

3. Sustainable Urban Mobility

Refer to Section 2.3 of the Guidance Note

3A. Present Situation

Indicator	Data	Units	Year of Data Provided
Proportion of population living within 300 metres of an hourly (or more frequent) public transport service*	65	%	2015
For all journeys under 5 km, proportion of these journeys undertaken by: Car; Public transport; Bicycle; Foot; and Other.	Car	37.3	2014 (SUMP)
	Public Transport	30.3	
	Cycling	3.7	
	Foot	28.2	
	Other		
Proportion of buses operating in the city that are low emission (at least Euro V)	69	%	2017

*SUMP

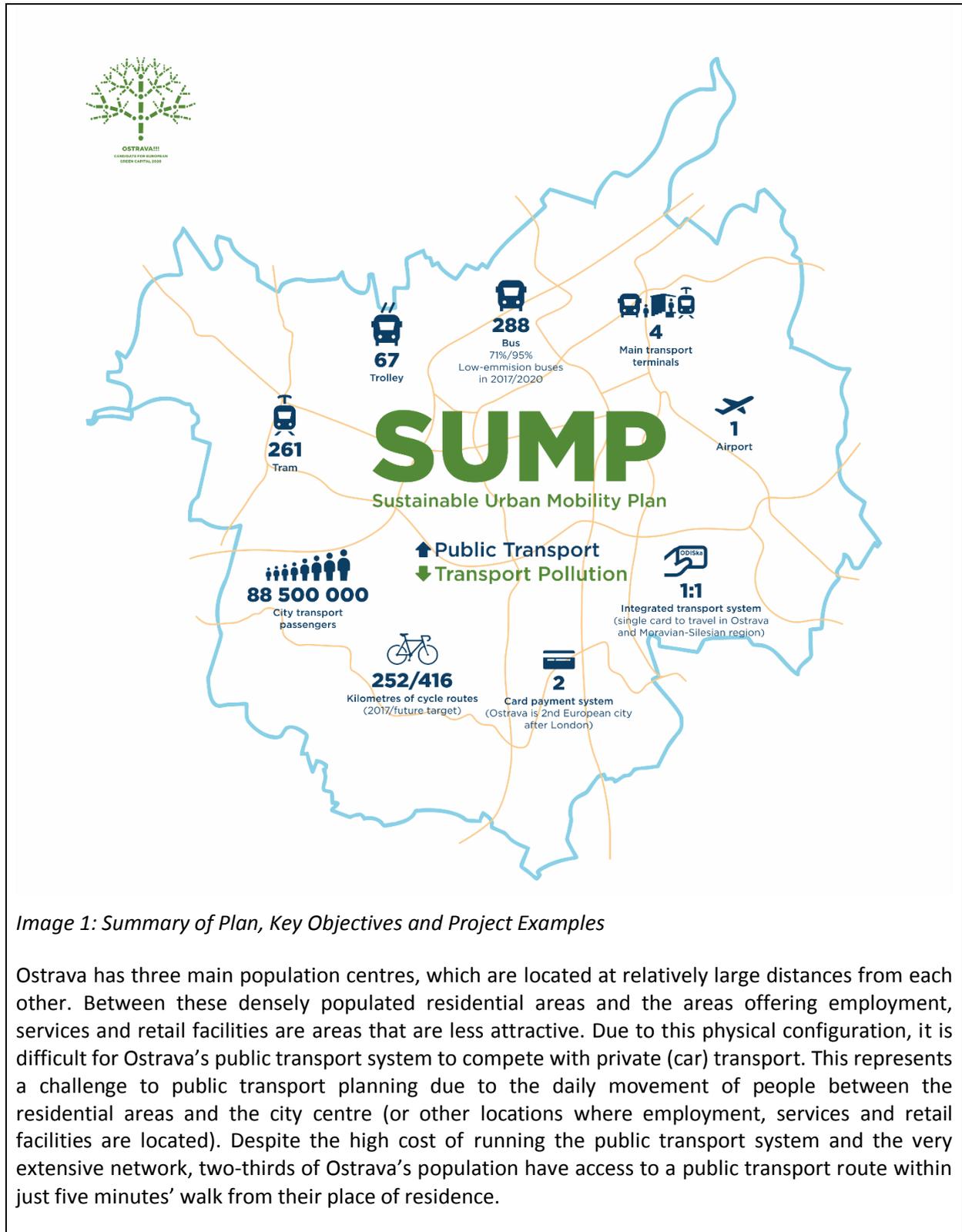


Image 1: Summary of Plan, Key Objectives and Project Examples

Ostrava has three main population centres, which are located at relatively large distances from each other. Between these densely populated residential areas and the areas offering employment, services and retail facilities are areas that are less attractive. Due to this physical configuration, it is difficult for Ostrava's public transport system to compete with private (car) transport. This represents a challenge to public transport planning due to the daily movement of people between the residential areas and the city centre (or other locations where employment, services and retail facilities are located). Despite the high cost of running the public transport system and the very extensive network, two-thirds of Ostrava's population have access to a public transport route within just five minutes' walk from their place of residence.

