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(Re)creating Public Open Spaces in Residential Areas: A Guidebook for Participation and Implementation

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Project: Reclaiming Public Open Space in Residential Areas: Shifting Planning Paradigms and Design Perspectives for a Resilient Urban Future – RePOS

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(RE)CREATING PUBLIC OPEN SPACES IN RESIDENTIAL AREAS: A GUIDEBOOK FOR PARTICIPATION AND IMPLEMENTATION

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For further reading on reclaiming public open spaces in residential areas, please visit the RePOS project website https://www.repos-project.rs

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INTRODUCTION

This guide is an operational document that provides applicable and systematically grounded recommendations for improving citizen participation and strengthening the implementation of urban plans and projects of public open spaces (POS) in areas of multi-family housing. It is based on the premise that the quality of POS does not depend solely on planning and design solutions, but on an integrated process that includes the early involvement of relevant stakeholders, the joint formulation of goals and solutions, consistent implementation, long-term management and maintenance, as well as systematic monitoring and evaluation of achieved social, environmental, and functional effects.

Within this framework, the guide aims to identify and propose incentive-based, educational, institutional, and—where justified—regulatory measures that enable citizen participation to move beyond its predominantly formal and reactive character and evolve into a proactive, empowering, and inclusive process. Particular emphasis is placed on establishing a clear link between participation and implementation, so that citizens' contributions are reflected not only in the planning phase, but also in concrete design decisions, organizational and governance arrangements, as well as in the phases of use, maintenance, and evaluation of POS effects. The guide, therefore, offers a coherent and applicable framework, in the form of guidelines and a catalogue of tools, intended for action within real institutional and procedural conditions, in line with the integrated approach defined in the Guidebook: Urban planning and design directive for residential public open space[1].

The development of POS in multi-family housing areas in Serbia takes place within a complex urban, social, and institutional context. Inherited housing estates, characterized by relatively large and spatially continuous open areas, today face processes of degradation, unclear ownership and management regimes, and pressures of densification. At the same time, in contemporary development projects, POS are often insufficiently provided for or marginalized, as a result of market-driven development patterns and limited public investment. Even in situations where planning documentation exists, the implementation and long-term maintenance of POS remain uneven in practice, due to a combination of legal and

[1] RePOS Team, available online: https://www.repos-project.rs/pdf/guidebook-for-urbanplanning-and-design-of-residential-pos.pdf

institutional ambiguities, weak implementation instruments, and underdeveloped mechanisms for monitoring and evaluation.

An additional challenge lies in the way the success of urban plans and POS projects is measured in practice. The dominance of administrative indicators—such as the number of issued permits or completed projects—suppresses systematic monitoring of the actual social, environmental, and functional effects of POS. Although processes of digitalization of planning and governance procedures have the potential to improve transparency, traceability, and accessibility of information, their full operationalization remains limited, reducing the capacity for evidence-based decision-making in the field of POS development and management.

In such a context, citizen participation acquires strategic importance. It is understood not only as a democratic standard, but as a key instrument for a more realistic understanding of users' needs, the timely identification of conflicts and risks, and the strengthening of local capacities for co-management and long-term care of POS. Effective participation is a prerequisite for the legitimacy of planning and design decisions, as well as for their sustainability in the phases of use and maintenance of POS.

The vision of the guide is oriented toward a shift from fragmented, formal, and one-off interventions to an integrated, continuous, and measurable model of POS development in multi-family housing areas. In this model, citizens are recognized as active and equal actors throughout the entire life cycle of POS, while planning, design, implementation, and maintenance are understood as interrelated phases of a single process. Participation is viewed as a standard of quality management of POS rather than a procedural obligation, with clearly defined institutional responsibilities, mandatory feedback mechanisms, and systematic monitoring of effects.

A particular contribution of this approach lies in linking participation and implementation with the application of innovative solutions in POS development, including digital solutions, nature-based solutions, multifunctional spatial solutions, socio-cultural solutions, and improved governance models. Within this framework, socio-cultural solutions play an especially important role, as they connect POS development with social inclusion, the reduction of inequalities, safety, social resilience, and long-term citizen engagement.

Finally, this guide provides support to stakeholders involved in the planning, design, and management of POS in multi-family housing areas, with the aim of improving spatial quality, the legitimacy of decisions, and the long-term sustainability of interventions through the integrated application of participatory and implementation-oriented approaches.

GUIDELINES FOR CITIZEN PARTICIPATION IN (RE)CREATION OF PUBLIC OPEN SPACES

CONCEPTUAL FRAMEWORK AND ROLE OF CITIZEN PARTICIPATION

Citizen participation represents a central prerequisite for the successful (re)creation, revitalisation, and long-term management of POS, particularly within multi-family residential neighbourhoods. POS are not static physical settings, but socially produced and continuously transformed spaces whose quality, usability, and sustainability depend on everyday practices, needs, and values of their users. In this context, citizen participation is not limited to consultation during formal planning procedures but encompasses a broader spectrum of collaborative, inclusive, and iterative processes that link planning, design, implementation, and maintenance. This chapter provides a conceptual framework for understanding the role, purpose, and forms of citizen participation in the (re)creation of POS, forming the theoretical basis for the guidelines presented in the following sections.

Participation is one of the key paradigms of contemporary urban planning and design. UN-Habitat (2020) uses terms such as participatory planning, co-design, co-management, co-creation/co-production, and inclusive decision-making as value-based approaches that promote inclusivity, collaboration, equality in decision-making, and co-governance of urban resources.

Table 1. Operational and analytical typologies of participation in planning, design, and implementation

Participation in planning
▪ Consultative participation – through surveys and semi-structured interviews with residents and the community ▪ Co-creation – joint envisioning and conceptualizing of space with equal contribution from citizens and professionals ▪ Digital participation – use of digital platforms for expressing needs, commenting on proposals, and visualizing ideas ▪ Participation through evaluation – resident involvement in assessing completed projects and providing feedback
Participation in design
▪ Joint commenting on proposals – citizens comment on proposed design solutions ▪ Limited co-design – citizen involvement in shaping design through expressing preferences and suggestions ▪ Expert-citizen dialogue – interactive exchange between professionals and citizens during finalization of project solutions
Participation in implementation and maintenance
▪ Co-management – citizens as partners in maintaining public open spaces (e.g., joint initiatives, agreements on space use) ▪ Civic monitoring Cand evaluation of usage – involving residents in continuous monitoring and assessing space functionality

Sources: Arnstein (1969), Sanoff (2000), Sanders & Stappers (2008), Ostrom (1990), Carmona (2009), Healey (1997), Innes & Booher (2004)

Based on available literature, previous research, practical models, and design methods (Arnstein, 1969; Sanoff, 2000; Sanders & Stappers, 2008; Ostrom, 1990; Carmona, 2009; Healey, 1997; Innes & Booher, 2004), it is possible to identify several operational and analytical typologies of participation in different phases (Table 1).

Table 2. Actors of participation by form/phase and their mode of involvement

Phase of participation	Planning	Design	Implementation / Maintenance
Citizens	Surveys, expressing needs, co-visioning	Commenting on solutions, validation	Co-management, participation in activities
Professionals	Insight gathering, vision facilitation	Co-design, solution adaptation	Technical support
Local Government	Process organization, regulatory insight	Coordination of procedure	Management, infrastructure maintenance
Private Sector	Participation through partnerships	Advice on sustainability/ investment	Finance, operational support
Civil Society/ NGOs	Advocacy for vulnerable groups	Advocacy for community interests	Education and mediation

Legend: active participation; occasional or indirect participation

Sources: Arnstein (1969), Sanoff (2000), Sanders & Stappers (2008), Ostrom (1990), Carmona (2009), Healey (1997), Innes & Booher (2004)

These typologies are compatible with UN-Habitat principles, as they further break down participation by phases (planning – design – management), more precisely define levels of participation intensity (e.g., consultation vs. co-creation), and link them to concrete engagement methods.

Different actors participate in various forms/phases of participation – citizens, professionals (planners, urbanists, designers, landscape architects, etc.), local government, private sector, and civil society/NGOs. Their engagement modes and forms are shown in Table 2.

The following text presents key characteristics of four analytical types of participation in planning**.**

Consultative participation

Meaning: A form of involvement where citizens provide information, opinions, and suggestions which are then used by professionals and decision-makers. This type does not involve joint decision-making but takes citizens' opinions as important input.

Methods applied*:* 1) surveys (online and in-person); 2) semi-structured interviews; 3) focus groups with different resident groups; 4) public forums.

Advantages*:* 1) provides insight into real community needs and problems; 2) relatively easy to organize and implement.

Limitations: 1) citizens have no control over the final outcome; 2) risk that citizens' opinions are heard but not taken into account.

Example: In a residential area, a survey is conducted among residents about the lack of children's play or adult recreation facilities. Survey results are analyzed and shared with the planning and design team.

Co-creation

Meaning: Active and equal collaboration between citizens and experts in the process of creating a vision for the space. It involves not only expressing opinions but also directly participating in shaping ideas.

Methods used: 1) participatory workshops (co-design workshops); 2) imaginative maps and collages ("community mapping"); 3) scenario or "what-if" models; 4) participatory models.

Advantages: 1) leads to a stronger sense of belonging to the space; 2) increases legitimacy of solutions and reduces community resistance; 3) can contribute to creating and implementing innovative solutions.

Limitations: 1) requires time, facilitation skills, and trust; 2) harder to include marginalized groups without intermediaries.

Example: In a joint workshop, residents propose what they want in their inner-block courtyard, draw on maps, and discuss with urban planners the possibilities of integrating their ideas into plans and projects, in accordance with current regulations.

Digital Participation

Meaning: Using digital tools to enable citizen participation in planning — especially useful when physical presence is not possible.

Methods and tools used: 1) online platforms for commenting on plans; 2) 3D and 2D visualizations for easier understanding; 3) interactive maps (citizens mark problem areas or suggestions); 4) mobile apps for expressing needs and preferences.

Advantages: 1) greater accessibility (especially for younger generations); 2) transparency — everyone can see information and comments; 3) quick processing of large numbers of responses.

Limitations: 1) digital literacy and internet access are not equal for all; 2) lack of direct contact and spontaneous dialogue.

Example: Citizens access an online map of their residential area and mark places where they feel unsafe, where they want more greenery, or comment on a rendered proposal for a neighborhood park.

Participation through Evaluation (Ex-post Participation)

Meaning: Community involvement in evaluating completed projects — providing feedback on whether the space is successful, functional, and meets real needs.

Methods used: 1) observing user behavior; 2) post-occupancy surveys; 3) citizen monitoring or inspection; 4) evaluation workshops and discussions.

Advantages: 1) enriches knowledge for future projects; 2) builds a sense of responsibility and long-term care for the space.

Limitations: 1) rarely conducted systematically; 2) requires methodological rigor and institutional support

Example: One year after the renovation of a new park, residents participate in an evaluation survey on how they use the space, what is missing, and their satisfaction with safety.

Based on the characteristics of different types of participation, it can be concluded that the most effective participation in planning is not one-way and involves continuous dialogue, recognition of local knowledge, and openness to modifying solutions. Contemporary models, such as "design charrette" workshops or "living lab" approaches, combine all these forms of participation through an iterative process (Sanders & Stappers, 2008; Evans et al., 2015).

In theory and practice, different levels of participation are recognized depending on the degree of power and influence citizens have in decision-making. Besides Arnstein's ladder of participation (1969), modern models include the IAP2 spectrum, which describes a continuum of participatory practices — from informing to empowering citizens. For example, manipulation and informational/educational engagement are not types of participation but rather the lowest levels where citizens formally participate without real influence on decisions. In contrast, types of participation such as co-creation, co-management, or evaluation can be realized at different levels of participation depending on who initiates them and to what extent power is truly delegated to the community.

The International Association for Public Participation (IAP2, 2018) developed a model known as the Participation Spectrum, which today represents one of the most widely used tools for planning and communication with citizens, especially in urban planning, architecture, environmental protection, and public policy design. The advantage of this model is that it clearly defines the role of the public and citizens, facilitating planning and management processes. The model includes five levels of participation, focusing on the degree of influence citizens have in decision-making. None of the levels is considered "better," but rather more appropriate depending on the specific context, goals, and topics of the process. The levels of participation are presented in Table 3.

Table 3. IAP2 Levels of Citizen Participation in Planning and Decision-Making Process

Level	Goal	Role of Citizens	Promise to the Public
Inform	Provide information and explanations	Passive recipients of information	You will be informed.
Consult	Obtain feedback	Express opinions and views	We will consider your comments.
Involve	Include citizens in analysis and option definition	Actively participate in the process	We will consider your views throughout the process.
Collaborate	Jointly develop solutions and alternatives	Work together with decision-makers	We will work with you to find the best solution.
Empower	Delegate decision-making to citizens	Citizens make key decisions	We will implement what you decide.

Source: *International Association for Public Participation (IAP2). (2018)*

Although contemporary theoretical and normative frameworks clearly emphasize the importance of early, continuous, and inclusive citizen participation in the (re)creation of public open spaces, their application in real planning and governance processes is often constrained by numerous institutional, procedural, social, and cultural factors. The gap between conceptually desirable models of participation and their actual implementation in practice represents one of the key challenges of contemporary public open space governance. Therefore, the following chapter focuses on identifying the main barriers and limitations that affect the scope, quality, and effectiveness of citizen participation.

Therefore, the effectiveness of participatory processes largely depends on the ability of institutions and professionals to translate participatory inputs into tangible spatial outcomes and long-term governance arrangements. This requires not only appropriate methods and tools, but also political will, institutional openness, and sufficient resources. Participation should be understood as a learning process for all involved actors, fostering mutual understanding, trust, and shared responsibility for public open spaces. When embedded in a clear framework and supported by transparent decision-making, citizen participation can significantly contribute to the social sustainability, resilience, and everyday usability of POS. In this sense, participation is not an auxiliary component of planning practice, but a fundamental condition for creating inclusive, adaptable, and context-sensitive public open spaces that respond to the evolving needs of urban communities.

At the same time, the outcomes of participatory processes are strongly shaped by governance frameworks and planning cultures, which define the real scope and depth of citizen influence in the (re)creation of POS.

Sport playground arranged on a parking lot, based on residents' initiative, in Mileva Marić Anštajn neighbourhood, Belgrade

Source: Jelena Živković

KEY BARRIERS AND LIMITATIONS TO CITIZEN PARTICIPATION IN SERBIA

This section analyzes the **main weaknesses in the implementation of participatory processes in Serbia**, drawing on experiences from case studies conducted within the Repos work package WP3[2], as well as on documented examples of civic initiatives and conflicts related to public open spaces. The analyses show that barriers to participation are not isolated or situational, but structural and systemic, rooted in the legislative framework, planning practice, and institutional culture.

Formality and the Bureaucratic Model of Participation

One of the key barriers to effective citizen participation is the fact that existing practice in Serbia is **predominantly formal, minimal in scope, and bureaucratically structured**. Citizen involvement is most often reduced to legally prescribed procedures, without real influence on decision-making, whereby participation **remains reactive and symbolic**.Although the current legislative framework explicitly prescribes the obligation of public insight and public participation, the way these mechanisms are defined and applied reflects **a top-down, traditional model of planning.**

In this model, citizens are treated as actors who submit comments on already-shaped solutions, rather than as equal participants in their creation.

The consequence of such an approach is so-called **procedural participation,** in which legal obligations are formally fulfilled, but dialogue, mutual learning, and co-decision-making are not substantively achieved.

Lack of an Adequate Legal Framework for POS

An additional limitation to participation arises from the fact that the **existing legislative framework does not recognize public space or public open space as a distinct planning category**. This normative deficiency has direct consequences for the way participation is conducted.

In the absence of a clear definition of POS:

- There are no specific participatory mechanisms adapted to their spatial, social, and functional nature,
- No special institutional obligations are defined regarding the inclusion of actual space users,

[2] Repos deliverables D3.1 and D3.2

- Public open spaces are often treated as secondary elements in relation to traffic and infrastructure networks.

Such a framework limits the development **of specialized participatory procedures for POS** and contributes to their marginalization in planning and implementation practice.

Delayed and Reactive Participation

Citizen participation in Serbia most often takes place **in the late stages of the planning process**, when key decisions have already been made and the possibility of substantive citizen influence is significantly reduced.

