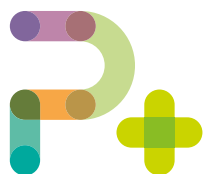




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THE SUSTAINABLE
MOBILITY PLAN
FOR PRAGUE
AND ITS
SUBURBS

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Prahu

**THE SUSTAINABLE MOBILITY PLAN
FOR PRAGUE AND ITS SUBURBS**

Promotional Brochure, for the Capital City of Prague,
Transportation Department of Prague City Hall, created
by Luova Publishing, s.r.o. Distributed free of charge.

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They had a problem, but they did not know they had one and could not even put a name to it. The couple – Joseph and Marie – were simply making their way through a crowded city and had nowhere to park. There simply was no vacant spot. It would be almost two thousand years before the expression “city mobility” is uttered, so the author of the report, the evangelist Luke, did not pay heed to this complication. He focused more on the things of greater importance that happened after the couple finally found a space for their donkey and shelter for the night.

The situation in Bethlehem is an example of everything city mobility has to deal with today. Fortunately for Bethlehem, the marked rise in its population was only temporary. Emperor Augustus had ordered a census, which brought throngs of pilgrims to Bethlem, a little town that normally boasted no more than a few hundred inhabitants. As many of the travellers hailed from far away, coming on foot was not always an option. Places to stable transport animals for the night were scarce, and the concept of public transport did not exist. The town was, therefore, bursting at the seams. Society acted more hastily and faster than those who attempted to influence its behaviour in some way, and this has not changed to this day. Planners have always been a few steps behind – not exactly encouraging news for city mobility designers.

Efforts to organise life in cities to avoid extreme traffic situations must not be abandoned, however. Sometimes only a little

needs to be done for the situation to improve. City mobility is not a complicated science, even though words such as efficiency, participations, analysis, induction, aggregation and even methodology, action plan, carpooling and bike sharing are often uttered when talking about it.

It helps to begin thinking like regular people and not like bureaucrats. Pardubice is a city that is often presented as favourable to cyclists. This, however, is not due to the efforts of local politicians, but due to its geography: it is easy to ride a bike on the flatlands of the Labe river basin. In this city, there is an open space in front of the stadium where a bicycle path ends and then continues again at a bridge around the corner from the stadium. On this huge sidewalk, where cyclists and pedestrians can fit easily side by side, traffic officers used to hand out fines with gusto to everyone who did not get off their bikes. After many years, it finally occurred to someone that this was nonsense, and a simple traffic sign was put up allowing both pedestrians and cyclist to share this wide stretch of pavement. This was a huge and positive result for city mobility and one that required little effort.

Ensuring that private business interests do not infiltrate municipal politics and administration will also help. The historical experience of Dvůr Králové nad Labem, with its train station located three kilometres outside the town limits, serves as a warning. The first elected mayor of the town was pubkeeper Friedrich Tinus, who was also a carter. In 1858, when the railway

from Pardubice to Turnov was being built, Tinus convinced the landowners not to sell their land to the railroad construction company, and the railroad thus had to be laid outside the town. This pleased Tinus because his carter business began to flourish because of the need to cart goods from the town centre to the station.

Three kilometres is also unit that links us to the present day. According to surveys, people are willing to walk or bike three kilometres in the city. If the distance is longer, then they opt for their car instead.

It is also helpful to remember the words of famous architect Ludwig Mies van der Rohe: “God is in the details.” Sometimes an overlooked detail may really conceal the devil, as in the case of the town of Havířov. This town, which was truly a greenfield project, had every chance to prepare for growth-related issues. Designers did not have to deal with a historic centre and crooked streets. They could design broad boulevards and modern roads. And that they did. From the start they envisaged for the nascent town a bypass designed chiefly for trucks to keep them out of the town. However, at the crossroads at the entrance to town, where the bypass was supposed to begin, the turnoff was designed with an insufficient radius, making it impossible for the trucks to enter. A detail that ruined an otherwise great idea.

It is good to keep such things in mind before giving life to great theoretical plans!

Mobility Plan

The Sustainable Mobility Plan for Prague and Its Suburbs addresses transport as a whole. It does not separate into self-standing transport modes; instead, it makes use of the merits of each and emphasises their connectivity. It includes automobile and public transport, walking and cycling, as well as city logistics.





2.1 WHAT IS THE MOBILITY PLAN?

Prague wants to team up with the Central Bohemian Region to set up strategic traffic planning in such a way as to allow the quality life in the capital and its environs to grow over the long-term, while not placing an unnecessary burden on the environment or public resources.

That is why the Sustainable Mobility Plan for Prague and Its Suburbs (the “Plan”) was created according to European practice. It addresses transport as a whole, from walking and cycling through automobile and public transport to city logistics. The plan does not separate the various modes of transport and instead tries to make use of the merits of each and emphasise their connectivity.

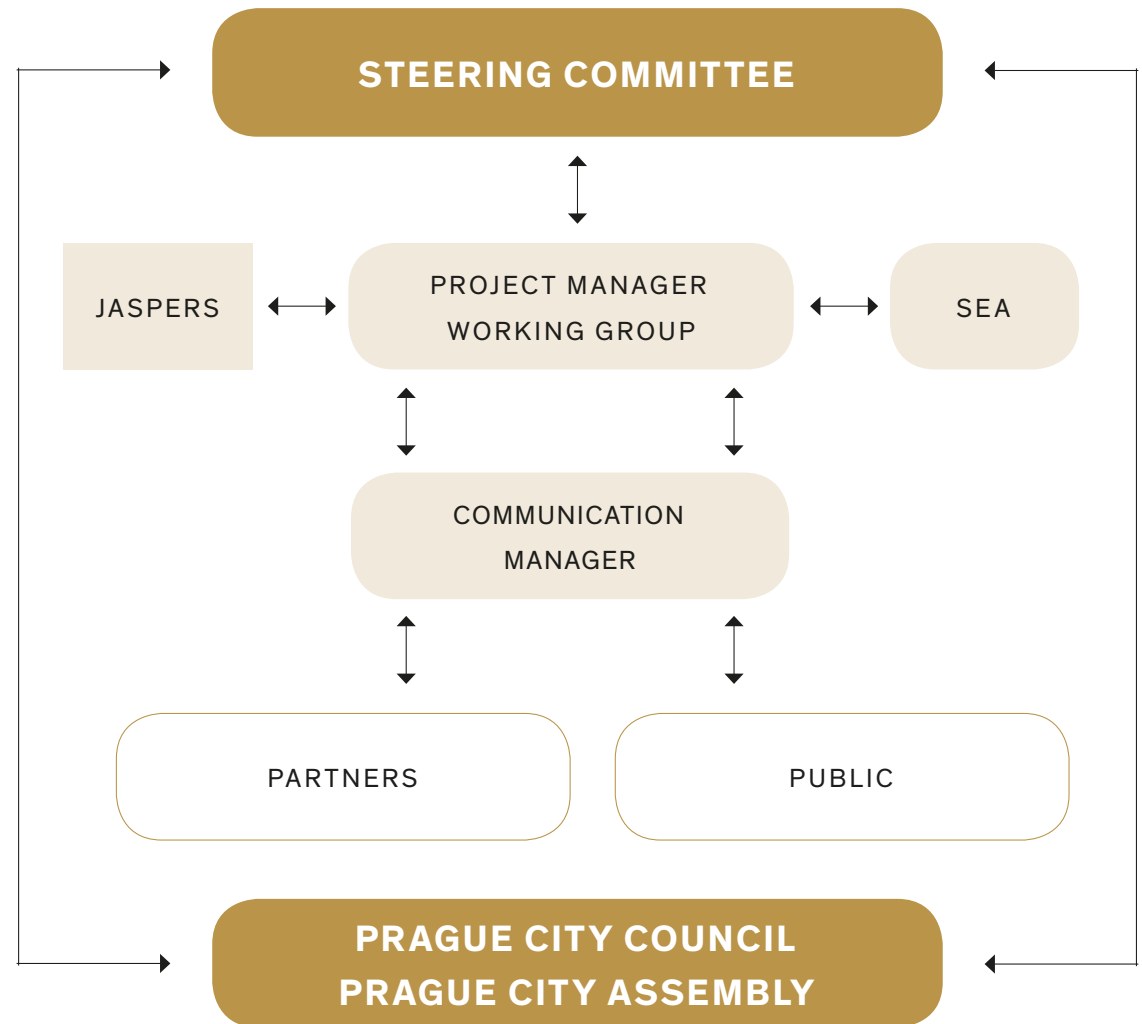
2.2 PROCUREMENT PROCESS

Preparation of the Plan is enshrined in the Prague Strategic Plan. At the same time, it has been a fundamental requirement for drawing from the EU funds since 2018. Procurement of the Plan was initiated by a decision of the Prague Municipal Council dated 21 July 2015. A working group was created, and work on the Plan began. After being approved by the Prague City Assembly on 24 May 2019, the Plan became the primary transport concept document for Prague, replacing the Transport Policy Principles document from 1996.

PROJECT MANAGEMENT

A team of experts appointed by the City of Prague and the Central Bohemian Region worked on drafting the Plan from 2015 to 2019, i.e., for four years. The working group, which met on average at least once a week, drafted all documents and organised all workshops under the leadership of a project manager from Mott MacDonald CZ.

COMMUNICATION FLOW CHART





WORKING GROUP

- Prague City Hall, Transport Department
- Prague Institute of Planning and Development
- Regional Organiser of Prague Integrated Transport
- Integrated Transport of the Central Bohemian Region
- Prague Technical Road Administration
- Prague Public Transport Company
- ICT Operator
- Central Bohemian Region

Ewing Public Relations was responsible for marketing, including the website www.poladprahu.cz, the whole time. For marketing purpose, it made use of the P+ mark and the Polad Prahu (Tune Up Prague) slogan.

PUBLIC PARTICIPATION

From the beginning, the Plan was developed with the active cooperation of the city and its companies. Each step was discussed with professionals and experts from public ranks (so-called partners) who represented the opinion of a multitude of government and municipal organisations, the various municipal districts of Prague, the municipalities of the Central Bohemian Region and civil society. All met at joint workshops or during individual consultations. The general public was also involved in the development, either through sociological surveys, moderated panel discussions or collection of suggestions. The participation of experts and the lay public substantially influenced the form of some parts of the Plan.

May to June 2016

Collection of suggestions from the public online via a web app. A total of 2700 suggestions were received

The Plan was drafted from the onset with the active cooperation of the city and its companies. Each steps was discussed regularly with experts from the public.

June 2016

First workshop with partners to obtain independent feedback on problems and opportunities in the mobility of Prague and its suburbs

March 2017

Second workshop with partners to find a common mobility vision using three different mobility scenarios

April to May 2017

Sociological survey to obtain the public's opinion and their support for the mobility vision; a total of 2224 people from Prague and the Central Bohemian Region comprised the survey sample

April 2017

Panel discussion among experts from the field and the public on the common mobility vision

October 2017


Third workshop with partners on project evaluation methodology

May to June 2018

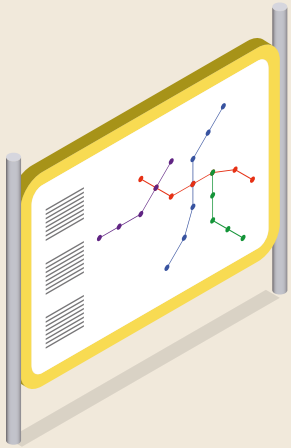
Exhibition of the Plan with commented tours for the public, panel discussions on the Plan between the authors of the Plan and the public, presentation of the key parts of the Plan during the exhibition

