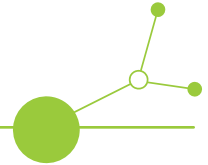




PopUpUrbanSpaces Baseline Study

Tactical Urbanism and Digital Campaigning



Version 1
08 2023





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EXECUTIVE SUMMARY

PopUpUrbanSpaces project at a glance

The PopUpUrbanSpaces project is a transnational initiative of 10 partners co-financed by the Interreg Central Europe Programme. A key challenge that hinders making urban mobility systems sustainable is that most people are not willing to abandon cars and shift to a combination of public transport, micro-mobility, and active forms of transport. The overall objective of the project is to enable the public sector and related entities in functional urban areas to encourage changes in the travel behaviour of citizens and to trigger shifts towards smart and sustainable forms of urban mobility by actively involving inhabitants in testing innovative green approaches as well as digital technologies, using tactical urbanism approaches.

The Baseline Study summarizes the latest scientific and practical information of tactical urbanism, tactical placemaking, and how these are used to help create the conditions of sustainable urban mobility. It also explores how digital communication is used in cities to raise awareness of residents - primarily but not exclusively of the key topics of the PopUpUrbanSpaces project. To achieve the overall and specific goals of the project the PopUpUrbanSpaces projects includes 3 work packages with specific activities, deliverables and outputs building on each other.

WP1 Transformation

- A1.1 Establishing state of the art
- A1.2 Building the urban-rural partnership network
- A1.3 PopUpUrbanSpaces Capacity Building Strategy
- A1.4 Interactive Capacity Building Sessions

WP2 Demonstration

- A2.1 Planning transnational demonstration actions
- A2.2 Delivering transnational demonstration actions
- A2.3 Assessing transnational pilots

WP3 Solutions and policy recommendations

- A3.1 Designing tools to trigger shift towards sustainable forms of urban mobility
- A3.2 Design local actions and prepare policy proposals to scale-up project results
- A3.3 Mainstream the results

The concept of tactical urbanism

Having a lookback at the urban planning of the last century, it can be concluded that developments were mostly rigid and time-consuming, and the public is only involved to a limited extent in the planning process - also in connection with urban mobility and using public places. However, principles of and solutions to these issues have been fundamentally transforming since the seventies. The advancement of pedestrian, bicycle and public transport to enable mobility in growing cities is internationally recognised as a concept for which there is no alternative. In parallel, urban planning and development need more informal, flexible and adaptive democratic processes for negotiating, decision making, adapting and managing shared custody of urban spaces. Tactical urbanism can be a solution to these problems and challenges.





In spite of conventional, top-down and bureaucratic urban planning processes, tactical urbanism shows a shift towards quick, adaptive and low-cost interventions that prove the usability and viability of design ideas before their large-scale and expensive implementation. Tactical urbanism refers to a set of temporary, small-scale and low-cost interventions that aim to improve public spaces and promote social interaction in urban areas.

Tactical urbanism interventions

- offer local solutions to local planning challenges,
- short-term commitment and realistic expectations,
- are based on a deliberate, phased approach to driving change,
- minimize the risks of implementation with a potentially high reward,
- develop social capital and cooperation between public and private institutions, non-profit organizations and citizens.

Over the years, various forms and approaches have emerged within the frame of tactical urbanism: guerrilla urbanism, pop-up urbanism, city repair, DIY urbanism, planning-by-doing, urban acupuncture, and urban prototyping. Even though the noted concepts are similar to tactical urbanism, they can as well be a subbranch of tactical urbanism.

In the PopUpUrbanSpaces project, placemaking and tactical transit are also of particular importance:

- Placemaking in general is a multi-faceted approach for creating quality places for the people and by the people, using human's attachment to place. Place meaning and place attachment are a complex and multifaceted phenomenon which involves the interplay of affect and emotions, as well as knowledge. Tactical placemaking focuses on creating vibrant and inclusive public spaces that reflect the needs and desires of the community.
- Tactical transit seeks to address the challenges of sustainable mobility by promoting alternative modes of transportation with a strong focus on community engagement and data-driven decision-making. These interventions can include, among others, pop-up bus lanes, dedicated bike lanes, pedestrian plazas, and flexible routing adjustments.

How to make urbanism more “tactical”?

Successful tactical urbanism requires a number of prerequisites to be met. The hard ingredients play a crucial role in creating tangible and lasting changes. Physical manifestations encompass the infrastructure, design interventions, and spatial elements that are implemented to enhance the functionality and aesthetics of urban environments. Soft ingredients, intangible elements are the driving forces behind the transformative power of tactical urbanism and provide the real foundation for its success.

Hard ingredients

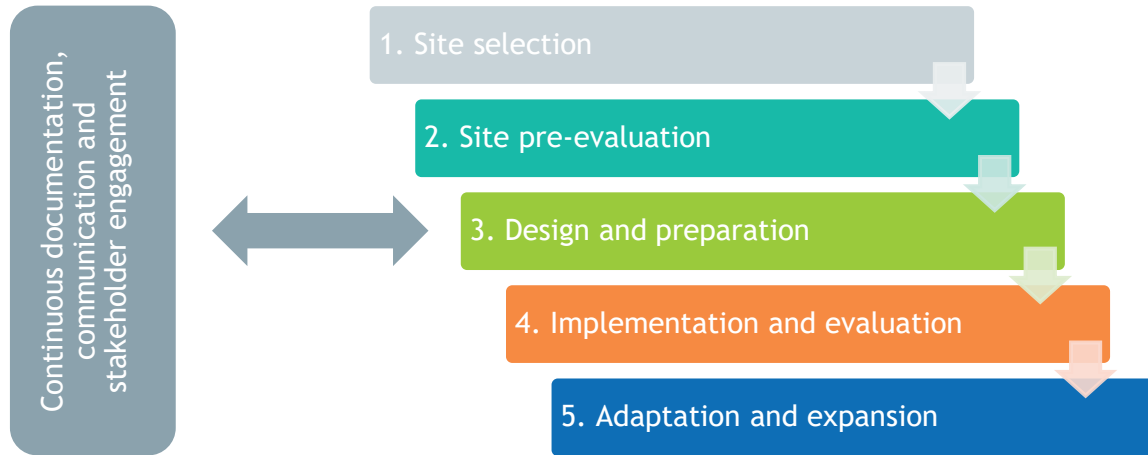
- Physical interventions (barrier elements, installations, street furniture, plants, etc.)
- Resources (materials, equipment, funding and human power)
- Documentation and evaluation (photos, videos, testimonies)

Soft ingredients

- Community engagement
- Intersectoral collaboration
- Experimentation and flexibility
- Grassroots initiative / bottom-up approach
- Planning and communication



The overall workflow for a tactical urbanism project is typically divided into five key stages - the necessary time depends on the complexity and resource-intensity of the intervention.



Benefits of tactical urbanism

Due to its multidimensionality, tactical urbanism offers a wide range of positive impacts in different areas, including economic, social, environmental, spatial, and political benefits.



In terms of **economic benefits**, tactical urbanism allows experimentation and testing of ideas before making substantial political and financial commitments. By activating underutilized spaces, interventions often increase pedestrian frequency and therefore indirectly support small, local business owners. Furthermore, tactical urbanism projects improve vibrancy and attractiveness of cities, which help boost local economies.



Concerning **social benefits**, interventions often prioritize pedestrian-friendly infrastructure, green spaces and encourage active mobility. They promote physical and mental well-being, encouraging community participation, strengthen social ties, foster social inclusion, and help create a shared sense of identity. Public safety is also supported by tactical urbanism, as the interventions create more visible and active public spaces.



Tactical urbanism provides several **environmental advantages**. Many interventions enhance green infrastructure: they contribute to increasing urban biodiversity, improving water management, combating the urban heat island effect, absorbing pollutants and particulate matter from the air. By promoting and supporting sustainable transport options, tactical urbanism leads to a more balanced modal split.



In terms of **perception and imagination of urban space**, tactical urbanism interventions serve as tangible demonstrations of potential improvements, providing decision-makers with real-world evidence to support policy changes or larger-scale interventions.



Politically, tactical urbanism projects require collaboration between various stakeholders, including residents, community organizations, and government agencies, fostering cooperative relations and shared responsibilities. By involving citizens in the decision-making process, tactical urbanism projects build trust, improve transparency, and enhance the legitimacy. Local governments can test innovative solutions without significant political risk.



Urban Mobility and Travel Behaviour Audit


As part of the State of the Art, the 7 territorial partners representing small- and medium-sized cities from the Central European Region (Kamnik/SI, Varaždin/HR, Ferrara/IT, Rzeszow/PL, Krems/AT, Bamberg/DE, Nyíregyháza/HU) collected specific statistical data and narrative information on urban mobility. The audit aims to assess the current state of transportation in these cities, including the existing infrastructure, the travel attitude of the population and the main challenges faced in the provision of sustainable mobility options and in using public spaces.

KEY CHALLENGES			
	MOTORIZED TRANSPORT		PUBLIC TRANSPORT
    	<ul style="list-style-type: none"> Overrepresented car use and car ownership Congestion in rush hour “Too good” conditions for cars Limited number of P+R parking places Insufficient control and sanctioning of offences 	        	<ul style="list-style-type: none"> Low occupancy rate of buses Outdated vehicles Routes and schedules not in line with the needs Inefficient operation, inappropriate business model Controversial image Long travel times Inadequate accessibility
	BICYCLE TRAFFIC		PEDESTRIAN TRAFFIC
      	<ul style="list-style-type: none"> Non-networked bicycle paths Limited number of adequate bicycle storage (B+R) Traffic lights not optimized for cycling Regulatory failures Attitude problems, insensitivity to the other’s point of view Failure to take cyclists into account in road design and reconstruction 	      	<ul style="list-style-type: none"> Poor quality of sidewalk coverings Narrow and non-barrier-free pavements Relatively limited size of only-pedestrian or traffic-calmed zones Lack of urban amenities along pedestrian routes Safety issues
	USE OF PUBLIC PLACES		DIGITAL COMMUNICATION
       	<ul style="list-style-type: none"> Underused/abandoned vs. overcrowded public places Isolated and unattractive green areas Small number of outdoor and indoor community spaces Not enough attractive and unified cityscape and street design Poorly equipped public spaces Lack of objective and feasible development concept 	    	<ul style="list-style-type: none"> Non-collection of data and non-use of existing data Low utilization rate of existing transport apps Inadequate digital competences in certain social groups No systematic campaign to change travel habits



1. INTRODUCTION

1.1. The PopUpUrbanSpaces Project



Municipality of Kamnik	
Development Agency North - DAN Ltd.	
Institute of Urban and Regional Development	
First Hungarian Responsible Innovation Association	
Institute for Spatial Policies	
Municipality of Ferrara	
Rzeszow Regional Development Agency	
University for Continuing Education Krems	
City of Bamberg	
Municipality of Nyíregyháza	

KEYWORDS:
tactical urbanism, tactical placemaking
digital urban communication
sustainable urban mobility

WORK PACKAGES:
WP1 Transformation
WP2 Demonstration
WP3 Solutions and policy recommendations

PopUpUrbanSpaces at a glance

About the Project
Mobility in our cities is still dominated by cars. Sustainable options often exist but are underused. A change of user behaviour is needed. The PopUpUrbanSpaces project applies a "show and tell" approach to raise awareness on the issue. The partners design pop-up interventions to show citizens and policy makers what it would be like to have streets and public spaces not dominated by cars. And they develop digital campaigning tools to tell citizens about risks of car-oriented urban mobility.

1,83 m € Project Budget
80% of the Budget is funded by ERDF

7 Countries
9 Regions
10 Partners
1 Pilots

The PopUpUrbanSpaces project is a transnational initiative co-financed by the Interreg Central Europe Programme. The common challenge of the high rate of car ownership and traffic in cities leads to a multitude of major problems - including congestion, air pollution, high level of CO2 emission, harming not just the urban environment, but also the health of people. A key challenge that hinders making urban mobility systems sustainable is that most people are not willing to abandon cars and shift to a combination of public transport, micro-mobility, and active forms of transport. One of the main causes is that neither many local decision-makers nor most citizens are even aware of the problems and grave consequences of car-oriented urban mobility. In addition, poor image of public transport, reluctance to abandon the convenience and flexibility offered by cars are also important factors. There is an urgent need to raise awareness and to change the travel attitude and behaviour of people.

The overall objective of the project is to enable the public sector and related entities in functional urban areas to encourage changes in the travel behaviour of citizens and to trigger shifts towards smart and



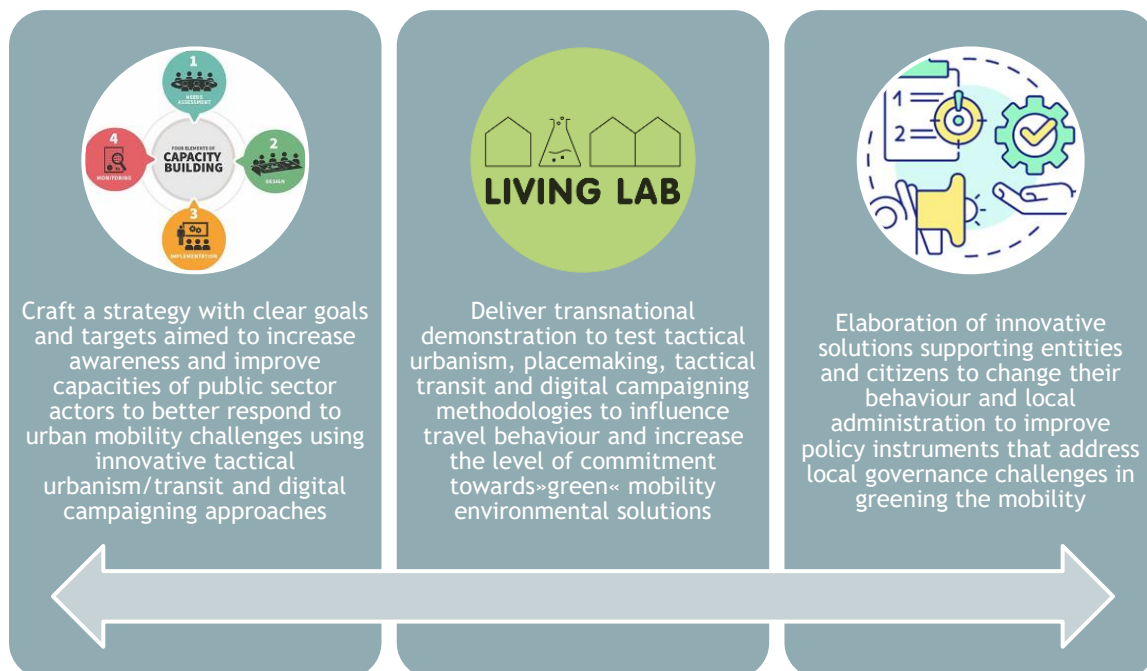
sustainable forms of urban mobility by actively involving citizens in testing innovative green approaches as well as digital technologies, using tactical urbanism approaches.

The PopUpUrbanSpaces approach is based on the concept of “Show and Tell”:

- the project enables cities to apply innovative methods based on tactical urbanism/placemaking practices to SHOW citizens (and decision-makers) through pop-up interventions what it would be like to have streets, public spaces not dominated by cars;
- the project develops innovative digital campaigning tools/methods to TELL (explain) people the risks of car-oriented urban mobility.

The specific objectives of the project fit the process above: first of all, each partner has to have capacity and knowledge necessary for testing tactical urbanism and digital campaign solutions, and after delivering transnational demonstration actions, solutions and recommendations can be formulated together to upscale and disseminate the results of the project in the Central European region.

Figure 1 Specific objectives of the PopUpUrbanSpaces project



Source: own editing

1.2. Purpose and Structure of the Baseline Study

The concise Baseline Study summarizes the latest scientific and practical information of tactical urbanism, tactical placemaking, and how these are used to help create the conditions of sustainable urban mobility. In addition, the Baseline Study also explores how digital communication is used in cities to raise awareness of residents - primarily but not exclusively of the key topics of the PopUpUrbanSpaces project.

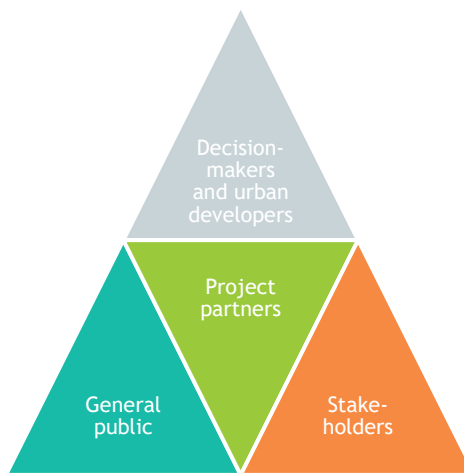
The purpose of the Baseline Study is to

- bring each project partner to the same level of information and knowledge already in the initial phase of the execution;
- create a common perception among the partners in connection with the background and main topics of tactical urbanism and digital urban communication;



- reveal the recent situation in the cities represented in the partnership, identifying their relevant features and challenges;
- provide a starting point in preparation of demonstration actions which ensure the testing process necessary for the development of the toolkit;
- broaden and deepen understanding of professionals dealing with urban development or other interested persons who are not directly involved in the project.

Figure 2 Target groups of the Baseline Study



Source: own editing

The Baseline Study addresses various target groups:

- Partners of the PopUpUrbanSpaces project;
- Local and regional policy-planners and decision-makers; urban and regional officials;
- Stakeholders from the transnational and local urban-rural partnership networks created within the project;
- Opinion leaders within a community and the general public.

The Baseline Study has been designed to be concise and easy to understand for the partners, as well as for future readers. Below we provide a summary overview of the structure and the main chapters of the document:

- The conceptual core of the document is **CHAPTER 2 “STATE OF THE ART”**, which consolidates existing knowledge, acts as a benchmark for originality, and provides a contextual framework for the initiative.
 - This section delves into the general trends in urbanization that influence tactical urbanism. It explores the various types and functions of urban spaces, both historically and in contemporary settings. The section also examines the key issues and challenges related to urban mobility and public spaces, as well as the policy context and other related projects.
 - Then the study explores the origins and definitions of tactical urbanism, focusing on its key phenomenon as well as different subcategories and offshoots of tactical urbanism interventions in various urban settings. It also outlines the process of tactical urbanism, providing insights into how these interventions are conceived, developed, and implemented in urban areas. The study examines the key ingredients of tactical urbanism, categorizing them into soft and hard ingredients, which together contribute to the success and effectiveness of these interventions. Then it explores the benefits of tactical urbanism, discussing its popularity, widespread use, and the multisectoral advantages it brings. Additionally, it addresses the limitations, drawbacks, and potential risks associated with these interventions.
 - The third thematic part of Chapter 2 is about the role of digital tools in shaping space use and travel behaviour, exploring their potential to influence urban dynamics and mobility patterns.
- **CHAPTER 3 “CITY PROFILES AND CHALLENGES”** summarizes the results of the urban mobility and travel behaviour audit conducted in the PopUpUrbanSpaces partner cities, including Kamnik (SI),



Varaždin (HR), Ferrara (IT), Rzeszów (PL), Krems (AT), Bamberg (DE), and Nyíregyháza (HU). The conclusions drawn from the audits are sum up, providing a high-level overview of the findings.

- **CHAPTER 4 “POPUPURBANSPPACES METHODOLOGY AND DELIVERABLES”** discusses the approach adopted for the project and outlines the work packages (transformation, demonstration, solutions and policy recommendations) as well as the expected deliverables and outputs.



2. STATE OF THE ART

The State of the Art serves as a comprehensive and up-to-date repository of existing knowledge, research, and initiatives related to urban spaces and urban mobility. By thoroughly examining the current state of the field, the project team and other readers gain valuable insights into the latest trends and innovative solutions implemented globally. Through a comprehensive review of existing literature, the chapter highlights the importance of temporary urban spaces as an emerging approach to address urban challenges, foster creativity, and enhance public spaces. This enables them to build upon the successes, ensuring the PopUpUrbanSpaces project starts on a strong foundation. In addition, by understanding the cutting-edge concepts and advancements in the field, the partners can identify gaps and opportunities for unique contributions. It helps to ensure that the project offers novel approaches or fresh perspectives, making a meaningful impact on specific urban issues.

The systematic analysis follows a hierarchical logic as we go from the general to the specific:

- firstly, we outline general urbanization trends, provide an interpretation of urban spaces, and present current challenges of urban mobility and public spaces to sketch the framework and circumstances in which the main subject of the project, i.e. tactical urbanism, could be born and exists,
- secondly, we can focus on the definition, types, process and benefits of tactical urbanism,
- finally, the other topic of the project will be explained in detail - digital urban campaign as a key tool to make the method, the process, and results of tactical urbanism acceptable to city users.

2.1. Building on the Existing Dynamics: Trend, Context, Challenges

2.1.1. General Trends in Urbanization Influencing Tactical Urbanism

Urban growth is a global phenomenon presenting major challenges to transport planners. By 2050, the global population is projected to increase to around 9.8 billion. It's estimated that more than twice as many people in the world will be living in urban (6.7 billion) than in rural settings (3.1 billion) (Ritchie - Roser, 2018). Today, there are over 450 million of EU citizens, the majority of whom live in urban areas. According to the predictions made by United Nations, the level of urbanization in Europe is still expected to rise to more than 80% in 2050 (United Nations, 2019).

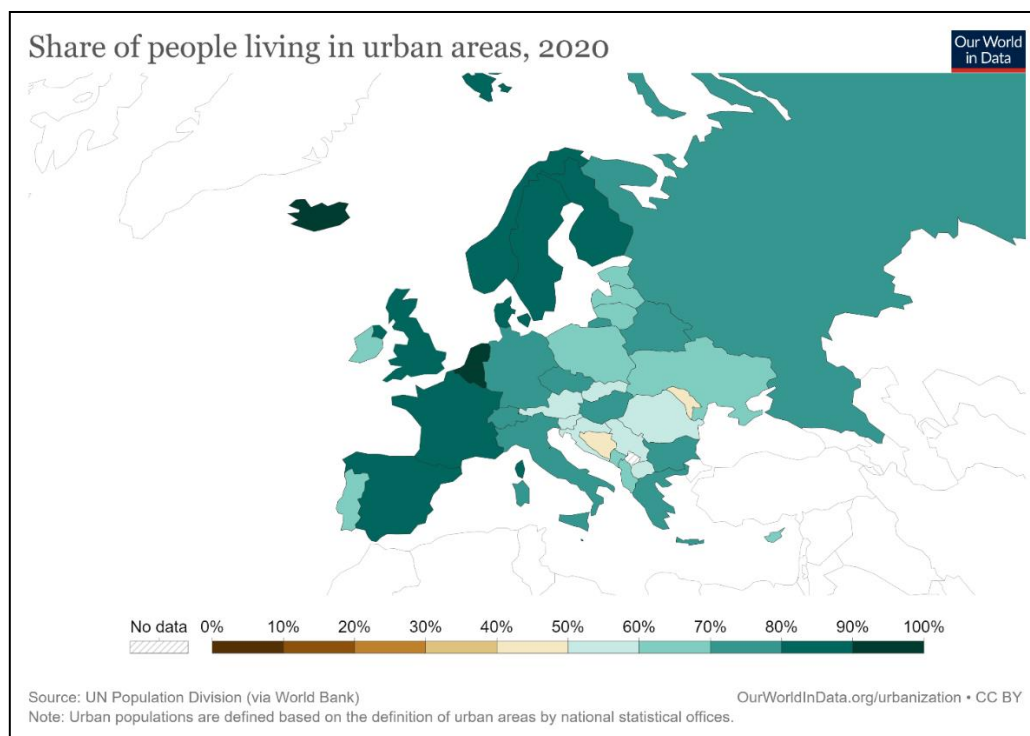
At the same time, it should be pointed out that individual countries use different criteria to define what constitutes "an urban area". It brings on additional problems when trying to compare urbanisation indicators across countries and regions. It is also worth mentioning that there are a number of terms used to refer to examine the spatial range of urbanisation such like "built-up areas", "FUAs", "urban clusters" or "urban agglomerations". According to Dijkstra et al. (2019), the current approach distinguishes two complementary concepts to describe the extent of cities. Most commonly, it refers to high population density with a minimum size of population on criteria relating to the national definitions. A second concept is more associated with the Functional Urban Areas (FUAs) as consider also functional and economic extent of cities (city with surrounding less densely populated areas).

