

**FULL PAPER FOR THE XXVII WORLD ROAD CONGRESS  
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- 1. How to present the transformation of urban mobility? Sustainable Urban Mobility Plans (SUMP) and how to use them in public space transformations**
- 2. Comment présenter la transformation de la mobilité urbaine ? Plans de mobilité urbaine durable (SUMP) et comment les utiliser dans les transformations de l'espace public.**
- 3. ¿Cómo presentar la transformación de la movilidad urbana? Planes de Movilidad Urbana Sostenible (PMUS) y cómo utilizarlos en las transformaciones del espacio público.**

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**ABSTRACT ENG**

Urban mobility needs to respond to the challenges facing society as a whole. The number of cars is steadily increasing in the Czech Republic, with a 35% increase in the last 10 years alone. However, the increase in the number of people for whom cycling is their first travel choice is even more dramatic. Research shows that every Czech over the age of 5 makes 61% of his/her daily journeys in an active way, either by foot, by bicycle or combined with public transport, with every second journey being less than 4 kilometres. The question is if and how this proportion is reflected in public budgets and in the attention we pay to sustainable transport.

One possible solution to the one-sided transport system is a short-distance city where most of their errands people can run within a few minutes by foot, or by bicycle, bus, tram, train. Sustainable Urban Mobility Plans are essential tools to urban transformations, however, their effects are limited without further follow-up, as many studies show. The reallocation of public space that has been taking place all across Europe in recent years has resulted in changes in modal share and travel behaviour. Good practice examples will show how three Czech cities of different sizes work with their mobility plans and translate them into public space - Prague (1.3 million inhabitants), Třinec (35 thousand inhabitants), Krnov (23 thousand inhabitants).

The lecture will present the results of the Vít Branda Award, which is a competition for successful transformations in public space. Transport experts together with landscape architects, artists, urban planners and representatives of the non-profit sector were choosing

the best projects. The results show how important the cooperation of different specialists within interdisciplinary teams can be for quality public space. The main prize for the best realization of transport structures and transformations in public space went to Jakub Cigler Architects for their revitalization of Moskevská Street in Prague. Various prizes in individual categories were awarded to the authors of other transformations in Brno (380,000 inhabitants), Trebic (36,000 inhabitants) and Strmilov (2,000 inhabitants), while the public prize went to the Ivančicko micro-region.

## 1. STATUS QUO

Transport is one of the main sources of environmental pollution in the Czech Republic and another source of externalities. As stated in a recent report on the state of the environment of the Ministry of the Environment:

*“The majority of energy consumption in transport still comes from burning fossil fuels. Air pollution from transport has gradually decreased in the context of modernisation and legislative requirements. However, greenhouse gas emissions from transport have been rising, with the exception of the covid year 2020. Registrations of new alternatively fuelled vehicles increased, with their share exceeding one tenth of new passenger car registrations in 2021.”*

Urban mobility needs to respond to the challenges facing society as a whole.

The number of cars is steadily increasing in the Czech Republic, with a 35% increase in the last 10 years alone. However, the increase in the number of people for whom cycling is their first travel choice is even more dramatic. Research shows that every Czech over the age of 5 takes an average of 2.33 trips per working day, either by foot (35,4%), by bicycle (4,5%), with public transport (20,2%) or by a car (39,1%), with every second journey being less than 4 kilometres, i.e. within 15 minutes by bicycle.

The expert community often fails to reach a wider audience (lack of popularizers/ambassadors). The idea of the wider public is thus largely shaped by the media, through which different interests and interest groups often speak. The result is, on the one hand, a relatively low perceived importance of the topic as a whole, combined with various forms of 'labelling' (such as 'greenwashing', 'cycling terrorism', 'social engineering', etc.).

Experts work on the topic mainly at the level of local governments, often completely separate from the public and without effective communication with them. This expert communication, which is not understood by the wider public, is also largely the case for existing sustainable urban mobility plans. At the same time, there are already several examples of professionally prepared communication plans and successful local campaigns.

## 2. SUSTAINABLE URBAN MOBILITY PLANS OR 15 MINUTE CITIES - THE WAY FORWARD

Sustainable Urban Mobility Plans (SUMP) are essential strategic tools to urban transformations in Czech cities. Alternatively, for towns with up to 40,000 inhabitants, these may be other strategic documents.

