



Oslo

Green Mobility Plan for Oslo





Photo: Rikke Dahl Monsen/Oslo kommune

Foreword

Every single day, hundreds of thousands of Oslo residents make their way through the city. To work and school, kindergarten and exercise, to visit friends and family. How we choose to travel shapes our city, the air we breathe, the streets we move through, our own health, and how much space is left for play, urban life, parks, and nature.

Good, green, and efficient mobility services are the key to a modern and sustainable city, where people can live good lives and businesses thrive, whilst minimising the impact on nature and the climate.

With Oslo's first comprehensive green mobility plan, the City Government is setting out an even clearer direction for transport planning. Moving away from working with different modes of transport in isolation, we want a holistic approach in which various policy instruments and mobility services work together to make Oslo an even better city to live in and get around.

The City Government proposes a long-term goal of 85% of all journeys in Oslo being made on foot, by bicycle, or by public transport. This means better health, safer neighbourhoods, and less congestion, emissions, and pollution. The city must work just as well for children and students as it does for pensioners, teachers, and shift workers, regardless of where in the city they live and where they are going. To achieve this, we need both a clear direction and a flexible approach. We must use scarce resources and land as efficiently as possible, and adapt mobility solutions to the conditions in the different parts of the city.

A cornerstone of the plan is that transport policy is to support other key objectives of the City, such as better public health and quality of life, safer neighbourhoods, reduced social inequality, more nature, lower emissions, and favourable conditions for urban life and local businesses.

More active travel, on foot and by bicycle, has enormous health benefits. The City Government therefore wishes to facilitate even more people walking and cycling easily and safely,

particularly on short everyday trips. We want to offer such a good and attractive range of public transport services that people choose buses, trams, and the metro whenever they can. This will also leave room for cars on journeys where there are not yet good alternatives.

As fewer people drive day-to-day, we must ensure that those who deliver goods and services can get around both safely and efficiently. That is why commercial transport and logistics are an important part of the mobility plan.

Oslo has already come a long way. Over the last 20 years, Oslo's population has grown by almost 200,000, without an increase in car traffic. Across changing political majorities, we have stayed the course. We have built one of the world's best public transport services. Trams, buses, and the metro have gained thousands of new travellers. More and more people are choosing to use bicycles or walk, and our car fleet is among the greenest in the world. In Oslo, we have shown that a modern metropolis can grow without being choked by congestion, chaos, and pollution.

But we are not there yet. Oslo welcomes new residents every single year, and as this plan shows, there is potential for even more Oslo residents to walk, cycle, and use public transport in their daily lives.

I hope you will take the time to read this plan and share your perspectives and opinions. We need your feedback to make it even better. The aim is to present a final plan for consideration by the City Council by the end of 2026.

Enjoy!

Marit Veia (V)

Vice Mayor for Environment and Transport, City of Oslo



Photo: Olav Helland/Oslo kommune

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Introduction

The City of Oslo has ambitious targets for reducing greenhouse gas emissions and traffic. The municipal master plan aims to ensure that the city's residents view climate- and environmentally friendly transport solutions as the natural first choice. Mobility services and the transport system are central to the development of an efficient and sustainable city, where people can live good lives and businesses thrive, whilst minimising the impact on nature, the climate, and the environment. The green mobility plan is a policy instrument for achieving a holistic perspective across sectors. The plan sets out principles, measures, and policy instruments for mobility planning in Oslo. It establishes a framework for further work on green mobility and mandates the City's departments to continue working on measures that contribute to achieving these goals.

The green mobility plan is a thematic plan, in accordance with the planning strategy for the City of Oslo 2024–2027, and is based on the principles of Sustainable Urban Mobility Plans (SUMP). SUMP is a European planning tool and framework for sustainable mobility for residents and businesses in urban areas. The SUMP framework builds on existing planning practices and incorporates principles of participation and evaluation. This means that the thematic plan's policy instruments and measures must be evaluated regularly, and the evaluations used to improve the plan. Over time, this will contribute to a more sustainable development of the mobility system in Oslo.

The SUMP framework has been applied in various ways across several European urban areas. It must be adapted to Oslo's opportunities and challenges, as well as to the City's organisational responsibilities. SUMP plans should preferably apply to the entire functional urban area, i.e., Oslo and neighbouring municipalities with significant commuting to Oslo. The green mobility plan covers the City of Oslo. The 2015 Regional Plan for Land Use and Transport for Oslo and Akershus is being revised in parallel with the green mobility plan. Together, these two plans will cover the functional urban area and, taken together, constitute Oslo's SUMP.

The plan is also closely linked to Oslo's participation in Oslo Package 3 (a long-term, largely toll-financed transport investment programme for Oslo and Akershus) and the urban growth agreement. These agreements serve several purposes in the City's work on green mobility, in addition to being sources of funding for public transport services and road measures in both Oslo and Akershus. They are also important arenas for coordinating policies and policy instruments in both Oslo and Akershus, as well as those from the central government. Achieving objectives in Oslo is closely linked to traffic and urban development in the municipalities surrounding the city, and a shared understanding of the relationship between objectives and the use of policy instruments is absolutely crucial.

The green mobility plan addresses the City's role as a democratic arena, service provider, community developer, and regulatory authority. It is cross-sectoral, and the objectives and measures in the plan affect all areas of the City's activity, whether it concerns the provision of health services, the planning of schools and kindergartens, or City procurement.

How we have worked on the plan

The City Government began work on the plan in 2024. The Agency for Urban Environment, the Agency for Planning and Building Services, the Agency for Climate, and Ruter (the public transport authority for Oslo and Akershus) were tasked with jointly developing a technical basis for the further work on the thematic plan. In developing this technical basis, the agencies sought assistance from Asplan Viak. Previous strategies and studies, such as the climate, public health, walking, and cycling strategies, as well as the evaluation of the cycling strategy, have also formed part of the knowledge base for the plan. In addition, researchers at the Institute of Transport Economics have provided input on urban logistics.

The draft plan has been prepared by the City Government Department for Environment and Transport, with assistance from the City Government Department for Urban Development and the Mayor's Office. Throughout the process, there has also been contact with the other City Government departments. The work also builds on findings from the Move21 project, which the City of Oslo led.

There has been extensive public participation in the work on the draft plan. At the start of the planning process, an open consultation round was held, during which the public was invited to submit written comments. The Vice Mayor for Environment and Transport held an open consultation meeting with participants from a wide range of interest groups, the business sector, the City's advisory councils, and relevant public bodies outside the City of Oslo. Through the 'Business for Climate' network, a workshop on urban logistics was held to ensure that the business sector's perspectives were taken into account in the planning work. Furthermore, five open breakfast meetings were organised on topics related to the plan, funded by Move21. The City also arranged a session on the planning work in the Transport Tent during Arendalsuka 2025 (Norway's largest annual political gathering). In addition, the City Government Department has held numerous meetings with stakeholders.

The City Government is now sending the draft plan out for public consultation before the final thematic plan proposal is presented to the City Council in autumn 2026.



Description of the situation

Passenger transport in the City of Oslo has improved over many years, with more people walking, cycling, and using public transport, whilst greenhouse gas emissions and local air pollution have fallen. Car traffic has not increased despite population growth. The challenge ahead will be to continue this positive trend at a time when the population is growing and the City’s financial scope for action is shrinking.

The City of Oslo has long pursued a coordinated land-use and transport development strategy in which growth is to take place from the centre outwards and which supports the public transport system through densification around transport hubs. There has been a major focus on public transport services since the early 2000s, including extensive provision for bicycles, and measures to improve conditions for pedestrians. This policy has yielded good results, and figures from the 2022–2023 travel survey show that 73% of all journeys in Oslo are made on foot, by bicycle, or by public transport.¹

The establishment of Ruter in 2008 as a joint public transport company for Oslo and Akershus has led to public transport services being planned and marketed across municipal and county boundaries. The Oslo Package 3 funding agreements and the urban growth agreement for Oslo and Akershus reflect the long-term priorities for investment in and operation of transport initiatives in Greater Oslo and provide predictable funding for these. The national zero-growth target for passenger car traffic is a key premise of the urban growth agreement, and regional planning cooperation is a central policy instrument for achieving this target. The target entails that ‘greenhouse gas emissions, congestion, air pollution and noise shall be reduced through efficient land use, and that growth in passenger transport shall be met by public transport, bicycles and walking’.² The zero-growth target applies to private car transport; there are no similar national targets for commercial transport.

¹ Agency for Urban Environment. 2025. Reisevaner i Oslo: Rapport basert på den nasjonale reisevane undersøkelsen 2022/23 (Travel habits in Oslo: Report based on the 2022–2023 National Travel Survey)

To date, the zero-growth target has largely been met in Oslo. Passenger car traffic has remained at roughly the same level since 2007. During the same period that car traffic has seen zero growth, Oslo has gained over 160,000 residents, and Akershus around 200,000.³ Many people from Akershus commute into Oslo. Since 2013, the proportion of journeys made by bicycle in Oslo has almost doubled, and the proportion made on foot has risen to nearly 40%. Public transport saw significant growth until the pandemic in 2020. In 2025, the number of public transport trips is back at roughly the same level as before the pandemic, but with a lower share of total transport work (the total volume of travel, measured in passenger-kilometres). Analyses of travel surveys for Oslo show that many short journeys are made by car or public transport, and that there is potential to shift some of these journeys to active travel modes such as walking and cycling.¹

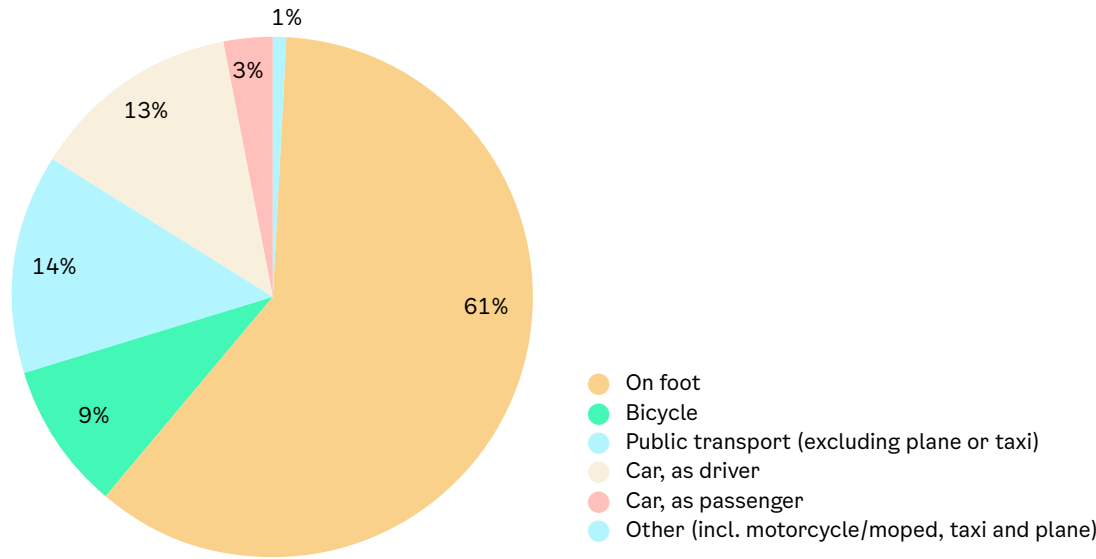


Figure 1: Modal split for journeys under 5 kilometres. Residents of the City of Oslo. Does not include journeys undertaken to accompany adults or to purchase large items/goods. Travel survey 2022–2023.

Over several decades, strong national and local policy instruments have been used to phase in zero-emission vehicles. Some of the most important policy instruments have been financial incentives such as tax policies, lower toll rates and cheaper parking, access to public transport lanes, and the expansion of charging infrastructure. These policy instruments have helped to more than halve annual greenhouse gas emissions from passenger car traffic in Oslo between 2009 and 2023. In 2024, 41% of the car fleet in Oslo was electric. Greenhouse gas emissions from vans have fallen by 14% since 2009, whilst emissions from heavy goods transport have risen by 9% over the same period.⁴ Both vans and heavy vehicles have begun transitioning to zero-emission and biogas. Still, the transition is at a relatively early stage, and, for the time being, increased driving has partly offset the emission reductions.

Oslo is Norway’s largest labour market and a regional hub for trade, services, and logistics. A well-functioning mobility system is therefore a key prerequisite for value creation and business development in the city and Greater Oslo.