Additionally, in order to make it easier (from statistical point of view), a document named *Applying the Degree of Urbanisation...* (2021) was drafted recently in close cooperation between six international organisations: OECD, European Commission, FAO, UN-Habitat, World Bank Group and Eurostat. This new harmonised methodology obviously has the potential for both practical and research use, by taking into account the same delineation criteria of cities as well as urban and rural areas (e.g. population size and density thresholds). Alongside statistical comparison purposes, the new definition of "Degree of Urbanisation" would bring other benefits including capturing the urban-rural continuum and measuring progress towards the sustainable development goals (United Nations, 2022).



At present, the urbanization index for EU-27 has already reached 75% of the total population but varies substantially depending on the country. From the perspective of countries located in the Central European region, the share of people living in urban areas ranged from slightly above 50% in Slovakia to almost 80% in Germany, at the end of 2020. It should, however, be noted that despite this general upward trend, periods of slowly decrease in urban population are also visible, and numerous small- and medium-sized towns in the Central European region suffer from population decline and selective outmigration, which results in tendentially shrinking cities (Alföldi et al, 2021).

Figure 3 Share of people living in urban areas in 2020



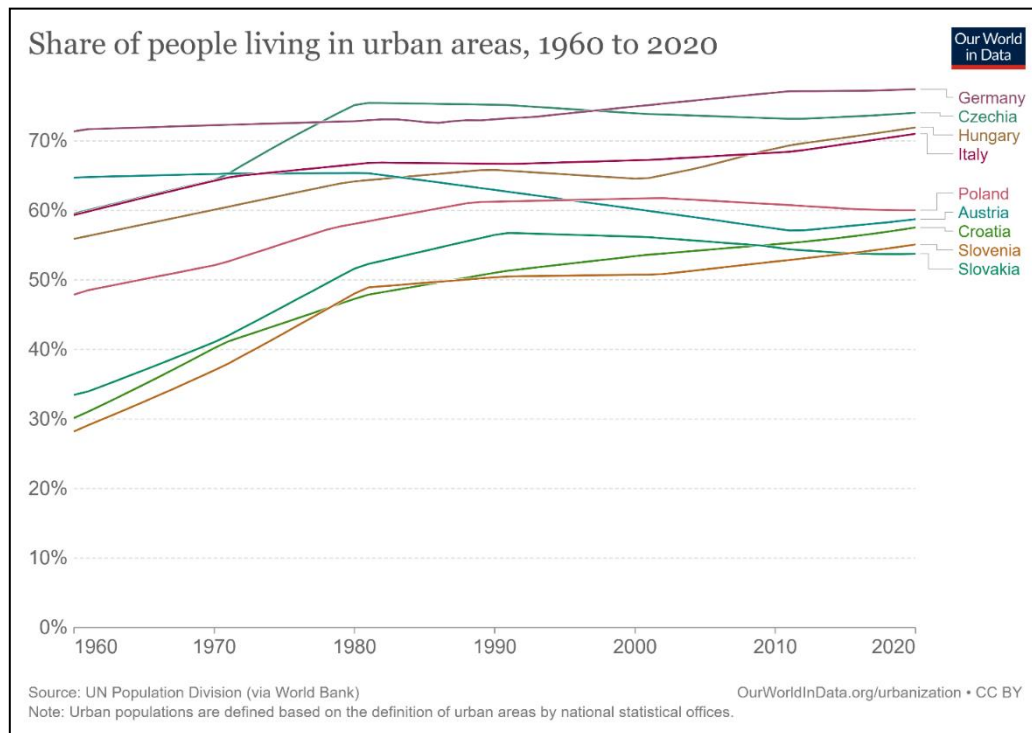
Source: Our world in Data, <https://ourworldindata.org/urbanization>

Along with this mega trend of moving population from rural areas to towns and city-regions for the last decades, the spatial structures and living conditions are continuously changing. On the one hand, new citizens might count on greater job opportunities and availability of public services. On the other hand, however, this global trend results in several dysfunctions and problems concerning the functioning of cities. For that reason, the main challenges and threats usually voiced in the current public debate are as follows: traffic congestion, noise and air pollution, environmental degradation, natural disasters, public health, housing, inequality and poverty.

This phenomenon is due to a range of factors (set out in more detail below), that have a fundamental influence on the development directions and current trends in urbanization. It is undeniable that urbanization is a more complex issue by reason of its different dimensions and the scale of ongoing processes. Hence, it must therefore be seen rather as an evolving and often dynamic process, but not limited to the steady state. Viewed in this way, urbanization is essentially driven by socio-economic changes, occurring both across Europe and globally.



Figure 4 Share of people living in urban areas in selected countries of the Central Europe region (1960-2020)



Source: Our world in Data, <https://ourworldindata.org/urbanization>

Moreover, the last three years have shown clearly how unexpected events, notably natural or man-made disasters may adversely affect the urban living conditions at any time. The outbreak of the COVID-19 pandemic in 2020 has just confirmed it, as many aspects of urban life has worsened significantly, thereby increasing social inequalities and differences in levels of development between and within countries. This outcome was largely to be expected, taking into account, inter alia, the high concentration of people in urban areas and their increased mobility as well as social activity, particularly among the young generations. This is also confirmed by the general conclusions described in more detail in one of the most recent OECD reports entitled *Cities Policy Responses* (OECD, 2020), according to which cities are indeed on the frontline of responses to the COVID-19 crisis. It needs to be stressed that introductory part of the report provides some key messages based on lessons learnt from pandemic period. In this context, authors identified a number of issues that need to be addressed urgently in order to meet the objectives of sustainable development. These include place-based and people-oriented approaches in defining urban policies, rapid recovery after the crisis, faster shift from a target of increasing mobility to one of enhancing accessibility, reducing inequalities, improving quality of urbanisation, development of digitalisation, raising the level of ecological awareness, building citizens' trust in governments, focusing on resilience, implementation of global agendas (e.g. SDGs, the New Urban Agenda etc.).

Secondly, the difficult situation in Europe and worldwide when it comes to security, has been further complicated by the armed conflict taking place in Ukraine for more than a year now.

Also, environmental issues remain equally important, if not the most important challenge in the coming decades. Surely, urbanization and climate change are closely related, as cities are responsible for about 70% of global greenhouse gas emissions and additionally consume up to 75% of global energy. In general, this makes them the subject of particular attention in the context of complying with the sustainable development objectives set both by the United Nations and the European Union.



2.1.2. Types and Functions of Urban Spaces

What is actually an urban space? Spaces in cities are created by and for people: their residents or visitors. It is they who give cities their specific character, and the way they are organized can influence the further development of a neighbourhood, district or city. The character and functions of the space are also important, as through their attributes they can attract or repel potential or already residing users. Rob Krier, Luxembourg architect and urban planner, claims that urban space is a concept in which “*the space is geometrically bounded by a variety of elevations*” (Krier, 1991: 15). Internal space is characterized by privacy and inaccessibility while the characteristic of external space is openness.

2.1.2.1. History of urban functionality

Spaces in cities are shaped by a number of factors - both exo- and endogenous. Ernest Burgess, one of the pioneers of urban sociology research and co-author of the iconic work "The City," was also the author of one of the most famous (but also quite widely criticized) theories relating to city modelling. Called the zone-centric or ring model, it assumed concentricity and symmetry of urban zones, which were arranged around the Central Business District. The basis for this model was the very rapidly growing American cities of the early 20th century. Burgess, on this basis, divided the city into five basic zones that differ in terms of land use (Burgess, 1925):

- 1) the Central Business District - where the main role was played by commercial and service buildings and all banking, financial and administrative institutions;
- 2) the transformation zone or transition zone - comprising primarily industrial buildings with ports or terminals located there;
- 3) inner suburbs;
- 4) zone of single-family housing;
- 5) suburban districts.

The concentric city model was based primarily on Chicago. However, due to the significant differences in construction and land use that can be observed between North America and Europe (and Central Europe in particular), it is difficult to make a direct translation of Burgess' model to European cities. It did (and still does), however, provide a solid basis for developing other theories related to zoning and functions in the city. In the mid-1940s Chauncy D. Harris and Edward L. Ullman developed another model of urban development, which also grew out of the experience of American cities. This model was called the multiple nuclei model. The authors detailed three basic functions or categories of cities (Harris - Ullman, 1945: 7-9):

- cities as central places that carry out service to the areas surrounding them - their distribution is even across the entire productive area;
- transportation cities - the most important transportation routes pass through them, so they tend to be linearly arranged along railroads or coastlines;
- specialized cities - usually one specific function is carried out in them, such as recreational or manufacturing - due to the fact that a specific resource (e.g. a mineral resource or a natural asset) is often a factor in their location (these cities can occur in clusters or individually).

According to Harris and Ullman, however, most urban areas have mixed functions, combining the three mentioned above. As part of their research and modification of the previously discussed models, they also divided the urban area into five zones, but in a slightly modified configuration [Harris and Ullman 1945: 12-13]:

- 1) central business district combines social, commercial and service life; around it is a wholesale trade district;



- 2) transitional zone is quite degraded, rich in buildings serving as boarding houses and also often inhabited by colonies of recent emigrants; zone two is also home to business and also light manufacturing;
- 3) zone three, inhabited primarily by labourers and/or second-generation immigrants who have moved from the transition zone but remain in relatively close proximity to their jobs;
- 4) zone four is mainly made up of single-family homes, gated communities and apartment buildings;
- 5) zone five, referred to similarly to the models presented earlier as the commuting zone and is often found in suburban areas or satellite cities.

2.1.2.2. Contemporary types and functions of urban spaces

In a city, as a social space, everything should have its place and each part of the city, whether autonomous from the others or not, has its specific functions. In order for a city to develop adequately, it should have a balance in a number of issues, including the balance between population and jobs, or between anthropogenic and natural elements (Karwińska - Brzosko-Sermak, 2013). It is also important to realize the "principle of equity," in which the living environment allows its residents a chance to fulfil all their needs and aspirations (Sen, 2002: 69-70).

In addition to the administrative division of the city's territory, the area is also divided, more or less chaotically, by different types of space. This division is shaped by human interference and occurs in each of the four adopted zones of the city: the central zone (the medieval core of the city), the transformation zone, which often includes areas of former suburbs, the zone of new housing developments, and the peripheral zone, which has a multifunctional character (Sagan, 2010). Basically, two main types of space are distinguished:

- **public space** - generally accessible to each of its users, whether residents, tourists or visitors, and
- **private space** - reserved only for those who live there.

Their modifications are **semi-public and semi-private spaces**: the former is mainly determined by the appropriation of public spaces by selected social groups, while the latter is associated with the opening of private spaces, both architecturally and metaphorically or socially, to other users. Focusing on the issue of space in the city, it is worth mentioning that it is sometimes difficult to say unequivocally to which category space belongs. With regard to how various forms and types of neighbourhoods in the city can be distinguished, it often happens that the spaces of two units that are similar in terms of development can constitute a semi-public or semi-private public space.

Spaces in a city which can be used by all its participants are generally open spaces - public spaces. Researchers believe that how public spaces are managed also directly affects the phenomena in them. The debate over public spaces and how to manage them has, in effect, created two groups - those who advocate the claim that public spaces are over-managed, and those who argue that they are under-managed. Matthew Carmona has detailed five basic types of public spaces that arise as a result of insufficient or inadequate management (Carmona, 2010a):

- **neglected space** - this inattention refers to both physical issues and in the context of market operation;
- **invaded space** - indicates significantly the problem of car-dominance and losing social functions;
- **exclusionary space** - this intentional or unintentional hindrance results in creation of barriers, both psychological (referring, among other things, to concerns about the adequacy of street safety) and physical (e.g. for people with disabilities);



- **segregated space** - its emergence can stem from the need for separation (usually of wealthier social groups), and is most often related to fears for one's own and family's safety, but they are often created as a result of self-generating, self-reinforcing urban processes;
- **domestic, third and virtual space** - it is related to the withdrawal of individuals from public life and betting on more intimate spaces: domestic, third (that is, more informal in the form of, for example, cafes, bookstores or private meeting places) and also virtual (which are associated with the strong development of ICT).

Carmona believes that, in turn, over-management of public spaces leads to four other types of it:

- **privatized** - associated with the process of privatization of space resulting from taking over, closing or redesigning previously public, publicly accessible spaces;
- **consumption** - triggered by the phenomenon of globalization, which leads to the penetration of economic phenomena into societies and culture;
- **invented** - refers to spaces that have lost their authenticity, they are often called "placeless" places;
- **scary** - refers to places whose appearance is shaped by phenomena related to crime and the fear of crime thus interfering with the free use of space.

Research on urban spaces is based on many different approaches or classifications. Margaret Kohn, in defining public space, used three basic components (Kohn, 2004): ownership, accessibility and intersubjectivity. It is governed by authorities but available to all users, without any restrictions. According to her, however, the classification itself and the assignment of space to the private/public category is quite a difficult task. Importantly, however, according to Krier, "*the activities of a town take place in public and private spheres*" (Krier, 1991: 17), and how private space is developed is influenced by how adjacent public spaces are arranged. Krier points to two basic forms that constitute urban space: the square and the street. The square is formed by a group of buildings situated around an open space - it is considered one of the first uses of urban space by people. It is also a more attractive place to spend time than the street, mainly because of its size.

New typology, which is based on earlier studies, sheds new light on urban space and its functions. The already cited author, Matthew Carmona, divided urban space into 20 types combined into four groups: positive, negative, ambiguous and private space (Carmona, 2010b: 169-170).

- **Positive space** refers to all the natural (or semi-natural) and open, available for every person space which is usually in the possession of the municipal or state authorities. These include streets, rivers, canals, parks, urban forests etc - all within the administrative boundaries of the city. The following space types belong to this category: natural/semi-natural, civic and public open.
- **Negative spaces**, as the second listed group, relates to areas which are mainly dominated by movement needs (roads, motorways, car parks, etc.) or are abandoned or undeveloped. This group includes space types as movement, service, left over and undefined.
- The third group called **ambiguous spaces** is the widest one and contains the largest number (10) of different types of spaces: interchange, public "private", conspicuous, internalized "public", retail, third place, private "public", visible private, interface and user selecting. As the group's name suggests all spaces are rather difficult to classify and are described by a wide variety of characteristics, e.g. physically private but visually public (such as front gardens or gated squares), reserved for selected groups of users (skateparks or playgrounds) or privately owned but publicly accessible (shops, petrol stations).
- The last, least numerous group which is called **private space** refers to three types of space: private open, external private and internal private. All of them, as the name suggests, are not available for

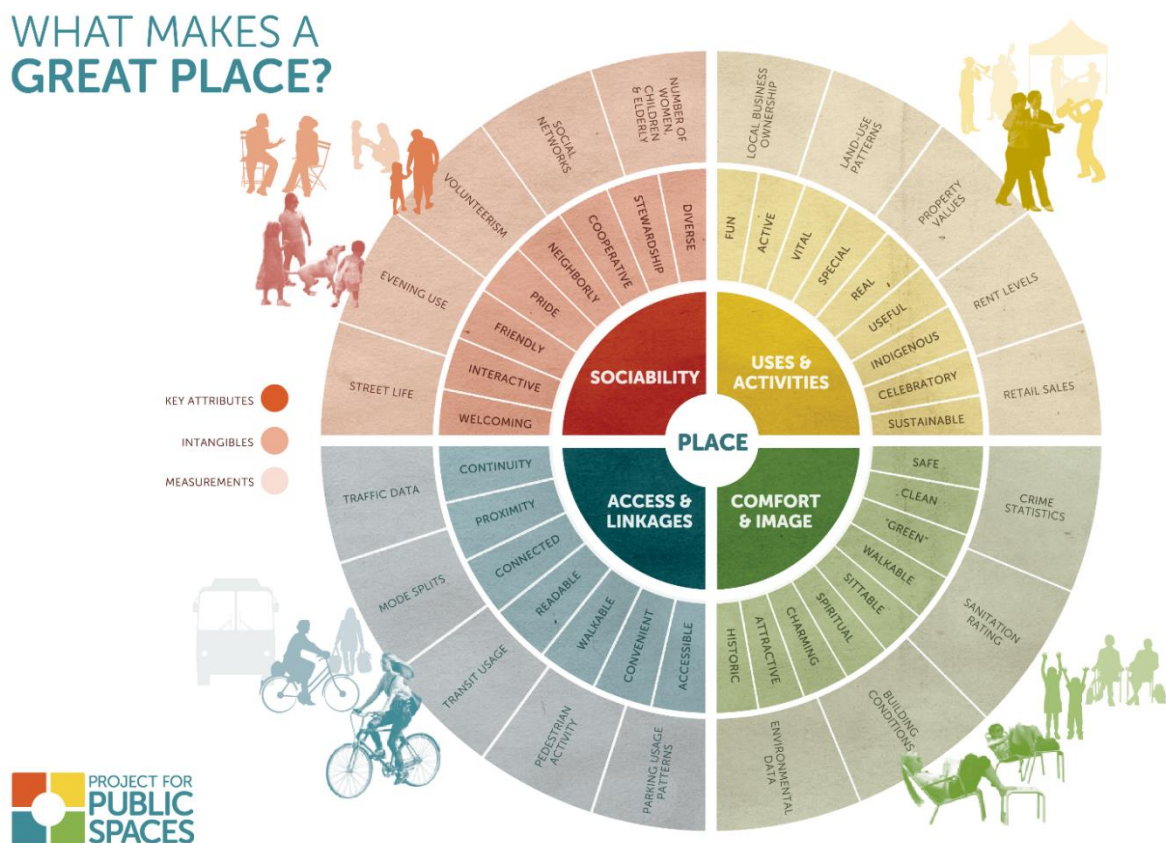


every city user. This group includes such examples like private woodlands, offices, private sports clubs or gated street.

Many functions and types of urban spaces are formed unwittingly by users' activity. Some of them are created intentionally for the urban community (as a whole or only selected groups) by authorities, urban planners, activists, etc. As the historical examples show urban structures and functions of particular spaces may differ and evolve in time. According to researchers, one of the most important factors that influence on urban space is human activity: taking or not taking action, both for their users and their creators.

All of these phenomena influence the circumstances and conditions for potential tactical urbanism, placemaking and transit interventions as cities intends to **create successful and quality urban spaces**, which can be characterized by a mix of uses, good accessibility, interconnectivity in social and physical terms as well as attractiveness in the broadest possible sense.

Figure 5 The concept of quality public places



Source: <https://www.pps.org/>

2.1.3. Key Issues and Challenges of Urban Mobility and Public Spaces

In the 21st century, urban spaces face a multitude of challenges that significantly impact the way we use and experience cities - and these have particularly important implications for tactical urbanism, tactical placemaking, and tactical transit. The importance of these challenges lies in their impact on various aspects of urban life. One of the key areas affected is the quality of life for urban residents. Rapid urbanization has often led to solutions that deteriorate the overall quality of life, and mobility plays a central role in navigating a city successfully or not. Understanding these phenomena is crucial to applying innovative and creative solutions for creating liveable, sustainable, and inclusive cities as well as.



Figure 6 Key issues and challenges of urban mobility and public spaces



Source: own editing

Shifting from Car-Dominated to People-oriented Cities

One of the fundamental obstacles in urban spaces is the dominance of cars and the resulting negative consequences on mobility, environment, and quality of life - among others congestions, air and noise pollution, respiratory diseases or even obesity. According to Eurostat, in the European Union, private cars accounted for 72% of inland passenger transport in 2019, while walking and cycling accounted for only 21% (Eurostat, 2021). Urban spaces are often used only for travel and transit, which is also reflected in the time spent commuting: according to the data of the Eurostat from 2019, 8.2% of the employed persons aged 20-64 years in the EU travel to work at least 1 hour, over a quarter (26.6 %) took between 30-59 minutes to do so, while in case of 61.1% it takes less than half an hour, and the remaining 4.1% did not commute at that time. It is very important how people spend this time, on what means of transport, and whether it can be reduced or optimized. A key trend emerging in urban planning is the shift towards people-oriented cities, where the needs and well-being of residents take precedence over vehicle dominance (Gehl, 2004; Jakobs, 1961). Prioritizing public spaces and community facilities over parking lots can foster a sense of inclusivity and promote social interaction among city dwellers. Subordination of green surfaces to asphalt hinders physical activity and exacerbates health issues, as studies indicate that access to parks and recreational areas can reduce the risk of cardiovascular diseases and improve mental well-being (Gascon, 2016). People-oriented approach also has economic relevance: investing in people-centric urban development initiatives and taking all target groups' needs and expectations into account can also attract businesses, talent, and tourism, contributing to the overall prosperity of the city as thriving cities rely on vibrant local economies (Eurocities, 2021).

Modal Shift to Public Transport, Walking, and Biking

Encouraging a modal shift from private vehicles to public transport, walking, and biking is essential for sustainable and efficient urban mobility. However, this shift requires significant infrastructure improvements, effective transit systems, and enhanced pedestrian and cycling infrastructure. Tactical transit interventions, such as pop-up bus lanes and bike lanes, can demonstrate the benefits of alternative modes of transport and encourage people to choose sustainable options: cities should prefer implementing - initially temporary, but later permanently sustainable - infrastructure that prioritizes walking, biking, and



public transport. Encouraging active transportation such as walking and cycling promotes physical activity, reduces sedentary lifestyles, and lowers the risk of chronic diseases. Providing suitable, sustainable, and affordable transport options for all is a major challenge for public administration. Tactical urbanism and tactical placemaking can play a crucial role in transforming urban spaces by reclaiming public areas and creating pedestrian-friendly streets.

Digital transition

Digital transition is one of the key common goals of the European Union. One of the key challenges is the development of adequate digital infrastructure. Upgrading networks and ensuring high-speed internet connectivity can be costly and time-consuming, hindering the adoption of digital technologies crucial for modern services (including transport services) and economic growth. Another challenge lies in digital literacy and skills development, which fundamentally can fuel the competitiveness of a city as well as their businesses in the EU's digital landscape. The data of the Eurostat show controversial picture: in 2021, 54% of people in the EU aged 16 to 74 had at least basic overall digital skills, while 68 % of individuals in the EU ordered or bought goods or services over the internet for private use in 2022. Being open to innovative solutions and confidently using digital services is especially important for influencing the travel attitude. Digital technologies in cities such as smart mobility solutions (e.g. real-time transportation apps, ride-sharing platforms, bike-sharing systems, ride-hailing, intelligent traffic signals) or data-driven decision making both at city and at individual level can drive positive changes also in connection with the topic of the PopUpUrbanSpaces project.

Effective Urban Land-use, Density, Multifunctionality and Inclusiveness

Optimizing urban land-use and density is crucial for creating compact and efficient cities. This topic also includes the concept of the 15-minute city as a model for creating self-sufficient and liveable neighbourhoods. This approach aims to ensure that residents can access most of their daily needs, such as jobs, services, and recreational facilities, within a 15-minute walk or bike ride from their homes. Tactical urbanism and tactical placemaking emphasize the importance of maximizing the use of existing urban spaces and promoting mixed-use hubs with a diverse range of amenities and services - and these principles have to be taken into account also in spatial and urban planning processes. By repurposing underutilized areas and transforming them into multifunctional spaces, cities can enhance their vibrancy and reduce the need for excessive commuting and the reliance on cars for everyday activities. These interventions can help create a sense of place, foster social cohesion, and contribute to sustainable urban living. Tactical urbanism initiatives also prioritize the creation of inclusive and versatile public spaces that cater to the diverse needs and preferences of the community. Incorporating elements such as green spaces, seating areas, play zones, and cultural installations provides opportunities for social interaction, recreation, and expression. Inclusiveness is a key consideration, as tactical urbanism seeks to address generational differences and the needs of marginalized groups, ensuring that urban spaces are accessible and welcoming for everyone (Carmona, 2010a).

Gamification and Behavioural Change

Addressing the challenge of promoting sustainable mobility and active transportation often requires engaging citizens and encouraging change of attitude. Gamification, a concept that applies game design elements to non-game contexts, can be employed to incentivize walking, biking, and the use of public transportation. Gamification and nudging techniques, such as leaderboards, achievements, and rewards, have a proven ability to engage and motivate individuals. By integrating game elements into initiatives promoting sustainable urban mobility and public space usage, gamification can capture people's attention and make them actively participate. By utilizing specialized apps or platforms, individuals can be rewarded for choosing sustainable modes of transportation, fostering a culture of active mobility (Titze, 2022). It creates a sense of challenge, competition, and accomplishment, making sustainable behaviours more appealing and encouraging individuals to adopt them in the long run (Hamari, 2014).