In some of the analyzed cases, participation is represented only in the final stages of plan preparation. Similarly, research in larger urban centers[3] indicates that residents are often not informed in a timely manner about plans for the development of public open spaces and express dissatisfaction with the outcomes of their implementation.

Due to the lack of early information and involvement, citizens are often mobilized **reactively**, only after plans have been adopted or during the implementation phase. This is also confirmed by documented examples of civic initiatives and conflicts[4], where the absence of early participation led to protests and challenges to already adopted decisions.

Reactive participation increases social tensions, prolongs processes, and calls into question **the legitimacy of planning and design solutions**.

Distrust and Citizen Passivity

Research conducted the Repos work package WP3 indicates pronounced **distrust of citizens toward institutions** and a widespread perception that their participation has no real influence on process outcomes. Residents often themselves identify community inactivity and a lack of interest in involvement, which proves to be a consequence of previous experiences with formal and ineffective participation (Bogdanović Protić, 2016).

Neglecting user needs in the planning and design of POS leads to a range of negative effects, including:

- Absence of long-term resident engagement,
- Weak identification with the space,
- Lack of care for the space after implementation.

In this sense, citizen passivity does not represent the cause of the problem**, but rather the consequence of long-term exclusion from real decision-making.**

3 such as Niš

4 for example in Belgrade and Leskovac

Technical–Administrative Approach in Planning Practice

Another significant barrier to participation relates to the dominant **technical–administrative a**pproach in planning, particularly in the context of inherited multi-family housing estates. In such plans, priority is often given to:

- Traffic solutions,
- Infrastructure systems,
- Technical arrangements and landscape design,

while residents are viewed primarily as future users of space, rather than as active partners in its shaping.

This approach leads to a disconnect between planning solutions and the real needs of the community, further diminishing the meaning of participation and complicating subsequent implementation.

In practice, the technical–administrative logic often dominates not only the content of plans, but also the communication between institutions and citizens. Planning documents are frequently complex, highly technical, and difficult for non-professionals to understand, which further limits the ability of residents to engage meaningfully in the process.

As a result, participation is reduced to commenting on finalized technical solutions rather than discussing fundamental spatial priorities, everyday practices, and social needs.

Absence of Early Insight and Genuine Information

A particular problem is the lack of early and clear information for citizens. Documented examples from practice (e.g. illustratively: planning processes in neighborhoods such as Dubočica) show that formal public insight, even when it does not generate objections, does not mean that citizens are truly informed or that they accept the proposed solutions. These cases clearly indicate that:

- Formal consent does not mean genuine information,
- The absence of objections does not mean acceptance of solutions,
- Without early, understandable, and transparent information, participation loses its essence.

In practice, planning documents are often complex, highly technical, and difficult for non-professionals to understand, which limits the ability of residents to engage meaningfully in the process. As a result, participation is reduced to commenting on finalized technical solutions rather than discussing fundamental spatial priorities, everyday practices, and social needs. This complexity and lack of clarity often reduce citizens' engagement to a formal requirement, limiting their ability to influence decisions or feel ownership over the space and, over time, can weaken trust in institutions and diminish long-term care for public open spaces.Without early, understandable, and transparent information, participation loses its essence.

Source: Ljiljana Vasilevska, author of the text and concept; illustration generated using an AI tool (OpenAI)

GUIDELINES FOR CITIZEN PARTICIPATION

Setting the context

Citizen participation in the (re)creation of public open spaces in multi-family housing areas represents a key prerequisite for the development of functional, inclusive, and long-term sustainable spaces. It contributes to a better alignment between spatial interventions and the everyday needs of users, strengthens social cohesion, and increases the sense of shared responsibility for public space.

Through participatory processes, public open spaces can evolve as adaptable and resilient environments that respond to changing social, demographic, and spatial conditions. Unlike other types of public spaces, these spaces have a pronounced everyday-use dimension, are directly linked to the quality of housing, and function as shared resources for diverse social groups.

The guidelines are based on an understanding of participation as a **continuous process implemented** across **three key domains**:

- **Planning** (from the analytical stage to the adoption of planning solutions);
- **Design** (the development of programme-related, spatial and design solutions);
- **Implementation** (including the use, improvement, management and maintenance of public open spaces).

The implementation of participation across these domains is supported through **three key areas of support**:

- **Institutional** (institutional frameworks, legal regulations, and organisational structures)
- **Educational**
- **Informational**

Participation is realised through **two main modes**:

- **Formal participation** (institutionally organised and legally prescribed forms of participation);
- **Informal participation** (initiatives, self-organisation, everyday practices, and civic actions).

In addition, participation is applied across different **urban scales of implementation:**

- **Macro-scale** (city level)
- **Meso-scale scale** (neighbourhood level)
- **Micro-scale** (the immediate surroundings of a building or a small cluster of buildings)

Figure 1. Citizen participation in urban planning
Source: https://fastercapital.com/topics/public-participation-in-urban-planning-processes.html/1

Guidelines for participation in PLANNING domain

- **Institutional support**

GUIDELINE P1: Early and continuous involvement of stakeholders in the planning of public open spaces

Participatory processes should begin in the early, analytical stage of planning public open spaces in multi-family housing areas and be carried out continuously throughout the entire planning process.

Early involvement of residents and other relevant stakeholders enables the identification of actual needs, values and challenges before planning solutions are defined, thereby improving the quality and social acceptance of plans.

GUIDELINE P2: Clear definition of roles, responsibilities and the scope of participation

It is necessary to clearly define:

- the stages at which participation is implemented;
- the scope of influence of participants;
- participatory tools and methods;
- the responsibilities of institutions, professionals and citizens.

A transparently structured participatory process reduces confusion, prevents unrealistic expectations and strengthens trust among stakeholders.

GUIDELINE P3: Institutional coordination of participation

The planning of public open spaces requires cross-sectoral cooperation. It is recommended to establish coordination mechanisms or working bodies that connect urban planning services, public utility companies, social and communal sectors, as well as representatives of residents.

Without a clearly defined institutional lead, participatory processes tend to remain fragmented and insufficiently effective.

- **Educational support**

GUIDELINE P4: Education of residents on the planning process and participation rights

Residents of multi-family housing areas should be systematically informed and educated about:

- planning stages;
- modes of participation;
- rights and opportunities to influence decision-making processes.

Education contributes to more active and meaningful participation, particularly at the mezo and micro spatial levels.

GUIDELINE P5: Capacity-building of institutions and professionals for participatory planning

Institutions and professionals involved in planning processes should develop knowledge and skills related to participatory methods, community engagement and inclusive planning, in order to ensure that participation is substantive rather than merely formal.

- **Informational support**

GUIDELINE P6: Transparent and timely information on planning processes

Information on planned interventions in public open spaces should be:

- accessible;
- timely;
- tailored to different target groups.

A combination of traditional and digital communication channels is recommended, with particular attention to the clarity and comprehensibility of information.

Guidelines for participation in DESIGN domain

- **Institutional support**

GUIDELINE D1: Application of co-creative and collaborative design models

In the design domain of public open spaces, the application of co-design methods is recommended to enable the active involvement of users in shaping spatial and functional solutions. These models are particularly important in multi-family housing areas, where users' needs and expectations are diverse.

- **Educational support**

GUIDELINE D2: Development of a shared understanding of space and user needs

Participatory design should be used as an educational process through which residents, professionals and institutions jointly develop an understanding of the space, its constraints and potentials, thereby strengthening a sense of belonging.

GUIDELINE D3: Promotion of flexible and adaptive design solutions

Design solutions should be flexible and adaptable to changing user needs over time. Citizen participation in this process supports the creation of public open spaces that can evolve together with the community.

- **Informational support**

GUIDELINE D4: Visual and interactive communication of design solutions

Design proposals should be presented through clear, comprehensible and interactive formats (such as models, sketches, simulations and digital visualisations), enabling all participants to understand and comment on the proposed interventions.

Guidelines for participation in IMPLEMENTATION, USE and MAINTENANCE domain

- **Institutional support**

GUIDELINE I1: Involvement of residents in the use and maintenance of public open spaces

Participation should not end with the physical implementation of public open spaces. It is recommended to involve residents in processes of management, monitoring and improvement of public open spaces, particularly at the micro- and meso-scale.

GUIDELINE I2: Support for informal forms of co-management

Institutions should recognise and support informal forms of civic engagement, initiatives and collective actions that contribute to the preservation, activation and long-term sustainability of public open spaces.

- **Educational support**

GUIDELINE I3: Development of a culture of shared care for public open spaces

Through educational activities, workshops and local programmes, it is necessary to strengthen awareness of shared responsibility for public open spaces and to encourage their long-term use and maintenance.

- **Informational support**

GUIDELINE I4: Continuous communication and feedback mechanisms

It is essential to establish mechanisms for the continuous collection of user feedback on the functioning of public open spaces and the quality of maintenance, in order to enable their ongoing improvement.

Actors in the participatory process

In the (re)creation of public open spaces in multi-family housing areas, a variety of actors are involved, whose roles differ depending on the domain, area of support, mode of participation, and urban scale. Effective participation relies on clear communication and coordination among these actors, ensuring that each perspective contributes to the development of functional, inclusive, and sustainable spaces. Their collaboration fosters a sense of shared responsibility and strengthens the long-term success of POS interventions. Each actor brings unique expertise, experiences and resources to the process, which is essential for addressing complex social, spatial and environmental challenges. By recognising and valuing the contributions of all participants, communities can create spaces that truly reflect their needs and aspirations. Furthermore, well-structured participation enhances trust in planning institutions and encourages continued engagement in the care and management of POS.

The key actors in the participatory process are:

1. Institutional actors

- Local government units
- City administrations and secretariats
- Public utility companies
- Institutions responsible for planning, construction and maintenance

Role: Initiate processes, provide regulation and coordination, and ensure the allocation of resources.

2. Professional actors

- Urban planners
- Architects
- Landscape architects
- Other technical experts

Role: Provide professional guidance in shaping processes and solutions, facilitate participation, and translate community needs into spatial solutions.

3. Residents and users

- Residents of multi-family housing buildings
- Residents' councils and housing associations
- Vulnerable groups: children, youth, older adults, persons with disabilities

Role: Identify needs, values and challenges; actively participate in planning, design, and the use of public open spaces.

4. Civil society organisations and informal groups

- Citizens' associations
- Local initiatives
- Informal groups and networks

Role: Mediate and mobilise the community, initiate informal participatory processes, and civic actions.

LINEAR PARK, BELGRADE: MACRO- AND MESO URBAN SCALE

- **City-led participatory initiative** implemented **within the formal urban planning framework** – *Detailed Regulation Plan for Linear Park*
- Citizen input shaped greenery, ecological features, and biodiversity, enhancing ecological quality

Source: Belgrade Urban Planning Institute JUP; https://bellab.rs/radionica/

The redevelopment of Belgrade's former industrial railway corridor (24.8 ha, 5 km)) is a city-led participatory initiative implemented within the formal urban planning framework – *Detailed Regulation Plan for Linear Park*. Through consultations, workshops, and surveys, over 700 residents actively contributed to data collection and analysis via a citizen survey, focus groups, and an open workshop, in close cooperation with the municipality, universities, and expert teams. Their input shaped the design of playgrounds, recreation areas, extensive greenery, cultural and educational spaces, and urban agriculture pilots, enhancing ecological features such as green roofs, gardens, wetlands, and biodiversity habitats. The project demonstrates how institutional frameworks can effectively integrate citizen input, foster inclusion, and ensure the long-term sustainability and ecological quality of POS, highlighting the central role of green infrastructure in participatory urban regeneration.

PARTICIPATION DOMAIN: PLANNING

Support area	Key guideline	Form of participation	Urban scale	Key actors
Institutional	Early and continuous involvement of residents and other actors in spatial planning	Formal / Informal	Macro/Meso	Local government, city administrations, experts, housing communities
Institutional	Clear definition of roles, responsibilities, and participation scope	Formal	Macro/Meso	Institutions, plan developers
Institutional	Cross-sector coordination of participatory processes	Formal	Macro	City administrations, public enterprises
Educational	Education of residents about the planning process and participation rights	Formal / Informal	Meso/Micro	Institutions, NGOs, experts
Educational	Capacity building of institutions and experts for participatory planning	Formal	Macro	Local administrations, professional organizations
Informational	Transparent and timely information about planned interventions	Formal	Macro/Meso	Institutions, plan holders

GREEN OASIS, NIŠ: NEIGHBOURHOOD SCALE

- **NGO-mediated citizen participation in an informal, isolated design project**
- The participatory process focused on greening and biodiversity, turning a neglected space into an ecological and social hub rooted in community ownership

Source: https://www.google.com/maps/place/Ni%C5%A1/; Ljiljana Vasilevska

The Green Oasis project, led by NGO COOPI, transformed a neglected 5.9 ha area within the Krive Livade multi-family inherited estate into a multifunctional neighborhood park. Residents actively participated in design, clean-up, and planting, fostering social cohesion and improving quality of life. The participatory process emphasized greening and biodiversity, turning a previously neglected area into a local ecological and social hub that combines environmental benefits with community ownership. Citizen involvement contributed to the development of green infrastructure and enhanced local biodiversity, reinforcing both the ecological quality of the neighborhood and social engagement.

PARTICIPATION DOMAIN: DESIGN

Support area	Key guideline	Form of participation	Urban scale	Key actors
Institutional	Application of co-creative and collaborative design models	Formal / Informal	Meso/Micro	Designers, residents, institutions
Educational	Development of shared understanding of space and user needs	Informal	Meso/Micro	Residents, experts
Educational	Promotion of flexible and adaptive design	Formal / Informal	Meso/Micro	Designers, institutions
Informational	Visual and interactive communication of design solutions	Formal / Informal	Meso/Micro	Designers, facilitators

DELIJSKI VIS, NIŠ: MICRO URBAN SCALE

- **Citizen-led participation, informal project- and maintenance based initiative**
- Reclaimed POS through greening, enhancing biodiversity and local ecological quality, led by the NGO and active volunteers

Source: https://niskevesti.rs/naselje-delijski-vis-formiralo-prvi-park-solidarnosti/; https://naissus.info/zapusten-prostor-postao-teratana-na-otvorenom/

Operating in the Delijski vis neighborhood, the grassroots NGO Radne akcije Delijski vis actively mobilized local volunteers to reclaim intra-block POS through greening, small sports areas, and the installation or renovation of playgrounds and urban equipment. In close cooperation with local residents and institutions, the initiative demonstrates how community-led action can activate neglected spaces, promote a green urban lifestyle, and foster collective care for the neighborhood environment. It has also strengthened social ties, encouraged volunteerism, enhanced local biodiversity, and improved recreational infrastructure, illustrating how grassroots initiatives can create resilient and inclusive urban spaces at the micro urban scale.

PARTICIPATION DOMAIN: IMPLEMENTATION, USE, AND MAINTENANCE

Support area	Key guideline	Form of participation	Urban scale	Key actors
Institutional	Involvement of residents in use and maintenance of spaces	Formal / Informal	Meso/Micro	Housing communities, public utility companies
Institutional	Support for informal co-management and civic initiatives	Informal	Meso/Micro	Residents, NGOs
Educational	Development of a culture of shared care for space	Informal	Micro	Residents, schools, universities, NGOs
Informational	Continuous communication and feedback mechanisms	Formal / Informal	Meso/Micro	Institutions, users

Rain garden at the corner of Rentgenova and Dragiša Cvetkovića Streets in Niš, implemented with the residents' participation.
Source: M.Dinić Branković, J. Đekić

PARTICIPATORY TOOLS

Description

Participatory tools are methods, techniques, and digital platforms that enable active public involvement in planning, design, and management of public open spaces (POS) in residential neighborhoods. They are designed to gather diverse input and foster collaboration between stakeholders, as well as to inform, educate, engage, and empower residents so that POS planning and design reflect community needs and priorities.

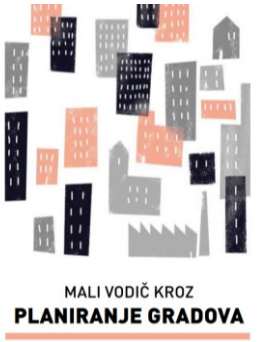
To ensure systematic and meaningful participation, these tools could be applied within a **Participatory Planning Framework (PPF)** - a structured approach that guides the **when, how**, and **who** of engagement. The PPF is a strategic and methodological framework that structures the process of citizen participation across all domains of POS (re)creation: **planning, design,** and **implementation**[5], providing continuity, transparency, and mechanisms for integrating feedback.

