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Inclusion centered on the body-space perspective: preliminary results of the mapping and definition of indicators for new urban policies

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Abstract. Diversity and inclusion are crucial aspects of creating accessible public spaces in cities for all. The answers to the questions raised by the theme are currently understood as determinants in the context of sustainability and socio-territorial cohesion. The concept of inclusion is part of the contemporary framework of political, social, and economic strategies. International treaties challenge cities to respond to issues of ‘right to the city’ and ‘rights in the city’ supported by the fulfilment of Human Rights. However, several authors mention that the approach to combating discriminatory conceptions has political and instructional limitations. In this sense, the great challenge is to implement solutions that meet deeper and more correct assumptions than the mere application of regulations. The New Urban Agenda for Europe proposes participatory methodologies, with a special focus on sustainability, gender equality, and inclusion of vulnerable groups and those at risk of exclusion. This study presents the preliminary results of a mapping of indicators of universal accessibility, as a contribution to the definition of new urban policies that promote prosperity, sustainability, and socio-territorial cohesion in cities. Mapping indicators can help measure progress towards creating more diverse and inclusive communities. It is an opportunity to balance interests among stakeholders and create public value.

Keywords: Indicators, Public Space, Universal Accessibility.

1 Introduction

In recent decades, the creation of alternative conceptual models of urban development, implemented through urban planning has been disconnected from the real population, which merits to be analyzed and respected in its diversity, needs, and specificities. This is reflected in modern, postmodern, industrial, and post-industrial cities that have reinforced the idea of the average human being, generating inaccessibility and dependencies (Hahn, 1986). As Gleeson [1] highlights, Beck’s 1998 characterization of the modern city goes further, describing it as an apartheid architecture structured not primarily on racial prejudices, but on the security of “productive elites”.

These conceptions of the city reveal that spatial justice is pivotal for a fair and sustainable life. Universal Accessibility (UA) is a crucial dimension of spatial justice, encompassing the availability, quality, and accessibility of goods and services, as well as the ability to access and use them. It intersects with systems of transportation, urbanism,

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architecture, technology, and public policy. It is a human right, and it is the state's obligation to ensure UA as a fundamental condition for social and territorial inclusion [2].

Another fundamental notion in this line of thought is that of 'inclusion'. Liang et al.'s [3] study demonstrates that 'inclusion' is multidimensional and encompasses spatial, social, environmental, economic, and political facets that are essential for participation, equity, accessibility, and sustainability in cities. The importance of this idea is reflected in the United Nations (UN) 2030 Agenda's 17 Sustainable Development Goals (SDGs) [4] that promote the construction of inclusive environments.

The main challenge lies in implementing solutions that address deeper and more correct assumptions than the mere application of regulations. The New Urban Agenda (NUA) for Europe [5] proposes participatory methodologies, with a special focus on sustainability, gender equality, and inclusion of vulnerable groups at risk of exclusion.

It is clear that there are several conceptions of relevant ideas for the consideration of disability in city living; however, the systematization of these concepts is imperative to make them function in this context. According to Ribeiro [6], indicators are a tool for measuring a particular context and achieving objectives, which can be used as the basis for decision-making. In 1978, the Organization for Economic Co-operation and Development (OECD) began its approach on the measurement of the urban environment by establishing the first set of urban indicators—socio-economic, infrastructure, transport, environmental management, and local governance. The indicators were adopted by UN-HABITAT at the 1996 [7] Istanbul Conference on Human Settlements as a set of management tools to identify urban reality and serve as a basis for formulating policies, programs, and projects to promote continuous and sustainable improvement.

This paper continues this line of work and presents the preliminary results of a mapping of UA indicators, as a contribution to the definition of new urban policies that promote prosperity, sustainability, and socio-territorial cohesion.

2 Background

“Accessibility is a precondition for persons with disabilities to live independently and participate fully and equally in society.”¹

According to data from the World Health Organization (WHO) and the World Bank (WB) [8], 15% of the world's population lives with some form of disability. It is estimated that by 2050, 6.25 billion people (15% of whom have disabilities) will live in urban centers, and around one billion urban inhabitants will be people with disabilities (PWD). Currently, approximately 80% of PWD live in developing countries and face discrimination and barriers that limit their participation in society.