The experience with the 1st generation of SUMP, which were developed between 2015 and 2021, has shown a number of barriers, but also undeniable benefits. As it turned out, one of the main motivations for acquisition, especially for larger cities, is the necessity of an

approved SUMP if a city wants to draw funds from the Operational Programme for Transport (OPT) and the Integrated Regional Operational Programme (IROP). This implies, among other things, a deeper focus of plans on infrastructure projects rather than on efforts to change the mobility paradigm, as the European Partnership for Urban Mobility Action Plan (2018) points out.

On the other hand, even towns that do not fall into the category of towns that are obliged to submit such documents if they want to draw EU funds are involved in the SUMP. Often there is a convinced politician or other actor who actively supports the idea of SUMP.

At the same time, Czech cities are still learning how to work with participation. Communication and participation is a professional issue that cities, unless they are very experienced in this field, find difficult to handle on their own. Aligning the priorities of strategic plans with the demands of different groups of citizens is often difficult but possible. Public opinion is showing some shift, as shown, for example, by surveys on the introduction of bikesharing in Ostrava. Although public opinion did not give bikesharing much of a chance at the time of the SUMP's inception, after its launch it has proved to have found its supporters and its popularity is growing. However, convincing the residents of Ostrava to give the shared bicycle scheme a chance required communication, the involvement of early adopters and a campaigning.

Although the SUMP often includes a communication plan, the public only takes note of the topic when a specific project is being designed or built. The changes to the public realm and the city's transport system are thus a major touchstone indicating how well the city's leadership is communicating the long-term goals of sustainable mobility.

The strategic framework is key, but it is not enough on its own. An action plan and the gradual implementation of individual measures are very important. A major benefit of the SUMP is the opportunity to create order for the action plan, to find consensus on priorities and to make sure that the actions contribute to the main objectives.

If a city has a strategic or conceptual document to address transport and mobility in the city, it may not be enough for the real mental shift. It is the same as someone thinking that buying a treadmill will change their lifestyle. Rather, it depends on whether the city knows how and wants to work with this tool. Although the Ministry of Transport approved an updated methodology called SUMP 2.0 in 2020, the potential of mobility plans is still not fully exploited.

There are a number of reasons for this, and we have focused on two factors in particular:

- Low political support for SUMP in cities.
- Unpopular decisions (UVAR = urban vehicle access regulations) and related issues/opportunities are not communicated to the public.

In recent years, the 15-minute city concept has become very popular. The idea of the short-distance city lies in the possibility to satisfy the need for transport to everyday destinations (housing, work, health, recreation, education, services) mainly by walking, and in a broader sense also by using the bicycle, other means of micro-mobility and public transport, thanks to the optimal location of these destinations in space.

Some of our cities are already functioning quite naturally and often no drastic interventions are needed. To promote active mobility, it is enough to remove barriers, as shown for example by the North Moravian city of Krnov.

In the context of this paper, we will therefore address at most two questions:

- What is the role of sustainable urban mobility plans in the Czech Republic?
- How can we improve the communication of sustainable mobility, using the example of specific measures?

### **3. COMMUNICATING SUSTAINABLE MOBILITY AT CITY LEVEL**

The communication of sustainable mobility, as well as the preparation of sustainable urban mobility plans, lies primarily with local authorities and is often linked to specific changes in transport, changes and perceptions of public space and efforts to improve the living environment. At the same time, cities do not have the appropriate capacity for long-term and consistent communication. The feedback from members and supporters of the association suggests that there is a lot of scope in the Czech and Slovak market in this area and cities often ask for support materials and assistance in this area.

The survey of cities focused on whether the SUMP revealed some previously overlooked areas and whether the analysis highlighted any surprising new findings. We also looked for positive examples where it has been successful to communicate sustainable mobility and implement measures in line with the principles of the SUMP or other strategic document.

It turned out that most cities communicate the actual development of a mobility plan, but not the broader issue of sustainable mobility in the long term. If this is done, and the city leadership supports the mobility plan in the long term, then this greatly helps the individual measures. Some cities even have their own marketing brand focused on sustainable mobility and transport planning.

Practical examples show how SUMPs help with the preparation of individual measures and with the communication of sustainable mobility in general. Good practice examples will show how three Czech cities of different sizes work with their mobility plans and translate them into public space - Prague (1.3 million inhabitants), Třinec (35 thousand inhabitants), Krnov (23 thousand inhabitants). At the same time, the Vit Branda Award competition, organised by the Partnership for Urban Mobility, is a tool to raise the profile of sustainable mobility measures.