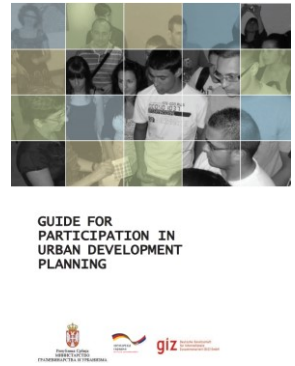
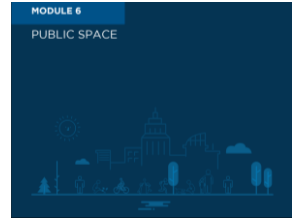
Within this framework, tools are grouped based on their **function**:

- **Information/Education Tools** – one-way or primarily informative tools that raise awareness and build capacity.
- **Consultative Tools** – methods to gather input, opinions, and insights from residents.
- **Collaborative/Co-creation Tools** – interactive tools that involve stakeholders in jointly developing solutions.
- **Digital/E-participation Tools** – online or tech-based platforms that can support information sharing, consultation, and co-creation.

[5] Including the use, improvement and maintenance of public open spaces

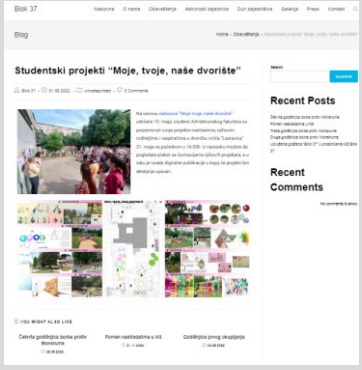
INFORMATION / EDUCATION TOOLS		
Tool	**Description**	**Illustration**
Community Meeting	Community Meetings of housing associations serve as a powerful tool for informing and educating residents on innovative solutions, facilitating the implementation of POS in residential neighborhoods. These gatherings enable residents to actively participate in planning, design, and management processes, ensuring that the resulting spaces reflect the community's needs and preferences. **They are instrumental in creating a shared understanding among stakeholders and fostering a sense of ownership of POS projects.**	
Public Advertising	Public Advertising is a one-way form of communication, directed from institutions to local residents or community representatives to inform stakeholders about decisions, events, plans, and results, as well as to invite them to meetings or workshops. **It ensures the timely dissemination of information and raises public awareness on POS initiatives, even among those who may not actively participate in other engagement activities.**	
Letters & Email Notifications	Letters and Email Notifications from local authorities to Housing Associations or residents are used to disseminate relevant information about planned activities and decisions regarding POS. **Besides keeping residents informed, these tools can include explanations of POS concepts, links to guidebooks, planning documents, or online platforms to enhance understanding and engagement.**	
Info Point	Info Points are temporary indoor or outdoor locations where residents can access information on particular POS projects or initiatives. **They are set up in accessible, high-traffic areas and serve as an effective point for frequent information flow, allowing residents to directly engage with project materials.**	

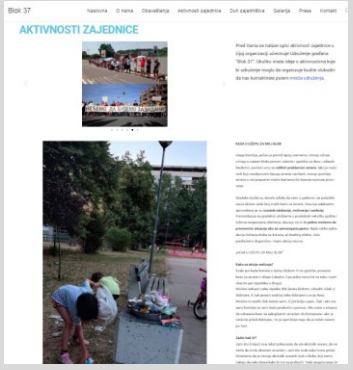
Exhibition Panels	Exhibition Panels are visual tools for two-way participation that enable residents to view, understand, and comment on proposed plans and projects. **Interactive digital platforms such as Social Pinpoint and CoUrbanize allow plans/projects to be posted online, further expanding participation beyond physical locations.**	
Dissemination Materials	Dissemination Materials (posters, brochures, flyers, catalogues, newsletters, etc.) are used to promptly and effectively inform and educate residents, raise awareness, and foster community engagement. **They facilitate communication between planners and the community, supporting a collaborative environment for urban development.**	
Digital Platform	Digital Platforms serve as information repositories, educational tools, and knowledge hubs to facilitate the implementation of POS and promote innovative solutions. **Platforms such as RePOS, Portico, and Capacity4dev integrate resources and tools to improve stakeholders' knowledge and skills, supporting collaboration and knowledge transfer.**	
Quality Standards	Quality Standards provide measurable benchmarks to ensure that POS are accessible, functional, and beneficial for community well-being. **They are often incorporated into local planning policies and development guidelines, ensuring consistent implementation across neighborhoods.**	

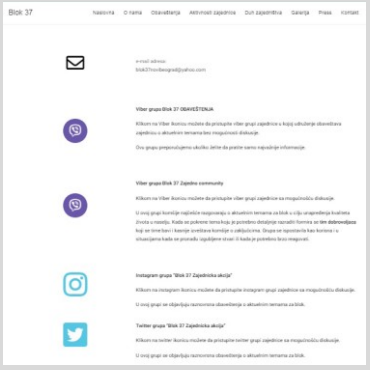
Guidebook	Guidebooks are instructional tools offering an overview of policies, concepts, and principles for POS planning and design. **They are especially useful during initial project stages, providing insights into policy frameworks, community engagement strategies, and sustainable design practices.**	
Manual	Manuals provide detailed, step-by-step instructions on how to implement POS projects. **They translate conceptual planning into actionable steps, offering technical specifications, design standards, and maintenance procedures critical for successful project execution.**	
POS Typology	POS Typology is a classification system categorizing open spaces based on spatial characteristics and management attributes. **Spatial typology helps in planning, design, and accessibility, while management typology guides governance, maintenance responsibilities, funding, and community engagement.**	

DIGITAL PLATFORM AS A TOOL FOR CITIZEN PARTICIPATION - CITIZENS' ASSOCIATION “BLOCK 37”, BELGRADE

- The Association “Block 37” is a non-political, non-governmental, and non-profit organization established with the aim of improving living conditions and securing the rights of citizens in Block 37.[6]
- The Association has developed a website that functions as a **digital tool for citizen participation**, serving as a platform for informing and educating citizens about issues relevant to the quality of life in the block, as well as about activities in which they can actively participate to protect and improve their living environment.







Source: https://blok37.rs/

The website enables the informing, networking and empowerment of citizens to actively participate in actions regarding housing areas in which they live. In addition to general information about the Association, the platform features three main thematic sections. The “Information” section provides information about specific events and activities in the form of blog posts, while also enabling citizen engagement through comments. The “Community Activities” section informs and educates citizens about community initiatives in which the Association “Block 37” participates, and invites citizens to propose new activities that the Association can organize or support. The “Sense of Community” section features reflections on life in the block, written by current or former residents of Block 37 in the form of essays, poems, photo essays, and similar contributions.

[6] More about the association and activities at: https://blok37.rs/

CONSULTATIVE TOOLS		
Tool	**Description**	**Illustration**
Stakeholders' Mapping	Identifies and analyses key actors, clarifies roles, and supports inclusive engagement. **Generates a graphic representation of the social and institutional context, helps define how to engage with each stakeholder, and ensures effective collaboration by recognizing interests and influence.**	
Participatory Appraisal	Interactive tools for analyzing community needs, issues, and proposing solutions. **Uses visual techniques, mapping, ranking, and models to quickly and deeply understand community problems, allowing residents to share key aspects of their lives and inform planning.**	
Street Audit	Assessment of pedestrian safety, accessibility, and comfort through community walks. **Citizens identify issues such as unsafe streets or a lack of pedestrian infrastructure, supporting improvements in urban planning and public safety.**	
Survey	Structured questionnaires to gather opinions and perceptions about POS. **Provides statistical information on community perceptions and satisfaction, and digital versions allow engagement of a large number of participants; can also be used for post-occupancy analysis.**	

Interview	Data collection from selected stakeholders using structured or semi-structured questions. **Offers in-depth insights into specific knowledge or expertise, conducted with proper planning, consent, and documentation.**	
Public Consultation	Two-way engagement to collect feedback on proposals before decision-making. **Ensures that POS projects reflect local needs, values, and priorities, and increases transparency and legitimacy of planning.**	
Public Insight	Formal review and commentary on concept and draft plans. **Invites meaningful feedback, helps resolve conflicts, and enables citizens to understand, respond, and contribute to improving plans and projects.**	
Focus Group	Small-group discussions to gather in-depth perceptions and ideas. **Engages participants from diverse social and demographic backgrounds to discuss specific issues, such as the need for new POS or ecological measures.**	

Community Planning Forum	Open forums enabling dialogue and collaborative input on POS projects. **Supports citizen engagement through open dialogue, local input, and collaborative decision-making, building trust among stakeholders.**	
Round Table	In-person discussion between residents, professionals, and authorities to reach a consensus. **Promotes equal dialogue among stakeholders and is useful for projects requiring collaboration between public, private, and civil sectors.**	
Community Workshop	Collaborative, in-person sessions for co-creation of solutions on specific POS issues. **Supports collaborative planning and design, allows exchange of ideas, identification of conflicts, and co-creation of visible results. See also Collaborative / Co-creation Tools.**	
World Café	Rotating small-group discussions for idea generation and collaborative learning, organized in an informal, café-style setting. **Encourages collective thinking, knowledge sharing, building on prior conversations, and co-creation of solutions in an informal, café-style setting. See also Collaborative / Co-creation Tools.**	

WORLD CAFÉ – A PARTICIPATORY TOOL IN THE "BE READY" PROJECT, NIŠ

- The INTERREG project **Be Ready (UrBan hEat island REsilience, prepAreDness and mitigationa strategY)** addresses climate change capacities in the Danube Region through ecosystem-based approaches, with City of Niš (City Administration for Local Economic Development and Investments) being one of the participating cities[7]
- Within the framework of the project, several participatory tools were applied to engage stakeholders and gather insights. One of these tools was a **World Café workshop**, designed to foster discussion and co-create solutions with local participants



Source: https://interreg-danube.eu/projects/be-ready

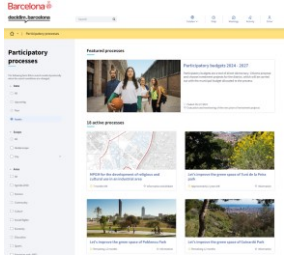
The World Café workshop in Niš was held at the Faculty of Civil Engineering and Architecture (engaged as an expert team), involving architecture students, professors, representatives of the local administration, and the Science and Technology Park Niš**.** Participants actively collaborated in teams, developing proposals for "white, blue, and green" interventions on a site identified as a potential urban heat island. Most solutions focused on improving public open spaces in areas of multi-family housing, addressing usability and climate resilience. Through discussion and feedback, the participatory component was strengthened, and surveys collected valuable input to inform further project development. The workshop successfully combined academic expertise with community engagement to generate practical ideas for urban resilience.

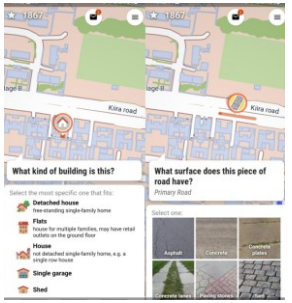
[7] More about the project at: https://interreg-danube.eu/projects/be-ready

COLLABORATIVE / CO-CREATION TOOLS		
Tool	**Description**	**Illustration**
Community Workshop	Collaborative sessions for co-creation of solutions on specific POS issues. **See detailed description under Consultative Tools.**	
World Café	Rotating small-group discussions for collaborative learning and co-creation of ideas. **See detailed description under Consultative Tools.**	
Participatory Mapping Platform	GIS or mapping tools enabling residents to contribute spatial data and insights. **Supports development strategies by allowing the community to mark important points on maps, create and share maps, and provide input for planning decisions. Platforms include Maptionnaire, ArcGIS Online, Google My Maps, and OpenStreetMap. See also Digital / E-participation Tools.**	
Participatory Discussion Platform	Platforms for discussion, idea sharing, and voting. **Allows citizens to propose solutions, discuss ideas, and prioritize collaboratively, increasing engagement and transparency. Examples include Pol.is and MindMixer. See also Digital / E-participation Tools.**	

Urban Games	Gamified simulations for exploring urban planning scenarios and impacts. **Allows residents to experiment with alternative scenarios, explore trade-offs, and understand the consequences of planning decisions in a virtual environment. See also Digital / E-participation Tools.**	
Open Space Technology (OST)	Flexible, participant-driven discussions to address community concerns. **Participants freely choose topics and collaborate spontaneously, supporting collective problem-solving, creativity, and engagement in complex situations.**	

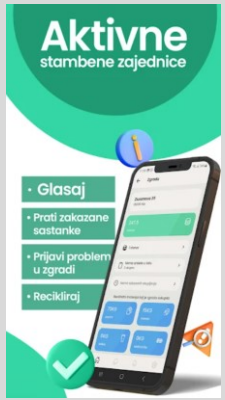
Note: Many of these tools are integrated with workshops, forums, or mapping platforms, but it is useful to highlight them separately in the Collaborative / Co-creation table as they actively involve citizens in joint problem-solving. For full descriptions, please refer to the Citizen Engagement or Digital / E-participation sections as indicated.

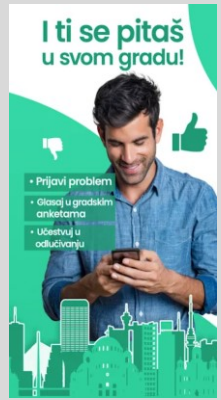
DIGITAL / E-PARTICIPATION TOOLS		
Tool	**Description**	**Illustration**
E-participation Platform	Online tools for two-way engagement across POS project phases. **Facilitates collaborative planning and ensures POS meets residents' needs, especially in diverse and multi-generational communities. Examples include CitizenLab/GoVocal and GIS-based platforms such as PPGIS and PGIS.**	
Participatory Mapping Platform	Residents contribute spatial data and collaborate on visualizing community insights. **See detailed description under Collaborative/Co-creation Tools.**	
Participatory Discussion Platform	Residents discuss, propose, and vote on ideas collaboratively. **See detailed description under Collaborative/Co-creation Tools.**	
Participatory Budgeting Platform	Enables citizens to propose and vote on local projects and budgets. **Engages residents in financial decision-making, helping prioritize and fund projects according to community needs. Examples include Balancing Act and Decidim.**	

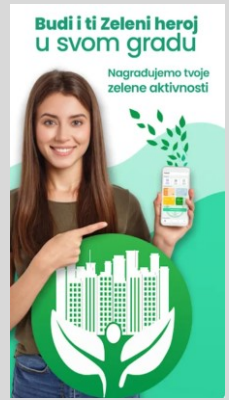
Urban Games	Simulation tools allowing participants to explore urban planning scenarios together. **See detailed description under Collaborative/Co-creation Tools.**	
Crowdsensing Mobile Application	Mobile apps to collect environmental or infrastructure data from residents. **Enables indirect participation by reporting observations about the local environment, supporting data-driven planning and maintenance. Examples include StreetComplete, Mobile Citizen, and SeeClickFix.**	

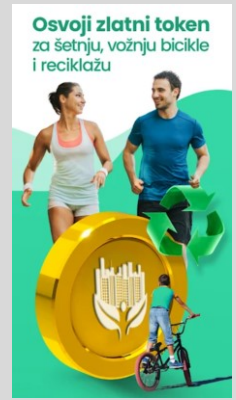
CITY&ME – A DIGITAL PARTICIPATORY TOOL FOR COMMUNITY ENGAGEMENT

- *City&Me*[8] is a mobile application and digital platform that empowers citizens to engage with their local communities through interactive features including two-way communication, issue reporting, community decision-making, and eco-friendly challenges
- The app enables users to report local problems directly to relevant institutions, take part in polls and votes, and receive rewards (tokens) for daily "green" activities such as walking, cycling, and recycling that can be exchanged for goods, services, or community benefits, all via an intuitive mobile interface









Source: https://interreg-danube.eu/projects/be-ready

City&Me allows citizens to be active participants in shaping their living environment by facilitating **transparent dialogue and civic action**. Through the app, users can easily report neighborhood problems, participate in community surveys and local decision-making, and communicate with building managers and municipal institutions. The platform motivates sustainable behaviors by rewarding users with digital tokens for environmentally positive activities, strengthening civic engagement and collective problem-solving. By connecting everyday actions with tangible community outcomes, *City&Me* demonstrates how digital tools can support inclusive participation and co-creation of solutions in urban contexts, including public open spaces in multi-family neighbourhoods.

