

CIVITAS INSPIRATION ON PUBLIC SPACE



Designing Inclusive Public Spaces: From Principles to Practice



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INTRODUCTION

Urban public spaces are central to fostering public health, social cohesion, democratic life and climate resilience. Yet they have often been planned and designed around a narrow set of assumptions - typically reflecting the needs and experiences of able, independent users - thereby overlooking the diversity of people who use them.^{1, 2}

This becomes visible in everyday design choices. Uneven cobblestones, for instance, can hinder people pushing strollers or using wheelchairs, while a lack of frequent public seating can limit older adults and those with motor challenges from comfortably participating in community life. Such conditions can create vulnerability.

Vulnerability is, however, not an inherent characteristic of individuals. It is situational, contextual, and spatial, shaped by factors such as time of day, design choices, social norms, urban layout. In this sense, urban space design plays a fundamental role in creating or reducing vulnerability.

An inclusive and participative approach to public space seeks to address this by designing environments that are usable by everyone, to the greatest extent possible. This requires planning processes that account for the diversity of urban populations, including people with motor, sensory, or cognitive challenges, older adults, women and those with care responsibilities, children, migrants and ethnic minorities, as well as sexual and gender minorities. Designing for these groups ultimately means designing for everyone, as needs and abilities vary across a lifetime.

Despite this, a holistic approach to inclusivity in the built environment remains uncommon. While national building codes often mandate specific accessibility measures, these alone are insufficient to ensure truly inclusive public spaces.

At the same time, European initiatives are helping to advance more inclusive approaches through experimentation, participatory practices, and the development of digital and analogue tools.

Programmes such as the New European Bauhaus and the CIVITAS Initiative, along with city-level strategies in places like Copenhagen³, Brussels⁴, and Barcelona⁵, demonstrate a growing commitment to embedding inclusive and universal design practices into planning processes.

This **CIVITAS Inspiration** explores how urban public space design is closely linked to vulnerability, and how it can be shaped by design choices, social norms, and institutional practices. From this viewpoint, inclusive public space is not a specialized add-on, but a fundamental quality of fair urban design.

Against this backdrop, there is a growing need for practical approaches that help cities translate inclusive principles into everyday planning and design decisions. Drawing on European policies, research projects and city experiences, the publication highlights three key enablers for inclusive public space design: i) **co-creation and meaningful participation**, ensuring that diverse lived experiences inform planning and design; ii) **training and capacity-building**, equipping planners, designers and city staff with the skills to recognise and address exclusion; and iii) **digital and decision-support tools**, which can help cities analyse accessibility, simulate impacts and support inclusive design processes.

1 <https://www.sciencedirect.com/science/article/pii/S0001691825004998>

2 <https://www.worldbank.org/en/topic/urbandevelopment/publication/handbook-for-gender-inclusive-urban-planning-and-design>

3 https://kk.sites.itera.dk/apps/kk_pub2/pdf/1904_4b203fafa9a8.pdf

4 <https://urban.brussels/en/articles/vers-des-espaces-publics-inclusifs-et-partages-pour-tous>

5 <https://bcnroc.ajuntament.barcelona.cat/jspui/handle/11703/130065>

CO-CREATION AND PARTICIPATION IN PUBLIC SPACE DESIGN

Participative planning and **co-creation** are essential to improving the inclusivity of urban public spaces. By actively involving diverse users - particularly those often excluded from planning processes - cities can better reflect the full range of needs, experiences, and abilities present in urban life.

Effective co-creation requires removing both tangible and intangible barriers to participation. This includes moving beyond open calls, which often only reach already engaged groups, and instead using targeted outreach strategies. Practical considerations - such as hosting meetings in step-free, accessible locations, choosing times that accommodate work and care responsibilities, and using clear, inclusive language - are equally important. Combining analogue and digital methods also helps ensure broader participation, including those with limited digital literacy or language barriers.

A variety of co-creation methods can support this approach. These include advisory boards representing specific groups, participatory design sprints bringing together citizens and professionals, virtual models to visualise proposals, and real-life pilot testing. On-site observation and collective evaluation are particularly valuable, as they ground discussions in lived experience and reveal how design affects everyday use.