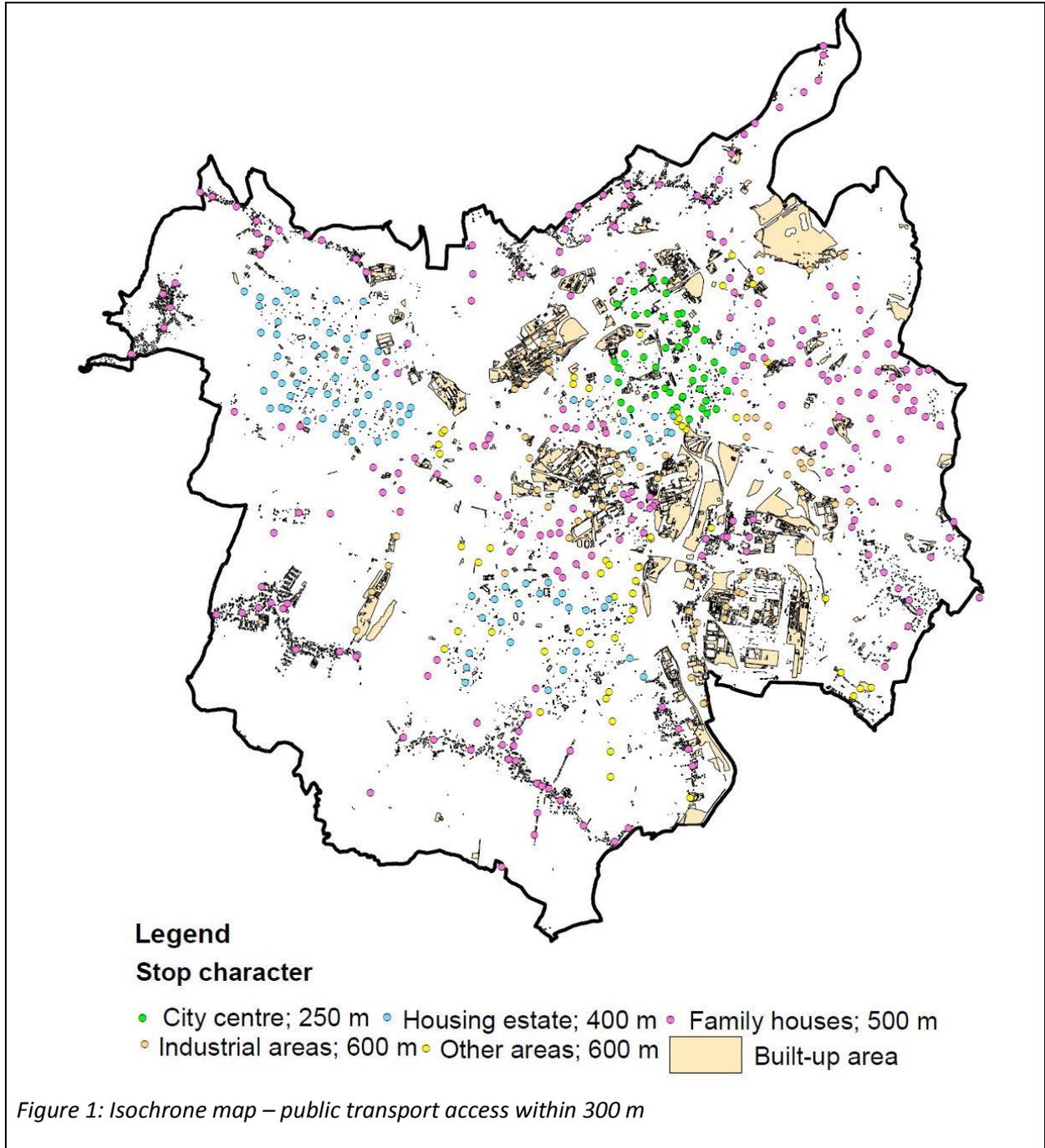




Image 2: Ostrava's polycentric structure

The attractiveness of public transport depends on the accessibility, safety, reliability and quality of the system; an important contribution in this regard is the simple and easy system of payment. Besides standard single-journey or time-valid tickets, all of Ostrava's public transport vehicles accept standard contactless bank cards. This makes it considerably easier for passengers to use the system, and it has boosted the number of users (including visitors to Ostrava). Ostrava was only the second European city (after London) to introduce an electronic passenger payment system of this type, ranking