[8] More about the tool at: https://cityandme.app/; Picture source: https://play.google.com/store/apps/details?id=com.cityandme&hl=sr&pli=1

A sports field recreated with the participation of residents in a multi-family housing estate along Bulevar Nemanjića, Niš.
Source: Ivana Bogdanović Protić

PARTICIPATORY PLANNING FRAMEWORK: MATRIX (TOOL GROUP → DOMAIN → EXAMPLE TOOLS)

Tool Group/Function	PLANNING (Analytical → Adoption)	DESIGN	IMPLEMENTATION
Information / Education	Community Meeting [In/E, F, Me] Public Advertising [In, F, M] Letters & Email Notifications [In, F, Me]	Info Point [In/E, F/I, Me] Exhibition Panels [In/E, F, Me] Guidebooks & Manuals [E, F, Me]	Info Point [In/E, F/I, Me] Dissemination Materials [In/E, F, M] POS Typology Guides [E, F, Me]
Consultative	Survey [I/In, F, Me] Focus Group [E/I, F/I, Me] Stakeholders' Mapping [I, F, M]	Survey [I/In, F, Me] Public Consultation [I, F, Me] Public Insight [E/I, F/I, Me]	Survey [I/In, F, Me] Public Consultation [I, F, Me] Round Table [E/I, F/I, Me] Street Audit [E/I, I, µ]
Collaborative / Co-creation	Community Workshop [E, F/I, Me] World Café [E, I, Me]	Community Workshop [E, I, Me] Participatory Mapping [E/I, F/I, Me] Design Charrettes [E/I, F/I, Me]	Community Workshop [E, I, Me] Urban Games [E/I, I, µ] Open Space Technology [E/I, I, Me] Feedback Loops (World Café) [E/I, I, Me]
Digital / E-participation	E-participation Platforms (CitizenLab, Bang the Table) [I/E, F, M] Participatory Mapping Platforms (Maptionnaire, PublicInput) [E, F, Me]	E-participation Platforms [I/E, F, M] Participatory Mapping Platforms [E, F, Me] 3D Visualization Tools (UrbanFootprint, CityScope, SketchUp + VR/AR) [E, F/I, Me]	E-participation Platforms [I/E, F, M] Participatory Discussion Platforms (Pol.is, MindMixer) [I/E, F/I, Me] Participatory Budgeting Platforms (Balancing Act, Decidim) [I/E, F, M] Urban Games [E/I, I, µ]

Legend:
Support: Institutional (I), Educational (E), Informational (In); **Mode**: Formal (F) / Informal (I); **Scale:** Macro (M), Meso (Me), Micro (µ)

GUIDELINES FOR IMPROVING THE IMPLEMENTATION OF URBAN PLANS AND PROJECTS IN SERBIA

CONCEPTUAL FRAMEWORK FOR THE IMPLEMENTATION OF URBAN PLANS AND PROJECTS

The implementation of the urban plan represents one of a key phases in the planning process, translating visions, strategies, and planning solutions from the adopted document into concrete actions that shape physical and social space. It is the action-oriented stage of planning, which involves not only the construction of the planned land use developments but also the establishment of procedures and mechanisms necessary to realize the plan after its adoption. The traditional understanding of the relationship between planning and implementation viewed it as a straightforward, linear sequence—beginning with surveys and evidence collection, followed by policy formulation, and concluding with implementation (UN-Habitat, 2009). In reality, however, the process is far more complex. Successful implementation requires thinking about execution from the very beginning of the plan and relies on strong political will and leadership, appropriate partnership of all relevant stakeholders, as well as three key components: 1) enforceable and transparent legal framework, 2) thoughtful and flexible urban planning and design, and 3) a financial plan that ensures affordability and cost-effectiveness (UN-Habitat, 2015). The implementation process includes the establishment of specific mechanisms and arrangements (legal, financial, institutional), formation of project teams, project management and planning control mechanisms. Implementation is a continuous and often iterative process that requires constant monitoring and evaluation in order to enable periodic adjustments and ensure that the capacities (human, financial, institutional) at all levels are sufficient to perform the tasks (UN-Habitat, 2015).

In the context of Serbia, the implementation process is primarily governed by the Law on Planning and Construction. This law defines the hierarchy of plans (from national to local), the procedures for their creation, and the instruments for their implementation. However, this stage of planning process in Serbia has often been problematic due to outdated or inappropriate plans, illegal construction, unresolved land ownership issues, or similar factors (Šoškić et. al, 2022).

Life Cycle of Implementation

The implementation process can be conceptualized as a life cycle comprising distinct yet overlapping phases: preparation, execution, monitoring and evaluation, and management and maintenance phases. Each phase has its own set of procedures, legal requirements, and actors.

Figure 2. Life Cycle of Implementation
Source: Milica Ljubenović, author of the text and concept; illustration generated using an AI tool (OpenAI)

Preparation Phase

The preparation phase involves all preliminary steps needed before the execution of a plan begins. In Serbia, the procedure for drafting, adopting, and approving a plan includes the following steps: 1) Initiative for plan preparation, 2) Adoption of the Decision on plan preparation, 3) Preparation of materials for early public review, 4) Early public review, 5) Drafting of the plan, 6) Expert review, 7) Public review, 8) Plan adoption.

The first step in the urban planning process is the **initiative** to prepare a plan, which can be launched by either the public or private sector (Stajić et al., 2016). The initiative is submitted to the competent local authority (Department of Urban Planning), which forwards a proposal for plan preparation to the Planning Commission. The city or municipal assembly then **adopts the official decision** to prepare the plan. Following this decision, the plan developer prepares materials for the **early public review**, which lasts at least 15 days and provides the first formal opportunity for all interested stakeholders to submit written comments and suggestions.

After the early public review and the preparation of its report, the plan developer works on a **draft plan**, containing all legally required elements at the appropriate level of detail. Once the Planning Commission completes its expert review, the draft plan is subjected to a formal **public review** period. Afterward, the Commission holds a public hearing to discuss submitted comments and adopts final positions at a closed session. After the public review is concluded and any necessary revisions are made, the final draft is submitted to the competent assembly for formal **adoption**. Upon adoption, the plan becomes a legally binding act.

The preparation phase also includes other necessary legal, financial, and land-management prerequisites to execute the plan.

Execution Phase

Once a plan is adopted, the execution phase translates its regulations into specific construction projects. The implementation of an urban plan is formally defined in the plan's written documentation, accompanied by corresponding graphic representations. Implementation may occur through **lower-level planning documents**, an **urban design project**, an **architectural-urban design competition**, or **directly** (Stajić et al., 2016). Implementation through lower-level planning documents or urban projects is typical for higher-level plans, where the level of detail is insufficient for issuing location permits, or when the area in question requires further elaboration due to its significance within the broader planning framework. The General Urban Plan (GUP) is implemented through the Plan of General Regulation (PGR), which identifies zones for direct implementation as well as areas requiring the preparation of Plans of Detailed Regulation (PDRs) or urban-technical documents, such as urban design projects or land subdivision projects, before location conditions can be issued. Direct implementation involves issuing location information and location permits.

In Serbia, the process of obtaining permits operates as a unified procedure through a centralized digital system, the Central electronic register of unified procedures. An investor's first step is to obtain **location conditions** based on a conceptual solution. This document defines all key urbanistic parameters, technical and other requirements for the preparation of the conceptual project, the project for the building permit, and the project for execution.

The investor formally applies for a building permit through the unified procedure, submitting the project for a **building permit** along with proof of property rights and required evidence prescribed by the regulation that more closely regulates the procedure for implementing the unified procedure. If all formal conditions are met, the authority issues the building permit.

The investor must submit a **formal notification of works** to the authorities, specifying the contractor and the project timeline.

The digitalization of the permitting process through the unified system was introduced in order to shorten the procedure for obtaining a building permit. However, the system's overall efficiency depends on the timely and accurate input from various "holders of public authority," such as utility companies, heritage protection institutes, and environmental agencies, which must provide their specific conditions. The Law on Planning and Construction includes provisions for penalties; however, this is not implemented in practice (Nikolić et al.,

2021). Since the charges would have to be covered from the state budget, it is not in compliance with the interests of local government.

For a significant number of construction works that do not involve the construction of a new building but exceed the scope of regular maintenance, the Law on Planning and Construction provides a special, simplified approval procedure. Instead of obtaining a building permit, an **approval for the execution of works** is issued (Article 145). The types of buildings and works covered by this procedure are defined by the Rulebook on special types of buildings and works for which no act of the competent authority is required. These include, among others: landscaping, paving/asphalting of squares, markets, and promenades; construction or installation of fountains, stairways, ramps, access paths, passages, and accompanying installations on public areas and land in public use; as well as reconstruction, adaptation, and investment maintenance. Instead of submitting a building permit project, the investor is required to provide a **conceptual design** or, depending on the type of work, a **technical description** and a list of works. In addition, proof of the appropriate right to the building or land must be submitted.

The Rulebook also defines a specific category of works for which **no formal act** of the competent authority is required. These are minor interventions that, due to their small scale and negligible impact on safety, stability, and the environment, may be carried out freely. For public open spaces, this category notably includes routine maintenance, pedestrian paths, urban furniture (benches, etc.), playgrounds, and greening.

However, the law does not provide clear criteria for distinguishing between concepts such as regular maintenance and investment maintenance. This ambiguity leaves room for subjective interpretation by municipal authorities. In the context of political pressure and investor interests, the choice of procedure may become a political or economic decision rather than a purely technical one. Such legal ambiguities represent a fundamental source of conflict in urban development.

Furthermore, this accelerated procedure, which stipulates a five-working-day deadline for issuing the approval, in practice effectively prevents any meaningful public review or participation in relation to major reconstruction projects. This means that a project capable of significantly altering the character of a public open space may be approved before the local community even becomes aware of its full scope, directly contributing to public distrust.

Monitoring and Evaluation Phase

Theoretically, monitoring and evaluation should be regarded as an opportunity to learn about the effectiveness of the planning process and enhance decision-making capacity, and they should

be undertaken throughout the planning process (UN-Habitat, 2018). However, monitoring and evaluation of plans and their implementation is the weakest link of urban planning in Serbian planning practice (Đokić et al., 2023).

At the project level, compliance is monitored through two primary mechanisms. The investor provides **expert supervision** to oversee the quality of work and ensure adherence to the technical documentation. Concurrently, the state's **urban inspection** supervises the implementation of the law and the plan.

At the macro level, according to the Law of Planning and Construction, changes in conditions in space should be tracked through national information systems. At the local level, the competent authority of the local self-government unit establishes a local information system of planning documents and the state of the area. However, this system is not yet established (Kekić, 2025).

On the other hand, the Law does not define any procedure for monitoring and evaluating urban plans (Đokić et al., 2023). There is no designated institution, no required scope or timing of monitoring, and no clear outputs – the type and availability of data. The effectiveness of the plan implementation is measured exclusively by the number of permits issued, without any consideration of the actual effects of plan implementation (Nova planerska praksa, 2024).

Although monitoring and evaluation are not formally regulated, legislation requires the inclusion of **urban indicators** in general and detailed regulation plans. They serve as the only mechanism for assessing how plans affect the environment, society, and economy. These indicators, if properly tracked, can reveal the broader consequences of urban development. In essence, planners are aware of the potential impacts of their plans, and such effects should play a central role in decision-making (Đokić et al., 2023).

Management and Maintenance Phase

The long-term success and sustainability of urban development depend on effective ongoing management. The management and maintenance of multi-family residential buildings and their associated public open spaces are regulated mainly by the Law on Housing and Building Maintenance.

Every building is required to form a **Homeowners association**, which functions as a legal entity composed of all unit owners. It is responsible for all decisions regarding the management and maintenance of common parts of the building, which includes the surrounding open spaces belonging to the land for the regular use of the building. The upkeep of these common open spaces is financed through a mandatory monthly contribution from all unit owners to a common reserve fund. However, there is a limited number of residential buildings in Serbia for which the land for regular use of the building has been determined, as

well as a small number of cases in which all unit owners in a residential building are also registered as co-owners of the land on which that building is located (Marković, 2022). This hinders the management and maintenance process.

The maintenance of areas of public use and public green spaces are considered a communal activities and they are regulated by the Law on Communal Activities and local regulations. **Public utility companies** are responsible for their ongoing management, cleaning, and repair. The Law on Communal Activities enables **public-private partnership** (PPP) for the maintenance of these areas, but in practice, it is almost never applied in Serbia.

Key Stakeholders and their roles

The implementation of urban plans in Serbia is a multi-actor process involving a complex network of public, private, and civil society stakeholders. Public sector – state administration at different levels and public institutions are responsible for regulation, oversight, and the direct implementation of public projects. The state (Republic of Serbia) sets the overarching legal framework. Local self-government adopts urban plans, issues permits (location conditions, building permit), collects the land development fee, funds/builds local public infrastructure, and prescribes the conditions and methods for maintaining areas of public use. These activities involve various stakeholders:

- The city or municipality assembly adopts the plan, and its expert body, the planning commission, performs expert control over the plan development process;
- Public urban planning enterprise prepares planning and technical documentation, although this job can also be done by a private company;
- Competent public institutions - utility companies, institutions for the protection of nature, monuments, and other provide conditions for development and protection measures, and later manage and maintain the built infrastructure (water supply, sewerage, roads, greenery); etc.

Private investors are the central private actors responsible for financing the entire process, securing all permits, and commissioning the designer, supervisor, and contractor. Their decisions are driven by market logic and profit motives, which can sometimes conflict with the broader social and environmental goals of urban plans. Actors from the private sector are also design and consulting firms that create technical documentation (projects) and provide professional services to investors, construction companies, and banks and financial institutions that provide lending and financial support to projects.

The civil sector includes individual citizens, local community initiatives, non-governmental organizations (NGOs), neighborhood and informal initiatives, and groups of citizens, experts who act independently of the government and the economy. Their formal role is exercised through the public review mechanisms during the plan preparation phase. In practice, their influence is often limited, but they frequently raise awareness about development issues and advocate for community interests.

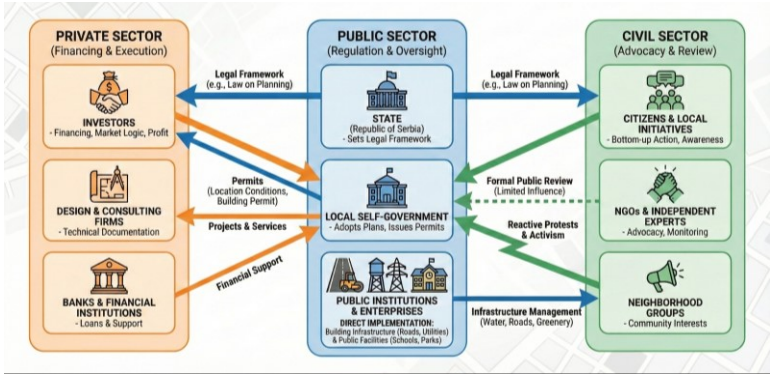


Figure 3. Stakeholders and their roles
Source: Milica Ljubenović, author of the text and concept; illustration generated using an AI tool (OpenAI)

Financing Models and Resources

The successful implementation of any urban plan depends on a sound financial basis that covers both initial investments and long-term running costs (UN-Habitat, 2018). In Serbia, the financing of urban development and plan implementation is based on a combination of public funds, international financing, and various private investment models.

Local self-governments are the primary funders of local public infrastructure. By the Law on Local Self-government Financing, their budgets are composed of own-source revenues, which include property taxes, local administrative and communal fees, and revenues from leasing public property. A key financing instrument is land development fee (*doprinos za uređivanje građevinskog zemljišta*). It is a mandatory fee paid by a private investor before obtaining a building permit. The fee's amount is based on the location (zone) and size of the future object. This revenue is used for financing the land development program (communal infrastructure). Local self-governments also receive financial transfers from the national budget to supplement their funding and support the execution of specific functions.

The European Union, through its Instrument for Pre-accession Assistance (IPA), provides grants that support local development, enhance competitiveness, and help align Serbia's planning and environmental standards with EU directives as part of the accession process. Serbia also collaborates with international financing institutions such as the World Bank, European Bank for Reconstruction and Development (EBRD), European Investment Bank (EIB), and Agence Française de Développement (AFD).