Different parts of the city have distinct patterns of transport-mode use, influenced by factors such as access to transport, urban structure, and demographic composition. This highlights the need for locally tailored, targeted mobility planning adapted to the specific challenges in different parts of Oslo.

² Norwegian Public Roads Administration, Om nullvekstmålet og oppfølging av avtalene (On the zero-growth target and follow-up of the agreements)

³ Norwegian Public Roads Administration. 2024. Vegtrafikkindeksen: Trafikkutviklinga i Noreg 1995 – desember 2024 (Road Traffic Index: Traffic trends in Norway 1995–December 2024)

⁴ Norwegian Environment Agency, Utslipp av klimagasser i Norges kommuner og fylker (Greenhouse gas emissions in Norway’s municipalities and counties)



Figure 2: Modal split in Oslo's districts broken down by bicycle, walking, public transport, and car use in 2022–2023. Source: Agency for Urban Environment 2025¹

Oslo of the Future

Visions and objectives for the Oslo of the future

The green mobility plan underpins the societal section of the municipal master plan, with the urban development strategy 'Sammen skaper vi verdens beste by' (Together We Make the Best City in the World) adopted by Oslo City Council (case 85) on 30 April 2025. The societal section of the municipal master plan emphasises that public health must be central to everything the City does, and this also applies to mobility planning. The societal section defines six societal challenges, and the following three are particularly relevant to this plan: the climate and nature crisis, the challenging housing market and a sustainable city, and poverty and rising inequality.

The following objectives have been set for the green mobility plan: The mobility system is to support a vibrant, efficient, and green city and help resolve societal challenges in the transport sector.

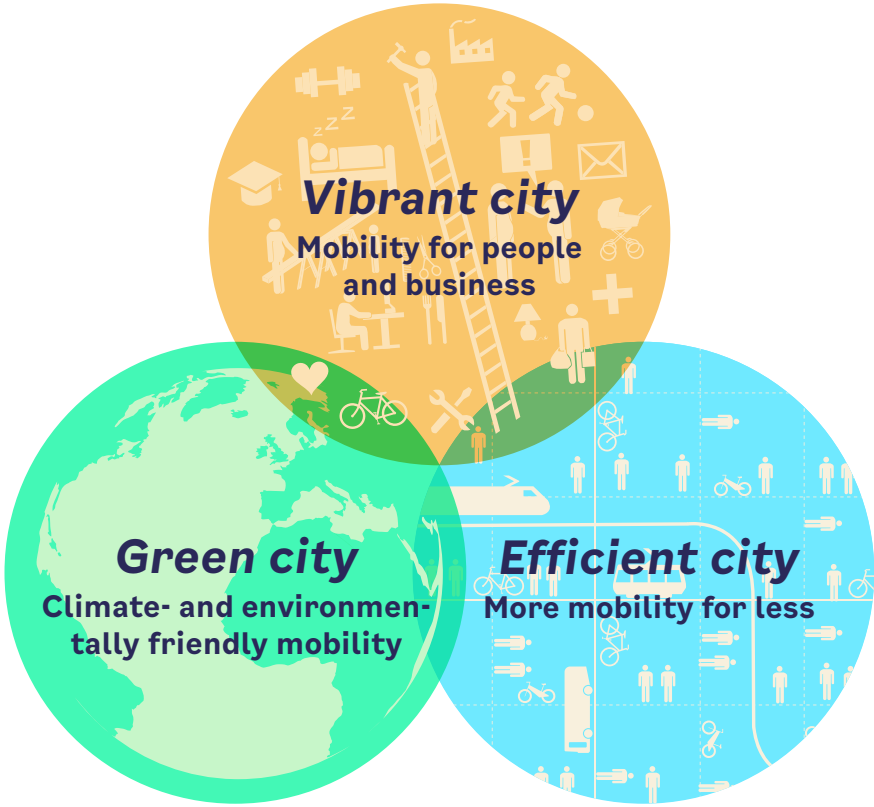


Figure 3: Three objectives for green mobility, based on the fundamental pillars of social sustainability, environmental sustainability, and economic sustainability

A vibrant city has good mobility solutions for all sections of the population and for all parts of the city.

Good mobility solutions reflect the city Oslo wants to be: a vibrant city that is attractive to people and businesses. Mobility services are to help ensure that today's urban areas function well, but mobility is also a key factor in area development. Together with land-use policy, the

mobility system sets important parameters for the development of good residential areas, future-oriented workplaces, and well-functioning urban logistics.

Active mobility promotes health and has positive environmental and climate effects. Oslo will have mobility services that help everyone to participate in society and, as far as possible, choose active and environmentally friendly travel modes. Mobility is a fundamental human need, enabling people to lead good and active lives and ensuring that society functions. Mobility contributes to public health through participation in society and activity. Physical activity also contributes to significant socio-economic health benefits. Active travel has a positive effect on the health and learning of children and young people, and lays the foundation for good habits in the future. The evaluation of Oslo's cycling strategy shows that the City has not succeeded in making Oslo a good cycling city for children and young people, and there is therefore a need to strengthen efforts aimed at the youngest members of society.

A significant increase in both the number and proportion of older people in the population is expected in the future. Many older people today have better functional capacity than in the past, but with increased life expectancy, many live for a long time with chronic illnesses and reduced functional ability. Enabling active travel for older people will promote health and help ensure opportunities for participation in society.

Public health benefits can also be achieved among those who carry out goods and commercial transport in Oslo, in both the private and municipal sectors, for example, by shifting more transport assignments to active travel modes. It is also important to reduce the negative effects of traffic on public health, such as air and noise pollution and road accidents.

A green city has a mobility system that produces the lowest possible emissions, maximises efficient land use, preserves natural values, provides space for nature, and contributes to a good local environment. Oslo's mobility solutions must support the city's green and blue infrastructure and be adapted to the challenges ahead related to climate vulnerability and the environment. Mobility solutions must also contribute to a climate-resilient city.

The climate and nature crisis is one of the greatest challenges facing society. The climate in Oslo is already warmer and wetter, precipitation patterns are changing, and there are more frequent and heavier cloudbursts and snowfalls. Climate change leads to more stormwater and flooding, an increased risk of erosion and landslides, and challenging winter conditions. To manage these events, streets and adjacent infrastructure must be built to withstand a changing climate, not just at the time of construction, but throughout their entire lifespan. New infrastructure must help to reduce surface water problems.

Parts of the street network are also critical infrastructure that must function in crisis situations, for example, during evacuations or flooding. An important measure for tackling climate change is both to make more room for nature in the city and to preserve existing nature in the city's streets. Trees and other vegetation contribute to well-being and make the streets more attractive, especially for those travelling at low speeds.

An efficient city has good systems to ensure resources are used purposefully, with an emphasis on making the most of available space, existing infrastructure, and modes of transport on roads and railways. An efficient city has good solutions for urban logistics so that goods and services reach the right place, at the right time, and with the right vehicle. This also includes municipal operations, such as waste collection and snow clearance in winter. There are clear economic benefits to conserving resources and utilising existing infrastructure as effectively as possible. Efficient and simple mobility solutions for residents, workers, and visitors are vital for Oslo's business community. At the same time, efficient urban logistics and business-related transport must cause as little disruption as possible to residents and urban life.

Efficient use of infrastructure is both economically efficient and a goal in itself. Congestion means that residents and businesses spend a significant amount of time travelling from A to B. The time lost in traffic affects both local value creation and productivity, and represents significant socio-economic costs. With the highest possible utilisation, each individual journey becomes cheaper, whilst also generating socio-economic benefits, such as health benefits and reduced congestion costs. This requires the transport system to be organised so that each individual journey is made in the most appropriate manner — short journeys by bicycle or walking, and longer journeys by public transport or by car when absolutely necessary. Congestion is not a phenomenon that can be resolved simply by building more, but must be addressed through well-targeted, safe, and efficient traffic management and good alternatives to the car.

Economic incentives are an important policy instrument for transforming the transport system. They can be used to effectively influence travel behaviour. At the same time, economic instruments must be used with care to ensure they do not exacerbate inequality and social exclusion.

New technology is of great significance for the future mobility system in Oslo. The mobility system must be built on research findings, new data-driven knowledge, and developments in society. New technology can, for example, contribute to better utilisation of existing infrastructure and modes of transport, or to entirely new services. Technological development is accelerating, and technological advances have the potential to bring about significant societal shifts. In many cases, research and development activities can also help accelerate the city's transition.

Main objectives for green mobility in Oslo

Over many years, the City of Oslo has drawn up several plans and sub-strategies. These sub-strategies, each built on a sound technical basis, are aligned with the objective of developing better solutions and achieving goals in their respective fields. One challenge of not viewing these in context is that conflicting objectives may arise. To avoid this, two overarching main objectives have been defined:

- ▶ That the city's residents see climate- and environmentally friendly modes of transport as the natural first choice
- ▶ That the City enables zero-emission and efficient urban logistics with the least possible disruption to urban life and residents

These main objectives are specified as follows:

- ▶ 85% of all passenger journeys will be made by walking, by bicycle, or by public transport
- ▶ Overall, traffic involving passenger cars, vans, and trucks must not increase in Oslo compared with 2025
- ▶ A larger proportion of short journeys will be made by walking and by bicycle
- ▶ The impact of heavy vehicles on road safety, air pollution, and noise pollution must be minimised

In addition, the following targets from Oslo's climate strategy for 2030⁵ form the basis for the work on green mobility:

- ▶ All passenger cars and vans on Oslo's roads must be zero-emission by 2030
- ▶ All heavy goods transport in Oslo must be zero-emission or use sustainable renewable fuels by 2030

⁵City of Oslo. 2020. Klimastrategi for Oslo mot 2030 (Climate Strategy for Oslo towards 2030)

Passenger journeys in Oslo are to be made primarily by walking, by bicycle, and by public transport. In 2023, the proportion was 73%. 85% of all passenger journeys is an ambitious but achievable target. Oslo has committed to zero growth in passenger car traffic. With population growth in Greater Oslo, zero growth in passenger car traffic will necessarily mean that the shares of journeys made on foot, by bicycle, and by public transport must increase in line with the population increase. A common goal for the whole city does not mean that all parts of the city should have the same modal split. There are different challenges relating to traffic, modes of transport, and travel patterns in the inner and outer city, and the use of policy instruments must be adapted accordingly.

The government's current zero-growth target does not cover commercial and service transport. Urban logistics and passenger transport must be viewed in context. The overall traffic load determines how the city's land is allocated and how the city is experienced by its residents. At the same time, a definitive requirement to reduce commercial traffic would be both unrealistic and impractical. It would also impose unreasonable restrictions on business in Oslo. A reduction in passenger traffic could in itself create increased demand for commercial transport. If the overall traffic load is not to increase, passenger car traffic must be reduced, whilst urban logistics must be optimised. Since commercial traffic accounts for a significantly lower traffic volume than passenger car traffic, an increase in commercial traffic would have to be offset by a proportionally smaller reduction in passenger car traffic. Further growth will pose challenges for road network capacity, traffic flow, and urban life. Such an expanded zero-growth target reaffirms Oslo's ambition to reduce traffic whilst appropriately incorporating commercial traffic.

The aim of increasing the proportion of short passenger journeys made by cycling and walking is to support more targeted efforts to shift journeys from cars and public transport to bicycles and walking where the potential is greatest. In 2024, 20% of car journeys were under 3 km.¹ This corresponds to a 30-minute walk or a 10-minute bicycle ride. Shifting the shortest public transport trips to cycling and walking will also free up capacity in public transport services, which both saves resources and can make the service more attractive for longer journeys.

The City of Oslo is working towards a vision of zero people killed and seriously injured in traffic. Heavy trucks (over 7.5 tonnes) in mixed traffic with vulnerable road users pose a road safety risk. Minimising the impact means that the use of heavy vehicles in the dense city must be organised in a way that minimises the risk to other road user groups, whilst ensuring that the need to use this type of vehicle is met. This can be achieved, for example, by setting requirements for vehicle design and safety equipment, regulating when and where heavy vehicles may be used, and by establishing safe, separate infrastructure for vulnerable road users.