December 2018

Public hearing as part of the SEA process →

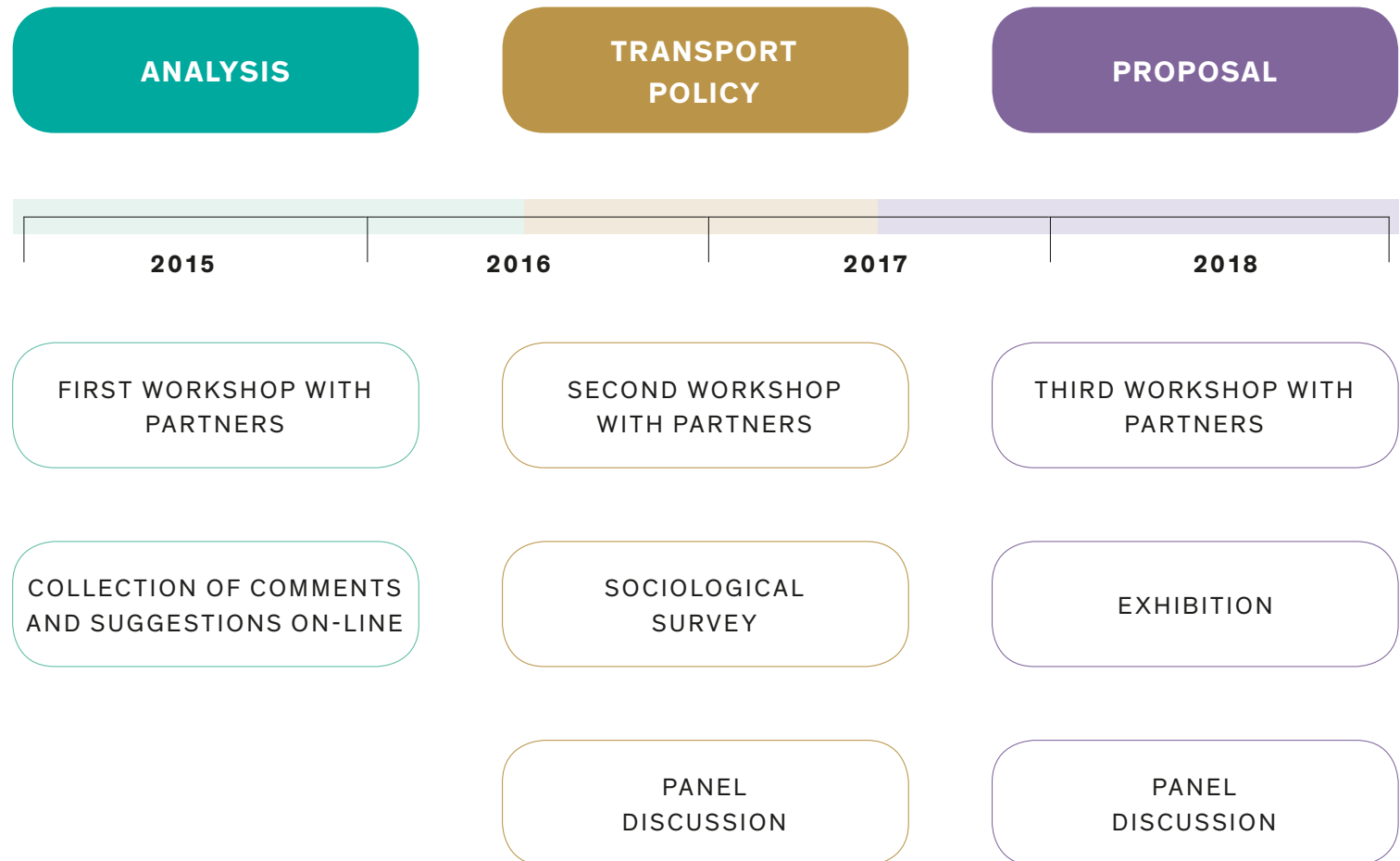
 In the **P+ Proposal**, this part is discussed in more detail in Chapter **2.1 a 2.2**.





A team of experts nominated by the City of Prague and the Central Bohemian Regions worked on drafting the Plan for four years.

OVERVIEW OF PARTICIPATORY EVENTS





2.3 ANALYSIS

The analysis of the current situation looks at the strategic documents of the European Union, the Czech Republic and the City of Prague, collects data on transport infrastructure and operation as well as user mobility. It also brings together suggestions from experts and the public and takes into account the relationship between transport and related fields, such as the environment, public health, urbanism and the city's economy.

STRATEGY

Planning sustainable transport in urban agglomerations is strongly backed not only in European and national strategies and directives, but also on “at home”, i.e., in Prague. The opposite side of the coin is the generally low level of respect for the strategies and policies of the city, which fact is also reflected in the city's budget.

OBJECTIVES

A number of binding documents have strictly set objectives that can only be fulfilled by the coordinated development of mobility in the capital and outside its boundaries, particularly the objectives tied to reducing dependence on fossil fuels, reducing traffic accidents and removing barriers for users of public transport.

BENCHMARKING

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).

TRIPS


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.

MODAL SPLIT

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%).

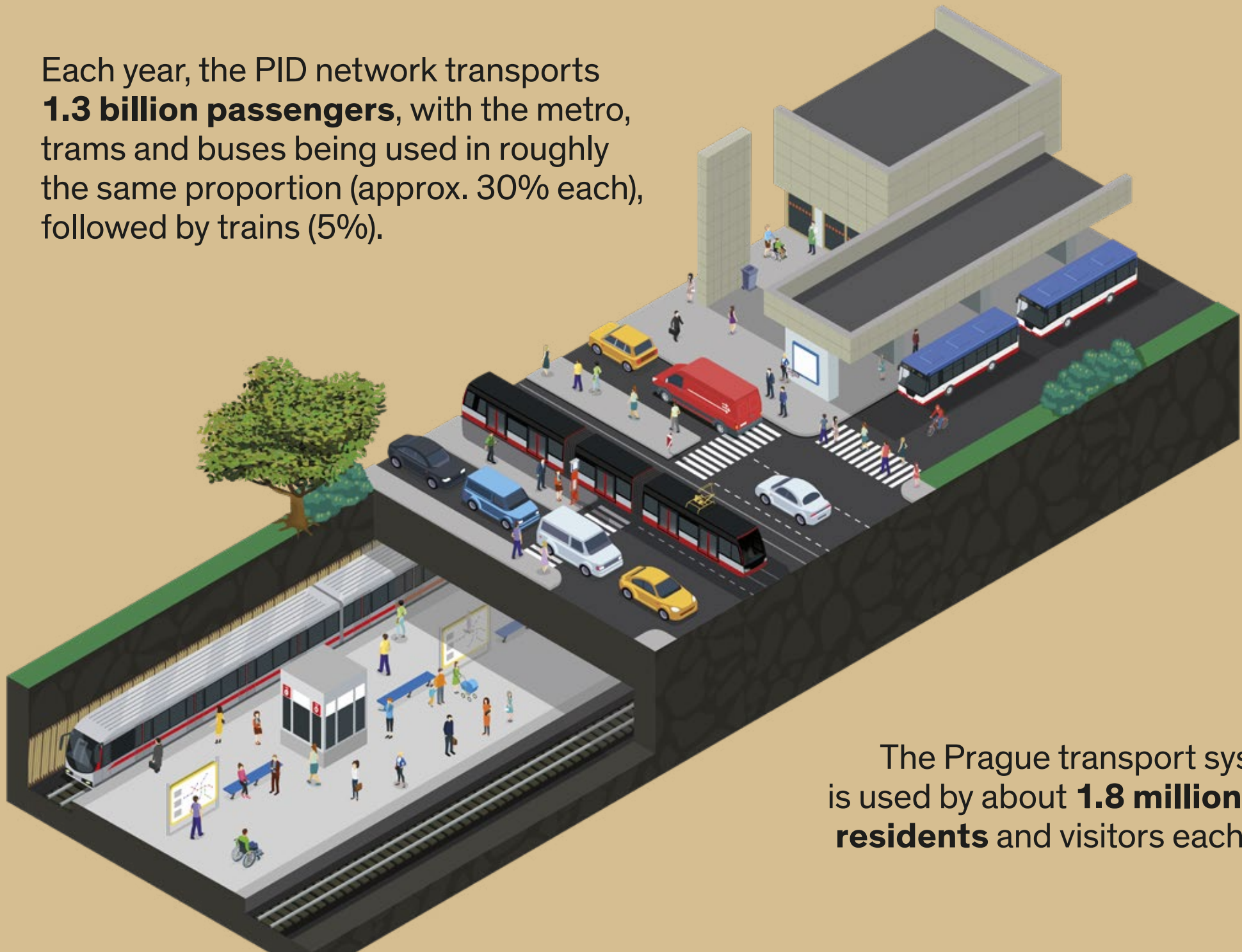
PROCEDURES

Planning transport in Prague and its suburbs is procedurally complex. Complications include the considerable decentralisation of local governments (57 municipal districts) and unresolved property issues.

 In the **P+ Proposal**, this part is discussed in more detail in Chapter **2.3**.



Each year, the PID network transports **1.3 billion passengers**, with the metro, trams and buses being used in roughly the same proportion (approx. 30% each), followed by trains (5%).



The Prague transport system is used by about **1.8 million city residents** and visitors each day.



Against comparable cities, Prague stands out with its high proportion of public transport and low fares.

BUDGET

Transport is the largest budget item for Prague: it regularly constitutes 35% to 40% of expenditure. Of course, funds expended on the reconstruction of roads, bridges and tunnels are insufficient. The annual coverage of losses from the operation of public transport is another substantial outlay (approx. CZK 13 billion).

PRAGUE INTEGRATED TRANSPORT USERS

The Prague Integrated Transport (PID) system plays a pivotal role in public transport. It allows users to travel on a single network, with a single ticket and according to a single schedule. Each year, the PID network transports 1.3 billion passengers, with the metro, trams and buses being used in roughly the same proportion (around 30%), followed by trains (5%). The number of passengers continues to grow.

PID NETWORK

The insufficiently developed railway infrastructure connecting Prague and the Central Bohemian Region and traffic congestion on the road network, which negatively impacts the reliability of buses, are among the chronic problems of the PID network. Unsuitable transfer points, which are often difficult to access on foot or whose stations and stops continue to have barriers, also plague the public transport network.

PUBLIC TRANSPORT NETWORK

In Prague's public transport network, the metro C line has reached the upper limits of its capacity. In the tram network specifically, the area around Karlovo náměstí (Charles Square) is at a critical point. The technical level of tram tracks and rolling stock has improved in recent years, but efforts to extend rail transport to areas with high demand has been unsuccessful, and so buses continue to predominate.

P+R

The capacity of park-and-ride (P+R) facilities is only 3000 spots. Many are full already early in the morning. "Unrestrained" parking around metro stations is dropping substantially due to the expansion of paid parking zones, but more P+R facilities in Prague or in the Central Bohemian Region are not being built.

ACTIVE MOBILITY

In the field of active transport, we can also see a slight increase in the use of bikes to get around the city. A network of pedestrian and cycling routes leading to the outskirts of Prague and linking the city to the Central Bohemian Region is missing. The built-up areas of the compact city thus suffer from the lack of a connection between cycling paths and cycling routes on the main roads.

AUTOMOBILES

Prague stands out in terms of the number of automobiles per capita (584 vehicles per 1000 residents), making it a European leader in this regard. On average, the occupancy rate of automobiles is 1.3 people, and vehicle size is increasing. Traffic congestion in the wider centre has been falling in the last 15 years, but increasing on the outskirts of Prague. Total transport output is tending to stagnate.

ROADS

A burdensome problem for Prague is the slow construction of the superordinate road network, i.e., the Outer Ring Road and the Inner Ring Road, supplemented by other important roads. The development of infrastructure is generally unable to keep up with new housing developments around the city. Use of the network is often at full capacity, which results in increased sensitivity to extraordinary situations (accidents, closures).

CITY LOGISTICS

In the field of transport of goods, the organisation of parking on designated parking spots for supply trucks needs to be addressed. Access of trucks to Prague may already be relatively extensively regulated, but their movement around the city is greater than it need be because of the incomplete Outer Ring Road. →



Walking
and biking
complement
rail transport
perfectly
on short
journeys.

In the **P+ Proposal**,
this part is discussed
in more detail in
Chapter **2.4.1**.



2.4 MOBILITY VISION

The mobility vision from the Strategic Plan, which the Plan has taken over, can be characterised as follows:

- Prague will be striving for sustainable mobility – ensuring the movement of people and goods that is acceptable over the long-term socially, economically and environmentally.
- Transport accessibility to destinations will be substantially focused on environmentally friendlier means of transport: public transport (mainly rail), but also walking and cycling.
- Transport, the environment and public space are gradually attaining greater harmony in the city and in the surrounding region.
- In road transport, a combination of regulatory and investment measures leading to a reduction in the negative impact of automobile traffic is being applied. Greater safety and energy efficiency of transport will occur.

2.5 MOBILITY SCENARIOS

Mobility scenarios represent different ways of fulfilling a common vision and the same strategic objectives. Their purpose is to launch a debate on a suitable direction that Prague and the region should take in the field of mobility to ensure that the solutions are acceptable to users and the public administration. They became that topic of discussion with experts at the P+ workshop and the basis for the sociological survey of the residents of Prague and the Central Bohemian Region.

DEFINITION OF SCENARIOS

Based on internal workshops attended by the entire project manager's team and the working group, three possible scenarios were drawn up on the direction efforts should take to address transport in Prague, all of which honour the mobility vision and are set out in the following chapters:

- **Effective Prague**
- **Rational Prague**
- **Liberal Prague**

In the end, the working group chose Effective Prague as the best scenario and added a few elements to it (e.g., intensive coordination between the various



levels of the government, the region, the city and the municipal districts; cross-the-board support for active transport on “door-to-door” trips; implementation of the Outer Ring Road as a way to protect Prague’s residential neighbourhoods against non-essential traffic). The enhanced scenario became the basis of the Transport Policy document.