it among Europe's top cities in using modern electronic systems. The passenger payment technology does not exist in isolation; it is part of the Smart City system. The popularity of contactless card payments is growing rapidly; the number of users doubled in the second year of the system's implementation, and card payments now account for approx. 20% of all journeys sold.

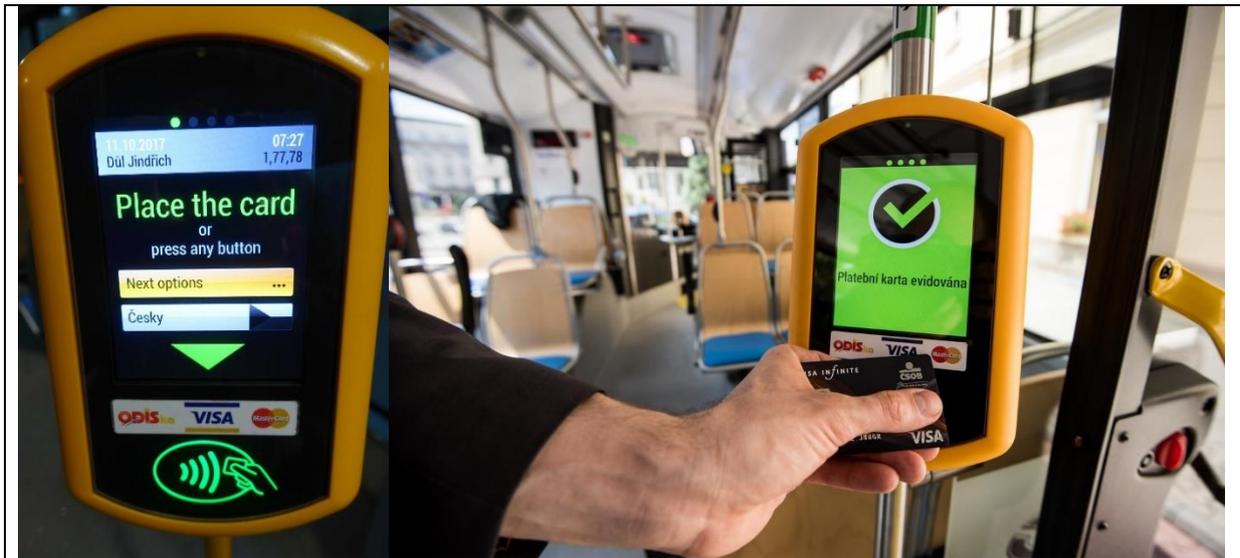


Image 3: Bank-card ticket payment in public transport

Another tool for making public transport more attractive is the use of modern technologies to increase passenger comfort – such as the ongoing programme to provide wi-fi connections at public transport stops.