- **AMIGOS:** Several European projects illustrate these approaches in practice. In Hamburg, the *AMIGOS*⁶ project organised co-creation workshops with students and parents at a primary school to explore safety and visibility on school routes. Using a tactile, non-digital co-design tool called the *Urban Mobility Co-Design Canvas*⁷, participants shared experiences through sketching and storytelling, ensuring equal participation regardless of digital skills.
- Similarly, the *IDEM*⁸ project is experimenting with text simplification to better include hard-to-reach groups, such as people with intellectual disabilities, migrants, and other older adults, in participatory processes.
- The *REALLOCATE*⁹ project's **Walk Audit tool** further demonstrates the value of place-based engagement. Through guided, on-site assessments, participants evaluate pedestrian environments based on qualitative perceptions - such as comfort, safety, and inclusion - and structured criteria, like accessibility and security. These activities foster dialogue between communities and institutions, generate rich local insights, and help planners better understand how urban environments shape everyday experiences.

6 <https://amigos-project.eu/>

7 <https://doi.org/10.17605/OSF.IO/E6RQV>

8 <https://idemproject.eu/>

9 <https://reallocatemobility.eu/>



Co-creation also plays a critical role in shaping policy and investment decisions. Strong **community involvement can increase political support for public space improvements and ensure that interventions respond to real needs.** For example, in Trikala (Greece), the *ELABORATOR*¹⁰ project engaged women in participatory workshops combining exploratory walks, cycling assessments and collaborative mapping exercises. The process revealed how caregiving responsibilities and multi-stop trips influence mobility patterns, as well as how cumulative “micro barriers” affect accessibility and safety. These insights are now informing more inclusive local mobility strategies.

- **In Milan, the *Piazze Aperte*¹¹ (Open Squares) programme** demonstrates how continuous participation can shape public space over time. Through a participatory model involving residents, schools, associations, local businesses and informal community groups, the initiative enables communities to co-design, activate and help manage public spaces. This approach not only improves liveability and supports active mobility, but also strengthens a shared sense of ownership and stewardship of the urban commons.
- **Overall, co-creation is not just a design tool,** but a governance approach - one that helps cities move from abstract notions of inclusivity to concrete, lived realities in public space.

BUILDING INSTITUTIONAL CAPACITY FOR INCLUSIVE PUBLIC SPACE DESIGN

Making accessibility and inclusion part of routine planning requires going beyond basic compliance and design manuals. Urban policymakers need to engage with these issues more critically and consistently. Cities should treat inclusion not as an add-on, but as a core principle shaping how public space is conceived - backed by political commitment and embedded in institutional structures and everyday governance.

Training programmes help integrate co-creation into local planning practice. By equipping staff with facilitation skills and experience working with marginalised communities, cities can shift from a compliance mindset to a broader understanding of inclusion - asking not just “does this meet the rules?” but “who can actually use this space comfortably and independently?” This also strengthens problem framing and challenges assumptions. The aim is to move away from treating exclusion as an individual limitation and instead recognise it as a failure of design and planning. It also helps move beyond

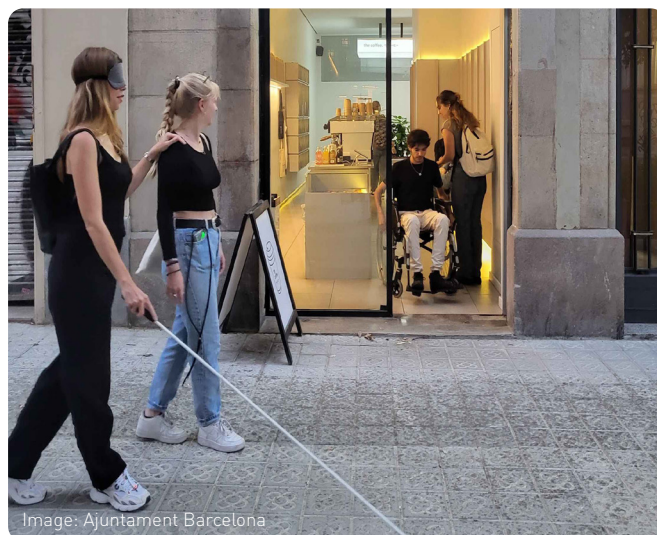


Image: Ajuntament Barcelona

¹⁰ <https://www.elaborator-project.eu/>

¹¹ https://urban-mobility-observatory.transport.ec.europa.eu/piazze-aperte-transforming-milans-streets-people-centred-public-spaces_en?prefLang=it

rigid categories (such as ‘People with Reduced Mobility’) to better address intersectionality and support continuous improvement beyond political cycles.