EFFECTIVE PRAGUE

Prague sees the future of mobility in a first-rate, interconnected and accessible network of integrated public transport based on the advantages of rail transport and electric traction. Coherent augmentation and development of urban and suburban railways, metro, tram and other rail systems will offer public transport users fast and easy journeys throughout the whole city and metropolitan area in all directions, with a low environmental impact and high economic and spatial effectiveness.

The competitive advantage of rail transport will be so great that it will not be necessary to substantially invest in the expansion of the road network inside the Outer Ring Road. Conversely, P+R, B+R and bike sharing linked to fast train, metro and tram routes to all important destinations in the city will see major development, with private means of transport only being used for the “last mile” of the journey.

Regulation of automobile transport will take place on the economic level in the form of tolls and the city parking policy or by giving priority to public transport. Automobile transport should only be used to resolve low-frequency relationships where public transport would be ineffective and inefficient.

On short journeys, walking, cycling and rail transport complete one another perfectly. Public space improvements and traffic calming will therefore take place especially in conjunction with public transport terminals and stops to make the experience of travelling “from door-to-door” on a daily basis as pleasant, affordable and carefree as possible for users.

RATIONAL PRAGUE

Mobility in the city should be built on sustainable and spatially effective transport models. A rational mobility concept for Prague means Prague becoming a city of short distances with no increase in travel demands. The more effective use of street space will allow for a reduction in surfaces designated to transport. Prague will then use the acquired public space to improve local living conditions. More life should return to the streets.

Prague wishes to achieve the above by systematically developing the integrated public transport network on all levels, from rail to bus. Naturally, it will give walking and biking preferential treatment. Augmenting and improving public transport will gradually allow a reduction in the capacity of roads for automobile transport inside the Outer Ring Road. Regulation of automobile transport will thus be measured, but across-the-board. A reduction in the spatial demands of automobile traffic will also support the development of a carpooling scheme.

A rational Prague is a city of a great number of small and coordinated improvements rather than major one-off investments. The targeted regulation of land development will also keep transport demands “on a leash”. This scenario naturally leads to the gradual containment of the phenomenon of suburbanisation. Thanks to first-rate public spaces, a reliable system of public transport and optimal conditions for active types of transport, living in Prague will become a substantially more appealing prospect.

LIBERAL PRAGUE

Prague would like existing trends regarding the development of the city and its agglomerations to continue and the long-term concept of its transport system to be fulfilled. By building high-capacity road infrastructure on more favourable routes in combination with other measures on existing roads, it wishes to provide conditions for improving the living environment in extensive residential areas. The space freed up in the streets and avenues will be made more human and divided up between sustainable modes of transport and vehicles with electric propulsion.

The development of roads will, however, go hand-in-hand with strong economic regulation of automobile transport in overburdened areas of the city, specifically through a toll system and parking policy. To this end, the network of park-and-ride facilities with excellent access to the superordinate road network will be further developed.

Regulated areas are an opportunity for the development of public transport. In the case of important routes from Central Bohemian municipalities to Prague, or from the municipal districts of Prague to the city centre, special fares will be introduced on public transport. Roads will be widened to include a designated lane, and tram lines will be extended to densely populated areas even outside Prague. →



In the **P+ Proposal**, this part is discussed in more detail in **Chapter 2.4**.



2.6 TRANSPORT POLICY

The Transport Policy is a fundamental document of the Plan. It was approved by the Prague City Council in September 2017 and sets out the direction mobility should take in the city and its suburbs until 2030. The Transport Policy is the product of expert discussions about the best possible way to fulfil the common mobility vision. It was created as a projection of different opinions summarised in the mobility scenarios (see pages 14-15). The Transport Policy is not just a direction developed by a small group experts: it is a societal consensus with broad support among residents and visitors to Prague.

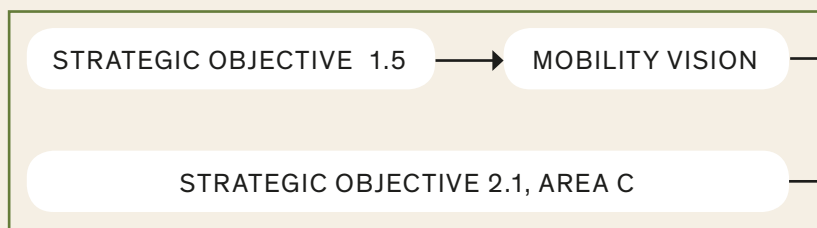
STRATEGIC OBJECTIVES AND PRIORITY AXES

The Transport Policy defines seven strategic objectives, including indicators, for the field of transport, which are based on the general principles of sustainable mobility, and through the priority axes then interconnects them with the problem areas defined in the document entitled P+ Analysis. The priority axes of the Plan further elaborate the strategic objectives into areas of solution, making them more like specific transport policy tools (see pages 44-46 and 18-20). →

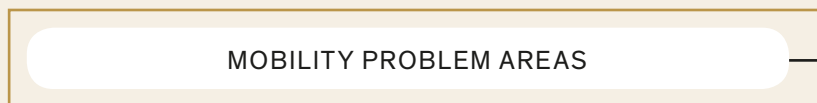
STRATEGIC OBJECTIVES

- 1 INCREASING THE SPATIAL EFFICIENCY OF TRANSPORT
- 2 REDUCING THE CARBON FOOTPRINT
- 3 INCREASING PERFORMANCE AND RELIABILITY
- 4 INCREASING SAFETY AND SECURITY
- 5 INCREASING FINANCIAL SUSTAINABILITY
- 6 IMPROVING PUBLIC HEALTH
- 7 IMPROVING TRANSPORT ACCESSIBILITY

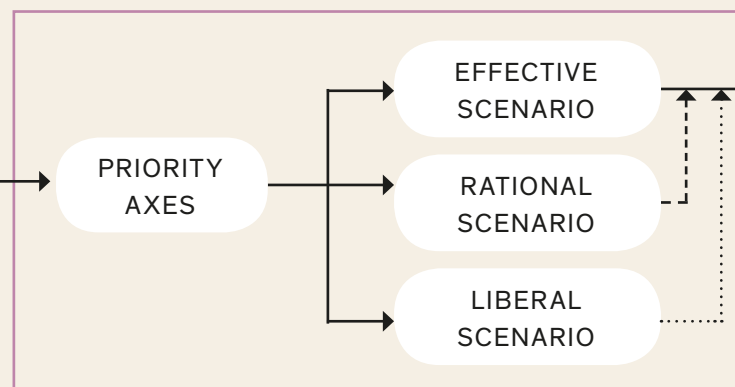
PRAGUE STRATEGIC PLAN



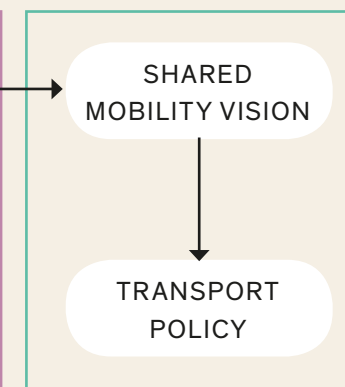
P+ ANALYSIS

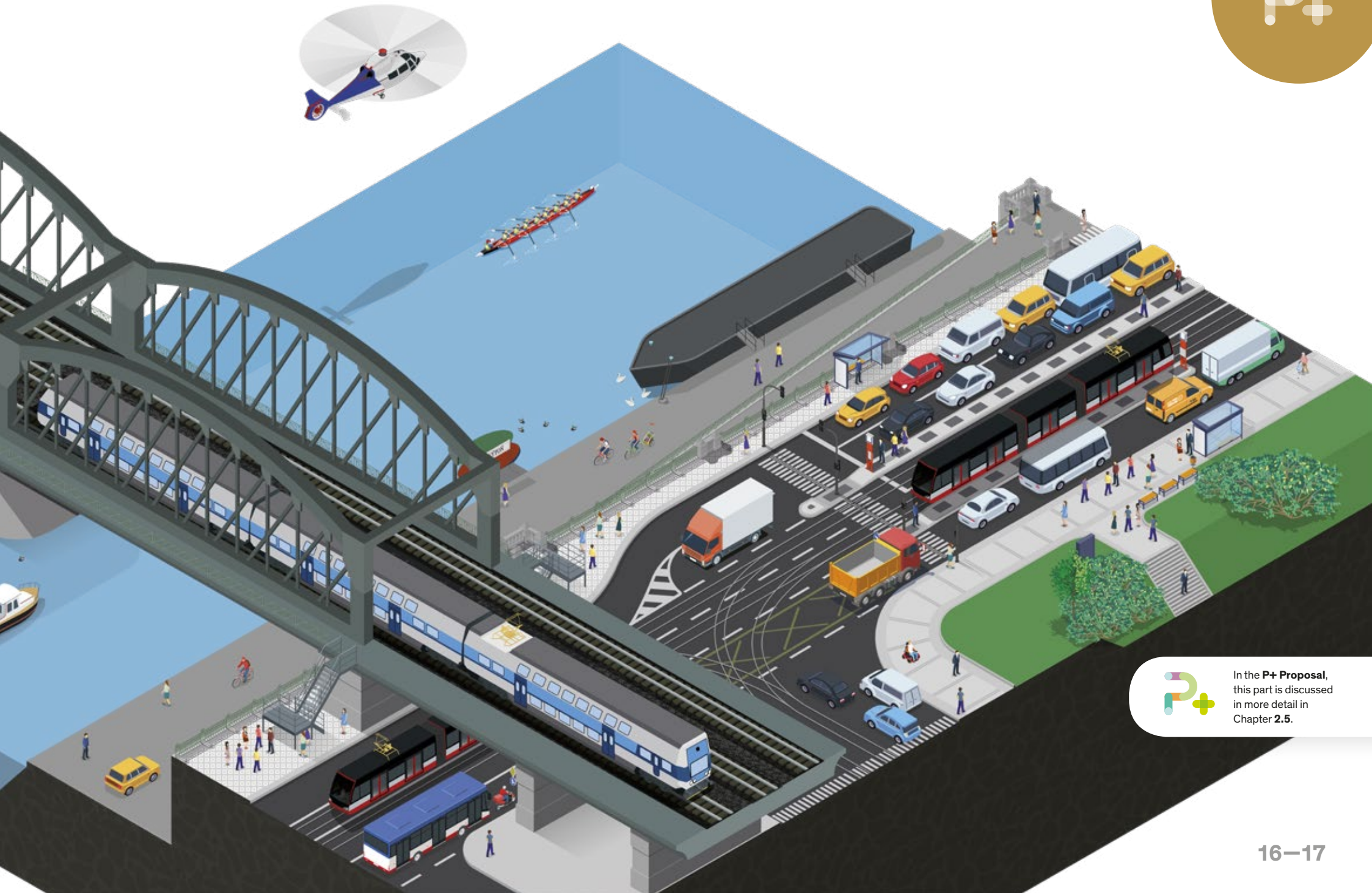



P+ SCENARIOS



P+ TRANSPORT POLICY





 In the **P+ Proposal**, this part is discussed in more detail in **Chapter 2.5**.

SUPPORT FOR TRANSPORT POLICY

ACCORDING TO THE COMBINATION OF CAR, BIKE AND PUBLIC TRANSPORT PASS OWNERSHIP (IN %)

USER HAS THE FOLLOWING

BIKE AND PUBLIC TRANSPORT PASS

89 YES 11 NO + NEUTRAL

NONE OF THE ABOVE

84 YES 16 NO + NEUTRAL

BIKE ONLY

82 YES 18 NO + NEUTRAL

PUBLIC TRANSPORT PASS ONLY

82 YES 18 NO + NEUTRAL

PASSENGER CAR, BIKE AND PUBLIC TRANSPORT PASS

69 YES 31 NO + NEUTRAL

PASSENGER CAR AND PUBLIC TRANSPORT PASS

65 YES 35 NO + NEUTRAL

PASSENGER CAR AND BIKE

59 YES 41 NO + NEUTRAL

PASSENGER CAR ONLY

53 YES 47 NO + NEUTRAL

■ YES ■ NO + NEUTRAL

15 PRIORITY

A PUBLIC TRANSPORT PRIORITY AND DEVELOPMENT OF RAIL TRANSPORT

Prague will be working with the Central Bohemian Region to intensively develop a joint integrated public transport system and take steps to shift a major portion of transport to rail transport (train, metro, tram etc.), which can transport more people and is more reliable and efficient.

In the case of tram and bus lines, Prague will consistently give priority to public transport, specifically at intersections, in sections between intersections and in the area around public transport stops. To ensure that each mode of public transport is properly interconnected, the city will establish transfer points that are top-notch and suitably placed in public space. The fleet will comprise comfortable vehicles equipped with information technology.