The public transport system is at a competitive disadvantage in comparison with individual transport. This is one reason why Ostrava has become involved in the **international RESOLVE** project. The project's objective is to reduce carbon emissions created by retail-related traffic in town and city centres while also supporting jobs and growth in the local retail economy. After sharing experience with partner cities abroad, Ostrava has introduced a monitoring and evaluation tool that will enable the City to evaluate the situation and prepare an action plan to reduce private car use related to retail zones. The project (co-financed via the INTERREG programme) will be implemented up to 2021.

Increasing the use of eco-friendly transport not only requires such transport to be a genuinely attractive option; it also requires appropriate **promotion and education**. The website 'Travel Healthy' has become a popular tool promoting eco-friendly forms of transport (public transport, cycling, walking) and raising public awareness – including explanations of concepts such as Park/Bike&Ride (at transport terminals), car-/bike-sharing, and transport telematics. Other campaigns have promoted cycling to school and work, and there is a website giving information about air pollution and tips on how citizens can contribute to environmental improvements. All these tools raise public awareness of the importance of the environment and emphasize that individuals' own transport and lifestyle choices make a real difference.

Another promotional tool is a campaign targeted at schoolchildren, which emphasizes the social importance and environmental benefits of public transport use.

3B. Past Performance

Public transport

To run Ostrava's public transport system, the **City Public Transport Corporation** has been established and is 100% owned by the City. The system consists mainly of the core tram routes, plus bus and trolleybus routes; some regional train routes also form part of the integrated system. 70% of respondents in a survey stated that they use public transport for ordinary journeys.

Application Form for the European Green Capital Award 2020

Almost half of the vehicles owned by the City Public Transport Corporation are buses (284). Over one-third of these buses (105) are low-emission vehicles running on compressed natural gas (CNG). A new large-capacity CNG filling station has also been built for the new buses; the station is one of the largest facilities of its type in Central Europe (3000 Nm³/hour, 24 buses/hour).

Public transport vehicles (no.)	TRAM	BUS	TBUS	EBUS	TOTAL
Zero-emission vehicles (trams, trolleybuses - TBUS, electric buses - EBUS)	261	0	65	4	330
Low-emission vehicles (CNG, Euro 6)	0	105	0	0	105
Low-emission vehicles (Euro 5)	0	90	0	0	90
Barrier-free vehicles	113	249	48	4	414
All vehicles	261	284	65	4	614

Table 1: Number of different public transport vehicles



Image 4: means of public transport (tram, bus, trolleybus)

Private transport (cars) represent a major competitor to public transport due to Ostrava's polycentric structure. The City has responded to this situation by creating an integrated transport system which links regional public transport (i.e. between Ostrava and neighbouring cities/towns) with the city's own public transport system. The map below shows the links between public transport routes in Ostrava and beyond; the key nodes in this system are transport terminals (the red circles) where passengers can change between various types of regional and city public transport.



Figure 2: Main transport flows and location of transport terminals

As part of the integrated system, four main transport terminals have recently been built:

- Svinov
- Main Railway Station
- Hranečník
- Dubina

The largest of these terminals (and the one which has undergone the most extensive reconstruction) is at Svinov in the western part of Ostrava. This terminal serves not only regional, but also national and international transport routes. It integrates various forms of transport: trains, private cars, long-distance coach routes, and city public transport (buses and trams). The foundations for the terminal were laid in the 1970s as part of the main public transport route linking the city centre with Poruba (Ostrava's 2nd largest residential area). The design and layout of the original terminal was not ideal (different levels, a long pedestrian access route from trams/buses to trains, the use of temporary solutions linking the individual levels, and poor overall design quality). These factors all limited the usability of the interchange, and moreover it was far from being a dignified 'gateway' to the city. Although some improvements were made in subsequent years (e.g. barrier-free access), they were poorly designed and executed, so they were underused. The problems were addressed by means of temporary solutions, and the site could not be fully utilized by passengers with reduced mobility (or parents with prams); this discouraged people from using public transport in general.

