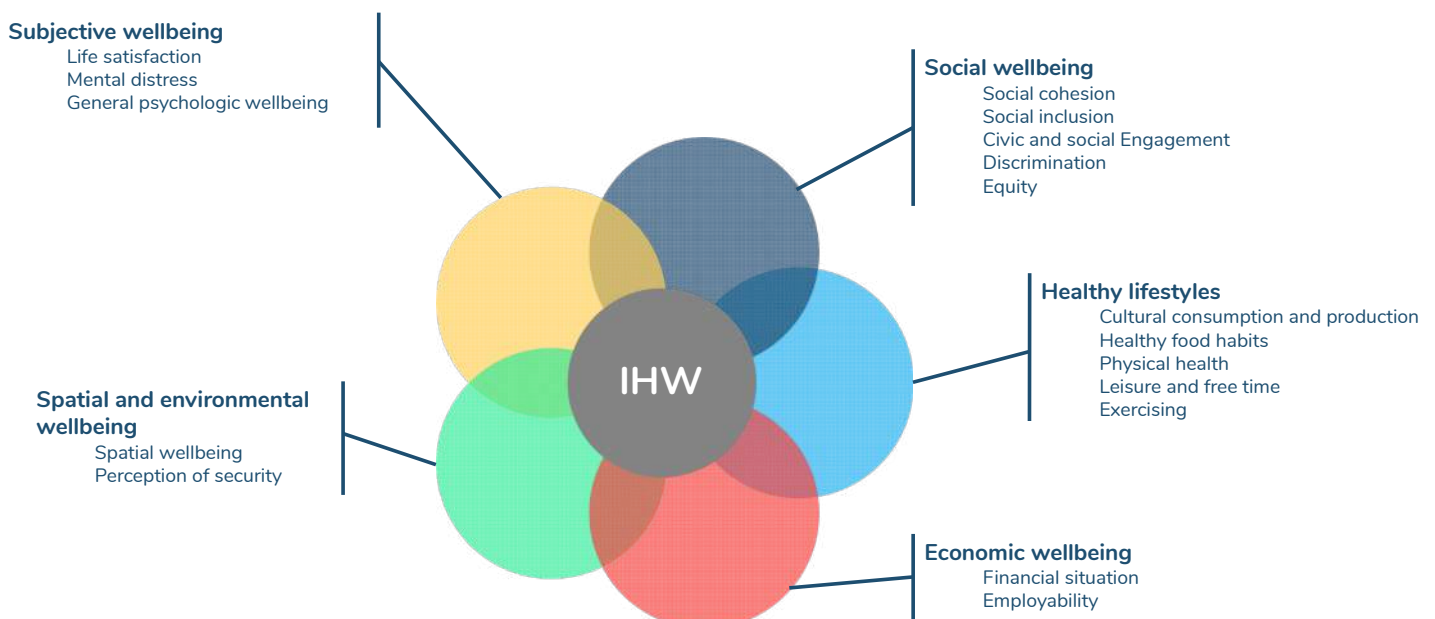


Figure 1. Impact co-evaluation Framework

Context-sensitive impact frameworks

(Figure 1)

- Impact assessment framework based on a holistic approach to the dimensions and subdimensions of IHW, and with specific indicators for each city context and research focus.
- Mixed methods combining indicators, storytelling, observation, and participatory assessment.
- Focus on why and for whom interventions work, not only on outputs.
- Participatory evaluation as a tool for empowerment and learning.

Policy uptake: Monitoring frameworks must reflect social complexity, not only quantitative targets.

Risk and barriers

Mistrust, resistance and participation fatigue

Policy uptake: invest time in presence, listening, low-threshold engagement formats; essential role of LCAs.

“Hard-soft” Infrastructure

Policy uptake: sequence soft actions to build ownership and capacity, then implement infrastructure with co-management built in.

Short political cycles and weak long-term maintenance

Policy uptake: plan long term projects, formalise IN-HUB and co-management arrangements; guarantee minimum resources and transparent decision-making.



Policy Recommendations

A) Local and regional governments

1. Institutionalise inclusive governance: Create or formalise an IN-HUB (or equivalent) and embed it into local strategies, not only projects.
2. Fund the 'human' infrastructure: Budget for LCAs and facilitation capacity as core delivery costs.
3. Integrate soft and hard investments: Soft interventions catalyse engagement for infrastructure transformations and stewardship.
4. Enable co-creation through regulation and procurement. Adopt flexible rules that allow prototyping and iteration. Introduce social and green criteria in procurement.
5. Co-management as standard practice: Create shared responsibilities and plan maintenance resources from the start; reduce conflict through mediation mechanisms.
6. Co-assessment that matches social complexity: Use mixed methods and build feedback loops into each phase.

B) National and EU-level authorities

1. Tailor instruments for SMSC realities: Support flexible funding that covers facilitation, time for trust-building, and adaptive delivery (not only capital works).
2. Reward integrated, transversal approaches: Encourage cross-departmental and cross-sector governance (health, planning, environment, education, culture) as a condition for funding.
3. Support replication as “principles + process transfer”: Fund learning networks, peer exchange, and local adaptation frameworks.



Implications for Replication

Replication should:

- Transfer principles, governance models, and processes, not specific solutions.
- Start with local vulnerabilities and assets, listen to and engage with end-users, and avoid predefined interventions.
- Identify undervalued resources and assets that can enhance IHW.
- Allow sufficient time for trust-building and institutional learning.
- Be supported by flexible funding, long-term interventions and evaluation frameworks.
- Use scientific evidence to plan and follow-up.

Final reflection

IN-HABIT demonstrates that inclusive health and wellbeing is not delivered, but co-produced as a common pools resource. Small and medium-sized cities can lead transformative urban innovation when empowered with inclusive governance, participatory tools, and adaptive policy frameworks. Scaling these approaches requires a shift from project-based thinking to systemic, people-centred urban policy.



Inclusive health and wellbeing is not a sectoral outcome but a co-created collective urban process



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Executive summary

The IN-HABIT project (Inclusive Health and Well-being in Small and Medium-Sized Cities), funded by the European Union's Horizon 2020 programme, examines how inclusive, nature-based, and socially innovative interventions can enhance health and well-being in vulnerable urban areas. Focusing on Córdoba (Spain), Lucca (Italy), Riga (Latvia), and Nitra (Slovakia), IN-HABIT addresses structural urban inequalities by activating underused local resources—such as food systems, culture and heritage, human–animal bonds, and art and green spaces—to support vulnerable groups and co-create healthier, more inclusive cities.

The project understands inclusive health and wellbeing as complex issues shaped by different interconnected dimensions, with outcomes depending not only on individuals but also on the collective. It adopted a CO-CO-CO-CO methodology—co-design, co-deployment, co-management, and co-assessment—based on local governance structures called IN-HUBs (Inclusive Hubs), which brought together residents, local authorities, businesses, and academia. These IN-HUBs ensured interventions were context-sensitive, co-owned, and sustainable. IN-HABIT developed both soft interventions (such as wellbeing workshops, artistic and cultural events, and animal-assisted services) and hard interventions (such as renaturalised spaces, refurbished markets, animal lines, and multifunctional public furniture), all rooted in participatory processes.

This deliverable provides replication guidelines based on the diverse approaches implemented over five years across the four cities. Rather than offering a universal solution, it presents tailored strategies and examples that illustrate how localised interventions—designed through participatory processes—can transform health and well-being outcomes. Each city focused on a specific domain: Córdoba tackled stigma and socio-economic vulnerability in a segregated neighbourhood; Riga activated a historic market to improve food access and community life; Lucca built an inclusive “hum-animal” city model; and Nitra co-designed public green spaces to integrate minorities and reduce environmental pressures from industrial growth. A final chapter introduced a cross-city comparison to extract the main similarities and differences and to provide guidelines for replication, highlighting the main lessons learnt. Furthermore, to facilitate the uptake of these guidelines, the deliverable includes a policy brief summarising the main ideas for scaling and replicating the project approach.

Through its interdisciplinary and adaptive model, IN-HABIT offers a new paradigm for inclusive healthy urban development that is scalable and transferable.

IN-HABIT interdisciplinary and participatory guidelines introduce a new approach to healthy urban planning across Europe's diverse cities, positioning cities not as recipients but as co-creators of social transformation and bridging the gap between research, policy, and practice. By highlighting the potential of small and medium-sized cities to lead in inclusive health and wellbeing innovations, the project aims to support broader EU objectives related to inclusion, sustainability, social cohesion, and equitable urban development.

Each city's guidelines are designed to be read independently; therefore, some repetition may occur due to the inclusion of general comments in the introductory sections.

1. Introduction

The growing number of urban dwellers is reshaping cities worldwide (Carmichael et al., 2017). Increased urbanisation brings both economic and social benefits but also has a profound impact on health and well-being, resulting in increased segregation and disparities (Badland & Pearce, 2019; Carmichael et al., 2017). Urban environments often amplify social inequalities, causing minorities and vulnerable populations to be disproportionately exposed to health and wellbeing challenges. Issues such as air pollution, noise, waste, extreme weather events, precarious jobs, long commutes, sedentary lifestyles, and social isolation contribute to the intensification of health and mental health issues, as well as a decline in overall well-being levels (Kuddus et al., 2020). These risks are concentrated among the most vulnerable populations, such as people with low incomes, the elderly, migrants, ethnic minorities, and individuals with disabilities, who have significantly limited access to health services (Corburn, 2017). These groups face intersecting barriers that restrict their access to healthcare, safe housing, green spaces, and social support (Short et al., 2018).

In this context, the interconnected and transversal dimensions of health and wellbeing are becoming increasingly important. Cities face significant pressures to promote, prevent, and mitigate socioeconomic inequalities in access to health and wellbeing among urban dwellers. They require innovative and inclusive approaches that integrate social equity, environmental sustainability, and community participation, particularly for the most vulnerable groups, who are often affected by intersectional factors that exacerbate their vulnerability. Simultaneously, in recent years, research has also focused on the need to provide scientific evidence to enhance healthy urban development and to ensure that urban planning is evidence-informed.

The Horizon 2020 IN-HABIT (Inclusive Health and Well-being in Small and Medium-Sized Cities) project explores how health and well-being can be promoted through inclusive, nature-based, and socially innovative interventions in four small and medium-sized cities (SMSCs) Córdoba (Spain), Lucca (Italy), Riga (Latvia), and Nitra (Slovakia). SMSCs host the most significant proportion of urban populations, but are often overlooked in European policy and research agendas. The project addresses structural urban inequalities in health and wellbeing by mobilising undervalued local resources, including culture and heritage, food systems, the human–animal bond, and the transformative potential of nature and art. Each city focuses on some specific vulnerable collectives and activates different resources tailored to its context. Despite these differences, all the cities follow similar conceptual and methodological frameworks, covering most of the actual urban health and wellbeing problems, testing a wide range of solutions and generating valuable guidelines to promote inclusive health and well-being.

The objective of this deliverable is to share replication guidelines that address various urban health and wellbeing issues for different vulnerable collectives, based on the experiences and insights generated by IN-HABIT during its five years of implementation. It seeks to support other cities, institutions, and practitioners interested in adopting or adapting the project's approaches. Instead of offering a one-size-fits-all blueprint, the deliverable provides clear replication guidelines for different urban challenges, illustrating the process in each city to

address specific problems. They can serve as examples of how to implement interventions tailored to real-world contexts.

The document presents the guidelines proposed in each city to address their core topics: **enhancing Inclusive Health and Wellbeing (IHW) in vulnerable neighbourhoods, multifunctional food hub, integrated human-animal cities, and community-led inclusive green spaces**. These guidelines outline key processes and highlight critical success factors, barriers, and enablers across various urban and cultural contexts. By sharing tools, methodologies, and lessons learned, this deliverable contributes to broader European objectives related to urban inclusion, climate adaptation, social innovation, and community resilience. It also acts as a bridge between theoretical research and practice, translating tested approaches into actionable strategies for those working in cities facing social fragmentation, ecological degradation, multi-species urban development, or a lack of trust in public institutions. Ultimately, IN-HABIT aims to create scalable and transferable models of inclusive urban transformation.

These interdisciplinary and participatory guidelines offer a new paradigm for healthy urban planning across Europe's diverse cityscapes. By uncovering the potential of small and medium-sized cities to lead in inclusive health and wellbeing innovations, the project aims to contribute to broader EU goals related to inclusion, sustainability, social cohesion, and equitable urban development.

The guidelines of each city have been drafted by the city team of researchers and are designed to be read independently; therefore, some repetitions may be present due to the inclusion of some general comments in the introductory sections.

2. Urban Challenges addressed by the IN-HABIT cities

The replication guidelines derive from the comparative and place-based implementation of the IN-HABIT project across four small and medium-sized European cities located in the periphery of Europe (Córdoba, Spain; Lucca, Italy; Riga, Latvia; and Nitra, Slovakia). These cities were selected due to their diversity in geography, governance models, and socioeconomic conditions, and they served as living laboratories for the co-creation of interventions addressing inclusive health and well-being (IHW) for various vulnerable collectives. Each city implemented a customised intervention strategy guided by a common IN-HABIT framework but adapted to local contexts. This approach enabled local variations while allowing cross-site synthesis and comparisons.

IN-HABIT work in Cordoba was centralised in a socio-economically deprived and stigmatised neighbourhood. The neighbourhood is characterised by segregation and disconnection, high dependence on social assistance, family breakdown, gender violence, lack of role models or failure of educational models. Problems such as illegal activities, conflicts and raids are common. Welfare is limited by a lack of employment, low-quality social housing, unstable income, insufficient green areas and public spaces, and low educational levels. Unhealthy diets and lifestyles characterise the state of health, with problems of obesity, unwanted pregnancies

and drug use from an early age. To these are added other problems related to ethnicity and social exclusion. Being born in the neighbourhood is a stigma. IN-HABIT put in place many soft VIS to engage the residents in the project, to increase their access to culture and to fight the stigma and isolation such as holding typical celebrations (Christmas, Carnival, May Crosses), video dance activities, theatrical performances based on scripts describing the perception of the neighbourhood by women, artistic and cultural cycles, concerts, videomaking by the inhabitants to participate in international competitions, visits by the inhabitants of the neighbourhood to cultural events in the city, recycling and reuse of materials activities, or activities to promote healthier diets and lifestyles. The main hard VIS have been the refurbishment, greening and transformation of the central square of the neighbourhood into a meeting place; the creation of a picnic area and the renaturalisation of part of the Cantarranas stream; the transformation of patios by planting over 300 trees and 800 bushes and creating spaces for socialisation; and the painting of a high dimension art street mural. More information on these activities can be found in Martínez-Carranza et al. (in press).

In Riga, IN-HABIT activities focus on Āgenskalns, a neighbourhood located on the left bank of the river Daugava that is undergoing significant socio-economic transformation and experiencing an influx of residents from various economic and ethnic backgrounds. The specific challenges addressed by IN-HABIT interventions include a diverse range of issues affecting the quality of life in Āgenskalns. There were limited opportunities for cultural life and social life in Āgenskalns itself, particularly for families and young professionals. In addition, the presence of several liquor shops and gambling establishments had historically contributed to the perception that Āgenskalns is insufficiently safe and, consequently, limited its social desirability. Secondly, the influx of new residents and students from abroad due to the proximity of Āgenskalns to several university campuses required spaces that allowed individuals from various backgrounds to interact. Thirdly, there is a need to foster healthy food consumption habits by discouraging sedentary lifestyles and unhealthy diets. To address these issues and urban health and well-being more broadly, several soft and hard VIS were designed and implemented at a multi-functional urban food hub (Āgenskalns Market). Soft VIS included numerous economic (trade), social, cultural, environmental and educational events. Hard VIS refer to various infrastructural solutions that were developed as part of the project. These include the transformation of the outdoor marketplace, the installation of a lift and a co-creation kitchen in the market pavilion, and the creation of an eco-island to reduce waste.

IN-HABIT in Lucca aims to enhance the quality of urban life by better utilising existing animal resources for social innovation processes based on transition management methods and intergenerational open participation of citizens. The project fosters the first European “hum-animal city” with integrated policies designed to leverage the human-animal bond for public benefit in the municipality’s social, educational, economic, environmental, touristic, urban planning and public building sectors. Diagnosis and co-designing participatory activities revealed specific social issues. Among them, ageing is creating a geographical divide between the city centre (within the walls), where the elderly population resides, and the outer parts of the city. This split also poses risks to cultural identity, intergenerational connections, family management, societal dialogue and the provision of services for various social groups. Additionally, in Lucca - as in many other cities in developed countries - a wide population of

both domestic (pets) and wild animals (in the green parks) is present, and accordingly there is a growing societal interest in designing a new governance in both public green spaces (with innovative interconnections among them) and animals, as a wider nature-based solution in the contemporary complex society. This sensitivity is backed by the presence of animal rights associations, Man-Animal Cohabitation Regulations since 2000 and the creation of a City Council Animal Affairs Observatory, in 2013. Regarding hard VIS, the project has created Animal Lines (animal paths such as cycle paths) and relational spaces where humans and animals can interact. These are accessible to all, aiming to reconnect the historic centre, the Ancient Walls and the surrounding green areas (Serchio River Park and Nottolini Aqueduct), also organizing public spaces to promote activities of relationship and events with and between animals and humans. Various soft VIS have also been developed, including specific educational and gaming activities, as well as specific innovative services for elders and fragile people like Animal Assisted Intervention and Pet Care services. Touristic services were also delivered to meet the needs of pet-friendly tourists. These different Animal-Nature Based Solutions (A-NBS) were organised into pilot initiatives, providing evidence of the “hum-animal city’s” potential and the opportunity to transform existing resources into innovative, effective, and inclusive health and well-being solutions. More information on these activities can be found in (Granai et al., 2022, 2024).

IN-HABIT in Nitra began with a focus on the socio-environmental impacts of rapid economic development driven by foreign investment, particularly the pressures placed on health and well-being by increased congestion, noise, air pollution, and degradation of urban environments such as the Dražovce district – a district with a substantial Roma community. Initial concerns centred on the challenges of integrating economic migrants, many of whom were male workers living in isolated conditions near industrial zones, disconnected from community life and public space. As the project progressed, the focus shifted from targeting economic migrants to also include other minorities, such as the local Roma community and the Ukrainian refugees, whose influx after the start of the war compounded already existing challenges and pressures on local communities and existing facilities. As a response to the growing need for the integration of these marginalised collectives, the project has co-created a multifunctional corridor integrating public, residential, and commercial spaces. With participation from landscape architects, artists, migrants, students, existing social entrepreneurs, relevant organisations, and local residents, this corridor has been conceptualised as a REversible Multifunctional Open-source Urban LanDscape – REMOULD that grows organically through open and free co-creation by the public. It comprises multifunctional urban mobiliary elements integrating interactive lighting solutions and experimental gardens. The reversibility of the elements provides a platform for social, cultural, educational, and sport activities, as they can be recombined freely and tailored for a wide range of uses (art exhibitions, art therapy, theatre...), while its open-source nature will foster a sense of co-ownership of public spaces and the urban landscape. The co-deployment process relies strongly on the community’s DIY culture, while economic sustainability will be promoted through innovative business models (public craft workshops/DIY café, food stalls, bike-sharing services and repair shops). The approach's flexibility also enhances the replicability of this solution. More information about the process can be found at Melichová et al (2025).

3. Methodology for replication

The IN-HABIT replication strategy, as outlined in this deliverable, redefines how urban transformations for inclusive health and wellbeing (IHW) can be conceived, implemented, and maintained. It advocates for a paradigm shift in urban governance and innovation, viewing cities not as passive beneficiaries of externally imposed solutions but as co-creators of social and environmental change, and understanding IHW as transversal concepts determined by the interactions of different dimensions and subdimensions (Figure 1). This approach prioritises the knowledge, needs, and aspirations of citizens and communities as the primary drivers of transformation, positioning health and wellbeing as a collective, context-sensitive process rather than a static outcome.

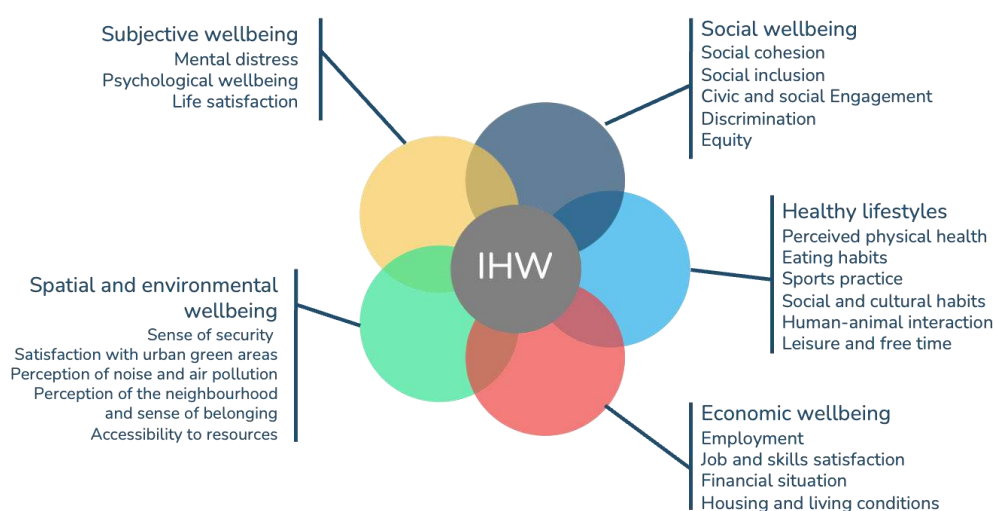


Figure 1 Dimensions and subdimensions of inclusive health and wellbeing (Mac Fadden et al., 2024)

At the core of the IN-HABIT methodology is a participatory approach, putting people at the centre of the interventions and guided by the CO-CO-CO-CO approach: co-design, co-deployment, co-management, and co-assessment. This framework was adopted across all four pilot cities as both a guiding philosophy and a practical mechanism to ensure community ownership and engagement. Instead of being limited to initial consultation phases, participation has been integrated throughout the entire project lifecycle, enabling residents and local stakeholders to shape, implement, and sustain the interventions. This ongoing engagement allowed each intervention to respond to real, evolving needs while building the social infrastructure necessary for long-term resilience.

In each city, the process started with a thorough analysis of the context, which involved mapping vulnerabilities, assets, and histories of previous interventions. For example, in Córdoba’s Las Palmeras neighbourhood, one of Spain’s most marginalised urban areas, the project began by recognising residents’ long-standing mistrust of institutional actors and giving them a voice as the protagonists of social transformations. Participatory needs assessments, storytelling, and community workshops were used to listen to residents, build trust, and uncover everyday lived experiences. In Nitra, engagement focused on low-threshold, flexible activities that welcomed Roma communities, refugees, and youth, creating space for

co-learning and trust-building. Lucca applied an animal-sensitive approach to reimagine the city through human-animal bonds and understanding animals as an innovative nature-based solution, while Riga worked through the lens of food culture, connecting health, socialisation, and circular economy within the revitalised Āgenskalns Market.

To coordinate these participatory processes, each city established an IN-HUB (Inclusive Hub), a polycentric governance model tailored to local conditions. IN-HUBs functioned as public-private-people partnerships that brought together actors from four key sectors: residents and civil society, public institutions, private enterprises, and academia. This multistakeholder approach was not a fixed committee, but a dynamic network that evolved in tandem with the project. These IN-HUBs acted as living laboratories for inclusive governance. They facilitated transparent decision-making, fostered intersectoral collaboration, and became platforms for innovation in governance itself. Importantly, they were designed to remain adaptable, to respond to shifting participation patterns and emerging community dynamics. In Riga, the IN-HUB became a mechanism for extending the multifunctional market concept beyond the city to suburban municipalities. In Córdoba, it served to institutionalise collaboration between grassroots associations, the municipality, and university researchers. In Lucca and Nitra, it supported the design, stewardship, and shared use of public spaces.

