Sustainable Urban Mobility Plan 2025plus
An overview
In its Sustainable Urban Mobility Plan (SUMP) 2025plus, the City of Dresden has in its possession a transport development framework adopted by the City Council for the first time since 1994.

However, this does not mean that transport strategy planning work has been at a standstill since 1994. Significant updates to the 1994 transport concept can be found in the 1998 Land Use Plan, the 2002 Integrated Urban Development Concept, the 2003 Transport Concept (not adopted) and Dresden’s 2006 Mobility Strategy.

Now the time had come to develop a transport strategy concept that would take account of the general changes that have taken place in recent times, namely:

- Global developments such as fluctuations on the currency markets, price movements in the commodities sector, etc.
- New European and national legislation, e.g. concerning clean air
- Increased calls from citizens for a cleaner, quieter and safer environment and a better quality of life
- Demographic change in Western European countries associated with falling and ageing populations and growing individualism in lifestyles
- Growing financing needs for renovation and maintenance of the transport infrastructure
- Rapidly increasing public demand for more participation in planning processes.

Against this backdrop, work started in 2009 on a new SUMP which would look towards 2025 and beyond. The challenges to be overcome were huge. With assistance from a Round Table consisting of more than 40 partners from a wide range of institutions, associations, clubs etc., a scientific advisory board, a Round Table made up of regional representatives, and a civic steering group, the planning document was drafted by a planning consortium over a period of four years. The transport policy spokespersons of the political parties on the City Council were also involved in this process.

Two City Council resolutions were adopted during this time, which recorded the results achieved and enabled work to continue on a secure footing. Following an intensive and constructive yet contentious Round Table discussion the “Goals for the future development of transport in the City of Dresden up to 2025 and beyond” were drawn up and adopted. The call for a development scenario setting out the main focal points was also thoroughly and intensively discussed. It was decided to opt for the local public transport based scenario.
After the draft SUMP was submitted by the planning consortium, an intensive discussion ensued in the City Council and with the citizens of Dresden, the public discussion culminating in the Dresdner Debatte (Dresden Debate). Around 4,500 people visited the website and the red container in the city centre, where citizens had the opportunity to speak directly to members of the city administration, was also very well attended. As a result, some 930 tips, suggestions and comments were received from Dresden residents, of which 450 related directly to the Dresden SUMP. Many of the suggestions already formed part of the plans, while others were put forward multiple times or could be combined due to their similarities with others. Twenty-one suggestions from residents were ultimately incorporated into the concept by way of a City Council resolution.

After five years of intensive work, the plan was adopted by Dresden City Council on 20 November 2014.

It should not be forgotten that our Sustainable Urban Mobility Plan had already been escalated to the European level by Dresden’s Lady Mayoress Helma Orosz in its early days. Having been presented as a major project for Dresden at a European conference of the Polis network, the SUMP 2025plus attracted considerable international attention right from the start. The status of the planning was reported on at several European workshops and the plan itself was ranked as one of the best European Sustainable Urban Mobility Plans.

On 20 March 2015 the City of Dresden was presented with an award for its SUMP 2025plus by EU Transport Commissioner Violeta Bulc. In the ranking of European cities demonstrating planning excellence in meeting today’s requirements for urban mobility development, Dresden tied in second place with the city of Ghent, Belgium, behind the winner, Bremen.

I would like to take the opportunity of this statement to thank all citizens of Dresden, including all members of the SUMP Round Tables, the scientific advisory board and the many employees of the city administration for their sterling efforts in working together on this plan.

In particular, I would like to express my gratitude and appreciation to my predecessor, Jörn Marx, under whose committed patronage the Dresden SUMP came into being and who put so much personal effort into making the plan a success.

I wish the Dresden SUMP the very best of luck and success on its path towards implementation.

Raoul Schmidt-Lamontain
Mayor of Urban Development, Construction and Transport
In the SUMP 2025plus, the City of Dresden has at its disposal a well substantiated strategy for the coordinated, balanced development of transport in the city. The SUMP is closely intermeshed with the city’s urban guidelines, such as InSEK, the Integrated Urban Development Concept and the clean air, noise reduction and energy/climate protection plans. Our SUMP is also an important cornerstone of Dresden’s new land use plan.

Joint development priorities have been identified and the stage has been set for the development of urban mobility in Dresden with a view to creating a modern city that is fit for the future.

Now we are faced with the ambitious task of implementing the SUMP – and that applies to both the city administration itself and its many specialist partners as well as the citizens of Dresden! For it is the citizens of our city and our many guests and visitors who use the city’s transport system. And we want everybody to be able to contribute in their own way to giving it shape and making Dresden an attractive city with a high quality of life.

Stefan Szuggat
Head of City of Dresden Urban Planning Office
1. Why do we need a new SUMP now?

Transport planning has a long history in Dresden. Dresden’s new Sustainable Urban Mobility Plan 2025plus follows in the footsteps of a series of significant predecessors, such as the general transport plans of 1950, 1967 and 1977, and the 1991 Guidelines for Future Transport Policy in the Dresden Conurbation. The first comprehensive transport concept following German reunification in 1994 and the 2006 Dresden Mobility Strategy built upon many years of planning.

If planning work up to the 1990s focused primarily on adapting the road infrastructure to increasing motorisation and rising motor vehicle traffic volumes, the 2006 Mobility Strategy lays down very different guidelines. It reflects the change in transport policy goals: in order to enable citizens to take part in communal life, mobility must be ensured for everyone, while at the same time reducing the adverse effects of traffic such as noise, airborne pollutants and environmentally harmful emissions. These issues appear to be contradictory. The key to developing a mobility and transport system that takes both of these aspects into account will from now on be to use existing infrastructure more effectively and place more emphasis on promoting more sustainable means of transport, such as local public transport and non-motorised traffic (walking/cycling).