- **The *JUST STREETS*¹² Toolkit** invites practitioners and policy makers to view street transformation as a collective, iterative process. It stresses that outcomes depend not only on what is built, but also from how it is built, with whom, and for whom. Rather than offering a fixed, step-by-step approach, it provides flexible entry points that cities can adapt to their context. It also highlights the need for courage to challenge the status quo, creativity to imagine alternatives, and commitment to act in line with principles of justice.
- **In Barcelona, the *CASBA*¹³ project** brings together architecture schools, shop owners, NGOs, and people with disabilities. It trains young architects in universal accessibility, improves access to local business, and raises awareness among professionals.
- **The *ELABORATOR* project** shows how structured governance tools can help embed inclusion into mobility planning processes. The project developed an **Inclusion Plan**¹⁴ to help cities apply a gender+ and intersectional perspective when designing and evaluating urban mobility interventions. The plan promotes combining quantitative data (such as surveys on travel behaviour) with qualitative methods, like workshops and co-analysis activities. This approach helps uncover hidden barriers and ensures mobility solutions reflect diverse lived experiences, not just average travel patterns.

Beyond technical expertise, **political support** is essential. Dedicated champions and senior leadership need to actively promote inclusion.

- **The *City of Nuremberg*** demonstrates this kind of leadership, as runner-up of the European Commission Access City Award 2025¹⁵. Mayor Marcus König has championed inclusion through the motto “We are all Nuremberg”, reflecting a commitment to valuing every resident. The city’s **First Nuremberg Action Plan** includes measures to advance inclusion in both the built environment and civic participation, with progress overseen by a dedicated Inclusion Coordination Group.

Inclusion is not only an urban design issue - it also requires coordination across mobility, maintenance and digital service. Cities should establish **cross-departmental units or knowledge hubs** to guide departments and drive continuous improvement.

- **The *City of Barcelona*** has long pursued accessibility in public space. In 2025, it established the *Technical Office for Universal Design* to coordinate efforts across municipal services. Its goal is to advance universal accessibility, going beyond physical barriers to include communication and cognitive aspects, ensuring that everyone can access and use services on equal terms, regardless of physical, cognitive, or sensory conditions. The office will also run a centralised Accessibility Academy to train staff across all city departments.

12 <https://www.just-streets.eu/justice-toolkit>

13 <https://ajuntament.barcelona.cat/accessible/es/quienes-somos/que-hacemos/promocion-de-la-accesibilidad-y-la-inclusion/comercio-accesible-sin>

14 https://e49fbaad-e15c-4e70-ab05-d585c2f84e3b.usrfiles.com/ugd/e49fba_8dc27b9d08194d82a5c79318888ef5de.pdf

15 https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/disability/access-city-award-aca/winners-access-city-award-2025_en



DIGITAL AND DECISION-SUPPORT TOOLS

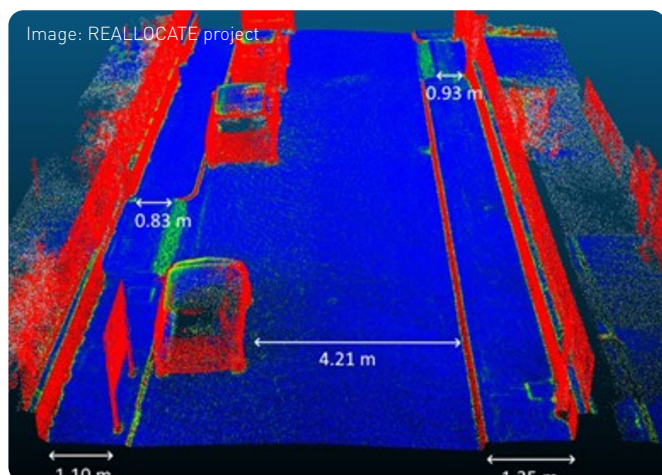
Digital and decision-support tools assist the systematic analysis of how different groups use and experience public space. These tools range from quantitative spatial analysis methods (e.g. GIS, sensor data, etc.) to digital participatory practices, generating both quantitative and qualitative insights. Such information supports the identification of areas requiring improvement and informs appropriate design responses. Cities are encouraged to leverage digital tools to collect data on barriers - through both sensors and citizen input - to prioritise areas for intervention. At the same time, virtual reality and co-creation platforms can facilitate participation in design processes and support consensus-building.