Within these governance structures, each city co-designed and implemented Visionary Integrated Solutions (VIS), interventions that aimed to channel undervalued resources (e.g., cultural heritage, green spaces, food systems, human-animal bonds) into assets for IHW. VIS were categorised into two main types: soft and hard. Soft VIS referred to intangible, process-oriented initiatives that promoted engagement, inclusion, and community capacities. These included wellbeing workshops, festivals, school programmes, storytelling sessions, therapy dog visits, and artistic co-creation, among others. These soft activities were not auxiliary but foundational – they prepared the social ground for spatial change, fostered dialogue, and built a shared sense of ownership.

Hard VIS, by contrast, involved physical or digital infrastructural interventions. These were shaped by community priorities and adapted to local needs and constraints. In Lucca, over 15 kilometres of “animal lines” - pathways for human and animal interactions - transformed urban areas into inclusive routes for social and sensory exploration. In Riga, the Āgenskalns Market was retrofitted with a community kitchen and cultural event space that promoted healthy food access and local identity. Nitra implemented a Reversible Multifunctional Open-source Urban Landscape, converting floodplains into multifunctional public spaces with modular furniture, outdoor classrooms, and grazing areas. In Córdoba, a previously abandoned space was transformed into a picnic area, creating a gathering place for social reconnection.

The co-creation of VIS required a constant balancing act between vision and feasibility, long-term aspirations and short-term needs. Interventions were developed through iterative bottom-up and top-down exchanges between IN-HUB members, allowing grassroots creativity and institutional frameworks to inform each other. This approach ensured that interventions were grounded in reality but not constrained by it, enabling them to respond to lived needs while pushing the boundaries of what was possible.

The IN-HABIT methodology also incorporated monitoring, evaluation, and learning processes throughout to assess impact and ensure sustainability. Each city developed an assessment framework that combined top-down metrics with bottom-up knowledge and insights. Indicators and methods were selected to reflect local priorities, ranging from changes in neighbourhood perception and trust in institutions to environmental health and social inclusion. Mixed-method approaches were employed, including storytelling, focus groups, observational studies, surveys, questionnaires, participatory mapping, and more. Whenever feasible, technological tools such as sensors and cameras were used to monitor spatial use and environmental changes.

The focus was not only on measuring “what worked,” but also on understanding how and why certain interventions succeeded or failed. This learning approach helped cities adapt during the process and enhanced the transferability of the methodology. The participatory nature of evaluation also strengthened accountability and fostered shared ownership of results. In many cases, the process of measuring impact itself became an intervention, reinforcing community voices and deepening stakeholder collaboration.

Finally, the IN-HABIT methodology is a model of adaptive, inclusive urban innovation. It demonstrates that social transformation is not simply delivered; it is co-produced. By grounding inclusive health and wellbeing in places, communities, and governance models, IN-HABIT provides a structured yet adaptable approach that can be scaled and replicated across various geographies and policy contexts. Its strength lies not in prescriptive tools, but in principles: people at the centre of the approach, transversal approach to IHW, respect for local knowledge, commitment to inclusion, and belief in the transformative power of participation and joint undertaking.

I. Methodology to replicate how to enhance IHW in vulnerable neighbourhoods. Insights from Córdoba

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Executive summary

IN-HABIT has developed a replicable methodology to improve inclusive health and wellbeing (IHW) in vulnerable neighbourhoods through a place-based, participatory approach. The method is built on two key elements: inclusive multi-actor governance based on strong collaboration among residents, researchers, local authorities, and a grassroots organisation, as well as the central role of Local Community Activators (LCAs). It follows four main steps: understanding the local context, establishing an inclusive governance model, co-creating an inclusive transformation plan, and co-deploying and co-managing the interventions with end-users. All processes are based on integrating social innovations (soft solutions) with physical, tangible interventions (hard solutions) to enable social transformation and promote the acceptance of these interventions. This working method empowers local communities, strengthens institutional collaboration, and ensures that interventions are co-created, adapted to the residents' needs, context-specific, and sustainable. It promotes social cohesion, ownership, and a sense of place, mobilises undervalued resources, and builds capacities and long-term community resilience. The guidelines may be of interest to local governments, researchers, grassroots and civil society organisations. The primary beneficiaries are residents of vulnerable neighbourhoods, particularly those facing socioeconomic marginalisation or health inequalities. The methodology is designed for scalability and adaptability. Its core principles - involving local communities in all the stages of the development of the interventions, listening to diverse voices, valuing local knowledge, creating an inclusive governance model, and building capacities among vulnerable groups - can be tailored to different cities and policy contexts, making it a viable model for widespread replication across Europe and beyond.

Contextualising the proposed solution

Vulnerability in Europe remains an unresolved social issue. Currently, more than 93.3 million people (around 21% of the EU population) are at risk of poverty or social exclusion (Eurostat, 2024). This figure highlights the challenges created by structural inequalities, economic instability, and the rising cost of living across the continent. In urban areas, vulnerability has increased partly due to the significant influx of people leaving rural areas to move to cities in search of new job opportunities, as well as recent socioeconomic and health crises and the growing trend of migration. These processes have intensified pressure on cities, leading to rapid population growth, which increases demand for public services such as housing, healthcare, education, and transportation, services that local governments often find difficult to provide effectively. This situation results in a rising low-income population, which becomes

concentrated in marginalised neighbourhoods, where there is an alarming increase in socioeconomic, educational, and health vulnerabilities.

According to Eurostat (2024), over 8.3% of the EU population lives in conditions of severe material and social deprivation, and 27.6% of children are at risk of poverty or social exclusion, highlighting the intergenerational nature of the problem. These inequalities lead to an increase in urban poverty, perpetuating a difficult-to-break cycle: more people live in vulnerable neighbourhoods with fewer resources, such as green spaces or adequate infrastructure. This scarcity, combined with economic deprivation, further exacerbates their vulnerability. This is clearly evident in education, where 33.9% of individuals with lower secondary education are at risk of poverty, compared to only 10.2% of those with a university degree. In these areas, school dropout rates are significantly high, further diminishing prospects for formal employment and social mobility. An additional factor to consider is the difficulty in accurately interpreting a context where official statistics do not fully reflect reality. This is due to the social complexity of the environment, the changing nature of relations in the area, the constant movement of people between homes, and the informal use of spaces not intended for housing. The combined effect of these vulnerabilities results in persistently poor health and wellbeing outcomes.

In Spain, over 600 vulnerable neighbourhoods face many of the challenges mentioned. In Córdoba, the IN-HABIT project worked in one of these areas, known as Las Palmeras. This neighbourhood is among the fifth poorest in Spain and is characterised by high levels of poverty, marginalisation, neglect by authorities, school dropouts, substance abuse problems, and domestic violence. Residents often feel disconnected from the city and tend to mistrust interventions from outside institutions. According to data from Spain's National Institute of Statistics (INE), more than 70% of households in Las Palmeras are below the poverty line, and unemployment exceeds 50%. In this complex reality, the IN-HABIT project in Córdoba has tested current guidelines to promote inclusive health and wellbeing.

The working method initially focused on building trust with the residents, promoting community meeting spaces, and fostering horizontal dialogue. One of the main achievements was the formation of a core group of volunteers willing to work alongside the local community activators to improve the neighbourhood. This participatory strategy was crucial in designing activities that addressed the real needs of the community, such as public space improvements, training sessions for women, support programs for children and youth, and mental and emotional health workshops. Inclusive methodologies were implemented to integrate local knowledge and empower community leadership. Thanks to this approach, participation by women and young people in the project's activities increased, resulting in small but meaningful changes in how the neighbourhood is perceived, the sense of belonging, and the development of support networks. While many challenges remain, the experiences in Las Palmeras demonstrate that when processes are inclusive and built on trust and mutual respect, it is possible to make progress in reducing urban social exclusion and boosting inclusive health and wellbeing.

Methodology for replication

The replication methodology to increase health and wellbeing in vulnerable neighbourhoods has two important initial foundations. First, the project has been developed by a core group of entities, including the university, local authorities, and a grassroots association from a vulnerable neighbourhood. The grassroots organisation brings deep knowledge of the community's needs, concerns, and cultural nuances. Researchers and activators provide resources, adapted methods and tools, and the necessary skills to develop the project. Local authorities provide the regulatory, political, and at times economic inputs.

The second is the engagement of Local Community Activators (LCAs), professionals with technical knowledge and proven expertise in promoting the social inclusion of vulnerable groups, as well as a strong commitment to the project's outcomes and impact. Their role involves revitalising the neighbourhood and conducting different fieldwork activities. This position may be filled by researchers or other qualified professionals with the necessary abilities, or by local residents possessing the required skills. However, it should not be voluntary work but a full-time paid position.

The proposed guidelines follow these steps:

- a. Understand the Local Context: Vulnerability, Local Assets and Participatory Needs Assessment
- b. Build Inclusive Governance: The IN-HUB Model
- c. Co-create an Action Plan: Designing Interventions with Hard and Soft VIS
- d. Co-deploy Actions: Embedding Capacity Building and Co-Management

Phase 1. Understand the Local Context: Vulnerability, Local Assets and Participatory Needs Assessment

The first step is to understand the context and the cultural norms shaping community dynamics. Before implementing any strategy in a vulnerable neighbourhood or working with a vulnerable collective, it is necessary to do an analysis of the health and wellbeing situation, an inventory of existing services and infrastructures, including the history of prior public or NGO-led health and wellbeing interventions and their outcomes, along with an honest reflection on what failed and why. In vulnerable areas, it is especially important to understand the emotional and political legacy of past interventions. Collectives that have been historically underserved or misrepresented often express scepticism toward new initiatives due to the failure of many projects.

The next step is to become familiar with the neighbourhood and its residents, as well as to build trust in the project, the researchers, and the LCAs. This process requires considerable time and effort, but it is absolutely essential. As mentioned, it should be undertaken by individuals with the necessary skills, experience and commitment to addressing social needs and issues, particularly among the senior personnel who should coordinate the process.

The assessment involves firstly identifying individuals and representatives who are key figures within the neighbourhood, such as community leaders, authority figures, and socially

influential people who understand the work to be done, and then, recognising the institutions, organisations, and individuals currently engaged in IHW within the context, as well as the measures they are implementing to prevent competition or overlap, while fostering as many synergies as possible. Identify key informants and conduct interviews with them to gather relevant information that supports the actions.

Important issues to consider include adopting listening rather than talking approaches, cross-checking information to avoid bias, being open to understanding different views and cultural perspectives, identifying key individuals to collaborate with, and engaging them in the project. These approaches help build trust in the researchers or project workers, uncover local needs and priorities, and avoid top-down assumptions and biases.

It is also essential to adapt to the rhythms and realities of the environment and the people you are working with, avoiding office hours (which usually do not align with the living schedules of vulnerable areas) or overly rigid intervention schedules. Flexibility enables meaningful engagement with the community, but it should be balanced with clearly defined boundaries to maintain sustainable working conditions.

Methods: Participant observation and individual conversations to uncover everyday realities and lived experiences that are often overlooked by formal data. Understanding the social landscape and engaging with associations, businesses, and collectives to detect local goals, challenges, and power dynamics. Identifying key informants and respected voices to boost meaningful collaboration, while recognising those who can support or obstruct initiatives.

Critical success factors:

1. Rely on professionals with technical and local culture competence, experience of work in vulnerable settings, and a strong commitment.
2. Utilise participatory tools to engage participants, with a special focus on those who are traditionally excluded or neglected.
3. Create synergies with existing institutions, organisations and projects.
4. Understand the previous history, including what works, what does not, and the reasons behind it.
5. Adapt the working method to the needs, habits, and cultures.
6. Identify and empower local actors and work with them.
7. Prioritise trust-building as a goal in itself.
8. Listen, even if it takes time, and contrast different views.
9. Let local actors shape the tempo and language of engagement.

• ***Mapping Vulnerability and Local Assets***

Mapping vulnerability allows for the identification of those who are most at risk (children, the elderly, migrants, disabled individuals, women, etc.) and those who will be more affected (positively and negatively) by the interventions. All these individuals are key stakeholders. It is essential to investigate the underlying causes of this vulnerability, including conflicts, geographical factors, stigma, and systemic exclusion. The mapping of vulnerability and existing local capacities goes beyond standard indicators and requires an intersectional perspective, examining how age, gender, ethnicity, legal status, income, and disability intersect to affect access to resources and agency.

Simultaneously, this process uncovers underused assets that can be reactivated. The assessment of resources and capacities in the area helps to understand what is available, including local infrastructures, human resources, and community organisations addressing IHW. It also reveals what is lacking, such as gaps in healthcare and wellbeing, knowledge, infrastructure and equipment, as well as education and training. Furthermore, it can help identify leverage points, such as building on what is already effective or has proven successful.

It is important to establish clear ethical guidelines to ensure effective approaches to gender, diversity, equity, and inclusion, while avoiding any unintentional exacerbation of vulnerabilities.

Methods: Intersectionality frameworks to ensure that overlapping forms of disadvantage are recognised. Storytelling and interviews offer a platform for personal narratives that are often overlooked in formal assessments. Risk analysis to anticipate potential barriers. Creation of safe spaces to foster trust, enable open dialogue and meaningful participation from those who are often excluded.

Critical success factors:

1. Employ intersectionality frameworks to capture complex layers of exclusion.
2. Identify informal leadership, local knowledge, and community rituals as assets.
3. Include both risks and strengths in the diagnosis.
4. Create spaces that foster participation, trust-building, inclusion, and social cohesion.
5. Define ethical guidelines adapted to the community dynamics.

- ***Participatory Needs Assessment***

A participatory needs and priorities assessment must shape interventions. The target group must be involved in identifying the IHW needs and the most urgent issues related to the project's scope of action. A variety of tools can be used to understand not only what residents require but also how they wish to participate. This approach ensured that interventions were demand-driven rather than imposed. The process also reveals underlying social barriers, including mistrust of public authorities, fragmented neighbourhood dynamics, and feelings of invisibility among minority groups.

At this stage, it is important to clearly explain to participants the scope, resources, and intended outcomes of the project to avoid false expectations. Additionally, the project needs to be flexible enough to adapt to the expectations and needs of the inhabitants, without being too rigidly predetermined.

Methods: Community workshops and focus groups to encourage collective reflection and co-creation, enabling marginalised voices to shape priorities. Discourse analysis to reveal dominant narratives and power relations that influence perceptions and policies. Direct observation of public spaces to identify patterns of use, exclusion, and interaction that may not emerge in conversation and offer insight into the lived dynamics.

Critical success factors:

1. Work with open and flexible projects that can be adapted to the target group's needs.
2. Facilitate low-threshold engagement formats, such as informal gatherings, open-air events, and peer-led discussions.

3. Plan for both immediate impact (e.g., access, recognition) and long-term value (e.g., participation, skills, stewardship, ownership).
4. Treat identified needs as the outcome of a co-creative process.
5. Anticipate resistance or fatigue, and respond with empathy, not pressure.

Phase 2. Build Inclusive Governance: The IN-HUB Model

The inclusive governance model is based on the establishment of a Public-Private-People Partnership, known as the IN-HUB (Inclusive Hub). The IN-HUB operates as a social innovation lab, aiming to promote inclusive engagement and align project objectives with the community’s needs. It should be designed as a networking strategy to enhance cooperation and as a platform to foster structural dialogue and collaboration. The IN-HUB, rather than serving solely as a physical space, functions as both a meeting point and an organisational structure that encourages collaboration and facilitates the transformative process. This approach enables residents to actively shape interventions while ensuring that decision-making remains grounded in local needs and perspectives.

The IN-HUB should include four key sectors: local residents, whose lived experiences and insights guide interventions; the public sector, which provides organisational, economic and administrative support; the private sector, which contributes resources and facilitates implementation; and the research and education sector, which offers technical guidance and, in some cases, financial assistance. This blend prevents one-size-fits-all solutions and customises interventions to reflect real neighbourhood conditions, fostering a grounded working environment that can sustain the efforts after the project concludes.

Participation can be organised through an open call for individuals interested in the project, as well as through a targeted strategy to inform and invite key stakeholders who can contribute to its success, including the end-users of the project activities and those who are traditionally excluded.

The IN-HUB model for working in vulnerable neighbourhoods is built as a polycentric, bottom-up, open, and flexible governance model to promote IHW, following a three-tier structure based on stakeholder involvement levels.

1. A core group of residents and community organisations that is responsible for identifying needs and proposing solutions.
2. An operational tier of city-level stakeholders (businesses, institutions, and municipal bodies) that reviews and analyses the viability of the ideas proposed in the core tier and contributes knowledge and resources for co-design and co-implementation.
3. A supporting tier of partners, networks, and amplifiers, indirectly involved in supporting activities, joining initiatives, or helping disseminate the results.



Figure 2 IN-HUB three tiers model for stakeholder involvement

The coordination among these three tiers enhances project development and leads to better results. First- and second-tier interactions and feedback processes ensure that interventions are practical, collaborative, and rooted in the local context. All IN-HUB members should meet at least once a year, but specific subcommittees may be set up to convene periodically, according to the needs or actions being undertaken. In our case, numerous ad-hoc meetings were organised once an intervention was decided to co-design, co-deploy, and co-manage it with relevant stakeholders and residents.

The IN-HUB operates as a facilitation space for the next steps of co-design, co-deployment, and co-management processes. The governance model ensures that no single institution or actor has the power to dominate the decision-making process. It is a space for sharing resources, negotiating conflicts, and fostering collective learning. This platform serves not only to guide implementation but also to ensure replicability, embedding local knowledge, trust, and multi-sectoral cooperation into the development of each intervention. It is designed to remain open and adaptable, responding to shifting priorities, evolving participation, and changing community dynamics, and hopefully to outlast individual interventions and specific projects, becoming a platform for future initiatives.

Critical success factors:

1. Launch an open call to engage those interested in the project, while also specifically targeting key stakeholders, including those who have traditionally been excluded.
2. Request commitment from individuals interested in joining the IN-HUB.
3. Avoid creating false expectations about the project's outcomes.
4. Start small, with a manageable number of committed partners.
5. Create subcommittees and clearly define their roles, while allowing for flexibility in their evolution.
6. Create opportunities for community voices to be involved in both decision-making and implementation.
7. Adapt working methods and tools to meet the needs and skills of each tier.

Phase 3. Co-design an Action Plan: Design Interventions with Hard and Soft VIS

The next step involves co-creating an action plan to achieve the project's outcomes, the Inclusive Transformation Plan (ITP), in close collaboration with the first and second tiers of the IN-HUB. This ITP is developed through a combination of top-down and bottom-up co-design processes to define the areas of action and potential initiatives that could be undertaken during the project's timeline. Participation is voluntary, and participants do not receive any financial incentives to participate.

The bottom-up approach is organised through co-design workshops aimed at engaging local inhabitants in discussions about how they envision the neighbourhood, what concrete actions can be taken, and what resources exist that can be mobilised within the community. At this stage, the first tier of the IN-HUB plays a very important role. It is also necessary to be realistic and adapt the proposals to the project's goals and resources.

Then, the proposals are discussed in a top-down process with second-tier members of the IN-HUB, as well as with authorities, experts, and institutions, to analyse their feasibility. Different feedback and interactions between both tiers enable the fine-tuning of the actions to be included in the ITP. The ITP is a living document that can evolve in response to the project's development and emerging needs.

The ITP should include all the envisaged actions within the scope of the project. IN-HABIT's work is based on the so-called Visionary and Integrated Solutions. They are visionary due to the innovative mobilisation of existing undervalued resources (culture, food, human-animal bonds, art, and the environment) to enhance IHW. They are integrated because the project combines hard and soft VIS. Before deploying hard VIS, various soft VIS are established to motivate the neighbourhood and create the necessary atmosphere for the hard VIS to be implemented. Hard VIS encompasses tangible, physical infrastructures (e.g., the refurbishment and renaturalisation of public spaces, creation of socialising areas such as picnic areas, community gardens, accessible pathways, or creative and artistic works) and digital tools (videos, platforms, and sensors). Soft VIS includes intangible, social, cultural, and behavioural initiatives (e.g., cultural heritage events, sociocultural visits, well-being and self-esteem workshops, healthy food workshops, sports events, digital skills and other training opportunities). This dual approach ensures that spatial transformation is coupled with social activation.

Critical success factors:

1. Co-design an action plan with all relevant stakeholders, especially the end-users or beneficiaries of the interventions.
2. Be realistic about the actions included in the ITP.
3. Ensure that the actions in the ITP can be developed using the existing human, financial, and institutional resources, as well as during the project timeline.
4. Combine hard infrastructures with soft activities that make them possible and meaningful.
5. Treat soft interventions as essential to long-term impact, rather than supplementary.
6. Create flexible and dynamic plans that can adapt to changing contexts.
7. Design spaces to be used and lived in, not just seen.
8. Voluntary participation based on a genuine commitment to improve IHW in the neighbourhood and not on monetary or similar incentives.

Phase 4. Co-develop Actions: Embed Capacity Building and Co-Management

Once the ITP is drafted, stakeholders should be directly involved in their co-deployment and co-management. Participation is voluntary, and no monetary incentives are offered. However, some nudges are provided for the individuals involved at all stages and committed to the project. An initial analysis of participants' existing skills helps identify and utilise their talents, ensuring they are recognised and valued throughout the process. It is advisable to begin with small-scale interventions and assess their acceptability within the neighbourhood before embarking on larger-scale actions.

Regardless of residents' participation in co-deployment, many interventions require subcontracting to capable companies. Preference should be given to companies founded by or employing vulnerable individuals or residents, as well as to organisations that demonstrate genuine social responsibility through real commitment and availability. Providing training opportunities for the tasks to be developed also helps build capacity and create socioeconomic opportunities.

Respecting local cultural practices promotes the involvement and acceptance of residents, particularly when different ethnic groups and minorities coexist in the neighbourhood. In our case, the Roma community traditionally holds evening bonfires. Providing designated spaces for them and using fire-resistant materials helps to integrate them and mitigate potential damage.

The active engagement proposed by IN-HABIT builds capacities, empowers participants, especially those from vulnerable collectives and strengthens residents' sense of ownership and responsibility towards interventions and public spaces. This encourages more sustainable use and maintenance over time.

To maintain the integrity of co-design throughout the entire co-deployment process, it is crucial to keep people informed about any changes, setbacks, or adjustments that may occur. This ongoing communication helps to develop and reinforce a relationship of trust. IN-HABIT demonstrated that sustainability depends not on handover plans, but on capacity building and community engagement integrated throughout the process.

Co-management is enhanced through the shared management of spaces that have been renaturalised or refurbished by the community in collaboration with other stakeholders, such as local authorities or organisations. It involves tasks such as maintaining these spaces, making decisions regarding their responsible use, and developing new governance approaches. This collaborative approach facilitates adaptation to shifting community needs, helping ensure that public spaces remain useful and meaningful to their users. The often-limited involvement of local authorities in maintaining public spaces in vulnerable neighbourhoods may further encourage residents to take a more active role when ownership and sense of place have been previously developed.

Organise events to inaugurate or celebrate the completion of the interventions, providing an excellent opportunity for participants to showcase the results of their efforts and foster a sense of pride and ownership. External residents should be invited to learn about the changes brought about by the project, which will help to shift the neighbourhood's image and create opportunities for connections. This can be challenging, especially when working with stigmatised neighbourhoods that other urban inhabitants do not frequent. However, it is a worthwhile effort to break the stigma and create links. It might help organise events with well-known personalities such as artists, chefs, and musicians who can attract attendees. Inviting local media to all events and providing them with the opportunity to present a more positive image of these neighbourhoods produces very beneficial internal and external effects.

Methods: Shared responsibility workshops to foster collective commitment to change. Capacity-building tools to equip individuals and groups with practical skills to develop interventions and address challenges. Educational training to promote long-term

empowerment by increasing knowledge, confidence, and agency among community members, enabling them to participate in and sustain transformation processes actively.