A changing city
Maintaining and preserving the existing roads and bridges and the public transport network alone presents the city with enormous financial and planning challenges every year. In addition, deficits are accumulating in aspects including road and bridge repairs or combating accident hotspots like Schillerplatz and congested traffic hubs such as around Marienbrücke/Könneritzstraße. On the other hand, Dresden would not be able to develop dynamically or thrive economically without urban development and reconstruction. To achieve this, Dresden will continue to have a need for new road and rail network projects, such as the following:

- The Dresdner Verkehrsbetriebe Stadt­bahn Programme 2020
- The new federal highway B 6 in Cosse­baude (a federal government project)
- Road improvements in Reick/Strehlen/Gruna to create better traffic links to the science hub in the east of the city.

Strategy paper
The Dresden SUMP
- provides upcoming transport plans and activities with a strategic focus
- compares the costs and effects
- highlights priorities and identifies urgent tasks.

The strategy paper is not a rigid set of plans. The projects have largely been developed in consensus between the parties on the City Council and the supporting bodies, while providing enough scope to allow the city administration to set its own local community policy priorities. The implementation process is constantly accompanied by outcome reviews which enable the city to respond in good time to new general conditions while keeping tabs on the transport policy goals set.

← The Waldschlößchenbrücke: new Elbe crossing for all forms of transport
2. How did the Dresden SUMP 2025plus come into being?

In the past, transport concepts with a strategic focus usually came about as “expert documents”. Indeed, the 1991 Transport Policy Guidelines and the 1994 Transport Concept both gave rise to in-depth local policy discussions. Since then, however, the culture of participation has been changing. In parallel with current efforts in other major cities, the Dresden SUMP sets new standards and priorities for incorporating as many stakeholders and citizens as possible in the planning process. The process was accompanied by the following bodies:

- Steering group with representatives of the parties on the City Council, the deputy mayors, the SUMP project manager, the moderator of the Round Table and other bodies
- A scientific advisory board with academics specialising in transport and urban planning (from Dresden University of Applied Sciences and other academic institutions)
- The Round Table, with various stakeholders and interest groups (DVB AG, Verkehrsverbund Oberelbe, ADFC, ADAC, etc.)
- The Round Table Region, with representatives of neighbouring municipalities (Bannewitiz, Heidenau, Freital, Wilsdruff, Radebeul, Moritzburg, Ottendorf-Okrilla, Radeberg, Wachau), the administrative districts and the Free State of Saxony
- The city administration project group with representatives of the offices concerned

↑ Erhart Pfotenhauer (4th from left), General Manager of the epUrban planning group, speaks as moderator of the Round Table
The members of the Round Table played a special role as sources of ideas, stakeholders, discussion partners and, in particular, as key figures representing citizens, local politics and the professional public.

Dresden residents were involved throughout the entire development process, with a range of participation formats. A key element in this was the Dresden Debate. Over a period of four weeks, Dresden residents were given the opportunity to discuss the draft in depth online (↗ www.dresdner-debatte.de) as well as face-to-face with specialists from the city administration at the red Infobox at Dr. Kühl-Ring. The public consultation gave rise to around 1,000 suggestions which were incorporated into the development of the Dresden Sustainable Urban Mobility Plan 2025plus. In addition, the city authorities made the SUMP available at all local administrative offices and discussed it with those present.

Integrated transport planning means “working together not against each other”!
The Dresden SUMP 2025plus is the result of cooperation and compromise: both in dealings between authorities and with politicians as well as in exploring the strategies and measures with stakeholders and interest groups.

As such we have paved the way for a sustainable future for mobility in Dresden in an understandable, effective and affordable way that will not lead to endless political arguments.

Prof. Dr Gerd-Axel Ahrens
Dresden University of Applied Sciences
Professor of Transportation and Infrastructure Planning (vip)
3. General conditions and transport development goals in Dresden

Developments in demographics, spatial structures and regional infrastructure determine the general conditions for mobility and transport in Dresden. The population in the Free State of Saxony and the area surrounding Dresden is declining. The average age is rising as the number of retired and old people increases, while the proportion and number of children and adults of working age is falling. This trend is set to continue going forward.

However, there are indications of an upturn in population numbers in Dresden and other big cities after many years of decline. Following the low point in 2000 where the population had dropped to around 478,000, by 2010 Dresden had 522,000 inhabitants, and the city is expecting the number to grow to more than 550,000 by 2025. Thus the growth processes taking place in the city contrast with a largely stable situation in adjacent communities and the stronger decline in population in the region as a whole. This will impact on future transport development in Dresden.

The general conditions for the Dresden SUMP are informed first and foremost by the land use plan and the legally binding development plans, as well as by statutory requirements and higher-level objectives. This results in binding concepts for Saxony’s capital city which focus in particular on the environmental credentials of its transport. These include:

- Clean air laws with binding limits for particulates and CO₂
- The role Dresden intends to play in protecting the climate
- Traffic noise reduction targets for Dresden based on the EU Environmental Noise Directive

Some plans have already been developed and adopted in this area, including:

- The City of Dresden Clean Air Plan (May 2011)
- The City of Dresden 2030 Integrated Energy and Climate Protection Concept (November 2012) and
- The Noise Reduction Master Plan (2008/draft 2014)

As a major economic factor and standard bearer of the City of Dresden, tourism also has to be taken into account in mobility planning.