Urban Transformative Capacity, Community Engagement and Empowerment

As cities continue to experience rapid urbanization, providing suitable, sustainable, and affordable transportation options becomes crucial. This challenge requires effective initiation, financing, implementation, and adoption of sustainable mobility solutions, while public administration is often overburdened with adapting quick to new realities. Lack in manpower and skilled workers make it difficult to implement transformative measures and policies. Key actors, including public administration, transportation agencies, and urban planners, play a vital role in shaping mobility systems and must actively involve citizens to initiate habit formation successfully. The traditional approach of broken and non-participatory public planning processes hampers the effective utilization of urban spaces. Residents often find themselves reacting to proposals they do not fully understand, inhibiting incremental changes at the neighbourhood level. To address this challenge, tactical urbanism and tactical placemaking emphasize the importance of engaging citizens actively in decision-making processes. By involving communities and promoting participatory planning, these approaches ensure that urban spaces are shaped according to the needs and aspirations of the residents (European Commission, 2019).

Health and Social Factors

Urban spaces in the 21st century are witnessing a growing concern for public health. Unsustainable traffic patterns and urban industries contribute to air pollution, posing a severe threat to city residents. Additionally, the lack of walkable green spaces hinders physical activity and exacerbates health issues. Tactical urbanism and tactical placemaking offer solutions to address these health challenges. By creating walkable neighbourhoods, promoting green spaces, and enhancing waste management practices, these approaches contribute to improved public health outcomes. Moreover, addressing social challenges such as poverty, real or latent conflicts, lack of social cohesion, marginalized and vulnerable groups is essential to fostering vibrant and socially cohesive urban spaces. Tactical urbanism recognizes the importance of social spaces and advocates for their inclusion in urban planning as social factors come into play as cities can foster social isolation due to a lack of social spaces in close proximity. Initiatives such as superblocks in Barcelona or Supergrätzls in Vienna aim to create inclusive and socially vibrant areas, enabling citizens to actively participate in social activities (Stadt Wien, 2022).

A Limited Quantity and Availability of Resources

The scarcity of resources poses a significant challenge in urban areas. The increasing demands for affordable housing, public spaces, clean air, public transportation, and other essential urban amenities often surpass the available resources. Innovative financial models, such as impact bonds, green bonds, crowdfunding, and public-private partnerships, can help overcome the financing hurdles and accelerate the transformation of urban spaces and urban mobility. Strategic allocation of resources and comprehensive planning is crucial to ensure sustainable and equitable urban development.

2.1.4. The Policy Context

Urban mobility and using public spaces are undergoing a transformation, driven by the need to reduce carbon emissions, improve air quality, and create more liveable cities. While strategies and actions naturally vary on the local level, they are guided by some of the policies at the European level.

The European Green Deal is a key driver of the transformation of urban mobility, as it provides a framework for reducing the environmental impact of transportation. Reducing carbon dioxide (CO₂) emissions is a critical component for the transformation of urban mobility as transportation is a significant source of pollutants. Policies aimed at reducing traffic-generated CO₂ emissions include promoting the use of electric vehicles, improving public transport, and encouraging active modes of mobility such as walking and cycling (Titze, 2022). The European Green Deal calls for a 90% reduction in greenhouse gas emissions from transport, in order for the EU to become a climate-neutral economy by 2050, while also working towards a zero-pollution ambition. To achieve this systemic change, member states need to



- make all transport modes more sustainable,
- make sustainable alternatives widely available in a multimodal transport system and
- put in place the right incentives to drive the transition.

These are the three pillars of future actions (European Commission, 2020).

The Urban Agenda for the EU is a policy framework that aims to promote sustainable urban development focusing on a range of issues, including climate adaptation and digital transition. The Agenda represents a new multi-level working method, for urban policy and practice, promoting cooperation between Member States, cities, the European Commission, and other stakeholders. It was launched in May 2016 with the Pact of Amsterdam and reconfirmed as a valuable initiative in November 2021, with the Ljubljana Agreement. In 2017, Digital Transition and Urban Mobility were included under the Bratislava Partnership. In the 2021-2027 period, support to the Urban Agenda for the EU will be provided under the European Urban Initiative. Urban mobility is one of the 14 partnerships under the umbrella of the Agenda. The majority of the main outcomes also matter to the PopUpUrbanSpaces project (Urban Agenda for the EU, 2020):

- reinforcing multi-level cooperation and governance,
- reinforcing the uptake of sustainable urban mobility planning,
- evaluating best practices in convenient access to public transport,
- developing guidelines on infrastructure for active mobility,
- promoting sustainable and active mobility behaviour,
- exploring the deployment of new mobility services.

The **Territorial Agenda 2030** is a policy framework that aims to promote sustainable and balanced development supporting decision makers and planners in the area of (cross-border) spatial planning, with a focus on climate change and digitalization. One of the initiatives under the Agenda is targeting small towns and villages supporting them to strengthen the territorial coordination of policies, and cooperation between territories. Small towns and villages have a key role in rural regions, especially in relation to maintaining and developing them as attractive places to live and work for young populations and identifying ways to strengthen the links between insights and momentum from bottom-up/local initiatives and top-down planning processes. The key catchphrases are balance, integration, convergence, multilevel governance, resilience, sustainability, connection, place-based approaches - their relevance for tactical urbanism are unquestionable.

The New Leipzig Charter, endorsed by the informal council of EU ministers on urban matters in 2020, focuses on the transformative power of cities for the common good. In doing so, it calls for cities to have a stronger role in decision making at both national and EU level, to receive adequate financial means to deal with new and essential competencies and sets a framework for how urban development should take place in Europe across the different layers of governance. The Charter emphasizes the importance of digitalization to accelerate the transformative process to sustainable cities as a major, cross-sectoral trend affecting all dimensions of sustainable urban development. Digital solutions can deliver innovative and high-quality services to the public and businesses, including smart urban mobility. The Charter also states that public transport should be accessible, affordable, clean, safe and attractive for all. To reduce transport and mobility needs, a polycentric settlement structure should be as compact and dense as possible while supporting multiple uses including housing, retail, production and transport.

Beside the EU-level guidelines, **national and local policies** - and the strong alignment between them - can play a crucial role in creating ideal circumstances for innovative approaches in connection with making urban places more attractive, liveable, human-centred and just. At the national level, supportive policies can provide a conducive environment for tactical urbanism initiatives to thrive - based on state-level mobility and urban planning concepts, strategies and regulations. At the local level, policies and multilevel



governance play a fundamental role in enabling tactical urbanism to flourish and become an integral part of the urban fabric. Local governments are often closer to the needs and aspirations of their communities, making them best placed to create policies that reflect the unique characteristics and challenges of their cities - and these factors are reflected in the relevant documents and legislations (e.g. urban development strategies and plans, SUMP, traffic and building regulations). Implementing flexible zoning regulations, streamlined permit processes, and temporary-use agreements can empower citizens to experiment with creative and low-cost urban interventions. Furthermore, local policies that prioritize community engagement and participation enable residents to have a direct say in shaping their neighbourhoods, instilling a sense of ownership and pride in the outcomes of tactical urbanism initiatives.

2.1.5. Using Inspiration and Knowledge from Other Projects

PopUpUrbanSpaces aims to assist primarily small and medium-sized towns in embracing smart and sustainable urban mobility solutions while enhancing their public spaces. This is achieved by actively involving citizens in the co-creation and testing of innovative ideas, green approaches, and digital technologies, utilizing tactical urbanism and placemaking principles.

Although tactical urbanism and placemaking are relatively new concepts in urban development, they have been widely implemented and experimented with across Europe and beyond. These approaches are gaining recognition in scientific literature, and numerous cities have successfully applied them, providing valuable lessons and good practices.

Consequently, PopUpUrbanSpaces partners can be inspired by and learn from a wide range of European and international initiatives, cooperation projects. Instead of relying only theoretic knowledge, they can learn from the real-life experience of other cities - success stories and (probably even more importantly) failures, and even interact and exchange with other networks.

The difficulty is not that the relevant resources and collections of methods, good practices are scarce - quite the opposite - there is so much information easily available, that it is difficult to process and choose from. However, the abundance of information can be overwhelming. To address this, the Baseline Study knowledge providers have carefully curated and highlighted the most relevant and practical resources for our city partners.

The chosen resources meet the following specific criteria:

- **Relevance:** Initiatives selected align thematically with PopUpUrbanSpaces and cater to cities of various sizes.
- **Practical and actionable:** City partners require specific examples, solutions, and methods that can be easily adapted, tested, or serve as a solid starting point for local interventions.
- **Thorough and detailed:** Resources provide comprehensive descriptions of good practices and methodologies, offering all necessary information for learning and adaptation.

Below we briefly present the resources chosen based on the criteria above.

- **PPS - Project for Public Spaces** defines itself as a cross-disciplinary non-profit that shares a passion for public spaces. They support cities, local communities to plan and design lovable and functional public spaces together with the people who use them every day. They use placemaking approach to transform public spaces. While an US organisation, many of their methods, tools and examples are relevant and adaptable for most cities. They offer a wide range of resources - freely downloadable practical guides - [on their publication page](#).
- **Placemaking Europe** is „a European network that connects practitioners, academics, community leaders, market players and policy makers across the field of placemaking.” It is a non-profit foundation that develops and shares knowledge, designs tool and advocates policies that help the creation of better public spaces in cities. [Their Toolbox](#) contains a wide range of practical tools,



methods, and practices - including detailed step-by-step guides of developing and implementing specific tactical urbanism interventions. PopUpUrbanSpaces partners cannot just be inspired but may even decide to select some tools to experiment with. The Toolbox also contains various easy-to-use methods to engage the local community in the placemaking process.

- [Tactical Urbanists Guide](#) is a website dedicated to the theme of tactical urbanism. This is an excellent resource to learn more about the concept of tactical urbanism, various use cases, methods - as well as guides to implement a wide range of tactical urbanism projects (e.g. temporary parklets, pop-up bike lanes, pop-up cafés, street fairs, play streets, etc.). It even presents an extensive materials and design guide to help communities and cities.
- **CityWalk** is a RegioStars Public Choice Award winner project, co-financed by the Danube Transnational Programme. Its main goal was to help small-and medium-sized towns in the Danube Region to become better places for pedestrians. The project has developed and offers a wide range of specific tools to achieve its goal, including a Walkability Guide, a Walkability index and online assessment tool, a Walkability Planning Guide for cities and a Good Practice Catalogue.
- **SPACE4People** has been an URBACT III Action Planning Network. The partners forming the network focused on significantly improving their public spaces, by shifting from accommodating cars to more people-centric use cases. The network has developed a very practice-oriented webinar on tactical urbanism, as well as detailed practical guide helping cities to implement more efficient parking management (and thus freeing valuable public spaces) and another one on creating pedestrian zones.
- **Thriving Streets** has been another URBACT III Action Planning Network, with a purpose of designing mobility for attractive cities and transforming streets to create people-friendly places. It has developed various resources aimed at cities - including a "[Thematic Report - Concepts and Methods to Rethink our Streets](#)". The Report intends to respond 3 main questions - all 3 relevant to PopUpUrbanSpaces partner cities:
 - WHY do cities need to move away from car dependency and create better conditions for active mobility?
 - WHAT are the main "ingredients" of a thriving street / public space?
 - HOW can we implement the transformation process, what tools can we use?
- **Walk&Roll Cities** is a capitalisation initiative of 3 URBACT Action Planning Networks - Space4People, RiConnect and Thriving Streets. It involves 28 European cities of various sizes, from 16 different countries to work together and share their knowledge to face today's urban mobility and public space challenges. The partner cities together explored visions and interventions that could contribute to a massive reduction of car use in our cities while simultaneously improving public spaces. The main input of their joint effort and cooperation is the "[Walk'n'Roll Cities Guidebook - Innovations in mobility and public space](#)". This practical guide contains 4 high level visions and 9 specific innovative interventions cities can adapt to their local circumstances and use, all supported with specific city case studies.



2.2. Focusing on Tactical Urbanism

2.2.1. Birth of Tactical Urbanism

Having a lookback at the urban planning of the last century, it can be concluded that developments were mostly rigid and time-consuming, moreover, the public is only involved to a limited extent in the planning process. The requirements, tasks and roles of local governments are increasing while on the other hand their budgets are reduced. In order to solve mobility and environmental problems that cities face, a solution would be to increase the proportion of active urban mobility users within the transport mix.

Essential principles of and potential solutions to urban mobility and public spaces have been fundamentally transforming since the seventies. The central idea is that transport modes need to use space efficiently. To meet the demands of an increasing number of people - which causes more traffic - distances must be covered efficiently. Trips have to be as short as feasible and transport must be managed with as little need for resources, such as space and energy, as possible. Due to their dense structures, cities are ideally suited for this. Cars need a lot of space. Hence, in the long run, it is not viable to cover distances only by (electric) car in cities with constantly rising populations. Equitable access to mobility can only be ensured by means of more sustainable modes of transport. The advancement of pedestrian, bicycle and public transport to enable mobility in growing cities is internationally recognised as a concept for which there is no alternative. Decades of concentration on segregated functions and car-oriented growth in cities has not produced the desired results and caused decision-makers throughout the world to reconsider their approach.

However, changing the proportion within the transport mix is only possible if the environment is safe, comfortable and attractive. To create such an environment requires a huge number of administrative tasks which is usually also expensive and time-consuming. Moreover, the transformation of ideas into real life does not always have the expected results.

As environmental and social pressures increase, they need to change approaches how settlements and life within are organised, supporting initiatives strengthening citizens self-efficiency connecting formal top-down planning incentives with flexible informal bottom-up initiatives. Urban development and planning (Healey, 2001) need more informal, flexible and adaptive democratic processes for negotiating, decision making, adapting and managing shared custody of open spaces (Young, 2000). Non-resilient urbanisation patterns, the fragmentation, depletion and destruction of habitats for humans, animals and plants by streets and places for “cars only” will be answered by tactically choosing/finding the right temporary initiatives that should not stay “only” temporary but can tactically lead into new lively ongoing place making and place caring activities by e.g. neighbourhood groups. Within those initiatives the connectivity between existing, modified and new place and street ecosystems can contribute to change mobility behaviour by enabling ecosystems to deliver their services for more liveable, healthier and resilient cities.

Therefore, an environmentally conscious urban development is needed, which can reduce the risks and has the potential to assess the real reaction of population prior to the practical implementation. Tactical urbanism can be a solution to these problems.

2.2.2. Definitions

To have a common understanding about the nature of tactical urbanism and the related phenomena among the readers and users of the Baseline Study, an overview is provided through the present subchapter.

2.2.2.1. The Key Phenomenon: Tactical Urbanism

In spite of conventional, top-down and bureaucratic urban planning processes, tactical urbanism shows a shift towards quick, adaptive and low-cost interventions that prove the usability and viability of design ideas before their large-scale and expensive implementation. Tactical urbanism refers to a set of temporary, small-scale and low-cost interventions that aim to improve public spaces and promote social interaction in



urban areas. The following definitions of tactical urbanism highlight the main characteristics of the intervention.

Although the first pilot projects date back to the beginning of the 19th century, it was first defined in the book *Tactical Urbanism: Short-term Action for Long-term Change* by Anthony Garcia and Mike Lydon in 2015 as “a city, organizational, and/or citizen-led approach to neighbourhood building using short-term, low-cost, and scalable interventions and policies to catalyse long-term change” (Lydon, 2015). They coined the term by building upon Merriam-Webster’s definition of *tactical* as “relating to small-scale actions serving a larger purpose” and applied it within the context of the cities. According to Lydon, tactical urbanism is an intervention that has the following characteristics:

- it offers local solutions to local planning challenges,
- it has short-term commitment and realistic expectations,
- it is based on a deliberate, phased approach to driving change,
- it minimizes the risks of implementation, and, on the contrary, is characterized by a potentially high reward, and,
- it develops social capital between citizens, whereas builds organizational structures between public and private institutions, non-profit organizations and citizens.

The Tactical Urbanism Guide (2023) defines tactical urbanism as a “short-term action for long-term change” that involves low-cost, high-impact interventions in the public realm. The interview conducted by Project for Public Spaces summarizes tactical urbanism as “giving people the tools to effect the change they’re looking for, and having an iterative conversation toward a long-term solution”. The American Planning Association describes tactical urbanism as a grassroots, bottom-up approach to neighbourhood and urban planning that uses short-term, low-cost and often temporary interventions to make a positive change in the built environment. According to the National Association of City Transportation Officials (NACTO) in North America, tactical urbanism is a means of engaging communities in testing ideas and evaluating potential improvements to streets and public spaces. Based on the publications of the Urban Design Forum, tactical urbanism is a participatory approach to urban design that prioritizes community engagement and experimentation to rapidly prototype small-scale interventions.

Coyle defines tactical urbanism as a cost-effective approach that utilizes simple, versatile materials and structures to quickly create new communal spaces of various sizes. This approach is accessible to a wide range of people and is intended to be a temporary solution that can significantly influence the design and usage of urban areas (Coyle, 2020).

The definition of Abdelkader focuses on the implementation of tactical urbanism interventions, which involve the use of basic materials such as flowerpots, newly planted trees and colored paint, can promote physical activity and social interaction. These interventions are particularly effective in creating more space for cycling and walking, resulting in safer and more accessible streets for pedestrians. Moreover, because these interventions require less time to plan, design and obtain approval, they can be executed more quickly, making them an ideal short-term solution for urban development (Abdelkader et al, 2023).

According to Senger, tactical urbanism is often synonymous with the terms like “pop-up” and “guerrilla” urbanism. The primary objective is to achieve significant positive changes with minimal risk. These interventions aim to capture the attention of a wide audience, offering them a glimpse of potential transformations. The goal is to provide people with an experimental understanding of how their city could become more vibrant, safer and convenient (Senger et al, 2021).

Tactical urbanism encompasses a range of practices that share a collaborative approach, bringing together various stakeholders to develop alternative planning methods. The goal is to provide goods and services that operate outside of the traditional market-based system. These practices are designed to be more inclusive



and responsive to the needs of local communities, providing a way to improve urban areas and promote social and economic equity (Aernouts et al, 2022).

Tactical urbanism is generally contrasted with traditional top-down urban planning approaches, which may be slow and expensive in implementation, moreover, less responsive to community needs and desire. Some experts and scholars argue that tactical urbanism can be a form of guerrilla urbanism that challenges power structures and norms, whereas allows marginalized communities to have a greater say in the design and use of public spaces (Hou, 2020). Others caution that tactical urbanism may reinforce existing inequalities by privileging certain voices and interests over others and may not always lead to long-term or equitable outcomes.

Figure 7 Key features of tactical urbanism interventions



Source: own editing

The above definitions of tactical urbanism share common concepts, such as the emphasis on low-cost, temporary interventions, community engagement and the potential for long-term change. However, some of the definitions focus more on the grassroots and bottom-up nature of tactical urbanism, while others emphasize its potential to catalyze policy change. Overall, tactical urbanism can be seen as a flexible and adaptable approach to urban design and planning, that allows for experimentation and community input. It has the potential to be a powerful tool for improving public spaces, promoting social interaction and empowering communities.

In the PopUpUrbanSpaces project, two “tactical” subconcepts are also of decisive importance as they are the main focus of the pilot actions to be implemented by the partners:

- **Tactical placemaking** focuses on creating vibrant and inclusive public spaces that reflect the needs and desires of the community. Tactical approaches seem very promising in strengthening the humans’ relationship to places by using their emotional bond and motivation to care for “their” urban life - as crucial factors of placemaking. Placemaking in general is a multi-faceted approach for creating quality places for the people and by the people, using human’s attachment to place (Casey, 1997).¹ By applying Gustafson’s concept of expressing meanings of place in participation

¹ Scannell and Gifford (2010:5) described place attachment as “...a bond between an individual or group and a place that can vary in terms of spatial level, degree of specificity, and social or physical features of the place, and is manifested through affective, cognitive, and behavioural psychological processes”.



processes, we can better understand and work with the relationships that humans share in those specific places (Gustafson, 2001). When evaluating the qualities of places collectively, the identification and emotional attachment to the place play a crucial role in developing suitable initiatives for those places (Saar & Palang, 2009). Place meaning and place attachment are a complex and multifaceted phenomenon which involves the interplay of affect and emotions, as well as knowledge (Haraway, 1991) beliefs, behaviours and actions about and in a place. A substantial amount of research has been conducted on how place meanings are created and how they are expressed and observed (narratives, mental maps) in place attachment and humans' sense of belonging to a place, a community (Rottenbacher, 2006) - and this is a starting point for successful placemaking.

- **Tactical transit** seeks to address the challenges of sustainable mobility by promoting alternative modes of transportation with a strong focus on community engagement and data-driven decision-making. These interventions can include pop-up bus lanes, dedicated bike lanes, pedestrian plazas, and flexible routing adjustments, among others. This approach aligns with the principles of agile urban planning, offering the ability to respond rapidly to changing transportation needs and demographics, while fostering a collaborative environment between policymakers, researchers, and the public. Tactical transit draws inspiration from the broader tactical urbanism movement offering valuable insights into transportation dynamics and contributing to more resilient and efficient transit systems.

2.2.2.2. Subcategories and offshoots of tactical urbanism interventions

Over the years, various forms and approaches have emerged within the frame of tactical urbanism: guerrilla urbanism, pop-up urbanism, city repair, DIY urbanism, planning-by-doing, urban acupuncture, and urban prototyping. Even though the noted concepts are similar to tactical urbanism, they can as well be a subbranch of tactical urbanism. There are several categories of tactical urbanism interventions, each with its own unique approach and set of goals. The focus can be on improving public spaces, promoting alternative transportation modes, creating new public spaces and fostering community engagement and social interaction.² The tactical urbanism interventions might be grouped according to their specific purpose, the location of the implementation, or according to the cities where the various practices are most widespread. When focusing on the places of intervention, the following four categories can be identified:

- Road/street tactics,
- Parking lot/parking spaces tactics,
- Sites/blocks of buildings tactics,
- Tactics with no places defined.

In order to better understand each category, we present them in a structured table form which is followed by a short description of each intervention, determining the need and purpose of intervention together with its benefits. It should be noted that attaining a complete presentation proves quite challenging due to the multitude of diverse initiatives, coupled with the continuous emergence of new techniques and solutions.

² Yassin (2019) presents many examples in a recent study.
COOPERATION IS CENTRAL



Road/street tactics

Type of tactical intervention	Purpose	Leaders of tactical intervention
OPEN STREETS	Providing spaces for walking, cycling and social activities Increasing awareness about the detrimental effects of car usage in cities	Non-profit organizations, municipalities
PLAY STREETS	Creating safe places to be social and active	Activists, neighbourhood, municipalities
BUILD A BETTER BLOCK	Promoting liveable streets	Local organizations, entrepreneurs
INFORMAL BIKE PARKING	Increasing bicycle parking where needed	Activists, local entrepreneurs and organizations, inhabitants
INTERSECTION REPAIR	Repurposing neighbourhood street intersections as community space	Inhabitants, activists, local organizations
RECLAIMED SETBACKS	Creating more engaging neighbourhood	Activists, property owners, neighbourhood
FOOD TRUCKS	Providing low-cost food, activating underutilized sites and social groups	Local entrepreneurs
AD BUSTING	Reducing visual pollution of the public spaces	Activists, municipalities

OPEN STREETS Open streets tactic is a movement where they exclude cars from various streets and open them to people. The streets are repurposed into places that the people living in the city have not yet been able to experience. People of all ages and abilities can visit these streets for free while improving their health. The essence of the programme is to create routes where people are encouraged to move physically, e.g. between their residential building and commercial units. This type of tactical urbanism movement has been known for a long time and it is widely implemented, mainly in cities where people are increasingly seeking innovative ways to better public health, environmental and social solutions.



Photo: Via Venini, Milano, Municipality of Milano

Open Streets programs are widely recognized by health experts, community organizations, bicycle/pedestrian advocates and policymakers as having the potential to bring about numerous benefits for physical, social, environmental, community and economic well-being (Hipp et al, 2016). These initiatives not only promote active lifestyles and physical health but also intentionally showcase sustainable modes of transportation. Open Street events often pass through local business districts, emphasizing the convenience and accessibility of services when using active transportation methods. By doing so, they encourage and highlight the ease of accessing local businesses and services while engaging in active forms of transportation. Open streets are usually translated as “bike path” from the Spanish word “ciclovía”, as its origin is thought to be Bogotá, Colombia.