In response to this situation, the entire terminal was completely reconstructed in 2012. The project included the reconstruction of the bus and tram stops on the bridge, the provision of full barrier-free access to public transport, and better access to the railway station (which was also undergoing a major reconstruction at the same time). The construction costs were 16 million EUR; the costs were covered partly by EU structural funds (EUSF) and partly by the City of Ostrava and the Moravian-Silesian Region.



Image 5: Terminal Svinov (train, tram, bus, P+R)

Another terminal that has significantly improved Ostrava's integrated transport system is the recently completed Hranečník terminal (in the eastern part of the city). As part of this project, in 2015 a trolleybus line was extended to the terminal, linking it with the city centre. The project was co-financed by the Swiss-Czech Cooperation Programme and EUSF.

Park + Ride

The two above-mentioned public transport terminals also have **Park + Ride** sites, which could potentially help to reduce private car use within the city. P+R car parks in Ostrava are located not only at the main road access points to the city, but also at two major railway stations (the guarded car park at the Main Railway Station and the 'KOMA' parking garage at the railway station in Svinov). Currently, these two sites are used mainly by passengers travelling on rail routes from Ostrava to other destinations; the P+R car sites are not yet used to their full potential by motorists intending to continue their journey towards the city centre by public transport. In many cases, public transport journey times into the city centre are shorter than by car, because tram routes use their own strip in the middle of the roadway; this makes public transport a simple and comfortable option.

Pedestrian mobility

A large part of Ostrava's main city centre has been closed to car traffic, contributing to the high level of pedestrian mobility (28.2%). This figure may increase in the future if low-emission zones are introduced (see Chapter 6 of the EGC application).

Cycle mobility

The polycentric structure of Ostrava complicates cycle transport, which is lower than in other European cities (3.7%) despite an extensive cycle route network (245 km). Nevertheless, Ostrava plans to triple the use (modal share) of its constantly expanding network of cycle routes by 2025 (further 416 km); measures will include a bikesharing project (see Future Plans).