→ Population development in Dresden (red) and neighbouring districts (green) between 1990 and 2025

↑ As a major economic factor and standard bearer of the City of Dresden, tourism also has to be taken into account in mobility planning
Taking the general requirements and analyses into account, the participants in the Round Table developed and discussed the goals for the Dresden SUMP. These were modified by the City Council committees and ultimately adopted by the Dresden City Council in March 2011. The four criteria are as follows:

**Criterion 1:** Enduring, sustainable and eco-friendly transport and mobility standards for citizens and the economy

**Criterion 2:** Socially just participation in mobility – taking into account specific needs resulting from differing living conditions – and thus equal opportunities for everyone to take part in society

**Criterion 3:** Achieving and maintaining high quality levels regarding the city and the environment by raising the efficiency of integrated transport systems and reducing the use of natural resources for transport purposes

**Criterion 4:** Mobility planning to be an open planning and decision-making process taking into account transport engineering, associations, transport providers, other social groups, officials, concerned citizens and various technical disciplines.

Thirty-four sub-goals define these criteria in concrete terms. They form the basis for developing suitable scenarios and measures.
4. Defining the status of mobility and transport in Dresden

Over the past 20 years, massive efforts have been made to expand the transport infrastructure in Dresden, and these are having a considerable impact on traffic flows in the city today. For example:

Third-party infrastructure

- Improvements to the A4 motorway in the city, including a new bridge over the River Elbe
- New A 17 Dresden – Prague motorway, including feeder roads
- New Elbe bridge at Niederwartha with effective links to Coswig/Radebeul and Niederwartha (Dresden)
- New S 177 from the Elbe bridge at Pirna to the A 4 motorway
- Improvements to the entire S-Bahn route from Schönä and Pirna to Meißen
- Renovation of Dresden Central Station and Neustadt Station as well as many other stations and stops (including disabled access)
- New Terminal II at Dresden Airport with improved access to road network and S-Bahn

↑ Maintenance and renovation of Dresden's Elbe bridges are an ongoing challenge (Albertbrücke renovated in July 2015)

New and renovated Elbe bridges in the city

- New Waldschlößchenbrücke linking to Stauffenbergallee
- Renovation of Marienbrücke with traffic artery in Köneritzstraße
- Renovation of Flügelwegbrücke with traffic artery in Washingtonstraße and step-free interchange at Hamburger Straße
- Renovation of Albertbrücke (work in progress)

Renovation/improvement of efficient traffic arteries in the main road network

- New traffic artery at Coventrystraße/Bramschttunnel/Nordtangenteorbitz/B 173
- New tunnel in Wiener Straße
- Improvements to Dohnaer Straße/Teplitzer Straße
- Improvements to the B 173 Bergstraße
- Improvements to the Weißeritzstraße/Löbtauer Straße traffic artery
- Improvements to Leipziger Straße and many other roads

→ Improved, higher capacity roads connect to the A 4 and A 17 motorways
Local public transport infrastructure

- New tram line from Plauen to Coschütz (Line 3 – Westendring)
- New Stadtbahn tram route to Penrich (Line 7)
- New tram route to Elbpark/Riegelplatz (Line 9/13)
- New tram line to the exhibition grounds, including a bridge over the floodway (Line 10)
- Renovation of main roads in city centre with emphasis on public transport (Bautzner Straße, Borsbergstraße/ Schandauer Straße, Bodenbacher Straße, etc.)
- Network-wide use of low-floor trams and buses by DVB
- Improvements to local public transport interchanges to include disabled access (Postplatz, Straßburger Platz, Jahnstraße at Dresden Mitte Station etc.) and improved disabled access at many other stops

Cycle routes and facilities

- Construction of new sections of the Elbe bicycle path
- Expansion of bicycle paths in stages throughout the main road network
- Bicycle lane and safety lane markings in main roads
- Incorporation of bicycle parking facilities ("1000 bicycle stands for Dresden" programme)

Other

- Construction of underground/multi-storey car parks in city centre (Neumarkt and Altmarkt, Karstadt, Altmarkt-Galerie, Centrum-Galerie, etc.)
- Development of a dynamic parking guidance system
- Expansion of Dresden traffic control centre and guidance and information system in stages
- Development of the coach parking guidance system
- HGV guidance concept and street map for HGVs

As you get older, playing an active part in community life is particularly important. But things often get in the way. I haven’t been able to drive a car or ride a bike for a while now. So as a wheelchair user I’m often dependent on help from other people or disabled-friendly solutions.

Gerlinde Kreyser
Senior citizen and wheelchair user, 75

Senior citizens travel by bus, tram, train, bicycle or car – but mainly on foot, becoming increasingly dependent on rollators, wheelchairs and walking aids as they get older. And as they want to stay in their own homes for as long as possible, safe, accessible footpaths and pavements are a must.

Klaus Kummer
Member of the City of Dresden Senior Citizens Advisory Board

← Ongoing improvements to conditions on the main road network for cyclists and public transport (Pirnaischer Platz)
Traffic development

Developments in mobility and transport over the past few years can be described using an excellent database which Dresden has at its disposal. One of the main sources for populating this database is the regular mobility survey entitled “System repräsentativer Verkehrsberufungen (SrV)” (system of representative transport surveys) run by TU Dresden. Dresden has been taking part in the five-yearly survey since 1972. In addition, 42 permanent counting stations situated across the entire city automatically register motor vehicle traffic. Public transport usage data is gathered by Dresdner Verkehrsbetriebe by means of systematic passenger counts. These and other statistics have resulted in the following findings:

Motorisation

While German reunification initially lifted the lid on pent-up demand for private cars in Dresden, as in the rest of former East Germany, the number of cars on the roads has stagnated since the mid-1990s. A very slight upturn has been seen since 2008, however, with just over 400 private and company cars to every 1000 Dresden residents in 2013. As a result of the growth in population, however, there are currently almost 20,000 more cars registered in Dresden than there were in 2008 (an increase of 10%).