Even with such broad numbers, Rebernik [9] explain that current, widely accepted biopsychosocial models of disability (ICF, 2001) and disablement acknowledge an individual with their abilities rather than disabilities. Following this principle, they discuss disability as a result of interconnected functioning between diverse factors. Disability

¹ The Committee on the Rights of Persons with Disabilities, 11th session, March 31 to April 11, 2014, in its General Comment No. 2 (May 22, 2014) in Article 9: Accessibility

is a universal condition, affecting people who may experience multiple forms of exclusion and marginalization. This reality makes it essential to consider the specific needs of these individuals when implementing the NUA. Rebernik [9] highlight that ‘accessibility’ reflects the ability to reach and use a particular environment, product, service, or information, representing a pre-condition for inclusive cities and societies.

When a public space meets the requirements that characterize safety, UA, mobility, identity, inclusion, and permanence, it is said to be a high-quality space that allows for experiencing the city [10]. UA means improving people’s ability to move autonomously, being able to identify their location and plan routes and consequent execution, thus increasing the use of various urban infrastructures [11]. Accessibility is a human right, but also a fundamental principle of urban and social development. Ensuring better accessibility conditions in different domains, in all investments and policies, is a way to combat spatial, social, and economic inequalities, as well as demographic changes, such as an aging society.

According to WHO and WB [8] into a new construction, meeting UA requirements represents about 1% of the total cost. Retrofitting to improve accessibility conditions is more expensive up to 20% to the original cost. The NUA stimulates the implementation of these global agreements at the local level by promoting urban policies, services, infrastructure, and products that help make these rights real [12] (Fig. 1).



Fig. 1. Improving accessibility contributes. From CBM, & Enable, W (2017) “The Inclusion Imperative Towards Disability Inclusive and Accessible Urb”.

The concepts highlighted here converge towards a sense of spatial justice—something emphasized by Soja [13] as an ideal to be achieved, aiming to correct inequalities and promote territorial equity and inclusion.

3 Mapping Indicators of Inclusion

3.1 Analysis of the Strategic Guidelines

In mapping inclusion indicators, it is important to underline cross-cutting issues such as gender, race, age, and abilities, as well as other dimensions of diversity, in order to ensure that all people have access to equal opportunities. In this sense, it is important to plan and invest in solutions that meet UA standards and recommendations in

transportation systems, pedestrian networks, and information systems, while simultaneously implementing non-discrimination policies that protect the rights of PWD to ensure the right to housing, and to combat exclusionary and prejudiced policies that perpetuate inequality.

To advance towards truly inclusive development, we opted to cross-reference and conduct a comparative analysis of five strategic documents, as instruments for guidance and measurement of socio-spatial inclusion across three aspects: 1) goal; 2) target; and 3) indicators. The documents, indicated below, were selected based on two factors: 1) their status as international agreements stipulating guidelines for defining public policies and management models applicable in the States Parties; and 2) the ubiquitous positioning of inclusion as a key principle for integrating sustainable societal and territorial development across all.

The first document, the UN Convention on the Rights of Persons with Disabilities (UNCRPD) [14] encourages the definition of public policies that promote independent living, greater autonomy, and full citizenship (Table 1).

Table 1. The UNCRPD’s selected targets and respective implementation indicators

Documents/ Instruments of engage- ment	Goal	Targets	Indicators
<p>United Nations Convention on the Rights of Persons with Disabilities</p>	<p>Promote respect for their dignity. The Convention recognizes that persons with disabilities are entitled to appropriate protection and support measures to ensure their inclusion in society.</p>	<p>1. Ensure that people with disabilities can live independently and fully participate in all aspects of life, including education, work, culture, sports, and recreation.</p>	<p>1. Physical access: countries must ensure that people with disabilities have physical access to buildings, public transportation, and other facilities open to the public. Indicators include the number of public and private buildings that are accessible and the availability of accessible public transportation.</p>
		<p>2. Ensure that people with disabilities have access to transportation systems, information,</p>	<p>2. Access to information and communication: countries must ensure that people</p>