#### *1.1.1 Prague*

Prague is the capital and largest city of the Czech Republic and the 13th largest city of the European Union. Prague covers an area of 496 km<sup>2</sup> and has a population of around 1.3 million.

Against comparable cities, Prague stands out with its high proportion of public transport and low fares. Conversely, it lags behind in the proportion of cyclists and modern forms of mobility (shared/pooled, alternative propulsion and park-and-ride facilities on the public transport network). As it was revealed, Prague's public transport system is used by about 1.8 million residents and visitors each day. Intracity trips predominate (84%), but the proportion of trips outside city limits (15%) is increasing. The number of trips per capita in Prague is steadily growing, with the average number being 3.57 trips per day. The transport

behaviour of residents and visitors differs in terms of the means of transport chosen: whereas residents of Prague most often choose public transport (46%), walking (29%) and automobiles (23%) to get around, commuters from the suburbs of Prague prefer to get to the city by car (45%) ahead of public transport (36%).

Sustainable Urban Mobility Plan was finished in 2018, when seven strategic objectives were laid down for the field of transport. These objectives are supplemented with specific indicator values to allow the development and degree of fulfilment of objectives to be monitored against the current status.

A total of 242 measures have been included in the proposal part of the Plan, measures that have demonstrated their benefit while fulfilling the condition of financial sustainability of the budget of the capital city and are intended for preparation or implementation by 2030.

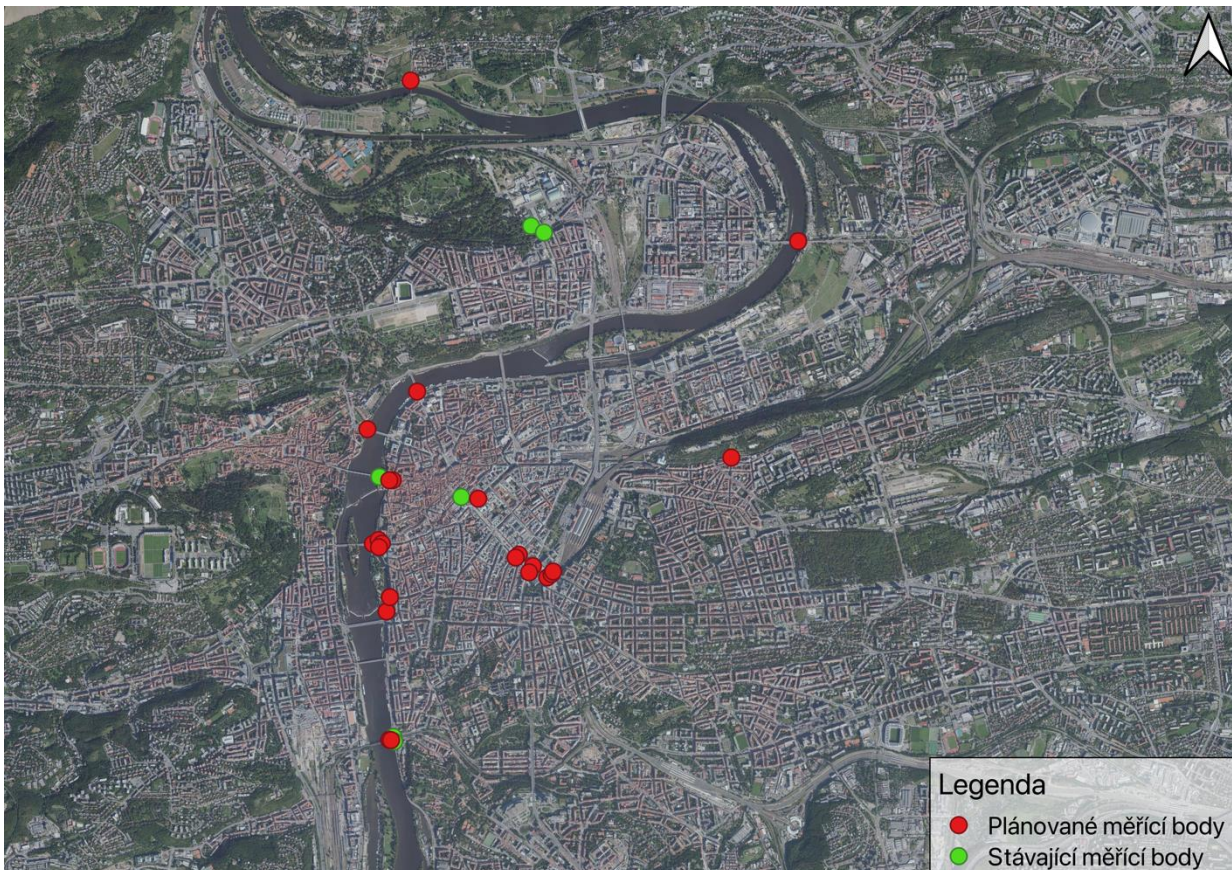
The following text contains several measures that have been defined in the Sustainable Urban Mobility Plan.