PLAY STREETS It is a similar movement to open streets tactic, which is focusing mainly on children, creating a public playground. During the intervention, various playing equipment (balls, jumpers), supervision and even meals are provided for the participants. Usually, these play streets are in the neighbourhood of schools. In the United States, where play streets is very common, the interventions are operated for a fixed period of time (about 3-5 hours), while in Germany, “Spielstraßen“ are permanent street closures. These play streets provide an opportunity for children to socialize, while their physical activity also improves.



Photo: Seattle Design Festival by Trevor Dykstra via flickr

BUILD A BETTER BLOCK In this intervention, different communities are formed, who aim to repurpose their underutilized or neglected environment and promote healthy neighbourhoods. In many cases, it is only small interventions that can repurpose an underutilized space, e.g. some paint is applied on a wall. The aim of the intervention is not only to create a more liveable area, but also for the participants to work together and shape the built environment together, fostering a sense of community engagement and ownership of public space. The approach typically involves a collaborative effort among residents, businesses, community groups and municipalities.



Photo: <https://www.betterblock.org/>

INFORMAL BIKE PARKING It aims to create safe and convenient bicycle parking facilities in urban areas. This kind of intervention is often used in response to a lack of formal bicycle parking infrastructure, which can make it difficult for cyclist to secure their bikes and even discourage people from cycling in general. One example of the practical use of the interventions is DIY bike racks, which are often made from simple materials such as wooden pallets and can be installed quickly in areas where formal bike parking is not available. Pop-up bike corrals are also often applied, which are usually installed in empty lots or public plazas.



Photo: Isaac Kremer

In some cases, converted car parking spaces can be seen, where temporary barriers and signage are used. It may seem that the design of some informal bicycle storage facilities is not completely practical and safe, however, still many people take advantage of the parking opportunity. Informal bike parking in tactical urbanism can help to promote cycling as a healthy and convenient mode of transport and can encourage more people to choose cycling over driving. By making it easier for people to park their bikes safely and conveniently, informal bike parking can help to create more bike-friendly cities and reduce dependence on cars.



INTERSECTION REPAIR It shows how to transform an intersection or street crossing into a community gathering space. The movement typically involves a collaborative effort among residents, artists, activists and local organizations. Unfortunately, the spread of this type of tactical urban development was triggered by the death of two schoolgirls who were run over by a car while on their way to the park. Some common interventions in intersection repair projects include painting a large design on the pavement, adding plants and installing public seating or benches, and creating a temporary street closure or traffic calming measures.



Photo: www.sshca.org/paint-your-intersection-project

Intersection repair also helps to promote safety by creating a more visible and defined pedestrian crossing, slowing down traffic. Moreover, these repaired intersections provide opportunity to neighbours to interact more frequently, to create a sense of community ownership.

RECLAIMED SETBACKS It is a similar movement to Park(ing) Day. Basically, permissions are needed to the conversion of the semi-public area between the property and the public road, therefore, these spaces have not been utilized. The movement was essentially started to bring the regulated area back to private individuals. These spaces are often overlooked or seen as undesirable, however, with the right intervention, they can become valuable community areas.



Photo: <https://stuartbramhall.wordpress.com/>

Reclaimed setbacks can be used for a variety of purposes, such as community gardens or gathering spaces for events.

FOOD TRUCKS Food trucks in tactical urbanism have more social aspects than in general as those food vendors are most dominant in minority or low-income communities. Food trucks are mobile, adaptable and they offer a variety of food options that can attract diverse groups of people. By providing food and drinks in public spaces, food trucks create a hub that encourages people to gather, relax and socialize. Moreover, they can add vibrancy and colour to underutilized spaces, making them more attractive to visitors.



Photo: Jane Hammond

Food trucks can be used to activate public spaces that are typically underutilized or empty, such as parking lots or street corners. These food trucks can generate an increased economic activity and community engagement.



PopUpUrbanSpaces

AD BUSTING Cities are full of various commercial advertisements, some to such an extent that people were getting unsatisfied. Ad busting is a movement in which people voluntarily remove advertisements from streets. It refers to a practice of altering or modifying outdoor advertisements in public spaces in order to convey a different message and can take many forms, including painting over a billboard, attaching stickers or posters to advertisements, or using projection to create alternative messages on buildings or other structures.

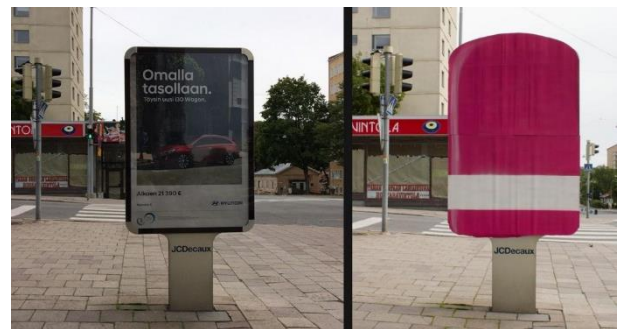


Photo: "JCDecaux Ice Lolly" by Vlady

Activists and artists often use ad busting as a tool to draw attention to issues such as social inequality, consumerism, corporate power. By destroying commercial advertising messages, ad busters can create new forms of public dialog and engagement, and challenge prevailing narratives about the role of advertising and consumer culture in our society.

Parking lots/Parking spaces tactics

Type of tactical intervention	Purpose	Leaders of tactical intervention
PAVEMENT TO PARK (PARKLETS)	Reclaiming underutilized street/road as public space	Local entrepreneurs, municipalities
PAVEMENT TO PLAZAS	Reclaiming underutilized squares (asphalt) as public space	Local authorities
PARK(ING) DAY	Reclaiming spaces from cars	Non-profit organizations, civil organizations, municipalities
POP-UP CAFÉS	Promoting outdoor seating in the parking lane	Local authorities, local restaurants
PARK MOBILE	Adding more neighbourhood green space and public seating	Local authorities, local entrepreneurs

PAVEMENT TO PARKS (PARKLETS) One of the most common and famous type of tactical urbanism involves repurposing small section of urban pavements or 2-3 parking places into temporary public spaces. Parklets typically take the form of small outdoor seating areas with green spaces on busy streets or in areas with limited green space, and they are designed to provide a range of amenities (benches, tables, plants, bicycle racks). The goal is to encourage public interaction and engagement in urban areas, moreover, parklets can help to shift the focus of urban design towards pedestrian and cyclist-friendly infrastructure by reclaiming space from cars and returning it to people.



Photo: Budapest, <https://ujkorut.hu/>

The cost of construction is usually covered by local businesses who recognize the possibility to attract more customers, however, these parklets are open to the public.



PAVEMENT TO PLAZAS Similarly to the previous intervention, this movement normally involves the temporary, or sometimes permanent closure of a section of a street or sidewalk, repurposing it to a pedestrian-focused space/plaza. These plazas offer seating and are designed with plants and artwork. The process of creating the intervention usually involves the collaboration between residents, businesses and municipalities. The approach of the forementioned cooperation ensures that the design of the plaza is responding to the local needs and priorities. Not only provide these plazas opportunities to residents to gather and connect but foster a sense of social cohesion and belonging.



Photo: Vancouver, www.thewestendjournal.ca

PARK(ING) DAY It is a global project where people repurpose car parking spaces and turn them into public spaces - and as such, it is one of the most well-known initiatives. It was first applied in San Francisco in 2005 only for two hours, and since then it has spread to cities around the world. As part of the intervention, seating, greenery and art installations are set up. The organization of a Park(ing) Day typically involves the collaboration of artists, small community groups and activists and it is often supported by local municipalities or businesses. Park(ing) Day is celebrated every year on the third Friday in September.



Photo: San Francisco, <https://inhabitat.com/>

The initiative is successfully raising awareness about the importance of public space, which is inspiring more and more cities to create more permanent programs. Besides the creation of attractive public spaces, it can help to promote walkability, to increase economic activity in the businesses nearby, and certainly, to provide opportunities for residents to gather and connect. Park(ing) Day serves as an illustration of urban acupuncture, which is a practice that focuses on specific local points of importance with the aim of revitalizing or energizing the broader urban space or even the entire city (Herman et al. 2020).

POP-UP CAFES Creative and catering industries, mainly coffee shops have developed rapidly in recent decades and are now a defining factor in cities. Pop-up cafes spread quickly in places where there is a little public space, however many people turn up. They are classically set up by using portable and easy furniture, such as tables, chairs, benches and umbrellas. They may also include food trucks, live music or other forms of entertainment. The process of creating a pop-up cafe involves the cooperation of local businesses, community organizations and authorities.



Photo: Gillian Downie, Catering Scotland

The approach of collaboration ensures that the design and operation of the café is responsive to local needs and priorities, thus the community is invested in its success. The main positive impacts of pop-up cafes are the increased social engagement and increased economic activity in nearby businesses.



PopUpUrbanSpaces

PARK MOBILE Park mobile movement in tactical urbanism is a direct response to the increase in green spaces required by people. The concept is to place containers in different parts of the city, which contain different types of plants. The created mini-parks provide a pleasant pedestrian experience, while they also represent an attractive environment for people passing by. These designs are easily movable and adaptable; therefore, they can be deployed in a variety of different urban settings. The miniature parks may be used to reclaim underutilized parking spaces, to improve pedestrian access and safety.



Photo: www.ravennabryant.org, Tactical Urbanism Salon

Sites/block of buildings tactics

Type of tactical intervention	Purpose	Leaders of tactical intervention
WEED BOMBING	Drawing attention to destroyed neighbourhood	Activists, artists, neighbourhood
SITE PRE-VITALIZATION	Reactivating a previously inactive parcel of land or building temporarily	Municipalities, activists, developers
PARK-MAKING	Increasing the use of park space by reclaiming underutilized parking lots or parcels	Activist, artists, neighbourhood, municipalities
MICRO-MIXING	Incubating new businesses and sustaining existing ones	Local entrepreneurs

WEED BOMBING The term “weed bombing” might be confusing, as street art is mostly harmful to the environment, and it is often destructive planting of vegetation in public spaces without the necessary permits or maintenance plans. However, weed bombing in tactical urbanism means something different, as the idea is to convert overgrown weeds into works of street art. The activist, artists decide to spray paint weeds in bright colours, turning them into art, beautifying them. In contrast to traditional street art, like graffiti, weed bombing has no damage on private or public property, moreover, it has immediate benefits to the quality of life.



Photo: Brian Clarey



SITE PRE-VITALIZATION Site pre-vitalization in tactical urbanism means the temporary activation of underutilized or vacant urban spaces for a variety of community uses. The main goal is to test the potential of an actual site for future development or to provide temporary benefits to the community until a more permanent use can be developed. These interventions may include the installation of temporary conveniences such as seating, plants, lighting and public art, moreover, hosting events such as concerts, festivals or outdoor movie screenings.

By testing the potential of a site for future development or providing temporary benefits to the local community, site pre-vitalization interventions can help to build community support and increase the likelihood of a successful long-term development.

PARK-MAKING It can be defined as an improved version of Park(ing) Day movement. The improvement was necessary due to the fact that there are still few green surfaces and public spaces in many city districts. Park-making works on a larger scale, and it is turning neglected areas into parks. In the movement, activists and local businesses together with municipalities collaborate in order to repurpose the city's potential spaces into sizeable parks. Park-making in tactical urbanism is often used as a way to address lack of green space and disinvestment in neighbourhoods with low income.

By creating new green spaces in cities, these interventions can help to improve community health and well-being, increase social cohesion and support local economic development also. Moreover, park-making can serve to demonstrate the potential for permanent parks in the community and be a good basis for long-term investment in public green space.

MICRO-MIXING It refers to the combination of multiple businesses in one single retail space, which provides shop owners the opportunity to mitigate the high costs of investments when opening a new site. These interventions can help to create a more diverse and dynamic local economy, foster entrepreneurship and innovation, while also contributing to the liveability of the surrounding community. When choosing the best use of the micro-mixing technique, it can create exciting shopping experiences. A good example on how different business can work together is the success of large bookstores, where the relationship of a coffee shop and a bookstore is mutually beneficial. Nowadays, more and more unconventional business mixes are emerging, e.g. barbershops where clothing is also sold.



Photo: Dekalb Market, Brooklyn, New York, urbanspacenyc.com



Photo: City of West Palm Beach Community Redevelopment Agency, Florida, www.880cities.org



Photo: Salvagetti + Happy Coffee, Denver, Justin Simoni



Tactics with no places defined

Type of tactical intervention	Purpose	Leaders of tactical intervention
DEPAVE	Reducing storm water pollution	Activists, non-profit organizations
GUERRILLA GARDENING	Introducing more greenery and gardening into urban environment	neighbourhood
CHAIR BOMBING	Improving the social well-being of neighbourhood by recovering waste materials and activating public use	Activists, local entrepreneurs

DEPAVE It is basically the process of removing unnecessary or underutilized pavement, asphalt or other concrete surfaces in order to create more green space, improve storm water management and in overall, to enhance liveability of urban environments. The essence of the project is to rid the city of the huge amount of unnecessary asphalt, not only for aesthetic reasons but also because of the environmental problems it causes.



Photo: Peninsula, Depave, Ed Hill

In tactical urbanism, depave interventions may involve the temporary or permanent removal of pavement in small or larger areas, such as parking lots or streets, and the installation of green infrastructure (rain gardens, community gardens). These interventions can help to improve water quality and enhance biodiversity of urban areas, while the urban environment turns into more sustainable and ecologically friendly space.

GUERRILLA GARDENING In general, guerrilla urbanism means, that policy makers or local administration had not been aware of the action and had not been involved in the design and/or implementation of it, meaning that the action might be categorised as illegal and removed. Accordingly, guerrilla gardening is one of the oldest forms of tactical urbanism refers to the act of gardening (e.g. planting flowers or vegetables) on a public or abandoned land without permission or formal approval from authorities - which essentially means an illegal transformation in other's property.



Photo: Prague Guerrilla Gardening

The small-scale, functional interventions are usually carried out by individuals or groups of individuals, as a result of which urban spaces are renewed. The guerrilla gardeners often use recycled materials, such as old tires. By repurposing neglected or underutilized spaces into thriving gardens, the intervention can help to create more vibrant urban spaces.



CHAIR BOMBING It can be defined as the simplest way to make a street more liveable by increasing existing seating. The essence of chair bombing intervention is that the creators renovate unused materials and place them in public spaces, which temporarily transforms them into more inviting, functional or comfortable areas. The recycled materials used during the intervention are old chairs or benches. While chair bombing is a relatively small-scale intervention, it can have a significant impact on the overall character of the urban environment. Chair bombing interventions can help to create more liveable, dynamic and inviting urban communities by encouraging people to interact in public spaces.



Photo: Ciudad Emergente

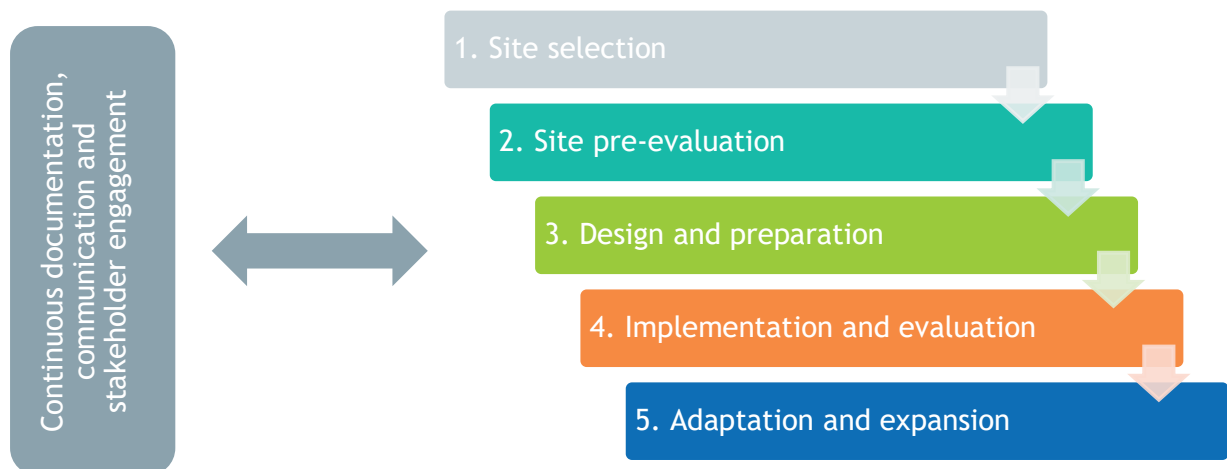
2.2.3. The Tactical Urbanism Process

The overall workflow for a tactical urbanism project is typically divided into five key stages - the necessary time depends on the complexity and resource-intensity of the intervention:

- 1) Selection of implementation site: It includes the process of selecting a specific area or stretch of land to plan and execute a tactical urbanism project. Ensuring citizen participation is essential also in this early phase.
- 2) Site context evaluation: After choosing the proper location, a thorough analysis of the site, including its context, opportunities, and constraints has to be conducted. This may include studying street classification, traffic patterns, pedestrian flows, land use, safety issues, and any existing plans or regulations that could affect the project. This stage also involves gathering information about the site's existing conditions, as well as the needs and preferences of people using it.
- 3) Design and preparation for implementation: In the next step, the project owners - in a collaborative idea-generation process - develop conceptual design options based on the site context evaluation and identify and secure the necessary resources for the execution. Depending on the scale and location, permits or approvals from local authorities have to be obtained, so it is important to work closely with relevant government departments and agencies to ensure compliance with regulations. This stage also incorporates gathering necessary resources and engaging with relevant stakeholders.
- 4) On-site implementation and evaluation: Executing the designs on the site is not the final action of the process, which could be a one-day event or a phased approach over several days or weeks - depending on the complexity of the initiative. The implementation is followed by monitoring and measuring the project's performance, results, and impact - including feedbacks from users and stakeholders to identify any areas that require improvement and making necessary adjustments.
- 5) Adaptation and expansion: Based on the lessons learned, longer-term changes and improvements can be achieved in the given area by expanding or replicating the intervention in other parts of the city or in similar contexts or even by integrating the successful elements of the intervention into official urban development plans.



Figure 8 Tactical urbanism process



Source: own editing

2.2.4. The Ingredients of Tactical Urbanism

Soft and hard ingredients refer to different elements involved in the implementation process of tactical urbanism projects presented above. It is important to note that the difference between them is not always clear, as they often interact and complement each other. To create impactful and enduring transformations in public space a combination of both is needed.

2.2.4.1. Soft Ingredients

Soft ingredients play a crucial role in the realm of tactical urbanism, intangible elements are the driving forces behind the transformative power of it. While the physical aspects of tactical urbanism, such as temporary installations and infrastructure, are often highlighted, the soft ingredients provide the real foundation for its success.

Community Engagement

Active involvement and participation of residents, community groups, local organizations, educational institutions, and other relevant actors in the planning and design processes of the project is crucial.

Surveys, community meetings, online questionnaires, workshops, on-street participation activities, or walkshops, can be used to collect inputs to align the project with the needs and expectations of the community. It is important to try to incorporate their ideas and aspirations into the project.

It should be noted that, due to its heterogeneity, involvement, and alliance of the entire community may not always be possible. In the worst case, some “opponents” with different agendas might appear. Embracing that and maintaining open and consistent communication involved is the key.

Intersectoral Collaboration

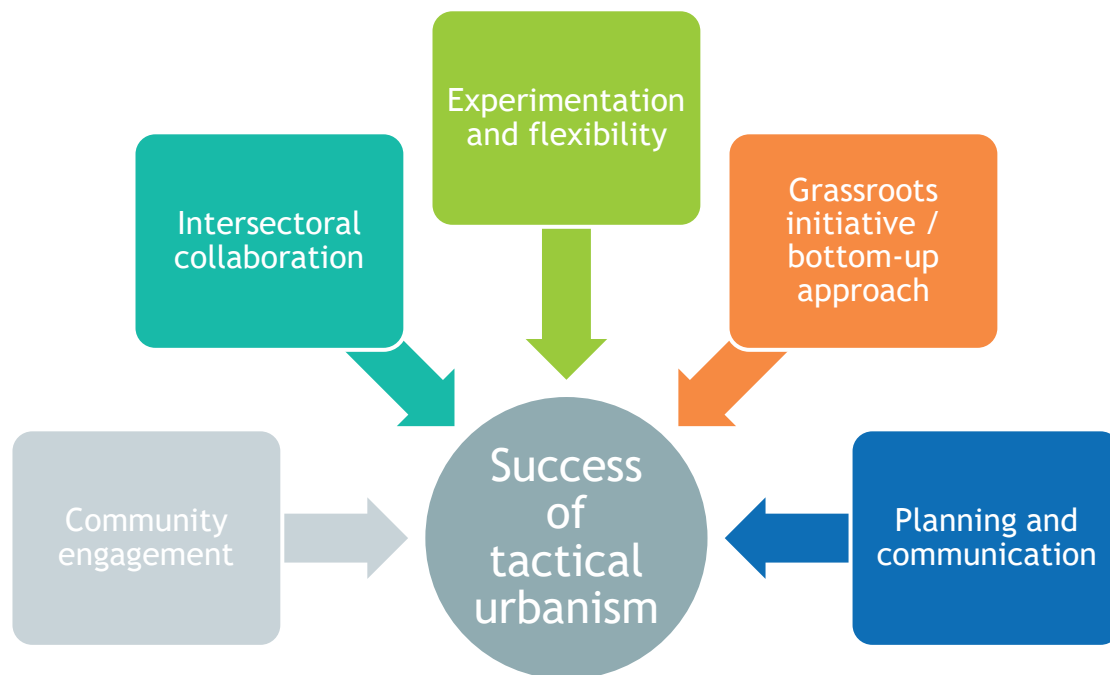
Bringing together people with different perspectives and expertise requires more coordination, but it helps create better projects. Partnerships among citizens, non-governmental organizations, businesses, and government entities expand knowledge and create networks that encourage innovations. If different municipal departments (e.g., traffic, planning, environment, culture, and social activities) are included and can establish horizontal communication, this helps implement the project more effectively.

Although broad collaboration is nice-to-have, in practice this is not always the case. Some projects might be powered voluntarily and entirely bottom-up, with no governmental support for years - but political



support and commitment can lead to long-term changes. However, such a project is highly dependent on the stamina of the people involved. To increase the success and longevity of the project, a broader, intersectoral team is necessary.

Figure 9 Soft ingredients of tactical urbanism



Source: own editing

Experimentation and Flexibility

Tactical urbanism encourages creative thinking and innovation to transform public spaces. The vacant lots, highway underpasses, parking spaces, and other unutilized spaces in the cities invite for experimentation. Such projects build on low-key, unconventional solutions that are easy to execute and go beyond traditional urban design practices. They offer an urban playground that citizens can start using right away and see evidence that change can happen (Project for Public Spaces, 2011).

Tactical urbanism also stimulates adaptability to changing circumstances. Flexibility means learning from trial and error and being willing to adjust during the implementation process.

Grassroots Initiative / Bottom-Up Approach

One of the key features of tactical urbanism is its grassroots nature, originating from people themselves. Projects are often initiated by residents, NGOs or advocacy groups who identify specific needs or opportunities in their neighbourhoods and take action to address them.

Although there are also some tactical urbanism projects that are initiated top-down, there is always a risk that the community in the area will not adopt their ideas and might even create a backlash. To be on the safe side, follow the people. This creates more probability that the project will be widely accepted, well-maintained, and long-lasting.

Planning and Communication

Planning and communication bridge the soft and hard ingredients of tactical urbanism. Planning involves the selection of the target area, consideration of the project's objectives, the community's needs, and the



broader framework of urban planning streams in the city. It involves creating a detailed roadmap for implementation, including timelines, resource planning, and coordination of activities.

Additionally, internal, and external communication is crucial. Everybody involved should be informed about the planning and implementation of the project. Defined roles, clearly divided tasks, and challenges addressed soon enough will help avoid later misunderstandings.

When communicating the project to the outside, it is important to know whom you are addressing and communicate it accordingly. Continuous documentation and communication of the entire process through photographs, videos, and written reports plays a crucial role in pop-up actions.

If the project is more of a feel-good project, you will face fewer (communication) challenges. If your project is a sharper reaction to a traffic or parking problem in the city, which might require some changes in the driving/parking regime or removal of parking lots, you might face more resistance. In this case, the pre- and post-intervention measurements should offer a foundation for data-based communication.

2.2.4.2. Hard Ingredients

The hard ingredients of tactical urbanism play a crucial role in creating tangible and lasting changes, contributing to the overall success of the approach. Physical manifestations encompass the infrastructure, design interventions, and spatial elements that are implemented to enhance the functionality and aesthetics of urban environments.