Sub-objectives

This plan contains a number of policy instruments which, together, will ensure that the City achieves the goals it has set. These will be evaluated based on indicators to be developed in line with the established sub-objectives. Ten sub-objectives have been defined:

- 1. Reducing greenhouse gas emissions
- 2. Zero people killed and seriously injured in traffic in Oslo
- 3. More people will cycle more
- 4. More people will walk more
- 5. A higher proportion of long journeys will be made by public transport
- 6. Develop a coherent cycle network
- 7. Less noise and air pollution
- 8. Sufficient space for urban logistics purposes throughout the city, all year round
- 9. The space required for urban logistics on roads, streets, and other urban spaces must be reduced

10. Traffic flow for commercial transport must be prioritised in the planning of roads and streets.

Oslo will serve as an urban node in the Trans-European Transport Network (TEN-T Regulation). The EU requires that urban nodes have a Sustainable Urban Mobility Plan (SUMP) in place by 2027.⁶ The EU also requires monitoring of progress towards achieving these targets. Indicators must therefore be developed to serve as a basis for reporting on target achievement in accordance with the plan. The indicators must be harmonised with those of the urban growth agreement.

The mobility system of the future — Principles for green mobility

The 'Avoid-Shift-Improve' (ASI) framework is to form the basis for Oslo's mobility planning and contribute to achieving the plan's overarching goal of reducing emissions and the transport volume from passenger transport and urban logistics.

The figure above presents an interpretation of the Avoid-Shift-Improve framework for a green mobility plan. Land-use planning is an important, yet long-term, policy instrument for contributing to shorter journeys and thereby avoiding unnecessary transport. Overarching plans, such as the regional plan for land use and mobility and the land-use section of the municipal master plan, set guidelines for land-use development and thus the parameters for the extent to which it contributes to transport objectives.

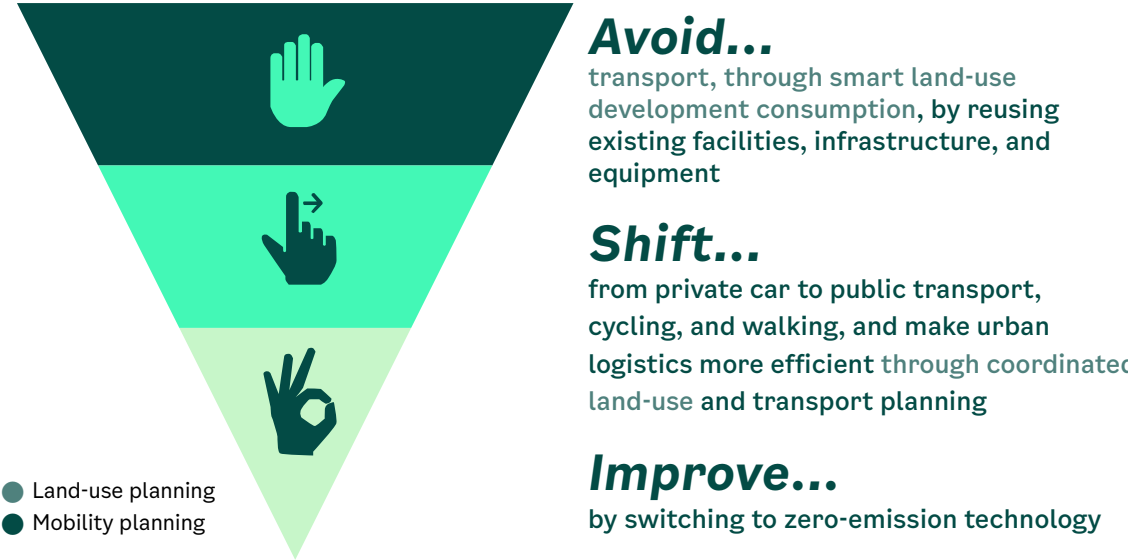


Figure 4: The Avoid-Shift-Improve framework for land-use and mobility planning

Climate targets are not to be achieved through electrification alone. It will often be cheaper and better for society to reduce the underlying transport demand and shift as much passenger transport as possible to public transport, walking, and bicycles. The remaining passenger transport can then be electrified.

The Avoid-Shift-Improve framework is about prioritising scarce economic resources and limited land availability as effectively as possible so that they contribute as much as possible to efficient and attractive mobility services. The very best approach is to reduce transport demand, for example, through more concentrated land use and sound location policies for workplaces, services, and housing, so that people can run their errands or work in their own local area. The next step in the hierarchy is to support travel by public transport, walking, and

⁶EU Urban Mobility Observatory, New Urban Mobility Indicator fiches released to support SUMP implementation

cycling rather than by car (passenger transport), and to ensure that goods are transported by sea and rail rather than by truck (freight transport). The bottom step in the hierarchy involves making the remaining transport zero-emission:

- 1. Transport demand can be reduced, thereby avoiding the need for transport
- 2. Measures can be put in place to encourage a shift towards more environmentally friendly modes of transport, so that travel is shifted from, for example, passenger cars to public transport, bicycles, or walking
- 3. Emissions from individual modes of transport can be eliminated, for example through increased use of zero-emission technology

Principles for green mobility planning

The table below summarises the principles that will underpin green mobility planning in the City of Oslo. These principles support the overarching objectives of making Oslo a vibrant, green, and efficient city, and will form the basis for measures and policy instruments.

Principle	Description
Public health is a fundamental premise for mobility planning in Oslo	Oslo will have mobility services that enable everyone to participate in society and make it possible to choose active, environmentally friendly travel modes. This also applies to those working in various transport services in Oslo. Negative effects, such as air and noise pollution and personal injury, are to be minimised. The transport system is to be perceived as safe for everyone.
Taking care of what we have	Taking care of today’s infrastructure is important from an economic perspective, but also contributes to the goal of more climate-friendly development. The maintenance and use of today’s infrastructure must be viewed in the context of the goal of a greener and more climate-resilient city, with an emphasis on preserving nature and developing blue-green infrastructure. As today’s roads, streets, and rail lines face increasing pressure, are utilised more efficiently, and are better equipped to cope with climate change, it becomes even more important to prioritise operation, maintenance, modernisation, and upgrades over investment in new infrastructure. Operation and maintenance are absolutely essential to ensure that green mobility services are perceived as attractive to travellers, that pavements and cycle paths are cleared in winter, that buses and the metro run on time, and that urban logistics have good traffic flow.
Oslo will have integrated land use and transport planning where urban development contributes as little as possible to increased transport demand	Oslo will develop the city from the centre outwards and increase density around public transport hubs. Urban development must increase transport demand as little as possible, and the choice of mobility solutions should always be the most efficient and least resource-intensive. Travel by walking, bicycle, and public transport is to be the first choice. Issues relating to passenger, commercial, and goods transport must be clarified early in the planning process to help limit transport demand, promote environmentally friendly modes of transport, and ensure safe goods delivery, access for all, and necessary parking. In new planning cases, operational tasks such as waste collection must, as a general rule, be carried out in dedicated areas rather than on public land designated for transport purposes.
Mobility services and planning must be based on an area-based approach	The mobility system of the future must take into account the local differences in Oslo that influence travel habits and how urban logistics are carried out. Mobility planning must be based on the challenges and opportunities in individual areas and carried out accordingly. This also means that the need for measures and the arrangements required will vary across areas.

The design of mobility services must be based on effective public participation involving residents and relevant stakeholders	To ensure predictability and enable Oslo to encourage even more residents and businesses to make green mobility choices, public participation is essential. Much can be gleaned from statistics and technical analyses, but it is also important to gather knowledge and advice through dialogue with representatives from residents, businesses, associations, and interest groups in the city.
Mobility services are to contribute to sustainable freedom of movement for everyone, all year round	Sustainable freedom of movement is about enabling a good life, social justice, and good urban and local development. Sustainable means that solutions must take environmental, social, and economic considerations into account. Freedom of movement means that residents can travel where they want, when they want — and it includes all residents, regardless of their circumstances. This involves offering seamless, attractive green journeys year-round.
A holistic approach to the division of functions and roles between modes of transport within the transport network	Passenger transport and urban logistics must be viewed in context. This involves clarifying the roles and interactions of modes of transport within the transport network when planning and implementing infrastructure measures. This, in turn, provides guidelines for weighing traffic flow against other considerations such as urban life, nature, and street life.
Pricing is to be used to promote environmentally friendly solutions, utilise capacity, and secure revenue	Pricing is to be a policy instrument for managing traveller behaviour, utilising capacity, and securing revenue for the maintenance and development of the transport system. Pricing as a policy instrument is to help strengthen the competitiveness of environmentally friendly modes of transport and ensure the most efficient possible utilisation of the entire transport system. Pricing measures, whether user charging for car use, public transport, private vehicles and road-going machinery, must be targeted and effective. They must also have a fair social profile.
Facilitating road safety solutions for all road user groups	The road network must be safe for all road user groups. Oslo has a large and complex road network with geographical challenges and disparities. The goal of zero people killed and seriously injured in road traffic is the most important guiding principle for road safety work in Oslo.
Zero-emission is the standard for all vehicles in Oslo	Zero-emission technology is the standard for all vehicle categories. This applies to both heavy- and light-duty vehicles, commercial transport, public transport, and road-going machinery.
Mobility planning must make room for nature and climate adaptation in the city	It is important both to make more room for nature in the city and to preserve existing natural areas. Infrastructure must therefore encroach on green spaces and nature as little as possible. Trees and other vegetation help to ensure biodiversity, manage heavy rain-fall, contribute to well-being, and make streets more attractive, particularly for those travelling at low speeds.
Prioritise technological solutions that contribute to achieving the plan’s objectives	The City will utilise technology that can help solve defined problems and ensure the plan’s objectives are met. The City will take an active role in testing new solutions and scaling up successful ones. At the same time, the City will continuously assess the need to regulate new technology that has implications for mobility and local environments.
New knowledge, research, and development are to be used in a targeted manner to improve mobility services and planning	Research, development, and innovation work is to contribute new knowledge, methods, and solutions that can improve transport services and decision-making processes. This may include everything from data on traffic patterns in urban logistics to residents’ transport habits and new solutions for regulating traffic. Innovation is to help make transport more accessible to all sections of society, including older people and people with disabilities.

Working methodology

This edition of the green mobility plan looks ahead to 2040. This is intended to be a rolling plan, and the targets are not time-bound. As with the National Transport Plan, regular updates are envisaged. The work carried out under this thematic plan is intended to deliver more sustainable mobility and urban logistics solutions over time. The aim is not to create ‘a plan once and for all’, but rather a framework or a tool for interdisciplinary work. This process can be illustrated by a wheel and shares many similarities with established research methodology; broadly speaking, it comprises four steps:

- 1. Prepare and analyse needs (problem description)
- 2. Develop a strategy
- 3. Plan measures
- 4. Implement and evaluate