Public-Private Partnership (PPP) is regulated by the Law on Public-Private Partnership and Concessions, where the public sector forms a long-term partnership with a private company to deliver a public service or project.

Private Capital is the primary source for all private and commercial buildings, financed by developers, corporate capital, or bank loans.

Instruments and Mechanisms for Implementation

The implementation of urban plans is operationalized through various instruments and mechanisms designed to guide development from strategic vision to physical reality.

Legal Instruments

The Law on Planning and Construction is the primary legal instrument in Serbia, defining the entire system from plan-making to permitting and inspection. The legal framework is built upon a clear hierarchy of planning documents, in a way that the lower-order plan must be consistent with the higher-order plan. Urban plans prescribe the rules and parameters that regulate the physical structure and its use. These rules represent the main tool for implementation, and based on them, location conditions are issued. Bylaws and regulations, such as the Rules on the Content, Method, and Procedure of Creating Spatial and Urban Planning Documents, further define the content of plans, technical standards, procedures for technical inspection, and so on. There are also other laws, such as the Law on Environmental Protection, the Law on Cultural Heritage, the Law on Housing and Building Maintenance, and other regulations that influence planning and construction. Legal instruments are also various documents necessary for implementation, such as location conditions, building permits, and decisions on parceling / pre-parceling.

Once an urban plan is adopted, a series of legal and financial instruments are used to prepare the land for construction. These are crucial for implementing the plan and are typically managed by the local self-government. Local self-government makes the Decision on construction land to define construction land, conditions, procedure, and method of alienation and leasing of undeveloped and developed construction land in public ownership. Local self-government also adopts a Program of land development, an annual operational program that specifies locations that will be equipped with infrastructure (streets, water, sewage), funding, and construction deadlines. By the Law on Planning and Construction, local authorities and investors can sign a contract on joint preparation, i.e., equipping construction land, which legally binds the investor to implement the planned facilities.

There are also legal tools used for land preparation and assembly, used to resolve property relations to enable the implementation of a plan, especially for projects of public interest. The legal power of the state to acquire private land for declared public interest projects defined in the plan, in exchange for fair market compensation, is conducted through expropriation, for which conditions are determined by the Law on Expropriation. The Law on Planning and Construction also foresees land readjustment for reorganizing fragmented, privately-owned parcels in an urban area. However, although there are an increasing number of cases of practical implementation of land readjustment in Serbia, it still faces numerous issues (Šoškić et al., 2022).

Technical Mechanisms

The Law on Planning and Construction mandates specific urban-technical documents for implementation. These include the **urban design project** and **land subdivision projects**. They serve to detail and operationalize the rules of an urban plan for a specific investment.

Technical mechanisms also include informational systems for plan implementation. The **Central electronic register of unified procedures** is a digital platform that serves as a key technical mechanism for managing the permitting process, aiming to increase its speed.

Accurate technical implementation requires current maps and data. In Serbia, outdated cadastral information has been identified as a major obstacle for the planning process (Šoškić et al., 2022). For the purpose of monitoring the spatial situation, the Law on Planning and Construction provides for the establishment of a national information system for planning documents and spatial conditions, in accordance with the principles of the INSPIRE Directive, within the digital platform of the National spatial data infrastructure. However, although the legal framework has been partially established, the system is not yet fully operational. The completion of the entire E-Space project is planned for 2028, while the development of the Central register of planning documents is planned for 2025 (Kekić, 2025). Geographic Information Systems (GIS) will become mandatory for plan making starting in 2028, which should facilitate the monitoring of spatial development trends and the implementation status of plans. While the full operationalization of this information system is a long-term goal, it represents a key technical mechanism for evidence-based policy evaluation.

Social Mechanisms

These mechanisms facilitate public involvement and negotiation, reflecting a more collaborative and communicative approach to implementation. Their success in practice, however, depends on the political will to genuinely incorporate

public input. Public participation in Serbia is formalized through the early public review and public review stages. Although legally mandated, research shows that Serbian public consultation is often too late or superficial to truly influence outcomes (Čolić & Dželebić, 2018).

The Law on Local Self-Government prescribes the forms of direct participation of citizens in the implementation of local self-government, which include citizens' initiative, citizens' assembly and referendum. Through this formally defined participation, citizens can participate in the implementation activities through bottom-up actions. After the establishment of a legal framework for the development of civil society, since 2010, there was an expansion in the number of established citizens' associations, some of which focus on social, environmental, economic and other issues of importance to their local community (Spasojević, 2021).

Despite the existence of these formal mechanisms, there is a widely recognized gap between the planning framework and its effective implementation (Čolić & Dželebić, 2018). The procedures are often perceived by the public as a mere formality rather than collaborative decision-making. Some of the key reasons for this include a lack of timely and easily understandable information, overly bureaucratic procedures, and a deep-seated public mistrust of planning institutions and their intentions (Perić and Miljuš, 2017). The planning culture in Serbia has been described as lacking a strong tradition of deliberation and mediation, which are central to collaborative planning models in many other European countries.

The absence of meaningful and effective participation, as well as the failure to build consensus during the formal planning stages, more and more often leads to a "reactive" form of citizen engagement through protests and activism when construction becomes imminent.

IMPLEMENTATION MODELS, PATTERNS AND KEY BARRIERS

Introroduction

The implementation framework for public open space (POS) development in Serbia consists of two different but yet interrelated analytical layers: **implementation models** and **implementation patterns**.

Implementation models reflect the dominant governance logic and actor configuration through which POS development is pursued. They explain who leads the process, how decisions are made, how power and responsibility are distributed, and how POS outcomes are produced under different institutional, market, and civic conditions.

Implementation patterns refer to modalities and operational pathways that explain how the implementation of POS-related development happens in practice, regardless of who governs it. They describe the procedural pathways and instruments across planning, design, delivery, use, and maintenance.

In practice, each governance-based implementation model can operate through different procedural patterns of implementation, while the same pattern may appear under different governance models. Together, they form a coherent, multi-scalar **implementation framework** linking governance, instruments, and operational phases.

The following diagram explains how models and patterns relate to each other in the process of delivering and sustaining POS.

Implementation models (governance regimes)

↓ *shape and condition*

Implementation patterns

↓ *structure procedural pathways through*

Urban planning and design documents
Programmatic documents
Operational mechanisms

↓ *produce*

POS outcomes and long-term performance

POS in Mileva Marić Anštajn neighbourhood, Belgrade
Source: Jelena Živković

Implementation Models in Serbia

The implementation of urban plans, projects and programs for public open space development in Serbia follows several recurring governance logics shaped by inherited planning traditions and evolving post-socialist practices. Accordingly, the following implementation models are identified across Serbian cities:

1) **Institutionally coordinated managerial implementation model** (rational-comprehensive planning and institutional governance), characterized by public ownership of land, architectural competitions, professional oversight, and relatively successful translation from planning to realization;
2) **Formal top-down, authority-led implementation model with weak enforcement** (planning–implementation gap and governance failure), where plans exist but are inconsistently implemented due to fragmented responsibilities, limited decision-making capacity, and weak municipal enforcement;
3) **Investor-led, market-driven implementation model** (neoliberal urban governance with formalized participation), featured in post-socialist residential developments**,** where POS is treated as residual space, resulting in fragmented, low-quality, and poorly accessible open areas;
4) **Pro-active bottom-up civic implementation model within partly collaborative planning practices** (multi-actor collaborative governance networks and context-specific deliberation), where citizens initiate or co-create POS improvements, which may align with municipal goals depending on institutional openness and individual goodwill;
5) **Re-active civic implementation model** (post-decision contentious participation), where residents mobilize to protect POS from inappropriate development, using protests and activism as substitutes for deliberative planning, and as mechanisms for reshaping public discourse on social justice;
6) **Private-sector–led experimental implementation model outside the formal planning system** (governance with pilot projects based on corporate social responsibility), featuring small-scale interventions initiated by private companies in partnership with stakeholders, focused on innovation, visibility, and awareness rather than systemic change;
7) **Ad hoc project-based implementation model** (fragmented delivery without strategic governance), featuring isolated NGO- or donor-led interventions, limited to physical repairs or visual upgrades, lacking strategic continuity, coherent municipal policy, and meaningful citizen participation.

The established implementation models are illustrated below for the four selected cities, reflecting Serbia's incoherent implementation framework.

In **Belgrade**, the redevelopment of POS within modernist large housing estates (LHEs) demonstrated partial success where institutional frameworks, competitions, and professional knowledge are integrated into implementation processes. In a new post-socialist development for social and non-profit housing on public land, the existence of public architectural competitions and professional oversight have proven effective in maintaining design quality and upholding public interest. Such cases from the capital city demonstrate that regeneration is feasible, and the process can produce measurable improvements in physical quality, functional amenity and resident satisfaction (Bogdanović Protić, 2020). Citizen engagement in POS (re)development ranges from pro-active bottom-up initiatives aligned with local government visions, to re-active actions in which residents collectively mobilize to protect the space from privatization and inappropriate development. Implementation experiences have ultimately reinforced pro-active civic involvement in shaping and safeguarding POS. As a large urban centre, Belgrade benefits from stronger governance structures, administrative and professional capacities, compared to other cities that face deeper structural constraints**.**

In **Niš**, inconsistencies between adopted urban design projects for POS redevelopment and their actual realization point to weak enforcement and fragmented responsibilities among municipal departments. The authorities' approach has led to a missed opportunity to harness the full potential of POS in the regeneration of inherited LHEs. Post-socialist residential development on the other hand illustrates a typical investor-led pattern of open space treatment, where weak standards and fragmented block-by-block construction produce discontinuous, low-quality, and often informal open space. POS emerges as leftover space rather than planned public infrastructure, resulting in undeveloped areas, improvised parking, and limited public accessibility (Dinić Branković et al., 2026). Land swaps organized to preserve POS corroborates that public interest can be achieved with sufficient goodwill from local authorities to compensate the investors. From the perspective of citizen engagement, the process lacks inclusiveness, trust, and effective collaboration between authorities and the community, often leading to dissatisfaction with the outcomes, re-active forms of participation, and overall inefficient implementation.

In **Leskovac**, a third-tier Serbian city, POS regeneration efforts in existing LHEs are often limited to physical repairs or visual improvements, without integration into broader strategic frameworks for POS development. Local administrations often depend on project-based or donor funding, which restricts the continuity of maintenance and citizen engagement. Implementation of plans with significant POS restructuring, resulting from a sequence of planning and administrative decisions that favour private development over public interest, also triggers re-active forms of participation, including civic mobilization and protests. Inspired by Niš's example, the citizens of Leskovac strive for the same model solutions to limit investor-led market-driven models and preserve POS. These actions have raised awareness of the importance of inner-block greenery and play areas, shifting the focus from defending particular sites to promoting a broader, socially just and sustainable vision for POSs.

The case of **Bor**, a post-industrial city with extensive mono-functional housing districts built for mining workers, further corroborates systemic weaknesses. From the perspective of POS regeneration, urban planning is characterized by somewhat inconsistent and top-down implementation, and poor realization of planning goals. While some small-scale pilot initiatives, such as greening projects and playground rehabilitation led by local NGOs have emerged, they remain isolated and lack institutional follow-up or scaling mechanisms. This model exemplifies implementation without governance, where success depends on individual initiative rather than coherent municipal policy. Citizen participation in POS-related urban planning processes has been formal and limited, leading to residents' dissatisfaction.

Belgrade and **Niš** also showcase a private-sector–led POS regeneration of small scale, realized as part of the nation-wide project introducing Nature-based Solutions into public space, emphasizing innovation and awareness-raising. The initiative was implemented through a corporate social responsibility framework rather than by municipal planning policies, and realized through partnerships with an NGO and academia. Examples from large and mid-size cities, **Belgrade** and **Niš**, demonstrate that POS interventions are typically initiated by local authorities or higher administrative levels, with limited continuity between planning and realization phases, while smaller municipalities like **Leskovac** and **Bor** depend largely on ad hoc interventions. These disparities mirror trends across post-socialist Europe, where governance reforms and capacity building remain incomplete, and local governments face persistent institutional and financial limitations (Tsenkova, 2014; Roberts & Sykes, 2000).

POS in the neighbourhood along Saint Panteleimon Boulevard, Niš
Source: Milena Dinić Branković and Jelena Đekić

Implementation Patterns in Serbia

In the context of urban planning and governance, the implementation related to POS is understood as a multi-layered process encompassing instruments and stages through which plans, projects, and programs related to POS are translated into physical space. Implementation patterns relating to POS development reflect implementation pathways, which include planning, design and programming documents, as well as the operational phases of physical realization and maintenance. They link planning, design, programmatic, and operational levels, highlighting the continuity between strategic visions, design process, spatial realization, use, and long-term management of POS.

In line with the aforementioned, the following patterns of POS-related implementation, applicable across all established governance models, are identified in Serbia:

1) **Planning and design implementation patterns**
   These reflect the formal instruments through which implementation is initiated and structured, involving:
   - **Implementation of urban plans that include public open space**, implying direct execution of adopted planning solutions in implementation-type plans, such as the *Plan of General Regulation* and the *Plan of Detailed Regulation*,
   - **Implementation of urban design projects that include public open space**, which specify and operationalize planning solutions at a concrete site.

2) **Programmatic implementation patterns**
   These involve the implementation of programs and a set of recurring programmatic activities that produce “soft” forms of intervention, such as pilot actions and program-based activation of POS. They emphasize the process and use by focusing on activation, management, and everyday social practices in POS, rather than on permanent physical transformation or construction.

3) **Project-based implementation patterns**
   These represent a mode of POS-related implementation in which interventions are delivered through discrete, time-limited projects, each treated as a stand-alone intervention. They are often initiated by NGOs, private actors, donors, or ad hoc municipal initiatives, and funded externally, without strong integration into long-term planning frameworks, governance structures, or maintenance systems.

While the above implementation patterns describe different pathways through which POS-related plans, projects, and programs are initiated, the **implementation phase of public open space development** refers to the operational stage common to all patterns. This phase represents the integrated

delivery and post-delivery stage in which already adopted plans, approved projects, or defined programs are carried into liveable POSs that are sustained over time. It involves:

- **Physical realization of planned and designed interventions,** including construction works and spatial arrangement of POS in the execution stage,
- **Long-term use and maintenance of POS,** implying operational and management phase that follows delivery, covering everyday upkeep, regulation of use, safety, and adaptive management mechanisms required to preserve functionality, spatial quality, and social value over time.

In addition to formal implementation patterns, empirical evidence sometimes points to an informal, emergent pattern of POS realization, whereby POS is incrementally shaped through spontaneous user practices and everyday appropriation. While such arrangements can generate socially valued and functional spaces, they remain highly contingent, vulnerable to conflict or removal, and dependent on subsequent institutional recognition for long-term sustainability. Therefore, they are not considered in the formulation of guidelines in this Guidebook.

Procedural Pathways

Each implementation pattern structures specific procedural pathways through which plans and visions are translated into action. Procedures are carried out through plans, projects, programs, and operational mechanism: urban planning and design documents establish spatial and regulatory frameworks, development programs set priorities, funding, and sequencing, and operational mechanisms to deliver, manage, and maintain public open space (POS) on the ground.

The main documents that structure procedural pathways are elaborated below.

Urban planning and design implementation documents

Plan of General Regulation is mandatory for a settlement that serves as the seat of a local self-government unit, and it may also be adopted for other settlements within the municipality, city, or the City of Belgrade, when this is provided for by the spatial plan of the local self-government unit (Law on Planning and Construction, 2009). The Plan of General Regulation is the fundamental regulation plan that is directly implemented through the application of planning and construction rules across the entire scope of the planning document. In the context of POS development, the Plan of General Regulation establishes the regulatory framework for

the protection, use, and spatial organisation of POSs, thereby enabling their implementation directly, or through lower-level plans, subsequent programs, urban design projects, and operational mechanisms.

The Plan of General Regulation of Green Areas System is a strategic urban planning document used to systematically integrate POS into residential neighbourhoods. It provides a comprehensive framework for the development, management, and preservation of green spaces within urban areas, by strategically allocating green areas, integrating green spaces with urban infrastructure, incorporating ecological and social considerations, and establishing a regulatory framework. This document serves as a basis for preparing lower-level plans and concrete urban and landscape design solutions, so that new interventions are aligned with the overall green system. In practice, it helps to avoid the fragmentation of green areas, to introduce minimum standards (e.g. amount of green space per inhabitant), and to plan the phased implementation and maintenance of the green areas system.