Revitalisation of Prague underpasses (Measure 118).

Initially, it was supposed to be a systematic revitalisation, but the measure has evolved into a systematic approach to dealing with the underpasses. A working group was formed, including the Prague Institute of Planning and Development (IPR Prague, the promoter of the measure), the Technical Road Administration (TSK, the administrator) and the Transport Department of Prague (the city's TSK contracting authority). An inventory was made of the vast majority of underpasses in Prague, the list was compared with TSK's plan for repair and reconstruction, and for the underpasses closest to some necessary investment, it was discussed whether to implement it or whether it would be better to close the underpass. The aim is to spend funds efficiently and also to replace underpasses with level crossings where possible.

Information base on pedestrian transport (Measure 189)

The SUMP showed, among other things, the insufficient level of data on pedestrian transport in Prague. In 2018, the company Operátor ICT started the implementation of a survey to improve the awareness of the capital city about the volume and quality of pedestrian transport. The feasibility study, which compared available technologies to measure the intensity of pedestrian traffic, was followed by a pilot project "Detecting the intensity of pedestrian traffic in public space" (2019-2021), in which these technologies were tested in Prague conditions. The results of the pilot project were taken into account by the City Council by Resolution No. 1942 of 30.08.2021, approving the transition of 6 measuring points at 5 of the pilot locations to routine operation and instructing the Transport Department of the City to develop a plan for further expansion of the network of measuring points (implementation plan) in cooperation with the companies ICT Operator and IPR. To complete the Implementation Plan, a more in-depth technical examination of the feasibility of the newly proposed metering points is currently lacking, after which it will be submitted to the City Council. It will be presented to the Prague City Council for a decision on possible implementation. The proposal foresees the extension of the network of measuring stations (the figure represents only a working version of the proposal).



### 1.1.2 *Krnov*

Smaller cities can also have their own urban mobility plan. An example of this is the city of Krnov, which has had a communication material prepared for the general public in 2022. It summarises the main principles of the plan in a clear form, the draft part of which contains several dozen measures divided into a total of 37 objectives. Krnov is an Upper Silesian town in the Moravian-Silesian Region, which has approximately 23 thousand inhabitants.

Krnov placed great emphasis on participation throughout the preparation. The SUMP itself was communicated in several stages of preparation, especially because the preparers needed feedback from citizens. However, the City of Krnov already has a number of means in its communication strategy with citizens to help communicate sustainable mobility and changes to public spaces.

In the case of individual measures, the city management already meets with the citizens before the creation of a specific project assignment.



During preparation and implementation, citizens are informed about changes in their surroundings.



In the framework of the SUMP, the view of experts (Transport Faculty, Czech Technical University) changed the long-standing perception of Krnovans of the traffic service of the western part of the city centre. As part of the preparation of car traffic calming, a new solution emerged that broke the "local blindness". The city highlights the cooperation with experts who often bring information that small towns lack.

### 1.1.3 Třinec

Třinec is a town in the Moravian-Silesian Region, in the area close to Czech-Polish border. In 2018 it had 35 thousand inhabitants.

Mobility is part of a broader Smart City strategy under the name “-Třinec i ty” (Trinec and you). The concept of the Smart City is structured into three pillars, within which specific projects are proposed and suitable sources of funding are identified. These are smart city governance, smart and clean mobility, and smart and clean environment.

The example of Trince is unique in its approach to reconstruction, which is linked to the promotion of sustainable transport. Based on a broader strategic document, the city works with campaigns towards its inhabitants.