		<p>and communication, as well as other services and facilities open to the public, both in urban and rural areas.</p>	<p>with disabilities have access to information and communication in accessible formats, such as Braille, audio, plain language, and assistive technologies. Indicators include the amount of information available in accessible formats and the availability of assistive technologies for people with disabilities.</p>
		<p>3. Develop and promote assistive technologies and devices for people with disabilities, in order to improve their quality of life and increase their autonomy.</p>	<p>3. Assistive technologies: countries must develop and promote assistive technologies and devices for people with disabilities, in order to improve their quality of life and increase their autonomy. Indicators include the number of assistive technologies and devices available and their affordability for people with disabilities.</p>
		<p>4. Promote training and awareness on accessibility among professionals from various sectors, including architects, urban planners,</p>	<p>4. Awareness and training: countries must promote training and awareness on accessibility among professionals from various sectors, including</p>

		engineers, and public officials.	architects, urban planners, engineers, and public officials. Indicators include the number of professionals who have received accessibility training and the number of awareness campaigns carried out.
		5. Ensure that accessibility standards are applied to all new buildings and other facilities, as well as to services and products offered to the public.	5. Implementation of accessibility standards: countries must ensure that accessibility standards are applied to all new buildings and other facilities, as well as to services and products offered to the public. Indicators include the number of accessibility standards implemented and the number of complaints or reports received regarding accessibility.

The UNCRPD [14] presents a set of commitments to be achieved, outlined as guidelines for the promotion of accessibility across its various domains through five implementation indicators.

The second document, the UN 2030 Agenda for Sustainable Development introduces 17 SDGs [15], which have been further elaborated upon in the Paris Agreement and the European Green Deal. SDG 11 is the objective that comprehensively addresses the connection between cities, communities, and sustainability (Table 2).

Table 2. SDG 11's targets and respective indicators

Documents/ Instruments of engage- ment	Goal	Targets	Indicators
<p>2030 Agenda for Sustainable Development</p>	<p>11 - Make Cities and Human settlements inclusive, safe, resilient, and sustainable.</p>	<p>11.2 - Affordable and sustainable transport systems. By 2030, provide access to safe, affordable, accessible, and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.</p>	<p>11.2.1 Proportion of population with adequate access to public transport by sex, age group and population with disabilities.</p>
		<p>11.3 - Inclusive and sustainable urbanization. By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated, and sustainable human settlement planning and management in all countries.</p>	<p>11.3.1 Proportion of cities with a direct participation structure of civil society in urban planning and management that operate regularly and democratically.</p>
		<p>11.7 - Proved access to sage and inclusive green and public spaces.</p>	<p>11.7.1 Average share of the built-up area of cities that is open space for public use for</p>

		By 2030, provide universal access to safe, inclusive, and accessible, green, and public spaces, in particular for women and children, older persons and persons with disabilities.	all, by sex, age, and persons with disabilities.
		11.9 - Implement policies for inclusion, resource efficiency and disaster risk reduction. By 2030, provide access to safe, affordable, accessible, and sustainable housing and basic services and upgrade slums.	11.9.1 Proportion of the urban population living in slums or informal settlements, and proportion of the urban population living in adequate, safe, and affordable housing, with basic services and secure tenure.

To achieve the targets of SDGs, it is essential to ensure UA to and in green and public spaces, housing, transportation, services, commerce, leisure, education, employment, information technologies, etc. SDG 11 emphasizes the need to ensure inclusive spaces, but the indicators of achievement are too generic in the context of spatial inclusion.

The third document, the Leipzig Charter on Sustainable European Cities [16] (Table 3) promotes a sustainable and inclusive approach to urban development in Europe, to improve the quality of life for all urban residents, and aims to be more objective and comprehensive in the indicators proposed to achieve the challenges presented.