Figure 10 Hard ingredients of tactical urbanism



Source: own editing

Physical interventions

Physical interventions are tangible modifications or installations in the urban environment, such as barrier elements, parklets, pop-up installations, street furniture, signage and surface treatments, plants or trees in pots or other landscaping elements, and even public art installations. These objects are often cheap and easy to make and can therefore involve people from different generations and backgrounds. Temporary



reshaping of the space has a strong visual impact and enables others to easier reimagine the spatial possibilities. Aesthetics, functionality, and safety should be considered.

Resources

Resources stand for acquiring materials, equipment, funding, and human power to implement the tactical urbanism project effectively.

Financial support may be found through grants, sponsorships, or crowdfunding, as well as aiming for in-kind contributions from local businesses or organizations. Obtaining necessary permits or permissions ahead of the project is also important.

In terms of human power and programming of the project - look around in the local community, and connect with educational organizations, local cultural producers, farmer's market, NGOs, and small businesses.

Documentation and Evaluation

Often overlooked, but pre- and post-intervention data collection, is crucial to be able to assess the impact and the outcomes of the project. It is important to think about the objectives and measure³ selected parameters prior to the start of the project - then tracking them during the implementation. Flexibility is a crucial factor both during the preparation and the execution of the actions.

Additionally, documenting the process with photos, videos, and testimonies, provides evidence and know-how for future initiatives, informs decision-makers as well as the general public, and last, but not least improves chances for fund-raising.

2.2.5. Benefits of Tactical Urbanism

2.2.5.1. Gaining Popularity and Widespread Use

In the last decade, tactical urbanism has evolved into a global movement, catalysing a significant transformation in how communities think about project development and implementation.

Regardless of whether you reside in a large or small community, you have likely come across some form of it. Cities worldwide are using these flexible and short-term projects to reach long-term goals related to open public spaces, street safety, and mobility shift. The cases range from highly visible and top-down projects, such as New York's *Plaza Program*, or more recent Milan's case *Piazza Aperte*, to smaller-scale, bottom-up demonstration projects that typically last several days or weeks, such as Pop-up Parklets, Open Street, School Street or Outdoor markets and similar⁴.

Cases illustrate that it can be used by a wide range of actors: governments, non-profits and businesses, citizen groups, and individuals. While the level of formality might differ, the projects share a common goal of using low-cost materials to experiment with and collect feedback on the potential street/public space design changes (Tactical Urbanism Guide, 2023).

- For citizens, it allows immediate reclaim, redesign, or reprogramming of public space.
- For developers and urban planners, it provides valuable insights into the needs of the citizens.
- For advocacy organizations, it demonstrates possibilities and gains public and political support.
- And the governments benefit from implementing best practices quickly and without high political risk.

³ For further information on evaluating public spaces through different parameters please check PopUpUrbanSpaces Measurement Method Kit.

⁴ For further information on relevant local, national, and international cases please check the PopUpUrbanSpaces Catalogue of Tactical Urbanism projects (see *Deliverable 1.1.3 Good practice catalogue*).

2.2.5.2. Multisectoral Benefits

Tactical urbanism offers adaptable solutions rather than one-size-fits-all approaches. It bridges and overlaps various disciplines from the fields of urban development. While tactical urbanism projects are often small in scale, they can have significant benefits for urban communities. Due to its multidimensionality, it offers a wide range of benefits in different areas, including economic, social, environmental, spatial, and political benefits. While they often intersect, we will present several key advantages within each category.



In terms of **economic benefits**, tactical urbanism offers an affordable alternative to traditional urban development methods. This approach allows experimentation and testing of ideas before making substantial political and financial commitments (Lydon et al, 2012). By activating underutilized spaces, interventions often increase pedestrian frequency (footfall) and therefore indirectly support small, local business owners.

Furthermore, tactical urbanism projects have been shown to enhance the vibrancy and attractiveness of cities, which in turn attract new residents, help boost local economies and positively contribute to overall city development.



Concerning **social benefits**, interventions often prioritize pedestrian-friendly infrastructure, green spaces and encourage active mobility. In this manner, they promote physical activity, mental well-being, and healthier lifestyles. Encouraging community participation and creating space for diverse groups to come together may also strengthen social ties, foster social inclusion, and help create a shared sense of identity (Lydon - Garcia, 2015). Such projects create coalitions within the urban environment and often

kick-start further interventions in other parts of the city. Public safety is also supported by tactical urbanism, as the interventions create more visible and active public spaces. By encouraging people to use and occupy public spaces, tactical urbanism can help reduce crime and increase the feelings of safety and security.



Tactical urbanism provides several **environmental advantages** that can positively impact cities and their surroundings. As it often involves the creation of green spaces (e.g. pocket parks, community gardens, urban forests), the interventions enhance green infrastructure, which helps absorb rainwater, reduce stormwater runoff, and mitigate the risk of flooding. Additionally, the introduction of more greenery and diverse plantings can attract wildlife contributing to urban biodiversity and ecosystem health. Green spaces are

also fit for combating the urban heat island effect as well as absorbing pollutants and particulate matter from the air. By promoting and supporting sustainable transportation options, such as walking, biking, and using public transit, tactical urbanism reduces the reliance on private cars and contribute to a more balanced modal split. Pop-up events or installations may incorporate reusable materials or promote recycling efforts among participants resulting in a more circular and resource-efficient urban environment. Tactical urbanism can incorporate water-saving measures, such as rainwater harvesting systems, permeable pavements, and water-efficient landscaping. These initiatives help conserve water resources and reduce the burden on municipal water supply systems, especially during dry periods or in regions prone to water scarcity.



In terms of **perception and imagination of urban space**, tactical urbanism interventions supply people with an experience their city in an entirely new and exciting way. It gives them a chance to imagine a different urban future, one where walking, cycling, and the provision of more public space could be made easier. They serve as tangible demonstrations of potential improvements, providing decision-makers with real-world evidence to support policy changes or larger-scale interventions. Placemaking

interventions can transform neglected spaces into vibrant, attractive places, enhancing the overall quality of the built environment and making cities more liveable (Lydon - Garcia, 2015).



Politically, tactical urbanism brings numerous benefits. Engaging in such projects requires collaboration between various stakeholders, including residents, community organizations, and government agencies, fostering cooperative relationships and shared responsibilities. It also provides a support in developing a better understanding of the needs of the individuals who will use the actual site by quickly evaluating the current challenges, opportunities and limitations of the location in question. By involving citizens

in the decision-making process, tactical urbanism projects can help build trust, improve transparency, and enhance the legitimacy of urban governance. Local governments also benefit from implementing already tested urban design plans and adopting them without significant political risk.

2.2.5.3. Limitations, Drawbacks and Risks of Tactical Urbanism

While tactical urbanism offers various benefits, it is important to consider its limitations and potential drawbacks. The long-term success of such projects is highly dependent on the political will and financial frame, which are not always aligned. To ensure the durability and effectiveness of projects, it is crucial, that the short-term interventions are balanced or incorporated with long-term planning strategies. Additionally, initiatives are often powered by volunteers, meaning that the initial momentum might wane after some time.

Since altering the status quo do not always lead to win-win situations, certain social groups or opinion leaders may occur who are challenging to convince and loudly resist changes. Followers of tactical urbanism must acknowledge that not everyone will necessarily agree with their aspirations.

Some urban challenges are just too complex or actually require large-volume interventions and cannot be solved with tactical measures. Although a tactical measure presents an affordable and photogenic solution, it has its limitations and is not a panacea for all types of mobility-related challenges.

There are concerns that tactical urbanism measures often happen in districts that later get gentrified. Although tactical urbanism measures do not directly initiate gentrification, they might be perceived as a sign or symbol of it.

To conclude, the tactical urbanism approach opens new conversations about local resiliency and helps cities and citizens to jointly explore a more nuanced approach to city-making. It can be used as a planning tool that on the one hand inspires citizens and shows new ways of using our cities, and on the other hand inspires governments to adapt and embrace the change.

2.3. Digital Tools to Influence the Use of Space and Travel Behaviour

In our rapidly evolving world, effective communication plays a crucial role in shaping human behaviour and decision-making, especially when it comes to influencing the use of space and travel attitude. As our cities become more crowded and our transportation systems face increasing challenges, the need for innovative communication tools to promote sustainable and efficient use of space and travel behaviour becomes more and more important. Cities can choose from an ever-increasing range of digital communication tools in order to reach, engage and persuade city users on certain topics. The increasing availability has provided new opportunities for influencing travel behaviour and the use of space by providing individuals with personalized information on traffic options and facilitating access to public transportation.

The use of digital tools has become increasingly popular in various fields, and urban planning and transportation are no exceptions. Digital tools can also be used to optimize land use and improve urban planning, which can help reduce travel demand and encourage alternative transportation modes. For instance, urban planners can use geographic information systems (GIS) to analyse traffic patterns and identify areas where traffic congestion is most likely to occur. GIS allows planners to collect, manage, and analyse spatial data. By mapping various factors such as land use, transportation infrastructure, and



demographic information, planners can gain insights into the patterns of land use and travel behaviour. This information can then be used to make informed decisions about the allocation of resources and the development of transportation infrastructure. This information can be used to develop targeted interventions such as congestion pricing, which can incentivize travellers to shift to alternative transportation modes.

In addition to strengthening inclination to prefer green solutions, digital tools can also be used to promote sustainable land use. For example, online platforms can be used to provide individuals with information on the availability of green spaces and encourage the use of these areas for recreation and exercise - harnessing the power of user-generated content.

Digital urban campaigns can also build on the increasingly common **storytelling** approach. Urban storytelling is a cross-cutting method, which induces positive change in cities, with an emphasis on stories, solutions, and practices more than just focusing on local news and the political debate. This technique uses new narrative styles and multimedia tools for promoting the diversity of urban topics, such as long-forms, podcasts, infographics, and elaboration from visual data platforms - and it is often based on the connection with social media channels, are also contaminating traditional media fostering the integration with existing media and communication ecosystems, thus giving more visibility to urban topics on the public debate.

2.3.1. Influencing space use

Digital tools have the potential to influence the way people use and explore public spaces in cities. They can provide information, guidance, and motivation to encourage people to engage with their surroundings and be more active.

- One way digital solutions can modify space use is by **providing interactive maps and guides** to public spaces. These tools can highlight key attractions and offer information about amenities, events, and activities taking place in the area. By making this information easily accessible and user-friendly, digital tools can encourage people to explore and utilize public spaces that they might not have otherwise considered.
- Another way digital tools can influence space use is through **gamification** which incorporates game-like elements into non-game contexts to make them more engaging and interactive. In the context of public spaces, gamification could involve challenges, competitions, or rewards for engaging in certain activities, such as using a public park or participating in a fitness class.

Digital instruments can also be used to promote **social connectivity** and community building in urban places. For example, social media platforms share information about events and activities taking place in public spaces, as well as to connect people with shared interests. Online forums and discussion groups can also be used to facilitate conversations and collaborations around public spaces and community projects.

Finally, ICT can be used to **collect data and feedback** on public spaces, which can be used to inform future planning and decision-making. For example, sensors and other technologies can be used to collect data on foot traffic, usage patterns, and environmental conditions in public spaces. User feedback can also be collected through surveys, online reviews, and other channels, providing valuable insights into how public spaces are being used and how they could be improved.

2.3.2. Influencing travel behaviour

Digital tools are increasingly being used to affect travel disposition, with the aim of reducing the negative environmental impact of transportation and promoting more sustainable modes of travel. These tools can be divided into two main categories: those that provide information and those that incentivize behaviour change.



- 1) **Informational tools** include travel planning apps and websites that provide users with real-time information on public transport schedules, route options, and estimated journey times. By making it easier for people to plan their journeys and access information about alternative modes of transport, they encourage individuals to switch from single-occupancy car journeys to more sustainable options such as cycling, walking, or public transport.
- 2) **Behaviour change tools** use digital technology to incentivize people to adopt more sustainable travel attitude. Examples of such approaches include gamification platforms that reward users for choosing green modes of transport, or apps that track and monitor individuals' behaviour, providing feedback and suggestions for improvement. These methods encourage individuals to practice responsible travel manner by making it a fun and engaging experience.

In addition to these specific types of tools, social media platforms also have the potential to modify travel behaviour by promoting alternative options and sharing information on public transport services. Social media campaigns and influencers can raise awareness of this highly topical issue.

The most important digital tools for this reason are mobile apps, online platforms, social media campaigns and gamification.

Figure 11 Main tools of urban digital campaign



Source: own editing



MOBILE APPS have become an increasingly popular tool for sensitizing people. Applications dedicated to influence the use of space and travel behaviour can include navigation and route planning tools that help people find the most efficient and sustainable options. These apps can guide them towards active mobility such as walking or cycling instead of using cars by giving them real time traffic information and tips and facts about how they help the environment by choosing a specific way to travel. Some of them also inform the user about the health benefits of using a specific mobility mode, for example the calories burnt during an hour-long walk, or the reduced risk of a heart attack after a short bicycle ride. Many smartphone applications incorporate gamification techniques and rewards programs to encourage sustainable travel behaviour. By introducing elements of competition, challenges, and rewards, these apps motivate individuals to choose eco-friendly modes of transportation. Achievements and badges can be earned through these apps, creating a sense of accomplishment and promote positive behaviour changes. In addition, they can provide a range of services, including trip planning, real-time transit information, and ride-sharing services.

- One way that mobile applications can influence travel behaviour is by providing personalized trip planning options. Based on user data, they suggest the most convenient and efficient travel routes, taking into account factors such as traffic congestion, public transit schedules, and weather conditions.

- Another way of influencing is connected to real-time information about transit options. Applications can provide up-to-date information about public transport schedules, as well as real-time traffic updates and information about ride-sharing services.
- Mobile applications can also manipulate travel behaviour by providing incentives for sustainable travel. For example, some applications offer rewards or discounts for using sustainable transportation options, such as walking or cycling.

All of these can encourage people to choose sustainable travel options by demonstrating the time and cost savings that can be achieved by using these modes of transportation.



ONLINE PLATFORMS have become an essential part of the daily lives, and they have the potential to influence travel behaviour significantly. These platforms can offer various services that enable travellers to plan their trips efficiently and make informed decisions about their travel choices:

- One of the significant advantages of online platforms is the availability of real-time data. Travellers gain up-to-date information about traffic conditions, public transport schedules, and even weather conditions to adjust their travel plans accordingly.
- Online platforms can also provide people with personalized recommendations based on their preferences and past behaviour. For instance, a platform can suggest the most suitable mode of transport based on the individual's destination, budget, and time of day. This feature can help travellers make more sustainable choices, such as using public transport instead of driving a car.
- Moreover, online platforms can incentivize environmentally friendly behaviour through various gamification techniques. For example, a platform can award points or badges to travellers who choose sustainable modes of transport or reduce their carbon footprint. These incentives can motivate people to change their travel behaviour and adopt more sustainable practices.



SOCIAL MEDIA CAMPAIGNS also can be an effective way to alter opinion of travellers in cities. Through social media such as Facebook, Instagram and Twitter (depending on the target group), we can raise awareness about sustainable transportation options and we can create profiles dedicated to sharing relevant updates, news and educational contents. With this tool we can reach a wide audience in a cost-efficient way - including those people's attention who are not interested enough in the topic to search information on their own. Giving them information might help them realize that there are better ways to travel than by car, especially for shorter distances in crowded cities with congestion. By collaborating with influencers and famous people, we can give people models to follow and show them positive examples. Influencers can share their personal experiences, tips, and recommendations for eco-friendly travel, inspiring their followers to adopt similar behaviours. The following are some examples of how social media campaigns can be used to promote sustainable transportation options and reduce car usage:

- **Hashtag campaigns:** Online social space is excellent for hashtag campaigns. By creating a unique and catchy hashtag and promoting it, cities can encourage citizens to share pictures and stories of their sustainable travel choices. This not only raises awareness but also encourages others to follow suit.
- **Influencer partnerships:** Partnering with popular social media influencers with a large following can also be an effective way to promote sustainable transportation options since they can help spread the message of sustainable travel to their audience. Cities can collaborate with influencers to create content that showcases the benefits of sustainable travel and encourages people to make the switch.



- **Online guerilla marketing:** A city could create videos that showcase the benefits of walking or cycling and pushes people to try it out for themselves. Alternatively, an online game could be created that challenges people to use ecologically aware options to navigate a virtual city, with rewards for those who are successful.
- **Interactive challenges:** Interactive social media challenges can be a fun and engaging way to encourage people to choose sustainable modes of transport. Cities can create challenges that require participants to walk, bike, or use public transportation to reach a specific destination. Participants can then share their experience on social media and challenge others to participate.
- **Social media ads:** Social media platforms also offer targeted advertising options. Cities can create targeted ads that highlight the advantages of sustainable travel and stimulate travellers to use public transportation, bike, or walk instead of driving.



GAMIFICATION is a technique that has been increasingly used in the field of sustainable urban mobility to inspire users to change their travel behaviour. By incorporating elements of game design into non-game contexts, gamification can make sustainable mobility more appealing, fun and engaging.

- One way that gamification can diversify mobility behaviour is through the use of rewards and incentives. For example, a user could earn points or badges for taking sustainable modes of transport, and these rewards could be redeemed for discounts on products or services. This not only encourages users to make sustainable choices, but also provides them with a sense of achievement and recognition.
- Another way that gamification can influence travellers' orientation is through competition and social interaction. For instance, a mobile app could allow users to challenge their friends or other users to see who can accumulate the most points for sustainable travel over a certain period of time. This not only motivates users to make more sustainable choices, but also fosters a sense of community and social interaction.

Overall, the use of digital tools in the context of travel behaviour can have a significant impact on reducing greenhouse gas emissions, promoting sustainable urban development, and improving the overall quality of life in cities by influencing the use of space and travel behaviour. From providing information about travel options to promoting awareness and encouraging attitude change, these tools have the potential to create a more sustainable and equitable transportation system. As the use of digital tools continues to grow, it is important to ensure that they are accessible to all members of society, and that their use is guided by principles of equity, social justice, and sustainability.

In summary, using digital communication tools in tactical urbanism can offer a wide range of benefits, particularly in influencing travel behaviour and enhancing the usage of urban spaces. Some key advantages include:

- **Wide reach and accessibility:** Digital communication tools, such as websites, social media platforms, and mobile apps, provide a means to reach a large and diverse audience. They offer accessibility to information and resources, enabling individuals to easily access and engage with the related content, e.g. cities can tell and explain people the risks of car-oriented urban mobility or communicate the process and results of pop-up interventions.
- **Real-time updates and information:** Digital techniques are ideal for instantaneous dissemination of information. This facilitates the provision of real-time updates on transportation options, events, promotions, and temporary or permanent changes in urban environment. People can stay informed about public transportation schedules, bike-sharing availability, road closures, and other relevant details, encouraging them to make informed travel choices.



- **Personalization and targeted messaging:** Digital tools allow for personalized communication tailored to individual preferences and characteristics. By collecting and analysing user data, cities can deliver targeted messages and recommendations to promote green transport modes. Personalized suggestions, such as customized transit routes, tailored incentives, and location-based notifications, can effectively foster behaviour change.
- **Interactive engagement and feedback:** Digital communication tools enable interactive engagement with the community - by increasing participation in and awareness raising of urban issues. Through social media platforms, forums, and online surveys, cities can gather feedback, suggestions, and concerns from residents and visitors. This engagement fosters a sense of ownership and collaboration, making individuals feel heard and empowering them to actively participate in shaping their urban environment.
- **Behavioural nudges and gamification:** Digital solutions can incorporate nudges and gamification techniques to achieve desired travel attitude. By employing strategies such as rewards, challenges, progress tracking, and friendly competitions, cities can motivate individuals to choose sustainable transportation options. These gamified approaches make the process engaging, fun, and potentially habit-forming.
- **Data-driven decision-making:** Digital communication tools generate valuable data and insights that can inform urban planning and policy-making. Analysing user behaviour, travel patterns, and preferences can help identify trends, areas of improvement, and opportunities to optimize transportation infrastructure and urban spaces. This data-driven approach enhances the effectiveness and efficiency of urban development initiatives.



3. CITY PROFILES AND CHALLENGES

3.1. Purpose and Methodology of Urban Mobility and Travel Behaviour Audit



This part of the Baseline Study provides an overview of the profiles of the territorial partners collaborating in the PopUpUrbanSpaces project. The purpose of conducting the audit using a common methodology in 7 pilot cities is to collect specific information on urban mobility. The audit aims to assess the current state of mobility in these cities, including the existing infrastructure and the main challenges faced in the provision of sustainable mobility options and in using public spaces. The audit also seeks to understand the travel attitude of the population, including their travel behaviour, preferences, and willingness to adopt new mobility options. Through this audit, city partners can identify gaps and opportunities for ‘greening’ mobility practices as well as reducing congestion and pollution. The collected data were analysed and can be used to prepare demonstration actions as well as to develop tools and formulate recommendations both for the territorial partners and generally for cities are interested in improving urban transport system.

The audit's results provide policymakers and planners with the necessary information to design and implement effective mobility policies, initiatives, and projects that can enhance the overall quality of life and environment in these cities. Thus, the purpose of conducting an audit is to inform evidence-based decision-making to support sustainable mobility and urban development.

The audit consists of two main parts as city partners

- collect data related to the key topics of the project, and
- provide a brief narrative description of their general situation and specific challenges regarding urban mobility, travel attitude, and using public spaces.

Figure 12 Key data and information of the urban mobility and travel behaviour audit

Key data of the city partner

- Contact data
- Demography and society
- Economy and labour market
- Mobility (car-oriented transport, public transport, active mobility)
- Public spaces

Narrative description

- Summary description
- Key challenges and learning needs
- Public spaces with significant problems
- Existing local initiatives and policies

Source: own editing



3.2. Result of the Audit

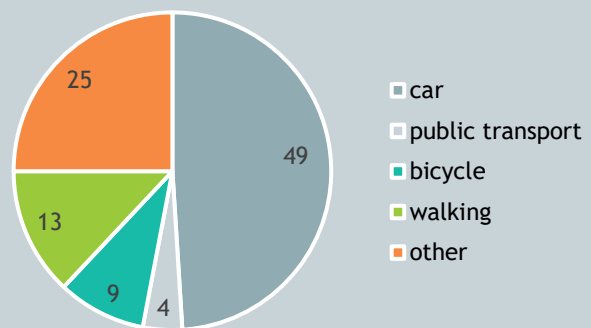
3.2.1. Kamnik (SI)



KEY DATA

Population: 29,979
Change in population since 2015: +1.89%
Activity rate: 70.1%
Unemployment rate: 5.6%
Number of passenger cars per capita: 0.5
Length of bicycle routes: 12.7 km
Length of pavements: 48.9 km
Number of public parks: 5

Modal split of passenger transport in Kamnik (2017)





GENERAL INTRODUCTION OF THE CITY

The municipality of Kamnik is a local public authority, occupying an area of 266 km² with approx. 30.000 inhabitants. It is located about 20 km north of Ljubljana in the Osrednjeslovenska region under Kamnik-Savinja Alps. Kamnik has good bus links to Ljubljana, as well as a railway line. Since last year, it also has a new cycle path from Kamnik to Ljubljana. In terms of demographic structure, it is one of the younger municipalities, especially in recent years, its population is relatively younger than the national average.

The municipality of Kamnik is an important local development holder through providing jobs, residential complexes, schools, recreational and traffic infrastructure, services for the local population living in the city and surrounding rural areas and many more. Kamnik has several big companies and also a number of medium-sized and small businesses. The Coworking and Incubation Centre (KIKstarter) plays a very important role in the development of the economy.

The municipality of Kamnik has broad experiences in planning and implementing public projects, most recently also in the field of sustainable mobility or environmentally friendly use of public spaces (construction of bike paths, establishment of e-bike rental system KAMKOLO, implementation of the Integrated Transport Strategy measures, walkability planning and implementing, etc.). Most of the recent municipal interventions have been focusing especially on sustainable use of urban spaces, regarding vulnerable groups in transport (measures aimed at strengthening the role of pedestrians, children, disabled, cyclist in traffic, etc.), trying to revitalize businesses in old town and strengthening the role of CCIs in the local business sector.

The municipality has its own website with all relevant information and a thematic website and Facebook page for sustainable mobility. The municipality has broad experiences in cooperating with local stakeholders from all main sectors (public, private, NGOs), especially in fields of tourism, culture and entrepreneurship (different tourist associations, public institutions for culture, tourism and sports, private tourist businesses, business incubator Kikstarter).