Modal split among Dresden residents

Cars

The use of the car as a means of transport increased significantly between German reunification and the early years of the new millennium, reaching a peak in 2003 of 43% of all trips (based on the main form of transport on each trip). However, the proportion of cars using has fallen again since 2003 (2008: 41%, 2013: 39%).

On the other hand, the proportion of sustainable forms of transport – local public transport and walking/cycling – increased by the same proportion in the same period.

Cycling

It can have escaped very few people’s attention that there has been a significant increase in the number of bicycles on our roads since the early 1990s. The slight decline in 2013 compared with 2008 has less to do with cycling falling out of favour and more to do with the extreme weather conditions (long, snowy winters and a lot of rain). More and more people are tending to cycle in all weathers and even on longer journeys and for carrying goods.

Walking

After a marked decline in the early 1990s – a trend that was in evidence right across Germany – the proportion of pedestrians has also been increasing in recent years.

Local public transport

Also following a clear decline in the early 1990s, the share of public transport in the overall mix has stabilised again and is in fact increasing slightly at present. Given the current growth in population, it may be assumed that overall passenger numbers are set to increase significantly.
Transport volumes in the road network

There are permanent traffic counting stations at the bridges across the River Elbe and along trunk roads. Analyses of the data have revealed that car traffic, and in particular HGV traffic within Dresden dropped significantly with the opening of the A 17 motorway in 2005 following rapid rises in the 1990s. Despite dynamic urban development and growing population numbers, motor vehicle volumes in the Dresden city area have remained at a constant level since 2008.

Local public transport passenger numbers

Passenger numbers on trams, buses, ferries and mountain railways have risen constantly in line with the population growth over the past few years. Local public transport therefore plays an indispensable part in keeping the overall transport system fully functional.

Dresden’s S-Bahn has also registered continuous growth. Its passenger numbers increased by almost a third between 1998 and 2010.

Summary of developments in recent years

Traffic in Dresden has increased as a result of the dynamic developments that have taken place in the city over the past few years. The city has largely managed to accommodate this marked growth in traffic with sustainable means of transport (public transport, cycling and walking). Motor vehicle traffic has fallen slightly despite the growing population. This is in particular due to the following factors:

- With the increase in population density, distances travelled have become shorter and the supply infrastructure for daily needs has improved
- Road infrastructures leading to the city have been improved (in particular the new A 17 federal motorway and its access roads)
- Further expansion of the S-Bahn in the Dresden conurbation, with connections to major neighbouring cities and municipalities (particularly S 1 connecting Pirna, Heidenau, Radebeul, Coswig, Weinböhla and Meißen)
- The local public transport system has been constantly optimised
- The significance of cycling has increased considerably as a result of a change of image
Overview of the measures (selection, see pages 24 – 27)

Measures adopted before the SUMP 2025plus came into effect

1. Construction of missing sections of federal road S 177n between Pirna and the A 4 motorway
2. Construction of new federal road S 191n from Goppeln to B 170
3. Improvements to Königsbrücker Straße between Albertplatz and Industriegelände
4. New section of Emerich-Ambros-Ufer towards city centre in Altcotta
5. Improvements to Hamburger Straße from Weißenitzbrücke to Warthaer Straße
6. Improvements to the Magdeburger Straße/Weißenitzstraße intersection
7. New B 6n bypass at Cossebaude
8. Renovation and widening of Albertbrücke
9. Implementation of Stadtbahn Programme 2020 with three routes:
   Löbtau – Strehlen, Bühla – Weißig and Johannstadt – Innenstadt – Plauen
10. Construction of central stop at Tharandter Straße
11. Installation of two extra tracks on the Dresden – Radebeul/Coswig rail route and introduction of a 15-minute frequency on S-Bahn Line 1
12. New S-Bahn stop at Bischofsplatz in Dresden
13. Improvements to sections of the bicycle path and footpath along the River Elbe

Road network/traffic management/urban space

18. More traffic calming measures in tourist areas, pedestrianisation of Augustusbrücke and redesign of Neustädter Markt
19. Renovation/improvements to Stauffenbergallee from Königsbrücker Straße to Radeburger Straße
20. Link to the Dresden Ost science hub with new railway bridge and extension of Tiergartenstraße
21. Addition of second carriageway on B 172 up to the Heidenau motorway junction and construction of new link road at Sporbitz
22. Redesign of the area around the Blue Wonder bridge to improve urban spaces (and bicycle paths)
23. Continuation of Fröbelstraße as a single carriageway road to Freiberger Straße

Local public transport

27. New S-Bahn stops (Albertstadt, Königsbrücker Landstraße and Richard-Strauss-Platz)
28. New Stadtbahn route Strehlen–Schillerplatz via Zwinglistraße/Pohlandplatz
29. Regional railway to Ottendorf–Okrilla to be replaced by Stadtbahn connection
30. Systematisation/consolidation of rail services on the line to Coswig on the left bank of the Elbe and to Bischofswerda (with improvements to Klotzsche Berg)
31. Improvements to regional bus services to Bannewitz and Moritzburg
32. Construction of a central bus station (ZOB) at the central station

Cycling/other

40. Construction of bicycle stations at the central station and at Dresden-Neustadt station
42. Better bicycle path links to neighbouring municipalities
43. Review of Ostragehege – Altpieschen ferry route
5. Deficits and challenges

Despite the significant investments and efforts being made, there are still a large number of infrastructure deficits that will have to be tackled over the next few years. The adopted goals of the Dresden SUMP on sustainable development of the overall transport system give rise to other challenges. Particularly important are the requirements arising from environmental legislation, some of which are compulsory.