Table 3. The Leipzig Charter’s selected targets and respective indicators

Documents/ Instruments of engage- ment	Goal	Targets	Indicators
Leipzig Charter on	Promote a more sustainable and inclusive approach to urban	Creating accessible and inclusive urban environments that meet	Accessibility of public spaces: This indicator measures the

Sustainable European Cities	development in Europe, in order to improve the quality of life for all urban residents and contribute to a more sustainable future.	the needs of all residents, including people with disabilities and other vulnerable groups.	availability and quality of public spaces, including parks, plazas, and other outdoor areas, with a focus on the accessibility of pathways, seating, and other amenities for people with disabilities.
			Accessibility of buildings and infrastructure: This indicator measures the accessibility of buildings and infrastructure, including public buildings, roads, and sidewalks, with a focus on the availability of ramps, lifts, and other features that enable access for people with disabilities.
		The development of sustainable and accessible transport systems, the promotion of universal design principles in the built environment, and the enhancement of public spaces to improve social inclusion and community cohesion. It also emphasizes the need for participatory planning	Accessibility of public transport: This indicator measures the availability and quality of public transport services, including the accessibility of vehicles, stations, and stops for people with disabilities and other vulnerable groups.

		<p>processes that involve all stakeholders and address the diverse needs and perspectives of urban residents.</p>	
		<p>The importance of creating sustainable and inclusive urban environments that promote social, economic, and environmental well-being for all residents. While it does not include specific targets related to spatial inclusion or accessibility, it provides guidance and principles that can support efforts to create more accessible and inclusive cities.</p>	<p>Inclusion of people with disabilities in urban planning processes: This indicator measures the extent to which people with disabilities are involved in urban planning processes, including public consultations, stakeholder engagement, and decision-making.</p>

However, it is still unclear in its guiding implementation and what can be understood as the evaluation of the results to be achieved. Doubts persist about how to ensure UA and, consequently, spatial inclusion that will promote more inclusive and sustainable territories/cities and society.

The fourth document, the Strategy for the Rights of Persons with Disabilities 2021-2030 [17], was produced with the aim of improving the living conditions of PWD, in Europe and worldwide, by the European Commission (EC) (Table 4). It reinforced the commitments of SDG 11, underlining the importance of including PWD in the social, political, and economic life of cities and urban housing, including representation in civil society and in decision-making processes, and their access to employment and income-generating activities on an equal basis with others.

Although progress has been recognized in healthcare, education, employment, recreational activities, and participation in political life, many obstacles still hinder/prevent full citizenship. This awareness has led the EC to expand its scope of action to promote true inclusion of PWD.

Table 4. The European Strategy for the Rights of Persons with Disabilities 2021-2030 commitments to be achieved and respective intervention/action indicators

Documents/ Instruments of engage- ment	Goal	Targets	Indicators
<p style="text-align: center;">European Strategy for the Rights of Persons with Disabilities 2021-2030</p>	<p>Aims to ensure that people with disabilities have the same rights and opportunities as other people in the European Union.</p> <p>The strategy is based on three priority areas:</p> <p>1. Empowerment of people with disabilities so that they can fully enjoy their rights and participate actively in society.</p>	<p>1. Empowerment of persons with disabilities, including actions to improve access to information, education, and decision-making processes.</p>	<p>1.1 Participation in society and independent living</p>
	<p>2. Ensuring equality and non-discrimination, including the elimination of barriers and the promotion of accessibility.</p>	<p>2. Ensuring equality and non-discrimination, including actions to promote accessibility and eliminate barriers in the physical environment, products and services, and information and communication technologies.</p>	<p>2.1 Equality and non-discrimination 2.2. Accessibility and universal design:</p> <ul style="list-style-type: none"> • Proportion of public buildings that are accessible. • Availability and use of accessible transport services • Proportion of people with disabilities who have access to

			assistive technologies. <ul style="list-style-type: none"> • Availability of accessible and affordable housing. • Proportion of websites that meet accessibility standards.
	3. Promoting full and effective participation and inclusion in society, including actions to improve access to the labor market, education, culture, and political life.	3. Promoting the full and effective participation and inclusion of persons with disabilities in society, including actions to improve access to the labor market, social protection systems, and public services.	3.1 Employment 3.2 External action

The strategy highlights accessibility and UD as paths to follow; however, it is not clear on how to implement the principles proposed in the indicators. The new strategy for PWD aims to contribute to the implementation of the European Pillar of Social Rights, for which the Commission has adopted an Action Plan [18], serving as a compass for social and employment policies in Europe. The strategy supports the implementation of the UNCRPD by the EU and its Member States, both at EU and national level.