Critical success factors:

1. Identify existing talents and skills and use and valorise them in the co-deployment actions.
2. Build capacities and develop skills through doing and training (construction, planting, creative art).
3. Respect traditions and cultural practices when co-deploying interventions.
4. Start with small-scale interventions and assess residents' acceptance before implementing larger-scale ones.
5. Offer small, meaningful incentives to reward participants (free access, public recognition, invitations to other decision-making spaces, or to present their results in other contexts).
6. Facilitate co-management of structures (e.g., committees, partnerships, NGO agreements), creating a sense of responsibility and ownership.
7. Do not consider co-management as a final phase; instead, start building it during the co-design process.
8. Create opportunities to disseminate and celebrate the successes in the project development.

Adaptation framework

This section outlines the core elements and common barriers that may be encountered when adapting the framework to other realities, particularly when implementing inclusive health and wellbeing (IHW) initiatives in vulnerable neighbourhoods.

Core elements:

- Create a core group to dynamise the project, comprising authorities, researchers or facilitators and a neighbourhood association.
- Engage local community activators with the necessary skills and expertise, and commitment to develop the actions
- Develop an inclusive governance model that represents the four key sectors: residents and citizens, public sector, private sector, and the research sector.
- Design adaptable projects with a suitable timeline and resources.
- Understand the context and the previous history of the neighbourhood.
- Engage the local community through co-design, co-deployment and co-management opportunities.
- Listen to all, especially to the most vulnerable and those who are traditionally excluded.
- Integrate soft and hard solutions to facilitate the social transformation and the acceptance of the interventions.
- Voluntary involvement of residents interested in enhancing IHW in their neighbourhood.
- Use solid scientific methods and deliver results and evidence to support policymaking.

Flexible elements:

- The budget for the interventions: often micro-scale with limited funds, but following the guidelines mentioned can achieve great outcomes.
- The types of soft and hard VIS should vary depending on the environment, population and goal.
- The composition of the IN-HUBs, and their internal organisation depend on the stakeholders involved and their level of commitment.
- The methods and assessment tools used to measure impact vary depending on the needs, the population, the technology available, and resources, but it is essential to measure.

Barriers:

- Mistrust in public administrations and institutional projects.
- Lack of social cohesion and mistrust among individuals from vulnerable communities. They are not used to working together or cooperating.
- Challenges in identifying highly engaged local community activators and residents and involving them in the project.
- Limited participation skills of individuals from vulnerable collectives.
- Social processes and social transformations require considerable time and effort.
- Challenges in overcoming scepticism.
- Low income, unemployment, and unmet basic needs make it difficult to focus on long-term changes while managing daily struggles and urgent needs.
- Socio-spatial limitations: lack of communication channels and opportunities, and limited access to safe spaces for meeting and socialising.
- Rigid top-down projects that do not permit the engagement of local residents.
- Limited financial and human resources, as well as inadequate project timelines.
- Project continuity depending on the will of changing policymakers.
- At present, individualism prevails over collective approaches.
- Illegal activities often benefit from the isolation and degradation of vulnerable neighbourhoods, creating insecurity and potentially blocking initiatives.

Stakeholder engagement strategy

Stakeholder mapping is vital for identifying the individuals, groups, or organisations that have a stake in the community's health and wellbeing, enabling a targeted approach. This process helps identify who should be involved, who is affected, and who holds the power to influence outcomes, both positively and negatively. It is important to include those who are less visible, and the most vulnerable community members should be regarded as key stakeholders rather than just beneficiaries. Furthermore, it is vital to understand each stakeholder's level of influence and interest in the interventions. Understanding these dynamics allows for effective stakeholder positioning, clarifying who should be engaged more deeply, who should be kept informed, and who may require specific strategies to involve or address resistance. This approach views stakeholders not as passive recipients, but as active agents in social transformation.

Stakeholder mapping is not a one-time activity. It is a dynamic and participatory process that should be periodically updated as the project evolves and circumstances change. It is important to ensure that the strategy is not only technically sound but also politically and socially viable within the local context.

An inclusive communication strategy helps engage residents in the project and aligns the project goals and results with their needs. Communication should not be understood just as a tool for awareness but as a mechanism for inclusion and legitimacy. In contexts of low literacy, high digital exclusion, or institutional distrust, traditional technical or scientific communication methods can prove ineffective or even counterproductive. Inclusive approaches aim to transform communication into a shared narrative in which residents are not only informed but also heard, represented, and celebrated.

It is recommended to identify the most frequently used communication tools in the neighbourhood. In our case, we distributed leaflets and information door-to-door across all the neighbourhood buildings, working in collaboration with other institutions also interested in personal contact with residents. Those interested were informed about the options provided by the project, the opportunities for engagement, and given the chance to express their needs and demands. The participatory approach should not rely on incentives that foster patronage, but rather on genuine engagement and interest in achieving a meaningful and lasting impact on IHW in the area.

Subsequently, we adapted our communication methods to ensure inclusivity. The residents' literacy skills made it advisable to use newsletters and posters with limited text and ample visual information to inform them about the new activities and the outcomes achieved. Additionally, we broadcast a monthly radio programme on a local station, where residents, local activators, and researchers presented and discussed the advancements. Furthermore, we created social media accounts on the platforms most used by the residents and utilised them to communicate and disseminate information about the project and its results. Finally, videos were recorded of all the activities undertaken and widely shared using different media. Residents and participants were pleased to see their efforts communicated and recognised by broader audiences.

Methods: Community talks, door-to-door information, interviews, and focus groups with residents to gather their views. Discussions with local organisations, schools, community centres, and informal leaders to understand who is active and trusted in the area. Classification grids using a power–interest grid or influence–impact map to identify those who can influence change and those who are most affected by local challenges. Community mapping workshops to identify key individuals, locations, and networks.

Critical success factors:

1. Tailor-made outreach using trusted local intermediaries.
2. Create stakeholder maps that include power, interest, influence, and impact classification grids.
3. Base engagement on genuine interest and not on patronage or incentives.
4. Provide opportunities for individuals who are truly committed to the project.
5. Co-designed flyers, newsletters, and visual materials with limited text.

6. Community radio shows, photo exhibits, and short videos made with and for residents.
7. Social media use that matched neighbourhood preferences and habits.

Measurement & evaluation

Effective planning requires a transparent and accountable assessment system based on methods and indicators tailored to the urban scale, yet flexible enough to reflect the local context. Frameworks and indicators are key tools for evaluating the performance and impact of the project, identifying gaps, and supporting evidence-based decisions. Establishing clear targets and measurable indicators allows for systematic monitoring of progress and helps evaluate how interventions affect different groups.

For larger-scale projects, it is advisable to co-create a participatory impact assessment framework for inclusive health and wellbeing, combining top-down and bottom-up perspectives that incorporate internationally validated indicators and scales alongside insights from residents and representatives of community organisations. This inclusive approach facilitates the alignment of project actions with the specific needs of local inhabitants and identifies key aspects to evaluate the project's impact.

Health and wellbeing are complex concepts shaped by various dimensions, such as social, economic, spatial, and environmental aspects, as well as opportunities for healthy lifestyles and the core factors that contribute to subjective wellbeing. IN-HABIT has developed a framework based on the dimensions and subdimensions shown in Figure 3. It combines a set of shared indicators used across all project cities with others tailored to the specific needs of vulnerable neighbourhoods. The indicators for Cordoba can be consulted in Mac-Fadden et al., (2024).

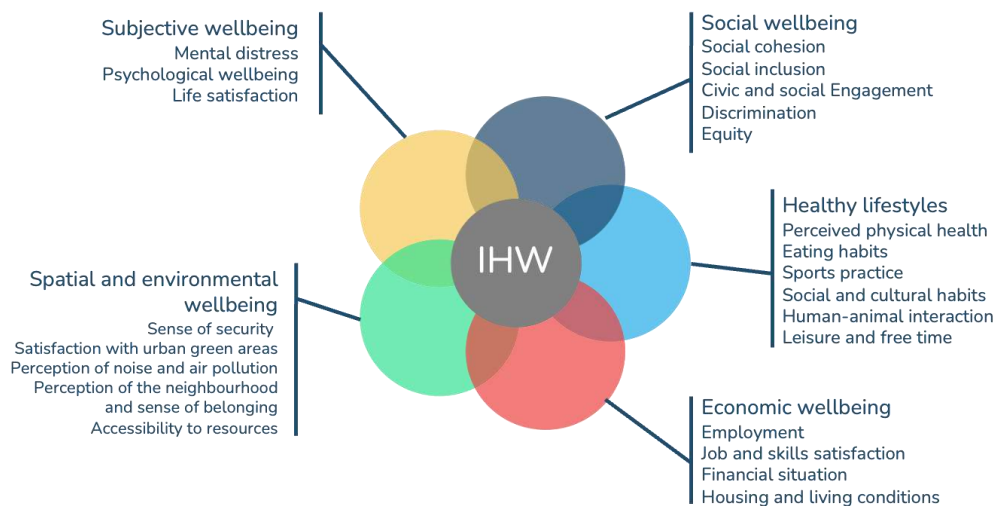


Figure 3 IN-HABIT Framework with dimensions and sub-dimensions.

A common concern when developing interventions in vulnerable neighbourhoods is that they might be vandalised by inhabitants who are uninterested in improving these areas or who are unhappy with external actors. Several actions can be taken to counteract this behaviour. The most important measure is the hands-on involvement of end-users and community members in the co-deployment of co-designed solutions. Engaging local schools and children also helps

draw the attention of families to the initiative and increases acceptance and participation. Observations have shown that interventions that are co-designed, co-deployed, and co-managed by residents are respected and valued, fostering a sense of pride and ownership. Often, the process is more significant than the final outcomes, as it creates opportunities, empowers participants, and enables recognition, while also helping develop new (social) skills and driving social transformation that enhances IHW.

Furthermore, outcomes should be judged from a long-term perspective rather than by immediate results. Initial failures or lack of success should not deter continuation or future efforts. They can serve as learning opportunities or catalysts for positive outcomes. The development of an assessment culture and the promotion of decision-making based on evidence facilitate comparative analysis and synthesis.

Methods: Mixed methods approaches adapted to the specificities of vulnerable neighbourhoods to assess not only what worked but also why it worked, for whom, and under what conditions. Observational studies and data collection to track the use of the co-created, renaturalised, or refurbished spaces. Surveys or short questionnaires to identify changes in the perception of the neighbourhood. Storytelling by stakeholders engaged in the project serves as a powerful tool to engage peers. Focus groups with participants to gather qualitative information on what the processes meant to them. Technology-based tools, such as sensors to track environmental parameters, cameras to count people, and wearables that record individuals' lifestyles, provide relevant information about health and well-being outcomes.

Critical success factors:

1. Co-design an evaluation framework that includes the views of end-users and stakeholders (residents, community groups, vulnerable collectives, authorities).
2. Use indicators tailored to local contexts and flexible enough to reflect the specific needs, cultures, and priorities of local communities, while ensuring comparability by combining them with validated indicators.
3. Define goals that are measurable over time to track progress and assess impact across different urban population groups.
4. Combine methods such as surveys, focus groups, storytelling, observational studies, SROI (Social Return on Investment), and technology-based tools (e.g. sensors, cameras) to capture both outcomes and underlying mechanisms.
5. Go beyond asking what worked—explore why, for whom, and under what conditions interventions were effective.
6. Facilitate regular exchanges and internal learning sessions between city teams to promote shared learning and consistent evaluation standards.
7. Promote a culture of assessment and use of evidence for decision-making

Policy recommendations

Urban vulnerability is continually rising. Global trends marginalise more individuals, who tend to concentrate in vulnerable neighbourhoods. Cities need to address IHW, and various policies could benefit from these guidelines. This section presents some ideas that, even if proposed separately, should generally complement each other and create synergies, because improving

IHW is a transversal issue that cannot be confined to specific urban departments, but permeate all of them.

URBAN PLANNING POLICIES: Urban planning policies should be redesigned to reflect how cities are built and who they are built for. Rather than concentrating solely on efficiency or aesthetics, planning policies should pay more attention to the diversity of citizens and the vulnerabilities they might face. Social equity, accessibility, and the daily needs of diverse urban populations, especially those living in vulnerable or stigmatised neighbourhoods, should be integrated into these policies. Elements such as prioritising mixed-use, walkable, and safe neighbourhoods that encourage physical activity, social interaction, and access to essential services can highlight the importance of incorporating IHW-promoting infrastructure—like pedestrian-friendly streets, green spaces, and community centres—into all urban developments, not just in wealthier areas. Urban policies should establish minimum standards for inclusive design, such as barrier-free public transport, sufficient lighting, and safe recreational spaces accessible to people of all ages and conditions. These policies should also promote more participatory planning processes. When vulnerable communities are involved in co-creating their built environment, urban policies better reflect lived experiences and local knowledge, ensuring that planning decisions do not reinforce existing inequalities. Urban planning and housing policies need to recognise the strong connection between physical environments and wellbeing. Housing policy should be adapted to ensure that affordable, quality housing is available in peripheral or underserved areas, actively fostering healthier, more inclusive, and resilient urban environments. By embedding IHW into urban planning, cities can promote social justice, reduce disparities, foster a sense of belonging, and support the long-term wellbeing of all residents.

ENVIRONMENTAL POLICIES: Environmental policies profoundly influence IHW due to the interconnectedness between environmental conditions and social equity. They should shift the focus from purely ecological or technical goals to a broader understanding of the health and wellbeing needs of vulnerable or marginalised groups. These collectives often experience the greatest impact of environmental degradation, such as poorer air quality, increased pollution, and noise disturbances (e.g., neighbourhoods near highways or railways). Similarly, policies regarding green infrastructure, such as parks, community gardens, or urban forests, should be redefined to prioritise equitable access, ensuring that all communities benefit from the physical and mental health advantages these spaces offer (Delgado-Serrano et al., 2024). Waste management (i.e., illegal dumping or inadequate sanitation) and water quality policies should also be shaped with consideration for the needs and vulnerabilities of these groups. Furthermore, climate adaptation strategies must become more socially responsive. Instead of applying one-size-fits-all solutions, policies should account for how different groups are affected by heatwaves, flooding, or energy insecurity, and tailor responses accordingly, such as prioritising green cooling infrastructure or energy subsidies in vulnerable areas. Greater community participation in environmental monitoring and decision-making also fosters alignment between policies and needs. By embedding inclusivity and wellbeing into the environmental policy agenda, these guidelines encourage governments to adopt a more just, health-aware, and participatory approach to environmental problems, recognising that environmental justice is a critical dimension of social justice.

SOCIAL POLICIES: Applying the proposed guidelines to enhance IHW can lead to the development of more equitable policies that meet the needs of marginalised communities, including culturally sensitive policies and listening to those who have been traditionally excluded. Social protection and welfare policies could be reoriented to reflect a broader understanding of wellbeing, which includes not only material support but also social connectedness and access to care and nature. Governments might consider community-based support programmes targeting vulnerable groups. Listening to end-users and giving them a voice and decision-making capacity to co-design the actions increases their acceptance and engagement. Additionally, involving them in co-deployment fosters care, ownership of the interventions, and recognition of their efforts and skills. Co-management encourages responsibility, self-esteem, and empowerment among participants. Social policies for vulnerable groups should have mid- and long-term goals to achieve meaningful results. Finally, migration and integration policies could benefit from recognising and addressing the specific barriers faced by minorities or stigmatised neighbourhoods, thereby promoting opportunities for connection and integration. IHW should be understood as a collective right for all citizens, embedded across various dimensions of public life through social policy frameworks.

EDUCATIONAL POLICIES: Schools and students' curricula are vital in vulnerable areas and often serve as the only supportive environment where children can thrive, irrespective of their background. Incorporating IHW perspectives into educational policy enhances the role of schools as community hubs, offering services and activities beyond the school day, while involving families and local actors in the educational process. This approach acknowledges that learning does not happen in isolation but is shaped by the broader social and emotional contexts that shape children's growth. Engaging children in the co-creation process promoted by these guidelines can transform neighbourhoods. Policies should also advocate for inclusive pedagogical practices that reflect the diverse cultural and social backgrounds of students, thereby reducing exclusion and fostering a sense of belonging. Educational policies must recognise the unique challenges faced by these children and teenagers, and refrain from penalising students from these neighbourhoods when their level of attainment falls short compared to wealthier areas. Teacher training policies should additionally prepare educators to identify and address the well-being-related challenges in the classroom.

ECONOMIC POLICIES: Economic policies must recognise the structural inequalities that limit wellbeing, particularly for those in precarious or informal employment, and advocate for more equitable and human-centred economic strategies. Employment and labour policies should also be informed by evidence linking job insecurity and poor working conditions to negative IHW outcomes, leading to enhanced workplace wellbeing standards and more inclusive employment practices. IHW approaches can support place-based economic policies aimed at revitalising neighbourhoods through local employment schemes or social enterprises.

II. Methodology to replicate multifunctional food hubs. Insights from Riga

Rudolfs CIMDINS, Sabine SKUDRA

Executive summary

Markets today go beyond their traditional role of trading to serve as vibrant multifunctional spaces that foster social interaction, cultural exchange, and urban revitalization. Increasingly, markets are being transformed into community hubs that support inclusive development, local economies, and sustainable urban practices. This evolution involves a broadening of stakeholder participation, engaging not only market managers and vendors but also local residents, municipal authorities, urban planners, and regional development organizations. In Riga, the IN-HABIT project focused on Āgenskalns Market as a key example of this transformation. The market was revitalised to become a multifunctional food and community centre that promotes healthy food habits, circular economy principles, cultural activities, and social inclusion. Physical and digital interventions were implemented alongside educational programs, interactive events, co-creation culinary activities, and support for local food systems. This model emphasizes adaptability, inclusiveness, and sustainability, showcasing how market infrastructure can be reimagined to serve diverse community needs. The replication process has also extended to the Riga metropolitan region, where efforts are being made to promote market culture and multifunctional spaces in suburban towns like Ķekava, Ādaži, and Mārupe. A key enabler of this process has been the creation of the Riga IN-HUB, a stakeholder platform that facilitates collaboration, knowledge transfer, and regional dissemination. By documenting best practices and emphasizing a phased, context-sensitive methodology, Riga provides a scalable and adaptable framework for other cities seeking to develop multifunctional markets that align with inclusive urban agendas and foster resilient, community-driven transformation.

Contextualising the proposed solution

One of the main goals in the development of multifunctional markets is to achieve the development of healthy and inclusive communities by creating an open and creative food hub. Riga's uniqueness within the IN-HABIT project is focus on sustainable food as a basis for a healthy and inclusive urban society and the well-being of local communities.

The solution is based on the local potential to use the opportunities provided by the neighbourhood to promote healthy and sustainable food consumption habits, as well as social and cultural opportunities, thus making the neighbourhood a desirable and safe place to live and visit.

The implementation of activities must focus significantly on the market area and local specifics. The main activities should be related to both the improvement and renovation of infrastructure, as well as educating the local community on food consumption issues. It is essential to involve local partners and the community.

In the development of a multifunctional market, it is important to include the following **actions**:

- Transforming market area into a multifunctional food centre to promote healthy food consumption habits and social inclusion.
- Creating an open and inclusive community space in the neighbourhood.
- Promoting circular economy initiatives and sustainable economic growth.
- Stakeholder engagement – improving, promoting, and replicating the experience to wider community and other cities.

Some examples of solutions for creating a sustainable and inclusive market:

- Transforming the market and its surroundings, which includes adapting the neighbourhood's mobility infrastructure and adjacent areas for both pedestrians and cyclists and adapting the market area to different groups of people and their needs - people with disabilities, children, parents of newborns, young people, ethnic minorities;
- Creating new green areas, sports infrastructure, and art spaces in cooperation with local artists, sports associations, and businesses;
- Promoting physical activity and sports in the neighbourhood. This can be done with the help of various behavioural games, digital guidelines and information materials;
- Involving cultural and creative industries in organizing various entertaining events that promote community socialization and engagement of the public on a wider scale;
- Interactive events for children and parents on healthy and sustainable living;
- Educational courses for local urban gardeners, taught by specialists from various industry institutions;
- Using digital solutions, such as apps, to facilitate faster information flow to support healthy eating, sustainable food production, consumption, and waste management practices;
- Creating new food chains that connect farmers, small-scale producers, artisans, caterers and consumers to shorten the food chain and promote healthy eating habits;
- Co-creation kitchen approach - culinary events, vocational training and educational activities involving children, the elderly and other vulnerable groups in society such as ethnic minorities and people with disabilities, thus promoting social cohesion and ensuring fair distribution of benefits;
- Collection and efficient recycling of food approaching the end of its shelf life, in cooperation with local food shop owners;
- Promoting market culture by demonstrating good practices in the operation of a multifunctional market, thus popularizing the principles of sustainable and inclusive market operations in other cities and on a wider regional scale.

Multi-level stakeholder engagement and regional scale actions are the key for replication process. During the IN-HABIT project implementation in Riga a local stakeholder platform Riga IN-HUB was established which includes a core of project partners representing a research organization (Baltic Studies Centre), a market management company (Āgenskalns Market –

KQ) and a regional planning authority (Riga Planning Region). Project core team is supported by other relevant stakeholders. Riga IN-HUB acts as mediators of stakeholder collaboration and promoters of main idea – to share meaningful experience on the implemented activities and the multipurpose innovations operating in Āgenskalns Market and development of market culture on a larger regional scale.

Methodology for replication

The Āgenskalns market in Riga is a fantastic example of a revitalised historical market transformed into a multifunctional urban hub, encompassing food, culture, education, and community activities. Replicating such a complex development requires a holistic and adaptable methodology and requires understanding that each market has its own identity which cannot be replicated, and it should not be. To carry out multifunctional market replication activities, the sequential step-by-step implementation of several phases is required, which are related to the identification of stakeholders, necessary resources, as well as the definition of a communication and dissemination strategy for good practices. In this process, the most important role is played by Riga IN-HUB as the core promoter of the replication activities and local governments and markets as adopters and implementers of the approach. Methodology described future on focuses on a phased approach, emphasizing local context, stakeholder collaboration, and sustainable development.

Phase 1: Contextual Analysis and Feasibility

As a **first step** could work deep dive into the Āgenskalns example - deconstruct success factors by identifying the specific elements that made Āgenskalns Market successful. This includes: historical significance & architectural values preservation: how was the heritage leveraged? How careful is the attitude towards inheritance in this example? Multifunctionality: What specific functions (food market, cafes, cultural events, educational workshops, community kitchen, waste reduction, online platform, etc.) were integrated and how do diverse functions interact? Community engagement: How were local residents and organizations involved in the co-design and ongoing activities? Governance & Management: What is the organizational structure (e.g., Kalnciema Quarter's role), funding model, and operational approach? Strategic partnerships: Identify key partners (local government, NGOs, businesses, educational institutions) and their roles. Adaptability & Flexibility: How has the market adapted to changing needs and opportunities? Document Best Practices: Create a detailed case study of Āgenskalns, outlining its evolution, challenges faced, and solutions implemented.

Second step - Local context assessment (for the target replication site): Market demand & supply analysis: what are the existing market needs for fresh produce, local products, and unique culinary experiences? What is the current food system like in the area (producers, distributors, consumers)? Are there existing market traditions or a desire for a central market space? Socio-Cultural Landscape: What is the demographic profile of the surrounding neighbourhood? What are the cultural traditions, community interests, and social needs? * Are there existing community groups, artists, or organizations that could be partners? What is the level of community readiness for participation and co-creation? Physical and historical context: identify potential sites: Existing historical market buildings, underutilised public spaces, or suitable new locations. Assess architectural significance and potential for

preservation/adaptive reuse. Analyse existing infrastructure (transportation, utilities). Economic feasibility: Assess potential funding sources (public, private, grants, community investment). Develop a preliminary business model for the multifunctional market, including revenue streams (rent, events, services) and operational costs. Conduct a cost-benefit analysis. Policy and regulatory environment: Understand local planning regulations, zoning laws, and health/safety standards for food markets and public spaces. Identify potential bureaucratic hurdles and opportunities for streamlined processes.