Some of the main deficits are listed below (as of 2015):

- Structural defects in roads and bridges
  - Königsbrücker Straße
  - Loschwitzer Straße
  - Sections of Hamburger Straße
  - Bischofplatz and Bischofsweg
  - Gerokstraße
  - Stauffenbergerallee between Königsbrücker Straße and Radeburger Straße
  - Augustusbrücke
  - Blue Wonder (long-term load capacity)
  - Nossener Brücke

All of these roads are also noise hotspots.

Road safety/accident hotspots

- Schillerplatz
- Postplatz
- Pirnaischer Platz
- Straßburger Platz
- Georgplatz

Overloaded junctions with major traffic congestion causing severe delays on public transport

- Schillerplatz/Körnerplatz
- Fetscherplatz
- Albertplatz
- Marienbrücke/Könneritzstraße traffic artery with several junctions
- Dreyßigplatz

Other deficits also exist, such as the following:

- Air quality limits exceeded in some areas
- Inadequate public transport provision in some areas
- Design shortcomings in public spaces
- Gaps in the bicycle route network
- Backlog in provision of bicycle parking facilities
- Poor pedestrian crossing facilities on some main roads
- Inadequate disabled access

Dr Christian Korndörfer
Head of City of Dresden Environment Office

Cleaner air, less noise and lower greenhouse gas emissions – these are major goals that we can only achieve with mobility focused on resource conservation. This is why the Environment Office has been involved in the Dresden SUMP right from the start.

We are supporting the SUMP and its strategic focus to a significant extent with our climate protection, noise reduction and clean air plans.

Poor quality roads, noise, airborne pollution and a lack of bicycle paths present a challenge for redevelopment and renovation work (Königsbrücker Straße)
However, the aims underpinning the Dresden SUMP do not only involve addressing the existing deficits from today’s point of view. There will be further challenges for the development of the transport system, in order to achieve dynamic, sustainable urban development that takes account of all important aspects in the future too. Of particular importance in this regard are:

- Transport-related requirements for further economic development
- Use of resources and environmental protection (including climate protection)
- Demographic developments
- Social balance (ensuring the participation of all population groups in society through mobility)
- Urban quality of life (quality of open spaces, environmental quality).

These challenges cannot always be eliminated with specific measures, since general conditions and goals may change. For this reason, the Dresden SUMP is made up of specific projects (action strategy) and strategies extending further into the future (Mobility Strategy 2025plus).

In the Dresden conurbation, stable surrounding communities and a region characterised by a strongly declining population contrast with the dynamic development going on in the City of Dresden. Against this backdrop, a balanced SUMP can help avoid higher volumes of motor vehicle traffic while at the same time offering the population and businesses the high-quality mobility they need. The SUMP 2025plus is a key foundation for this. However, the extent to which it can be implemented in stages will be decisive.

Dirk Ohm
IVAS Dresden
6. How can we achieve the goals? Scenarios as pathways to the future

All stakeholders in the planning process are usually quick to agree on transport planning goals. However, opinions are often divided as to the strategies and approaches required to meet them. In drawing up the Dresden SUMP, therefore, the transport planners used the so-called scenario technique, a method that allows the impact of various approaches to be worked out. Five different scenarios were looked at.

The “Baseline forecast 2025” scenario looks at how transport would develop if all projects in progress were to be implemented without any additional measures being taken. This scenario includes the following projects:

- Completion of federal road S 177n between Pirna and the A 4 motorway
- Construction of new federal road S 191n from Goppeln to B 170
- Installation of two extra tracks on the Dresden – Radebeul/Coswig rail route
- New S-Bahn stop at Bischofsplatz in Dresden
- Introduction of 15-minute frequency on S-Bahn line 1

The “Anyway case 2025” scenario also includes all the measures deemed to be implementable by 2025 by the various authorities responsible for road-building (federal government, federal state of Saxony, City of Dresden) – see the chapter on the Action Strategy 2025plus, described as “anyway measures” below. These include the following projects:

- Redesign of/improvements to Königsbrücker Straße between Albertplatz and Industriegebiet
- Improvements to Hamburger Straße from Weißenitzbrücke to Warthaer Straße
- New S-Bahn stop in Stauffenbergallee and at Nossener Brücke
- Continued gradual expansion of footpath and bicycle path network
- Construction of a new bridge over the River Elbe at Niederpoyritz
- Provision of step-free access at Stauffenbergallee/Königsbrücke Straße interchange
- Better links with the Dresden Ost science hub, with a bridge under the railway at Liebstädter Straße

In addition, three other scenarios were worked out which clearly set out the scope for action and development in Transport Development planning over and above the development that is likely to take place anyway.

Scenario A 2025 looks at what would happen if all “anyway measures” were to be implemented by 2025, including further expansion of the road network, but measures for pedestrians and cyclists and traffic calming measures were also to be put in place. Scenario A is therefore dominated by the general objective of “good accessibility with the focus on motor-vehicle traffic measures” and includes the following measures:

- Construction of a new bridge over the River Elbe at Niederpoyritz
- Provision of step-free access at Stauffenbergallee/Königsbrücke Straße interchange
- Better links with the Dresden Ost science hub, with a bridge under the railway at Liebstädter Straße
- New S-Bahn stop in Stauffenbergallee and at Nossener Brücke
- Continued gradual expansion of footpath and bicycle path network
Scenario B 2025 has a different goal in mind: “Good accessibility for all by improving short-range mobility and saving resources.” This scenario includes all “anyway measures” and also focuses more on promoting sustainable modes of transport (local public transport, cycling and walking). Below are some examples:

- Renovation of Blue Wonder and moratorium on construction of additional motor traffic bridges over the River Elbe until 2030
- Greater renovation of the main road network
- More frequent services on main Stadt­bahn lines
- Construction of four new S-Bahn stops
- Regional railway to Ottendorf – Okrilla to be replaced by Stadt­bahn line
- Low-cost public transport mobility options (concessional tickets etc.)
- Invest comprehensively in the footpath and bicycle path network

Scenario C 2025 includes the same projects as Scenario B. However, whereas Scenarios A and B are based on transport behaviour from today’s point of view, Scenario C assumes a change in behaviour resulting from higher mobility costs, greater environmental awareness and changed lifestyles. In this scenario, a change such as this, as can already be seen among today’s young generation, would be supported by concrete measures on the part of the City Council but would not be directly impacted by them.