The last strategic document presented is the European Pillar of Social Rights Action Plan [18] (Table 5).

Table 5. The European Pillar of Social Rights Action Plan's selected targets and respective implementation indicators

Documents/ Instruments of engage- ment	Goal	Targets	Indicators
European Pi- lar of Social Rights Action Plan	Three main pil- lars: equal oppor- tunities and access to the labor mar- ket, fair working conditions, and social protection and inclusion. The following are some of the key targets related to accessibility and inclusion in the European Pillar of Social Rights Ac- tion Plan.	1. Promoting ac- cess to quality and inclusive ed- ucation and training for all, including people with disabilities.	1.1 Proportion of students with disa- bilities in main- stream education.
		1.2 Proportion of students with disa- bilities who com- plete their educa- tion.	
		1.3 Accessibility and availability of educational re- sources and tools for students with disabilities.	
		2. Ensuring equal access to the la- bor market and promoting equal treatment and non-discrimina- tion in employ- ment for people with disabilities.	2.1 Employment rate of people with disabilities com- pared to the gen- eral population.
		2.2 Proportion of companies with policies in place to promote diversity and inclusion, in- cluding hiring and accommodating people with disa- bilities.	
		2.3 Number of re- ported cases of discrimination based on disability in the workplace.	
3. Strengthening social protection systems and en- suring access to	3.1 Proportion of people with disa- bilities who have access to		

		quality healthcare services for all, including people with disabilities.	healthcare services.		
			3.2 Availability of accessible healthcare facilities and equipment.		
			3.3 Quality of healthcare services and outcomes for people with disabilities compared to the general population.		
					4.1 Accessibility and availability of public transportation and infrastructure for people with disabilities.
					4.2 Accessibility of public buildings and facilities, including public toilets and seating areas.
					4.3 Accessibility and usability of ICT services, including websites, mobile applications, and other digital platforms for people with disabilities.

The action plan sets out three pillars: 1) equal opportunities and access to the labor market; 2) fair working conditions; and 3) social protection and inclusion. These pillars are associated with accessibility and inclusion, with the number of people reached in different domains presented as indicators of achievement. The absence of indicators promoting the materialization of UA is noted.

An analysis of the five strategic documents allows us to conclude that all goals and indicators of execution focus on promoting inclusive environments, for which it is essential to ensure UA.

The contents presented above, on the tables, emerge from the reading, reflection the systematization of the information from that same reading of the five strategic documents mentioned.

3.2 Preliminary proposal of indicators

UA is an important indicator of inclusion and one of the most relevant dimensions of spatial justice, a determining factor for being able to speak of inclusive territories. UA can be understood as a person's ability to move autonomously, independently, and safely in an urban space, making their route decisions intuitively, comfortably, effortlessly, and safely. However pivotal, a 2022 study [3] concluded that research on inclusive cities has only been predominant since 2016. Although most reflections concentrate on governance and planning, the significance of UA is not emphasized. In addition, the discourse surrounding inclusive urban environments is limited and the presence of UA is lacking. Moreover, the realization of urban rights, including the right to the city, is unattainable in the absence of accessible design.

UNESCO [15] established an Analytical Framework for Inclusive Policy Design. It presents overarching lines that center on the definition of policies based on the perspective of contexts and social dynamics. Conversely, our framework explores the importance and dimension of universal accessibility's a determining factor in access and the realization of rights.

Anahí Bañuelos-Hernández [10] claim that there is a strong link between UA and public spaces, due to the constant movement of urban residents (p. 39). The authors propose eleven UA indicators to ensure a more inclusive public space, including signage, pavements, junctions, and ramps. These are supported by measurable technical characteristics and variables related to each respective types of elements that make them up.