Phase 2: Visioning and Co-Creation

1. Stakeholder mapping and engagement: Identify key stakeholders: Local government (urban planning, culture, economic development), community associations, existing market vendors, farmers, artists, entrepreneurs, cultural institutions, educational organizations, residents, potential investors, architects, urban planners. Establish a multi-stakeholder forum/advisory board: Create a formal or informal body for collaborative decision-making and feedback. Facilitate co-design workshops: Bring together stakeholders to articulate a shared vision for the market. Use participatory design tools (e.g., charrettes, mapping exercises, brainstorming) to generate ideas for market functions, programming, and spatial layout. Emphasize inclusivity and accessibility for all demographic groups.

2. Develop a comprehensive master plan - detail the mix of functions (e.g., fresh produce stalls, artisan shops, food court, community kitchen, event spaces, educational workshops, co-working spaces). Spatial Planning - design the physical layout, considering flow, accessibility, aesthetics, and adaptability. Branding and identity - develop a unique identity for the new market that reflects its local context and multifunctional nature. Sustainability integration - incorporate principles of waste reduction, local sourcing, energy efficiency, and green infrastructure.

Phase 3: Co-Implementation and Development

1. Secure funding and partnerships: diverse funding model - combine public funding (municipal, national, EU grants) with private investment, possibly crowdfunding or social enterprise models. Formalise partnerships: Sign agreements with key partners, outlining roles, responsibilities, and financial contributions.

2. Design and construction/renovation: sensitive design: Ensure architectural design respects existing heritage (if applicable) and promotes a welcoming, vibrant atmosphere. Flexible infrastructure: design spaces that can adapt to different uses and events. Sustainability features: implement sustainable building practices and operational systems.

3. Business model and operational planning: carefully select vendors and businesses that align with the market's vision and offer diverse, high-quality products and services. Event programming: develop a dynamic calendar of cultural, educational, and community events to attract visitors and foster engagement. Marketing and communication: create a strategy to promote the market locally and regionally. Management structure: establish a clear management team with expertise in market operations, event management, community engagement, and business development.

By following this methodology, a new location can draw inspiration from the successful transformation of Āgenskalns Market while tailoring the approach to its unique local context and needs, fostering a vibrant and sustainable multifunctional urban space.

Adaptation framework

The adaptation framework depends largely on local circumstances, the existing market management model, and the territorial scale of the place. One of the most important factors is ownership and existing market management practices, as well as cooperation with the local government.

Within the adaptation framework of the replication process, the core elements that must remain consistent are the three phases mentioned in the methodology section, including preparatory works such as identification of stakeholders, tools, and opportunities. Further actions related to communication, knowledge transfer, and demonstration of good practices are applicable to the specific case. The evaluation of replication results is also likely to be performed on a case-by-case basis, depending on the specific circumstances.

To carry out replication activities foremost it is important to identify the existing state of development of market culture, similarly as it is done in Riga and the entire region within the IN-HABIT project. The Riga region encompasses both the capital and its surroundings, and although the market culture in Riga is stable and well-established, the development of permanent markets in the new towns of the Riga region, such as Ķekava, Ādaži and Mārupe, is not really taking place, although the demand is visible. In Riga case, one of the most important enabling factors is the use of a regional scope in the replication, which allowed the Āgenskalns Market approach to be demonstrated on a larger scale. A good example outside Riga is Sigulda where we already see signs of replicated elements in two well-functioning markets.

Some of the challenges observed during replication is the relatively large diversity of markets in the Riga region and the correspondingly different needs. The scale and functionality of Riga markets are not always comparable to smaller markets outside the capital. Different approaches of municipalities in organizing markets, planning support and coordinating activities make the replication process more complicated.

Stakeholder engagement strategy

The replication process and stakeholder engagement in Riga example is organised to share meaningful experience on the implemented activities and the multipurpose innovations operating in Āgenskalns Market, as well as to identify other good practices on the scale of the Riga metropolitan area, to exchange knowledge between both entrepreneurs and specialists from municipalities within the metropolitan area. To ensure capability to replicate good practices used for infrastructure development and social innovations within events that are important to better understand the needs from municipal structural units for the development of inclusive market culture using the approach represented by Āgenskalns Market.

Identification and engagement of relevant stakeholders of public and private sector, as well as appropriate communication among stakeholders are significant parts of replication process. Considering the experience used in Riga and Āgenskalns Market, comprehensive stakeholder engagement strategy for multifunctional market development involves various players:

Public sector: regional level public authorities' representatives and representatives of municipalities – spatial development planners and business support specialists are coordinating collaboration and experience exchange but policy makers and decision makers needs to be well educated to provide necessary support on time and in long term while private sector: market organisers, entrepreneurs – representatives of markets and traders are those who in general are key implementors of replicable solutions and other good practises. A significant input for innovations, high quality solutions is needed from professionals in various fields – researchers, designers (architects, landscape architects, interior designers), constructors, environmental specialists etc. – collective work based on common understanding of values is crucial.

Communication strategies

Overarching communication goal - build and maintain strong relationships with all stakeholders, foster a shared vision, and ensure transparent, consistent, and effective communication throughout the market replication process.

Core Principles:

Transparency & Openness: Share information honestly and openly, including challenges and successes, mistakes and lessons learned.

Inclusivity & Participation: Ensure all voices are heard and valued, promoting co-creation and ownership by organisation of several events, reflecting how ideas, needs, suggestions are implemented in markets concept, functions, design etc.

Consistency & Clarity: Deliver unified messages across all channels, avoiding jargon if than helps to better explain some issues.

Adaptability: Adjust communication approaches based on audience feedback and evolving project needs.

Storytelling: Humanise the project by sharing narratives of impact, heritage, and community, connection with neighbourhood etc.

Measurement & evaluation

Measuring the success of a multifunctional market like the Āgenskalns model requires a comprehensive approach that goes beyond simple financial metrics. It's about assessing its impact across multiple dimensions: economic, social, cultural, and environmental. The monitoring and impact assessment approaches should be integrated from the beginning, allowing for adaptive management and demonstrating the market's value to all stakeholders. Here is a breakdown of how to measure/assess success, including potential monitoring and impact assessment approaches:

Measuring Success

Key Performance Indicators (KPIs) across dimensions. Before measuring, it is crucial to define what "success" means in each dimension. These will be **your Key Performance Indicators (KPIs)**.

A. Economic KPIs:

- **Direct financial viability:**

Revenue streams: Total revenue from vendor rents, event fees, services, sponsorships.

Profitability: Net profit/loss, return on investment (ROI).

Occupancy Rate: Percentage of market stalls/spaces rented out.

Tenant turnover rate: Indicating satisfaction and sustainability of vendor businesses.

Visitor spending: Average expenditure per visitor within the market.

Cost recovery ratio: Percentage of operational costs covered by generated revenue.

- **Local economic impact:**

Job creation: Number of direct jobs (market management, vendors) and indirect jobs (suppliers, service providers).

Local sourcing: Percentage of goods and services procured from local businesses/producers.

Increased footfall to surrounding businesses: Surveys of adjacent businesses regarding increased customer traffic.

Property value appreciation: changes in property values in the immediate vicinity of the market.

Tax revenue generated: local taxes from market operations and related businesses.

B. Social KPIs:

- **Community engagement & participation:**

Event attendance - number of participants at cultural, educational, and community events.

Workshop participation - number of individuals attending skill-building or educational workshops.

Volunteer hours - hours contributed by community volunteers.

Community satisfaction - survey results on residents' satisfaction with the market as a public space and community hub.

Diversity & inclusivity - representation of different demographic groups (age, income, ethnicity) among visitors, vendors, and participants.

Net promoter score - likelihood of visitors/community members recommending the market.

Social cohesion & well-being:

Perceived safety - survey data on feelings of safety within and around the market.

Interactions & connections - qualitative data from interviews on new social connections formed.

Sense of place/belonging - survey questions on how the market contributes to community identity and pride.

Accessibility - metrics on physical accessibility for people with disabilities, and programmatic accessibility for diverse income levels.

C. Cultural KPIs:

- **Cultural vibrancy & programming:**

Number & diversity of cultural events - arts performances, exhibitions, music, traditional crafts.

Cultural content sourcing - percentage of cultural activities/artists from local heritage or community.

Participation in cultural activities - attendance at performances, workshops, and creative sessions.

Preservation of heritage - how the market building's or outdoor space and surroundings history/architecture is highlighted and integrated.

Cultural identity & expression - qualitative assessment of how the market reflects local traditions, crafts, and narratives.

New cultural initiatives - number of new cultural groups or events that emerge due to the market's presence.

D. Environmental KPIs:

Sustainability practices - waste diversion rate - percentage of waste recycled, composted, or otherwise diverted from landfill.

Energy consumption - measured energy use (kWh) per square meter, aiming for reduction.

Water usage - measured water consumption, with targets for reduction.

Local food sourcing: percentage of food vendors selling locally grown/produced items.

Green infrastructure - presence and effectiveness of diverse elements of greenery, permeable surfaces, rainwater harvesting.

Carbon footprint - estimation of GHG emissions related to market operations (energy, waste, transport).

Ecological impact (if applicable to site):

Biodiversity - impact on local flora and fauna (if developed on a greenfield site, or if greening initiatives are significant).

Monitoring and impact assessment approaches

A multi-method approach combining quantitative and qualitative data is essential for a holistic assessment.

Data collection methods (Quantitative & Qualitative)

Visitor surveys: On-site (digital kiosks, QR codes) and online surveys to capture demographics, satisfaction, spending habits, and reasons for visiting.

Vendor surveys: regular surveys to understand sales, satisfaction, challenges, and support needs.

Community resident surveys: broader surveys (online, door-to-door) to gauge perceptions of the market's impact on the neighbourhood.

Stakeholder surveys: periodic surveys of the multi-stakeholder forum, local government, and partners to assess collaboration effectiveness and project alignment.

Observational Data: footfall counters: automated sensors to track visitor numbers (daily, weekly, seasonal).

Visual assessments: photo documentation of market vibrancy, cleanliness, and public space utilization.

Activity mapping: observing and mapping how different spaces within the market are used throughout the day/week.

Financial & operational records: sales data: aggregated sales data from vendors (if feasible and anonymised).

Rental records: occupancy rates, rent collection.

Utility bills: tracking energy, water consumption.

Waste audits: quantifying waste streams for diversion rates.

Event registrations/ticket sales: for cultural and educational programs.

Staffing records: for job creation metrics.

Interviews & focus groups

In-depth interviews: with key stakeholders (market management, anchor tenants, government officials, community leaders) to gather qualitative insights, narratives, and perceived impacts.

Focus group discussions: with specific user groups (e.g., young families, elderly residents, artists, farmers) to explore specific themes and experiences.

Case studies & testimonials: vendor success stories: documenting how the market has enabled new businesses or growth for existing ones.

Community impact stories: narratives of how the market has enriched lives, fostered connections, or addressed local needs.

Benchmarking: compare KPIs against similar markets (e.g., other revitalised markets in Europe or globally, if data is available) to identify areas of strength and areas for improvement. Compare against baseline data collected during Phase 1 (e.g., pre-market footfall, local business activity).

By integrating these robust monitoring and impact assessment approaches, the replication of the Āgenskalns market can not only demonstrate its success but also ensure its continuous evolution to meet the dynamic needs of its community.

Policy recommendations

Multifunctional market model may highlight areas where current policies are inadequate or create unnecessary hurdles.

1. Integrated Urban Development Policy:

- a. **Gap:** Existing policies might be siloed (e.g., separate policies for culture, economy, spatial development planning, including land use planning).
- b. **Addressing:** A need for a more integrated policy framework that explicitly supports mixed-use urban regeneration projects, recognizing their multifaceted benefits. This could involve cross-departmental collaboration mandates within the municipality.

2. Flexible Market Licensing & Permitting:

- a. **Gap:** Current licensing might be too rigid, designed for traditional single-function markets, making it difficult to combine retail, food service, and cultural events under one umbrella or for temporary/pop-up activities.
- b. **Addressing:** Develop specific licensing categories or "multi-activity permits" for multifunctional urban hubs, simplifying bureaucratic processes. Implement "fast-track" permitting for projects with demonstrated public benefit.

3. Support for Heritage Revitalization & Adaptive Reuse:

- a. **Gap:** While heritage protection exists, specific incentives or streamlined processes for commercial adaptive reuse of historical buildings might be lacking or overly complex, especially when integrating modern functions.

- b. **Addressing:** Introduce specific grants, tax breaks, or simplified loan guarantees for heritage building revitalization for public-facing, multifunctional uses.
- 4. **Local Food Systems & Short Supply Chains:**
 - a. **Gap:** Policies might not sufficiently support local farmers' access to urban markets or incentivise short supply chains (direct from producer to consumer).
 - b. **Addressing:** Policy measures that reduce barriers for small-scale local producers, offer preferential terms in markets, or support logistics for local food distribution.
- 5. **Community Engagement & Co-Creation Frameworks:**
 - a. **Gap:** While public consultations exist, formal mechanisms for deep community co-creation and ongoing governance participation might be limited.
 - b. **Addressing:** Establish clear guidelines and support for participatory design processes in urban development, potentially mandating a community representative on project steering committees for public assets.
- 6. **Incentives for sustainable multifunctional markets:**
 - a. **Gap:** Lack of specific financial or regulatory incentives for markets to adopt advanced sustainability practices (e.g., waste-to-energy, circular economy models, low-carbon operations).
 - b. **Addressing:** Introduce grants or subsidies for green technologies, waste reduction initiatives, or certifications for sustainable market operations.

III. Methodology for replication human-animal cities. Insights from Lucca

Giulia GRANAI, Francesco DI IACOVO

Executive summary

This document outlines a replicable model for an Integrated Human-Animal Urban Policy (IHAUP), developed through the pilot experience in Lucca as part of the IN-HABIT European project. The main goal is to recognise and enhance the presence of animals in cities as a catalyst for urban regeneration, social inclusion, and collective well-being, inspired by the principles of Animal-Nature Based Solutions (A-NBS) and the New European Bauhaus (NEB). Key impacts include improved urban liveability via inclusive public spaces that accommodate both humans and animals; increased social inclusion, especially for vulnerable groups such as the elderly, children, and people with disabilities; greater citizen engagement through participatory co-design processes; and strengthened cross-sector collaboration among municipal departments. IHAUP offers an innovative, low-cost, and adaptable strategy to address complex urban challenges—such as isolation, health inequalities, and ecological disconnection—by reorientating existing municipal resources. It actively engages communities, enhances well-being, and supports environmental sustainability through a human-animal relational lens. The IHAUP model is highly replicable and scalable due to its modular structure and flexibility. Cities can begin with pilot actions tailored to local needs and progressively expand through institutional support. Both top-down (municipality-driven) and bottom-up (community-driven) pathways are feasible, making the model highly adaptable across diverse urban contexts in Europe and beyond.

Contextualising the proposed solution

Animals are an increasingly widespread presence in cities, a numerical growth that has not always been matched by sufficient attention in urban planning, including the design of policies and the general perception of animals within urban environments.

Beyond **companion animals**, cities also host **wild animals** (both permanent residents and migratory species with a high relevance in terms of biodiversity and coexistence) and **food producing animals**. While the latter are currently less common in European cities, they show potential for growth due to the emergence of innovative farming models like insect production and aquaponics systems. These three categories of animals present distinct challenges and management needs, yet all fall under the responsibility of urban planners and residents.

The presence of animals in cities is not a new phenomenon. Traditionally, administrations have managed their integration and addressed potential implications. This relationship has continuously evolved; initially driven by utility (e.g., transport, food production), it has transformed over time with changing societal interests and priorities.

Today in EU there are still fragmented experiences, always with high attention on hygiene and zoonotic risks. At the same time, public awareness of ecological corridors and biodiversity

conservation is steadily increasing. In parallel, the growing number of companion animals has led to heightened attention to animal rights, as well as to the responsibilities of owners in ensuring proper and ethical animal management.

Nevertheless, limited attention has been paid to the potential role of animals – particularly companions ones - in promoting inclusive health and well-being at city level, for both vulnerable groups and the wider population. At the same time, there is a lack of reflection on the potential of an IHAUP and on the adoption of a “*more-than-human*” perspective, aimed at fostering improved coexistence and strengthening human-non human animal bonds in the perspective of public good provision.

In time of increasing fragilities and societal fragmentation, the presence of animals takes on new significance, both within families and the urban fabric. It fosters new connections with nature, creating substantial potential for cities open to intelligent solutions.

Cities can either view animals as a problem or as a valuable resource that contributes to urban regeneration and quality of life. Our proposal aligns with this second perspective, considering animals in cities a beneficial resource to be leveraged for more active, inclusive, and responsive urban environments that adapt to the changing needs of their residents.

The IN-HABIT project in Lucca investigated whether the presence of **animals** could contribute to regenerating urban spaces and fostering more inclusive communities that enhance residents' quality of life.

Methodology for replication

An Integrated Human-Animal Urban Policy (IHAUP), while simple in its individual components, becomes complex due to the potential for integrating various existing administrative policies. To ensure orderly and effective implementation, the process should proceed through four distinct phases (Figure 1):

1. Preliminary organization
2. Activation of co-design and pilot actions
3. Development and widespread management of urban interventions
4. Monitoring and reflection on outcomes, and adaptation/implementation paths.

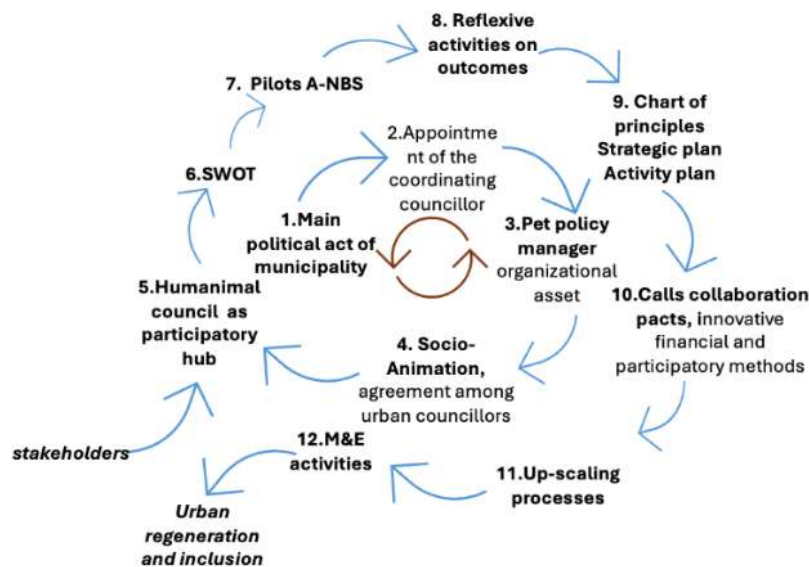


Figure 4 Necessary steps for organising an IHAUP

Phase 1: Preliminary Organisation

The introduction of a transversal attention to animals and their positive interactions with humans in urban policies is relevant to both cultural and political spheres. The extent of potential implementation largely depends on raising awareness of the new opportunities and feasibility. This initial phase involves several key sub-phases.

- **Understanding, sharing and organising a hum-animal converging vision:** each city displays varying levels of awareness regarding human-animal bonds according to the three main domains (wild, food-producing animals, and companion animals), involving citizens, institutions, technical bodies, and policymakers. Understanding existing perceptions and fostering a shared, agreed-upon vision is essential to defining a common baseline and to initiating a coherent implementation process.
- **Mapping existing initiatives:** cities may already host implemented solutions, engaging initiatives, or emerging challenges related to human-animal interactions. Identifying, collecting and sharing these experiences can support the organisation of a common starting point at the city level.
- **Reflecting on the role of municipalities:** this is pivotal in organising an IHAUP. Successful implementation strongly depends on the commitment of city managers (technical and political) and their interaction with societal awareness and support.
- **Defining a political direction:** at the city level, two strategic pathways may be pursued:
 - supporting local hum-animal initiatives to build evidence and capacity prior to their integration into a structured IHAUP

- establishing an overarching vision and commitment to IHAUP and directly manage the path
- **Securing dedicated staff and professional support:** this includes verifying or providing personnel who are specifically trained in human-animal interaction, skilled in mediation and facilitation for participatory actions, and adequately supported for their implementation and in communication and engagement.
- **Debating and sharing the IHAUP at the city level:** This involves sharing the initiative with relevant council members in the executive council, delegated council members in council committees, and extended participatory boards to ensure a broad understanding and buy-in.
- **Establishing a dedicated co-creation space:** Organising a formal space (e.g., a Council, Observatory, Committee, or Human-Animal Working Group) for co-programming, co-design, and co-decision-making is key. This space should convene various stakeholders, potentially in differentiated formats, depending on the specific issues raised.
- **Facilitating involving initiatives and open dialogue:** the approach should be open to a participatory engagement of various components in the local society, able to enrich the hum-animal frame. Gaming, involving activities (events, transect walks, friendly dialogue, schools' participation, city excursions) might embrace diverse groups in a common understanding and dialogue.
- **Activating competences:** professionals in the field of human-animal interaction, capable of highlighting the potential benefits of effective interaction between people and animals, are crucial in providing evidence for innovative practices.

Key lessons and points of attention:

- **Adopt a broad vision while progressing incrementally:** initial phases are critical in setting a path of change. While it is essential to define clear long-term objectives, it is equally important to recognise that a step-by-step approach is needed to gradually align awareness, political support, resources and progressive achievements in a positive spiral.
- **Assess the local and external state of the art:** at the local level, a range of alternative solutions may already be in place and can be meaningfully connected and integrated within a hum-animal perspective. Local innovators can be identified, and their approaches shared to support mutual learning and improvement. In addition, experiences from other cities and contexts, even if partial, can provide valuable inspiration for local adaptation and integration.
- **Understand existing positions and contextual complexity:** local arenas are inherently characterised by diversity. Attention to animals may introduce more radical perspectives in the debate, with differing views on agency, rights, and political

recognition. Mediation and integration across these perspectives can generate both tensions and alliances, which need to be carefully mapped and understood.

- **Role of women:** Throughout the Lucca process, the active participation and leadership of women was pivotal across all phases and settings, including public administration, social services, NGOs members and among citizens.
- While this partly reflects the strong presence of women in care-related roles, it also highlights a specific and socially embedded connection between women and animal-related issues.
- **Map potential actors aligned with the topic:** attention to animals attract a wide range of actors and groups, including stakeholders not initially perceived as directly linked to a human–animal perspective. Social innovation processes often mobilise unexpected resources and actors, broadening the stakeholder landscape over time.
- **Combining actors:** participatory processes inevitably involve dynamics of inclusion and exclusion that shape development pathways. The attention to a wide and open participation might reduce potential bias and enrich the range of aspects included throughout the process.
- **Negotiate and organise spaces for participation:** participation cannot be given for grant; moreover, stakeholder involvement may vary significantly in terms of depth and influence. Different levels of participation—from information-sharing and consultation to active engagement and co-design—have distinct implications for process continuity, ownership, and outcomes.
- **Exercise patience:** social innovation processes are often non-linear and demanding, requiring patience, methodological rigour, and openness to unexpected directions and incremental progress.