What findings can be gained from the calculations in the various scenarios?

- Allowance should be made in the forecast for a significant increase in journeys in the urban area. This is not only the result of the growth in population but also the additional mobility options such as car sharing.
- Projects currently in progress (“baseline forecast” scenario) and projects already decided (“anyway” scenario) clearly demonstrate a balanced mix of measures between those focused on the road network and those focused on sustainable forms of transport. Despite the population growth in Dresden, the volume of traffic on the roads is declining.
- Investments focused too heavily on the road network will lead to rising demand in motor vehicle traffic beyond current levels, which would likely give rise to traffic problems (Scenario A).
- Investments in ecomobility and measures to improve mobility increase the share of sustainable forms of transport while at the same time improving the general conditions for motor vehicle traffic and helping to reduce pollution from traffic (Scenario B).
- If sustainable investments and measures impacting on mobility coincide with a behavioural change, the ambitious transport-related goals in the City of Dresden’s climate protection concept could also be reached.

Supplemented by selected Scenario A projects, following a comprehensive discussion it was ultimately decided to take Scenario B as the basis for the further elaboration of the Dresden SUMP.
In 2006 city transport planners drew up a mobility strategy for the City of Dresden consisting of four key modules following the principle of “Avoid – Move – Improve”. The aim was to minimise traffic, and in particular motor vehicle traffic, by optimally linking urban planning and transport planning. The most effective way of doing this is by achieving urban development that focuses on mixed use structures and the short paths and distances that these bring about. Unavoidable traffic should be accommodated with suitable forms of transport, giving priority to ecomobility (local public transport, cycling or walking) wherever possible. For this purpose, the substance of the existing transport infrastructure should be preserved and moderately expanded where doing so would bring about a specific improvement. Transport management should be used to optimise the use of infrastructure and minimise the impact of traffic on the environment. Finally, the aim of mobility management should be to help citizens identify the best form of transport to use for their day-to-day journeys with the least impact on the environment.

The Mobility Strategy 2025plus picks up on and elaborates upon these aspects, focusing in particular on the following:

■ Creating greater coordination between urban development, land-use planning and transport planning and developing more locations with easy access
■ Prioritising non-motorised traffic and public transport in order to achieve the energy efficiency, climate protection, clean air and noise reduction targets
■ Taking sufficient account of demographic trends and guaranteeing mobility and safety in traffic so as to enable as many citizens as possible to play an active part in society
■ Placing more emphasis on urban quality of life as a location benefit and developing the corresponding transport infrastructure
■ Designing transport infrastructures sensitively and to a high quality standard, taking the interests of all transport users into account
■ Promoting and interconnecting new, alternative forms of mobility (key words: multimodality, car sharing, electro-mobility, etc.)
■ Ensuring financial sustainability in the development of the transport system by securing its long-term existence as a priority
■ Improving the planning culture in Dresden by including stakeholders and the public in subsequent planning processes in a consensus-based manner (the production process of the SUMP has already generated real impetus in this area)
Furthermore, the Mobility Strategy 2025plus identifies a number of concepts that require elaboration or updating alongside the SUMP 2025plus. These include:

**Concepts underpinning individual forms of transport**
Examples: city-wide cycling concept, footpath network concept, concept for speeding up and increasing capacity on local public transport

**Incorporation of findings from the SUMP into existing urban development, transport and environmental concepts**
Examples: Update of HGV-guidance concept, clean air plan, framework urban development plans and development concepts for various locations

**Transport-related observations on development priorities and areas with special challenges**
Examples: in-depth studies on the possible extension of Fröbelstraße up to Bayrische Straße to create a better link to the upcoming Dresden Ost science hub and the redevelopment of Große Meißner Straße at Neustädter Markt

The Mobility Strategy 2025plus describes how to secure and further develop the long-term future of Dresden’s transport system beyond the action strategy of the SUMP 2025plus.
8. Key projects in the action strategy

The Dresden SUMP 2025plus contains a large number of projects involving improvements to infrastructure and services for all forms of transport, some of which are described below. The complete list can be found under the reference numbers shown in Annex 6.2 to the Dresden SUMP at www.dresden.de/vep.

Some projects that were decided before the SUMP was drawn up form key elements of the SUMP 2025plus (“anyway measures”). Some of these are third-party projects by the Free State of Saxony, the Federal Government and Verkehrsverbund Oberelbe.

1. Construction of missing sections of federal road S 177n between Pirna and the A 4 motorway (M 3)
2. Construction of federal road S 191n from Goppeln to the B 170 (M 4)
3. Renovation of and improvements to Königsbrücker Straße between Albertplatz and Industriegelände (M 24)
4. New section of Emerich-Ambros-Ufer towards city centre in Alcotta (M10)
5. Improvements to Hamburger Straße from Weißenitzbrücke to Warthaer Straße (M 16)
6. Improvements to the Magdeburger Straße/Weißenitzstraße junction (M 23)
7. New B 6n bypass around Cossebaude (M 13)
8. Renovation and widening of Albertbrücke (M 15)
10. Construction of central stop at Tharandter Straße (M 21)
11. Installation of two extra tracks on the Dresden–Radebeul/Coswig rail route and introduction of a 15-minute frequency on S-Bahn Line 1 (M 2)
12. New S-Bahn stop at Bischofsplatz in Dresden (M 14)
13. Improvements to sections of the bicycle path and footpath along the River Elbe (M 22)
14. Expansion of the VAMOS Level II traffic management system (M 17)

These measures will be accompanied by a range of projects designed to further improve road safety in Dresden.