KEY CHALLENGES AND LEARNING NEEDS IN USING URBAN SPACES AND URBAN MOBILITY

Use of public spaces

- Public spaces are often parked by cars
- Many public spaces are in bad shape and need renovation
- Public spaces are poorly equipped with urban amenities (benches, drinking fountains, tables, rubbish bins, bicycle racks)

Walking:

- Insufficient pavements on roads
- Missing sections of safe school paths
- Pavements are too narrow and in need of renovation
- Lack of urban amenities along pedestrian routes (benches, drinking fountains, toilets, catering facilities, rubbish bins, etc.)
- Lack of awareness among citizens of the benefits of walking as an alternative to motorised transport

Cycling:

- Lack of cycle routes, especially to employment centres and tourist spots and along the busiest roads
- Insufficient facilities for cyclists (bike racks, covered cycle sheds, etc.)
- Failure to take cyclists into account in road design and reconstruction
- Lack of traffic calming zones where pedestrians and cyclists have priority



- Insufficient awareness of the benefits of cycling

Public transport:

- Inadequate bus stops (lack of urban amenities, insufficient safety for waiting passengers, etc.)
- Lack of transfer points (p+r)
- Inadequate accessibility of bus stops for disabled passengers, school-age children
- Lack of fast train and bus lines
- Incoherence and disconnection of bus and rail transport
- Inadequate conditions for bicycle parking at bus and rail stops

Motor traffic:

- Excessive individual car use (lack of carpooling)
- Lack of traffic calming zones and speed limits
- Insufficient control and sanctioning of offences
- Lack of construction measures to reduce speed (humps, chicanes, paving, etc.)
- Failure to make use of possible measures to regulate freight traffic (time limit for deliveries in the city centre, parking for freight vehicles outside the city centre)
- Lack of parking zones for time-limited and paid parking

Use of connected digital communication tools:

- Lack of publications on the promotion of sustainable mobility
- No systematic campaign on the benefits of more sustainable forms of mobility
- No systematic campaign to change travel habits

PUBLIC SPACES WITH SIGNIFICANT PROBLEMS

The Square under the Little Castle: The square is located between the hill Mali Grad and the Café Veronika. It is a very attractive location in the city, but unfortunately currently used as a car park. The area has to be made more welcoming for residents and visitors: it will be temporarily turned into a venue for cultural events, music performances and shows by means of pop-up measures. If this is accepted by the residents and the municipal authorities, the temporary measures could be made permanent.

The main street of the “old” town, Šutna: Due to better accessibility, logistics and business/trade opportunities, many local artists, shops and businesses have relocated from the centre of Kamnik (Šutna). They moved to the outskirts of Kamnik to industrial and business zones or closer to Ljubljana. Residents have identified the process of “emptying” their city centre as a serious problem. It had (has) strong implications for tourism, culture and access to everyday amenities for residents. Many shops and cafés in Šutna have gone out of business. The street is relatively poorly frequented with citizens. With pop-up measures we would like to brighten up and revitalise the street.

Degraded industrial area - “Barutana area”: In recent years, the municipality of Kamnik has been trying to revitalise an area of degraded industrial land. Kamnik bought a run-down factory which has been redesigned by young architects, artists and creatives. A group of NGOs, which is called “Creative Quarter Barutana or KČB”, has also been set up to revitalise the area. The Barutana area is becoming envisaged as a possible new cultural centre for Kamnik. Despite its potential, the area itself is still very underdeveloped, still an urban region with abandoned fields. We would like to see as many cultural events as possible in this



area, where participants (visitors) will be encouraged to cycle there or come with public transport or by foot. Through this process we will be able to explore potential event locations and cycle routes to improve the cycling infrastructure of the area in the future.

Main Square: The Main Square is partly well maintained and partly occupied by parked cars. We want to change an area where cars are often parked by installing flower beds, bike racks, games, etc. The problem is that the problematic part of the square is privately owned. An agreement with the land owner will be needed.

GOOD PRACTICES

Pop-up interventions by Štajn student group: In 2008, a group of local architecture students known by the name Štajn, along with local cultural societies and a youth centre Kotlovnica started to oppose disadvantageous processes in Kamnik. They used local summer festival (Kamfest), to start prototyping better traffic solutions for the city centre and started to address sustainable mobility topics to citizens. One of the most important projects of the local practice was reducing the traffic in city centre and introducing one way traffic organisation. This change in the traffic regulation offered additional outside spaces for pedestrians, bicycles, and outside gardens for bars. Idea was first introduced with the help of street festival and later mayor of Kamnik decided to make it a permanent solution that improved the walkability and traffic safety.

Walkability Strategy and a Local Walkability Plan: In Slovenia, in 2016/2017, a number of municipalities (including Kamnik) we elaborated so-called integrated transport strategies on how to manage the transport of urban centres in a sustainable way. However, it has become clear that planning for walking and cycling requires a more detailed set of objectives and measures, as well as local implementation plans to improve walking and cycling conditions. As a result, Kamnik, in the framework of the CityWalk project co-financed by the Interreg Danube Programme, in cooperation with the Heart of Slovenia Development Centre and the external contractor CIPRA Slovenia, became the first Slovenian city to adopt a Walkability Strategy and a Local Walkability Plan.

PLANNED ACTIVITIES OF THE DEMONSTRATION ACTIONS

In recent years, Kamnik got another big pop-up project in a shape of creative district Barutana. Former gunpowder factory buildings were redesigned by young architects, artists, and creatives. With the help of bottom-up urbanism, it became a stage and area for Kamfest festival. Later, municipality of Kamnik decided to buy that area for future public development. Today, the area has a lot of potential for different use and is becoming precepted as the new possible cultural centre of Kamnik. Despite its potential, area itself is still very under-developed, it is still a brownfield urban region. There are some bureaucratic issues and lack of sufficient funding.

Pilot project will first propose a small set of cultural events in Kreative district Barutana, where participants (visitors) will be encouraged to get there with the bicycles. Through that process, we will be able to research potential event locations and bicycle paths to improve bicycle infrastructure of the area in the future. We will focus on how people (bicycle users) use space, how we can improve sustainable mobility and creative development of the whole area. After the research through pop-up interventions, we will introduce results, measures, and infrastructure project to the municipality.

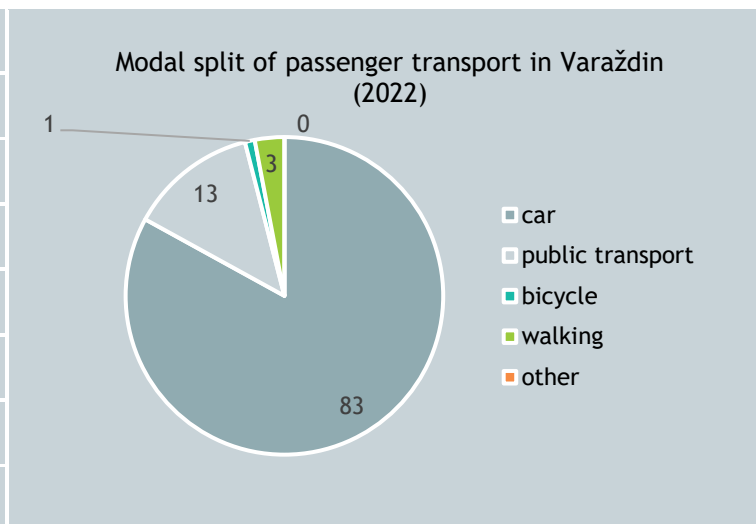


3.2.2. Varaždin (HR)



KEY DATA

Population: 43,782
Change in population since 2011: -6.74%
Activity rate: 78.96%
Unemployment rate: 21.04%
Number of passenger cars per capita: 1.17
Length of bicycle routes: 28.5 km
Length of pavements: 266.18 km
Number of public parks: 9



GENERAL INTRODUCTION OF THE CITY

Varaždin is located on the edge of the Pannonian plain of the Alpine system, in northwestern Croatia along the Drava River. An excellent traffic location is a great advantage of Varaždin: it is 80 km from Zagreb, 140 km from Graz (Austria), 180 km from Ljubljana (Slovenia), 250 km from the main Croatian port - Rijeka, Budapest (Hungary) 280 km and Trieste (main Italian port) 280 km, and from Vienna (Austria) 330 km.

Varaždin, as a cultural, transport, administrative and industrial centre of northwestern Croatia, belongs to the above-average economically active and export-oriented parts of Croatia. Favorable geographical location, high-quality educational structure of the population, entrepreneurial tradition and the existence



of quality transport infrastructure are a strong contribution to the potential for the development of economic activities. The city of Varaždin encourages the further development of entrepreneurship with its support programs for entrepreneurs and craftsmen and various projects and activities, and an important contribution is made by city companies and supporting institutions. In the ranking of the cities and municipalities of Varaždin County, the entrepreneurs of the city of Varaždin in 2021 take the 1st place in terms of number of entrepreneurs, number of employees, total income, profit for the period and net profit, but it also achieved high places at the national level.

In 2018, the City of Varaždin created a Sustainable Urban Mobility Plan, but that document was not adopted by the City of Varaždin Assembly. Partly due to the COVID-19 pandemic, partly for other reasons, very few activities have started to implement this Plan, and with the arrival of the new city government in 2021, the revision and evaluation of this document has started with the following conclusions:

- by counting the traffic at characteristic intersections and comparing it with data from 2017, an increase in the load on most roads is visible, and the share of passenger cars is still over 80%, so it is possible to conclude that citizens still use a passenger car as the majority means of transport;
- despite the increase in the number of paid parking spaces compared to the previous period by approximately 20%, there was an increase in the average occupancy of parking lots in all zones, which certainly implies a change in the parking charging policy, but also in the overall traffic policy, which must aim to reduce the use of private cars;
- despite the efforts made to improve the public transport system in the city of Varaždin, there is no significant increase related to the increase in the number of passengers, which clearly indicates the need to redesign the public transport service with improvements in the key elements of the service, namely: a new high-quality network of lines, organized and easy available public transport stops, high-quality and frequent timetable, high-quality and comprehensible information about planning and travel progress available through modern and classic information channels, etc.;
- a large number of citizens want to move around the city and its surroundings in a sustainable way, but the actual figures related to the use of the public transport system, walking and cycling indicate the need to implement a considerable amount of measures in order to improve the situation.

For the above-mentioned reasons, the Catalog of Sustainable Transport Development Projects of the City of Varaždin was proposed, with stages of implementation of individual projects and activities, in order to reach the level required for the implementation of the existing Plan as soon as possible, and to begin preparations for the creation of a new Sustainable Urban Mobility Plan 2.0.

Citizens are encouraged to communicate with City are able to give their thoughts on ongoing city processes through various channels: they have the right to access information, to making complaints and to taking part in public consultations - also at different online platforms.

KEY CHALLENGES AND LEARNING NEEDS IN USING URBAN SPACES AND URBAN MOBILITY

Use of public spaces

- Ensuring the availability and accessibility of public spaces for all citizens, including people with disabilities and the elderly.
- Promoting the sustainable use of public spaces to ensure environmental protection and improve the quality of life.
- Development of strategies for managing public spaces to meet the diverse needs of residents and promote social interaction.



Walking, cycling, public transport, motorized transport:

- Increasing safety and comfort for pedestrians and cyclists, including the development of infrastructure, such as bike lanes and safe pedestrian zones.
- Improving public transport to encourage the use of sustainable forms of transport and reduce dependence on the private car.
- Promotion of environmentally friendly forms of transport, such as electric vehicles, in order to reduce the emission of harmful gases.

Use of digital communication tools:

- Education of citizens on the use of digital tools for communication in the context of urban space and mobility.
- Development of digital platforms that facilitate the sharing of information about traffic, public transport and accessibility of urban spaces.
- Ensuring access to digital tools for all citizens, including those who are less skilled in the use of technology.

PUBLIC SPACES WITH SIGNIFICANT PROBLEMS

Kapucinski Trg (Capuchin square): The temperature in the city is affected by concrete and asphalt surfaces that emit heat that they absorb from the sun, thereby increasing summer temperatures. One of the larger such areas is Kapucinski trg. Due to its purpose of serving events some days of the year, there is no greenery planted in its central part. Benches have been installed that are not used because it is uncomfortable to stay in that heat.

Ulica Augusta Šenoa (August Šenoa street): It is located within the historical complex of the city of Varaždin, starts from the main square and connects the contents of the city centre (pedestrian zone and local market) with the southern and northern parts, but only in one direction south-north. Within the 7.5-12 m wide street there is one lane, parking on one side and a sidewalk on both sides. Spatial plan created in 2007 predicted the abolition of car traffic and the expansion of the pedestrian zone. In 2019, traffic and parking for cars were abolished in the northern part of the street, and a couple of catering terraces were arranged in the parking lot. In the southern part, it is also necessary to cancel traffic at rest in order to provide a surface for a bicycle path in both directions and thus ensure the safe movement of cyclists through the city centre without violating traffic rules. Also, it is an asphalt surface in the old city centre that gets excessively hot during the summer months and does not have any shading and is not pleasant for pedestrians.

Trg Slobode (Freedom square): The square is located at the entrance to the historical centre of the city. This space is divided into two parts: one part is used as a road with a parking lot, while the other part is reserved for a pedestrian zone, although traffic is allowed. However, this square is not architecturally and urbanistically arranged in the best possible way. As for the horticultural arrangement, there are seven linden trees on the square that provide shade and 'cool' simply and other accompanying greenery. In order to further improve this space and create an even more pleasant environment for citizens, it is necessary to consider the establishment of a stricter pedestrian zone and the horticultural arrangement of Freedom Square. The establishment of a stricter pedestrian zone on Freedom Square would enable more sustainable and safer access to this space. This would remove cars and create a space exclusively for pedestrians, which would improve the movement of citizens and reduce the risk of accidents. This change would allow people to relax, walk and enjoy the space without worrying about traffic chaos.

Sajmište (Fair): The „Sajmište“ area is located in the northern part of the city of Varaždin, a continuation of Ognjen Prica street. North of the Fairgrounds are Matija Gubec Square and Pavle Štoos Square, and the area leads all the way to the Drava River. The area of the Fair has several problems, it is unorganized, which



means that there is a lack of adequate infrastructure and space planning. This results in a chaotic appearance and lack of organization. Despite these challenges, the Fair has a significant role in the city. An antiques fair is held twice a week, which attracts many visitors and dealers. Fair could become even more attractive for various events and activities throughout the year.

GOOD PRACTICES

Day without cars: During the "Day without cars", the street designated by the program, otherwise a busy street, is temporarily closed to vehicle traffic. In 2022, Haller's alley was closed for one day. This initiative of the Association of Varaždin Cyclists and the City of Varaždin has shown that it is possible to turn that street into a pedestrian zone and has stimulated discussions on how to further develop this spatial change. Similarly, the Association of Varaždin Cyclists also initiated the closure of Augusta Šenoa Street to traffic in 2019, which was also successfully implemented.

Transformation of Habelićeva Street: Habelićeva Street and the attached parking lot were transform into a unique pedestrian zone, which becomes a space for citizens to meet and socialize. Recognizing the need to create an attractive urban space, the city authorities decided to conduct an architectural and urban planning competition for the conversion of the former parking lot into a new square. The transformation of the former parking lot into a new square represents a smart approach to the development of urban spaces. The city of Varaždin recognized the importance of public spaces as places of gathering and promoting togetherness, and made changes that became the basis for creating a new identity of the city. This innovative intervention in the urban landscape has become an example of good practice that will inspire other cities to recognize the potential of their spaces and transform them into attractive centres that enrich the lives of their citizens.

PLANNED ACTIVITIES OF THE DEMONSTRATION ACTIONS

One of the four locations mentioned before will be a location of Varaždin's demonstration action. After first meetings with local stakeholders the most likely one is August Šenoa street: the aim is making the street greener with installation of mobile green boxes. The plan is to make the street half bicycle lane and half pedestrian "chill zone". These boxes will be a combination of seats and plants that could be arranged as needed and if needed could be moved around the city. The general goal is to move the car traffic and parking spaces from this street and give it back to the citizens.



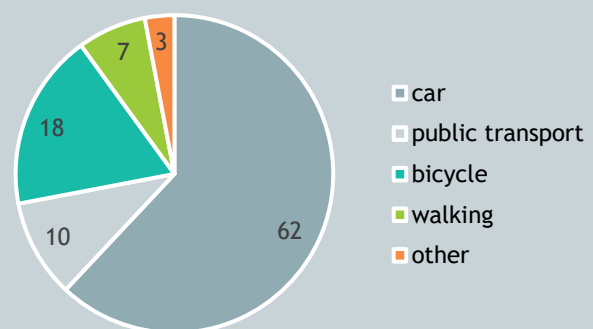
3.2.3. Ferrara (IT)



KEY DATA

Population: 130,957
Change in population since 2015: +1.7%
Activity rate: 73.1%
Unemployment rate: 8.1%
Number of passenger cars per capita: 1.77
Length of bicycle routes: 213 km
Length of pavements: n/a
Number of public parks: 38

Modal split of passenger transport in Ferrara (2011)





GENERAL INTRODUCTION OF THE CITY

The city of Ferrara is the capital city of the homonymous province, located in the north-east corner of the Emilia-Romagna Region, a very few kilometres away from the natural border with Veneto Region represented by the Po river. The characteristics of its territory cause a highly wet climate. The housing density is high in the city centre and along the main routes; in the south and east mainly residential, industrial and commercial in north-west. The population is strongly characterized by high average age: around 1/3 of inhabitants is more than 65 years old. As for the economic structure, the leading sectors are commerce, agriculture, manufacturing, tourism and real estate. A chemical plant with around 1,800 employees is 5 km from the city centre. The city also hosts a university, whose structures and departments are mainly located in the centre - except the ICT and Chemical-Biomedical poles.

Known as “the city of bikes”, cyclists are an easy-detectable presence in the city, even though the modal split shows an impressive use of cars. The cycling network is composed by 177 km of paths, often promiscuous with cart roads, along axes that ensure effective and safe links at brief-medium distances, with considerable flows of bikes especially in commuting hours. Green areas in the city and around it are quite diffused, counting more than 8 km² of green areas, of which around 2 of public parks.

In 2019 the Municipality’s Centro IDEA - devoted to sustainability policies design and implementation - released the second physical version of *Metrominuto Ferrara - walking and cycling*, the “translation” of a public transport map for pedestrians and cyclists.

Community and citizen participation has been developed in more recent years, especially in project-oriented occasions. Among them, is the regeneration of the central Piazza Cortevicchia, financed by the Ministry for Ecological Transition in 2022, whose design (now in the implementation phase) has been chosen from a set by a citizens’ survey; UIA Air Break, led by the municipality and devoted to air quality improvement through behavioural change in mobility; and the recently won URBACT Action Planning Network S.M.ALL, devoted to sustainable mobility for all, led by the municipality - offered several occasions to develop co-creation paths and participatory design skills in the Administration.

KEY CHALLENGES AND LEARNING NEEDS IN USING URBAN SPACES AND URBAN MOBILITY

The structure and overall organisation of the city and its administration led to the identification of the following critical challenges and learning needs with regard to the use of urban spaces and mobility.

- Improve the road system, especially within the city’s Walls, its penetration and connections towards functional and easier links among main axes and access routes;
- Reduction of motorized traffic in the city centre by planning interventions to reduce car fluxes and, in general, improve the environmental charge caused by motorized transit traffic;
- Further developing the alternatives to cars, improving the sustainable mobility system - in particular with regard to cycling and rail system;
- Improve water/river infrastructure, by the regeneration of the waterway for navigation and its integration with the existing urban tissue;
- Adjust/adapt the vectors to the urban tissue they cross, by making the road system more integrated, fostering modal interchange for commercial purposes, and separating heavy and light transport systems;
- Valorize touristic terminals as interchange spots and gates to the city’s historical centre;
- Widen the surfaces dedicated to bike sharing and parking for cargo bikes, to incentivize the distribution of goods in the ZTL (limited-traffic zones);



- Characterize public spaces in a sporty and recreative sense by installing light infrastructures for collective use (gyms, multifunctional benches, game tables);
- Involving the third sector to further restrict the speed limits for private vehicles, and to expand the Pedibus experience;
- Designing and realising an inventory of roads.

PUBLIC SPACES WITH SIGNIFICANT PROBLEMS

Giardini 20 e 29 Maggio 2012: The Giardini 20-29 Maggio 2012, known as the former Standa gardens, are located right in front of the Ferrara Castle, in the very heart of the city. They represent an important transport node, hosting several bus stops and spaces for bike/scooter sharing, and are highly frequented especially by fragile citizens and caregivers, who find here relief from heat waves in summer. On the other side of the primary traffic arteria of Viale Cavour, at the crossroad signed by the Poste palace, the green triangle of Cavour gardens likewise represents a critical node especially for pedestrian mobility in the downtown. In this complex system pedestrians, bikes, small-electrical mobility systems, cars, public and commercial transport means share the same space.

Piazzale Giordano Bruno: Located near the train station, this public green area suffers from several years of diverse problems linked to small criminality. It already hosts playgrounds and a kiosk, benches, and facilities, but it is highly underrated for security reasons. Its location and the residential density of the area - which also hosts schools, the stadium, facilities for families, and the regenerated creative hub Grisù - claim for an intervention.

Via Azzo Novello - High School: Via Azzo Novello is an important axis that connects intra and extra moenia (walls) in the north quarter of the city, coming from the Parco Urbano and passing through the city walls. The technical High School “Bachelet” (students from 14 to 18) overlooks the tree-lined road, and that generates high congestion during entrance/exit hours due to the high amount of car traffic, from parents taking their children just in front of the school.

Via Valle Pega - Schools: The Valle Pega street, located in the south-east quarter of the city centre, is highly congested at least twice a day in correspondence with the entrance/exit hours of the two schools located in the huge building on the street. The high number of caregivers that arrives by car in front of the school to get the pupils (up to 10 years old) blocks the bottleneck generated by the access to via Baluardi, an important - and thigh - road that ensures the west-to-east link in the city.

GOOD PRACTICES

SUMP: The Sustainable Urban Mobility Plan has been approved in December 2019 after a three-step journey made of i) Knowledge phase (2016); ii) Participative process for the designing of the Plan; iii) Approval of the SUMP for the City of Ferrara. The SUMP provides the city with the strategic framework for planning the short-term interventions, with the following objectives: a) guarantee to all the citizens' several options for mobility to access key services and areas; b) improve safe conditions; c) reduce atmospheric and acoustic pollution, as well as emissions and energy consumption; d) improve efficiency and cost-effectiveness of transports for people and goods; e) actively contribute to improving the attractiveness of the territory and the quality of the urban environment for the sake of citizens, the economic sector and the society in its complex.

“Piedibus” - Pedestrian bus for pupils: Protocol has been approved for the school year 2022/2023, after previous tests. The “lines” activated are 4 and reach more than 50 pupils. The stakeholders involved in its implementation are the Regional School Office, the schools of the city, the Mobility Agency, Ferrara Open Lab, FIAB Ferrara, Parents for Future, Fridays for Future, Teachers for Future, ARPAE - Regional Agency for



Environmental Protection, the paediatricians, the CSV - Centre for Volunteering and the cooperatives of pre and post-school services.

Mobilityamoci project, composed of i) a web-based inventory of home-school commuting behaviours, involving 4 primary schools; ii) the test to fine-tune a model for home-schooling commuting - toward a “SUMP for children”.

“Born to walk” campaign: a yearly concourse to promote pedestrian and sustainable mobility for home-school commuting.

“Bike 2 Work” campaigns to incentivize sustainable mobility from home to work using the leverage of cashback.

PLANNED ACTIVITIES OF THE DEMONSTRATION ACTIONS

The focus of the demonstration action is to experiment with the renovation of a critical mobility area in the most central space of the city, located in the crossroad between the Poste building and the Cavour gardens. This tiny green area represents an “island” in the intense trafficked area in which cars, pedestrians, and soft and hard mobility means share the same space.

The pilot action is intended to test and promote the valorization of the presence of pedestrians and cyclists at the crossroad, thus subverting the traditional pre-eminence of cars and motorized vehicles over light mobility systems. To do so, there will be tested co-created interventions to create more creative public spaces that discourage the use of private vehicles. Signposts and outdoor furniture - like benches, lighting systems, etc - will improve safer accessibility and the use of the space for walkers and cyclists, while the removal of obstacles, desealing actions and adaptation of the crossings may foster sustainable mobility by guaranteeing access to the area to all citizens - even those who are affected by reduced mobility conditions - and make the space more liveable and agreeable.