Phase 2: Co-design and Pilot Actions

Building on the organizational groundwork, this phase begins with engaging stakeholders in the designated public space, aiming to:

- **Gathering insights and collecting data and perspectives:** This involves collecting and systematising existing practices and evidence, ideas, viewpoints, identifying local bottlenecks or potential solutions, and performing a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) related to human-animal interaction in the city.
Accommodating points of view and perspectives: hum-animal bonds might be seen from diverse entry points and with specific consolidated perspectives by diverse actors and groups. The IN-HUB is the arena for organizing and progress an open dialogue and for connecting in a wider integrated perspective competences, expectation, and perspective emerging from the dialogue.
- **Dialoguing and enjoying:** the co-design phase is able to activate local dialogue and participation, awareness and sense of relevance about any ideas and the power of being part. From this perspective focus groups, world café, transect walk, gaming activities, involvement in specific although also small actions, are part of a process

where empowerment and attention to the diverse policy options increase societal and political dialogue at city level and ability in co-designing the change.

- **Participation as a learning open environment:** citizen involvement of -both individual and organized- enriches the process by introducing skills, perspectives, and potential resources that can be leveraged throughout implementation. Participation should encompass diverse groups and representatives of diverse societal components (vulnerable groups, elders, minorities and underrepresented communities). Young people may find human-animal aspects to be valuable entry points for greater integration into local life and urban planning processes.
- **Participation and urban political cycle:** participation must be considered in the context of the local political environment, governance culture, and decision-making practices. While open participation has significant benefits, it can also generate tensions at specific stages of the urban political cycle. In contexts of low political awareness or limited interest in human-animal issues, participation may be constrained, often limited to information-sharing or consultation rather than deeper engagement and co-design.
- **Internal participation into the city organization:** participation is typically considered in terms of civic society engagement and citizen involvement in decision-making. However, for a transversal integrated policy shift such as the IHAUP, it is equally essential to foster active involvement and participation among the technical components of the administration across all relevant areas. Internal participation ensures a shared understanding, facilitates coordination, and strengthens support for integrated policy development and implementation.
- **Organising ideas in clear frame:** a problem and needs analysis can contribute in organizing ideas and to transform these insights into a list of potential objectives, strategies, intervention areas, and actions. Also, the linkages and contradiction emerging can be listed and put under evaluation for further improvements
- **Co-defining and prioritising pilot actions:** Based on resources and orientations emerging from the co-design process, an initial set of pilot actions can be prioritised, aligning with municipal orientation and agreed societal visions. Interventions may address multiple dimensions - including the three domains (wild, food-producing animals, and companion animals) as well as diverse societal needs and priorities (e.g. support for vulnerable populations, spatial reorganization, etc). Flexibility and adaptability throughout the process became a key element.

Key lessons and points of attention:

- **Consider diverse existing entry points and perspectives:** regarding animals (wild, food producing, pets) diverse perspectives are normally present and represented by

diverse actors involved. From single citizens to agency groups the dialogue can bring the attention of unexpected topics, as well as to conflicting ones (also in terms of coexistence among animals and among humans and animals). All of them can be accommodated to creating a larger integrated perspective in a more than human perspective.

- **Facilitate, suggest and adapt to emerging converging perspectives:** To accommodate diverse opinions, to mediate and negotiate perspectives is key along the participatory process, also to consolidating societal ties, knowledge learning, and to build more integrated visions.
- **Listen and accompany:** the participatory process can bring the discussion along the process to initially unexpected paths according to the emerge of unexpected perspectives and opportunities/ resources.
- **Accommodate external experiences in the local environment and debate:** the local knowledge cannot cover all aspects involved in a more than human perspective. The dialogue among local and external knowledge and practices, academic and lay competences, operational and scientific ones, might fertilise the local debate and to increase awareness and learning
- **Understand the political environment and the potential rewards:** the hum-animal perspective can be rewarding in the political arena. At the same time policymakers can consider the topic also risky or not enough relevant in front of the electors. The diverse perception has an influence on the political engagement and the support ensured to the organisation of an IUHAP.
- **Be prepared to counter directions along the process:** according to the theory, change can be a long process that might experience accelerations and slowdowns, Facilitation and support to a long run process can be supportive to ensuring continuity and stability to the process.

Phase 3: Development and Widespread Management

This phase expands the integrated programming, building on the successes of Phase 2:

- **Implementing pilot actions:** The identified pilot actions should be carefully co-deployed in their area of intervention with specific paths. They might include operational co-deployment with responsible authorities (this is the case for innovative social/health services), agreement with school managers (in case of the educational ones), dialogue with the economic sector (in case of the economic and pet-friendly tourism), organization of single events with interested NGOs, specific technical planning for innovative infrastructures. In any case, they demand an unconventional dialogue among diverse actors and competences, the progressive acceptance in breaking consolidated routines, the mediation among existing procedures and responsibilities with new breaking solutions, the organization of suitable innovative paths able to introduce the pilots into the existing environments (case by case).
- **Solutions and administrative rules:** The new solutions can be differently demanding also in terms of administrative adaptation in the management of the interventions. From

strict administrative rules to co-planning with NGOs and responsible sharing, to support with specific pacts citizens involvement, there can be a range of possibilities that city administration can adopt according to the specific area and type of intervention, their interaction with existing rules, as well as the level of openness in the political stream.

- **Analysing outcomes and strengthening future actions:** Results from pilot actions are analysed to inform and reinforce further initiatives within the designated public discussion space. Communication and results sharing are pivotal in accompanying the process of local reflection and awareness building.
- **Interaction among the pilot actions and overall process:** the pilots are key in catalysing the discussion started in the participatory INHUB into clear evidence. At the same time, they represent part of -and feed- the whole picture of the IHAUP. Here progressivity is key to balance societal dialogue, policy intervention, concreteness, awareness and knowledge building, continuity and willingness along the process among all parts involved.
- **Theory of change, social and institutional innovation:** the IHAUP represent the arrival point of a process of social innovation able to mobilise existing animal resources into new solutions and services able to enhance inclusive health and well-being at city level. Such a process of change has strong implications in terms of cultural, administrative, and political shifts. To consolidate the path, it is key to accompany in parallel the process of social innovation with an institutional innovation able to bring to a real integrated policy. The institutional innovation might be supported by citizens in the local arena but should be planned and articulated by both technicians and political responsible at city level.
- **Organising new institutional and planning tools for the IHAUP:** the organisation of a hum-animal urban policy requires the organisation of new planning instruments. A chart of principles, a strategic work plan, an action plan might integrate diverse area for intervention in a more than human perspective and to give stability to the process of innovation managed.
- **Supporting the process:** drawing from the IN-HABIT project experience, where partnership members (municipality, research centre and communication actor) collaborated with local activators to guide the process, it is crucial to ensure dedicated management for the long term. The introduction of a Pet/animal policy manager could provide continuity, coordination, and and harmonisation for the IHAUP, sustaining the ongoing policy integration and the broader process of change.
- **Maintaining continuous communication and dialogue:** Ongoing communication and engagement with citizens are crucial to support the management and implementation of planned actions and the overall integrated policy. This also facilitates the continuous collection of feedback and suggestions.

Key lessons and points of attention:

- **Co-deploying pilots:** pilot initiatives in a hum-animal perspective range among very diverse solutions. Each of them needs to be co-deployed with specific actors responsible for the specific area of intervention. In each of them a process of understanding, mediation, knowledge sharing, solution implementation is required and should be supported.
- **Innovations and routines:** introducing innovative solutions, especially in inclusive health and well-being, can be demanding in terms of institutional and routine reorganisation. The case of AAI in the nursing homes for the elderly gave a clear example in this respect. Agreement with the municipality, with the direction of the institution, with the social workers, with participants and families, organisation setting, complementarity with existing activities and procedures, are only some of the steps that emerge along the path and that should be carefully organised and supported. Steps are part of an innovation process and the real engine for the expected change.
- **Responsibilities and innovation:** in the co-deployment of innovative solutions, there is a potential trade-off among expected outcomes and existing responsibilities of the local authorities and social workers. The progressive balance among these two aspects might facilitate or slow down the adoption of innovative solutions. Positive outcomes support the possibility of moving in favour of the adoption of innovative solutions by supporting the exercise of due responsibility, although with diverse resources like animals.
- **Technical, political and participatory mediation:** the social innovation process towards a hum-animal perspective brings together a complex mix of technical, participatory and political components that need to be balanced, understood and as much as possible mediated. A competent and authoritative mediation is key in supporting a long-term process.

Phase 4: Monitoring and Reflection

Phase 4, focusing on monitoring and reflection, interacts iteratively with Phase 3, both internally within the administration and externally with stakeholders in the designated public space. This allows for the acquisition and codification of lessons learned and evaluations, particularly concerning achieved results. This phase specifically addresses:

- **Monitoring the public working group's activities:** This includes assessing work plans, levels of involvement and participation, and the implementation status of planned actions. The involvement process has ups and downs traditionally along the paths that need to be controlled and supported to keep the attention maintained, and the process evolves in a positive spiral over time.
- **Evaluating pilots' objectives and results:** for each pilot/action in the work plan, using both qualitative & quantitative methods and involving the involved actors, the step can support reflexive activities for further improvement and direction.

- **Assessing resource absorption:** This involves tracking the human, financial, and administrative resources consumed by implemented activities to better measure efforts and their relationship to the outcomes achieved.

Key lessons that can be replicated:

- **Monitoring and evaluation of a wide range of solutions and aspects:** the IHAUP, in addition to supporting the overall transition process, integrates a wide variety of solutions across multiple domains and perspectives. Monitoring and evaluation of these initiatives requires methodologies, competences, and tools capable of addressing diverse demands, often necessitating the adoption of innovative approaches and techniques.
- **Data collection:** according to the previous point, ensuring participation and engagement of the broad range of stakeholders involved in diverse A-NBS for monitoring and evaluation can be challenging. Furthermore, conducting rigorous evaluations may be complicated by factors such as privacy concerns, the feasibility of organising controlled tests, and limitations related to the duration and number of participants in structured “experiments”.

Adaptation framework

The IHAUP is both demanding and flexible. It is demanding because it necessitates an innovative perspective regarding human-animal bonds, applied transversally at the city level from a more-than-human perspective. This means moving beyond viewing animals (wild, food-producing, or companion) as isolated provisions, integrating them into a broader plan, especially to enhance inclusive health and well-being for all. It is flexible because it comprises various A-NBS that can be progressively implemented and adapted, allowing alignment with local institutional and societal culture, according to the level of awareness, needs, and available resources.

Two main aspects should be regarded as key in the IHAUP perspective: 1) The emphasis on delivering public goods; 2) the inherent connections between the overarching IHAUP concept and the role of individual A-NBS pilots. The pilots are essential for fostering the progressive mindset shift needed to enable a broader transversal acceptance of the IHAUP.

To successfully structure and facilitate the transformative plan leading to an IHAUP, acknowledging its incremental nature and the necessity of sustained effort over the medium term is paramount.

Should the initiative's leadership originate from a municipality, the following recommendations are advised:

- **Actively disseminate the human-animal concept** across all relevant areas (e.g., environment, education, social services, public buildings, tourism, economic development), ensuring engagement from both political and technical stakeholders.
- **Delegate clear political responsibility** for policy integration to a single councillor

- **Select a “Pet Policy Manager”** with the technical expertise to coordinate the entire process internally within the municipality and to manage partnerships with local public, private, and citizen stakeholders within a formally constituted institutional arena.

These preliminary steps are essential for the subsequent organisation of more structured activities, which will be based on a comprehensive charter of principles and rules, a strategic human-animal city plan, and detailed hum-animal city action plans, each with clearly defined resources.

In contrast, in more bottom-up approaches, the process can only commence by embracing the IHAUP concept and progressively by linking and supporting both existing and new A-NBS in a more cohesive and integrated way. The attempt is to enlarge the scale of action, gradually pique political interest, and garner expanding support. Within this approach, the capacity to forge, nurture, and expand coalitions is vital for overcoming fragmentation, generating converging actions from diverse groups, and enhancing the visibility and potential impact of the implemented actions. The selection of A-NBS depends on the availability of local resources and competencies, as well as the community's capacity for planning and securing funding. Certain A-NBS can be directly organised by local groups or associations in collaboration with relevant public bodies. Examples include educational activities conducted in schools, Animal-Assisted Interventions coordinated with selected social or health authorities, or dedicated projects funded through local or European Social Fund (ESF) policies aimed at social inclusion for specific target groups. Conversely, it is also possible to exert specific political pressure on urban administrations. This aims to foster greater attention and allocate dedicated space for initiatives that cannot be managed by individual groups or NGOs, or that necessitate public intervention in communal spaces (such as the creation of "animal lines" or the organization of relational areas).

Stakeholder engagement strategy

Traditionally, urban planning concerning animals has been primarily managed by environmental departments, public health prevention services, and public veterinary services. This approach largely reflects a view of animals as subjects of rights deserving attention regarding public health. However, this narrow focus risks hindering the development of a truly integrated human-animal urban policy (IHAUP). While the environment department remains crucial as a promoter, an integrated policy, by its very nature, must connect with other policy areas to embody this new vision.

The potential for enhancing Animal-Nature Based Solutions (A-NBS) necessitates the involvement and the redefinition of the policies (including funding) of numerous municipal departments and various policy domains, as indicated below.

Table 1: Contribution from urban policies to the IHAUP

<i>Policy</i>	<i>Potential contribution</i>
<i>Participation</i>	for co-designing, in a horizontal subsidiarity framework with local stakeholders, the choices and priorities of an IHAUP and their inclusion in decision-making processes.

<i>Environmental</i>	Management of animals, green areas and corridors, waste, and provisions related to animal end-of-life.
<i>Urban planning</i>	Selection of suitable areas and creating the physical infrastructure to support the interaction between people and animals in a perspective of coexistence and promotion.
<i>Social/Health</i>	Planning and organizing innovative services for the inclusion of vulnerable people and the promotion of health in collaboration with local social/health authorities.
<i>Educational</i>	Organizing learning activities related to all types of animals present in the city—pets or wild, food, pet—and promoting the safeguarding of local biodiversity and coexistence.
<i>Tourism</i>	Managing initiatives related to enhancing pet-friendly tourism.
<i>Economic:</i>	Enhancing and qualifying economic activities diversely linked to the presence and management of animals in the urban environment.
<i>Transport</i>	Ensuring management of transportation that may also concern animals and their owners.
<i>Cultural</i>	Guidelines and policies in events and devoted structures (museums, public buildings).

Each area of competence can plan diverse actions, given the complexity of policy integration facilitated by the potential of a gradual approach in organising an IHAUP.

A common concern arising in discussions within administrations regarding IHAUP is the availability of resources, especially in times of fund constraints for public administrations. However, the logic of an integrated policy lies in reorienting and reallocating existing resources, sometimes with minimal additional expense. This isn't about subtraction or drastic reallocation but rather enhancing and reorienting existing budgeted interventions to align them with new outcomes based on an A-NBS vision, like:

- ***Environmental policies:*** planning and reorganizing green areas, and public parks with higher consideration to green corridors, biodiversity, protection areas, Animal Lines, relational areas for human-animal interactions and coexistence. Waste management policies can incorporate specific attention to smart solutions able to integrate circular economy principles in animal waste management.
- ***Urban planning policies:*** specific training and co-design actions with professional communities (e.g., professional associations, and groups with specific human-animal competencies in various domains) can foster a coherent cultural climate in urban regeneration plans.
- ***Social policies:*** planning effective services for vulnerable people able to valorise animals and their active interaction, also by, establishing collaborative relationships and pacts with NGOs and health authorities for expanding available opportunities.
- ***Educational policies:*** with specific co-design actions with schools leveraging their resources, enhancing attention to a more than human vision improving urban activation.
- ***Tourism policies:*** with innovative financial co-participation between public and private actors, by using part of the tourist city tax city for a coordinated pet-friendly public-private tourism policy with the receiving facilities.
- ***Economic policies:*** These actions, with less direct management by administrations, primarily have a cultural and informational-training impact on administrative structures responsible for handling practices related to administrative and bureaucratic streamlining.

This area also includes actions to qualify the supply of services and products aimed at the animal target, ensuring full control and compliance with regulations in the correct management of animal keeping and sales practices.

- **Transport policies:** This mainly involves adopting guidelines and codes of conduct, which typically do not incur new structural costs. In some cases, adaptations of transport means can be considered to accommodate animals, such as dedicating specific areas for those traveling with pets.
- **Cultural policies:** with the attention on specific cultural events for families and specific targets devoted to animals by redesigning existing offers.

Administrative paths: These refer to the tools adopted to facilitate the organization of IHAUP actions and decisions. They include:

- Regulations for animal management in the city
- Green planning and ecological corridors regulation
- Possible identification of an animal welfare ombudsman office to resolve disputes
- Calls for tenders for specific services (e.g., Animal Assisted Interventions, Pet care services) through co-design processes with third-sector actors, in accordance with current legislation
- Calls for tenders for contracting public works dedicated to animal management
- Public procurement and attention in diverse aspects of the right interaction with animals (e.g., public canteen and animal products consumption)
- Organisation of urban food policies with attention to animal-based food products
- Collaboration agreements with associations for the subsidiary management of places, events and activities
- Various guidelines for managing relational areas, animal lines, kennel facilities, and various services from transportation to tourism.

The provision of a new reglementary hum-animal frame is a step to institutionalise the innovative solution into a stable frame. To support the process, dedicated human resources are relevant, like the appointment of a "urban pet policy manager" (ManUPP). A role requiring good project management skills (e.g., Project Cycle Management or similar methodologies), the ability to support and facilitate participatory processes, and the capacity to dialogue and mediate solutions with internal technical components of the administration. The ManUPP also needs to prepare documents for political decision-making, manage administrative communication, and ideally possess competence in animal management and needs in human interaction, or be able to liaise with hired technical professionals.

IUHAP and the New European Bauhaus logic, 5 key points

1. **Appointment of an administrative-technical manager:** responsible for the IHUAP & interactions within the IN-HUB.

2. **Installing an open INHUB:** a space for facilitating dialogue between the administration and local stakeholders, ensuring an open inclusion in a planned and continuously facilitated process.
3. **Drafting a charter of principles:** This document prepared within the INHUB identifies guiding principles for actions to be undertaken on a municipal scale.
4. **Designing a work strategy:** this outlines the overall approach to be adopted.
5. **Approving an activity plan:** including objectives, actions, and measures to be undertaken for developing the IHUAP.

Key lessons that can be replicated:

- **Complexity of planning tools:** can vary depending on the administrative progress, starting from a few pilot initiatives and gradually expanding work areas and integration levels.
- **Clear Paths:** with respect to the local societal and political environment, it remains crucial to immediately establish a clear path towards policy integration under the new perspective of animal presence, viewed through the lens of Animal-Nature Based Solutions and public good provision.
- **Participatory approaches:** are central to involving the population and interested parties in decision-making processes that enhance local prosperity [10,11].
- **The establishment of public-private partnerships** [12,13] involving active citizens and city stakeholders is tasked with mobilizing resources, fostering shared knowledge on new "human-animal" issues, and implementing necessary actions.
- **Pooling resources:** the convergence public resources with those of private entities and citizens is key to achieve innovation and new urban prosperity goals, even leveraging existing and simple resources like animals.
- **Methodological standpoint** the IN-HUB, arena and agenda making: bringing together diverse individuals and stakeholders within designated meeting places (arenas) is preparatory to generating agreements, work agendas, and convergent visions.
- **Pilot initiatives:** preparation and implementation of pilot initiatives (e.g., new services) can offer evidence and insights that foster collective learning, and develop new shared knowledge, by giving evidences and concreteness to the shared ideas
- **Institutional innovation:** lead to new integrated rules and policies and widespread innovative interpretations of human-animal relationships into clear policies and guidelines

Measurement & evaluation

Evaluating and measuring the impact of an IHAUP necessitates careful consideration of multiple facets.

Throughout processes of change and participatory engagement, monitoring and evaluation activities play a key role in fostering awareness, facilitating learning, and supporting knowledge sharing. A significant component is directly linked to the transformative path itself. This can be measured by observing incremental increases in awareness, acceptance, and politically motivated actions undertaken by local public and private stakeholders. Such measurement can be achieved through both direct and indirect approaches, utilising a

combination of qualitative methodologies (such as focus groups and interviews with principal stakeholders, storytelling, video and photovoice).

Another aspect concerns the impact of each individual A-NBS. In this context, the Monitoring and Evaluation (M&E) framework is precisely tailored to the specific typology of the activities organised, the target groups engaged, and the defined objectives of the planned initiatives. Quantitative data are essential for providing evidence of emerging outcomes in terms of inclusive health and well-being, citizen involvement, and customer satisfaction.

Table 2: Hum-animal Monitoring and Evaluation (M&E) Framework.

Type of activity	Outcome	Potential indicators
Communication	Awareness	N° of contacts (Web, social, others), stories, new language
Training	Skills	N° participants to specific activities and level of improvement (different targets and indicators)
Facilitation	Inclusion and empowerment	N° of people involved and main outcomes (societal dialogue, involvement, pro-activeness)
New spaces	Inclusive well-being	Incidence of registered animal/areas, N° of people frequenting and main outcomes (societal dialogue, playing, sensory)
Education, events & cultural activities	Knowledge	N° participants to specific activities level of engagement and outcomes from participatory involvement
Innovative social/health services	Inclusive health & well-being	N° of services/people receiving services and achieved outcomes in respect of targets and objectives
Business creation & touristic activities	Job creation	New job position and sustainability of them, N° devoted services and initiatives, N° tourists with pet attracted, stay duration
Green areas and biodiversity	Green targets	Number of species, and their frequency, diversities and presence of rare species, level of coexistence Continuity of the corridors, adequateness in the management with respect to targets
Food producing animals	Awareness, footprint	Presence of alternative food network (CSA, PSG), urban farms and didactical and inclusive farms, innovative farms, level of production

While these evaluation activities are highly relevant, they are also demanding in terms of both time and resources. Consequently, M&E efforts must be carefully balanced with the multitude of other tasks that the involved stakeholders are required to undertake. Considering this complexity, the role of a "pet urban policy manager" is well-justified to oversee and streamline all the intricate activities involved.

Policy recommendations

Urban regeneration initiatives can significantly benefit from leveraging the potential that animals offer through their interaction with people. Below, we outline how this can be achieved, albeit schematically, across various individual policy areas.

ENVIRONMENTAL POLICIES: Traditionally, environmental departments are responsible for municipal animal-related interventions, managing green spaces and water resources, ensuring animal welfare, and interacting with animal advocacy organizations. They also address urban hygiene in collaboration with local veterinary services. Within an IHAUP framework, municipalities can enhance their action by introducing a range of initiatives that view animals' presence less passively and more openly, fostering positive human-animal interaction and satisfying animals' ethological needs and coexistence with humans' presence and activities.

Specifically, these diverse interventions can span multiple work areas: relational areas, rest areas, "animal lines" (dedicated paths); green corridors and their proper management, food policies with attention to animal welfare, sustainability and local food chains, active cat and dog shelters; cemetery services management, urban animal management regulations, regulations for public access; initiatives and events, adoption policies, co-management agreements, beach access and coexistence with wild fauna; animal health policies, signage and notifications; courses and licenses for animal education/keeping, waste management solutions, appointment of an Animal Policy Manager.

URBAN PLANNING POLICIES: For the identification and urban classification of spaces, and for the creation of physical infrastructure to support human-animal interaction and coexistence, dedicated attention is needed. This includes considering animals' presence in cities and its implications for designing urban spaces, continuity in green corridors and refugees and public buildings accessible to animals and their owners. Key areas include human-animal urban design (overall planning that integrates animals); dedicated physical spaces (ecological paths & corridors, wild animal refugees, relational areas, rest areas, animal lines, animal accommodation facilities, and facilities for people with animals); animal-friendly solutions (designing spaces and solutions that are inclusive and beneficial for both animals and people).