In addition to the measures already taken as part of Dresden SUMP, there are 102 projects classified as priority levels A to C. These include infrastructure, supply-side (local public transport), design and mobility-related measures and administrative requirements.

Road network/transport management/urban space

15. Channelling road traffic in the efficient main network (M 63)
16. Providing car sharing parking spaces in public traffic areas in the future (M 64)
17. Expanding the traffic control centre in line with demand (M 67)
18. Increased traffic calming measures in key tourist areas, pedestrianisation of Augustusbrücke and redesign of Neustädter Markt (M 83)
19. Renovation/improvements to Stauffenbergallee from Königsbrücker Straße to Radeburger Straße (M 104)
20. Linking the Dresden Ost science hub with a new railway bridge and extending Tiergartenstraße to Oskar-Röder-Straße (M 105)
21. Setting aside land for the addition of a second carriageway on the B 172 to the Heidenau motorway junction and construction of a new link road at Sporbitz (M 135)
22. Upgrading the area around the Blue Wonder to create a higher quality public space (M 84)
23. Continuation of Fröbelstraße as a two-lane road to Freiberger Straße and Rosenstraße (M 130)

† Efficient main road network: a key requirement for the development of the local economy
Local public transport

- Concentration of tram services in line with environmental targets and the needs of the changing population (M 41)
- Lower-cost mobility options in local public transport, such as concessional fares and tourist offers (M 119)
- Improving disabled access at stops and on vehicles, target 100% by 2022 (M 78)
- New S-Bahn stops (Albertstadt, Königsbrücker Landstraße and Richard-Strauss-Platz) (M 45/46)
- New Strehlen–Schillerplatz Stadtbahn route via Zwinglistraße (M 99)
- Regional railway to Ottendorf-Okrilla to be replaced by Stadtbahn connection (M 81)
- Systematisation/consolidation of rail services on the line to Coswig on the left bank of the Elbe and to Bischofswerda (M 42/M 100)
- Improvements to regional bus services to Bärenwitz and Moritzburg (M 80)
- Speeding up local public transport by controlling traffic at junctions (M 101)
- Construction of a central bus station (ZOB) at Dresden central station (M 109)

Accessibility and pedestrian traffic

Pedestrian infrastructure projects are usually very small scale. The Dresden SUMP cannot take them into account individually but sets the central agenda for them. The following starting points and measures have been given priority:

- Stronger integration of pedestrian traffic on an equal basis in projects in public spaces (M 29)
- Development of a city-wide pedestrian network concept (M 31)
- Development of more detailed transport concepts for individual districts, giving greater priority to pedestrian traffic and disabled access (M 31)
- Better pedestrian crossing facilities (centre islands, pedestrian crossings) and short waiting times at traffic lights (M 32/M 33)
- Continuation of the pavement programme, taking the needs of less mobile people into account (M 34)

Supplementary programmes and projects are being developed for the individual aspects, with a view to defining specific structural and organisational measures.

Efficient urban railways, green tram tracks, hybrid or electric buses, a multi-branched network of lines – all factors that make local public transport in Dresden environmentally-friendly and attractive and make the city a great place to live. And that’s why we intend to expand the Stadtbahn network and our services. The SUMP provides an important foundation for this.

Reiner Zieschank
Director of Finance and Technology, Dresdner Verkehrsbetriebe AG

The general financial conditions play a key role in the implementation of the measures in the Dresden SUMP. From a practical point of view, the City of Dresden must set priorities and have the courage to implement political strategies. Highly efficient, safe traffic routes and mobility services that serve all interests and all users are a fundamental precondition for the economic upturn.

Ursula Strohbach
Head of Traffic, IHK Dresden
Innovations in all areas of mobility and transport development will be pursued at the Dresden Transportation Engineering location. From today’s point of view, priority will be given to approaches that:

- Provide better information for services that link different forms of transport (M 140)
- Establish electric vehicles, for example in city logistics and bicycle courier services, with the City Council pioneering the use of electric vehicles by gradually switching its vehicle pool, and introducing them in local public transport, including buses (M 144/M 146)

Innovative ideas that promote cycling and walking are also called for (space-saving, high-capacity bicycle parking facilities, better road safety for pedestrians, etc.).

Bicycle traffic

The SUMP also contains basic targets for cycling, a selection of which are given below:

- Improve year-round availability of bicycle paths (M 48)
- Set up bicycle stations (Central Station, Dresden-Neustadt station) and other bicycle parking facilities throughout the city in order to substantially improve bicycle parking (M 49/M 53)
- Develop bicycle superhighways as part of the cycling concept (M 51)
- Improve tourist offerings, including completing the bicycle path and footpath on the right bank of the Elbe at Loschwitz/Pillnitz and Übigau, provide facilities at Junge Heide—Kaditz—Elbe, and improve links to neighbouring municipalities (M 58/102)
- Review the ferry service between Ostragehege and Altpieschen with particular reference to pedestrian and bicycle traffic (M 110)

The cycling concept for the City of Dresden, which complements the SUMP 2025plus (still in development at the time of publication), contains various concrete projects.

Mobility management and innovation approaches

While less priority will be given to projects on expanding the infrastructure in the future, the priority of those involving mobility measures will increase. Above all, the emphasis will be on using the best (and most environmentally-friendly) form of transport for day-to-day journeys. This is uncharted territory in many areas and calls for ideas as well as the courage to innovate and experiment. The aim of innovation in this context is to constantly monitor current developments and use them as the basis for creating new approaches. TU Dresden and the Fraunhofer Institute for Transportation and Infrastructure Systems offer an excellent scientific setting for this.