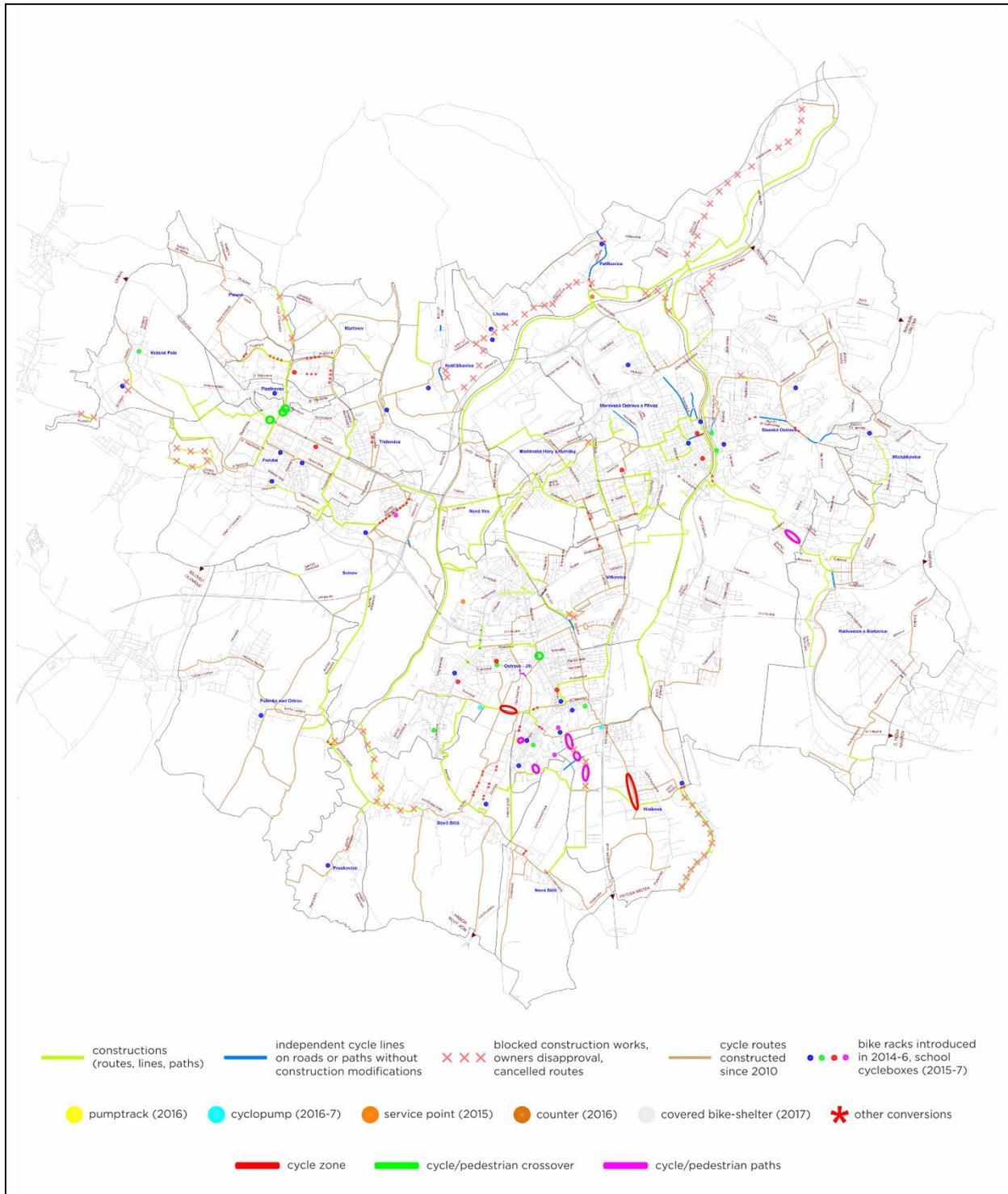


Figure 3: Existing and planned Cycle Routes

Ecostars Europe is another project, Ostrava is involved in together with several other European cities. It consists in appraisal of fleets and supports low-emission and cleaner public and cargo transport. supported by Ostrava City. Ostrava supports transport companies which can be involved on the basis of entry audit and subsequent plan for continual reduction of negative impacts to

environment. Three other cargo transport companies joined the project (Ecostars scheme) in 2014.

3C. Future Plans

In conjunction with the Moravian-Silesian Region, the VŠB-Technical University of Ostrava and the Town of Třinec, Ostrava has developed the **Smart Moravian-Silesian Region** concept. The first of the concept's five priorities is transport – specifically smart systems and traffic management, charging infrastructure for electric cars and cycles, monitoring and evaluation of traffic flows, attractive public transport and sustainable mobility. The concept was approved in June 2017, and key projects will be implemented up to 2023.

Sustainable mobility is also the focus of Priority C (“A Healthy City”) of the **Ostrava City Strategic Development Plan 2017–2023** (specifically Strategic Goal 6 – Creating a great environment for all generations).

The Strategic Development Plan includes the following measurable success indicators for mobility:

Indicator 18

By 2025 Ostrava's public transport system will have:

- min. 60% zero-emission vehicles (currently 54%); min. 35% low-emission vehicles - EURO 6 (currently 17%); i.e. total 95% zero- or low-emission vehicles (currently 71%);
- camera systems in min. 50% of vehicles (currently 12%);
- min. 90% barrier-free vehicles (currently 67%).



Image 6: New tram

Indicator 19

Increased number of P+R parking spaces:

Four additional P+R sites are being built in Ostrava (the Globus shopping mall in Poruba, Přívoz,

Application Form for the European Green Capital Award 2020

Lower Vítkovice, and a multi-storey parking garage near the City Hospital). A total of 500 spaces will be created at these sites by 2030 (at least 200 spaces by 2023).