Plan of Detailed Regulation is adopted for parts of a settlement, the development of informal settlements, urban renewal zones, infrastructure corridors and facilities, and areas for which the obligation to prepare such a plan has been determined by a previously adopted planning document (Law on Planning and Construction, 2009). For urban renewal zones, the Plan of Detailed Regulation specifically elaborates the composition or design plan and the landscape design plan. In the implementation of POS development, the Plan of Detailed Regulation provides a site-specific regulatory and design framework that enables the concrete realization, transformation, and upgrading of POSs by defining spatial layouts, land-use conditions, and design requirements at the scale of individual areas.

Urban Design Project is an urban-technical document that is prepared when provided for by a valid planning document or at the request of an investor, for the purpose of urban-architectural design of areas of public use and the detailed elaboration of sites (Law on Planning and Construction, 2009). In the implementation of POS development, it serves as a key intermediary instrument that translates planning provisions into site-specific, technically and procedurally implementable solutions, enabling the physical realization of POS.

Programmatic implementation documents

Local Operational-Development Program is a local-level document that translates formal strategic and urban plans into concrete actions for the implementation and management of POS. It defines priorities for land development, activities, responsible institutions, timelines, and resource allocation. It serves as an implementation

instrument to operationalize spatial, urban, or sectoral plans at a local or site-specific level, linking planning objectives with practical execution and monitoring. In the context of POS delivery, maintenance, and long-term performance of POS, it enables incremental, phased, or pilot-based interventions in line with governance regimes and available resources.

Action Plan is a time-bound, programmatic implementation document that structures the procedural pathway between statutory planning documents and operational mechanisms, enabling phased delivery, inter-institutional coordination, and alignment of planning objectives with available financial and organisational resources. It functions primarily as an institutional implementation instrument that organises responsibilities and procedures, while secondarily structuring financial and investment flows.

KEY BARRIERS TO IMPLEMENTATION

Serbian cities experience common issues in POS planning, design, realization and management. From the implementation perspective, inherited socialist LHEs feature well-planned and designed POSs accessible to everyone, developed as a necessary element of residential quality. On the other hand, new post-socialist developments often lack public character of their open spaces, showcase poor design, or even lack such spaces from the planning phase, thus reflecting grave implementation issues. Inadequate planning standards related to POS and their implementation in design and practice, as established in research (RePOS Deliverable 2.4.), overburden the existing neighbourhood level POSs. When it comes to POS management, both newly developed open spaces and socialist legacy POSs face the same problems of maintenance quality and overall neglect. These issues are further exacerbated by re-active communication with local institutions, often rooted in non-transparent procedures and limited citizens involvement. Therefore, the reshaping of existing POSs or poor provision of new POSs can lead to reactive activities of citizens towards planning and design solutions that threaten to reduce their quality of life.

The obstacles to successful implementation of POS regeneration projects in Serbia can be categorised under **legal/institutional, financial, social/participatory** and **operational/maintenance** domains.

Legal and Institutional Barriers

The legacy of centrally-planned, state-led urban development has left a planning culture where formal documents exist but enforcement and follow-through are weak. The transformation to decentralised and participatory planning has been gradual and incomplete. **Non-transparent planning process** reflects institutional shortcomings in governance, decision-making, and regulatory procedures, thereby directly reducing the quality of outcomes in POS (re)development. **Lack of reliable forms and procedures for informing citizens** about planning documents related to their neighbourhood indicates deficiencies in formal institutional frameworks and communication mechanisms, undermining trust and meaningful engagement. **Short and low-visibility public review procedures** further weaken transparency and accountability. A major obstacle for POS (re)claiming is the often-complicated ownership and legal status of the plot(s) serving as public open space, which limits both

regeneration and new construction. Vague and non-context-specific POS standards in urban planning documents lead to inconsistent interpretations, revealing institutional and legal deficiencies that affect design, implementation, use and long-term maintenance of POS. Unclear accountability and overlapping institutional competences stem from insufficiently defined municipal responsibilities for monitoring POS realization and maintenance, and coupled with inadequate planning frameworks make it difficult for residents to understand decision-making processes or identify responsible actors. Weak regulatory control is rooted in the lack of binding legal instruments, such as mandatory design audits or performance-based contracts, which ensure POSs are implemented and maintained in line with planned standards.

Financial Barriers

Realization of POS, and especially the long-term POS maintenance, is frequently under-funded, postponing the implementation of planned non-profit spaces indefinitely. Local municipal budgets are often constrained regarding both staffing and resources, and external financing is project-based rather than continuous. Even when measures are identified, their application is inhibited by economic and organisational conditions, particularly in medium-sized and smaller cities (Bogdanović Protić et al, 2020). Although municipal funding of POS project is a major constraint, the unresolved ownership issues over POS, and the absence of phased implementation plans further prevent financial resources from being effectively utilized in POS delivery. Moreover, the growing financialization of urban development in post-socialist Serbia (Zeković et al, 2025) has increased dependence on private investment and market-driven priorities, often pushing smaller-scale communal amenities to the margins.

Social and Participatory Barriers

Residents' involvement in planning, and especially in the maintenance of POS in Serbia, remains limited. Participatory planning is frequently perceived a formal requirement rather than a genuinely empowering process (Čolić & Dželebdžić, 2018). Re-active participation and mobilization of residents against POS restructuring in the planning, design and implementation phases point to weakly organized and insufficiently institutionalized mechanisms for citizen involvement. Research also corroborates that poorly structured participatory mechanisms and low transparency leave residents insufficiently informed, resulting in limited and largely symbolic citizen involvement, which has little real influence on decisions (RePOS Deliverable 3.1.). Inadequate communication between citizens and municipal institutions reduces dialogue and effective feedback, weakening the support for POS projects. The absence of inclusive and continuous stakeholder collaboration and limited influence of citizen feedback provoke the lack of

trust in institutions. This is further reinforced by poorly developed maintenance culture and behavioural issues in many LHEs, such as lack of community stewardship, passive usage, and vandalism. Low awareness of residents in smaller cities regarding POS roles, standards, and good practices contribute to poor residents' engagement, and consequently, the quality of POS. Without resident ownership and continuous involvement, POS realization and long-term sustainability are at risk.

Operational and Maintenance Barriers

Implementation is often undermined by the absence of a clear operational framework for POS delivery. Moreover, POS-related implementation does not stop once construction is completed. On the contrary, long-term performance depends on ongoing monitoring, responsive maintenance, and continuous community engagement. In Serbian practice, however, follow-up mechanisms are rarely institutionalised, and many projects effectively end at the completion of works, as found in research (RePOS Deliverable 3.2.). Without clear provisions for long-term management, poor maintenance practices occur. Although rooted in institutional domain, insufficiently clear POS standards also generate operational challenges that affect day-to-day functionality and long-term maintenance. These include the lack of basic amenities, safety and hygiene, as well as conflicts in space use. Poorly structured management of everyday use, safety, and upkeep reduces the long-term value of POS. Improper use of POS, including informal or repurposed POS and conflicts with parking, challenge long-term sustainability of these spaces. The lack of dedicated coordination bodies or liaison units further weakens continuity and accountability in POS management.

Overcoming the Barriers to POS-related Implementation

Strategic measures that combine institutional reforms, legal enhancements, participatory management, educational activities, strengthened technical capacities, diversified funding options, and manifold incentives are advised to guide POS-related implementation, in order to create vibrant, inclusive, and sustainable urban environments. In line with that, the following section sets out a series of guidelines aimed at improving the implementation framework for POS development in Serbia.

POS in Novi gradski centar neighbourhood, Bor
Source: Milica Ljubenović and Danijela Milanović

GUIDELINES FOR IMPROVING IMPLEMENTATION

The implementation guidelines are structured according to the **areas they address** and the **phases of implementation**.

Based on the areas they address and the mechanisms through which they contribute to improved implementation, the guidelines and measures are classified into three main groups. The first group comprises the *Guidelines for improving institutional framework*, which focus on strengthening institutional capacities, enhancing inter-institutional cooperation, and optimizing organizational structures. The second group includes the *Guidelines for improving legal and regulatory framework*, aimed at harmonizing regulations and ensuring clearer procedures for the implementation of planning solutions. The third group consists of the *Guidelines for financing and incentives*, which seek to improve financing mechanisms, develop incentive systems, and mobilize public and private funding sources to enable the effective implementation of planned activities.

The classification according to the implementation phase distinguishes two main stages: **the delivery phase** and **long-term management and maintenance**. The delivery phase encompasses all activities related to the preparation, coordination, and execution of planned measures and projects, including institutional arrangements, regulatory procedures, financing mechanisms, and on-the-ground implementation. This phase focuses on translating planning solutions into concrete actions and ensuring their timely and effective realization.

The long-term management and maintenance phase refers to the period following implementation and includes activities related to monitoring, operation, maintenance, adaptation, and continuous improvement, as well as the allocation of responsibilities and resources necessary to preserve achieved outcomes over time.

Within the guidelines, a set of measures is defined to support their effective implementation. The type of measures is specified in the adjacent column (institutional, organizational, educational, informational, legislative, regulatory, financial and incentive). The final column identifies groups of tools intended for the implementation of the proposed measures. This column is linked to the *implementation tools*.

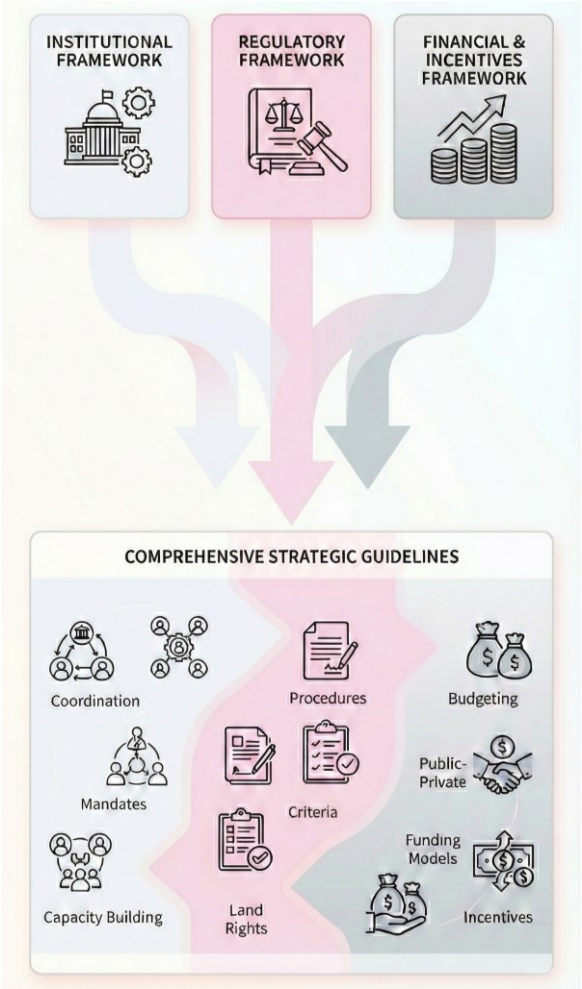


Figure 4. Conceptual framework of the implementation guidelines
Source: Milica Ljubenović, author of the text and concept; illustration generated using an AI tool (OpenAI)

LEGEND			
Measure type		**Tools**	
INST	Institutional	INST/LEG	Institutional/Legislative
ORG	Organizational	FIN/INV	Financial/Investment
EDU	Educational	ECON	Economic
INFO	Informational	DCM	Digital Collaboration/Monitoring
LEG	Legislative	EDU/INFO	Educational/ Informational
REG	Regulatory		
FIN	Financial		
INC	Incentive		

GUIDELINES FOR IMPROVING INSTITUTIONAL FRAMEWORK

Guidelines and measures	Measure Type	Tools
I. Delivery phase		
Establish institutional leadership at the local level and foster inter-sectoral collaboration		
▪ Designate a **central coordinating institution** (e.g., city planning office, public agency or newly established body) with the mandate and capacity to lead inter-sectoral cooperation in the field of POS and with the authority to: a) coordinate activities between sectors; b) monitor implementation and evaluate outcomes and c) provide consolidated information to stakeholders ▪ Clearly define **roles and responsibilities** – clarify which institutions are responsible for implementation, and which for monitoring and reporting ▪ Ensure the **mutual alignment of sectoral action plans** ▪ Establish **regular channels for communication and collaboration** between public institutions regarding implementation activities ▪ Use **pilot projects** to test and showcase inter-sectoral collaboration and to clarify administrative procedures (especially for private or civic initiatives)	INST ORG	INST/LEG DCM FIN/INV
Define implementation strategies and action plans		
▪ Develop an **action plan** for POS development that clearly defines short-, medium-, and long-term priorities, responsible stakeholders, implementation timelines, funding sources, and mechanisms for post-implementation monitoring ▪ Ensure that the action plan serves as a prerequisite for automatic inclusion in **annual budget allocation**	ORG	INST/LEG
Facilitate knowledge and resource sharing		
▪ Create an **internal knowledge hub** with access to shared documents, maps, datasets, and project reports for all actors involved	EDU	DCM

Improve the transparency of the implementation phase as a part of the overall planning process		
▪ Establish reliable forms and procedures for **informing citizens** about planning documents related to their neighbourhood ▪ Provide **manuals** on implementation procedures, participants, financial sources, rights and obligations on the land	INFO EDU	EDU/INFO
I. Long-term management and maintenance		
Establish data management and planning systems		
▪ Develop and maintain up-to-date **POS cadastres** integrated with GIS and property registries, including spatial, functional, legal, and management data ▪ Create digital **maintenance classification map**s based on POS category and function to guide funding, frequency, and type of interventions ▪ Collect **maintenance data** specific to POS features, type, and management model	INST	DCM
Form a management structure and maintenance control for different POS types		
▪ **Residents/Homeowners association** – building-oriented POS and parking ▪ **Co-management** (local self-government, developers, socially responsible companies, non-governmental organizations, civil society, homeowners associations), secured with management agreements, with clearly defined roles in funding, maintenance, programming, and dispute resolution – common POS ▪ **Local self-government** – neighborhood POS, mobility POS and greenery POS	ORG REG	INST/LEG EDU/INFO
Monitoring and evaluation of various implementation models of POS		
▪ Establish a **monitoring and evaluation framework** that defines key performance indicators and provides mechanisms for tracking progress and adjusting implementation as needed ▪ Include **real-time monitoring** of environmental quality (air, noise) and green coverage as part of planning performance indicators — especially in multi-family residential areas ▪ Implement **post-occupancy evaluations** of newly developed or renovated POS in multifamily housing areas to gather direct feedback from residents on the usability, satisfaction, and overall impact of these spaces	ORG INST	INST/LEG DCM

GUIDELINES FOR IMPROVING LEGAL AND REGULATORY FRAMEWORK

Guidelines and measures	Measure Type	Tools
I. Delivery phase		
Clearly define the status of land and land rights in legal and regulatory terms		

▪ Determine the **legal status of the land** (e.g. land for regular use of the building) as well as the rights and obligations arising from them
▪ Address **unclear land property rights**:
  ▪ Transfer ownership from the state to local self-government units
  ▪ Convert usage rights into ownership rights
  ▪ Return ownership rights through restitution
	LEG
	INST
		INST/LEG

Establish clear land rights for POS in inherited LHEs from socialist past		
▪ Resolve **land ownership issues** over POS ▪ Update standing legislation to consider building surroundings when defining "**land for regular use of the building**", applying it to both land under and around buildings, housing built in an open system of spatial organization or in a residential complex	LEG INST	INST/LEG
Make the provision and preservation of POS a priority strategic goal in local regulations		
▪ Incorporate **the preservation and enhancement of POS within neighborhoods** into priority strategic programs, and define institutional, financial, and temporal elements for their implementation (in line with the SDG and current strategies related to urban greening, e.g., the 3-30-300 strategy, etc.). ▪ Incorporate **the provision of new POS** into priority strategic programs, and define institutional, financial, and temporal elements for their implementation. ▪ Include **the provision of POS on publicly owned land in transitional neighborhoods** among priority programs.	REG	INST/LEG