Within the field of mobility management, emphasis should be placed on developing the following approaches in particular:

- Strengthening the City of Dresden mobility team (M 36)
- Promoting new mobility services through mobility management at company level (M 36)
- Establishing mobility management for key commercial sites with large numbers of small and medium-sized businesses (M 36)
- Continuing and extending "Jobtickets" and "Semestertickets" (M 37)
- Setting up intermodal mobility hubs intersecting with car sharing, cycle hire and electro-mobility as an alternative to and alongside the use of private cars (M 141)
Elbe river crossings and setting aside space

Situated as it is on the River Elbe, bridges play a particularly important role in Dresden. With the construction of new river crossings in the Waldschlößchenareal in Dresden, in Pirna and in Niederwartha, crossing the river from the residential area in the upper Elbe valley to the other side has become a whole lot easier. Renovating existing bridges will also play a role in this in the future. The greatest challenges lie in the renovation of the Augustusbrücke in the short term and the Loschwitzer Brücke (Blue Wonder) in the medium term. And despite the fact that the Blue Wonder, with Schillerplatz and Körnerplatz, will remain at its capacity limit for the foreseeable future, according to the scenario calculations there is no urgent need for additional river crossings in the form of bridges or tunnels before 2025. The specific circumstances of the urban landscape and natural spaces make it unlikely that there will be any new construction to relieve pressure in the immediate vicinity of the river over the next 15 to 20 years. Projects to relieve the pressure on the Blue Wonder are therefore gaining in significance (e.g. improved local public transport links to Bühlau–Weßig).

Space should be set aside for future developments in the city area, such as an additional bridge to the west of Marienbrücke (the “3rd Marienbrücke”) or a bridge along the extension of Erfurter Straße.

I commute around 30 km a day by public transport between my home and my work in Dresden. In future I hope that there will still be an attractive public transport system serving the towns and rural areas surrounding Dresden and that it will be speeded up and given priority. After all, as a commuter you don’t want to be spending your precious leisure time sitting in buses and trains for hours on end.

Andrea Sandig
Local commuter

Getting there quickly and safely in any weather: an efficient tram and bus system plays an important role in our day-to-day routines and helps us lead active lives. Cycling as an alternative: safe, clearly marked bicycle paths will help lots of people get to their destinations quickly and independently.

Eric and Paul Thielemann (both 17)
A plan is only worthwhile if it achieves something. Over the next few years it will be important to take the right steps while keeping within the available budget. The fact that the SUMP 2025plus provides for various options and classifies projects by priority gives the city an effective toolkit to work with.

It will be up to local politicians and administrators to gradually prepare for the projects that are necessary and most suitable for implementing the Dresden SUMP. Alongside the planning objectives, the City Council will also keep an eye on current developments. It should also be investigated to what extent the general conditions that formed the basis for the SUMP 2025plus still apply, and whether the goals can be achieved with the implemented measures.

As the Dresden SUMP is phased in, it will be important to monitor the actual impact it is having so as to enable the City Council to make adjustments where necessary (keyword: monitoring/evaluation).

A substantial basis is provided by the following:

- Repeated traffic censuses counting motor vehicle and bicycle traffic and local public transport passenger numbers
- Periodic mobility survey “Mobilität in Städten – SrV” (Mobility in Cities)
- Measurements of motor vehicle journey times in the road network
- Analyses of hindrances to trams and buses
- along with numerous other systematically recorded data and indicators

Making adjustments may mean reviewing priorities in the implementation of projects in the SUMP 2025plus or even updating the plan itself. In the future, the SUMP will continue to deliver important starting points for ensuring sustainable mobility and transport for all citizens, creating even more favourable conditions for the development of the local and regional economy, reducing or avoiding environmental pollution from traffic and, last but not least, further improving the quality of life in Dresden.

The city administration will keep the City Council and the public properly informed about the progress being made in implementing the SUMP 2025plus and the impact it is having.

With the extension of S-Bahn line S 1, conditions for the many commuters from and to the surrounding areas will improve.
Anyone who is mobile in our city is a transport user. It is therefore essential to represent the complexity of transport developments in a transparent, cohesive and comprehensive way in order to be able to identify trends.

This is precisely what the Dresden SUMP 2025plus does. Alongside various strategic goals, it sets out concrete goals that are important for preserving the traffic infrastructure, such as renovating bridges and roads, and particularly pavements and bicycle lanes. It is also important to improve traffic information and guidance systems and to manage capacity utilisation in existing traffic areas in a way that best meets everyone’s needs, with the additional effect of reducing traffic noise and airborne pollution.

We also have other complex construction projects ahead of us in the form of Stadtbahn 2020. In future we intend to focus more on cycling traffic and making transport facilities more accessible. Being home to a University of Applied Sciences, we want to continue to get the most out of our proximity to science and innovation.

Preserving the existing infrastructure will keep our financing requirements at a high level. It will be interesting to see how the implementation of the ambitious goals and plans of the SUMP 2025plus over the next few years will work in terms of the city budget.

A large number of other areas of transport will be incorporated into this plan, with corresponding goals formulated. The present SUMP is therefore an important technical concept for all the players, stakeholders and interested parties who want to help shape transport processes in our city.

Prof. Reinhard Koettnitz
Head of the City of Dresden Road Construction and Civil Engineering Office
Video documentation

The process of producing the Dresden SUMP has been documented on video. The video can be seen at www.dresden.de/vep and features interviews with several of the key players.
The European Commission in Brussels awarded the Dresden SUMP 2025plus second place in its SUMP Award 2014, the European prize for Sustainable Urban Mobility Planning.

www.dresden.de/vep