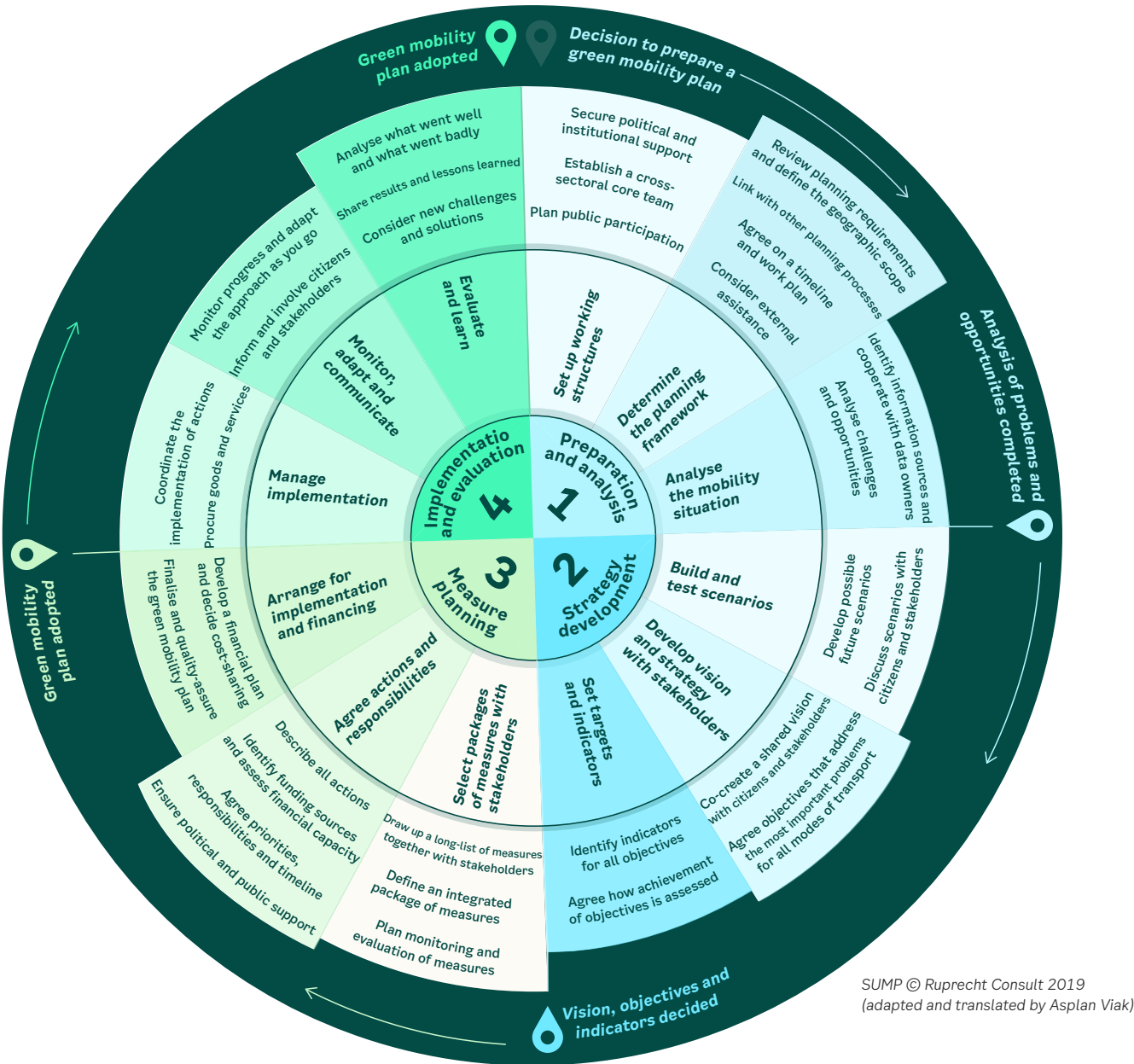


Figure 5: The SUMP wheel — a process for the continuous improvement of mobility services

The purpose of this working methodology is to better coordinate the various modes of transport. First, the major transport flows for bicycles, public transport, and other traffic must be identified.

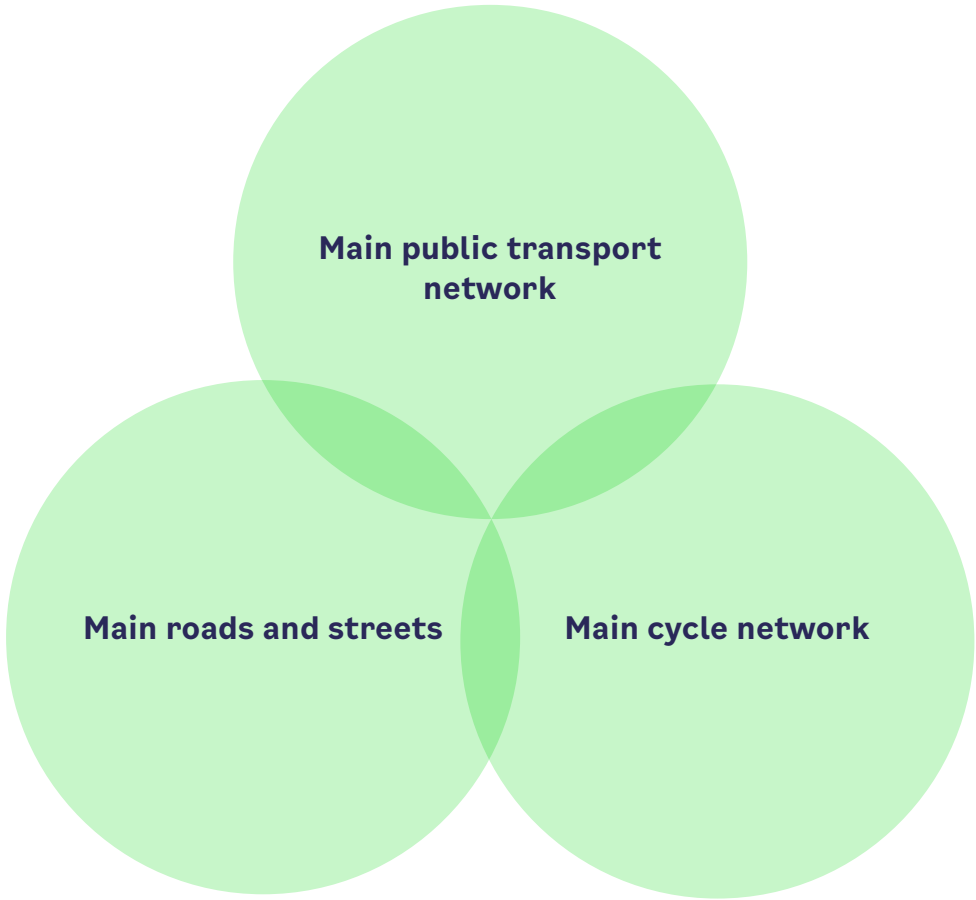


Figure 6: Example of overlapping street functions

In addition, local street-use plans may be drawn up in accordance with the principle of an area-based approach. The decision to draw up a street-use plan is to be based on need. Street-use plans are not a formal type of plan, but should be understood as a method and planning tool to ensure an appropriate distribution of street functions. Street-use plans will provide further detail and may cover topics such as a more fine-grained pedestrian and cycle network, transport hubs, green streets/green infrastructure, circulation of private cars/urban logistics, charging, parking, etc. In the illustration below, the colours indicate which function is prioritised on each street.

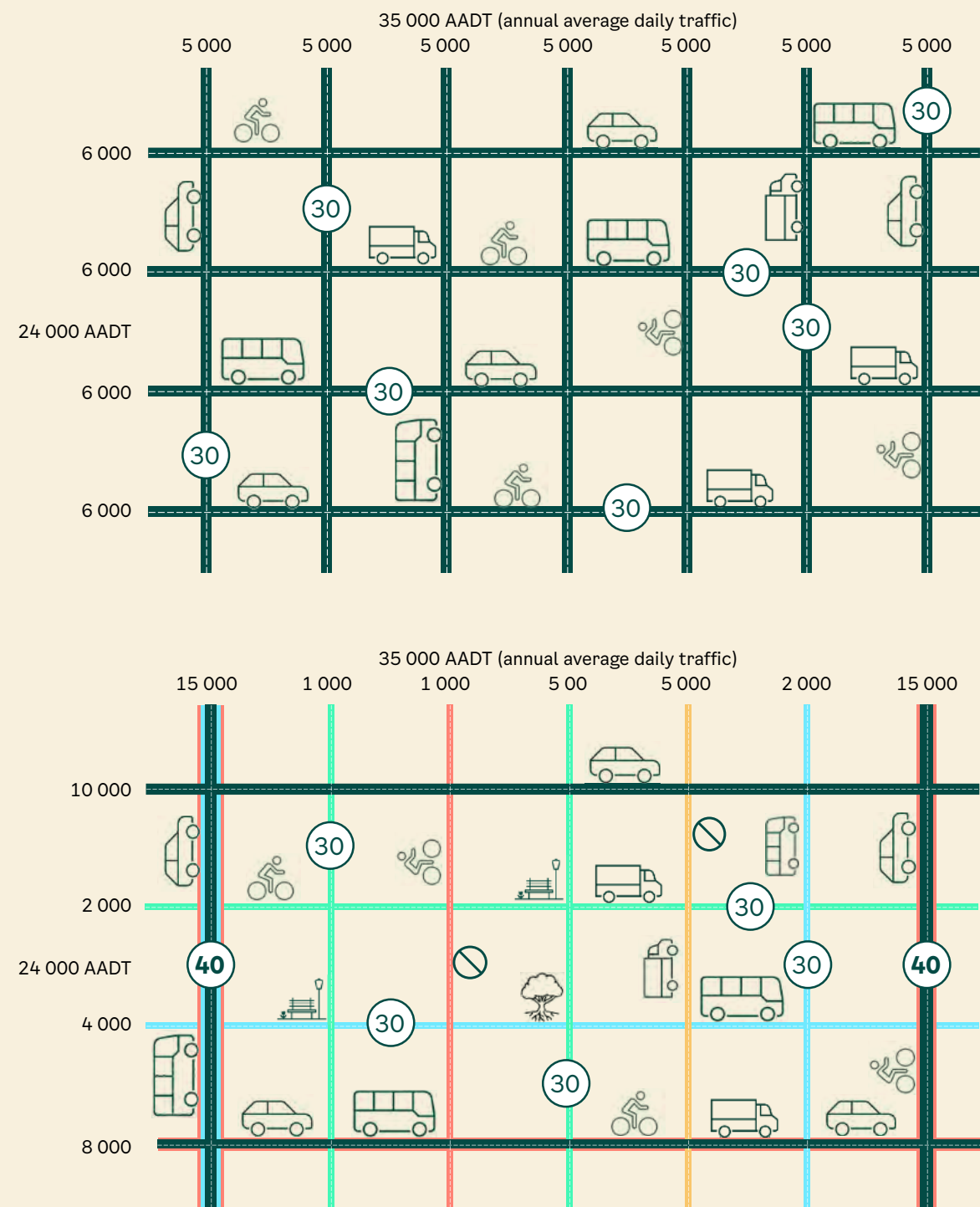


Figure 7: Illustration of the principle of function allocation, where the bottom image shows the distribution of road users across different streets in the network, in contrast to the top figure where all streets have an equal traffic load. Main thoroughfares handle car traffic, whilst pedestrians, cyclists, and public transport enjoy good conditions on other streets.



In some areas of the city, such as residential areas and neighbourhoods, it is desirable to reduce through traffic. Reducing car traffic in such areas can, for example, be achieved through signage and/or physical barriers, but this must be assessed on a case-by-case basis. This is already being done in several areas of the city today, such as in Grønland and in the city centre's Kvadraturen district. This may involve diverting car traffic to streets with greater capacity, which can handle a higher traffic load. The City needs to work more systematically with the concept of low-traffic neighbourhoods and to test various solutions for regulating and enforcing traffic in these neighbourhoods.

The green mobility plan is replacing the Cycling Strategy. Part of the follow-up to the plan will involve updating the plan for the cycle network in Oslo. The new update will incorporate the overarching objectives of the green mobility plan, with particular emphasis on journeys under 10 km.

The green mobility plan is replacing the walking strategy. The overarching principles and guidelines from the strategy have been carried forward into the plan, and the measures will be implemented through the annual action plan attached to the budget, as is currently the case.

A coherent mobility system

Mobility is a fundamental human need and influences the ability to participate in society and lead an active life. People at different stages of life will have different needs, and most people travel in many different ways. For example, people may wish to walk to nearby activities, cycle to work, and travel by public transport and by car on various leisure trips. The City of Oslo aims to build a mobility system centred on people's need to move around in different ways, whilst ensuring that walking, cycling, and public transport are the first choice. If the need for cars decreases, the need to own a private car will also decrease, and car-sharing schemes can then serve as a substitute. A reduction in car traffic will also help to ensure traffic flow for emergency vehicles, public transport, urban logistics, and cyclists. Fewer vehicles make it possible to cycle in mixed traffic, which in turn could reduce the need for investment in dedicated cycling infrastructure.

Car use has a place in the mobility system, but it also entails high external costs. Cars take up a lot of space, often come into conflict with other road user groups, and contribute to air pollution, particulate matter, noise, and microplastic emissions. At the same time, it must be recognised that no two car journeys are exactly the same. The external costs of car use vary with time, place, and vehicle. There is also considerable variation in how good people's access is to alternative modes of transport. In its work on traffic reduction, the City must ensure in particular that journeys that can be made by bicycle, on foot, or by public transport are not made by car. This will free up capacity on the road network for those who have to drive.

A multimodal transport system

A journey can be made using different modes of transport, and often multiple modes are combined for a single journey, or people use different modes over the course of a day. Multimodality is about enabling the easy combination of different modes of travel or goods transport. Combining and integrating different modes of transport will increase freedom of movement and make it easier to incorporate active travel into everyday travel. A multimodal transport system means you always have several options for getting from one place to another, and that several modes of transport can be combined for a single journey. Station and hub development is to support the use of multiple modes of transport and the co-location of urban logistics functions. Multimodality safeguards individual freedom of choice and contributes to a robust transport system, as alternative modes can take over if one mode becomes unavailable. The same principle applies to urban logistics. A multimodal urban logistics system enables adaptation to local needs and supports efficient logistics with minimal disruption to urban life and residents.