SOCIAL/HEALTH POLICIES: Animals foster beneficial and positive interactions with people. Extensive literature documents their positive impacts on pet owners' health (Walsh, 2009), their role in co-therapeutic actions for children with autism (Hart et al., 2018) and learning disorders (Gee et al., 2017). Furthermore, interaction with animals benefits the elderly, including those with signs of dementia. Animals provide a vital point of reference for homeless individuals and can even serve as indicators of domestic violence (e.g., through reported animal abuse). Evidence of their utility for human health and well-being is constantly increasing. To plan and organise new services for the inclusion of vulnerable people, activities must adhere to national guidelines on Animal Assisted Interventions (Ministero della Salute, 2015), covering organization, required skills, objectives, and activity commencement declarations. The integration of socio-health policies with animal-related actions provides innovative intervention tools, including the integration of services for people and animal management. Beyond being co-therapists, animals act as facilitators in inclusion pathways, bridging the world of marginalization with a more equitable daily life. This integration of approaches and enhancement of animal interaction is empowering, capable of fostering new bonds among urban groups, practices, and associations. In activities involving third-sector entities, planning typically proceeds through co-design actions in accordance with national and regional regulations. Public policies often face new social challenges with limited resources. The insight of leveraging animals makes new resources available, which, if appropriately mobilised through integrated and regenerative actions, can create opportunities. This facilitates a process encompassing initial engagement, public action, individual empowerment, and, where possible, active inclusion in society and the workforce.

EDUCATIONAL POLICIES: Animals play a significant role in educational processes, both in popular imagination (e.g., animated cartoons) and in real life. While animal ownership in families is widespread, behaviours and relationships with animals need to be managed correctly, both indoors and outdoors. Animals are powerful aids in children's development and

in transmitting learning related to nature and relationships. A targeted educational policy involving animals can significantly improve urban quality of life. Numerous actions can facilitate harmonious growth. In schools and beyond, educating teachers, children, and families on correct animal interaction and their usefulness can find adequate space, potentially including in-classroom animal visits with educators and play activities. Animals, accompanied by experienced individuals, can provide valuable assistance to children facing learning difficulties in schools. Young people can participate in work-study programs and civil volunteering initiatives, dedicating time to animal care, thereby enhancing animal shelters. Feral cat colonies, often viewed as a problem, can become a resource through affiliation and information/education actions by classes or families, in agreement with the Municipality and the Local Health Authority. Edu-training events offer knowledge, in-depth analysis, and learning activities related to all types of animals present in the city – pets and wild animals.

TOURISM POLICIES: Animals in the city are also a valuable resource for tourism. An animal-friendly city appeals to the growing number of families who travel with pets and seek integrated urban experiences tailored to both people and animals. Cities with a tourist vocation, or those aiming to develop pet-friendly initiatives, can design attractive new offerings. A dedicated welcome point (with water stations and waste disposal) in stations, trains, buses, or car parks serves as a potential calling card for the city upon arrival. Travelers with animals require dedicated services and events that can attract new tourists. Accommodation facilities, restaurants, and shops can establish clear pet policies and services. Dedicated paths and spaces ("animal lines"), targeted services for care, nutrition, management (e.g., on-demand dog sitting), education, and playing with pets enrich tourists' experiences and can extend their stay. A calendar of sporting, canine, and cultural events dedicated to pets can attract visitors during off-peak tourist seasons. Considering animals in urban mobility, museum access, and emergency health situations (for animals and owners) demonstrates care and civility.

ECONOMIC POLICIES: These policies focus on enhancing and qualifying economic activities diversely linked to the presence and management of animals in the urban environment. The pet economy is rapidly growing, with significant job creation potential in both service provision (care, education, assistance) and goods (food, daily animal products). Employment in this sector is expanding for individuals with diverse profiles and skills. The growth of pets in the city presents opportunities alongside contradictions related to their presence. Animal waste can spur urban innovation, from smart bins and pet-friendly reuse to new sources of energy and waste management solutions. Innovative skills in nutrition and homemade diets can reduce household waste. Families need new services (e.g., boarding kennels, dog training, veterinary care) with significant employment potential. There are additional opportunities in linking the growth of the pet economy to the production of common goods. A pet ambulance ensures services for both citizens and tourists. The design and management of "animal lines" require specific skills and management interventions. Animal shelters, in conjunction with economic activities, can create virtuous cycles among adoptions, low-cost dog training, and access to specialised shops and services for daily needs and care. Expired food can be repurposed for public initiatives. A charter of urban services facilitates communication, fosters economic opportunities, and disseminates good animal management practices.

POLICIES FOR PARTICIPATION: Animals are present in families and are often represented through associations. Their presence can sometimes be subtle, while at other times it may lead to undesirable impacts (e.g., excrement and hygiene-sanitary control issues). Animals demand attention and offer significant participatory and engaging opportunities. The interaction between people and animals in cities calls for new integrated visions. A new approach to information, discussion, and involvement regarding animals and people in cities is useful, also to facilitate social bonds between social classes, neighbourhoods, social spaces, and in everyday life. Participation policies ensure the co-design with local stakeholders of an IHAUP's choices and priorities, and their inclusion in decision-making processes. Traditionally, the relationship with animals in the city often ends within the family unit or through the protection of their rights by dedicated associations. Both can expand their actions into the public sphere, assigning a social role to animals and their interaction with and among people. For this reason, it is necessary to build new visions and actions that are less personal and more open to the local community and the active involvement of those dedicated to animals.

TRANSPORT POLICIES: These policies are related to the proper management of transportation that may also involve animals and their owners. Key aspects include public transport accessibility (implementing welcoming policies for public transport with animals), private transport support (implementing welcoming policies for private transport with animals), emergency support (interventions to support first aid for people traveling with animals and/or for animals themselves).

IV. Methodology to replicate community-led inclusive green spaces. Insights from Nitra

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Executive summary

The Nitra pilot of the IN-HABIT project implemented a community-led strategy to revitalise underused green spaces through nature-based solutions, artistic engagement, and participatory design. The focus was on building trust with marginalised groups such as Roma communities, migrants, refugees, and youth by offering low-threshold activities and fostering long-term collaboration. As a result, neglected areas like floodplains, schoolyards, and informal parks were transformed into inclusive, ecologically resilient public spaces. These interventions also improved social trust, strengthened local planning and stewardship capacities, and supported cultural programming aligned with the Sustainable Development Goals and the New European Bauhaus values. The tested concept, called Reversible Multifunctional Open-source Urban Landscape, combined flexibility, multifunctionality, and co-creation. Modular furniture, terrain-based interventions, and movable installations ensured that the landscape remained reversible and adaptable. Spaces were designed to serve multiple functions; meadow areas doubled as picnic spots, classrooms, concert venues, and grazing fields, depending on use and time. Open-source design allowed continuous co-creation, with elements like community gardens and art installations shaped and adapted by residents. Rather than a fixed urban redesign, the intervention evolved as a living process, intended to be managed and scaled by those who built it. The approach demonstrated how low-cost, co-designed solutions and shared governance can transform public space in socially inclusive and sustainable ways. It offers a replicable model for small and medium-sized cities looking to enhance green spaces while engaging diverse communities, especially where trust in institutions is limited and large-scale investment is not feasible.

Contextualising the proposed solution

Green spaces in European small and medium-sized cities are essential tools for addressing complex environmental and social challenges. Environmentally, they mitigate urban heat islands through evapotranspiration, act as carbon sinks, and manage stormwater (Đoàn et al., 2024; Egerer et al., 2024). Their multifunctional and reversible designs allow for adaptation to shifting urban and climatic needs, ensuring long-term resilience (Wallinder, 2024; Dabbas, 2019). Socially, inclusive and co-created green spaces foster cohesion, reduce inequalities, and encourage participation. Community gardens in particular serve as hubs for collective action and identity-building across diverse populations, from Asian American refugees (Đoàn et al., 2024) to Syrian migrants in Denmark (Storm et al., 2023). They break down barriers (Nyers, 2024), foster belonging (Richardson, 2024), and empower through co-ownership (Barata et al., 2019; Codato et al., 2024). Health-wise, green spaces improve mental well-being by alleviating stress and anxiety and support physical health through cleaner air and active

lifestyles (Dyg et al., 2020; Christensen et al., 2019). Their multifunctionality and reversibility supports flexible urban strategies in response to demographic and environmental shifts (Ochoa et al., 2019; Veen et al., 2016). Accessibility and design – paths, inclusive seating, trees, and flowers – are crucial for maximizing use across all demographics (Amato & Simonetti, 2021). However, to achieve this in practice, green spaces require integrated planning and participatory governance involving public, civic, and private actors. In this aspect, challenges remain – land tenure insecurity and lack of policy support has made some of the community built green space temporary fixtures, making them vulnerable to urban planning threats (Egerer et al., 2024) and socio-cultural divides (Wallinder, 2024). Piloting community-led green public spaces is all the more important in Central and Eastern Europe, where the legacy of centralised decision-making, low public trust, and limited experience with inclusive governance continue to hinder the effective implementation of participatory planning. Institutional frameworks are often inflexible, public engagement remains low, and the capacity for skilled facilitation is still developing – making locally adapted co-design approaches essential for meaningful community involvement in delivery of inclusive green spaces.

The Nitra pilot addressed the challenge of limited access to inclusive, high-quality green spaces in socially and spatially marginalised areas of the city. Many such spaces were underutilised, lacked ecological maintenance, or did not reflect the needs of diverse user groups, particularly Roma communities, migrants, and young people. These groups were also typically underrepresented in formal urban planning and public participation processes. The pilot responded to these challenges by fostering **co-design processes** that were both place-based and inclusive, focusing on building trust and visibility in communities with historically low engagement.

Methodology for replication

Phase 1: Context Assessment: Identify underutilised green or marginal urban areas and underrepresented groups.

The first phase of replication focuses on understanding the local **social, spatial, and institutional context** to identify opportunities for **inclusive green space transformation**. Rather than starting from predefined “problem areas,” this step emphasises the discovery of **untapped potential** – both in **underused urban spaces** and in the **capacities of local communities**. The objective is to identify **accessible sites with ecological or social value** and engage **underrepresented groups** through trust-building, low-threshold activities.

The process begins by scanning the urban territory for **vacant, underutilised, or transitional spaces**. These may include floodplains, informal parks, disused green corridors, or schoolyards that already exhibit spontaneous or informal use but lack long-term support or visibility. Equally important is **mapping existing civic actors and networks** – NGOs, informal initiatives, and cultural hubs – that can serve as partners or facilitators.

To understand how spaces are currently used – and by whom – **light-touch participatory methods** can be applied. These include informal engagements that surface both material and

intangible assets, as well as perceived needs and barriers. For example, **transect walks** help uncover spatial dynamics and local knowledge; **cultural events** such as Sunday Chill serve as entry points for open interaction; **BioBlitzes** can reveal overlooked ecological value; and **photovoice** offers a way for vulnerable groups – such as migrants or refugees – to share their lived experiences and perspectives visually.

In the Nitra pilot, this phase involved working with schoolchildren in the Roma-majority district of Dražovce through art-therapy methods, using photovoice workshops with Ukrainian refugees to explore their lived experiences in green public spaces of the city. In the Hidepark area, Sunday Chill events and nature walks engaged diverse groups – including NGOs, municipal officers, and youth – well before formal co-design began. These early actions helped establish **trust, legitimacy, and relevance**, which proved essential for deeper engagement and long-term stewardship.

Key principles for this phase include: **listen before designing, value informality, embrace diversity, and start with small, visible actions**. A strong foundation of mutual understanding at this stage significantly improves the quality and sustainability of all later phases.

Key lessons that can be replicated:

- **Don't start with designs, start with dialogue:** Early conversations with community members revealed hidden tensions and unexpected allies.
- **Show up before you ask others to:** Regular presence in Dražovce and Hidepark before launching activities helped overcome scepticism.
- **Map local actors, not just stakeholders:** The elementary school janitor proved to have more central role in local community dynamics than formal leaders.
- **Start with questions, not answers:** Initial participatory transect and photo walks asked people to “show us your city,” revealing emotional geographies.
- **Make everyone a knowledge holder:** IN-HUB meetings in Nitra gave equal space to local knowledge, experiential insight, and academic expertise – with a focus on triangulating among them in the early stages of pilot area mapping.
- **Create low-pressure learning zones:** Informal, playful formats like Sunday Chill events made people more open to trying new roles and tools.
- **Mix formats, not just people:** Workshops, walks, brainstorming, and field visits worked better than fixed-format meetings for engaging diverse members.
- **Give tools, not just tasks:** Participants were trained in mapping, model-making, and even plant identification – which boosted their confidence and long-term involvement in subsequent phases
- **Give before you take:** Gifting cameras during the photo walks or co-hosting events gave people a sense that the project wasn't extractive.
- **Work with existing social rituals:** Integrating mapping and early capacity building in existing school activities and curricula anchored new ideas in familiar rhythms.
- **Use fun to build familiarity:** Early BioBlitz and community games reduced barriers to participation and created a shared starting point.

- **Use nature to teach participation:** BioBlitz events doubled as biodiversity education and training in observation, patience, and shared discovery — skills essential for co-design.
- **Start with co-learning:** Facilitated exchange sessions between planners and locals helped level the playing field before design discussions.
- **Make knowledge visible:** Exhibition of workshop outputs (drawings, models, photo stories) reinforced the legitimacy of community knowledge and served as a “thank you” to those who contributed at this stage

Phase 2: Establish Co-Design Infrastructure

Once the context is mapped and initial trust-building is underway, the second phase focuses on **institutionalising participation** through the establishment of a dedicated coordination mechanism and infrastructure to support inclusive co-design. In the Nitra pilot, this was achieved through the creation of the **IN-HUB**, a local partnership platform embedded in both the city’s civic and institutional life.

The **IN-HUB in Nitra** was not a standalone or bureaucratic body, but a **flexible, cross-sectoral coordination structure** that brought together representatives from the **municipality, local NGOs** (notably Hidepark and civic associations using the community and cultural space it operates), **Slovak University of Agriculture, schools, and informal community actors**. The strength of the IN-HUB came from its embeddedness: it operated as a **mediator between public administration and grassroots stakeholders**, ensuring that both institutional resources and community knowledge were mobilised.

Since public space interventions require interdisciplinary expertise – including **architecture, urban planning, landscape ecology, and green infrastructure design** – the IN-HUB in Nitra was supported by the establishment of a **Co-Design Atelier** and a **Forum**. Together, these functioned as structured participatory mechanisms that combined education, expert input, and community consultation.

The **Co-Design Atelier** was implemented as an **educational and creative process**, embedded within the curriculum at the **Slovak University of Agriculture (SUA)**. Students of **landscape architecture** worked under the guidance of invited **experts in architecture, green infrastructure, landscape ecology, and dendrology** to co-develop conceptual proposals for inclusive green interventions. This was not a one-off event, but a **multi-stage engagement and prototyping sequence** aligned with the Inclusive Transformation Plan. The student designs drew upon previous engagement activities with stakeholders and developed them into technical proposals. The **Forum** complemented the Atelier by serving as a **multi-actor review and exchange platform**, including **institutional and thematic experts** (e.g. representatives from Manifest 2020 and the NEB national contact point at the Ministry of Transport and Construction), **city administration staff** (including current and former Chief Architects), and the community.

The Forum enabled the **evaluation, discussion, and refinement** of student proposals, helping to align them with policy frameworks, technical feasibility, and community needs. Together, the

Atelier and Forum created **visible, low-barrier entry points** into the project, especially for groups typically underrepresented in planning processes while also ensuring quality and conforming with building codes and standards.

Engagement should be made **iterative and continuous**, rather than one-off, through a mix of **regular forums, ad hoc co-creation workshops, and informal community events**. This flexible participation infrastructure allowed for new people to enter at different stages, and for ideas to evolve through practice. **Artists, educators, youth workers, and researchers** acted as **community connectors**, translating between institutional frameworks and lived experience. Their cross-sectoral skills helped to sustain relationships and momentum across very different types of actors.

In a context like Nitra, where **public trust in participatory planning is generally low**, legitimacy was gained by working through **existing civic infrastructures** – particularly **Hidepark**, an independent cultural and ecological initiative – and through collaboration with the university, which brought both credibility and neutrality. The IN-HUB functioned more as a **network and platform** than a fixed entity, adapting its role over time to support implementation, mediation, and monitoring.

Resources required for this phase include **human capacity** – especially facilitators and connectors with interdisciplinary skills – and **flexible financial support** to fund not just physical infrastructure but also ongoing programming and event-based activation. Critical success factors are the **presence of trusted community entry points** (such as NGOs or cultural spaces), and the **ability to grant real co-decision-making power** to marginalised participants.

Key lessons that can be replicated:

- **Expect initial silence:** Early meetings in segregated areas were quiet — trust built gradually through informal follow-ups.
- **Start with people, not institutions:** The IN-HUB began with informal dialogues among activists, academics, and city staff – not formal agreements.
- **Create a home for co-creation:** Establishing the Co-Design Atelier at the university and meeting points at Hidepark gave the process a recognisable space — not just metaphorically, but physically.
- **Create a safe meeting space:** Holding early meetings in neutral venues (like the university) helped ease power imbalances and encourage honest input.
- **Mix the experts with the amateurs:** Nitra pilot invited artists, ecologists, students, and gardeners to learn from each other on equal footing.
- **Make values explicit:** Early discussions weren't just about logistics – they focused on shared values like equity, trust, and mutual care.
- **Build bridges, not just networks:** The IN-HUB helped overcome long-standing disconnects between grassroots actors (like Hidepark) and city officials.
- **Informality can be a strength:** The IN-HUB's flexible structure allowed creativity and experimentation that rigid governance bodies often suppress.

- **Consistency > size:** A small group of committed actors meeting regularly was more impactful than large one-off stakeholder events.
- **Don't wait for perfect alignment:** The IN-HUB moved forward even when institutional actors weren't fully on board – and convinced them through results, so don't focus on membership KPIs early on, rather on meaningful engagement.
- **Let conflict surface early:** Disagreements between activist and municipal logics were not avoided but addressed head-on — this made collaboration more robust.
- **Clarity of roles avoids burnout:** Defining responsibilities early helped prevent overburdening certain actors (especially NGO staff and volunteers).
- **Hybrid leadership works:** The shared leadership between the university, NGO (Hidepark), and city created a balance of knowledge, grassroots legitimacy, and institutional access.
- **The IN-HUB is also an incubator:** It became a space where new collaborations were born – beyond the original project scope.
- **Reflexivity is essential:** The IN-HUB evolved through regular self-assessment and adaptation – not everything worked the first time, so don't fight the changes.
- **Let leadership for certain tasks circulate:** Rotating facilitation roles gave voice to different actors and built shared responsibility.
- **However, trust takes time (and consistent faces):** Rotating facilitators or consultants can derail early-stage trust-building.
- **Create roles, not just invitations:** Assigning small roles (e.g. event co-host, guide, documentarian) helped people feel ownership early on and also helped reach underrepresented groups (e.g. an elderly IN-HUB member from Dražovce neighbourhood engaging network of Roma mothers)
- **Translate everything – and not just the language:** Cultural mediation was key for involving Ukrainian refugees meaningfully.
- **Facilitators are MVPs:** identify local “connectors” or local facilitators (can be artists, educators, or NGO staff) to link between institutions and citizens, preferably with **cross-sectoral experience** (urban planning, social, educational).

Phase 3: Co-design, coffee and capacity building

This phase outlines a replicable approach to fostering inclusive urban transformation through the delivery of reversible, multifunctional and inclusive urban green spaces, drawing on the IN-HABIT project's experiences in Nitra. This phase emphasises participatory design, fostering informal engagement, and empowering local communities through skill development:

Structured and Iterative Co-design Process:

1. **Initial idea generation (Nitra approach: Association Exercises):** Begin with workshops where participants identify significant locations in the pilot area (e.g., interesting, underutilised, unsafe, or having new potential). Encourage them to propose activities and "proto-solutions" needed for those activities, specifying types of users they would attract.

2. **Contextual validation (Nitra approach: Interactive Transect Walks):** Follow up the initial workshops with on-site interactive walks through the identified areas. Provide participants with maps and diaries to record observations, discussions, and their own comments regarding existing conditions (e.g., safety, accessibility, noise pollution, emotional responses). Use these inputs to refine and update the initial proposals for both hard (physical infrastructure) and soft (intangible processes) interventions.
3. **Expert-led design development (Nitra approach: Co-design Atelier):** Integrate academic expertise by offering a "Co-design Atelier," such as an elective university course facilitated by experts in design, architecture, landscape ecology, and dendrology. Students receive the initial community-generated "proto-solutions" and conduct detailed field research and analysis. They then transform community drafts into concrete technical drawings, visualisations, and indicative budget proposals (e.g., turning children's schoolyard redesign ideas into technical plans). The process included **data collection, site visits, and iterative design development**, with student teams working on different thematic components such as sensory accessibility, edible landscapes, social interaction, and inclusive aesthetics.
4. **Formal validation and feasibility check:** Conduct validation workshops with the broader IN-HUB and relevant institutional stakeholders (e.g., city administration, urban planners). During this step, the initial interventions are re-evaluated for their feasibility, compliance with city-wide policies, and strategic documents. Use interactive formats like "World Café" for moderated discussions on proposed functionalities, reversibility, safety, accessibility features (including a Gender, Diversity, Equity, and Inclusion (GDEI) perspective), and plans for co-deployment and co-management.
5. **Leverage digital tools:** Incorporate online co-design tools, such as 3D mapping software (e.g., Kuula), to enable remote participation and visualisation of proposed interventions. This is particularly useful when in-person meetings are not feasible.

Integrated Capacity Building and Empowerment

1. **Skill development and entrepreneurship:** Provide low-threshold educational and skills courses tailored for low-income and under-educated vulnerable groups. These courses can focus on practical skills like indoor greenery and green wall care, fruit tree care, experimental flower bed care, and working with wood and textiles, as well as upcycling and recycling. This promotes healthier lifestyles, skill satisfaction, and potential economic opportunities.
2. **Use the co-design process to develop skills and empower those most vulnerable:** Embedding meaningful, hands-on, and inclusive learning opportunities in the co-design process means that participants' contributions not only help inform the design priorities but also enhance their communication, observation, and confidence. Co-design process in Nitra served not only to co-create spatial solutions, but also to **build local ecological knowledge, strengthen agency, and create a sense of ownership, belonging and environmental stewardship**, particularly among groups typically excluded from planning and design processes. For example, a participatory phytosociological analysis where 38 schoolchildren from vulnerable backgrounds

(almost completely segregated so-called “Roma school” from the nearby residential neighbourhood), together with 5 teachers and 3 researchers collected data on plant composition was conducted in Nitra pilot. This not only allowed the project partners to select native, resilient plant species but also promoted ecological literacy, environmental awareness and provided early STEM exposure to a community with limited access to such opportunities.

- 3. Support local leaders and fundraising:** Establish platforms or initiatives to support and educate active citizens in project management and fundraising. Offer lectures and workshops on topics such as setting up civic associations, obtaining grants from various private and public schemes, accounting, and volunteer management. This approach helps secure additional funding for co-designed interventions and fosters local ownership and sustainability of the solutions beyond the project's lifespan.
- 4. Integrate soft and hard solutions:** Plan and execute soft (intangible processes and innovations like workshops, cultural events) and hard (physical interventions or infrastructures) interventions in a coordinated manner. Soft interventions can build trust, social cohesion, and awareness, laying the groundwork for successful hard interventions implementation and maximising their combined impact on health and well-being.