Digital mapping and spatial analytics allow for the assessment of the physical characteristics of public space. By capturing detailed geometric and surface data, they highlight barriers such as discontinuous surfaces or obstructions. Catchment analysis and accessibility mapping help identify underserved areas by incorporating attributes such as sidewalk width, crossings, gradients, surface quality, lighting, and shared space configurations. Composite indicators that combine physical accessibility, safety, and comfort can be used to prioritise interventions for inclusivity.

Digital participation tools enable residents to document barriers and suggest improvements through online platforms, thereby broadening access to participatory processes. These digital methods include participatory GIS, which enables

residents to map perceived barriers, unsafe areas, or valued places, integrating experiential knowledge into formal planning datasets. Co-creation platforms further support planners in gathering feedback on design proposals. In addition, virtual and augmented reality tools allow stakeholders to “experience” proposed designs from different perspectives (e.g., seated height, low-vision simulation), thereby fostering empathy and more informed decision-making.

- **Within the Horizon project, *InclusiveSpaces*¹⁶**, various planning and design tools are being developed to enhance accessibility and comfort in public spaces. For example, the ***Comfort-Based Accessibility Tool*¹⁷** incorporates discomfort factors - such as slopes, uneven pavements, and noise levels - alongside user characteristics in accessibility mapping. The tool demonstrates how environmental conditions affect actual catchment areas for people with diverse needs. The ***Universal Design Manual*¹⁸** provides comprehensive recommendations covering all components of urban space, including public transport (stations, stops, first/last-mile connectors, etc.) and mobility hubs.
- **Similarly, the *REALLOCATE* project** has developed the ***Sidewalk Scanner*¹⁹**, a tool that uses LiDAR technology to visualise and assess sidewalk accessibility, identify potential alternatives, and evaluate overall quality of public space.



16 <https://inclusivespaces-heproject.eu/>

17 <https://inclusive-space.vercel.app/>

18 <https://inclusive-spaces.eu/>

19 <https://reallocatemobility.eu/resources-menu/tools-1-2-1>

- Within **REALLOCATE**, the *MapEngage*²⁰ platform allows residents to submit proposals and comments directly on a map of their local area, covering topics such as greenery, mobility and parking. The platform allows cities to gather input and shape plans that are tailored to local needs. The project also developed the tool, *VR From A Child's Perspective*²¹, which presents “before” and “after” 3D scenarios for school street interventions in Warsaw. This tool emphasises the importance of analysing and visualising streets and public spaces from the perspective of children, reinforcing the need for inclusive and user-sensitive design approaches.

CONCLUSION

Inclusive urban public spaces are not a symbolic ambition; they are a test of whether cities take equality and democratic participation seriously. Yet exclusion often remains embedded²² in planning routines, standards, and investment priorities, while vulnerability is still too frequently framed as an individual limitation rather than as the outcome of spatial design, institutional choices, and social norms. *The Convention on the Rights of Persons with Disabilities*²³ reinforces that accessibility and inclusion are not optional, but fundamental rights that must be reflected in everyday planning practice.

The examples presented across European initiatives and CIVITAS projects show that more inclusive approaches are both achievable and scalable when supported by the right conditions. Co-creation processes make diverse lived experiences visible and actionable, ensuring that planning responds to real needs. Training and capacity building help shift mindsets and equip practitioners to recognise and address exclusion as a systemic issue. At the same time, digital and decision-support tools provide the evidence base needed to identify barriers, stimulate impacts, and prioritise interventions more effectively.



However, tools and methods alone are not sufficient. Lasting change depends on institutional commitment, political leadership, and ability to embed inclusion across policies, departments, and investment cycles. This requires sustained resources, cross-sectoral coordination, and the use of disaggregated data to monitor progress and ensure accountability.

When these elements are brought together, inclusivity becomes not an add-on, but a defining principle of urban governance. In this way, public spaces can evolve into enabling environments that support autonomy, dignity, and equal participation for the full diversity of urban populations.

²⁰ <https://mapengage.pythonanywhere.com/survey/1/>

²¹ <https://reallocatemobility.eu/resources-menu/tools-1-2-1>

²² Even though accessibility is not a mandatory Architecture's subject in most universities, for example.

²³ <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-persons-disabilities>



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