Define a legal framework for land-based financing		
▪ Incorporate **land value capture tools** into legislation – introduce instruments such as zoning incentive programs, density bonuses, development impact fees, transfer of development rights, tax increment financing to provide or fund public space ▪ Define regulatory mechanisms for the creation of **Privately Owned Public Spaces** (POPS) as a part of private land development through: a) incentives for developers, such as additional floor area in exchange for creating a (building-oriented) POS; or b) regulation requiring that POS (common and neighborhood) must be provided in relation to large land development	LEG FIN INC	INST/LEG ECON FIN/INV
Include specific POS conditions in location conditions and building permits		
▪ Include **specific conditions for POS** (provision, arrangement, accessibility, maintenance) in the process of obtaining a **building permit** (e.g., location conditions). For larger projects, financial guarantees or maintenance contributions may be required	REG	INST/LEG
Formalize obligations through land development agreements		
▪ Use **agreements** (e.g., agreement on joint preparation/equipping of construction land) to **define investor responsibilities** for POS provision and initial maintenance ▪ Clearly define the timeline, quality standards, the conditions and procedure for **transferring ownership of the built POS to the local government**	REG	INST/LEG
Define clear procedures for various POS implementation patterns		
▪ for **planning and design** implementation patterns ▪ for **programmatic** implementation patterns ▪ for **project-based** implementation patterns	INFO	INST/LEG
Introduce an obligation for periodic reporting on implementation progress by competent institutions		
▪ Adopt a binding decision for **regular reporting on implementation** of POS planning solutions, projects and programs	LEG	INST/LEG

I. Long-term management and maintenance		
Establish regulations for POPS usage and maintenance		
▪ Ensure legal agreements guarantee that POPS **remain open to the public** regardless of property ownership changes ▪ Define **maintenance standards**	LEG	INST/LEG
Introduce new governance models for POS into legislation		
▪ Institutionalize **Public-private-people partnership** (4P) programs ▪ Establish **Neighborhood Improvement Districts** (NID) development, with clear legal framework, including voting procedures and levies, especially for areas with mixed POS ownership	LEG	INST/LEG FIN/INV

GUIDELINES FOR FINANCING AND INCENTIVES

Guidelines and measures	Measure Type	Tools
I. Delivery phase		
Educate public administrations and decision-makers on various financing models and partnerships regarding POS financing		
▪ Organize **training on complex instruments** (e.g., land value capture, PPP, 4P, NID) and showcase successful case studies	EDU	EDU/INFO
Implement land value capture mechanisms		
▪ Utilize mechanisms to capture a share of **land value increase** and direct it towards POS development	✦ INC	ECON FIN/INV
Apply land development contributions and incentives		
▪ Allow **reductions in land development contributions** for investors who finance required POS construction (e.g., neighborhood POS) ▪ Allow investors to **build and transfer POS** (e.g., neighborhood POS) to the local self-government in exchange for contribution reductions, ensuring public purpose and long-term public management	✦ INC	ECON
Utilize public-private partnerships		
▪ Establish PPP for **larger development projects** and precisely define the private investor's obligations in a contract regarding the design, construction and long-term maintenance of POS ▪ Establish a PPP for **maintaining POS** under the jurisdiction of local government (e.g., common or neighborhood POS) with clear rules, regulations, and guidelines in formal agreements, including funding commitments from both parties ▪ For all PPPs, create **clear, formal agreements** outlining the specific roles, responsibilities, and funding commitments of each party regarding POS provision, design, construction, and long-term maintenance	FIN ORG	INST/LEG FIN/INV

Diversify funding sources and establish subsidy schemes		
▪ Identify **potential funding** from national and European funds and grants, local self-government funds, socially responsible companies for POS development and long-term maintenance ▪ Define local methods for **allocating subsidies to non-public stakeholders** (private sector, NGOs, homeowners associations) for creating or regenerating small-scale POS	💰 FIN	FIN/INV
II. Long-term management and maintenance		
Mandate long-term POS management planning		
▪ Require a dedicated **POS management plan** for every new or revitalized residential area outlining responsibilities and resources	⚖ REG	INST/LEG ECON
Implement dedicated local taxation		
▪ Implement **levies on property directed to fund POS management**, recognizing that quality POS increases property values and creates tax revenue over time	💰 FIN	FIN/INV
Implement NIDs		
▪ Define a **financial model** where **NID** revenues fund supplementary operational costs (e.g., hourly cleaning, private security, seasonal decoration) that go beyond the municipal baseline.	💰 FIN	FIN/INV
Provide incentives for joint management		
▪ Offer **incentives** like jobs for unemployed residents, reduced local taxes (environmental, property, administrative), and tax exemptions for socially responsible companies involved in POS management	✦ INC	FIN/INV ECON
Facilitate community-based funding and partnerships		
▪ Support and facilitate **local community fundraising** and **crowdfunding initiatives** (e.g., organizing local events to raise funds, launching crowdfunding campaigns to finance specific enhancements or programs, or encouraging in-kind contributions of labor, materials, or expertise from residents and local businesses) ▪ Form **innovative partnerships** (e.g., with recycling companies) to generate funds for POS maintenance	💰 FIN ✦ INC	INST/LEG FIN/INV DCM

IMPLEMENTATION TOOLS

Description

The implementation phase of public open space (POS) development mostly relies on a fragmented combination of institutional/legislative, financial/investment and economic tools. These instruments are not used at the same stage and not embedded in the same documents – they are activated differently across implementation patterns. The dominance of specific tools reflects underlying governance regimes, directly shaping POS outcomes and long-term performance.

Institutional/legislative tools are used to regulate authority, assign rights and obligations, and establish procedures. They are therefore dominant in **formal planning and design-based implementation patterns** and public-sector-led POS delivery.

Financial/investment tools, which secure, allocate, and phase resources for physically realizing POS are increasingly activated in **programmatic implementation** and **project-based implementation patterns**. These tools operationalize programmatic priorities by funding concrete projects and enable incremental, pilot-based, or phased POS delivery, following funding availability rather than plan deadlines.

Economic tools, which are designed to shape incentives, influence cost distribution, and structure value without directly financing construction, dominantly appear in **programmatic implementation patterns.** These tools support prioritisation, justification, and scaling of POS interventions, by influencing how implementation is organised, which actors are involved, and how the benefits of POS delivery are distributed. From the perspective of urban governance, economic tools are most prominent in private-sector–led implementation models.

Additionally, the implementation phase of POS development is supported by digital collaboration/monitoring and education/ information tools, which contribute to the overall course and outcome of the process. Although these tools do not initiate implementation on their own, they support coordination, learning, monitoring, and continuity across different governance regimes and implementation patterns. Overall, these tools enhance implementation effectiveness where governance capacity and collaborative practices exist.

Digital collaboration/monitoring tools function as cross-cutting operational instruments that support coordination,

monitoring, and adaptive management of POS across different implementation models. They are most effective in institutionally coordinated and collaborative governance regimes.

Education and information tools operate as capacity-building and engagement instruments that support informed participation and effective implementation across governance models. They are especially important in bottom-up and collaborative civic implementation models.

Both digital collaboration/monitoring and education/ information tools are most strongly associated with **programmatic implementation patterns and operational dimensions**, which are focused on use, activation, and maintenance of POS. They play an important role in the **planning and design implementation patterns** by supporting transparency, communication, awareness and documentation. In **project-based implementation patterns**, these tools also have a supportive but fragmented role, typically embedded within individual projects, but rarely institutionalised or scaled beyond the project lifecycle.

INSTITUTIONAL/LEGISLATIVE TOOLS

Institutional and legislative tools provide a structured framework for the planning, provision, and management of public open spaces in residential neighbourhoods, helping to secure land for public use. These tools ensure that POS is integrated into urban development through legal mandates, strategic planning, and collaborative mechanisms, while securing that POS meets regulatory standards, aligns with broader urban planning goals, and reflects local needs. They are also significant because they translate general planning intentions into enforceable obligations defining clear responsibilities, procedures, and minimum standards for delivery and long-term maintenance. In practice, they reduce implementation risks by preventing ad hoc decisions and ensuring continuity across different phases and institutions (from plan-making and permitting to construction and management).

Tool	Description	Illustration
City Ordinance	City Ordinance is a tool that regulates the management and community-led maintenance of POS through provisions in local laws. It defines who is responsible for maintenance, under what conditions, and how responsibilities are distributed among residents, the municipality, and service providers. City Ordinances, such as on Communal Order or on Maintenance of POSs and Green Infrastructure, enable shared maintenance responsibility and arrange the lease of POS segments. City Ordinance can prescribe that either citizens maintain GI themselves, or Public Utility Company/private company maintains them for a fee.	
Building Permit	Building Permits are important for implementation because they allow a city/municipality to ensure at the moment of approval that POS is actually planned and delivered, rather than remaining only a recommendation in documents. A key characteristic is that permit approval can be conditioned on providing a clearly defined minimum area or percentage of POS, in line with local plans and zoning rules. It can require developers to dedicate land within or near the site for public use, or pay a fee-in-lieu of land, used by the city to fund the acquisition or improvement of POS elsewhere. This makes the tool both a control mechanism and a funding mechanism, linking development approvals with POS standards and long-term provision.	

Public Competition	Public competition is an effective tool for planning and design of POS that is of particular importance to the city, and for the implementation of POS development. By inviting architects, urban planners, and designers to submit proposals, municipalities can harness innovative ideas. Public Competition is used to select the best-quality solutions for POS through an open or invited procedure, enabling the comparison of multiple conceptual and preliminary design proposals for the same site against clearly defined criteria (quality of public space, sustainability, costs, feasibility of phased implementation). A characteristic feature is a transparent procedure, the work of a professional jury and, where appropriate, the involvement of the local community through consultations or public presentations. This enhances the legitimacy of decisions, improving successful delivery and long-term POS performance.	
Land Readjustment	Land readjustment is a tool for rational use and arrangement of construction land that transforms existing cadastral plots in the area into construction plots, along with resolving the property-legal relations that arise in this process. In multi-family residential developments, land readjustment can be used to obtain POS by pooling land parcels from multiple owners, reconfiguring them into a more efficient layout, and allocating a portion of the readjusted land for public use in line with POS typology. Each owner receives a smaller but more valuable plot, while the community benefits from shared POS. The key feature of this tool is that it promotes rational land use and a functional POS system amidst fragmented ownership.	
Privately Owned Public Spaces (POPS)	Privately Owned Public Spaces are areas that are owned and maintained by developers or property owners, but are legally required to be open and accessible to the public. Although provided by private actors, POPS are actually hybrid spaces and a form of co-production: while the market is responsible for funding, providing, and maintaining POPS, the government determines the public's right to access and establishes regulations for the use of space. POPS is particularly a convenient instrument to provide POS in densely built-up areas, typically provided in exchange for zoning incentives. POPS are therefore a practical instrument for expanding the network of public open spaces and improving pedestrian connectivity without traditional expropriation or additional pressure on the public budget.	

Monitoring and Evaluation Framework	Monitoring and Evaluation Framework is a tool that defines key performance indicators (i.e. accessibility, spatial quality, ecological performance, intensity of use, safety, maintenance standards…), along with responsibilities, timelines, and procedures for tracking the delivery and long-term performance of POS. Monitoring focuses on continuous observation of whether planned actions, investments, and management practices are being carried out as intended, while evaluation periodically assesses outcomes and impacts in relation to predefined goals. The framework enables systematic monitoring and evaluation, providing feedback that supports adaptive adjustments, accountability, and long-term quality and use of the space. 

FINANCIAL/INVESTMENT TOOLS

Financial/investment tools for providing public open space in residential contexts refer to strategies and mechanisms for collecting, allocating, and directing financial resources from both public and private sources toward the development, maintenance, and enhancement of POS. These tools involve direct financial contributions rather than indirect market influences, and provide predictable and accountable funding streams that are crucial for ensuring POS implementation. They are particularly important because they make POS delivery feasible in practice by matching design ambitions with realistic budgets and by securing resources not only for construction, but also for long-term operation and maintenance. In addition, they support phased implementation and transparent spending, which helps build public trust, and ensures that investments in POS are targeted where needs and impacts are greatest.

Tool	Description	Illustration
Employment Subsidies	Employment Subsidies are financial incentives through which the city or state co-finances the employment of local residents in activities related to POS (urban agriculture, maintenance, community programmes). A key characteristic is that they are targeted at residents of the neighbourhood, often those with lower incomes or facing barriers to employment, and that they can cover part of the wage, social contributions, or job training. In this way, new jobs are created, skills and household incomes are strengthened, while underused spaces are activated and local food production is encouraged. Employment Subsidies are important because they ensure that POS are not only a maintenance cost, but also a source of employment, social inclusion, and long-term sustainable use of space.	
Developer Compensation	Developer Compensation tool is used when developers cannot provide the required POS within their own development site. Instead, one of the following arrangements is made: (1) the developer is required to transfer part of another land parcel (off-site) to public ownership for use as open space, or (2) the developer pays a financial equivalent (compensation fee, or “payment in lieu” fee) to the city, which is then used by the municipality to acquire, develop, or maintain POS elsewhere. This provides the city with new or higher-quality POS while developers assume part of the responsibility for the urban environment.	

Direct Purchase or Redemption of Land	Direct Purchase or Redemption of Land refers to when a government or public authority buys private land through negotiation or compulsory acquisition, for the purpose of creating public spaces and amenities. This is a convenient instrument to provide public space in new residential developments planned in larger areas/zones. Its main characteristic is the fast and legally secure acquisition of key plots, especially where other mechanisms (land readjustment, developer compensation, POPS) are not feasible.	
Development Impact Fee	Development Impact Fee is a tool that obliges developers to pay a fee, set by local governments, to cover all or part of the costs of providing public spaces and facilities for new or proposed developments. The local government charges a fee based on the expected impact of the development (e.g., number of housing units or floor area). It is important because it ensures that the costs of new public amenities are not borne only by residents through the public budget, but also by developers whose projects generate additional pressure on space.	
Land Leasing	Land Leasing is a financial tool that can be used by municipalities to support the implementation and maintenance of POSs in residential neighbourhoods by leveraging the increased land value resulting from public infrastructure and urban development. It involves granting long-term or fixed-term use rights to publicly owned land through lease agreements. In return, lessees (typically private companies or housing associations) provide periodic payments or rent to the municipality. These revenues can be directly reinvested into the provision of nearby POS, ensuring that the benefits of land value appreciation are redistributed for community use. It is often used to activate currently undeveloped, "waiting" land that is not yet ready for permanent construction or infrastructure. This tool is important because it allows for the quick and relatively low-cost activation of such areas for public use, without permanently transferring ownership or requiring significant initial budget investment, thus contributing to POS network and testing various uses of the space before long-term decisions are made.	

Environmental Tax	Environmental Tax is prescribed for residential land use for property owners, as well as entrepreneurs and companies operating in that residential neighborhood, which is then used for POS development and arrangement, thus promoting sustainable urban development. It is important because it provides a stable source of funding for the protection and enhancement of public spaces, while encouraging investors and users to reduce harmful impacts.	
European Union (EU) Funds	The European Union provides several funding instruments designed to support the development of POS in residential areas, through projects focused on sustainability, social inclusion, urban regeneration, and community well-being. They involve: European Regional Development Fund (ERDF), European Social Fund Plus (ESF+), European Urban Initiative (EUI), LIFE Programme, Horizon Europe (Mission: Climate-Neutral and Smart Cities), Interreg (European Territorial Cooperation), etc. These funds are particularly important because they enable the implementation of larger and more complex interventions that the local budget alone could not support, as well as the testing of new models of managing and using public spaces before they are scaled up. Beyond direct investment in POS, EU projects often strengthen the capacities of local administrations (planning, management, monitoring), which in the long term improves the way public spaces are planned and maintained.	
Neighbourhood Improvement Districts (NIDs)	Neighbourhood Improvement Districts are a self-taxing funding mechanism for a limited period of time whereby property owners within a defined geographic area agree to levy an additional fee (often via a special assessment), and dedicate the collected funds to improving and maintaining POS, amenities, and services within that area, supplementing what is provided by the local government. Property owners within the proposed area vote to establish a NID, after which the local government formally approves it, defining the duration, fee level, and scope of eligible expenditures. This model is important because it provides a stable, locally controlled source of funding for higher-quality POS, maintenance, greening, safety, and community programming, and strengthens the sense of shared responsibility for the neighbourhood environment.	