Key success factors are:

- 1. Embrace two-way design:** Implement a flexible methodology that integrates both top-down (expert-driven) and bottom-up (community-driven) approaches to ensure comprehensive and relevant solutions that will not be rejected either by the community or the local building permits office.
- 2. Target diverse groups:** Actively involve vulnerable populations, including ethnic minorities, migrants, people with disabilities, children, and the elderly. Also, include institutional stakeholders and active individuals from various thematic fields like social and community innovations, art, culture, healthy lifestyles, education, and nature-based solutions. Utilise open calls and communication campaigns to ensure broad participation.
- 3. Foster open dialogue and trust ("Coffee" aspect):** Create a welcoming and comfortable atmosphere for discussions, adapting to local contexts and community needs. This includes conducting one-on-one meetings with stakeholders and community leaders, especially for those who may be hesitant to participate in larger forums. The Nitra experience showed that adapting engagement strategies, such as intensified involvement of schools with high attendance by Roma children, was crucial when initial workshops faced low participation from specific groups.
- 4. Continuously map stakeholders:** Recognise that the IN-HUB's composition is dynamic. Continuously update stakeholder involvement to reflect evolving needs and project progress, allowing individuals and institutions to transition between participation levels based on their engagement intensity.
- 5. Continuous monitoring and adaptation:** Regularly monitor and evaluate activities to understand their impact and provide timely feedback for necessary adjustments. Be prepared to adapt plans based on emerging needs, unforeseen circumstances (e.g.,

influx of refugees in Nitra), and community feedback. This flexible approach ensures that interventions remain relevant and effective throughout the project's duration

Key lessons that can be replicated:

- **Let communities teach you first:** Before planning anything, Hidepark volunteers hosted us for a DIY workshop on how *they* build spaces.
- **Visual tools go further than words:** Sketching, mapping, and model-making worked better than long presentations.
- **Don't separate education from co-design:** Nature-based learning sessions became informal engagement platforms, especially for children and families.
- **Build social capacities too:** Soft skills like facilitation, translation, and conflict mediation were just as critical as design or ecological literacy.
- Celebrate skill-sharing: Participants teaching each other how to compost, prune trees, or use hand tools created a culture of mutual learning.
- Design for multi-generational learning: Children, parents, and seniors were engaged together – which normalised intergenerational collaboration in later design phases.
- **Institutional partners also needed capacity building:** City representatives gained confidence in participatory methods through the IN-HUB – it wasn't just the community learning.
- **Celebrate often:** Public moments of recognition (e.g. exhibitions, events, awards) kept the IN-HUB motivated and visible in the city.
- **Cross-sector learning takes time:** Some experts began to see cultural interventions as legitimate “infrastructure” only after repeated exposure in the IN-HUB.
- **Involve children as catalysts:** Activities in the Dražovce school engaged families and created bridges across ethnic divides.
- **Use art and culture as infrastructure:** Informal picnics and community meals built more trust than structured meetings ever could.
- **Translate between worlds:** The IN-HUB facilitators functioned as a translator between municipal logic, activist values, and academic frameworks.
- **Document learning as it happens:** Visual and verbal storytelling helped participants reflect on what they co-designed – reinforcing it and building pride.

Phase 4: Prototyping & co-deployment:

This phase emphasizes the iterative development, participatory implementation, and sustainable integration of solutions into the urban fabric.

1. Adopt a Phased and Adaptive Deployment Strategy

- **Integrate co-design and co-deployment phase:** To ensure a **seamless transition from ideas to action**, and to maintain the momentum and trust built during participatory processes involve community members not only in conceptual planning but also in **hands-on implementation activities**. By doing so, the process preserved inclusivity and ownership, while allowing space for **real-time adaptation** based on how users interacted with the evolving space. This approach also allowed for feedback to be

addressed during installation – ensuring that materials, locations, or functions responded to lived experience. The blurred boundary between co-design and co-deployment made interventions more **context-sensitive, reversible, and collectively maintained**, strengthening their long-term sustainability. In Nitra, participatory site-specific artist residencies were the most successful approach in this regard. During these residencies, artists organise workshops with IN-HUB members, gardeners, and other visitors to the intervention area, and also co-create the final landart together with their involvement. The residency aims to provide a blend of active and passive engagement for participants, fostering community connection to the spaces and specific interventions.

- **Initiate with smaller-scale pilot interventions ("Seedbed Approach"):** Begin the co-deployment process gradually by implementing low-threshold activities and smaller-scale pilot interventions. This approach, demonstrated by planting trees with Roma schoolchildren or building birdcages in their schoolyard, serves multiple purposes: it helps build capacities within target groups, assesses the feasibility and community acceptance of proposed solutions, and generates enthusiasm for active participation in subsequent, larger-scale hard intervention deployments. It also allows for early testing against issues like vandalism.
- **Maintain flexibility and adaptability:** Be prepared to continuously adjust plans in response to emerging community needs, unforeseen circumstances (such as an influx of refugees impacting target groups), external factors (e.g., inflation affecting material prices, climate conditions impacting planting schedules), and ongoing community feedback.

2. Foster Participatory Implementation and Ownership

- **Engage directly in physical tasks:** Actively involve community members, volunteers, and local stakeholders in the physical deployment of hard solutions. This includes organizing volunteer days to prepare intervention areas, coordinating tree-planting initiatives, and involving community members in constructing elements of hard interventions. Corporate social responsibility programs built around employee volunteering can involve wider public. Such direct participation is crucial for fostering a sense of ownership and responsibility for shared public goods.
- **Prioritise local expertise and labour:** Where feasible, aim to hire local enterprises and residents, particularly from vulnerable communities, for construction and implementation tasks. This strategy not only creates economic opportunities but also integrates valuable local knowledge and skills into the development of the solutions.
- **Leverage "Do-It-Yourself" (DIY) culture:** Include DIY elements and allow for flexible iteration of low-barrier, visible interventions with aesthetic and functional appeal. Encourage and integrate community-led "do-it-yourself" approaches, especially for components that can be built or refurbished by volunteers and local activators using waste or recycled materials. Examples from Nitra include the refurbishment of a yurt for a community kitchen and building DIY Café structures from repurposed shipping containers.
- **Provide ongoing capacity building:** Continue to offer practical training and workshops during the deployment phase, focusing on skills directly relevant to the implemented solutions. In Nitra, this included involving students, volunteers and community in planting

meadows and trees while providing practical horticultural training for community gardens and urban orchards by a subcontractor (local landscape architecture company).

3. Embrace Innovative Materials and Design for Resilience

- **Experiment with sustainable and resilient materials:** Explore and test experimental materials that are both sustainable and resilient, such as concrete canvas, plastic terrazzo, waste wood and biodegradable alternatives for urban furniture and other interventions. This aligns with environmental goals and helps address challenges like vandalism.
- **Prototype and test solutions rigorously:** Before committing to large-scale deployment, develop and test prototypes of urban furniture, outdoor exhibition systems, and other elements to ensure their functionality, durability, and suitability for the specific urban environment. This can involve simulating environmental conditions, such as river flow for floating flower beds, as was done in Nitra's Botanical Garden pools.
- **Design for reversibility and multifunctionality** (REMOULD Concept): Implement solutions in line with the "Reversible Multifunctional Open-source Urban LanDscape" (REMOULD) concept. This flexibility not only enhances replicability but also allows elements to be moved and adapted for use in different parts of the pilot area or even beyond, maximizing their utility and impact.

4. Navigate Administrative and Procurement Challenges

- **Anticipate lengthy approval and procurement processes:** Be aware that implementing innovative and experimental solutions, particularly in sensitive or restricted areas (e.g., inundation zones or historical areas), will likely involve extensive permitting procedures and can lead to significant delays in public procurement. Factor these delays into project timelines.
- **Explore social procurement methods:** Actively investigate and utilise social procurement methods in accordance with national legislation to ensure that social, gender, and inclusive aspects are embedded into contracting processes, such as by hiring local companies or those from marginalised communities.
- **Leverage in-kind contributions:** Seek and integrate in-kind contributions from local stakeholders, which can include materials, specialised equipment, or volunteer labour. This approach can help mitigate budgetary limitations and foster broader commitment and collaboration.

5. Ensure Sustainable Co-management from the Outset

- **Develop detailed co-management plans:** Formulate clear co-management rules and procedures for each intervention early in the process, involving relevant IN-HUB members and stakeholders in negotiations and formal agreements. This is critical for ensuring the long-term sustainability of the deployed solutions beyond the project's lifespan.
- **Explore innovative business models:** Encourage IN-HUB members to develop sustainable business plans for the co-management and maintenance of deployed solutions, such as catering facilities in public green spaces, bike-sharing initiatives,

multifunctional community kitchen in a community garden. This helps ensure financial viability and community ownership.

- **Formalise agreements:** Where appropriate, pursue formal agreements, such as contracts with relevant public authorities to secure long-term commitments for the operation and maintenance of deployed solutions.

Key lessons that can be replicated:

- **Early wins matter:** Small, visible outcomes (e.g. co-hosted events, visible prototypes) helped legitimise the IN-HUB in the eyes of both public and community actors.
- **Start small, iterate often:** Design with low-stakes experimentation in mind.
- **Learning happens when doing, not explaining:** Workshop participants understood public space planning better while building benches than during PowerPoints.
- **Trust grows through continuity:** Keeping core people involved throughout phases (planning, implementation, reflection) built long-term collaboration.
- **Combine artistic and ecological approaches** to foster imagination and ownership: participatory site-specific artist residencies for public green space interventions are particularly replicable
- **Prioritise modular, and multi-functional elements:** e.g., movable benches, planters, community gardens, shading elements
- **Plan for reversibility:** Modular and mobile designs lower risk for municipalities and invite future adaptation.
- **Use recycled or natural materials:** preferably with local sourcing or DIY practices, to lower entry barriers and increase replicability
- **Allow time for iteration and adaptation during use:** do not expect a one-time launch.
- **Make room for informality:** Allow spaces to serve multiple spontaneous functions, not just planned ones.
- **Facilitate long-term handover to capable local actors:** e.g., through capacity building and formal agreements.
- **Support informal maintenance networks:** e.g., NGOs, youth groups, school partners, and embed co-responsibility in the use phase
- **Encourage programming of the space** through events, learning activities, and resident-led improvements.

Adaptation framework

To ensure meaningful replication, several **core elements should be maintained** across contexts. **Co-creation must be approached as a continuous, iterative process** rather than a one-off consultation, allowing relationships, ideas, and trust to evolve over time. Interventions should strive to **integrate both “soft” components** – such as cultural activities, social relationships, and local narratives – **and “hard” components**, including spatial infrastructure and material improvements. The **use of local materials and context-sensitive design approaches** reinforces both ecological and cultural relevance. Moreover, **shared governance mechanisms**, such as IN-HUBs or equivalent cross-sectoral platforms, are key to ensuring transparency, long-term

engagement, and community ownership. At the same time, **flexibility should be preserved** in how these principles are implemented: the choice of artistic media (e.g. land art, music, photography), the types and rhythms of public events, and the structure of partnerships may vary depending on local capacities, traditions, and opportunities.

The following are the steps of the replication process that are best followed and suggested methods and tools that one might use to go through these steps as tested in Nitra pilot.

Table 3: Phase 1: Context Assessment.

Steps	1. Spatial Identification	2. Community Landscape Mapping	3. Asset and Needs Mapping
To Do	Scan the city for vacant, underused, or transitional spaces (e.g. floodplains, informal parks, disused green corridors, schoolyards). Focus on locations that already show spontaneous or informal use but lack investment or visibility.	Identify active local actors: NGOs, civic initiatives, cultural centres, informal leaders, youth collectives. Pay attention to marginalised or migrant communities, even if they're not formally organised.	Combine observational methods with participatory engagement to understand: Current uses and barriers to access, Perceptions of safety and ownership, Values and aspirations for public space

Table 4: Methods and tools used in Nitra during phase 1.

Method/Tool	Purpose	Suitable For
Transect Walks	Observe and discuss spatial dynamics with residents on-site	Exploring contested or ambiguous urban spaces
Cultural Events	Gather residents informally, encourage storytelling, identify connectors	Building trust and visibility early on
BioBlitz	Engage people through nature observation, uncover overlooked ecosystems	Revealing ecological value and potential
Photovoice	Allow vulnerable groups (e.g. refugees, Roma youth) to express views visually	Understanding lived experience and barriers
Social Network Mapping	Identify who knows whom and who mobilises whom	Detecting informal influence and entry points

Guiding Principles

- **Listen before designing:** Resist the urge to plan solutions before understanding local narratives and tensions.
- **Informality is not a weakness:** Engage through music, food, and storytelling before forms and surveys.
- **Diversity is strength:** Welcome conflicting uses and groups as part of a layered public space.

Start small, visibly: Low-cost events and temporary signs of change can foster curiosity and legitimacy.

Good Practices from Nitra

- **Dražovce district:** Instead of approaching Roma communities through formal meetings, researchers initiated **creative workshops with schoolchildren** to build rapport and surface ideas for outdoor learning spaces.
- **Hidepark site:** Engaged city officials, NGOs, and youth informally during **Sunday Chill events** and later **nature walks**, which helped develop trust before any formal co-design.

Riverbank floodplain: Identified not as a problem area, but as a space with ecological value and social activity already occurring “under the radar.”

Table 5: STEPS Phase 2 Establishing Co-design Infrastructure.

Steps	1. Set up a cross-sector coordination platform	2. Develop participatory design infrastructure	3. Support ongoing, low-threshold engagement
To Do	<p>Involve municipal departments, NGOs, cultural actors, educators, and researchers.</p> <p>Ensure regular meetings and an evolving, open structure that allows new actors to join as the project progresses.</p> <p>Keep the platform rooted in existing local dynamics - avoid creating parallel structures.</p>	<p>Create or embed a co-design process that includes both creative input and technical review.</p> <p>Consider involving students or young professionals under expert guidance to generate contextual proposals.</p> <p>Establish review spaces (e.g. public forums, expert panels) to ensure ideas are feasible, inclusive, and aligned with local plans.</p>	<p>Offer both structured and informal opportunities for participation.</p> <p>Work with trusted local figures (e.g. educators, artists, NGO staff) to reach underrepresented groups.</p> <p>Use civic or cultural venues as low-barrier spaces for workshops, exhibitions, or discussions.</p>

Table 6: Methods and tools used in Nitra during phase 2.

Method/Tool	Purpose	Suitable For
Local coordination body	Align actors and manage co-creation processes	Sustained, multi-actor collaboration
Co-design studio or track	Generate design ideas rooted in context	Creative input, permit-ready proposals
Public forum or review	Provide space for feedback and discussion	Expert input, alignment with city strategy
Local facilitators	Act as bridges between institutions and residents	Inclusive outreach and trust building
Communication ritual	Use familiar spaces/events to hold engagement activities	Visibility, accessibility, legitimacy

Guiding Principles

- **Think in networks, not hierarchies:** Allow collaboration across roles and disciplines.
- **Design the process, not just the space:** Participation needs structure and flexibility.
- **Make expertise visible and accessible:** Involve professionals without excluding lay input.

Create multiple access points: People engage in different ways—through art, dialogue, making, or institutional channels.

Good Practices from Nitra

- **The IN-HUB** included actors from city departments, civil society, academia, and community representatives, forming a collaborative but lightweight coordination structure.
- **The Co-Design Atelier** engaged university students under expert mentorship to develop inclusive concepts and functional proposals.

The Forum enabled constructive feedback from experts and policymakers, including national NEB representatives and current/former city architects.

Table 7: Phase 3: Co-Design, Coffee and Capacity Building.

Steps	1. Develop inclusive co-design methodology	2. Tailor engagement to diverse needs	3. Link co-design with learning opportunities
To Do	Combine creative methods (e.g. drawing, modelling, storytelling) with technical input from experts. Host participatory workshops in welcoming, non-intimidating settings—indoors and outdoors. Use iteration: start with idea generation, move to concept testing, and refine through feedback.	Use age-appropriate and culturally sensitive formats for children, youth, older adults, or migrants. Include underrepresented groups as co-creators, not just consultees. Work with schools, NGOs, and informal leaders to organise co-design sessions in trusted spaces.	Involve students or youth in real-life design challenges, mentored by professionals. Build basic ecological, design, or technical skills through hands-on workshops. Foster learning by doing: let people create, test, and revise together.

Table 8: Methods and tools used in Nitra during phase 3.

Method/Tool	Purpose	Suitable For
Model-making or drawing	Translate ideas into visual or physical form	Visualising concepts with limited technical vocabulary
Storytelling and mapping	Capture narratives, memories, and aspirations	Grounding design in local experience and emotion
Expert mentoring	Provide technical support without dominating the process	Guiding students or early-career practitioners, developing technical documentation for permit process
Skill-building sessions	Teach basic planning, planting, or design techniques	Empowering residents with practical competencies

Participatory phytosociological analysis	Co-identify plant species and ecological functions on site	Connecting ecological literacy with public space co-design
Embedded educational formats	Link co-design to formal learning environments	Sustaining youth engagement and professional pathways
Schwarzplan sketching and collage	Redesign familiar environments through collaging interventions on a blank map	Fostering empathy, imagination, and collective input, suitable for younger participants
In-situ workshops	Explore and adapt ideas directly in the target location	Ensuring grounded and responsive spatial proposals
Literary and art contests	Collect imaginative and expressive input from children	Inspiring spatial design through artistic interpretation, suitable for engaging with children
Paper-based Maptionnaire	Map emotional or practical feedback manually	Involving those without digital access or digital skills and inclusive for low-literacy or older populations
Questionnaires and interviews	Gather preferences and expectations on specific features	Informing design details through structured feedback from larger populations
Kuula & drone-based 3D mapping	Generate virtual site models and tour environments remotely	Designing in hard-to-access or sensitive areas

Guiding Principles

- **Lower the barrier to entry:** Avoid jargon and professionalised formats – use drawing, walking, making.
- **Co-design = co-learning:** Make space for learning, questioning, and experimenting.
- **Respect all forms of knowledge:** Lived experience is as important as technical expertise.
- **Process over perfection:** The goal isn't a polished plan, but a process that builds trust, capacity, and ownership. Make space for iteration, mistakes, and evolution.
- **Design in context:** Embed co-design in everyday places and rhythms – schools, civic hubs, cultural events – so it feels natural and accessible.

Small steps, visible progress: Celebrate incremental outcomes – sketches, mock-ups, contests – as tangible signs of change and shared authorship.

Good Practices from Nitra

- **Roma children in Dražovce** participated in creative activities using **schwarzplans** of their schoolyards to reimagine inclusive spaces, later merging their designs into **collaborative collages** that encouraged shared vision and empathy.
- **Participatory phytosociological analysis** involved residents and experts in jointly selecting planting schemes and exploring ecological suitability.
- The team used **Maptionnaire (paper-based)** for analogue participatory mapping, especially with communities that may face digital or literacy barriers.
- For inaccessible riverfront locations, **Kuula software** and **drone-based 3D scanning** were used to create virtual tours for remote co-design and feedback.

The **Co-Design Atelier** involved landscape architecture students co-developing technical design proposals under the mentorship of urbanists, ecologists, and designers.

Table 9: Phase 4: Prototyping and Co-Deployment.

Steps	1. Begin with visible, low-risk prototypes	2. Facilitate inclusive co-deployment activities	3. Integrate soft and hard interventions
To Do	Use temporary, movable, or reversible elements (e.g. planters, seating, signage). Select sites and materials that allow for testing, feedback, and change. Make early results visible to sustain interest and trust.	Organise participatory events like volunteer days for building, planting, or assembling interventions. Combine formal and informal participation: mix workshops with celebrations or walks. Provide counter-value for active participation	Blend physical changes (e.g. paths, structures, planting) with programming (e.g. events, education). Use artistic and ecological approaches to activate space and stimulate imagination. Provide tools or knowledge for long-term community maintenance.

Table 10: Methods and tools used in Nitra during phase 4.

Method/Tool	Purpose	Suitable For
DIY & recycled materials	Foster ownership, reduce costs	Communities with limited budgets or strong craft/local culture
Artist residencies	Co-create functional and aesthetic elements	Engaging youth and underrepresented groups
Social procurement or direct employment	Embed inclusion in contracts	Ensuring economic benefits for local or vulnerable populations
Reversible furniture and installations	Allow for testing and repositioning	Sites with legal, environmental, or seasonal limitations, like flood-prone areas or shared-use space
Volunteer programs	Involve people in constructing or planting together	Strengthening ownership and visibility, lowering costs
Activation events	Encourage use of space through programming	Sustaining engagement beyond installation

Guiding Principles

- **Stay flexible:** Adapt materials, locations, or features in response to community feedback and contextual change (e.g., plant hardier species due to drought).
- **Think like a caretaker:** Build for stewardship, not just installation. Plan co-management mechanisms from day one.
- **Use visibility strategically:** Early wins build political and social legitimacy – create “showcases” for broader adoption.
- **Make failure safe:** Small-scale trials make it okay to learn and iterate without major risks.

Volunteers are not free labour – by engaging in co-deployment they should receive some kind of counter-value

Good Practices from Nitra

- **Blend art, ecology, and function:** Land-art installations doubled as shade, seating, and conversation starters. Artists lived and created within the pilot area.
- **Celebrate milestones:** Events like tree-planting ceremonies and prototype exhibitions helped maintain energy and attract media attention.
- **Build-in iteration time:** Projects like the expansion of the community garden and new green public spaces were developed incrementally with time for adjustments.
- **Combine expert support with volunteer input:** Technical feasibility was ensured without excluding lay participants.
- **Volunteers engaged** in co-deployment received professional training and advice from experts they could use in their own garden

Potential barriers:

- **Low trust in public institutions:** In contexts where past engagement has been tokenistic or extractive, communities may be sceptical or reluctant to participate, especially in marginalised neighbourhoods.
- **Institutional silos and fragmentation:** Weak cooperation between municipal departments (e.g., environment, culture, education) can limit the integrated planning required for inclusive green spaces.
- **Rigid procurement and legal frameworks:** Public procurement rules often favour conventional infrastructure over small-scale, reversible, or co-created solutions, making implementation and experimentation difficult.
- **Lack of flexible funding:** Budgets tied to pre-defined outputs or rigid timelines may not accommodate iterative, adaptive processes, especially when community engagement takes time.
- **Unequal access to participation:** Without intentional outreach and accessible formats, participatory processes risk being dominated by already-empowered groups, leaving out migrants, low-income residents, or youth.
- **Burnout among local actors:** Over-reliance on a few committed individuals (e.g. NGO staff, civic leaders) without long-term support can lead to fatigue and undermine sustainability.
- **Limited technical capacity for nature-based design:** Municipalities and communities may lack knowledge or tools to develop context-sensitive green interventions, especially when ecological goals are complex.
- **Lack of long-term governance structures:** In the absence of sustained platforms like IN-HUBs, interventions may lose relevance, maintenance, and community ownership over time.

Stakeholder engagement strategy

The stakeholder engagement strategy should begin with the identification of **trusted local actors**, such as grassroots NGOs, educators, and cultural organisers, who can serve as entry points into the community. From there, mapping should expand to include **key institutions** – such as schools, municipal departments, and cultural or social service providers – as well as **underrepresented groups**, including migrants, Roma communities, and youth. Effective engagement relies on **low-threshold, accessible activities** such as music events, shared meals, open workshops, and informal outdoor gatherings that make participation easy and welcoming. **Skill exchange and symbolic acts of gifting**, such as providing cameras in photo-based projects, can strengthen emotional investment and a sense of ownership. Engagement should not be one-off but **iterative**: seasonal and recurring events are essential to build familiarity and trust over time. Participatory methods must extend beyond consultation to **active co-creation**, involving stakeholders in design, implementation, and even monitoring processes.

Communication should be **consistent and multi-channel** – using both offline tools (e.g. posters, flyers, exhibitions) and online platforms (e.g. social media, community pages). **Visual outputs** such as illustrated maps, photo displays, or student artwork make the process tangible and inclusive. **Publicly celebrating small wins** boosts morale and visibility and helps maintain engagement momentum. It is also critical to **translate the results of community engagement into policy feedback loops**, ensuring that co-created ideas inform planning decisions and are not lost after project implementation. Finally, **public visibility and celebration** through exhibitions, festivals, or participatory monitoring events reinforces collective ownership and pride in the outcomes.