Land-use planning, land use, and management

Integrated land use and transport planning is a key policy instrument for enabling environmentally friendly transport. The locations of services such as schools, kindergartens, workplaces, shops, and leisure facilities influence travel demand and journey distances. Oslo will develop the city from the centre outwards and increase density around public transport hubs. Urban development must enable people to meet their needs where they live and work, and must increase transport demand as little as possible. At the same time, land use and transport planning must facilitate residents' ability to travel by walking, by bicycle, and by public transport. Issues relating to both passenger transport and urban logistics must be clarified early in the planning process to limit transport demand, promote environmentally friendly modes of

transport, and ensure safe goods delivery, access for all, and necessary parking. The parking standards in force at any given time provide guidelines for all planning and building projects in Oslo. In planning cases, operational tasks such as waste collection must, as a general rule, be handled in dedicated areas rather than in public areas set aside for transport purposes. Land-use planning is to help reduce travel demand and travel distances and to promote environmentally friendly transport solutions by providing a fine-grained pedestrian network, a continuous cycle network, an efficient public transport system, and efficient urban logistics.

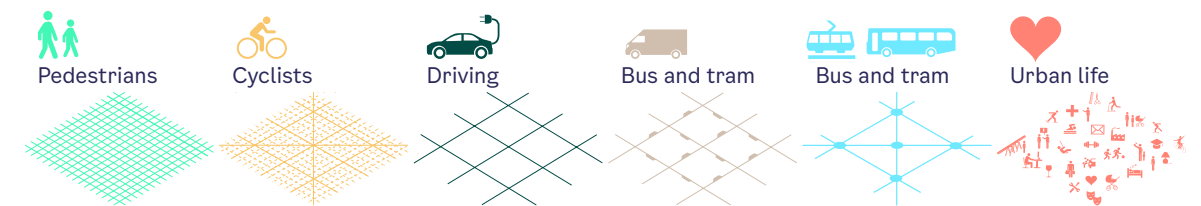


Figure 8: The illustration shows an approach that can serve as the basis for a strategic street-use plan. The idea is to apply principles from the inverted transport pyramid, where walking and bicycles have a fine-grained network compared to public transport and other motorised traffic, whilst also assessing the need for the division of roles and interaction through, for example, main routes for public transport, or areas requiring goods delivery or other urban logistics.

To support the mobility system of the future, the various modes of transport must be viewed in context. An important part of this is also to prioritise measures that can provide more seamless services, which better enable multimodal solutions. To achieve this, Oslo's main network for walking, cycling, public transport, and urban logistics must be defined. This will identify the most important routes and transport hubs and will apply to both passenger transport and commercial transport. This will help highlight areas of conflict, for example, between bicycles and public transport, or areas lacking facilities for seamless transfers and infrastructure, such as loading and unloading bays. This will also help to identify where there may be a need to draw up street-use plans and where there is a need to establish or strengthen existing multimodal hubs. These are hubs where travellers can change modes of transport, and where urban logistics functions can also be located.

Function allocation

The streets of Oslo have to fulfil many functions, including stormwater management, public spaces, urban life, goods delivery areas, carriageways, cycling infrastructure, pavements, and public transport lanes. As streets vary in design and width, there is not enough space to prioritise all these functions on a single street. Therefore, an important part of street planning is to prioritise between the different modes of transport and other functions the street is intended to serve. The prioritisation of road user groups must be clarified at an early stage at a general level. The solution for the various streets must be viewed in the context of a larger network of streets and transport hubs. A key prerequisite for enabling seamless journeys is a connected transport network via multimodal hubs.

There are currently several conflicts between transport and urban life functions that cannot be resolved simultaneously within the street's width, and some streets have more functions than they can accommodate. Counteracting conflicts between different functions requires a defined main road network and, where appropriate, street-use plans that allocate functions within the road and street network. In addition, area-specific plans need to be linked with priority main thoroughfares for different modes of transport.

Mobility planning must be based on a division of roles among green modes of transport and encourage cooperation rather than competition for the same travellers. This involves, among other things, facilitating shorter journeys on foot or by bicycle, and longer journeys by public transport.

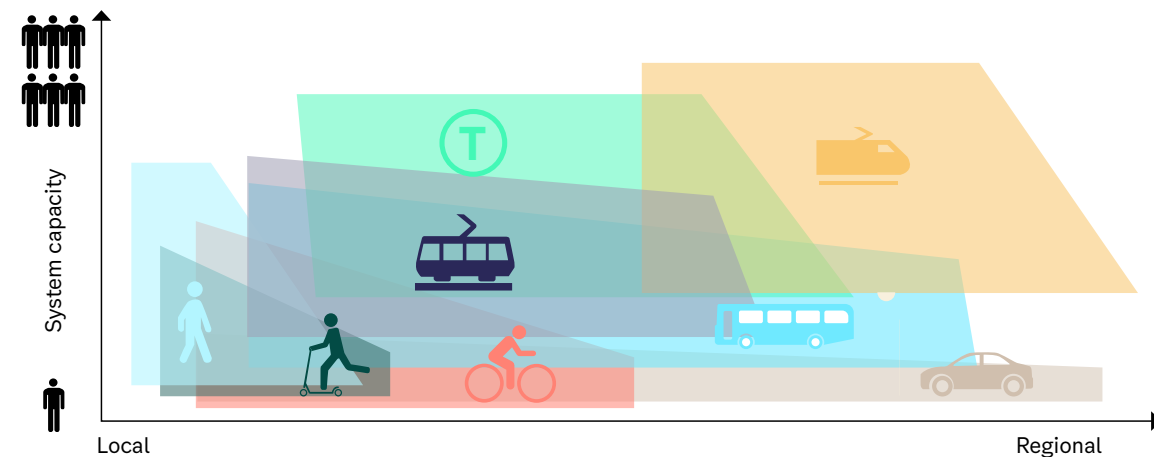


Figure 9: Capacity and scope of modes of transport

It is also important to have robust procedures and sufficient resources for the operation and maintenance of existing infrastructure to ensure safe, reliable traffic flow in all seasons and to guarantee the long service life of investments made.

Technology, research, development, and innovation

New technological solutions will help make Oslo an even more vibrant, efficient, and green city. The City will actively test new solutions in areas such as automation, artificial intelligence, and other technologies, in order to understand how they can strengthen the mobility system and provide better services to travellers. Technological development in society is happening rapidly, and technological changes have the potential to bring about significant societal shifts, altering travel habits, existing business models, and the pricing of mobility services. At the same time, it is important to start with defined problems and assess how technology can help solve them, rather than starting with technological solutions and then deciding how they can be used or which problems they solve.

Research and development activities will help accelerate the city's transition, and new knowledge will be used in targeted ways to improve services and mobility planning in Oslo.

Technological development often takes place without the influence of public authorities or planning processes. The City needs clear frameworks and policy instruments to ensure that technological innovations, research, and development work contribute to the desired social development. In this field, the EU's Framework Programme for Research and Innovation is a priority policy instrument for the City and could trigger significant external funding for targeted research and development work.

Oslo will actively collaborate with various research communities to pilot new technology and more sustainable solutions within mobility and urban logistics. This is to be viewed in the context of already defined physical or digital test environments in Oslo. Solutions can be simulated to a greater extent than before using data before physical measures are implemented, and teledata can be used to analyse how people and commercial transport move

around the city. This can lead to more targeted measures and services. Innovation is to be incorporated more fully into the City's day-to-day work, rather than being understood solely as independent projects. This also involves systematising innovation work within the City. For example, when launching pilot projects, plans should be made for how these pilots will be evaluated and followed up. This includes assessing the potential for upscaling and the benefits achievable through it.

Research and development (R&D) is not just about technology, and it is natural to also prioritise R&D activities and new knowledge within social science issues. For example, it will be important to have detailed, up-to-date insights into residents' behaviour when encountering various mobility solutions, and research and development activities can also help develop solutions co-created with residents, the business sector, and research communities. The City of Oslo has significant potential to expand knowledge gathering and R&D on social sustainability, the perceived accessibility of various services and solutions, and the public health perspective in mobility and urban logistics. It will also be natural to prioritise R&D activity linked to innovative procurement within mobility and urban logistics.

Social sustainability and public health

Social inequality concerns systematic differences linked to social position, measured, for example, by education or income. Social position influences travel patterns, access to mobility, and the extent to which one is affected by the negative effects of transport, such as noise and air pollution. Social sustainability must be a guiding principle for the City's transport planning to ensure that mobility solutions do not exacerbate social differences.

Social inequality is also accompanied by health inequality. The health of the population follows a social gradient: the higher up the social hierarchy, the better the health and the longer the life expectancy. Comprehensive solutions are needed to address inequalities in health. Measures must be cross-sectoral and holistic. This involves early intervention and structural measures across a wide range of areas: access to healthcare, participation in society, upbringing, education, working life, income and poverty, and housing and local communities.

Oslo is a complex city facing many challenges related to social inequality in both health and childhood conditions. The best-known example is that a man living in the Vestre Aker district can expect to live seven years longer than a man living in the Sagene district.^{7,8} There are also significant differences in children's upbringing across the districts. In the Alna district, more children grow up in families with persistently low incomes and who receive social assistance. However, they also report feeling less safe in their local environment.⁹ They are significantly less physically active and participate less in leisure activities than, for example, in the Nordre Aker district, but also in Oslo in general.^{10,11} They are also less satisfied with public transport services in their district. Social inequality in health is an indicator of social sustainability, and significant inequality in health is a clear sign of a lack of social sustainability.

Social sustainability is about equal opportunities for participation in society for all, and ensuring that the systems put in place do not contribute to increased strain and ill health for specific groups. An accessible, multimodal mobility system based on active mobility helps ensure this.

Living conditions at the individual level relate to socio-economic factors such as upbringing,

⁷ Norwegian Directorate of Health, Folkehelseprofil 2026: Bydel Vestre Aker i Oslo (Public Health Profile 2026: Vestre Aker city district in Oslo)

⁸ Norwegian Directorate of Health, Folkehelseprofil 2026: Bydel Sagene i Oslo (Public Health Profile 2026: Sagene city district in Oslo)

⁹ Norwegian Directorate of Health, Oppvekstprofil 2026: Bydel Alna i Oslo (Childhood Profile 2026: Alna city district in Oslo)

¹⁰ Norwegian Directorate of Health, Folkehelseprofil 2026: Bydel Alna i Oslo (Public Health Profile 2026: Alna city district in Oslo)

¹¹ Norwegian Directorate of Health, Folkehelseprofil 2026: Bydel Nordre Aker i Oslo (Public Health Profile 2026: Nordre Aker city district in Oslo)



Figure 10: Relationship between living conditions and broader social conditions. Source: Hege Hofstad. 2019. *Kommunal planlegging som redskap for å redusere sosiale helseforskjeller* (Municipal planning as a tool for reducing social health inequalities)

education, work, and income. These living conditions will be decisive for an individual's access to mobility. The City will prioritise the modes of transport that are accessible to as many people as possible, regardless of living conditions. These are walking, cycling, and public transport, in that order.

Living conditions also influence the extent to which a person is exposed to the negative consequences of traffic, such as air and noise pollution and the risk of road accidents, as well as their access to the mobility system. Through traffic is an example of this. Those living along major thoroughfares, such as the E18, National Road 4, and the ring road system, are more adversely affected by traffic and benefit less from accessibility than those who use these roads for transit. A fair mobility system can help reduce social health inequalities by ensuring safe travel and good accessibility for everyone, regardless of background and life circumstances.

Living conditions also help shape travel habits from a young age. It is therefore necessary to work in a targeted, context-specific manner to encourage healthy travel habits, regardless of these living conditions. Everyday settings such as school, the workplace, home, and shops are the destinations and places one travels to and from. Local community qualities, such as the physical and social environment and participation, relate to the location of various services and physical surroundings, which influence how travellers move between different places (community severance). This is also about enabling participation in society. To ensure the mobility system is socially sustainable, these spaces must be easily accessible to the entire population. Mobility and land-use planning must support inclusive neighbourhoods and meeting places and promote physical activity and social contact in everyday life, as part of a health-promoting local environment. A mobility system that is universally designed and accessible to all enables equal participation in society and strengthens public health through increased social inclusion.

Economic, social, and environmental conditions are macro-level conditions that influence living conditions, everyday arenas, and local community conditions. Participation and active citizenship are important across all levels.