B COHERENCE OF PUBLIC TRANSPORT WITH OTHER TRANSPORT MODES

Prague will arrange for high-capacity P+R, B+R and K+R facilities to be built at appealing rail transport stations. This will create the conditions conducive to commuting between the wider centre of Prague and more sparsely populated areas. The coherence of sustainable methods of transport will be augmented by a system of bike sharing connected to public transport stops and transfer points.

C REDUCING SENSITIVITY AND MITIGATING CAPACITY-RELATED PROBLEMS IN THE TRANSPORT NETWORK

Prague will implement coherent road development projects that link the city centre tangentially (i.e., leading out of the city centre) or are multimodal in nature (i.e., intended for automobile traffic, public transport, cycling and pedestrians), and establish road connections to peripheral areas of Prague and in the Central Bohemian Region. This will lead to a reduction in the sensitivity of the road network.

AXES

In exposed parts of the road network, it will also implement elements of advanced traffic control to help make optimal use of road capacity and information systems for drivers, including communication between vehicles and infrastructure and between vehicles themselves. This measure will supplement a coherent system of economic regulation of automobile transport using a paid parking zone or toll system.

D NEW CONNECTIONS FOR VARIOUS TRANSPORT MODES

Prague will reassess the scope and parameters of the road network inside the Outer Ring Road with regard to sustainable development and the city budget. It will also have new rail connections built to allow further development of the network of safe and convenient rail transport.

New paths, bridges and underpasses will be built for pedestrians and cyclists, and not only at terminals and important public transport stops equipped with B+R facilities and a bike-share scheme, but also to connect residential areas across the metropolitan area.

E SUPPORT FOR WALKING AND CYCLING

Prague will support and promote walking and biking, which are convenient and safe, for “door-to-door” journeys throughout the city, even in connection with transfer points and public transport stops on “the first and last mile” of the journey. The city will create the conditions for the development of commuter cycling to supplement other modes of transport, both by introducing integrated infrastructure, transport and organisational measures and by developing B+R facilities and a bike-share scheme.

F OPTIMISATION OF CITY LOGISTICS

Prague will focus on expanding the city logistics databases. Based on the ascertained data, suitable trends in the area of city logistics - specifically alternative and chiefly low-emission and emission-free transport of goods, including via rail, water and bicycle - will be supported economically and legislatively. Emphasis will be placed

on reducing the impact of transporting substrates (soil) and building material or waste.

G IMPROVEMENT OF TRANSPORT ACCESSIBILITY AND PUBLIC SPACE FOR VARIOUS GROUPS OF RESIDENTS

Prague will make life in the city more pleasant for older and disadvantaged citizens and children as well as parents with prams. This will be achieved by generally revitalising and improving the quality of public space. The city will also make stations, stops and means of public transport accessible.

H IMPROVEMENT OF THE PUBLIC SPACE QUALITY

First-rate public space is important in creating the general impression of a “door-to-door” journey. That is why Prague will continue to improve public space, not just in connection with terminals and public transport stops, but also across the board. The city will thereby achieve the desired effect of people stopping in such space and people opting to walk short distances. Prague will also increase the extent of repair and modernisation of existing infrastructure to prevent the maintenance debt from growing further.

I REDUCTION OF AIR AND NOISE POLLUTION AND CARBON FOOTPRINT

Prague will reduce the environmental burden from transport by its electrification, especially by replacing buses with electric rail transport on important routes or by promoting electromobility. In the case of automobile transport and public bus transport, Prague will support other low-emission or emission-free fuels.

J REDUCTION OF THE SPATIAL DEMANDS OF TRANSPORT

Prague will prioritise the use of transport means that take up as little public space as possible. It will promote car and bike sharing and carpooling. The city will improve the spatial efficiency of transport by accenting rail transport, as this mode of transport best utilises space when passing through urban areas. Through its parking policy and development of P+R facilities, Prague and the Central Bohemian Region will ensure that automobile parking is located to the greatest degree possible at the trip source and preferably away from public space. →



In the **P+ Proposal**,
this part is discussed
in more detail in
Chapter **2.5.1**.



K **REDUCTION OF TRAFFIC ACCIDENTS**
Prague will achieve a reduction in traffic accidents in several ways: eliminating accident blackspots, increasing traffic supervision on roads and revitalising public space with traffic calming elements. Shifting parts of public transport routes to the rail network together with efforts to fully link up pedestrian and cycling routes will also have a significant impact. Greater deployment of information and communication technology, including assistance systems in vehicles and in transport infrastructure, will also help to decrease accident rates.

OVERVIEW OF THE STANDARD MEASURES OF THE PROPOSAL

Standard measures	Number of measures	Investment costs of Prague (CZK million)
Reconstruction of rail infrastructure	8	819
Reconstruction of road infrastructure	10	33 967
Parking zones	1	400
Traffic control	8	302
Public transport priority	14	1 077
Public transport environment improvement	6	5 000
Urban space revitalisation	16	3 760
Accessible infrastructure	18	2 309
Transport safety and security	3	600
Integrated transport system	10	48
Strengthening public transport	6	0
TOTAL	100	48 282

L **FINANCIAL SUSTAINABILITY OF THE TRANSPORT SYSTEM**
Prague will not depend only on proceeds from transport fares. It will increase revenue by charging more for automobile transport using a system of well-considered economic regulations. In case of major investment projects, it will prioritise investments in public transport systems.

M **PROCEDURAL SUPPORT FOR SUSTAINABLE MOBILITY AND EFFECTIVE CITY ADMINISTRATION**
Implementation of the Transport Policy requires extraordinary commitment and mutual coordination of the partners, from the City of Prague and its municipal districts or organisations, through the Central Bohemian Region and the towns and villages in it, to the level of the ministries and public administration, as the competencies of all the stakeholders are interconnected. The city will therefore create the position of Mobility Manager and reinforce the competencies of the Integrated Transport System Organiser.

N **SUSTAINABLE DEVELOPMENT OF THE PRAGUE METROPOLITAN AREA**
Prague, in cooperation with the Central Bohemian Region and the State, will develop a transport system based on rail-based transport that can be conducive to development in the city (faster and more reliable connections) even outside its boundaries (better commuting options). Links to areas outside Prague will be addressed by a backbone network of rail transport, chiefly trains. Emphasis will be placed on closely interlinking transport and land-use planning to decrease the negative impacts of suburbanisation. Prague will support efforts to reduce journey times of residents while maintaining growing living standards and GDP.

O **ECONOMIC DEVELOPMENT OF THE CITY**
Prague, its municipal districts and municipalities of the Central Bohemian Region will be taking advantage of the economic benefits of the good access made possible by the backbone transport system - be it through the economic potential of public transport stops and stations, property policies or economic development at the local level. The latter will benefit from people moving and using quality public space and good local access to services.



2.7 PROPOSAL

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. The measures chosen for inclusion in the Proposal were shortlisted from a broader list of 414 possible measures aggregated in a so-called Long-list, which is accessible to the public on <http://zasobnik.poladprahu.cz/> and contains detailed information about each considered project. The detailed Proposal, including the specific 30 proposal chapters can be found in chapter 3 on pages 24-41.

Standard measures

These are measures that are required to maintain the transport system at least at the current level and that need to be imposed on existing infrastructure, or “soft measures” augmenting the sustainability of the transport system. By their nature, however, standard measures need not keep pace with the growth of the city.

Development measures

These measures in the Proposal represent projects that substantially increase quality and sustainability of the transport system, important innovations or major infrastructure projects. Development measures intervene in those problematic areas where the renovation and improvement of existing solutions are not enough. As the name suggests, they contribute significantly to the development of the city. →

414 MEASURES

CZK 340.4 BILLION

LONG-LIST

100 MEASURES
CZK 48.3 BILLION

142 MEASURES
CZK 64,8 BILLION

PROPOSAL

STANDARD

DEVELOPMENT

OVERVIEW OF THE DEVELOPMENT MEASURES OF THE PROPOSAL

Development measures	Number of measures	Investment costs of Prague (CZK million)
Development of railroad network	13	766
Development of metro and tram network	23	50 255
Public transport priority	6	8
Completion of Outer Ring Road	7	346
Completion of Inner Ring Road	5	1 705
New road links	8	1 369
Toll system	2	4 005
City logistics	3	10
P+R and B+R facilities	7	2 801
Integrated mobility services	6	21
Shared mobility services	4	73
Support for utility cycling	12	612
New pedestrian links	8	612
Traffic calming	6	910
Electric buses and private electromobility	7	504
Strengthening public transport	4	95
Campaigns to promote sustainable mobility	5	31
Innovation of city transport administration	8	12
Traffic control	8	620
TOTAL	142	64 755

“The greatest strength of the Plan is that it focuses on different types of transport and that it is aimed at regular Prague residents who use public transport.”

Antonín Klecanda,
Mayor of Prague-Kolovraty

2.8 PLAN IMPLEMENTATION

Setting up the implementation process, i.e., the continuous monitoring of the fulfilment of the mobility plan according to approved action plans and arranging regular updates of the mobility plan, is also one of the principles of the mobility plan. The document was created by a Working Group that included the representatives of several specialised organisations of Prague and the Central Bohemian Region.

THE WORKING GROUP WILL FOCUS ON THESE ACTIVITIES DURING THE IMPLEMENTATION PHASE:

1. Monitoring and reporting the fulfilment of the Transport Policy

Each year, the administrator will prepare on behalf of the Working Group an Action Plan Implementation Progress Report that will also include new suggestions outside the approved Plan. This report will be submitted to the Steering Committee at the beginning of the year, and this committee may decide to forward it to the Prague City Council and Assembly. The report will monitor the fulfilment of tasks by those responsible for the various measures or the development of the indicators of the strategic objectives of the Plan.

2. Coordination of implementation of the Action Plan

One of the main tasks of the Working Group is monitoring the progress of measures approved in the Action Plan. The members analyse the assigned tasks that lead to the preparation or implementation of the measures, or they propose them and then monitor their fulfilment; if problems arise, they inform the Working Group and propose how to resolve the situation after joint discussions.

3. Assessment of compliance of new measures with the Transport Policy

The Plan has been prepared with a view to 2030. Its Action Plan can, however, only work with data that is known at the time the Proposal is approved in 2019. With regard to the speed of changes and innovations in transport and city administration, it is necessary to allow the monitored areas to expand even outside the approved Proposal by adding new measures to the Long-list or amending existing ones. The addition of new measures to the Long-list has to be preceded by an assessment of the compliance of the new measures with the Transport Policy.

4. Coordination with other conceptual documents

Another task of the Working Group is monitoring other conceptual documents that concern Prague and relate to its Transport Policy and/or to the measures laid down in the Plan. The Working Group will focus on commenting new and amending existing strategies and concepts. It can then act on behalf of Prague even vis-à-vis the government when enforcing the national concepts in the area of urban mobility.

In the **P+ Proposal**,
this part is discussed
in more detail in
Chapter **2.9**.





5. Seeking external financial resources and innovative solutions in transport

From the financial point of view, the Plan is drafted only using known financial resources. A change in funding, available subsidies or the creation of projects that, if Prague is included, could contribute other funds to the fulfilment of the Plan cannot be precluded. The Administrator is responsible for monitoring new financing possibilities; members of the Working Group are responsible for monitoring innovative transport solutions and analysing their benefit for Prague.

6. Informing the public about fulfilment of the Transport Policy

One of the Administrator's tasks is to ensure that the public is informed about the Plan and the progress of its implementation, including the effects of mobility in the city. To this end, the Administrator shall ensure that all information on the project website is up to date. The public will thus be able to check at any time the current status of implementation and the degree of achievement of project objectives. The Working Group will then ensure that targeted marking in mobility is perceived by users uniformly.

7. Proposal to update the Plan

The Action Plan may contain only those items that are part of the approved Proposal. This, however, will eventually result in the Action Plan becoming out of sync with the current needs of the city. The parallel development of the Long-list, which the Working Group will also administer, will help address this problem. When the current needs of the city diverge from the approved Proposal in any way, the respective parts of the Plan will need to be updated. We can assume that such updates will be made roughly once every four years.



“The Plan’s greatest strengths are its relatively excellent analyses and its coherence with the financial possibilities of the city.”

Vít Sedmidubský, Ministry of Transport of the Czech Republic

“It would be wonderful if in 11 years we looked back and could see that mobility had developed at least in part in the spirit of the Sustainable Mobility Plan, and Prague had moved up a few spots in the list of best cities to live in.”

Roman Srp, President of the Association for Transport Telematics

“If anything had been missing in the planning of transport in Prague to date, then it was communication at the expert level, conducted across all professions. I think we have managed to resolve this shortcoming.”