All the City's major goals and plans related to sustainable mobility are summarized in its **Sustainable Urban Mobility Plan (SUMP)**; Ostrava is one of the few Czech cities to have drawn up and approved a SUMP. This ambitious plan incorporates the following measures which will reduce the environmental impact of transport within the city:

- 1) **Improving mobility and accessibility**
- 2) **Improving safety**
- 3) **Improving quality of life and reducing environmental impacts**
- 4) **Improving the efficiency of the transport system and optimizing its usage**

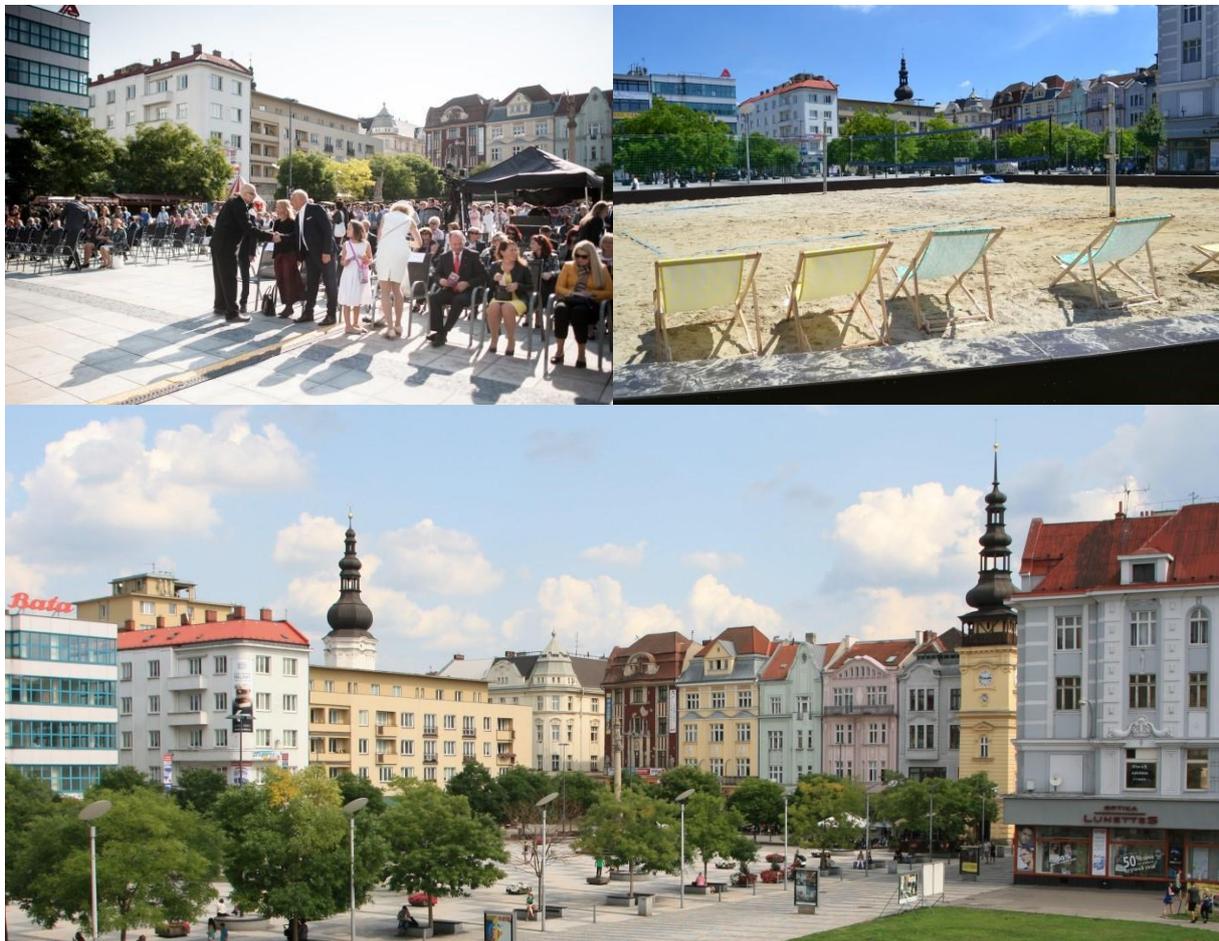


Image 7: Pedestrian zone in city centre

Measurable goals of the SUMP:

- Ensure the modal share of public transport remains close to 2014 levels
- By 2025, triple the modal share of cycle journeys
- By 2050, reduce the number of transport-related fatalities to almost zero (by 2020, reduce to 50% of the 2010 figure)

Application Form for the European Green Capital Award 2020

- By 2025, provide barrier-free access to all public buildings, public spaces, public transport vehicles/stops and main pedestrian routes within built-up areas
- By 2020, phase out diesel buses in the fleet of the City Public Transport Corporation. In addition to the current fleet of 105 CNG buses, new electric buses and trolleybuses (partially battery-powered) will be purchased.