Pilot Project	A pilot projects is a small-scale experimental implementation tool that enables testing and demonstration of innovative spatial and governance solutions under controlled, time-limited conditions, providing empirical input for future programmatic or statutory integration. Pilot interventions may result from both project-based and a programmatic-based implementation: programmatic patterns prioritize ongoing processes and spatial activation, whereas project-based patterns are centred on the delivery of discrete, stand-alone spatial projects. A pilot project primarily operates through financial and investment mechanisms, but is also supported by institutional and legislative arrangements and economic instruments to test and demonstrate new approaches prior to potential mainstreaming.	

ECONOMIC TOOLS

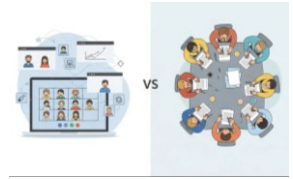
Economic tools for providing public open space in residential contexts refer to mechanisms that influence market behaviour and stakeholder decisions through financial means rather than direct regulation. These tools aim to encourage or facilitate the development, maintenance, and accessibility of public open spaces in urban areas by altering cost-benefit dynamics for developers, municipalities, or property owners. These tools are significant because they shape everyday incentives: they can reward actors who provide public benefits and discourage practices that reduce the quality or availability of POS. By adjusting taxes, fees, and development rights, these tools help capture part of the value created by urban development and redirect it into POS improvements, without relying solely on municipal budgets. Economic tools can support long-term stewardship by making maintenance and public access financially viable for both public and private actors, especially in areas under strong development pressure.

Tool	Description	Illustration
User Fee Waivers or Reduction	Municipalities reduce or waive utility fees and service charges for residents, such as local administrative tax in the area of communal services and utilities, or prescribe exemption from real estate taxes. These funds are then allocated for POS arrangement. In this way, User Fee Waivers or Reduction functions as an economic instrument through which the municipality directs part of local public revenues directly into the improvement of POS.	
Zoning Incentive Programs	Zoning Incentive Programs are a broad category of tools that offer developers various benefits or relaxations (e.g. increased floor area ratio, increased building height, reduced parking requirements, or flexible land use rules) in exchange for public benefits, such as POS, affordable housing and cultural or community facilities. A frequently used type of zoning incentives are density bonuses, which provide developers and property owners incentives to include public amenities such as streets or parks in their development plans, in exchange for additional floor area. Their key characteristic is a clear “give-and-take”: additional development rights are granted only when the developer includes streets, parks, or other public amenities in the project. These programs are important because they allow part of the value created by increasing the permitted development density to be returned to the community through new or higher-quality public spaces, without placing any additional direct burden on the local budget.	

Tax Incentives for Business	Reduction of income tax, exemption from VAT, or exemption from local environmental tax are tools that enable socially responsible companies and entrepreneurs to contribute to POS arrangement, and that encourage investors to develop POS and green infrastructure. This tool is important because it brings private capital and expertise into the development and maintenance of POS, reduces pressure on municipal budgets and encourages more environmentally responsible business behaviour.	
Transfer of Development Rights	Transfer of development rights (TDR) is a tool that allows property owners in specific areas to sell the development rights from their land (*sending area*) for use on a different site (*receiving area*) where higher development densities are acceptable. The sending site is then preserved as open space, often repurposed as POS. The funds generated from these transactions are used to compensate owners in sending areas for the reduced property value resulting from lower permitted densities. TDR is important because it directs development to locations with available infrastructure capacity, while at the same time preventing the loss or piecemeal occupation of land intended for the public good.	
Preliminary Financial Plan Template	Preliminary Financial Plan Template is an effective tool for POS implementation that aids in aligning funding sources, stakeholder responsibilities, and long-term maintenance strategies, and is applied especially during the early planning and decision-making stages. A financial plan may include: (1) capital costs (land, design, permits, materials, labour), (2) operational costs (maintenance, staff, waste management), (3) revenue sources (taxes, fees, public-private partnerships), (4) funding gaps and mitigation strategies, and (5) timeline and phasing of investments. This format makes it possible to quickly compare different options, check financial feasibility, and align the planned interventions with budget capacities. In this way, it serves as a practical basis for project preparation and funding applications, as well as for clearly agreed roles of the city, investors, and the community.	

DIGITAL COLLABORATION/MONITORING TOOLS

Digital Collaboration/Monitoring Tools are a group of ICT-based implementation tools that support coordinated delivery, monitoring, and long-term management of POS. They enable shared access to information, facilitate ongoing collaboration among institutions and professionals, support the collection and use of implementation and performance data, and set the context for evidence-based decision-making. By providing timely feedback and a common knowledge base, they help align planning intentions with realization and long-term management, strengthening continuity and effectiveness in POS implementation.

Tool	Description	Illustration
Cloud-based Inter-Institutional Coordination Platform	Digital Inter-Institutional Coordination Platform uses shared digital workspaces to enable access to up-to-date information to all urban planning professionals and public institutions involved in POS delivery, and supports their communication and collaboration. The tool provides a centralized digital repository for shared documents, spatial data, maps, datasets, and project reports related to POS. It also enables real-time collaboration of team members during the realization phase of POS, and beyond, in the monitoring phase of POS exploitation. The use of this tool reduces information gaps, improves transparency, and strengthens continuity between planning, delivery, and maintenance phases.	
Online Professional Meetings	Regular, structured online meetings and professional consultations can be organised on-line or in vivo to facilitate communication and coordination among the representatives of public institutions involved in POS delivery and other members of the implementation team. This tool supports information exchange, joint problem-solving, and alignment of actions across planning, construction, and maintenance phases, helping reduce institutional fragmentation and improve the continuity of POS implementation.	
Sensors for Environmental Data Collection	This tool uses fixed or mobile digital sensors to continuously monitor environmental conditions, such as air quality, noise levels, microclimate, and green coverage, in public open spaces. Integrated with planning performance indicators and evaluation frameworks, sensor data provides real-time evidence on environmental performance, supports post-occupancy assessments, and enables timely adjustments in design, management, or maintenance to improve the usability and quality of POS.	

Integrated Dataset and Database System	Integrated Dataset and Database System consolidates spatial, functional, legal, and management data on POSs from different institutions into a unified, digital database linked with cadastral and property registries. A great variety of stored data is used in POS planning, design, realization and maintenance. The tool enables systematic tracking of POS assets, provides records of maintenance activities, and supports the creation of digital maintenance classification maps. By providing a reliable evidence base, the tool supports informed decision-making during implementation, enables prioritization of investments and defining of maintenance regimes, thus coordinating implementation and long-term management activities.	

EDUCATION/INFORMATION TOOLS

Education and Information Tools support awareness, knowledge sharing, and capacity building among residents, professionals, and institutions involved in the planning, design, realization, and maintenance of POS in residential areas. They provide guidance, updates, and training throughout planning and implementation phases, enabling informed decision-making, fostering community engagement, and ensuring that POS delivery aligns with local needs, policy requirements, and long-term sustainability.

Tool	Description	Illustration
Community Meeting	Community meetings of the housing associations can serve for sharing updates on the implementation process, thus facilitating the implementation of POS in residential neighborhoods. These gatherings enable residents to actively participate in the delivery phase and management of POS, ensuring that the realized spaces are indeed aligned with the community's needs and preferences, setting the context for their regular maintenance and upkeep.	
Digital Platform	Digital Platform is a tool that provides centralized online space for informing citizens about planning documents, POS initiatives and actions. It ensures transparent communication, facilitates public access to neighbourhood plans, and allows residents to stay informed and participate in decision-making. In the context of implementation, it enables exchanging information, sharing knowledge and updates, thus supporting more inclusive and responsive POS implementation.	
Email Notifications	Email Notification is a tool that delivers timely information from public institutions to Housing Associations and residents about various activities related to POS in their neighbourhood. They provide a practical, low-cost way to raise awareness, build understanding, and encourage citizen participation in POS planning, design, realization and maintenance. Through regular updates, they disseminate relevant information, ensuring that residents stay informed and engaged throughout the entire course of the POS (re)creation process.	

Manual	Manuals serve as instructional tools that provide detailed, step-by-step guidance on procedures, roles, financial sources, and legal obligations related to POS projects. It translates planning documents into actionable instructions for realization, supporting professionals and institutions in delivering, managing, and maintaining POS effectively and consistently.	
Professional Training Programs	Professional Training Program is an implementation tool that provides structured education for urban planning professionals on complex instruments, procedures, and best practices for POS delivery. These programs build knowledge and capacity, improve understanding of implementation processes, and equip practitioners to apply innovative approaches effectively during planning, realization, and long-term management of POS.	

LIST OF ABBREVIATIONS

EU	European Union
GI	Green Infrastructure
GIS	Geographic Information System
GUP	General Urban Plan
IPA	Instrument for Pre-accession Assistance
LHE	Large Housing Estates
NGO	Non-Governmental Organization
NIDs	Neighborhood Improvement Districts
PDR	Plan of Detailed Regulation
PGR	Plan of General Regulation
PGIS/ PPGIS	Public Participation Geographic Information System
POPS	Privately Owned Public Spaces
POS	Public Open Space
PPF	Participatory Planning Framework
PPP	Public-Private Partnerships
SDG	Sustainable Development Goals
TDR	Transfer of Development Rights
UHI	Urban Heat Island
VR	Virtual Reality

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Information and Education tools

Community Meeting
https://dnevniportal.rs/centralne-vesti/ispred-zgrade-na-aleji-marsala-tita-33-odrzana-skupstina-stanara

Public Advertising
https://www.facebook.com/photo/?fbid=122136411896241922&set=gm.369869475664332&locale=sr_RS

Letters & Email Notifications
https://melbournparishcouncil.gov.uk/futures-wp-invite/

Info Point
https://niskevesti.rs/udruzenje-zeleni-zid-pokrenulo-peticiju-da-durlan-dobije-svoj-park/

Exhibition Panels
https://www.facebook.com/photo.php?fbid=4926637024058666&set=pb.100064429880235.-2207520000&type=3

Dissemination Materials
https://ministarstvoprostora.org/wp-content/uploads/2023/06/mali-vodic-kroz-planiranje-gradova-1.pdf

Digital Platform
https://www.repos-project.rs/

Quality Standards
https://unhabitat.org/sites/default/files/2020/07/final_pssa_v.1_reviewed_compressed.pdf

Guidebook
http://www.pur.rs/materials/publication/307%20VODIC%20Engleski.pdf

Manual
https://epica.rs/materijali/

POS Typology
https://unhabitat.org/sites/default/files/2020/07/indicator_11.7.1_training_module_public_space.pdf

Consultative Tools

Stakeholders' Mapping
https://osmosnetwork.com/pentahelix/

Participatory Appraisal
https://www.social-life.co/blog/post/mapping_local_assets/

Street Audit
https://bellab.rs/zelena-setnja-vracar/

Survey
https://www.repos-project.rs/news/repos-team-members-conducting-surveys-with-residents-in-public-open-spaces-in-serbian-cities

Interview
https://kawasakilab.blogspot.com/2015/09/myanmar-official-visit-satreps-workshop_8.html

Public Consultation
https://glasjuga.rs/predstavnici-stanara-i-opstina-medijana-na-sastanku-o-prioritetima-u-naseljima-osam-miliona-za-uredjenje-medjublokovskog-prostora/

Public Insight
https://www.juznevesti.com/drustvo/uredjuje-se-stambeni-blok-na-niskom-bulevaru-po-resenju-studentkinja-gaf/

Focus Group
https://bellab.rs/prva-fokus-grupa/

Community Planning Forum
https://ministarstvoprostora.org/gradjanske-skupstine/

Round Table
https://expeditio.org/index.php?option=com_content&view=article&id=870:okrugli-sto-gradski-trgovi-i-otvoreni-javni-prostori-kotora-4jul-u-1300&catid=106&Itemid=544&lang=sr

Community Workshop
https://www.facebook.com/photo/?fbid=1221595770982419 22&set=pb.61557257661717.-2207520000&locale=sr_RS

World Café
https://www.pula.hr/hr/novosti/detail/27554/odrzana-participativna-radionica-world-cafe-za-izradu-plana-upravljanja-povijesnom-jezgrom-grada-pule/

Collaborative / Co-creation Tools

Community Workshop
https://bellab.rs/radionica/

World Café
https://www.sfb.bg.ac.rs/odrzana-world-cafe-radionica-u-okviru-decorator-medjunarodnog-projekta/

Participatory Mapping Platform
https://www.esri.com/en-us/arcgis/products/arcgis-online/overview

Participatory Discussion Platform
https://www.mindmixer.com/platform

Urban Games
https://cloud.urbansim.com/docs/block-model/tutorials/introducing%20workflows.html

Open Space Technology
https://markverhijde.nl/wp-content/uploads/2025/01/Guide-Open-Space-Technology-World-Cafe-OGEU-2015.pdf

Digital / E-participation Tools

E-participation Platform
https://www.govocal.com/platform-online-engagement-toolbox

Participatory Mapping Platform
https://www.maptionnaire.com/blog/new-maptionnaire-introducing-three-essential-modules

Participatory Discussion Platform
https://www.mindmixer.com/platform

Participatory Budgeting Platform
https://www.decidim.barcelona/processes

Urban Games
https://cloud.urbansim.com/docs/general/documentation/layers.html

Crowdsensing Mobile Application
https://learnosm.org/en/mobile-mapping/streetcomplete/

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Institutional/Legislative Tools

City Ordinance
https://comune-info.net/scuoleaperte/praticare-linfraordinario/

Building Permit
https://zuidas.nl/en/theme/public-space/

Public Competition
https://www.theurbanist.org/2023/04/13/copenhagens-superkilen-a-model-for-culturallydiverse-public-spaces

Land Readjustment
https://urbanitarian.com/masterplans_post?id=399

Privately Owned Public Spaces (POPS)
https://www.hamburg-tourism.de/sehenerleben/hamburg-maritim/ueberseequartier/

Monitoring and Evaluation Framework
https://development.asia/explainer/participation-tools-pacific-part-6-monitoring-and-evaluation

Financial/Investment Tools

Employment Subsidies
https://www.uia-initiative.eu/en/uiacities/milan

Developer Compensation
https://www.across-magazine.com/lovtmunich-district-development-in-munichswerksviertel/

Direct Purchase or Redemption of Land
https://www.gabarcelona.com/blog/superblocks/

Development Impact Fee
https://www.batiactu.com/edito/zac-clichybatignolles---le-projet-devoile-aux-riv-33174.php

Land Leasing
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Environmental Tax
https://www.risa-hamburg.de/projekte/projekte-detailansicht/trabrennbahn-farmsen

European Union (EU) Funds
https://link.springer.com/article/10.1007/s10901-021-09864-7

Neighborhood Improvement Districts (NIDs)
https://doi.org/10.1080/17535069.2016.1212087

Pilot Project
https://hmark.no/en/launch-of-the-pilot-project-city-homes-for-all/

Economic Tools

User Fee Waivers or Reduction
https://oppla.eu/casestudy/28829

Zoning Incentive Programs
https://www.neighborhoodguidelines.org/quality-program-malmo-sweden

Tax Incentives for Business
https://una.city/nbs/hamburg/green-roofshamburg

Transfer of Development Rights
https://www.tandfonline.com/doi/full/10.1080/14649357.2023.2239215

Preliminary Financial Plan Template
https://ebbsfleetgardencity.org.uk/governance

Digital collaboration/monitoring tools

Cloud-based Inter-Institutional Coordination Platform
https://www.radency.com/urban-planning-platform-case-study

Online Professional Meetings
https://polario.app/en/holding-club-meetings-online-how-clubs-can-meet-digitally-legally-compliant-and-efficiently/

Sensors for Environmental Data Collection
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Integrated Dataset and Database System
https://www.en.urbandataplatform.hamburg/about-the-urban-data-platform-hamburg

Education/information tools

Community Meeting
https://www.juznevesti.com/drustvo/stanari-leskovacke-dubocice-zelimo-obustavu-planirane-gradnje/

Digital Platform
https://openfuture.eu/tag/digital-public-space/

Email Notifications
https://ministarstvoprostora.org/gup-beograda-2041-primedbe/

Manual
https://www.urbel.com/uploads/news/Priruc%CC%8Cnik%20za%20urbanizam.pdf

Professional Training Programs
https://www.klarairosa.com/en/unfold-fellowship-program-for-artistic-interventions-in-public-space-community-contexts/

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