Daniel Šesták, P+ Project Manger





Proposal in detail

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 reconstruction of Masarykovo nádraží (Masaryk Station) will mean an increase in travel standards for close to 30,000 travellers each day.

3.1 STANDARD MEASURES

Standard measures ensure reconstruction of existing elements of the transport system together with specific modifications based on existing transport infrastructure and organisation, such as increasing safety or removing mobility barriers. They, therefore, help to keep the city running at least at the current level and partially eliminate problems and improve conditions for mobility.

3.1.1 RECONSTRUCTION OF RAIL INFRASTRUCTURE

EXAMPLES

- **Optimisation of the Praha-hlavní nádraží (Prague Main Railway Station) – Prague-Hostivař line**
- **Reconstruction of Praha Masarykovo nádraží (Prague Masaryk Station)**
- **Increasing the capacity of the Prague–Kolín line**

NATURE OF THE PROJECTS

The selected infrastructure projects in the train and tram network are prerequisites for maintaining the operability of both rail systems. In train

transport, they represent the comprehensive reconstruction of the busiest sections on three, radial, double-track electric lines. The objective of these measures is to increase safety and reliability of operations and reduce the impact on the surrounding environment. The reconstruction of Masarykovo nádraží (Masaryk Station), the second busiest train station in Prague, will mean a substantial increase in travel standards for close to 30,000 travellers each day. Reconstruction of the Hlobětín yard is in turn necessary to ensure there is a place to house and maintain trams.

SOLUTIONS

Train infrastructure measures chiefly address capacity problems on S lines, weak links with other modes of transport, obsolescence of transfer points and maintenance neglect of existing infrastructure.

3.1.2 RECONSTRUCTION OF ROAD INFRASTRUCTURE

EXAMPLES

- **Repair of the Libeňský, Hlávkův, Barrandovský, Palacký, Jiráskův and Legií Bridges**
- **Pilot project on the overhaul of Strahovský Tunnel**
- **Optimisation and Development of the Barrandovský Bridge Node**

NATURE OF THE PROJECTS

The measures discussed in this chapter primarily address proper maintenance of existing transport infrastructure, specific work with their maintenance debt and capacity problems with the superordinate road network. Due to limited finances, the city was unable to include other, but no less necessary, improvements to the unsatisfactory condition of the infrastructure. In the opposite case, a substantial reduction of other, especially development, projects would be necessary.



Measures aimed at capacity problems contribute mainly to resolving road network congestion.

SOLUTIONS

Preservation of transport infrastructure in average condition is aimed at maintaining at least the existing level of safety, speed and reliability of surface transport and at limiting the growth of negative externalities on the environment and public health. Measures aimed at capacity problems should contribute chiefly to resolving road network congestion in certain areas.

3.1.3 PARKING ZONES

EXAMPLES

→ Development of paid parking zones

NATURE OF THE PROJECTS

The gradual expansion of paid-parking zones will consist in unifying their rules and operation and prioritising environmentally friendly vehicles. The size of each defined zone tends to decrease in size in the Proposal in order to make pointless the use of a car to move around within one zone.

SOLUTIONS

The measure helps to effectively deal especially with problems with parking spot shortages in compact developments. As a secondary effect, private motor vehicle transport will become ever less appealing in favour of sustainable transport methods (public transport, walking, cycling). Paid parking zones may also create suitable conditions for humanising public space. The income from it can also be invested back in the area.

Paid parking zones can also create suitable conditions for humanising public space.

3.1.4 TRAFFIC CONTROL

EXAMPLES

- Ownership and management of traffic lights
- Development of a technological transport management information system
- Traffic control scenarios

NATURE OF THE PROJECTS

The measures intend to improve the effectiveness of existing traffic control systems and make way for a single approach to management and data communication between light-controlled intersections, on one side, and, on the other, superordinate management levels and related engineering systems. This should chiefly improve the possibilities for managing each device and the conditions for the effective deployment of adaptive forms of area traffic control, including improvement and system-wide application of the priority for public transport vehicles. →



In the **P+ Proposal**, this part is discussed in more detail in Chapter 3.1.



The introduction of means for detecting unauthorised use of designated lanes by cars will also help increase effectiveness.

The measures also help address the low travel speed of public transport.

SOLUTIONS

This group of measures are aimed mainly at resolving property arrangements and management and the underused potential of traffic control tools. A positive effect is anticipated even in the case of problems tied to traffic congestion and flow. The measures also help to address the low travel speed of public transport.

3.1.5 PUBLIC TRANSPORT PRIORITY

EXAMPLES

- Programme for increasing the flow of tram operations
- Physical separation of tram tracks
- Establishing a priority for trams when restoring and building traffic control signals

NATURE OF THE PROJECTS

Public transport priority is one of the primary transport policy issues. Measures that ensure a designated lane for public transport and that give public transport priority at intersections and other transport nodes, in both Prague and the Central Bohemian Region, have been chosen for inclusion in the Proposal. The introduction of means for detecting unauthorised use of designated lanes by cars will also help increase the effectiveness of these spatial priority measures.

SOLUTIONS

The measures respond to a host of weaknesses, especially the poor reliability and speed of public transport, excessive traffic congestion in certain areas, negative impact of automobile traffic on air quality and greenhouse gas emissions from automobile traffic. Public transport should become more appealing for travellers (speed and reliability) as well more economically and energy efficient for its operators (higher fares/circuits speed, elimination of unnecessary stops and related reduction in energy consumption and carbon footprint). The higher the public transport performance the more effective the use of road space.

3.1.6 IMPROVING THE PUBLIC TRANSPORT ENVIRONMENT

EXAMPLES

- Programme for the reconstruction of transfer points
- Programme for furnishing public transport transfer points in Prague
- System for maintaining a database of accessible public transport stops

NATURE OF THE PROJECTS

To maintain and bolster the current quality of public transport, steps need to be taken to improve transfer points and stops, i.e., the parts of the infrastructure that travellers are in contact with and that are part of the public space. Prague Integrated Transport has excellent conceptual documentation for this in the form of the PID Stop Standard. Barrier-free access at stops and transfer points as well as to and from vehicles as well as a system for maintaining a database of barrier free access points, including its duplication on the mobile app and website, are part of improvements to the public transport environment.



Improving the public transport environment also means making stops accessible.

SOLUTIONS

The measures respond to defined weaknesses: no or low observance of conceptual documents; failure to take into account operating costs when implementing investments and their systematic growth; and the obsolescence of public transport transfer points/terminals. At the same time, they create the conditions for taking advantage of opportunities such as the traditional willingness to use public transport, the growing popularity of modern rail transport and technological developments in the field of mobility.

3.1.7 REVITALISATION OF URBAN SPACE

EXAMPLES

- Reconstruction of Malostranské náměstí (Lesser Town Square)
- Reconstruction of Václavské náměstí (Wenceslas Square)
- Reconstruction of the streets Veletržní and Dukelských hrdinů

NATURE OF THE PROJECTS

Selected measures chiefly regarding boulevards and avenues that are of importance to the whole city have been included in the Proposal. Characteristic for them is that public transport (usually trams), automobile traffic, pedestrian and cyclists all come together on those thoroughfares.

They are therefore not only extremely busy, but also require exceptional solutions to their reconstruction. Due to limited funds available to the city, public space reconstruction projects addressing areas with higher pedestrian traffic predominated.

SOLUTIONS

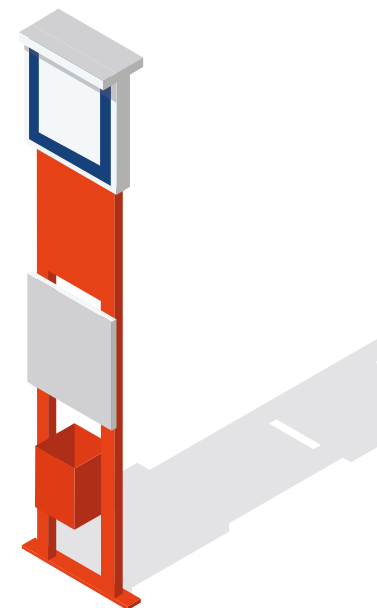
The selected measures respond chiefly to the problem of the lack of maintenance of existing infrastructure and the poor reliability and speed of surface public transport. The reconstruction of thoroughfares and public space will help increase the number of people using the streets. This can lead to, among other things, a greater percentage of people using public transport, walking and cycling instead of opting for other forms of transport, an increase in the proportion of public rail transport in integrated public transport or a reduction in the total number of parking spots.

The reconstruction of avenues and public space can increase the number of people using the streets.

3.1.8 ACCESSIBLE INFRASTRUCTURE

EXAMPLES

- Accessible metro stations Jiřího z Poděbrad, Flora, Želivského etc.
- Reconstruction of selected tram stops to become accessible
- Removal of excessive railing →



Prague will improve the lives of disadvantaged citizens, families with prams and tourists.

NATURE OF THE PROJECTS

Removing barriers is generally one of basic requirements for mobility today. The basic concept for the city is a metro and tram network; making metro stations and tram stops accessible to all users should therefore be a priority. Due to their number and condition, bus stops are more difficult to address; nevertheless, in the first phase, an action plan should be created to deal with the most important stops. Barriers do not only apply to disabled persons, who are becoming ever more mobile and independent, but also to pedestrians. Emphasis should be placed on removing excessive railing and focusing on the poor condition of many underpasses, which for many people are a subjective barrier.

SOLUTIONS

The measures respond chiefly to a lack of metro stations with barrier-free access. The growing number of people that will be over 80 in 2030 (an expected increase of 2.5%) also has to be taken into consideration. Prague will thereby improve the lives of disadvantaged citizens, parents with prams and tourists as well as improve the quality of public transport.

3.1.9 TRAFFIC SAFETY

EXAMPLES

- Safety modifications to accident blackspots
- Safety modifications to railway crossings in the Central Bohemian Region
- Removal of billboards from local roads with a speed limit of 70 km/h or higher

NATURE OF THE PROJECTS

Traffic safety results on roads is being monitored at the national and European levels. The measures are all-pervasive and can be expected to reduce the number of traffic accidents.

Railway crossings deserve special attention because they represent a high traffic risk due to their lack of safety features.

SOLUTIONS

The measures respond chiefly to the excessively slow pace of efforts to reduce traffic accident rates. The Czech Republic has long been striving to catch up to developed European countries, but the current trend, although positive, is still not insufficient. That is why it is important to seriously address safety. Special attention should be paid to railway crossings, as they pose a high traffic risk due to their great number and often lack of safety features.

3.1.10 INTEGRATED TRANSPORT SYSTEM

EXAMPLES

- Full integration of public transport in the Central Bohemian Region
- PID Lítačka (Prague Integrated Transport Pass) app
- Position of Prague Public Transport connections in the ROPID system

NATURE OF THE PROJECTS

The projects directly respond to the ever increasing coherence of Prague and Central Bohemian Region in the area of transport. On average, more



than 200,000 people commute daily between Prague and the Central Bohemian Region, and this number is growing. The aim of the projects is to increase the appeal of public transport to attract the maximum number of commuters, thereby improving the environment in the capital city (fewer moving and parked cars) and the safety of road traffic and overall profitability of public transport.

The purchase and management of tickets and passes on-line and use of new public transport ticket machines will make life easier for travellers.

SOLUTIONS

The coherence of transport between Prague and the Central Bohemian Region as well as the new possibilities made available by modern technologies demand that Prague and the Central Bohemian Region be part of a single integrated transport system operated by a single organiser. The possibility to purchase and manage tickets and passes on-line and the use of new public transport ticket machines will make life easier for travellers. This will contribute not only to greater use of public transport in Prague, but, unlike the current electronic system, also allow commuters from the Central Bohemian Region to purchase their public transport tickets for Prague as well. The project “Position of Prague Public Transport Connections in the ROPID System” will allow travellers to monitor the current position of their connection via a mobile app or at the transfer points.

3.1.11 STRENGTHENING PUBLIC TRANSPORT

EXAMPLES

- High-capacity train carriages
- Deployment of high-capacity buses in suburban transport
- Introduction of express trains in PID

NATURE OF THE PROJECTS

The measures in this chapter have been chosen to increase the appeal of public transport. One such way is to reduce the occupancy rate of each connection. The introduction of express trains in PID will substantially reduce travel times between medium-sized centres in the Central Bohemian Region and Prague that are currently only being serviced by passenger trains (e.g., Český Brod, Říčany and Čelákovice).

SOLUTIONS

The selected measures address the unfavourable modal split in the outer zone (by strengthening bus and trains outside Prague) and capacity problems on S lines through the deployment of high-capacity vehicles. The aim of all the mentioned measures is to increase the appeal of public transport. →

The introduction of express trains in PID will substantially reduce travel times between medium-sized centres in the Central Bohemian Region and Prague.