Measurement & evaluation

To assess the success of implementation, a mixed-method approach combining **quantitative indicators** and **qualitative insights** is recommended. **Baseline and follow-up surveys** can track changes in perceptions of inclusivity, safety, and well-being, while **participatory methods** such as photovoice, storytelling, or community mapping help uncover less visible impacts. **Simple observational checklists** and **usage counts** can monitor how public spaces are used over time, including shifts in user diversity and activity types. **Participatory monitoring**, involving residents in data collection (e.g., biodiversity counts, event attendance, space cleanliness), builds ownership and improves data relevance. Feedback loops should be embedded in each phase – for example, using quick reflection tools during workshops, or public exhibitions where visitors can leave comments. Where feasible, more structured approaches like **Theory of Change**, **contribution analysis**, or **Most Significant Change (MSC)** techniques can help evaluate long-term or transformative outcomes. Triangulating these methods ensures a holistic understanding of both tangible and intangible impacts of inclusive, nature-based public space interventions. Where feasible, Social Return on Investment (SROI) can be applied to estimate the social value created relative to the resources invested. This involves identifying stakeholder groups, mapping intended and unintended outcomes, and assigning monetary proxies to social, environmental, or health benefits (e.g., increased outdoor activity, improved mental

well-being, or reduced isolation). SROI makes it possible to express the impact of inclusive green space interventions in terms understandable to both funders and policymakers.

Policy recommendations

To enable the successful implementation and replication of inclusive, community-led green space interventions, several policy areas require targeted support and adjustment:

- 1. Regulatory frameworks:** Adopt flexible planning and design regulations that allow for **temporary, small-scale, and reversible interventions** in public space. Current building and land-use codes often present barriers to creative, community-driven uses. Regulatory innovation – such as adaptive permitting schemes for experimental or seasonal structures – can support low-risk prototyping. Encourage integration of **social and green criteria** into public procurement and investment decisions, including **social procurement** practices that generate local employment or training opportunities. E.g. subcontractors entering public procurement for green space delivery may be required to involve local communities directly, or to have a certificate in facilitation.
- 2. Governance and institutional support:** Promote **cross-departmental collaboration** between urban planning, environment, education, and culture sectors to overcome siloed decision-making. Formalise participatory governance structures like **IN-HUBs** that include municipal actors, NGOs, local institutions, and citizens. Support the institutionalisation of co-creation processes by embedding them into local development strategies and spatial planning frameworks.
- 3. Policy integration and coherence:** Ensure that inclusive green space interventions are recognised and aligned with broader urban agendas – such as **climate adaptation, health promotion, youth engagement, and social cohesion**. Foster **horizontal policy coherence** between city-level planning and national or EU-level strategies, particularly around nature-based solutions and the New European Bauhaus.
- 4. Addressing policy gaps:** Bridge the divide between **formal urban planning procedures and informal community engagement practices** by creating intermediating tools, such as co-design frameworks or simplified participation protocols. Address the lack of **long-term support for stewardship** by creating legal or financial mechanisms that enable community co-management of public space. Finally, strengthen policies that support **capacity building**, especially for vulnerable groups, by linking spatial interventions with education, employment, and health programming starting with schoolyards all the way to the open green public spaces. Delivery mechanisms through specific municipal policies could include:

URBAN AND SPATIAL PLANNING POLICY: Urban and spatial planning policies should explicitly incorporate inclusive green and open spaces as critical infrastructure in both urban regeneration and new developments. Spatial frameworks should allow for the integration of flexible-use plots, enabling co-designed spaces to emerge on temporarily available or underutilised land (e.g., former industrial sites, vacant lots, riverbanks). Zoning regulations should be adapted to support multifunctional use and temporal flexibility, including spaces for culture, recreation, and food growing. However, for the successful implementation construction, land use and asset management policies are crucial:

CONSTRUCTION AND LAND USE POLICY: Construction and land use regulations should be updated to allow for lightweight, modular, and reversible interventions that do not require full building permits. Municipalities (where possible) should introduce simplified permitting processes for temporary and small-scale community-led constructions (e.g., mobile garden beds, wooden stages, seating installations) on public land. Land use policy should also support negotiated access agreements for civic initiatives on municipally owned plots, particularly in areas lacking green infrastructure. To comply with both regulations and general negotiated aesthetic considerations for public space public space design manuals could serve as tools for communities to be involved in the co-creation of these spaces.

ASSET MANAGEMENT POLICY: Asset management strategies should classify community-managed green spaces as socially productive assets. Municipalities should adopt tools like temporary use agreements or civic leases that allow communities to access and adapt municipal plots with legal clarity. Asset policies should include procedures for transferring underutilised or marginal lands into community stewardship under clear, time-bound conditions, with periodic review mechanisms to ensure accountability and flexibility. This should be accompanied by FINANCIAL POLICY MEASURES that enable mixed funding models for inclusive green spaces, including recurring municipal support, targeted grants, and partnerships with philanthropic or private-sector actors. Asset management frameworks should also adopt valuation tools that reflect social and environmental returns, not solely economic ones. Budget lines should cover not only initial investments but also minimal ongoing support for coordination, maintenance materials, and inclusive programming. This could be integrated with the CULTURAL POLICIES, specifically by supporting the use of green public spaces for inclusive and participatory cultural programming. Municipalities should introduce micro-grant schemes or in-kind event support tailored to informal, community-driven cultural activities in parks, gardens, and open spaces. Cultural institutions should be encouraged to collaborate with grassroots actors to animate green areas through workshops, exhibitions, and temporary installations, particularly in underserved neighbourhoods. Recognising green spaces as cultural venues can enhance their value, increase community engagement, and build broader coalitions for stewardship and funding.

ENVIRONMENTAL POLICY: should promote small-scale, community-managed green infrastructure as a valid tool for climate adaptation and biodiversity enhancement. Cities should encourage localised rainwater retention solutions (e.g. bioswales, rain gardens) and pollinator-supportive plantings in co-designed green spaces. Funding schemes under environmental protection programs should explicitly include grassroots greening actions and local stewardship models as eligible activities.

SOCIAL AND COMMUNITY DEVELOPMENT POLICIES: Social development policy should prioritise inclusive access to quality green spaces in socially disadvantaged and spatially marginalised areas. Funding programs should support long-term community engagement strategies, including resident workshops, capacity-building for local facilitators, and support for neighbourhood-based associations. Policies should also

promote intergenerational programming and actively include marginalised groups (e.g. seniors, migrants, Roma communities) in co-creation and management processes.

EDUCATION POLICIES: should foster partnerships between schools, universities, and local communities in the co-creation and maintenance of urban green spaces. Outdoor learning initiatives should be integrated into school curricula, using local green spaces as educational environments for topics like sustainability, biodiversity, and health. Policy frameworks should allow educational institutions to initiate and host community gardens or outdoor classrooms with shared access and co-management structures. This is especially effective as a “foot in the door” in more marginalised and vulnerable neighbourhoods, where public schools are often the major, or only contact local authorities have with the community.

GOVERNANCE AND PARTICIPATION POLICIES: Governance frameworks should formalise participatory mechanisms for co-designing and co-managing green public spaces. This may include establishing local working groups or with representation from residents, civil society, and municipal staff (municipal staff should also include participation officers, or facilitators). Policy should encourage the integration of participatory budgeting processes specifically earmarked for green infrastructure and community gardens. Municipalities should also develop protocols for long-term shared maintenance responsibilities between city services and local stakeholders.

4. Cross-city comparison of inclusive health and wellbeing models

This chapter compares the four IN-HABIT cities—Córdoba, Riga, Lucca, and Nitra—highlighting the key elements for replication: governance structure, intervention sequencing, participation styles, institutional embedding, and sustainability conditions.

Although the four cities differ considerably in context and in undervalued resources for enhancing IHW, they share a common methodological approach centred on inclusive governance, co-creation methods, and the integration of hard and soft VIS. The comparison below, therefore, distinguishes between shared foundations that are transferable across contexts and city-specificities that require adaptation rather than direct replication.

Shared foundations across the four cities

Across all four cases, inclusive health and wellbeing is treated not as a sectoral policy objective, but as a relational and spatial process shaped by social conditions, governance arrangements, and lived experience. Inclusive health and wellbeing emerged as an outcome of improved access to public space, strengthened social relations, recognition of vulnerable groups, and increased capacity for collective action.

A common feature is the methodological steps taken. In each city, actions relevant to replication followed a sequence that started with understanding local vulnerabilities and assets, moved on to establishing inclusive governance arrangements, and ended with the co-design, co-deployment, co-management, and co-assessment of integrated actions. In all the steps, a

gender, diversity, equity and inclusion (GDEI) approach was central. This sequence proved essential: when trust-building and participatory diagnosis came before visible physical interventions, acceptance, usage, and long-term stewardship were significantly higher. The implication for replication is clear: cities may vary the content of interventions, but not the order in which social and spatial processes occur.

Another shared foundation is the importance of Local Community Activators, who link research, institutions, and community groups. Their roles were professionalised, tailored to local contexts, and central to maintaining momentum. Their work extended beyond facilitation to include mediation, translation of technical language, management of expectations, and continuity across political and administrative cycles. In all cases, **reliance on voluntary or ad hoc facilitation proved insufficient to sustain complex participatory processes.**

Finally, all four cities deliberately combined so-called “soft” and “hard” interventions. Soft actions, such as workshops, cultural and healthy activities, education, or co-design activities, were not treated as extras but as essential interventions for social change. Hard interventions, public spaces, green infrastructure, markets, artistic spaces or animal-friendly facilities were introduced only once a social foundation had been established. **This integration proved decisive for durability and legitimacy.**

Governance models and organisational structures

While inclusive governance is a shared principle across the four cities, its organisational structure differs due to contextual adaptations that provide valuable lessons for replication.

In Córdoba, governance is strongly bottom-up and community-driven. The intervention takes place in a vulnerable neighbourhood with a history of unsuccessful projects, deep distrust of institutions, and ongoing territorial stigma. Here, governance emphasises long-term presence, listening to traditionally excluded, and empowering local actors. The IN-HUB structure gradually developed, with community organisations and residents playing a central role in identifying needs and shaping actions. Authorities offer legitimacy and regulatory support without taking control of decision-making. Local (social) businesses create the VISs, building capacities and encouraging volunteer work, grounding and ownership. **This model is especially suitable for replication in settings characterised by socio-spatial exclusion and institutional distrust.**

Riga represents a contrasting governance approach based on a strong, tangible asset: the historic market. Governance arrangements focus on managing and revitalising this place as a multifunctional urban food hub. Although participation is broad and inclusive, the governance model is more formalised and institutionally rooted, reflecting the intervention's scale and economic significance. The Riga model shows how inclusive governance can be integrated within semi-commercial or hybrid public–private structures without compromising social goals. **For replication, this approach is especially suitable when cities possess heritage assets or economic infrastructure that can function as shared reference points.**

Lucca's model is distinct because it is explicitly guided by policy. The Integrated Human–Animal Urban Policy (IHAUP) is designed to span multiple municipal departments, adjusting existing policies rather than establishing separate structures. Governance depends on strong

political commitment, clear administrative leadership, and the appointment of coordinating roles within the municipality. Participation is organised through formal deliberative spaces rather than mainly informal engagement. **This model is highly replicable in cities with stable institutional capacity and political willingness to pursue cross-departmental integration.**

Nitra holds an intermediate position characterised by initially low trust in participatory planning, but strong civic and academic actors. Governance here is network-based and hybrid, with the IN-HUB functioning more as an adaptive platform than a formal body, connecting NGOs, a university, artists, and municipal staff. Informality, experimentation, and learning-by-doing are key features. This configuration proved effective in overcoming scepticism and gradually building legitimacy. **This model can be especially relevant for cities with fragmented governance or weak participation traditions.**

In all cities, the principles of Gender, Diversity, Equity and Inclusion were incorporated into the constitution of the IN-HUBS and its operational procedures.

Participation styles and capacity building

Participatory methods were central across all four cities, though their form and intensity vary according to the context. In Córdoba, participation is characterised by sustained, relationship-based engagement. Trust-building is seen as an intrinsic objective, with participation advancing at a pace largely determined by local actors. **This approach requires significant resources but is vital in highly vulnerable environments.**

In Riga, participation is organised around shared interests in food, culture, and the local economy. Co-creation stresses programming, use, and management of the market rather than redefining governance structures from scratch. **Participation, therefore, scales through shared economic and cultural value.**

Lucca's participatory approach is more structured and policy-oriented. Stakeholders engage mainly through institutionalised channels for consultation and co-decision-making. This approach improves clarity, accountability, and policy coherence. **Replicating this model requires a certain level of administrative maturity and civic literacy.**

In Nitra, it depends on local actors' ability to mobilise resources beyond the initial project and integration of the IN-HABIT spaces and topics into school curricula across all levels of the education system. Participation often starts with informal, accessible activities, like walks, artistic interventions, community events, before progressing to more formal co-design processes. Capacity building and skill development enable participants to gradually assume more active roles. **This approach underscores the importance of participation as a learning process rather than just consultation.**

Sustainability and long-term legacy

Across all four cities, sustainability is seen not only as maintaining physical outputs but also as preserving social relations, capacities, and governance arrangements. None of the cases depend on simple delivery models. Instead, co-management and capacity building are started early and develop alongside implementation.

However, sustainability pathways differ. In Córdoba, long-term impact depends on continued recognition and support for community-led structures. In Riga, sustainability is connected to the economic viability and institutionalisation of the market model. In Lucca, sustainability depends on integrating human–animal considerations into routine municipal policy cycles. In Nitra, it depends on the resilience of networks and the capacity of local actors to mobilise resources beyond the initial project.

For replication, this diversity underscores that sustainability mechanisms must be tailored to local institutional realities, even when core principles remain constant. **Table 2** synthesises the comparative analysis into a practical decision-support tool for policymakers considering replication.

Table 11: Replication decision matrix for policymakers.

Dimension	Córdoba	Riga	Lucca	Nitra	Replication guidance
Primary entry point	Patios as eco-social builders	Food & culture	Human–animal relations	Green space & NBS	Choose a locally resonant entry point
Governance style	Community-led	Asset-based, institutional	Policy-driven	Network-based, hybrid	Match governance form to institutional capacity
Participation intensity	High, long-term	Medium, interest-driven	Structured, formal	Experimental, learning-based	Adapt participation formats to trust levels
Role of Local Community Activators	Deeply embedded in the area	Depending on the market managers	Linked to the municipal government	Hybrid civic–academic facilitators	Professional facilitation is essential
Soft–hard VIS sequencing	Strongly soft-first	Parallel soft–hard	Policy-led integration	Iterative and experimental	Do not bypass social activation
Sustainability logic	Community ownership	Economic & institutional embedding	Policy integration	Community stewardship & curricular integration	Define long-term legacy early

Cross-city comparison of policies affected by IN-HABIT interventions

Across Córdoba, Riga, Lucca, and Nitra, the IN-HABIT interventions interacted with a broad range of policy areas. Despite differences in thematic focus and institutional context, a clear cross-city pattern emerges: interventions consistently acted as **catalysts for policy integration**,

revealing the limitations of sectoral approaches and pushing cities to reinterpret inclusive health and wellbeing (IHW) as a cross-cutting policy goal.

Inclusive health and wellbeing as a cross-cutting policy issue

In all four cities, IHW could not be tackled within a single policy area. Instead, interventions showed that outcomes rely on the interplay between spatial factors, social relations, governance methods, and environmental quality. This prompted cities to recognise IHW as a **holistic policy issue**, cutting across urban planning, environmental, social, educational, economic, and participation policies.

Córdoba illustrates this most clearly, where urban vulnerability and stigma revealed the inadequacy of treating health, housing, environment, and social protection as separate policy silos. Similarly, Nitra reinterpreted green space interventions as simultaneously environmental, social, educational, and health-promoting. Riga and Lucca, although more thematically focused, also showed the need for policy integration when multifunctional markets or human–animal relations challenged existing administrative boundaries.

IN-HABIT interventions consistently shifted policy discourse from sectoral optimisation to integrated health and wellbeing outcomes with a GDEI focus.

Urban planning and spatial policies: shifting from control to adaptability

Urban and spatial planning policies were impacted across all four cities, but through different mechanisms. In Córdoba, planning and housing policies were challenged to prioritise social equity, accessibility, and participation as core objectives rather than secondary considerations. Planning was reframed as a tool for reducing inequalities and stigma. In Riga, the multifunctional market model revealed the importance of planning frameworks designed for multiple-use functions. This emphasised the need for integrated urban development policies capable of supporting hybrid spaces that combine economic, cultural, and social uses. Lucca expanded the concept of planning policies by recognising animals as legitimate urban actors. This required spatial policies to consider human–animal interactions in the design of public spaces, buildings, and mobility systems. Nitra’s interventions directly challenged regulatory rigidity, demonstrating how conventional land-use and building regulations inhibit temporary, small-scale, and community-led uses of public space. This advanced planning and land-use policy debates towards greater flexibility, reversibility, and experimentation.

Across cities, IN-HABIT offers scientific evidence and outcomes of a different planning policy approach, shifting from inertia and control towards flexibility, inclusivity, and adaptive use.

Environmental policies: linking sustainability and social equity

Environmental policy in all four cases provided a shared shift towards **environmental justice and participation**. In Córdoba, policies concerning limited access to green and inclusive infrastructure were reinterpreted through a vulnerability perspective, recognising that environmental burdens are unevenly distributed and that patios can be considered eco-social hubs to address the effects of climate change. Riga’s environmental impact was focused on sustainability practices within markets, including the circular economy and low-carbon operations. Lucca integrated animal welfare, biodiversity, and human wellbeing into

environmental policy, moving beyond a purely technical management approach. Nitra positioned small-scale, community-managed green infrastructure as a legitimate component of climate adaptation and biodiversity strategies and called for environmental funding and criteria to recognise grassroots stewardship.

Environmental policies were consistently pushed to integrate social equity, participation, and wellbeing, rather than focusing solely on technical or ecological targets.

Social, educational, and integration policies: broadening the scope of action

Outcomes in Córdoba, Lucca, and Nitra have a stronger influence on social and educational policies. In Córdoba, social policy was redefined to treat wellbeing as a collective right, emphasising empowerment, co-management, and long-term inclusion rather than short-term, assistentialist aid. Lucca expanded social and educational policy by integrating animals as facilitators of inclusion, learning, and care. This required coordination with socio-health services and education systems, as well as alignment with existing regulatory frameworks for animal-assisted interventions. In Nitra, educational policy became a key tool for developing inclusive green spaces, with schools and universities serving as centres for community engagement, outdoor learning, and capacity building. Educational institutions became gateways for broader social and spatial transformation, particularly in marginalised neighbourhoods. Riga’s social policy influence was more indirect, operating through community engagement and educational and cultural programmes linked to the market.

IN-HABIT interventions expanded social and educational policies from service delivery toward empowerment, learning, and place-based inclusion, highlighting the importance of GDEI approach.

Economic and governance policies: enabling new forms of public value

The results for Riga and Lucca were more relevant to economic policy. Riga’s multifunctional market model emphasised the importance of policies supporting local food systems, short supply chains, and the adaptive reuse of heritage assets, connecting economic development with social and cultural goals. Lucca’s interventions highlighted the economic potential of the pet economy, linking employment, services, tourism, and innovation to human–animal relations. Governance and participation policies were influenced across all four cities. In each case, interventions demonstrated that consultation-only approaches were inadequate and encouraged formalised co-creation, co-management, and shared decision-making structures. Governance itself became a central focus of policy change, supporting shifts in other areas.

Across cities, governance policies were not merely enabling conditions but central levers of transformation.

Table 12: Policy domains and replication options.

Policy domain	Replication difficulty	Cross-city outcome
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Governance & participation policy	Medium	Most consistent impact; requires political buy-in and facilitation capacity
Urban planning & spatial policy	High	Strong leverage but often constrained by statutory plans and departmental silos
Regulatory & permitting frameworks	High	Needs legal/administrative changes (temporary use, adaptive permits, socially-based procurement rules)
Environmental & climate policy	Medium	Transferable framing (equity + adaptation), but depends on mandates and funding rules
Green infrastructure / public space	Medium	Implementable, but durable impact depends on stewardship and maintenance governance
Social policy & inclusion	Medium–High	Requires cross-sector coordination (social services, community organisations, governmental policy)
Gender, diversity, equity and inclusion	Medium	Mechanisms to open participation, engagement and ownership of traditionally excluded and vulnerable groups
Education policy	Medium	Schools are strong anchors, but partnerships and curricula integration vary widely
Health & wellbeing policy	Medium	Often feasible as transversal framing; harder if health governance is centralised/siloed
Housing & neighbourhood policy	High	Strong impact potential, but constrained by housing markets, competencies, and budgets
Economic & local development policy	Medium	Easier when tied to assets/sectors; harder to align inclusion goals with growth agendas
Food system policy	High	Highly asset- and infrastructure-dependent (markets, supply chains, licensing)
Animal-related policies	High	Strongly context- and culture-dependent; requires specialised regulation and services

Success and blocking factors

The cross-city comparison shows that promoting inclusive health and wellbeing can be achieved through multiple urban strategies, provided cities invest in governance, participation, and learning processes. Replication should be viewed as adaptive translation rather than simple copying. Policymakers aiming to replicate these models should focus less on duplicating specific interventions and more on creating the conditions for local actors to co-create inclusive health and wellbeing in ways that fit their own contexts. Across the four cities, success and blocking factors display clear patterns that are highly relevant for replication. While each city faced context-specific challenges, the comparison highlights a limited number of structural conditions that consistently influenced outcomes.

Shared success factors clearly appear across all cases. First, the presence of *dedicated Local Community Activators* was crucial. These actors maintained continuity, managed conflicts, translated between research, institutional and community logics, and sustained engagement over time. Second, *early and ongoing trust-building* proved central, especially in areas affected by past policy failures or social fragmentation. Trust was not merely a by-product but a deliberate objective, achieved through co-co-co-co methods, listening-focused approaches, informal engagement methods, and visible responsiveness to local concerns. Third, all cities benefited from *combining soft and hard interventions*, with social activation, capacity building, and co-learning fostering acceptance and long-term adoption of physical or infrastructural changes. Fourth, *flexible and adaptable governance arrangements* in the IN-HUBs enabled each city to respond to emerging needs, conflicts, and opportunities without disrupting the overall process. Finally, a **5-year project** highlights the importance of long-term thinking when tackling IHW.

Simultaneously, a set of similar blocking factors can be identified. *Mistrust of public institutions* appeared in various forms across all cities, though it was most evident in Córdoba and Nitra. *Limited participation skills and fatigue* among residents, particularly those facing economic insecurity, restricted the depth and continuity of engagement. *Institutional fragmentation and administrative rigidity* emerged as major obstacles in Córdoba, Riga, and Lucca when coordination across departments or municipalities was necessary. Across all cases, *time constraints and political turnover* posed risks to sustainability, highlighting the tension between the long-term nature of social transformation and short-term policy or funding cycles.

The analysis indicates that success factors are mainly transferable as principles, while blocking factors vary in *intensity depending on the context but are similar in structure*. This suggests that replication efforts should focus less on avoiding specific local problems and more on proactively designing mitigation strategies for predictable challenges. For instance, mistrust can be anticipated and addressed through extended preparatory phases; participation fatigue can be mitigated through low-threshold, meaningful roles; and institutional fragmentation can be reduced by assigning clear coordinating responsibilities early on.

Final reflections

Overall, the comparative perspective shows that replication is most likely to succeed when cities plan long-term processes to enhance IHW, invest early in governance capacity, facilitation, and time for social processes, while recognising that constraints will persist and need to be managed rather than eliminated.

IN-HABIT provided evidence to support different policies at the European, national and local levels. While the depth and focus of policy change varied, all cases demonstrate that research and place-based experimentation can inform policy when it is embedded in inclusive governance structures and linked to clearly articulated IHW outcomes. For replication, the key lesson is that cities should anticipate **policy spillovers across multiple domains** and treat interventions as opportunities to realign existing policies, rather than as isolated projects requiring entirely new policy instruments.

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