Image 8: Cycle routes in Ostrava

Ostrava plans to build a **cable car route** linking the city centre with the most visited tourist destinations (up to 1.3 million visitors per year). A feasibility study has shown that the project is viable and can proceed to the next stage. In view of the cost, the cable car will not be part of the public transport network, but it will be linked to it. The journey between the Lower Vítkovice industrial heritage site (the third most visited tourist destination in the country) and the zoo will take just 11½ minutes. The City is currently seeking an investor for PPP (public-private partnership) funding. The cable car will help to reduce car traffic in the city centre.



Image 9: Cable car route visualization

Application Form for the European Green Capital Award 2020

Ostrava is an active member of the advisory group for the **Partnership 'Urban Mobility'** coordinated by the Czech Ministry of Regional Development and the City of Karlsruhe (Germany). In December 2017 there will be a meeting of partners in the Czech Republic, and Ostrava will organize an international conference on sustainable mobility (including active participation of citizens – citychangers).

From 2018, citizens and visitors will be able to use a new **bikesharing** system. The City is keen to increase the number of active cyclists, improve the modal split in favour of cycle journeys, and support eco-friendly urban transport in general. The bikesharing scheme will cover the city centre and surrounding districts, contributing to the revitalization of these areas. To motivate people to use the scheme, bikes will be available free of charge for a set length of time. A dense network of bikesharing points will cover key transport hubs, large office complexes and public buildings, linking them with the city centre and other tourist destinations. The scheme may subsequently be expanded into other parts of Ostrava.

Smart Transport Systems should ensure more efficient and safer transport decreasing road congestions and environmental impacts by that. The City participate in their development and prepares project to be financed from SFEU (55 000 EUR). Part of ITS is represented by Intelligent bus/tram stops providing on-line information on the transport.

3D. References

EGC Ostrava: <https://egc.ostrava.cz/>

Svinov terminal: <https://www.ostrava.cz/cs/o-meste/aktualne/kampane/rekonstrukce-svinovskych-mostu-dokoncena>

Svinov terminal: <http://www.archiweb.cz/buildings.php?&action=show&id=3756>

CNG bus: <https://www.dpo.cz/aktuality/1635-nova-trol-trat-105-cng-busu.html>

Low-emmission public transport: <https://www.dpo.cz/aktuality/tiskove-zpravy/archive/view/listid-2-media/mailid-778-2017-02-02-tz-nizkoemisni-mhd.html>

Bank card ticket payment in public transport: <https://dpo.cz/jizdne/1990-platebni-karta-cestujeme-en.html>

Project Resolve: <https://www.interregeurope.eu/resolve/>

Strategic Development Plan of Ostrava (English version):

http://fajnova.cz/wp-content/uploads/2017/03/Ostrava_City_Strategic_Plan.pdf

Promotion of sustainable transport: <http://zdravepostrave.cz/>

Sustainable transport usage propagation: <http://www.kodis.cz/propagace-verejne-dopravy-a->

Application Form for the European Green Capital Award 2020

[odisbus-2/](#)

Smart Region: https://www.msk.cz/assets/doprava/strategie-rozvoje-chytreho-regionu-msk-2017-2023-vcetne-analyticke-casti-13-06-2017_1.pdf

Cable car route: <https://www.ostrava.cz/cs/o-meste/tiskove-zpravy/mestska-lanovka-v-ostrave-je-mozna-pripravy-mohou-pokracovat>

Smart public transport systems: <https://www.ostrava.cz/cs/podnikatel-investor/projekty-mesta-ostravy/projekty-mesta-ostravy/inteligentni-dopravni-systemy>

Project ECOSTAR: <https://www.ecostars-ostrava.cz/>