Connecting Václav Havel Airport Prague to rail transport and a high-capacity train service to Kladno are also important.

3.2 DEVELOPMENT MEASURES

Development measures move the quality of mobility up to a higher level and contribute to the development of the city as a whole. The construction of new infrastructure and significant progress in non-investment measures fall under this category.

3.2.1 DEVELOPMENT OF THE RAILWAY NETWORK

EXAMPLES

- New connection 2 (metro S)
- Train connection Prague – Prague Airport – Kladno
- Train connection Prague – Mladá Boleslav – Liberec

NATURE OF THE PROJECTS

For the capital, increasing the capacity of the train node and introducing the “full transit model” are priorities. These measures are also a prerequisite to building high-speed lines out of Prague, i.e., express connections (routes RS1, RS3, RS4 and RS5). Connecting Václav Havel Airport

Prague to rail transport and a high-capacity train service to Kladno are also important.

SOLUTIONS

The selected measures address the insufficient capacity of railway lines, unsatisfactory model split in the city’s outer zone and in the region, missing links between centres and poor reliability of surface public transport.

3.2.2 DEVELOPMENT OF THE TRAM AND METRO NETWORK

EXAMPLES

- Metro D: Pankrác – Depo Písnice section
- Eastern tram tangent – territorial stabilisation and preparation
- Nádraží Podbaba – Suchbát tram line

NATURE OF THE PROJECTS

There is no high-capacity, fast and timely public transport solution for the housing estates in the western part of Prague’s southern sector and the neighbouring areas of the Central Bohemian Region. Metro D, the construction of which is a Prague infrastructure development priority, will form the backbone of the public transport system in this party of the city.

Almost a third of all journeys by public transport in Prague are by tram. This constitutes a good basis for further development of the tram network. Ensuring sufficient capacity and required stability and network operability are key factors in this case. Almost completely prepared plans, for which support from Operational Programme Transport II is expected, are part of the selected measures.



SOLUTIONS

Metro D will contribute to resolving a whole host of problems in the southern part of Prague. In terms of public transport, this means replacing extremely busy bus routes. Suburban bus lines will also see an improvement, as they will end at the Depo Písnice terminal. P+R facilities at metro D should partially lighten traffic on the roads.

Construction of metro D is one of the transport infrastructure development priorities in Prague.

The selected plans for the development of the tram network respond to the overloaded infrastructure in the city centre, low degree of network stability and operability, overloaded capacities on certain sections and problems related to high-intensity bus transport. Construction of tram lines will also lead to an improvement in transport reliability (due to the greater priority for trams, separation of public transport from automobile traffic etc.). A high degree of improvement in this regard can be expected when Dvorecký Bridge is opened, as buses will be diverted to this bridge from Barrandovský Bridge.

3.2.3 PUBLIC TRANSPORT PRIORITY

EXAMPLES

- Legislation giving priority to public transport
- Legal norms and technical standards for public transport stops

NATURE OF THE PROJECTS

Unclear competencies, lack of financing rules and internal inefficiency are some of the main problems when proposing preferential measures within Prague. In the Central Bohemian Region, there is no concept in place for giving priority to public transport and should thus be created. The selected measures should create the conditions for drafting more effective priority measures.

SOLUTIONS

The selected measures respond (in addition to the above problems) to the following weaknesses: modal split of the outer zone, existence of overburdened bus routes, poor reliability or low speed of surface public transport. The measures may to a certain extent also eliminate the threat appearing in the form of obsolescence of legal norms and technical standards and their rigid interpretation.

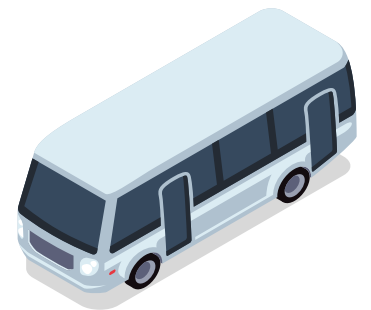
In the Central Bohemian Region, there is no concept in place for giving priority to public transport.

3.2.4 COMPLETION OF THE OUTER RING ROAD

EXAMPLES

- Outer Ring Road (D0), 511 (Běchovice – D1)
- Outer Ring Road (D0), 518 and 519 (Ruzyně–Březiněves)
- Motorway D3 – Central Bohemian section →

In the **P+ Proposal**, this part is discussed in more detail in Chapter **3.2**.



Completion of the Outer Ring Road responds to the negative impact of automobile traffic in built-up parts of the city.

NATURE OF THE PROJECTS

The sections of the Outer Ring Road being prepared (Běchovice-D1, Ruzyň-Březiněves, Březiněves-Satalice D10) and the relaying of Road I/12 are an investment of the State or, more specifically, the Road and Motorways Directorate. They are included in the Proposal because they are necessary and because of the related investments that need to be made to make utilisation the new sections of the Prague Ring Road as effective as possible for the city. The Outer Ring Road has been chosen because of the great support it enjoys from experts.

SOLUTIONS

Measures related to the completion of the Outer Ring Road and related road projects respond, among other things, to the negative impact of traffic on public health in built-up area of the city, to high truck traffic in Spořilovská street and to the problems on sections of Jižní spojka (South Connecting Road) and at the Barrandovský Bridge node. New construction projects on road I/12 and the junction Hostivařská spojka will help resolve heavy traffic on sections of Českobrodská / Starokolínská streets and Kutnohorská / Přátelství streets. In the addressed area, there will be an increase in the capacity of roads and alternative routes created in the event of heavy traffic congestion. In addition to the junction Hostivařská spojka, other projects include directionally separated roads, as these see fewer accidents than directionally unseparated roads.

3.2.5 COMPLETION OF THE INNER RING ROAD

EXAMPLES

- **Increasing the capacity of Jižní spojka (South Connecting Road) in the Vídeňská – 5. Května section**
- **Inner Ring Road – Pelc–Tyrolka – Štěrboholská radial road (project preparation)**

- **Study to reduce noise and air pollution in the northern part of the city**

NATURE OF THE PROJECTS

The Inner Ring Road makes it possible to divert traffic out the city centre while reducing sensitivity to excessive traffic. At this time, it functions partly as a road for motor vehicles, which, however, is congested at times, and partly as a by-pass, which, however, suffers from traffic, safety and capacity issues. With regard to high financial and procedural demands and the stage of preparations, reconstruction of parts of the Inner Ring Road into a road for motor vehicles is included in the Proposal only as project preparation. Before the project can be executed, specific organisation and construction modifications on part of the network thus need to be made and a telematic system installed.

The Inner Ring Road will allow traffic around the city centre to be diverted and sensitivity to excess traffic reduced.

SOLUTIONS

In addition to the aforementioned capacity problems and the problem of high sensitivity of the system to extraordinary events, the negative impact of automobile traffic on public health (noise and air pollution) will also be resolved by leading new routes predominantly through tunnels.



3.2.6 NEW ROAD CONNECTIONS

EXAMPLES

- **Průmyslová – Kutnohorská connection (Hostivař junction)**
- **Dolní Měcholupy – Písnice bypass**
- **Radlice radial road (project preparation)**

NATURE OF THE PROJECTS

The Proposal includes chiefly those road connections that divert through-traffic from densely populated areas and are important even important for long-distance transport. Local connections of lower importance have not been included in the Proposal because they do not required coordination at the level of the citywide Plan.

The construction of the Radlice radial road is a chapter of its own. Due its expense and problems with the connecting sections, this project has been included in the Proposal only as project preparation. Opening this radial road will divert traffic between the western sector of Prague and the central area to a high-capacity road that will be placed in a tunnel for the most part. This will lead to reduced automobile traffic in the surrounding area. If related connection projects are not completed first, however, the situation can actually become worse for the whole Barrandovský Bridge node and, because of the tunnel section, all the way up to the area around Stodůlky.

The proposed connections are important for long-distance transport relations

SOLUTIONS

The measures are a response to the congestion and sensitivity of the road network, as they will lead to a diversion of some of the traffic away from congested transport nodes and transit traffic from residential areas. For example, the Písnice bypass will contribute to reducing traffic congestion on Libušská street in Písnice. The Beranka junction along with the connection of two new roads of local importance will provide a greater choice of roads for Klánovice and Horní Počernice. The Radlická radial road project will allow projects for diverting transit traffic away from the Radlická street to be prepared. The interchange at Velká Chuchle will eliminate the dangerous crossing of road traffic with a busy railway.

3.2.7 TOLL SYSTEM

EXAMPLES

- **Prague toll system, pilot project and implementation**

NATURE OF THE PROJECTS

Tolls are one of the most effective tools for limiting non-essential automobile traffic in compact areas of the city. Although this method of regulation is often linked to the need to complete the superordinate road network (especially the Outer Ring Road), it is possible to implement a toll system independent of the condition of the transport infrastructure. The toll area in the extent intended does not require the existence of alternate high-capacity roads. The toll system can also be used to manage and regulate traffic during rush hour. →

The toll system can also be used to manage and regulate traffic during rush hour.

The first steps to resolving the issue of city logistics is the creation of a citywide strategy for its development.

SOLUTIONS

The measures help to effectively address chiefly the problems with congestion of the road network in the inner city, with the worse position of sustainable modes and with the overall economic sustainability of the transport system. Due to the reduction of traffic congestion in all areas, conditions for calming traffic in the city and humanising public space will be created.

3.2.8 CITY LOGISTICS

EXAMPLES

- Sustainable logistics strategy
- Creation of the position of Freight Transport Specialist
- Low carbon solution to waste logistics in Prague 1

NATURE OF THE PROJECTS

The first step to dealing with the issue of city logistics is creating a citywide strategy for its development. Other selected measures include specific steps that support better organisation of the movement of supply vehicles in the city.

SOLUTIONS

The weaknesses of the transport system in Prague include the absence of a concept and knowledge base about city logistics and deterioration of the conditions for rail freight transport. A solution is drawing up a citywide strategy that extends into parts of the Central Bohemian Region and that, thanks to the creation of the position of Freight Transport Specialist, will be rigorously enforced.

3.2.9 P+R AND B+R FACILITIES

EXAMPLES

- Development of P+R facilities at metro stations
- Development of P+R facilities in priority areas 1, 2 and 3 of the Central Bohemian Region
- Development of B+R facilities

A first-rate incentive parking system helps reduce private automobile transport.

NATURE OF THE PROJECTS

P+R facilities for cars and B+R facilities for bikes are a convenient expansion especially along the backbone public transport network. The measures have been chosen with an emphasis on the ability of the incentive parking system to work as a whole, with maximum reduction of travel distances to appealing public transport receiving special attention. The development of the B+R system is preferred for the shortest distances, regardless of the type of rail transport it connects to.

SOLUTIONS

The selected measures are aimed chiefly at the problem of non-fulfilment of the P+R development programme, the non-existence of a P+R concept in the region and absent infrastructure for non-motorised transport. A first-rate incentive parking system promotes a reduction in private motor vehicle transport and helps congested areas in the event of extraordinary incidents or popular social events. Taking a comprehensive approach to the system and bringing incentive parking closer to the source of trips also end up





promoting the choice of more economical and environmentally friendly means of private transport.

3.2.10 INTEGRATED MOBILITY SERVICES

EXAMPLES

- **Multimodal route planner**
- **Prague common information system with PID overlap**
- **Automatic vehicle occupancy detection**

NATURE OF THE PROJECTS

The Prague transport network, together with the connecting Central Bohemian Region network, requires innovative solutions to the problems of traffic congestion, substantial air pollution and low quality of life. That is why it is necessary to promote “mobility as a service“, which requires working with big data and its analysis. As part the development of multimodal travelling in Prague and the Central Bohemian Region, it is necessary to link them and coordinate information and navigations systems, not only for users of public transport, but generally for pedestrians and tourists. It is also necessary to modernise the information system at stops and use real-time vehicle occupancy data so that it can be used to plan transport. Travellers will moreover receive information not only about the position and delays of a specific connection, but also occupancy, making it easier to decide which connection to use.

SOLUTIONS

To date, innovative technologies that work with big data have not been used regularly or fully in Prague. Outputs from these projects will allow for the collection of data on how travellers behave and make it easier for travellers, drivers and system administrators to understand, use and

manage the public transport system. The objective is to improve and optimise traffic flow and decision-making procedures, reduce the impact of pollution and resolve crisis situations.

The public transport information system at stops must be modernised and real-time data on vehicle occupancy utilised.

3.2.11 SHARED MOBILITY

EXAMPLES

- **Establishment of a station bike-share scheme**
- **Development of a car-share and carpooling scheme**

NATURE OF THE PROJECTS

Shared mobility that incorporates all forms of transport is in line with societal trends in the world’s metropolises and represents a natural development of the transport system. Prague lags in this regard. The measures thus have the potential to boost Prague up to a similar level, as well as reduce the negative impacts on the environment and improve quality of life in the city. →



The number cars in the street will fall, freeing up space for sustainable forms of transport and improving the environment.