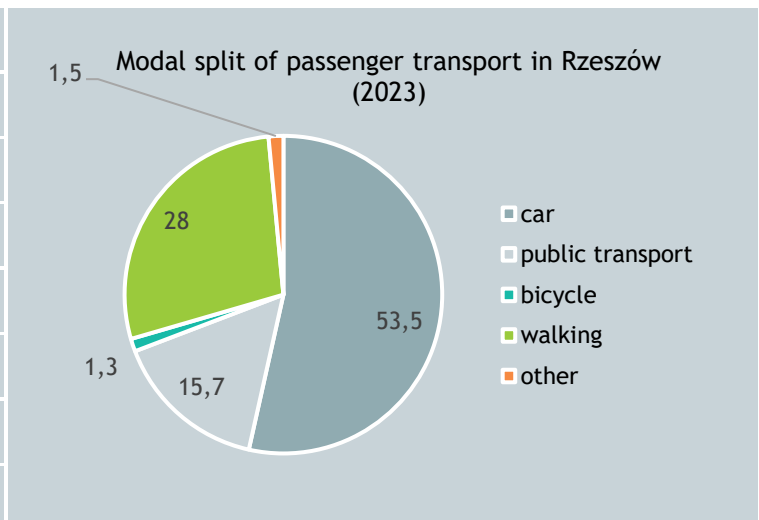


3.2.4. Rzeszów (PL)



KEY DATA

Population: 197,181
Change in population since 2015: +5.7%
Activity rate: 53%
Unemployment rate: 4.2%
Number of passenger cars / capita: 1.6
Length of bicycle routes: 171.02 km
Length of pavements: 295.23 km
Number of public parks: 16



GENERAL INTRODUCTION OF THE CITY

Rzeszow is a progressive economic, academic and cultural centre, the capital of the Subcarpathian Province and one of the largest cities in the region (south-eastern Poland). Demographic forecasts assume that by 2045 the population will increase to 242,000, which translates into demand for housing, social, transport



and technical infrastructure, and green areas. The outbreak of the war in Ukraine increased the number of migrants in the city, mainly young women with children.

The city uses its internal advantages and potentials: a developing academic center and the related scientific and research sector, functioning cluster structures, dynamic development of entities conducting professional, scientific and technical activities and the modern business services industry, as well as the functioning of numerous business environment institutions. Providing appropriate areas for conducting and developing various business activities is of key importance for the city's economic development. In order to protect and ensure the comfort of city residents, there is a need to maintain and develop economic activity zones and locate their production and services that, due to their nature, scale or logistic needs, would constitute a nuisance to the environment and residents.

The historical city centre is a traditional location of trade and services, including small crafts. Attracting specialists and creative communities as well as developing tourism has huge cultural and economic potential (business and congress tourism, one-day and weekend tourism, cultural tourism).

One of the factors influencing the quality of life in a city is providing its residents and travelers with appropriate mobility solutions, including access to public transport. In addition, completing the basic road network will significantly eliminate transit traffic from the city area. It is necessary to take actions aimed at reducing car traffic in the city, especially in the city center, including its historic center, while developing public transport services as well as improving walkability and bikeability. Changing transport priorities also requires the development of multimodal transport and appropriate parking policy, which involves the need to create transfer hubs integrating various forms of transport.

KEY CHALLENGES AND LEARNING NEEDS IN USING URBAN SPACES AND URBAN MOBILITY

- Insufficient access to public transport in peripheral housing estates
- Loss of cyclists' time resulting from the necessity to cross intersections without any bicycle crossings
- Occurrence of conflicts between pedestrian and bicycle traffic
- Prioritizing pedestrians, cyclists and public transport
- Improving inter-neighbourhood transport services, especially in estates in the ecological zone, as well as connections of the city with neighboring communes forming the Rzeszow Functional Area
- Striving to reduce car traffic in the city, with particular emphasis on the city center, including the historic centre
- Integration of various forms of public transport and the offers of various carriers, with particular emphasis on Podkarpacka Kolej Aglomeracyjna
- Lack of park&ride solutions and insufficient number of kiss&ride and park&go solutions
- Pursuing a parking policy supporting the operation of public transport
- Development of public transport as a priority means of transport for the city and neighbouring communes
- Development of bicycle infrastructure
- Shaping infrastructure for pedestrians as the most privileged road users
- Creating conditions for the development of urban electromobility



GOOD PRACTICES

Activities of the Urban Innovation Centre Urban Lab: Department of the Rzeszow City Hall is an instrument of cooperation between city authorities, residents, enterprises and scientific entities, aimed at improving the quality of life of citizens through innovative solutions to identified problems (initiating, testing, implementing and evaluating projects) and generating additional values using urban resources. Urban Lab conducts broadly defined activities as an "urban laboratory", which is a space for discussions between residents, social organizations, representatives of universities and business on the directions of city development. Urban Lab's activities are focused on:

- cooperation with partners to develop solutions to diagnosed urban problems;
- providing urban data on the website www.otwartedane.erzeszow.pl useful for all groups of local stakeholders, which can also be used to create innovative solutions and projects implemented by Urban Lab and its partners;
- running the Urban Cafe, which is a space for meetings and debates between city residents and its authorities, local government officials, scientists and business representatives, where coffee is only a pretext for discussion;
- running the Innovation Incubator, supporting the process of developing innovative projects submitted by inhabitants.

PLANNED ACTIVITIES OF THE DEMONSTRATION ACTIONS

In the demonstration actions Rzeszow Regional Development Agency in a strong cooperation with the Municipality of Rzeszów will implement activities to increase the supply of bicycles and their parking where needed, separation or reduction of parking spaces for cars and application for tracking - supported by additional digital communication activities.

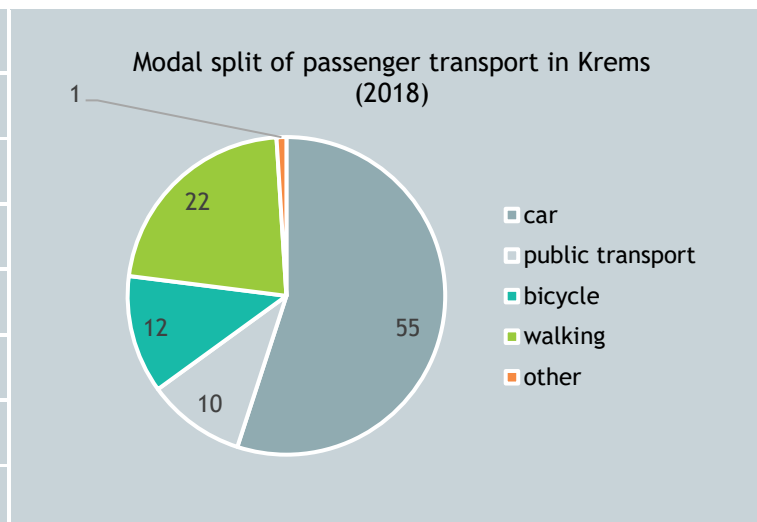


3.2.5. Krems (AT)



KEY DATA

Population: 31,383
Change in population since 2016: +6.4%
Activity rate: 44.8%
Unemployment rate: 4.8%
Number of passenger cars / household: 1.3
Length of bicycle routes: 16.3 km
Length of pavements: 147.8 km
Number of public parks: 20



GENERAL INTRODUCTION OF THE CITY

Krems is located in the southern Waldviertel in the Wachau, directly on the Danube, about 70 km west of Vienna and at an altitude of 221 m above sea level. The KEM (Climate and Energy Modell region) consists of the statutory city of Krems and is made up of eleven cadastral municipalities with a total of just over 30,000 inhabitants. The city is accessible by several means of transport: by motorized individual transport, by public transport (bus and train), as well as by bicycle routes and a landing stage.



The Danube port of Krems is traditionally an important goods transshipment point and still an economic engine of the city. Krems is also a popular destination for excursions and vacations. In 2018, the number of overnight stays was close to 247,000. Another feature of Krems is the large number of educational institutions from diverse disciplines. With six secondary schools, five high schools and six universities and colleges, it is a supraregional centre for education. The majority of the resident businesses are in the fields of trade and crafts (36%) and commerce (30%). Tourism & Leisure and Information & Consulting are the next largest categories, each accounting for about 15%. Industry plays a rather minor role, accounting for only 0.6% of the total number of businesses. An important part of Krems' identity is its long tradition in viticulture.

The city itself has a well-connected bus system including a shared cab service. The network of bicycle paths and footpaths also extends beyond the city and its borders. In the public space there are various recreational areas with different groups of people. On the one hand, there are the numerous parks, as a place of retreat and recreation, and on the other hand, the lively city centre, which invites people to linger. Also the different squares attract with their markets (Genussmarkt, Vinatagemarkt, various festivals).

For citizens, the employees of the magistrate are available to discuss concerns. For this purpose, there are the possibilities to inform themselves via the city's homepage <https://www.krems.at/> and various platforms to act in interest groups. Residents are regularly invited to city events in order to make the city of Krems fit for the future.

KEY CHALLENGES AND LEARNING NEEDS IN USING URBAN SPACES AND URBAN MOBILITY

- Public places: How to reduce urban heating and make public places more enjoyable for the public?
- Public space is predominantly used by cars; parents driving their kids to school or kindergarten instead of walking or using public transport.
- Speed limits are difficult to implement.
- Politics: When the mayor is not of the ruling party of the province, things do not move (fast).
- Intelligent green space design: How to initiate the process for high quality green space design and how to pay for it?
- Temporary use/redesign of public spaces: Who is in charge, whose budget covers which actions?
- Problem: Shortage in (skilled) staff - many ideas but not enough people to support their implementation.

PUBLIC SPACES WITH SIGNIFICANT PROBLEMS

Hoher Markt: The High Market is a large square with two schools, an inn and a cultural institution. As a result, there are many parking spaces here, some of which are unregulated. Due to the schools, parking problems and congestion occurred here in the morning and in the afternoon. The parent cabs have been contained by conversion measures and the bollards that have been erected now regulate the parking situation. However, the redesign is still somewhat unbalanced and it has not yet been possible to create a pleasant atmosphere to linger in. Therefore, temporary measures to improve the design of the square would be helpful.

Hafnerplatz: This square consists of two small green islands with a lot of parking space around. There is also an elementary school here and there is a significant problem with bringing and fetching schoolchildren, both on foot and by car. A better design of the square with fewer parking spaces and more places for children to stay, as well as more safety on the way to school with regard to motorized traffic would be desirable. It may be possible to establish a kind of pedestrian zone.



Dreifaltigkeitsplatz: It is a historic square with some underground constructions, which should be preserved. The square is paved, and, in the centre, there is a plague column. At the same time, a weekly market is held here. This location is exposed to the sun all day and there is no possibility to stay or cool down. Temporarily, two trees have been placed in large troughs. Further temporary measures in the course of the project would be desirable here, in order to test further shading or cooling possibilities, as well as a temporary green space arrangement, so that the place becomes more liveable.

Südtirolerplatz: This square is a public space with a parking possibility to reach the city centre. Here, temporary measures for shading, green space design and for increasing the quality of the stay would be desirable.

GOOD PRACTICES

Tree sponsorships: Trees cool cities like natural air conditioning systems: Trees and forests are important for the climate because they absorb the greenhouse gas CO₂ and release oxygen. In this way, they help to keep temperatures on earth stable. The initiative "Klimabaum" in close cooperation with the Krems City Gardens Office developed the idea of giving charcoal drivers the opportunity to sponsor a climate tree. These climate trees are planted at selected locations planted by the city garden office and cared for for three years. Sponsors make a valuable contribution to maintaining the city climate in Krems worth living in.

City Bus Krems: Many inhabitants use their own vehicle to get from A to B within the city, which creates congestions and the need for more parking space. Hence, the city provides an alternative to individual traffic. The contract for the previous city bus system ended at the end of 2020, so considerations for a new city bus system had to be started in good time. The previous system included 4 bus lines, while now 7 lines ensure better and more frequented connections between the districts - based on the needs and expectations of the citizens.

PLANNED ACTIVITIES OF THE DEMONSTRATION ACTIONS

As a first measure, the project will be publicized and "advertised" during the EU Mobility Week (16-22 September 2023). On one day, a FAXI (bicycle Taxi) branded with the PopUpUrbanCity logo - is to drive along a fixed route (in an area of the Ringstraße that is closed to car traffic) and give people a lift following a hop on/hop off principle. The driver should serve as an informant and be able to explain the most important information about the project. Furthermore, there should be a Faxi stand at Südtiroler Platz, for which a beach flag with the project logo(s) is needed (in preparation). As a further measure, the establishment of an email address (e.g. popupurbanspaces@donau-uni.ac.at) is planned to give interested citizens the opportunity to contribute ideas/suggestions. Kremser Stadtjournal is also a useful communication channel for informing the general public (e.g. publishing articles, photos, etc.).

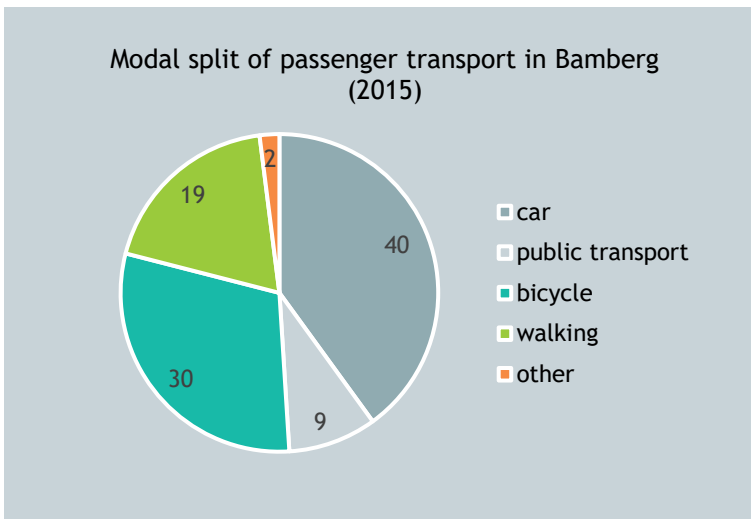


3.2.6. Bamberg (DE)



KEY DATA

Population: 76,674
Change in population since 2015: +0.6%
Activity rate: 95.4%
Unemployment rate: 4.6%
Number of passenger cars per capita: 0.53
Length of bicycle routes: 66.5 km
Length of pavements: 264.7 km
Number of public parks: n/a



GENERAL INTRODUCTION OF THE CITY

Bamberg is located in southern Germany in the north of Bavaria. With over 77,000 inhabitants, Bamberg is a growing midsize town and an urban district. It is a good example of a Central European town with a basically early medieval plan and many surviving ecclesiastical and secular buildings of the medieval period (more than thousand single monuments). Of particular interest is the way in which the present town illustrates the link between agriculture (market gardens and vineyards) and the urban distribution centre.

COOPERATION IS CENTRAL



The Town of Bamberg was listed as World Heritage in 1993, which leads to a precise protection of historic structures like the medieval street layout. The current roads and public mobility like busses and bicycle routes are based on this situation. There are three historic core areas:

- the City on the Hills characterised by imposing architecture and being the historic political such as religious district,
- the Island District flanked by two arms of the river Regnitz as the vibrant heart of trade and commerce,
- the Market Gardeners' District with spaces for urban horticulture still under commercial use.

The accessibility is excellent: freeway access, train access (e.g. less than 3 hours to Berlin). Tourism is a stable and important economic factor. Because of Bamberg's location on the Main-Danube Canal, passengers from river cruise ships represent an important international target group among the day visitors. Industry offers 30 percent of the jobs in Bamberg. The city has a high life expectancy. Because of the university in town, there are many students (11,600 in 2022/23) such as families using public spaces. Bamberg has different kinds of public space (parks with playgrounds, pedestrian area, town hall square). A municipal agent is responsible for cycling in Bamberg.

Digital communication tools are the common social media as Instagram and Facebook with different content (education, politics, events, etc.). Additionally, there are different websites offered by municipal institutions, which can be used by the public. Citizen participation is generated for projects of any intention, for example, local residents are aware of World Heritage and participate. There are many different associations and civic volunteers in Bamberg, who advocate social or sustainable projects.

KEY CHALLENGES AND LEARNING NEEDS IN USING URBAN SPACES AND URBAN MOBILITY

Bamberg challenges **using public spaces** as whereabouts for the public. It was not destroyed during the Second World War as other German cities. Many public spaces became conglomerates of different elements out of various construction phases without an objective concept in the last decades. Somewhere this causes spatial densification producing a confusing situation and uncomfortable spaces, while in other parts of the city it resulted in wide, unused or just sporadically used areas, which are uncomfortable as well. There are not as many seating-accommodations as needed.

Walking and cycling have been focused in the past, which led to extensions of cycle paths. Since a few weeks, there are some elements installed in front of traffic lights facilitating bikers: they do not have to dismount anymore and can gain momentum by pushing off from handrails. Nevertheless, there needs to be done more for safe walking and cycling (e.g. in front of the railway station and its square).

Public transport is centralized around the bus station in the Island District. This can lead to extensive journey times, which needs to be improved. Furthermore, public transport is not available around-the-clock: the timetable needs to be intensified at night and at the weekends.

Motorized transport has a high significance in German cities and dominates the design and layout of roads in Bamberg - as opposed to walking and cycling, which are secondary and attachments.

A related **digital communication** tool is a digital twin (in German "Digitaler Zwilling") of the municipal project "Smart City Bamberg" (<https://smartcity.bamberg.de/>). It recreates the World Heritage City in virtual space. Sensors enrich the twin with real-time data from the city. The database is intended to be usable across departments and supports mobility and energy planning, crisis prevention or a guidance system for people with disabilities. An additional benefit is created through tools of public participation and long-term documentation of the World Heritage. This twin is not finalized yet but is in progress and should be finished in 2027. Progressing this tool is challenging and needed for public use of urban space.



PUBLIC SPACES WITH SIGNIFICANT PROBLEMS

Schönleinsplatz and Markusplatz: These public places have been representative and formative spaces for the cityscape in the past, are dominated by automobile traffic nowadays. Green areas in the middle of the traffic of these spaces are landscaped with grass, fountains, seating-accommodations and plastic art. Overall, the general view and the layout of these spaces are developable.

Maximilianplatz and Domplatz: These squares connect the cathedral with the Old Court and the New Residence as centre of the City on the Hills. The “Maximiliansplatz” is an open area within the pedestrian area partly used as market and sporadically for events. There is a lack of green elements besides some plant pots, enough seating-accommodations, any attraction to arrest attention and to invite passers-by to stay. This needs to be accessible for marketeers and leads to difficulties installing a steady layout. A pop-up concept could be a chance to establish the “Maximiliansplatz” as a popular whereabouts. The “Domplatz” suffers a similar situation of missing attractiveness. It is used for cars (driving and parking) and for some religious events. There is no green and less seating-accommodations versus the “Maximiliansplatz”. Both squares suffer from different owners of their area, which has to be considered thinking about new concepts.

Bridges in front of the Old Town Hall: Two footbridges in front of the Old Town Hall of Bamberg in the middle of the Regnitz are other public spaces with problems. The lower one is highly controversial as a potential space for a beer garden or for a different outdoor dining space. In 2022, there has been a public-opinion poll, whether it fits for catering or not. There has been a test run by a gastronome with beer tables and a bar, which was visited by many tourists. However, it was not successful and accepted by locals. In 2023, the municipality installed a balustrade. The bridge is a traffic route for walking and cycling.

Train station: A typical German problem is the area planning of squares in front of train stations because of the discrepancy of different interests like being practical and clear or being welcoming and comfortable. This applies for Bamberg, as well. The “Deutsche Bahn” plans an extension of the rails because of its significance for the railroad connection of Berlin and Munich. This major project will last more than ten years and might effect the public space concept, which could be focused right now by arranging pop-up elements.

GOOD PRACTICES

Lighting Master Plan for Bamberg: Its plan’s objectives are the illumination of important historic buildings with differentiated individual lighting that conveys the spatial qualities of the building. High-quality lighting of the main thoroughfare from the railway station to the “Domplatz” (cathedral square) forms a very important element of the urban space. Night-time spatial orientation in the urban environment should be improved. The lighting master plan also deals with aspects of energy-saving, security and road safety. Its implementation continues.

Urban Gardening: It deals with horticulture as urban heritage in Bamberg and is linked with the Market Gardeners’ District with its long tradition of market gardening that still lives on today. From former 500 gardeners only 40 gardener families live and work on their own land. Because the sector has shrunk, however, much gardening land in the inner-city area has fallen out of use - spaces for which sensitive uses must now be found. The project “Urban Gardening” is intended to keep alive the typical Bamberg gardeners’ culture, to develop new methods of gardening and to preserve the unique and outstanding inner-city gardening lands as part of the UNESCO World Heritage site. It combines topics of urban planning, monument protection, community involvement, tourism and commercial horticulture in a holistic way.

Smart City Bamberg: The digital twin recreates the World Heritage City in virtual space. Sensors enrich the twin with real-time data from the city. On this basis, planning is simulated and illustrated.



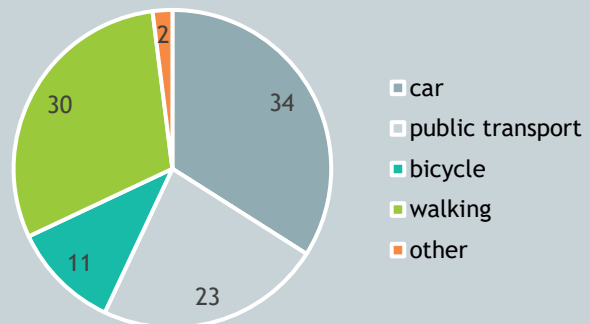
3.2.7. Nyíregyháza (HU)



KEY DATA

Population: 115,521
Change in population since 2010: -1.97%
Activity rate: 70%
Unemployment rate: 2.68%
Number of passenger cars per capita: 0.4
Length of bicycle routes: 77.6 km
Length of pavements: 352.6 km
Number of public parks: 13

Modal split of passenger transport in Nyíregyháza (2018)*



* The data was gathered from a survey among households in Nyíregyháza, the data cannot be considered representative.

GENERAL INTRODUCTION OF THE CITY

Nyíregyháza is a city in north-eastern Hungary, located near the tri-border region of Hungary, Romania and Ukraine. Its accessibility is relatively good, flexible and diversified (IC-train, motorway), and it is considered one of the most important transport nodes in the east of Hungary.

With a stagnant population of approx. 116,000, Nyíregyháza is the seventh-largest city in the country. Its development has been continuous since the 18th century, thus the city became the economic and cultural centre of the region. As the county seat of Szabolcs-Szatmár-Bereg County it has a large agglomeration, and provides a wide range of public and other services for the population of the city and its surroundings.

In the economy, the agriculture was dominant over the centuries - due to favourable natural conditions. After the change of regime, several foreign-owned companies established new production sites in Nyíregyháza (e.g. LEGO, Michelin). The largest employers of the city are located in industrial parks and industrial areas, but the tertiary sector also plays an outstanding role in the local economy and labour market. As a consequence, a high number of daily commuters travel to and from Nyíregyháza every day.



Thanks to the developments of the last decade, tourism has become one of the important sectors. The main attractions are located in the downtown (e.g. museums, churches, elements of built heritage) and in the northern part of the city (e.g. zoo, spa and wellness centre, open air village museum).

In terms of its geography and urban structure, Nyíregyháza offers favourable conditions for sustainable mobility: flat area, numerous (relatively large) interconnecting squares in the city centre, wide roads. These factors create a potential for further improving urban mobility - primarily active forms of transport. The public road network has a radial structure with 2 main ring roads: the great boulevard is functioning as bypass; the small boulevard directly surrounds the city centre's pedestrian zone.

Recently various projects have been implemented, aimed at improving the quality and occupancy rate of alternative modes of transport (e.g. CNG and electric low-floor busses, expanding bicycle road network, traffic calm measures). The existing pedestrian-only zone in the inner city is relatively large, but there are other areas from which cars may be excluded in the future.

The municipality of Nyíregyháza make great efforts towards retaining and attracting inhabitants as well as strengthening the community both at city and at neighbourhood level - this was the aim of the TalentMagnet project co-financed by the Interreg Central Europe Programme. Digitization appears in many areas of the city management - partly thanks to the "Digital Nyíregyháza" program and the developments implemented since then. Digital administration is now commonplace, and sometimes smart solutions also appear in the field of public services (e.g. monitoring of waste collection, Nyíregyháza App, timetable application containing the public transport schedule, the automatic measuring station that monitors air pollution). However, there is still room for greater use and spread of digital communication tools.