Rebernik et al. [19] proposed a 4-dimensional model and a combined methodological approach for inclusive urban planning and design for all people. Throughout the four dimensions, they considered four societal challenges and their related issues applied to 4 levels of analysis: human, spatial, technological and relational.

In the preliminary proposal presented, our aim was to refocus the indicators on the specific needs and characteristics of human beings, analyzed and respected in their diversity. We considered essential to start from an in-depth knowledge of the different types of disability or incapacity, as they are the target audience with the highest level of needs to be met. In this way, the aim is to make the response capacity of the built environment, modes of transport, and integral infrastructures more flexible, presenting indicators centered on the body-space relationship.

All the contents presented in the next table are entirely the result of the research carried out by the authors of this document.

Table 6. Preliminary proposal of universal accessibility indicators for the public space

In- di- ca- tors clas- sifi- ca- tion leve- l	Indi- ca- tors	Indi- cators De- scrip- tion	Indica- tor meas- urement unit	Anal- ysis fields	Ar- eas of ac- cessi- bility to be ex- am- ined	Spe- cific needs to be ad- dresse- d
-	1. Au- ton- omy	<p>- The abil- ity to act and make decisions for one- self.</p> <p>-Inde- pendence in carry- ing out tasks and managing one's life.</p> <p>- Freedom to make choices without excessive depend- ence on others.</p>	<p>1.1 Accessi- ble Path- way: Percentage of buildings, fa- cilities, pub- lic spaces, and infra- structure (particularly transporta- tion) equipped with an ac- cessible path- way (with ex- terior and in- terior con- nectivity).</p> <p>1.2 Tactile Signage: Presence of tactile sign- age for the guidance of individuals with visual impairments.</p>	<p>Accessi- bility to space(s) : Physical access, orienta- tion, and infor- mation.</p> <p>Mobility and cir- culation in and through space(s) : Physical access, orienta- tion, and infor- mation.</p>	<p>Physic: ability to ac- cess, move and use.</p> <p>Infor- mation : ability to trans- mit in- for- mation.</p>	<p>Physical</p> <p>Senso- rial</p> <p>Neuro- diversity</p> <p>Communica- tional</p>

	<p style="text-align: center;">2. In- de- pend- ency</p>	<p>- The ability to exist or function independently .</p> <p>- Absence of dependence or subordination to others.</p> <p>-Independence in carrying out activities and making decisions.</p>	<p>2.1 Operationalization: Percentage of Decision Points/Equipment/Operationalization Controls: Percentage of decision points/equipment/operational controls in buildings, facilities, public spaces, and infrastructure (especially transportation) prepared for use without the need for assistance.</p> <p>2.2 Inclusive Communication/Orientation: Percentage of Points with Multiformat and Easily Readable/Interpretable Information: Percentage of points with multiformat and easily readable/interpretable information, including 2D^{1/2}/3D</p>	<p>Usability in space(s) and equipment(s): Relationship and interaction between user and environment, includes operability, functionality, as well as efficiency in communication and control of emoticons.</p>	<p>Orientation and signposting: ability to access, move and use.</p> <p>Physic: ability to access, move and use. Information: ability to transmit information.</p> <p>Communication: ability to ensure fluid and real-time communication, if applicable.</p>	
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			maps, Braille, sound solutions, sign language, etc.			
		<p>-Acceptance and active participation of all, regardless of differences.</p> <p>- Promoting an environment where everyone feels included and valued.</p> <p>- Respect diversity and remove barriers that may exclude people.</p>	<p>3.1 Inclusive Environments: Percentage of buildings, facilities, spaces (public and private), and events/initiatives that provide conditions for equal access, accommodation, communication, and orientation.</p> <p>3.2 Accessible and Inclusive Participatory Processes: Assurance that planning, projects, public consultations, and community meetings are accessible and inclusive, gathering consultation groups representative of human diversity (in the body-space</p>		<p>Physic: ability to access, move and use.</p> <p>Information : ability to transmit information.</p> <p>Communication: ability to ensure fluid and real-time communication, if applicable.</p>	
	3. Inclusion					