The measures develop cycling at the “door-to-door” level and offer new or improved connections.

The complete list of measures is available here: zasobnik.poladprahu.cz.



SOLUTIONS

The measures respond indirectly to many weaknesses of the transport system (negative impact of automobile traffic on air quality and public health, greenhouse gas emissions or insufficient physical activity by residents). They generally contribute to improving mobility of people. Prague residents and visitors can use car sharing (with alternative means of propulsion) or bikes. Their aim is also to reduce the need to purchase passenger cars. In the end, the number of cars in the street will fall, freeing up space for sustainable forms of transport and improving the environment.

3.2.12 SUPPORT FOR CYCLING

EXAMPLES

- Connecting Prague and the Central Bohemian Region by bike
- Left-bank cycle route A1 with connections in the region
- Non-motor transport development strategy

NATURE OF THE PROJECTS

The measures represent development and promotion of commuter and leisure-time cycling and parallel improvement of conditions for walking. The primary objective is to improve the connection between Prague and the Central Bohemian Region and provide adequate rail transport continuity and accessibility. They develop cycling at the “door-to-door” level, offer new or improved connections and make non-motor transport an equal component of the whole system.

SOLUTIONS

The measures support sustainable development, respond directly to the absence of pedestrian and cycling links on the outskirts of Prague and in the region, insufficient support for the physical activity of residents and incoherence of cycling measures.

3.2.13 NEW PEDESTRIAN LINKS

EXAMPLES

- Holešovice–Karlín footbridges, Kačerov–Rožtyly footbridges etc.
- Connecting Motal Hospital and Vypich
- Connecting the Zličín commercial zone with the metro

The measures respond to the insufficient promotion of physical activity.

NATURE OF THE PROJECTS

The objective of these measures is to promote walking in the form of new connections in locations that are currently poorly accessible or completely inaccessible. Feasibility studies defining a suitable position with regard to further links or technical construction have to be prepared for practically all the measures in this chapter.

SOLUTIONS

The measures support sustainable transport, respond directly to absence of pedestrian and cycling connections on the outskirts of Prague and in the region and to insufficient promotion of physical activity.

3.2.14 TRAFFIC CALMING

EXAMPLES

- Programme for the creation of pedestrian zones in the city centre
- Prague traffic safety strategy
- Programme for the creation of 30-km/h zones



NATURE OF THE PROJECTS

Measures that primarily effect the greatest area of the city and its suburbs have been included in the Proposal. This includes the Programme for the Creation of 30-km/h Zones and Implementation of the 2016 Prague Noise Reduction Action Plan, which supplements the measures laid down in the Programme for the Creation of Pedestrian Zones in the City Centre. Measures aimed at reducing accident rates and reducing the consequences of traffic accidents and traffic excesses in general are in line with global social trends. Creating a regularly updated information database on pedestrian travel is then a logical response to the shortage of data about pedestrian travel, which is the dominant mode of transport in the inner city and which is increasing in popularity.

The creation of a regularly updated information database on pedestrian travel is a logical response to the shortage of data on this mode of transport.

SOLUTIONS

The measures respond in particular to the excessively slow pace of reduction of traffic accidents, the negative impact of transport on public health and poor reliability and low speed of surface public transport.

3.2.15 ELECTRIC BUSES AND PRIVATE ELECTRIC VEHICLES

EXAMPLES

- Programme for electrification of bus lines in Prague
- Construction of new charging stations for electric vehicles
- Electric vehicles as business cars for municipal companies

NATURE OF THE PROJECTS

In the case of electric public transport vehicles, very prospective development is expected especially with regard to the commitments to improve air quality and the quality of life and health of residents. Pilot projects that are at a high stage of preparedness are intended to prove the suitability of various technological solutions (e.g., dynamic and static charging) for various operating conditions. Depending on the outcome, the Programme for electrification of bus lines in Prague will be created, which will stipulate a further development direction with specific conclusions.

Private electric vehicles are a modern and environmentally friendly mode of travel without local emissions. At this time, the number of newly registered electric vehicles is growing, and this will lead to the need to create a denser network of charging stations. There are about 100 such stations in Prague today, which is too little compared with cities like Amsterdam and Vienna and insufficient for more substantial expansion of electric mobility in the city.

SOLUTIONS

The mentioned measures should provide a long-term solution to the reduction of greenhouse gases from combustion engines, a portion of which is produced by buses. With regard to the amount and intensity of bus transport in Prague, a reduction in overall noise from bus operation will occur because electric engines are substantially quieter. Charging infrastructure →

The number of newly registered electric cars is growing and so is the need to build a denser network of charging stations.



The projects focus on increasing the appeal of rail and bus transport through shorter intervals.

needs to be addressed systematically and all available options need to be utilised, i.e., standalone charging stations, public lampposts, charger-equipped carparks, etc.

3.2.16 STRENGTHENING PUBLIC TRANSPORT

EXAMPLES

- 8th platform at Prague Main Railway Station
- Urban rail lines
- Strengthening bus connections to trains

NATURE OF THE PROJECTS

The projects focus on increasing the appeal of train and bus transport through shorter intervals. Measures, such as the 8th platform of the main station, are intended to increase the capacity of this station. Other urban rail lines are important because they will result in new, usually tangential, connections (leading outside the centre) on electric tracks. Strengthening bus lines linked to railways supports the system of interconnected types of public transport.

SOLUTIONS

Selected measures deal primarily with the lack of competitiveness of public transport in tangential links both in Prague and in the region. The missing connections should be addressed by urban rail links usually utilising current infrastructure to create new connections that will be substantially faster than those offered now.

The complete list of measures is available here: zasobnik.poladprahu.cz



3.2.17 CAMPAIGNS PROMOTING SUSTAINABLE MOBILITY

EXAMPLES

- Campaigns supporting the use of PID
- Zero-Emission Prague campaign
- Financial support for programmes for basic schools

NATURE OF THE PROJECTS

Campaigns supporting sustainable mobility will contribute to residents' and visitors' general awareness about this issue. Campaigns supporting the use of PID as a modern and first-rate service are included in the Proposal and will be supplemented by a campaign on proper behaviour in public transport. For general promotion of sustainable mobility within Prague, continuation of the Zero-Emission Prague campaign is expected to continue, the objective of which is to increase Prague residents' and visitors' awareness about sustainable transport, thereby promoting the use of more efficient and environmentally friendly forms of transport.

The campaign will need to utilise the traditional popularity of public transport and promote new technologies and innovations, including cycling options.



SOLUTIONS

Sustainable mobility promotion and education is always a complex matter and to a certain degree a response to several problems ascertained in the P+ Analysis. The campaign will need to utilise the traditional popularity of public transport and promote new technologies and innovations, including cycling options. The campaign will focus on teaching about the negative impacts of automobile traffic on the urban environment.

3.2.18 INNOVATION IN CITY TRANSPORT ADMINISTRATION

EXAMPLES

- **Mobility Plan for major employers and schools**
- **Development of the major transport network after 2030**
- **Competencies in connection with the administration of PID stops and transfer points**

NATURE OF THE PROJECTS

For the most part, the measures are procedural and aim to supplement changes and modifications within transport infrastructure. The city should not be alone in implementing the Plan. Local players, especially major employers and schools, can also do their part to positively change the transport habits of large numbers of people.

The city should not be alone in implementing the Mobility Plan. Local players can also do their part.

SOLUTIONS

The measures respond to the great number of shortcomings described in the P+ Analysis, especially the fragmentation of local government, proprietary arrangements, the lack of coherence between the priorities of the conceptual documents and the city budget and vice-versa. The consequences of these problems then appear in all transport segments.

3.2.19 TRAFFIC CONTROL

EXAMPLES

- **Road line traffic control of the Outer Ring Road**
- **Area traffic-dependent control and incident detection**
- **Navigation to vacant parking spots**

NATURE OF THE PROJECTS

The measures expand traffic control to include development of superadaptive systems that should improve road traffic flow and safety. They place emphasis on the development and application of cooperative systems that they use to raise awareness and improve road user safety, make transit more efficient and increase the flow and safety of car trips with right of way.

SOLUTIONS

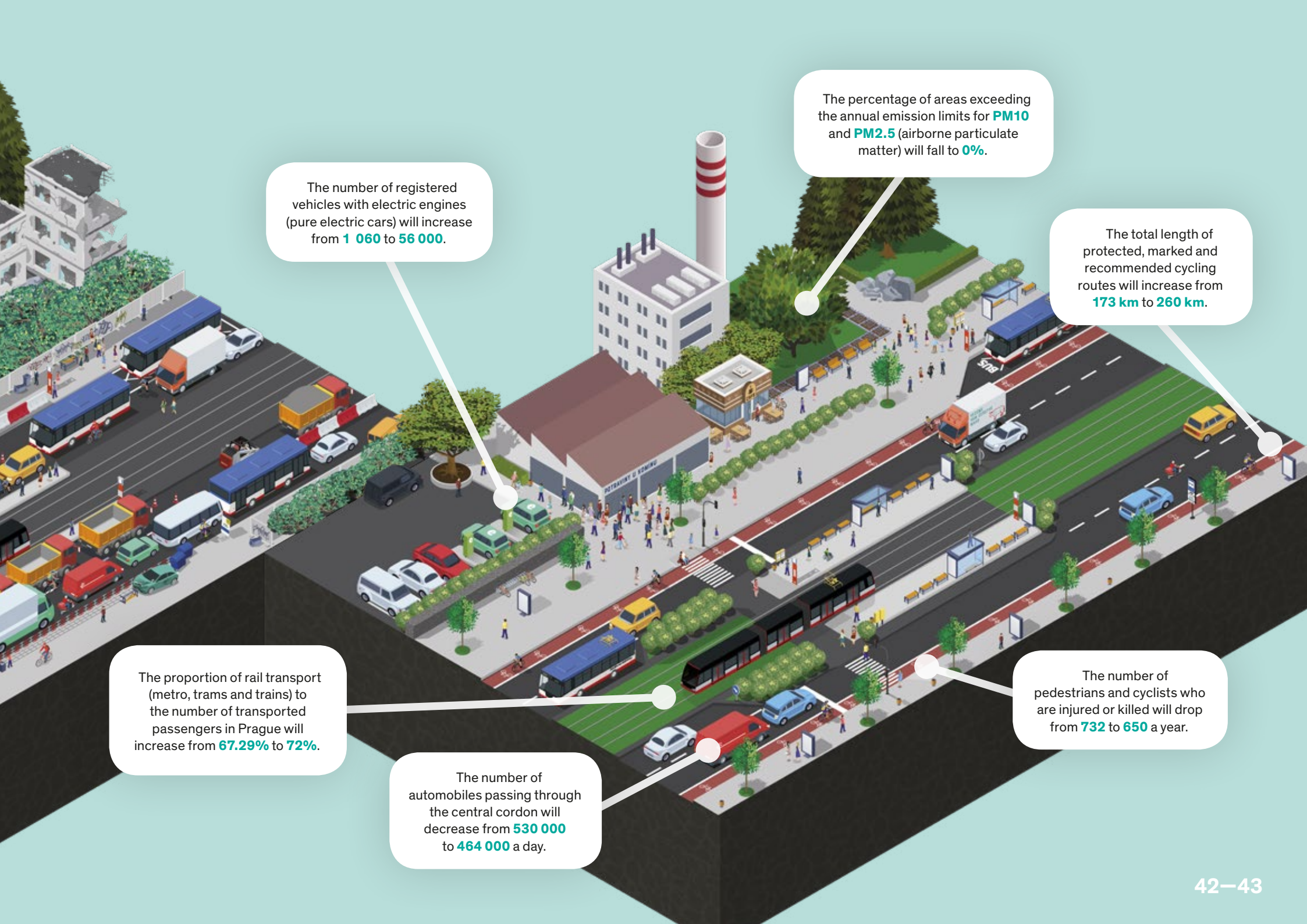
The set of measures contributes to resolving the untapped potential of advanced traffic control tools, the negative impact of traffic on air quality and public health and the high sensitivity of the superordinate system to extraordinary events.

The measures expand traffic control to include development of superadaptive systems that should improve road traffic flow and safety.

Proposal Impacts

To be able to count on all the measures in the Plan, financing has to be obtained not only from the City of Prague but also from all involved partners. And if anything from the Plan manages to be implemented, a set of indicators has already been set up for all strategic objectives, to show successful implementation of the Plan is and the impact it has on the city and its suburbs.





The number of registered vehicles with electric engines (pure electric cars) will increase from **1 060** to **56 000**.