KEY CHALLENGES AND LEARNING NEEDS IN USING URBAN SPACES AND URBAN MOBILITY

Using public spaces:

- Some districts and public places are habitually abandoned
- Some of them are underused which deteriorates the cityscape, social cohesion, and local identity
- Green areas appear as islands, they do not form a unified network

Pedestrian traffic:

- Poor quality of sidewalk coverings in some places
- Narrow pavements near the city centre
- Principle of barrier-free construction is not always applied (e.g. high curbs)

Bicycle traffic:

- Low rate of people using bicycle regularly
- Despite the continuously expanding network, some critical sections of core bicycle routes are still missing that limits traffic safety
- Limited number of bicycle storage and other necessary bicycle facilities
- Traffic lights are optimized for cars - slowing down the bicycle traffic
- Regulatory failures (e.g. regarding bicycle parking, low-speed streets, using one-way streets in the opposite direction by bicycle)
- Attitude problems, insensitivity to the other's point of view

Public transport:

- Very low (22%) occupancy rate of buses



- Outdated vehicles (a significant improvement is expected thanks to the new buses)
- Routes and schedules are not in line with the real needs (“sightseeing” routes instead of straight, direct lines, districts with poor access, confusing schedules, inadequate frequency, etc.)
- Inefficient operation, inappropriate business model of public transport, limited policy support, public finance do not promote / reward efficiency and quality improvements
- Controversial image, inadequate marketing: public transport used mainly by people who cannot afford to maintain a car - it is not considered a transit option, rather as a last resort

Motorized transport:

- Congestion in rush hour, overcrowded boulevards and radial roads (especially the transport nodes)
- High proportion of people using cars to achieve the city centre due to “too good” conditions for cars
- Limited number of P+R parking places along the main access roads, opportunities for changing means of transport are inflexible

Other factors (e.g. environment, attractiveness of public spaces):

- Relatively small size of attractive green areas in the downtown
- Air pollution and smog particularly during winter prevent people from walking
- Limited number of attractive catering units in the city centre
- Relatively small number of outdoor and indoor community spaces and community activities
- Despite the continuous development, cityscape and street design is not attractive enough
- Segregated urban areas with high ratio of disadvantaged people

Applying digital communication tools:

- The transport app does not provide up-to-date information
- According to a survey, almost 60% of the inhabitants consider their own digital competences to be average or below
- The utilization of the Nyíregyháza App is low both from the operator's and user's side

PUBLIC SPACES WITH SIGNIFICANT PROBLEMS

Toldi street: It is a street of 1.2 km length along a watercourse in a mainly residential area. Although it is surrounded by a relatively wide green area, the street and the stream is totally underused, even unused. It does not represent any attraction for the residents: there are no barriers, street lighting is inadequate, the green area is neglected. Potential interventions: creating steps leading to the water, installation of street furniture, renovation of bridges necessary for crossing, renewal of the vegetation.

Kiss Ernő street: The 700 m long street has dominantly residential function completed with other functions. It connects the train and bus station with the city centre; however it is rather underused. The sidewalks are not wide enough, in some places they are used by cars for parking. Both the greenery and the buildings are eclectic. Potential interventions: creating a mixed-use zone favouring pedestrians (parklets, street furniture, traffic calming), renewal and unification of the vegetation, use of clear road signs.

Luther street: The 400-meter long Luther street - as the southeastern edge of the downtown pedestrian zone - leads car traffic to the city centre. Conflicts easily arise between modes of transport in this mixed-use area. Cyclists and cars drive too fast near pedestrians. The crossing is sometimes unclear, unsafe and/or



too long for pedestrians. Potential interventions: optimizing traffic light settings, official marking of unmarked crossings, expansion of the pedestrian zone, first temporarily on an experimental basis.

Bethlen Gábor street: The examined 900-meter section is an important route for travellers from the bus and train station to the city centre (and back). It has dominantly residential function completed with other ones. As it is a connection point between the ring road and the city centre, it has to handle significant pedestrian, bicycle, car and bus traffic. The bike path is safely separated from both cars and pedestrians. The further away pedestrians and cyclists are from the main square, the less motivation they feel to continue their journey on foot/bicycle. Potential interventions: changing the monotonous, concrete-oriented street scene, road and building renovation in critical sections, repainting bicycle paths and pedestrian crossings, installation of a traffic light.

Egyház street and Síp street: The approximately 450-meter-long route forms a continuous "loop" around the parking lot between the two mixed-use streets. The streetscape is dominated by the centrally located parking lot. The condition and design of Egyház utca is better, traffic safety on Síp utca, especially because of the kindergarten, is not adequate. Cyclists typically ride on the sidewalk. Potential interventions: construction of an underground garage, which would enable the creation of a green area, as a less drastic solution, creating a smaller green area for every 2-4 cars, reconstruction of sidewalks on the Síp street.

GOOD PRACTICES

Green city project: complex renewal of two public places in the downtown (regeneration of greenery, running track, smart bench and other street furniture, traffic calming measures, etc.).

Street picnic as a pilot action: in the CityWalk project co-financed by the Danube Transnational Programme focused on making partner cities (including Nyíregyháza) more pedestrian-friendly. As a pilot action of Nyíregyháza, cars were temporarily banned from an otherwise crowded street in the downtown on a Saturday afternoon to raise awareness of sustainable forms of mobility. The long-term and upscaleable results of the CityWalk project was acknowledged by the RegioStars award in 2019.

Bike picnics: The event, organized every year, serves to promote cycling. Cyclists of all ages travel on the 30 km cycle path in and between Nyíregyháza and Tokaj, completed in 2017.

Street audit: an easy-to-use methodology was created and tested in a cross-border project implemented in Nyíregyháza and two other cities from Romania and the Ukraine. As a result 5 public spaces in Nyíregyháza were thoroughly assessed and auditors formulated useful, proactive recommendations were on preparing future interventions.

PLANNED ACTIVITIES OF THE DEMONSTRATION ACTIONS

The city of Nyíregyháza plans to implement two demonstration actions:

- One will focus on tactical transit methods to improve user experience on public transport by providing up-to-date information to users and counting passengers of public transport. The planned method would also be used for getting feedback on the service quality, problems users may encounter and suggestions for improvement to have reliable information.
- Within the second pilot action Nyíregyháza will use digital campaigning tools for raising awareness of sustainable modes of transport and making public spaces more liveable.



3.3. Key conclusions

Based on the urban mobility and travel behaviour audit of the partner cities, archetypical problems and common challenges can be summarized. As undertaken in the PopUpUrbanSpaces project, territorial partners represent small- and medium-sized cities from the Central European Region - some of them with population growth, while other towns can be described as shrinking cities. All of them have an impressive bicycle network - compared to their size. However, it can be stated that considering the modal split, cities show a very different picture. Nevertheless, since the data was collected before starting the project, there are differences in methodologies of data gathering which (up to some point) diminishes the comparison potential between modal splits of the territorial partners.



Figure 13 Key data and challenges based on the urban mobility and travel behaviour audit

MAIN DATA			
	POPULATION OF THE PARTNER CITIES 25,000-198,000 inhabitants	MODAL SPLIT IN THE PARTNER CITIES	
		LENGTH OF BIKE ROUTES 12-213 km	34-83%
		1-30%	
		4-23%	
		3-30%	
KEY CHALLENGES			
	MOTORIZED TRANSPORT		PUBLIC TRANSPORT
Overrepresented car use and car ownership Congestion in rush hour "Too good" conditions for cars Limited number of P+R parking places Insufficient control and sanctioning of offences		Low occupancy rate of buses Outdated vehicles Routes and schedules not in line with the needs Inefficient operation, inappropriate business model Controversial image Long travel times Inadequate accessibility	
	BICYCLE TRAFFIC		PEDESTRIAN TRAFFIC
Non-networked bicycle paths Limited number of adequate bicycle storage (B+R) Traffic lights not optimized for cycling Regulatory failures Attitude problems, insensitivity to the other's point of view Failure to take cyclists into account in road design and reconstruction		Poor quality of sidewalk coverings Narrow and non-barrier-free pavements Relatively limited size of only-pedestrian or traffic-calmed zones Lack of urban amenities along pedestrian routes Safety issues	
	USE OF PUBLIC PLACES		DIGITAL COMMUNICATION
Underused/abandoned vs. overcrowded public places Isolated and unattractive green areas Small number of outdoor and indoor community spaces Not enough attractive and unified cityscape and street design Poorly equipped public spaces Lack of objective and feasible development concept		Non-collection of data and non-use of existing data Low utilization rate of existing transport apps Inadequate digital competences in certain social groups No systematic campaign to change travel habits	

Source: own edition



4. POPUPURBANSPPACES METHODOLOGY AND DELIVERABLES

4.1. What Is the Best Approach?

The PopUpUrbanSpaces project addresses the **common challenge of high car ownership and traffic in cities**, leading to congestion, air pollution, and CO₂ emissions, with adverse effects on urban environments and public health. This car dominance also results in the underpayment of social costs and the encroachment on valuable public space. Additionally, the COVID-19 pandemic has emphasized the importance of accessible public spaces.

To **shift towards sustainable urban mobility**, the project focuses on raising awareness and changing travel attitudes and behaviours. The **concept of "Show and Tell"** forms the core of the approach. Firstly, the project enables cities to implement innovative methods inspired by tactical urbanism, placemaking, and tactical transit. These interventions showcase the possibilities of car-free streets, parks, and public spaces, demonstrating alternatives to car-oriented urban environments. Secondly, the project develops digital campaigning tools to effectively communicate the negative consequences associated with car-oriented mobility.

Tactical urbanism, placemaking, and tactical transit are employed as temporary, low-cost interventions that allow for experimentation and testing of new solutions before committing to extensive investments. The active participation of citizens is crucial in demonstrating the human-centric potential of public spaces. While tactical urbanism and placemaking have been successful in various cities worldwide, tactical transit is a newer approach. The project adapts existing methodologies and tools to the specific context and needs of small and medium-sized towns in Central Europe. Capacity-building strategies and training are designed to empower partners in implementing tactical urbanism solutions and digital campaigning effectively.

The project follows a **systematic process**, starting with the design of action plans for pilot interventions. These pilots will be implemented, assessed, and, in a later stage, their lessons learned can be used during the development of tailored tools for the target group. Policy proposals will be created based on the insights gained. The project also fosters urban-rural partnerships to strengthen connections between major urban centres and their surrounding communities.

Key features of the project include:

- **Integrated strategies:** The project develops and deploys strategies to promote smart and green mobility in Functional Urban Areas (FUAs) by improving governance, stakeholder coordination, and aligning policies with the EU's "Urban Mobility Package."
- **Holistic approach:** The project emphasizes increasing the proportion of active urban mobility, such as walking and biking, within the urban mobility mix.
- **Innovative methods:** The project utilizes tactical urbanism, tactical transit, and placemaking to encourage a shift towards sustainable urban mobility.
- **Low-cost solutions:** Instead of relying on large-scale investments, the project employs inexpensive urban "hacks" that effectively influence travel attitude.
- **Citizen focus:** The project designs pop-up cities in collaboration with citizens, engaging them through participatory tools and ensuring their needs and perspectives are considered.
- **Small towns and hinterlands:** The project specifically targets small and medium-sized towns and their surrounding areas, tailoring solutions to their unique challenges and opportunities.
- **ICT solutions and digital campaigning:** The project utilizes innovative ICT tools and digital campaigns to raise awareness, educate citizens, and drive behaviour change.



By adopting a **transnational approach**, the project capitalizes on the wealth of practical experiences and knowledge from various cities across different countries. The collaboration allows for the exchange of best practices, access to the latest scientific findings, and the development of a methodology that can be widely applied. The added value of transnational cooperation includes sharing knowledge and resources, facilitating the participation of local authorities, and providing transnational visibility to the project's results. The project aims to provide small and medium-sized towns in Central Europe with access to new knowledge, tested tools, and practical solutions for fostering green and smart mobility. The project partners have a clear intention to ensure that every deliverable is shareable, disseminable, adaptable, and scalable. This commitment reflects their vision of promoting knowledge exchange and transferability of successful tactical urbanism solutions. By designing and implementing deliverables in a way that allows for easy sharing, the partners aim to create a ripple effect, where innovative ideas and best practices can spread and inspire urban initiatives in different contexts - suiting the specific needs and characteristics of diverse urban environments across Europe.

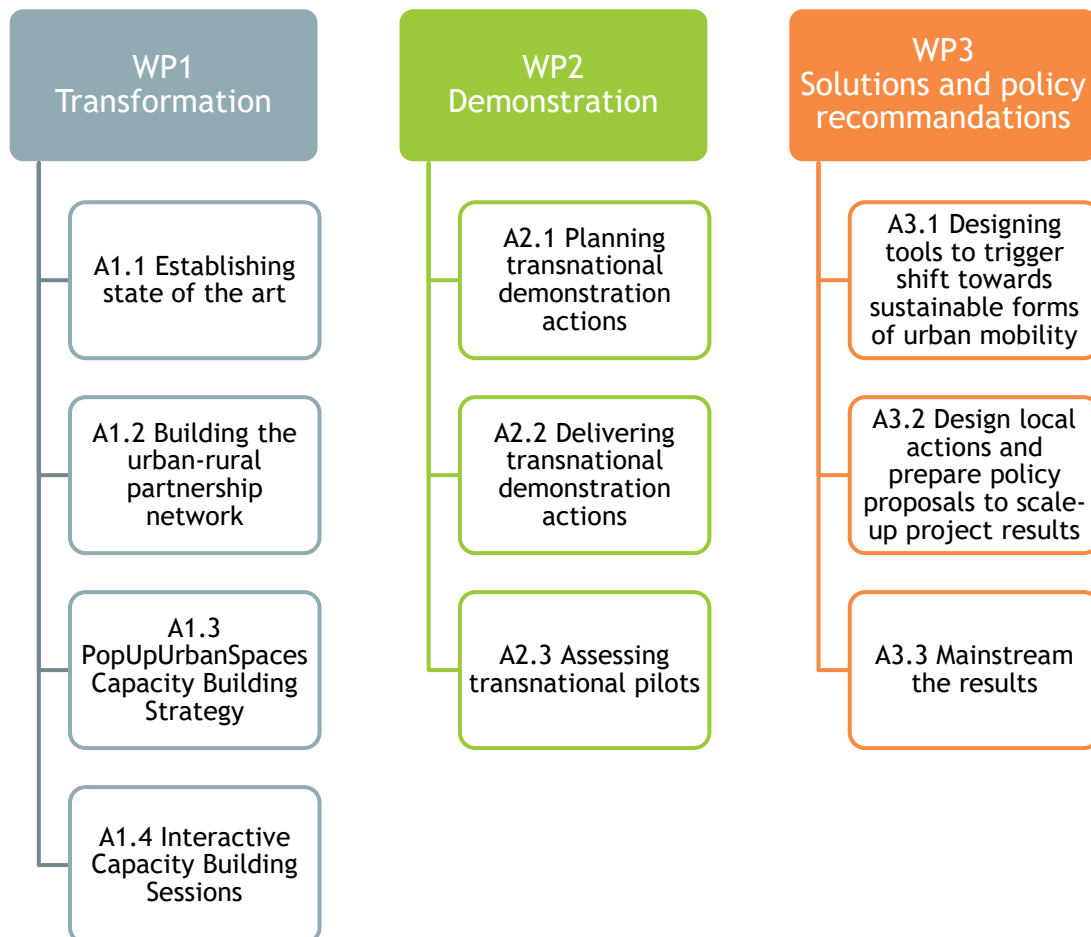
The PopUpUrbanSpaces project builds on an **intensive collaboration between the knowledge provider partners and territorial partners**, which fosters effective implementation of local urban initiatives. Knowledge providers play a crucial role in assisting partner cities by offering their expertise in the planning and execution of the specific local tasks. Through this cooperation, territorial partners gain access to valuable insights, innovative ideas, and best practices that contribute to the success of their outcomes. The knowledge providers bring a wealth of specialized knowledge and experience, enabling partner cities to make informed decisions and develop comprehensive action plans and pilot actions tailored to their unique challenges and goals. This synergistic partnership facilitates the exchange of knowledge, fosters a culture of learning and innovation, and promotes tactical urbanism, placemaking and transit. By working together, PopUpUrbanSpaces partners create a powerful synergy that enhances the quality and impact of urban initiatives, ultimately leading to the transformation of urban mobility and thriving public spaces.

In conclusion, the PopUpUrbanSpaces project aims to raise awareness, change travel attitudes and behaviours, and promote sustainable urban mobility in Central Europe. By employing tactical urbanism, placemaking, and tactical transit, and leveraging digital campaigning and citizen engagement, the project seeks to create lasting impact, foster urban-rural partnerships, and develop more sustainable and liveable cities in the region.



4.2. What Will Be Produced?

To achieve the overall and specific goals of the project as well as to contribute effectively to the programme-level objectives, the PopUpUrbanSpaces projects includes three work packages with specific activities, deliverables and outputs building on each other both thematically and temporally.



4.2.1. WP1 Transformation

One of the key challenges in connection with green urban mobility and sustainable use of public spaces is the inadequacy of knowledge and capacities in small- and medium-sized cities. Neither in the public administration nor among the relevant stakeholders have the necessary know-how and capabilities to take innovative and effective measures such as tactical urbanism and digital campaigning. Accordingly, the first step is to increase awareness and improve capacities of public sector actors to better respond to urban mobility challenges using innovative tactical urbanism and digital communication approaches.

A1.1 Establishing state of the art

The first activity is about developing common understandings among the partners - the **Baseline Study** summarizes the latest scientific and practical information regarding tactical urbanism and tactical placemaking and how these are used to help create the conditions of sustainable urban mobility. The document also explores how digital communication is used in cities to raise awareness of residents. Parallel to laying down the foundations, pilot cities conduct an **audit** using a common methodology to collect specific information about the current status of urban mobility, main challenges and the travel attitude of people. In addition, **good practices** collected by the partners provide further insight into existing specific tactical



urbanism and placemaking, as well digital communication good practices, especially ones that focus on encouraging the shift towards sustainable urban mobility and creating better public spaces for people.

A1.2 Building the urban-rural partnership network with engagement of stakeholders to develop closer interrelation between the main centres and the surrounding communities

The focus of this activity is to establish and run an urban-rural partnerships network at both territorial and transnational level. Based on a **standard methodology**, the partnerships facilitate developing closer interrelations between the main centres and their surrounding communities and jointly tackle mobility challenges. They contribute to making life easier for the rural and suburban commuters travelling to school or work, and support cities in their role as essential transport hubs. In this process, effective **stakeholder engagement** is a crucial issue: after identifying them, they have to be involved into capacity building by organizing **workshops** with local and international interested parties.

A1.3 PopUpUrbanSpaces Capacity Building Strategy

In the next phase, urban actors and local authority staff have to be prepared for using tactical urbanism and placemaking methods and digital campaigning to raise awareness and influence travel behaviour. To explore existing competencies and knowledge as well as areas of deficiencies a **Training Needs Analysis** is delivered in each partner cities following a standard methodology. After it, a 1,5-day interactive co-creation sprint **workshop** is organized. Both the analysis and the workshop provide inputs to the **Capacity Building Strategy** that lays the foundations of knowledge transfer and the development of competencies of urban actors. The strategy outlines the necessary knowledge, competencies, goals and recommends the specific steps to develop the capacity of the target groups.

A1.4 Delivering Interactive Capacity Building Sessions to TP and their ASP

Based on the outcomes of the previous activities, knowledge and competencies of territorial partners have to be improved in connection with tactical urbanism and tactical placemaking as well as in digital campaigning. The direct purpose of the **interactive training session** as well as its detailed training script, slide decks and description of interactive exercises of the training course is to prepare representatives of the partners to design and deliver demonstration actions. At the end of the training, partners will have an exam for receiving the title '**PopUP mobility ambassadors**'.

OUTPUT 1.1
Urban-rural
cooperation
network (1)

OUTPUT 1.2
PopUpUrbanSpaces
Capacity Building
Strategy (1)

OUTPUT 1.3
Pool of sustainable
PopUp mobility
ambassadors (13)



4.2.2. WP2 Demonstration

The delivery of transnational demonstrations is a core element of the PopUpUrbanSpaces approach. Partners use the knowledge, competencies acquired as well as good practices learnt during the previous phase to develop and then implement pilot actions. Territorial partners are split into 3 groups based on the preferred focus of the planned interventions:

- G1 Tactical urbanism methods to test sustainable urban mobility solutions in public space (e.g. temporary street closures, parklets, etc.),
- G2 Tactical transit methods to improve user experience on public transport,
- G3 Digital campaigning for raising awareness.

A2.1 Planning transnational demonstration actions

Partners in the same group works together under the coordination of the designated knowledge provider to jointly develop the **action plans of their local pilots**. In preparation for the action plans, a 1-day transnational planning **workshop** will be held per each group.

A2.2 Delivering transnational demonstration actions

Each city in the same group **tests different solutions**, some of them can also include minor investments. Using the action plans developed before, city partners deliver their pilots. The knowledge provider dedicated to each group provides technical assistance and support during delivery, and pilot cities in the same group thoroughly document the process using a standard methodology. While the delivery takes place at local level, there is a strong transnational aspect: cities share their experiences with each other on a regular basis.

A2.3 Assessing transnational pilots

Experience and lessons from pilots will be used to develop various practical tools for small- and medium-sized towns in the Central-European region. In addition to the documentation of the demonstration action, this also requires the professional assessment of pilots. The detailed **assessment methodology** combines self-assessment, cost-benefit analysis and external assessment elements based on different criteria:

- adaptability,
- effectiveness,
- acceptance by the stakeholders (including citizens),
- impact on shifting mobility behaviour to more sustainable mode,
- reduction and potential offsetting of pollutions.

Each group will organize a 1-day interactive **peer review session** for sharing experiences from pilot delivery and providing feedback to each other for final outputs. Results of the assessment as well as the findings from the peer review sessions, will be used to prepare evaluation reports (1/group) serving as inputs to design off tools and development of policy proposals in WP3.

OUTPUT 2.1 Transnational pilot action with demonstration activities to test PopUpUrbanSpaces approach for triggering behavioural changes and encourage shift towards sustainable forms of mobility (1)



4.2.3. WP3 Solutions and policy recommendations

The main applicable and replicable outcomes of the project at transnational level are the jointly developed

- tools tailored to the specific context of small- and medium-sized towns in the Central European region
- and policy proposal package as part of the mainstreaming actions.

In addition, activities of prior work packages also have local implications in form of designing local actions.

A3.1 Designing tools to raise awareness, influence travel behaviour and trigger shift towards sustainable forms of urban mobility

As an initial step, partners will organize a **co-creation transnational workshop** to jointly design the structure, key elements, and format of the solution to planning and implementing tactical and digital campaigning solutions. After that, **two toolkit sets** will be created for relevant actors of the public and civil sector in small- medium-sized towns in the Central European region:

- the first one includes the specification of tactical urbanism and tactical transit interventions,
- the second one focuses on digital campaigns to raise awareness of travel behaviour.

A3.2 Design local actions and prepare policy proposals to scale-up project results

To scale-up project results, city partners will work on developing territorial **action plans** using experience from the previous project phases to outline how they will use the tools developed to influence travel behaviour on a larger scale. In addition, the plan will include local and national level policy proposals that can contribute to changing travel attitudes and to shift towards sustainable forms of urban mobility. The plans will be adopted by the relevant local councils and can be annexed to the city's Sustainable Urban Mobility Plan or Sustainable Energy and Climate Action Plan. The partners together also prepare a **transnational position paper** and will sign a Letter of Cooperation to promote the paper and common work in future. The action plans and the position paper will be presented to local and national stakeholders, policymakers at final **interactive workshops** to convince policymakers.

A.3.3 Mainstream the results

In order to convince policymakers and professionals responsible for the development and execution of solutions it is essential to not just simply prepare a policy proposal package but also to clearly communicate and disseminate them as part of the **mainstreaming actions** as **presentations** on transnational conferences, a common final conference and mainstreaming the results of the project to other networks, cities and associations as **B2B meetings** with a special emphasis on institutional sustainability. This capitalization process makes possible to present, discuss, develop and share the project results with the professional and general public as well as to create synergies with other projects and organizations.

OUTPUT 3.1
PopUpUrbanSpaces tool kit
for tactical urbanism, tactical
transition and digital
campaigning interventions (1)

OUTPUT 3.2
PopUpUrbanSpaces territorial
action plans (7)



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