Investments in active mobility and preventive measures deliver proven health benefits and reduced costs to society, and help to achieve the goals of a better quality of life and a reduced need for healthcare services. The Norwegian Directorate of Health has calculated that a person who moves from being physically inactive to being partially physically active yields a health benefit of NOK 33.22 per passenger-kilometre of increased cycling and NOK 48.85 per passenger-kilometre of increased walking. In addition, there are savings in healthcare costs for cycling and walking amounting to NOK 7.79 and NOK 11.46 per passenger-kilometre respectively (amounts are in 2023 kroner).¹² This supports findings from the evaluation of the City of Oslo's cycling strategy, in which the net socio-economic benefit of the cycling project to date is estimated at almost NOK 4 billion.¹³

Active mobility is important in the City's public health work and promotes both physical and mental health in everyday life. It is important that more people walk and cycle more throughout the city. When more residents choose to walk or cycle for all or part of their journey, this contributes to more active and environmentally friendly travel modes. This also applies to those involved in goods and commercial transport in Oslo. Negative effects, such as air and noise pollution and personal injury, must be minimised, and the transport system must be perceived as safe for everyone.

Traffic is a major source of air pollution and noise in urban areas. Air pollution and noise contribute to reduced life expectancy and quality of life, and traffic reduction is therefore a vital public health measure. Measures to tackle local air pollution are followed up in a separate action plan for local air quality. Noise is regularly monitored at intervals set out in the Pollution Control Regulations.

A large proportion of journeys in Oslo are so-called accompanying journeys. This includes, amongst other things, accompanying children to school and kindergarten, as well as people of all ages who need to be accompanied to and from various healthcare services. For these groups, active mobility is not necessarily an option. To ensure that these needs can be met, whilst the City achieves its overall transport objectives, a targeted effort across municipal sectors and organisations is required. A joint effort across the City's sectors is therefore required to find agreed solutions to these conflicts of interest. The aim is to facilitate as many of these journeys as possible by bicycle, by walking, or by public transport. The conditions will vary between the inner and outer city and between different user groups, and the policy instruments must be adapted accordingly.

For several years, Oslo has had the fewest accidents involving people killed and seriously injured compared with other capitals and major cities in Europe. Long-term, targeted efforts across several areas can explain these results. Despite these good results, it is still necessary to reduce the number of road accidents. Oslo must fulfil its commitments under the Vision Zero initiative, and this takes precedence over considerations such as traffic flow, efficiency, and accessibility.

A general speed reduction is a measure that contributes to better public health and enhanced social sustainability in several ways. Lower speeds make active travel modes more accessible and attractive. At the same time, lower speeds lead to fewer road accidents and make it safer for all road users in the city. Lower speeds also reduce the negative effects of transport on the urban environment, with less noise and lower air pollution, which in turn improves quality of life and can pave the way for more housing development.

¹² Norwegian Directorate of Health. 2025. Dokumentasjonsrapport: Helseeffekter av fysisk aktivitet per km gange og sykling (Documentation Report: Health Effects of Physical Activity per km of walking and cycling)

¹³ EY and WSP. 2024. Sluttrapport evaluering av Oslo kommunes sykkelstrategi 2015-2025 (Final report on the evaluation of the City of Oslo's cycling strategy 2015-2025)

Active school travel and development of the ‘heart zone’ programme

Regular physical activity is fundamental to maintaining and promoting good physical and mental health. It can also help to enhance cognitive performance, foster a sense of achievement, and encourage interaction and camaraderie with others. Good habits are formed early in life and can contribute to good health and quality of life for the rest of one’s life. It is therefore very important to promote physical activity and the joy of movement among children and young people; school and leisure activities are key to achieving this. Encouraging active modes of travel to and from school and leisure activities can help increase everyday activity and improve health, quality of life, and academic performance among this target group.

A ‘heart zone’ is a geographically defined area in the immediate vicinity of a school where there is a particular focus on road safety. To date, the heart zone programme has collaborated with 60 of the approximately 130 primary schools in Oslo, and the aim is to include all schools in the programme. Experience shows that it takes one to two years to implement the heart zone programme at schools, involving public participation and collaboration during a mapping phase and the construction of physical road safety measures. The school and the Parents’ Working Committee (FAU) are responsible for continuing the awareness-raising work once the physical road safety measures have been installed and the Agency for Urban Environment has withdrawn. Many schools establish good routines for awareness-raising activities within the project, such as reflector days, voluntary traffic wardens, and walking competitions. Where there is little activity on the part of parents and the school, new parents and pupils will have little understanding of what it means to be a heart zone school. Some schools often return with further requests for physical road safety measures shortly after the Agency for Urban Environment has concluded the project. Developing and changing culture and habits takes time. A review of heart zone schools shows that the ways in which children are picked up and dropped off differ between heart zone schools and schools that have not worked with the heart zone programme.¹⁴

Collaboration with the Parents’ Working Committee (FAU), the school’s various committees, and City departments is seen as key to the schools’ success. The work to shape attitudes is important for establishing a culture of walking and cycling. Information campaigns and attitude-shaping initiatives, such as action days, are effective in promoting healthy travel habits. Schools can do more to get pupils involved in the work. Pupil participation promotes engagement and a sense of ownership. At the same time, schools often lack the capacity to follow up on this.

In the work to turn the rest of Oslo’s schools into heart zone schools, around 70 primary schools will be included over the coming years. It will be important to implement physical road safety measures at these schools. Parents’ and children’s sense of safety is crucial to whether they choose to walk or cycle to and from school. Road safety measures and reduced car traffic around the school could encourage more people to choose active modes of travel. The heart zone programme will continue to collaborate with 10–14 schools a year, as it has done since its launch in 2020.

There is, however, a need to strengthen the heart zone programme towards attitude-building work and teaching. Heart zone can be viewed in the context of the cross-curricular themes of public health and life skills, democracy and citizenship, and sustainable development in schools. To further develop and strengthen the work and to achieve more active school journeys in the years ahead, further efforts should be made to strengthen schools’ work on active school travel. There is a wealth of training, guidance, and campaign material available, and schools should make more active use of this in their teaching.

Furthermore, advocacy work, communication, and campaigns should be strengthened in collaboration with pupils, parents, and schools. This can be achieved by building on the cooperation with Trygg Trafikk (the Norwegian Council for Road Safety), the Oslo Municipal Parents’

Committee, and others. In addition, the City will step up efforts targeting schools in areas where more pupils are driven to school, in line with an area-based approach. The proportion of pupils walking or cycling to school is high in Oslo. However, there are differences: parents at schools in the outer city more often drive their children to and from school than at schools in the inner city. In the inner city, many schools meet the target of 90% of pupils walking or cycling to school, whilst in the outer city, as many as 30% of pupils are driven.¹ It is particularly at the start of the school day in the morning that schools find that too many people choose to drive. Such accompanying journeys are often part of a trip chain that also includes parents’ journeys to work. If more parents cycle, walk, or use public transport to work, this can help ensure that more children also travel actively to school, and that car traffic around schools is reduced.

This applies even more so to kindergartens. Children cannot travel to and from kindergarten on their own, and geographical proximity to the home is not a criterion for allocating a kindergarten place. The heart zone programme will therefore be extended to include kindergartens, to better facilitate these accompanying journeys being made using active travel modes.

Cycling training in Oslo schools needs to be strengthened. Cycling training is absolutely essential for children to experience a sense of achievement and the joy of cycling, learn safe behaviour in traffic, and acquire bicycle skills they will carry with them throughout their lives. This responsibility lies with parents and schools. Nevertheless, there is currently no comprehensive municipal initiative for cycling training in Oslo schools. Many schools lack the resources and expertise to deliver training on their own. Figures from travel surveys show that the proportion of young people cycling is falling. Cycling training in Oslo schools must therefore be strengthened. In the long term, such a programme could have significant societal benefits and help to support a range of municipal priorities, including sustainable mobility, social sustainability, road safety, and public health. In other municipalities and larger urban areas, where cycling and green mobility are key priorities, they have ensured that children and young people receive cycling training by funding, introducing, and developing training programmes aimed at schools.

Good habits are formed at a young age. In Oslo, cycling infrastructure must be safe for cyclists aged 8–80. It is therefore natural that efforts to provide cycling training in schools should target the youngest pupils.

Public participation

The design of mobility services and solutions must be based on effective public participation involving residents and relevant stakeholders. Public participation should underpin the principle of an area-based approach.

Public participation must be purposeful and meaningful if those involved are to find it worthwhile. Purposeful and meaningful public participation can also help to reduce public participation fatigue among residents. A clear vision for the work is essential, and this must be communicated to residents and stakeholders. A key criterion for success is that measures are well justified and that the benefits of a project are clearly communicated. If a facility is removed, such as a car park, this should be clearly justified on the grounds that it will be replaced with something that adds value to the community, for example wider pavements, a goods delivery area, cycling facilities, improved road safety, or other improvements.

Public participation is key to finding the best solutions. Local residents and businesses are familiar with the needs and wishes of an area, and can help improve solutions and ensure that they build on the area’s existing qualities. To ensure a successful project completed on schedule, early involvement and engagement with stakeholders are crucial. Strong local support increases the chances of successful implementation.

¹⁴ Uhlving, Nenseth, Ellis, Egner og Nævestad. 2024. Kunnskapsgrunnlag om virkninger av Hjertesone (Knowledge base on the effects of the heart zone scheme). TØI-rapport 2014/2024

Effective public participation ensures that diverse voices are mobilised and included, and that testing different solutions can gather input from various stakeholders on new solutions and designs. This can help to secure buy-in and ensure that the best solutions are implemented on a permanent basis. The form of public participation to be used — for example, a citizens' panel, an ideas workshop, or written submissions — will need to be clarified for each individual project.

Economic instruments

The City will actively use pricing as a policy instrument to manage the modal split. Walking, cycling, and public transport must always be cheaper than driving. Pricing must therefore be considered in a cross-modal context. The City will continue to work on various pricing policy instruments in a coordinated manner and will propose ways to optimise pricing structures to ensure green travel. This work will build on previous work from the urban study. Measures such as road pricing, public transport ticket pricing, and the pricing of parking and the toll ring must be included here.

The total costs of car use must be assessed holistically and weighed against the benefits car use provides at the individual level and the disadvantages it entails at the societal level. Parking charges must be structured to discourage unnecessary car use whilst still allowing car use when absolutely necessary.

The urban study highlights road pricing, as a replacement for the current toll collection system, as a prerequisite for Greater Oslo to continue meeting its zero-growth target.¹⁵ Distance-based user charging, such as road pricing, is more precise and fairer than the current system of collecting tolls at specific points, whilst also offering greater scope for using pricing as a management tool. In this way, congestion can be reduced and road capacity used more efficiently, which in turn improves traffic flow for those groups that remain dependent on the car. Road pricing also allows for a reduction in user charges when traffic volume is low. In this way, traffic can be distributed more efficiently throughout the day. More efficient use of infrastructure will also reduce the City's long-term investment needs. This means that a transition to road pricing need not increase the overall burden on motorists. It will also improve traffic flow for public transport, making it a more attractive alternative to private cars. More efficient use of capacity could also free up space for other purposes, such as safe infrastructure for vulnerable road users, disabled parking, and urban life. The City of Oslo will therefore work to introduce road pricing, as a replacement for the current toll system, as soon as possible.

To develop good, comprehensive plans for green mobility, there is a need to regularly collect and update data on how many people travel into or through the city to get to work, how far it is to the nearest local centre, activities and cultural offerings, how accessible the public transport system is, and how safe and attractive it is to walk or cycle. Much of this information is already held by the City's departments, but could be utilised more actively in planning for green mobility.

Economic instruments can also serve to encourage behavioural change and create incentives for transition. For the business sector, it will be important to distinguish between large organisations, which have the capacity to drive transition on their own, and small and medium-sized enterprises, which will need support. In its work on grant and incentive schemes, the City will therefore place particular emphasis on supporting small and medium-sized enterprises.

Nature and climate adaptation

Nature plays an important role in the built environment, contributing to a range of benefits. More nature and green spaces in the city are among the most important measures to tackle climate change, preserve biodiversity, and sequester carbon. Nature also helps create good urban areas and neighbourhoods, making them more attractive places to walk and cycle. Mobility planning must therefore make room for blue-green infrastructure and climate adaptation in the city.