The percentage of areas exceeding the annual emission limits for **PM10** and **PM2.5** (airborne particulate matter) will fall to **0%**.

The total length of protected, marked and recommended cycling routes will increase from **173 km** to **260 km**.

The proportion of rail transport (metro, trams and trains) to the number of transported passengers in Prague will increase from **67.29%** to **72%**.

The number of automobiles passing through the central cordon will decrease from **530 000** to **464 000** a day.

The number of pedestrians and cyclists who are injured or killed will drop from **732** to **650** a year.

20 434

The capacity of the P+R system in Prague and its suburbs will increase from 4 167 vehicles to 20 434.

4.1 TRANSPORT SYSTEM INDICATORS

In the section devoted to Transport Policy, seven strategic objectives were laid down for the field of transport. These objectives are defined below and supplemented with specific indicator values to allow the development and degree of fulfilment of objectives to be monitored against the current status.

In the P+ Proposal, this part is discussed in more detail in Chapter 4.2.



1 INCREASING SPATIAL EFFECTIVENESS OF TRANSPORT

This objective monitors the reduction of spatial demands of barriers in public space caused by transport means. Electric rail transport requires the least space per person and low-occupancy passenger cars the most.

- **The proportion of public, pedestrian and cycling transport to all transport will increase from 70% to 73%.**
- **The capacity of the P+R system in Prague and its suburbs will increase from 4167 vehicles to 20 434 vehicles.**
- **The proportion of rail transport (metro, trams and trains) to the number of transported passengers in Prague will increase from 67.29% to 72%.**
- **The number of automobiles passing through the central cordon will decrease from 530 000 to 464 000 a day.**
- **The total length of protected, marked and recommended cycling routes will increase from 173 km to 260 km.**
- **The number of vehicles involved in carsharing will increase.**

2 REDUCING THE CARBON FOOTPRINT

This objective aims to increase the share of non-hydrocarbon engines (especially by utilising electric traction) in transport and reducing energy consumption and carbon dioxide production.

- **Emissions of volatile organic compounds from automobile traffic will fall.**
- **Specific emissions of greenhouse gases from transport will fall.**



→ **The number of registered vehicles with electric engines (pure electric cars) will increase from 1060 to 56 000.**

→ **The number of public transport buses with an electric engine will increase from 2 to 250.**

3

INCREASING PERFORMANCE AND RELIABILITY

This objective aims to increase the effectiveness of transport systems in general, optimise the current system by utilising available capacities and reduce the effects of traffic excesses, such as traffic accidents and temporary congestion due to construction work, on the transport system and its users.

→ **The average speed of PID buses will increase from 25.2 km/h to 26 km/h.**

→ **The average delay of PID buses travelling from the Central Bohemian Region to Prague will fall.**

→ **The punctuality of PID trains will increase from 94% to 96%.**

→ **The number of passengers transported by integrated transport in Prague each day will increase from 1.26 million to 1.35 million.**

4

INCREASING SAFETY

This objective aims to increase the safety and durability of the entire transport system, especially by reducing the effects on the health and lives of people in case of traffic accidents and extraordinary events.

→ **The number of pedestrians and cyclists who are injured or killed will drop from 732 to 650 a year.**

→ **The number of people suffering minor injuries in traffic accidents will fall from 1951 to 1750 a year.**

→ **The number of people killed or seriously injured in**

traffic accidents according to police records will fall from 173 to 110 a year.

5

INCREASING FINANCIAL SUSTAINABILITY

This objective aims to increase the sustainability of investment and operational financing and increase the balance of revenues and expenses, which includes ensuring their stability.

→ **The proportion of transport revenues in the total city budget will increase from 4.6% to 6.6%.**

→ **The proportion of losses from public transport in Prague in total costs will decrease from 80% to 75%.**

→ **The number of people with permanent residence in Prague will increase from 1.280 million to 1.357 million.**

6

IMPROVING PUBLIC HEALTH

This strategic objective aims to improve human health by promoting the physical activity of residents and reducing the noise and exhaust negatively affecting residents and the environment.

→ **The percentage of areas exceeding the annual emission limits for PM10 and PM2.5 (airborne particulate matter) will fall to 0%.**

→ **The percentage of areas exceeding the emission limit for benzo(a)pyrene will drop from 54% (2016 value) to 0%.**

→ **The number of people living in areas exceeding emission limits will drop to 0.** →



56 000

The number of registered automobiles with electric engines (pure electric cars) will increase from 1 060 to 56 000.

In the **P+ Proposal**, this part is discussed in more detail in Chapter **4.3**.



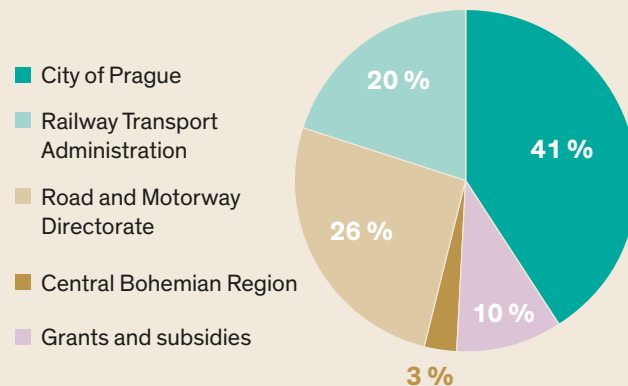
7 IMPROVING ACCESS TO TRANSPORT

The seventh and last objective aims to improve access to transport for a wide range of residents and visitors, including the hearing and visually impaired and the disabled, and interlink various modes of transport.

- The share of low-floor tram connections during weekdays will increase from 52% to 90%.
- The share of low-floor bus connections to regular bus connections deployed outside Prague in the Prague metropolitan area will increase from 52% to 80%.
- The share of accessible metro stations will increase from 72% to 95% of all stations.

Note: Indicators - comparison of status between 2017 (2016 if data absent) and the Proposal in 2030

FINANCING OF INVESTMENT COSTS IN THE PERIOD 2019–2030



4.2 MOBILITY COSTS AND REVENUES

An analysis of the costs of the measures included in the Proposal is one of the key areas that the Plan is concerned with. No less important are operating costs, which, due to their repetitive nature, can even exceed the costs of the initial investment during its lifetime.

Total investment costs and operating costs as well as any revenues from the various measures, including the costs incurred by the partners, such as the Road and Motorways Directorate of the Czech Republic, the Railway Transport Administration and the Central Bohemian Region, have been enumerated in the Proposal.

From the point of view of Prague, for which the Plan is binding, substantial investment and operating costs are paid out from the city budget.

INVESTMENT COSTS

The investment costs of the Plan are based on the investment costs ascertained for each measure, which are launched according to the Proposal timetable.



Prague will not bear the full cost of the investments, as the Plan also includes the investments to be made by the partners or assumes joint financing by several entities or the use of subsidies and grants. The proportion of the investments in the Plan to be borne by Prague will thus slightly exceed 40%. The proportions borne by the partners and subsidies are displayed in the graph below.

When drafting the Plan, a financial framework for Prague's capital expenditures was compiled and approved. These funds will be used to finance Prague's share of the investments proposed in the Plan. The budgetary forecast for transport became the foundation of the financial framework. The possibility of loans, limited by Act No. 23/2017 Coll., on the rules of budgetary responsibility, was also considered. Certain room in the budgetary framework for "reserve events" was also agreed, as past experience has shown that investment preparations are often delayed and utilisation of already approved capital expenditures insufficient.

The resulting financial framework of CZK 113.4 billion for the period ending in 2030 thus symbolises a certain ceiling for planning Prague's investment costs on mobility-related measures. More than CZK 40 billion of this amount comprises loans most likely for the construction of metro D, which will commence during the validity of the Plan. A similar amount, taken from the city's own funds, will fall on reserve events for which financing has to date not been ascertained and which would be implemented only if any priority measures in the Plan are cut.

OPERATING COSTS

The operating costs to be incurred by Prague on mobility constitutes a third of the current expenditure of the city budget; converted to a specific amount, this is almost CZK 22 billion in 2018. In the financial forecast until 2030, a further increase in current expenditure need to be taken into account, which could undermine the city's ability to invest in the measures proposed by this Plan.

When selecting measures to be included in the Plan, incremental operating costs were therefore monitored, and these need to be included in the city's existing payables in current transport expenditure. Should all of the measured proposed in the Plan be successfully implemented, the annual city budget entitlements would increase by CZK 5 billion (in current prices). Development measures do not accrue even a half of this amount; the increase in current expenditure is thus also linked to the increased need of existing infrastructure and operations.

4.3 ENVIRONMENT

Since the first phase of preparations, an environmental specialist has been working in the P+ Project Manager's team and will take part in meetings.

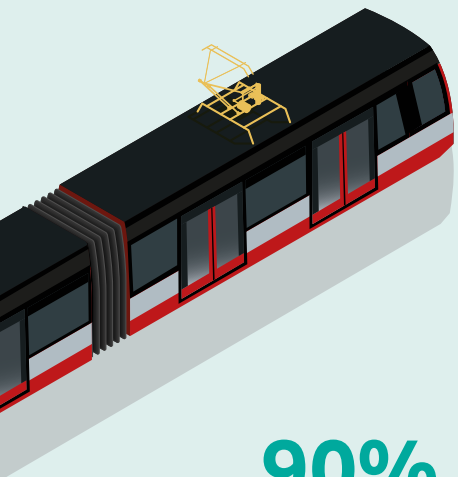
A SWOT analysis of the transport system has determined the weaknesses and opportunities as well as any threats vis-à-vis transport, the environment and the health of city residents. The problematic areas, i.e., the current weaknesses of transport, included:

- **Negative impact of automobile traffic on air quality and noise**
- **Greenhouse gas emissions from automobile traffic**
- **Fragmentation of and limited access through the landscape**
- **Decrease of agricultural land in the metropolitan area**
- **Insufficient promotion of physical activity of residents**
- **High spatial demands of road traffic in the city**
- **Degradation of public street space due to automobile traffic to the detriment of pedestrians and cyclists**

A proposal for environmental and public health indicators was then made based on the analysis. The environmental specialists recommended the indicators the authors should use for monitoring implementation of the Plan; 14 environmental indicators for the territory of Prague and 13 indicators for the field of public health. A certain limitation to the application of indicators could be the availability of data, as for some of the indicators, it was not possible to obtain initial data from public sources for describing the past and current status or →



In the **P+ Proposal**, this part is discussed in more detail in Chapter **4.4**.



90%

The proportion of low-platform tram connections deployed on a weekday will increase from 52% to 90%.

In the **P+ Proposal**, this part is discussed in more detail in Chapter **4.5**.



comparative data for subsequent evaluation. Typically this concerned indicators such as closures of unpaved or green surfaces as a result of transport-related construction projects.

Previous outputs from the analytical part were taken partially into account when setting the priority axes and proposing the strategic objectives, especially in the areas of air quality, greenhouse gas emissions, noise and carbon footprint (I), which have a connection to two of the seven strategic objectives defined by the Transport Policy: reducing the carbon footprint and improving human health.

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA)

For the sake of completeness, the Plan proposes measures that create the framework for future planning (investment) permission pursuant to Annex 1 of Act No. 100/2001 Coll., on environmental impact assessment, as amended. It thus must undergo an environmental and public health impact assessment (the so-called SEA process). The Ministry of the Environment, as the pertinent authority pursuant to the mentioned legislation, issued on 25 March 2019 a favourable opinion on the Plan and also stipulated the requirement for ensuring the minimum possible impacts of its implementation on the environment and public health.



4.4 SPATIAL PLANNING

The Plan is a strategic document that in its Proposal recommends type measures for resolving problems from the Analysis without aiming to stipulate specific geographical and technical aspects of the measures. Alignment given by the Proposal and indicated in the Long-list thus only calls attention to a specific area of the city if it is already known from the previous preparation of the measure or ensues from the description of the measure. The exact geographical position and the technical solution are then a matter for the follow-up study or the subject of project preparations.

Prague procures spatial planning information and spatial planning documents in line with valid legal regulations. With regard to the size of the geographical area being addressed, it is necessary to take into account the same documentation pertaining to the Central Bohemian Region. For the Proposal, spatial planning documentation is relevant, i.e.:

- Development Principles of the City of Prague
- Development Principles of the Central Bohemian Region
- Prague Land Use Plan (from 1999)
- Developed Prague Land Use Plan (the Metropolitan Plan)
- Land Use Plans of Municipalities in the Prague Metropolitan Area outside the City of Prague

As part of acquiring the Plan and in line with the requirements of the Ministry of the Environment of the Czech Republic, all 242 measures from the Plan were assessed in terms of the SEA process in line with spatial planning documentation to an degree corresponding to the strategic document. This means the assessment concerned whether each respective measure is contained in the spatial planning documentation and corresponds to it in principle.



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