			perspective), including different types of disabilities (physical, sensory, cognitive, communication, and neurodiversity).			
	4. Comfort	<ul style="list-style-type: none"> - A sense of physical and emotional wellbeing. - Environments and conditions that provide comfort and tranquility. - The absence of unnecessary discomfort or stress. 	<p>4.1 Adapted street furniture: Percentage of street furniture adapted for greater comfort, such as benches and public transport stops, etc.</p> <p>4.2 Materials and adequate lighting: Assessment of the quality of materials and lighting in public spaces and the built environment.</p>	<p>Comfort in the space(s) : Ability to provide comfort in accommodation and living.</p>	<p>Physic: ability to access, move and use. Information: ability to transmit information.</p> <p>Orientation and signposting: ability to access, move and use.</p> <p>Communication: ability to ensure fluid and real-time</p>	

					com- muni- ca- tion, if applica- ble.	
-	5. Safet y	<p>- Protec- tion from danger or threat.</p> <p>- A sense of free- dom from risk and worry.</p> <p>- Presence of measures and con- ditions to ensure in- tegrity and wel- fare.</p>	<p>5.1 Safe crossings: The number of pedestrian crossings that are accessi- ble to wheel- chair users, have a pota- ble floor, au- dible signals and visual timers.</p> <p>5.2 Safe zones: Identification and imple- mentation of safe zones for people with reduced mo- bility, ac- cording to their specific needs.</p>	Effi- ciency of space: Capacity to ac- commo- date peo- ple with different needs.	<p>Orien- tation and sign- post- ing: ability to ac- cess, move and use.</p> <p>Com- muni- ca- tion: ability to en- sure fluid and real- time com- muni- ca- tion, if applica- ble.</p>	
-	6. Func- tion- ality	<p>- Effi- ciency in perform- ing tasks and oper- ating sys- tems.</p> <p>- The suit- ability and use- fulness of some- thing to</p>	<p>6.1 Ensuring accessibility solutions: Assess- ment/certi- fication of ac- cessibility conditions in public transport, its infrastruc- ture, public spaces, equipment,</p>		<p>Physic: ability to ac- cess, move and use.</p> <p>Digital: ability to ac- cess, navi- gate and use.</p>	

		fulfil its purpose. -Effective and practical performance of specific functions.	and buildings. 6.2 Communication and information technology: Availability of assistive technologies, such as mobile applications for accessible navigation.		Orientation and signposting: ability to access, move and use. Communication: ability to ensure fluid and real-time communication, if applicable.	
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From the analysis of the five strategic documents, a preliminary proposal for UA monitoring indicators is presented (Table 6), ensuring more: 1) Autonomy; 2) Independence; 3) Inclusion; 4) Comfort; 5) Safety; and 6) Functionality. The proposal considered regulatory documents, international agreements, recommendations, and good practices. Special attention was given to the specific needs of people with mobility impairments. The level of indicator classification is dependent on the combination of the 'Analysis fields' column with the 'Areas of accessibility to be examined'. In addition, the requirements are possible to establish based on the ability to respond to the more demanding standard requirements of the 'Specific needs to be addressed'.

Through this ongoing work, we aim to contribute to the definition of the concept of UA and to the definition of new urban policies. In this sense, we intend to present a proposal that is deeper and more accurate than the mere application of regulations.

4 Preliminary conclusions

This paper presents preliminary conclusions of the process of defining UA indicators and their respective implementation methodology. We have identified six UA indicators that can promote diversity and inclusion in cities' public spaces. By mapping these indicators, urban planners and policymakers can identify areas where improvements can be made. This information can be used to inform policy decisions, allocate resources, and engage with the community to ensure that all voices are heard and represented.

To further develop the proposed approach, we must identify specific needs to consider in different analysis fields. Accordingly, we plan to organize focus groups to identify standard needs for different types of disabilities (physical, sensorial, and neurodiversity-related), using the most demanding needs as a reference. Subsequently, we will define the implementation methodology and refine the proposed indicators. Finally, we aim to test the methodology and respective indicators in three case studies. Classification levels will be determined, promoting better conditions for the most demanding needs in each type of disability.

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