The creation of green streets is a policy instrument that can help bring more nature into the built-up city. Green streets are streets and urban spaces where asphalt and concrete are transformed into pavement gardens and micro-parks featuring vegetation, trees, and nature. Green streets are intended to help enhance biodiversity and improve stormwater management. In addition, green streets are to contribute to more pleasant neighbourhoods and encourage greater activity among residents and visitors to the city. They are to be attractive both as green destinations and as thoroughfares. They are to bring typical park elements and qualities into streets and urban spaces, thereby contributing to attractive, safe surroundings that promote active travel modes such as walking and cycling. Green streets can help link parks, walking routes, and other local nature areas, thereby creating more green corridors within the built-up city.

Walking

Oslo is characterised by a high proportion of pedestrians — almost 40% of all journeys in Oslo are made on foot¹. Walking is also an important part of people's trip chains throughout the day, particularly in combination with public transport. Walking is also the most common and simplest form of recreation and physical activity, and is widely practised across the population. Two out of three residents go for a walk in parks or natural surroundings in their local area several times a week. In Oslo, the proportion of walking is higher in the inner city than in the outer city, and younger people walk more than older people.¹ Walking is good for public health. Measures that promote healthy and active residents have significant socio-economic benefits.

Surveys carried out by the Agency for Urban Environment show that the biggest barriers to walking in Oslo today are, at times, poorly cleared and gritted footpaths, a lack of lighting, a low sense of safety (both social safety and road safety), as well as a maintenance backlog on the network of footpaths and walking trails. Many people are also calling for more trees and greenery along the footpaths. Several road crossings, overpasses, and underpasses are not universally designed and are difficult to use. A lack of accessibility provision (or universal design) limits ease of movement for certain user groups.

The pedestrian network must be designed to ensure safe movement. In several places, there is a need to reduce the potential for conflict between different road users sharing the same spaces, such as cyclists, goods delivery vehicles, and various forms of micromobility. This is achieved primarily by separating the road user groups. The quality of the surroundings matters more to pedestrians than to other mobility groups. Trees and other vegetation make streets attractive and contribute to the well-being of travellers and those who spend time there. This promotes what are often called 'amenity values', which are qualities of the surroundings and the journey that contribute to greater enjoyment and quality of life for residents.

Many older people need to be able to sit down from time to time. With an ageing population, there is a growing need for benches and similar facilities for resting and relaxing along footpaths.

¹⁵Norwegian Public Roads Administration. 2025. Byutredning Oslo-området (Urban study of the Oslo area)

Oslo is a densely built-up city with heavy traffic and large numbers of people, which makes winter maintenance both demanding and costly. Climate change is leading to more unstable winter conditions, with heavier precipitation and frequent temperature fluctuations around 0 °C. This makes it difficult to maintain good walking conditions throughout the winter. Providing clear and reliable information to residents about weather conditions, snow clearance status, and outdoor conditions will be key policy instruments. This will help people plan better and adapt, enhancing both safe travel and efficient operations.

Although walking is the most common mode of transport, there is a lack of detailed knowledge regarding residents' perceptions of walking in Oslo, the quality of the pedestrian network, where it is perceived as safe or unsafe to walk, conflict points, areas in need of improvement, as well as which groups walk a lot or a little and why.

It is a challenge that measures for pedestrians alone rarely warrant investment, and that any improvements, at best, come as a consequence or as mitigation measures in other projects. Pedestrians are therefore rarely a top priority in development projects.

The following four overarching priorities are to form the basis for work on walking.

1. Walkable urban structure

To encourage more people to walk more, walking must be perceived as easy and practical. This involves, among other things, ensuring that it is quick and easy to reach daily destinations and stops on foot. A fine-grained, easily navigable pedestrian network and a compact urban structure with a network of opportunities to walk in all directions can contribute to this.

Ensuring good, fast walking connections when planning and building new developments, as well as opening shortcuts in existing built-up areas, are measures that support a walkable urban structure. Facilities such as tactile guidance paths and space for pushchairs, walking frames, or wheelchairs are also key aspects in enabling all sections of the population to walk more. Key priority areas include the municipal master plan's emphasis on densification and the 'everyday city', aiming to create neighbourhoods that meet residents' daily needs. This is particularly important for walking to compete with the car in the outer city.

Attractive walking routes to and from public transport, together with user-friendly interchange points and stops, are also important for encouraging more people to choose public transport (the door-to-door principle). Public transport services must therefore be organised in a way that supports walking as part of the journey, rather than other modes of transport. It is also essential to have greater knowledge and focus on facilities for pedestrians and universal design in land-use planning.

2. Safe surroundings

Environments that are perceived as safe and secure are important for promoting walking. This concerns both road safety and perceived social safety. Safe infrastructure can also reduce the risk of accidents and thus support the Vision Zero goal of zero people killed or seriously injured in traffic. Norway has several seasons, and winter presents particular challenges that can make it unsafe for pedestrians. Walking in mixed traffic can also feel unsafe. Encountering road user groups travelling at different speeds, including cyclists and e-scooter users, can reduce the sense of safety and make walking less attractive. In addition, physical obstacles on pavements, such as illegally parked e-scooters, advertising signs, and other items, can obstruct pedestrians, particularly those with reduced mobility.

Therefore, the aim must be to reserve pavements for pedestrians. Small electric vehicles do not belong alongside pedestrians. In the long term, the goal is for cyclists not to need to use

pavements, with the exception of the youngest cyclists. To achieve this, safe and accessible facilities for cyclists must be established. Future new transport and urban logistics solutions, such as self-driving parcel robots, should not be granted access to pavements.

Measures that help make it safer for pedestrians to travel include small and large-scale road safety measures, speed reduction measures, the operation and maintenance of pedestrian areas throughout the year and particularly in winter, separate solutions for pedestrians and cyclists, lighting, requirements for pavement design, street improvements, universal design, and signage to destinations and rest areas.

3. Attractive surroundings

Walkability can be enhanced when the surroundings are attractive and of high quality. Good surroundings that promote amenity values and offer variety provide space for recreation, leisure, and purposeful journeys. Attractive surroundings can make walking feel more exciting, which can influence the perceived distance and duration of the journey. Measures that help to create attractive surroundings that can encourage walking include blue-green infrastructure, meeting places and other places to spend time, street furniture, art, and active frontages.

4. Reducing car traffic

To achieve this goal, measures must be implemented to encourage more people to walk rather than drive. A reduction in car traffic will, in itself, help promote walking. Among other things, a reduction in car traffic will enable a reallocation of space from cars to pedestrians and green spaces, and to increased urban life, which contributes to both a more walkable urban structure and more attractive surroundings. Fewer cars will also contribute to safer surroundings, improved road safety and a reduced risk of accidents and will ensure traffic flow for those who are entirely dependent on a car, such as those with a disability parking permit and some goods delivery services.

Cycling

Oslo will be a cycling city for everyone, and more people will cycle. Residents will experience Oslo as a safe and pleasant cycling city, regardless of age. Oslo's cycle network will be accessible, easy to navigate, and safe for cyclists.

There has been a significant focus on developing cycling infrastructure in Oslo as a result of the Oslo Cycling Strategy 2015–2025. Since 2015, over 155 km of dedicated cycling infrastructure has been built and upgraded. During this period, the proportion of journeys made by bicycle has increased from 6.2% to 8.6%, representing a 39% rise, and demonstrating that targeted efforts are having an impact. The greatest growth in the share of cycling over the last ten years has occurred in winter.¹⁶ This is partly due to high-standard winter maintenance on several sections of the cycle network. Bicycles are particularly common for commuting, with 15% of all commuting trips in Oslo made by bicycle.¹⁶

3. Innovation

With constant technological development come new types of vehicles, including both small electric vehicles and new types of bicycles. It is not necessarily appropriate to regulate all types of bicycles and small electric vehicles in the same way. New cycling infrastructure must be planned to accommodate bicycles that may become both larger and faster than they are today. At the same time, some cargo bikes may become so large and heavy that they do not necessarily belong on the cycle network. To differentiate regulations appropriately, separate vehicle classes must be established for vehicles that travel at higher speeds or are much larger and heavier than ordinary bicycles.

The entire road network is not currently adapted for small electric vehicles. This situation will improve with the further development of the cycle network. The City will work towards a general ban on the use of electric scooters and other small electric vehicles on pavements throughout the city. The City currently faces major challenges related to small electric vehicles with illegally high top speeds and the fact that the vast majority of privately owned small electric vehicles lack valid third-party insurance. To tackle this, the City will work towards making registration compulsory for all privately owned small electric vehicles. Registration will be linked to liability insurance, with insurance companies issuing proof of valid insurance and vehicle registration.

Innovation also extends to the design of infrastructure, testing new forms of regulation and enforcement, and flexible ways of using space in the city. The threshold for testing new solutions is to be low, and Oslo is to be a driving force in research and development. The City will be proactive in regulating new types of vehicles and in supporting their integration into the mobility services in an appropriate manner.

Public transport

Oslo has a good public transport system, considering the size of the city and the number of residents, workplaces, and leisure activities. Public transport services in Greater Oslo consist of regular public transport routes and various forms of demand-responsive transport. Local trains and the metro form the backbone of the public transport system. Together with trams and high-capacity ‘trunk buses’, they form a network of trunk lines covering the most important travel flows in the urban area. The trunk lines are of great importance for the efficiency of the entire public transport system and should therefore have high capacity, frequency, and traffic flow. Lower-capacity modes of transport and alternative transport solutions feed into the trunk lines and are intended to ensure area coverage.

Public transport routes form a network that provides numerous and efficient travel options via transport hubs. In such a network, the various modes of transport — train, metro, tram, bus, and boat — play different roles. By designing a network with fewer, high-frequency routes that connect at well-designed transport hubs, travellers can reach their destinations quickly and efficiently by changing modes during their journey. Local trains and the metro form the core of the public transport network, and the system relies heavily on services feeding into them. Efficient, attractive transport hubs and public transport terminals, combined with high-frequency service, are crucial for seamless transfers. Appropriate coordination and division of roles must be based on the strengths of the different modes of transport to provide the most comprehensive service possible. The combination of walking and using public transport is central to a sustainable mobility network.

In recent times, city bike schemes, and to some extent e-scooters, have been integrated into public transport services. Shared micromobility should be viewed in the context of, and as part of, public transport. The city needs more knowledge about what the integration of

micromobility means for the modal split in Oslo and Greater Oslo. Ruter will continue to gather knowledge and experience from the integration work to estimate the effect of integrating micromobility into public transport services on the modal split. Closer integration between micromobility and public transport may also have implications for future pricing of journeys and public transport tickets.

With the exception of during the pandemic, Ruter has seen steady growth in the number of travellers since 2008. Over time, public transport has taken a significant share of the market from passenger cars. The share of public transport in Oslo stood at 24% in 2024 (down from 29% before the pandemic). Few other comparable urban areas in the Nordic region or elsewhere in Europe have seen the same trend. Every day, over a million journeys are made using Greater Oslo’s public transport services. Approximately half of the country’s public transport trips take place in the Ruter area.¹⁶

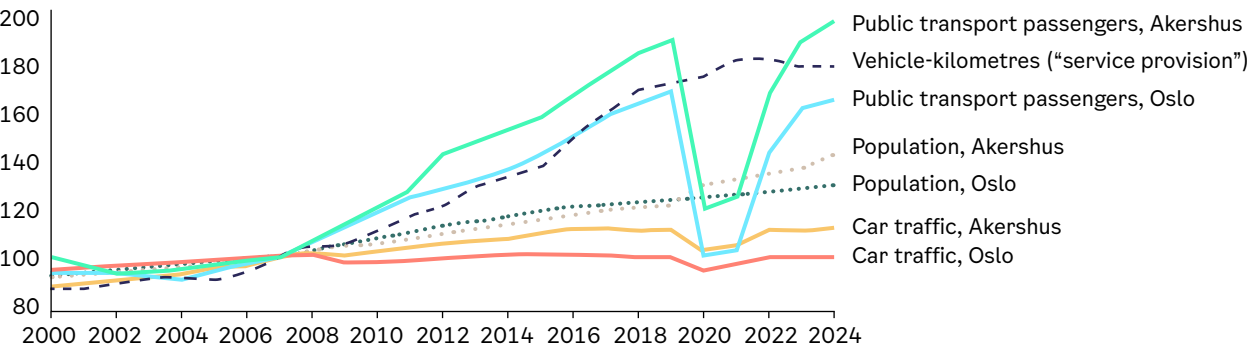


Figure 12: Trends in transport and population in Oslo and Akershus 2007–2024.¹⁷

Despite strong population growth in Oslo and Akershus, car traffic has remained relatively stable. In Oslo, car traffic is slightly lower in 2024 than in the base year for the calculations, 2007¹⁷. This is due to several factors, including urban development that has mainly taken place through the transformation of former industrial areas within the existing urban structure, densification in existing transport hubs, and high-capacity public transport. This means that a larger proportion of the population can walk, cycle, or use public transport for their daily journeys, compared to if the development had taken place by allowing the city to expand in area (urban sprawl). Car traffic in Akershus is on the rise, and this increase also affects traffic in Oslo and poses a challenge to the City of Oslo’s ability to meet its targets.