An example of such a campaign is the reconstruction of the overpass on Závodní Street in Třinec, which started on 1 March 2022, lasted 6 months and brought significant traffic restrictions. That is why the City of Třinec in cooperation with Třinec Ironworks, the municipal police, transport operators, hospital management, integrated rescue system units and many others have prepared measures to mitigate traffic complications, and lessen the impact of traffic restrictions on the daily life of the city's residents. The measures included the "180 Days of Opportunities" campaign. The City has successively communicated the various programmes of the "180 Days" Campaign in various ways - all under the banner of the campaign logo. The result was a much better response from Trinicans, who made great use of bicycles, pedestrian and public transport.

### **3. CITYCHANGERS – NATIONAL CAMPAIGN FOR SUSTAINABLE MOBILITY**

The Partnership for Urban Mobility, z.s. manages the web portal of the Urban Mobility Academy ([www.akademiamobility.cz](http://www.akademiamobility.cz)), which it works with academia and professional organisations to update. A complete set of methodologies for the preparation of Sustainable Urban Mobility Plans (SUMP) is available for free download on the website. However, meetings with Czech and Slovak cities have repeatedly shown that, along with technical standards and strategic documents, the benefits of active mobility and the importance of individual measures need to be continuously explained in a comprehensible way. The creation of conditions for bicycles and pedestrians in general should be promoted so that this mode of transport becomes a normal part of the life of our cities.

The CityChangers campaign responds to the problems mentioned in the opening part of the lecture. The specific objectives of the CityChangers campaign are as follows:

- Raising awareness of sustainable urban mobility issues with the aim to set an environment for a change in how the Czech local politicians and officials approach the urban mobility issues.
- Building the CityChangers network. The goal is to gradually expand the CityChangers community to include more and more cities and associations, as well as to open up for the youngest. After all, they will be the ones who will live in cities shaped by the choices that are made today, so it makes sense to listen to them, to collect their suggestions, to provide them with the experience from abroad.

Working with cities will be a major activity. As it is the goal to build a network of CityChangers contacts, the project includes trips to establish cooperation with active stakeholders who have already been supporting sustainable mobility, but not much is known about their activities. Goal of the CityChangers project is to interview them and spread their stories via website [www.citychangers.eu](http://www.citychangers.eu), newsletters and social media. It should help the most active towns to develop a communication strategy, possibly with the engagement of the young and youngest citizens. The towns of Jeseník, Prostějov, Slaný, Krnov, to name just few.

Interviews with experts (communication experts/politicians and municipal representatives focused on mobility). Interviews with experts will help put the data in context and highlight important themes and practices, and explain why it is useful to plan communication in this way.

A compendium of good practice examples of specific urban mobility measures that focus particularly on the creation of public and street space with regard to the promotion of active



mobility, environmental protection and safety from the perspective of pedestrians and cyclists. The set of good practice examples will be selected from the projects nominated for the Vít Branda Award (see below). Examples of good practice will be presented on the web portal [www.citychangers.eu](http://www.citychangers.eu). In this case, the examples are shared in such a way as to be able to target the widest possible public, i.e., in a simple way and through short messages and photo documentation.

Recommendations for cities on what topics to focus on in sustainable urban mobility communication while aiming for more sustainable modal split and how to promote them. Recommendations for cities will then present the intersection of good practice examples in a simple way, so that lessons can be put into practice in local conditions as quickly as possible.

#### **4. VIT BRANDA AWARD – THE BEST TRANSFORMATIONS IN PUBLIC SPACE**

The lecture will present the results of the Vít Branda Award, which is a competition for successful transformations in public space. Among other things, the Vit Branda Award competition aims to collect examples of good practice and promote active mobility measures.

Transport experts together with landscape architects, artists, urban planners and representatives of the non-profit sector were choosing the best projects. The results show how important the cooperation of different specialists within interdisciplinary teams can be for quality public space.

#### **REFERENCES**

1. CENIA (2022). Environmental Report of the Czech Republic 2021. Czech Environmental Information Agency. Available from: : <https://www.cenia.cz/publikace/zpravy-o-zp/>
2. Urban and Active Mobility Concept 2021-2030. Prague, January 2021. Ministry of Transport of the Czech Republic.
3. ±15-Minute City: Human-centred planning in action: Mobility for more liveable urban spaces. Munich, November 2022. Study. EIT KIC Urban Mobility S.L.
4. 4. The Czech Republic on the Move: a nationwide survey of traffic behaviour. Czech Republic on the Move [online]. Brno: Transport Research Centre, 2019 [cit. 2023-01-12]. Available from: <https://www.ceskovpohybu.cz/>