The graph above shows a strong correlation between improvements in public transport services (measured as vehicle-kilometres, the total number of kilometres travelled by all public transport vehicles over a period) and passenger numbers. The route network, particularly for buses, has gradually improved in line with population growth in Oslo and Akershus. The investments made through the tram programme, involving infrastructure upgrades and the purchase of new trams, have created the capacity for a near doubling of tram travellers. A similar upgrade is now underway for the metro, with the construction of the Fornebu Line, the upgrading of Majorstuen station, a new signalling system, and new metro carriages. This will allow for more departures on routes that currently face capacity challenges, not least on the Grorud Line.

Although public transport services are generally good throughout Oslo, there are differences in provision in different parts of the city. At the same time, there is potential to better utilise capacity in the public transport system, so that the investments made in infrastructure and in the operation of buses, trams, and the metro provide greater benefit.

¹⁶ Agency for Urban Environment, Agency for Planning and Building Services, Agency for Climate, and Ruter. 2025. Faglig grunnlag til Grønn Mobilitetsplan (Technical basis for the Green Mobility Plan)
¹⁷ Ruter. 2024. Reisetall og markedsandeler – Årsrapport 2024 (Passenger figures and market shares – Annual Report 2024)

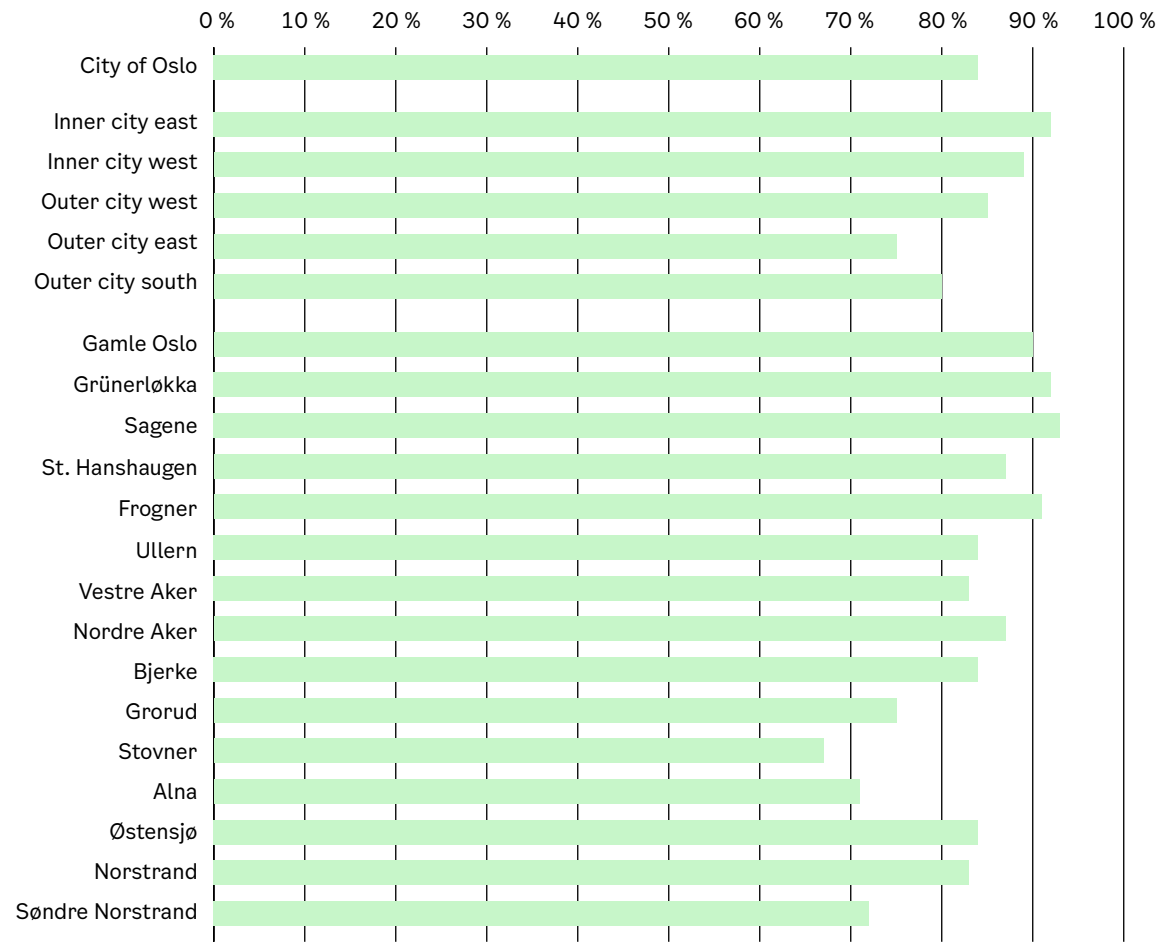


Figure 13: Percentage with very good access to public transport, based on the access index.¹

An important policy instrument for both public health and the capacity of the public transport system is to ensure that as many short journeys as possible are made by bicycle or on foot. For example, metro journeys of just a few stops in Oslo city centre represent an inefficient use of capacity. If these journeys are made on foot or by bicycle, capacity is freed up for travellers undertaking longer journeys through the city centre. Pricing should be used actively to ensure that public transport does not replace active modes of travel. This could, for example, involve pricing models that make short journeys relatively more expensive. Similarly, a stop network that encourages short public transport trips within a small geographical area, or very short partial trips by bus or tram, is not particularly strategic. This also contributes to longer journeys along the same routes becoming less competitive compared to passenger cars.

In 2024, Ruter began testing demand-responsive transport services in a limited area of Oslo. Autonomous vehicles bring the use of various forms of demand-responsive transport to the fore. This can improve mobility services in a socially, economically, and environmentally sustainable way and provide residents currently living in areas with lower public transport coverage with a better, more flexible alternative to private cars. It can also help reduce the use of private cars for journeys where public transport, walking, or cycling struggle to compete with private cars.

Today's public transport is particularly competitive for commuting trips, but for many other travel purposes, people find that private cars offer significant advantages. If more people opt out of using private cars in favour of a shared on-demand service, the potential for reducing

the number of vehicles will be substantial. To achieve a reduction in transport work, the average occupancy rate in each demand-responsive vehicle should be significantly higher than that of private cars. If demand-responsive transport is largely filled by those who previously travelled by public transport, bicycle, or walking, car transport work will increase at the expense of other modes of transport. It is therefore important to identify the markets in which demand-responsive transport can compete directly with private cars, thereby reducing transport work without this coming at the expense of bicycles and walking.

The same principle applies to micromobility. Shifting travellers from walking and cycling to micromobility benefits neither public health nor urban life. Experience with micromobility solutions in Oslo shows that these are well received by many users, but also that they create safety challenges, particularly for pedestrians and cyclists. Experience also shows that regulation of the service is needed, both in terms of user behaviour and land use/parking. Micromobility can be an important part of the public transport services, but it must not be an alternative to walking to buses and the metro for those who are able to do so. The integration of micromobility into the public transport services is to help strengthen public transport's competitiveness against the car.

There is also potential to further strengthen public transport's competitive position against passenger cars. A dense network of stops means short walking distances for travellers, but at the same time, many stops result in long journey times. In many cases, increasing the distance between stops will result in more competitive public transport services overall. From a public health perspective, it is appropriate that those who can walk a little further do so; at the same time, this must be balanced against the need for some groups to travel as directly as possible door-to-door.

Delays are perceived as a major inconvenience for travellers, as they create uncertainty about whether one will arrive on time and how long the extra journey time will be. A key policy instrument for making public transport services more attractive is therefore to improve traffic flow for buses and trams. Improved traffic flow for buses and trams is among the most cost-effective policies that can be implemented in larger urban areas.¹⁸ In recent years, several measures have been implemented through the 'powerful traffic-flow measures' collaboration between Ruter and the Agency for Urban Environment. Improved traffic flow reduces journey times, but is also key to making bus and tram operations more efficient. With improved traffic flow, more departures can be run without increasing operating costs. Through the 'Frem 2005' traffic-flow measures, tram operations were made more efficient, increasing the frequency on the main tram route from 4 to 6 departures per hour without the need for additional trams or drivers.

Public transport has long enjoyed stable ticket revenues. Since the pandemic, this trend has reversed and ticket sales account for an ever-smaller share of revenue. To maintain robust public transport services, public transport finances must be sustainable. Ticket prices influence whether people choose public transport over other modes of transport. At the same time, it is unfortunate if public transport is priced in a way that discourages people from walking and cycling. Public transport pricing as a policy instrument must strike a balance between the competitiveness of public transport against cars on longer journeys without discouraging walking and cycling on shorter journeys.

The extensive public transport system in Greater Oslo is essential for maintaining current mobility services for everyone. At the same time, public transport entails significant operating and investment costs. Future public transport services depend on sustained, predictable, and adequate funding for necessary maintenance and reinvestment in infrastructure, service development, and the operation of public transport. To ensure that public transport services remain attractive, with good punctuality and regularity, proper maintenance of the existing infrastructure is crucial. The current maintenance backlog needs to be reduced to maintain

¹⁸ Kjørstad, Ellis, Berg, Betanzo og Norheim. 2014. Nullvekstmålet - Hvordan kan den forventede transportveksten fordeles mellom kollektivtransport, sykkel og gange (The zero-growth target – How can the expected growth in transport be distributed between public transport, bicycles, and walking)

the desired quality of the infrastructure and reap the benefits that investments such as the Fornebu Line and a new signalling and safety system will provide.

The role of the car

There are approximately 247,000 passenger cars in Oslo, i.e., 341 cars per 1,000 inhabitants, and this figure has fallen slightly since the peak year of 2021, when there were 374 cars per 1,000 inhabitants.¹⁹ The proportion of electric cars in Oslo is 46% and rising, and toll ring crossings show an electric share of 60% for passenger cars.²⁰ Total traffic has remained stable in recent years, averaging 0.6% above the zero-growth target.²¹ The policy instruments must be adjusted if overall zero growth for car transport and traffic reduction for passenger cars are to be achieved.¹⁹ In addition to measures that directly reduce car use, the City must also work actively to make alternatives to private cars more attractive, accessible, and efficient. Oslo’s residents must be encouraged and rewarded for making choices that benefit the climate, the urban environment, and public health. A reduction in car traffic will make it easier to achieve the City of Oslo’s climate targets. At the same time, the remaining vehicle fleet must be electrified, whilst ensuring that policy instruments to achieve this do not result in larger and heavier vehicles.

It must be easy to live without a car in Oslo. The car is a necessary mode of transport for some, but it is often also an obstacle to other modes of transport. A general principle on Oslo’s streets is that traffic flow for cars must not come at the expense of traffic flow and safety for pedestrians, cyclists, and public transport. Where traffic flow for cars is not prioritised, cars are guests. Nevertheless, the car plays a role in the mobility system and is an absolute necessity for some, and it will still be possible to drive a car in Oslo.

Car traffic requires a lot of space for road infrastructure; cars contribute to noise and challenges with local air quality. Tyre wear contributes to microplastics. The Norwegian Environment Agency estimates that tyre wear accounts for half of the total land-based emissions of microplastics into the sea today.²²

A reduction in car traffic will make it possible to reallocate space from cars to pedestrians, cyclists, and public transport users, as well as to green spaces and enhanced urban life, which in turn will contribute to a more pedestrian- and cycle-friendly urban structure and more attractive surroundings. Fewer cars will also help to improve road safety and reduce dust and noise. Less car traffic will improve flow for those who depend on a car to participate actively in society, as well as for commercial and utility vehicles.

Some car journeys are more difficult to replace with other modes of transport, such as leisure and holiday trips. Car sharing can be a solution for some of these journeys, where cars are shared rather than owned by individuals who need a car from time to time. The City of Oslo has a pilot scheme for car sharing on public land. The City wants all cars in the scheme to be zero-emission cars and for the spaces and associated charging infrastructure to be utilised more efficiently. The City’s role should be to support car sharing as a genuine alternative to car ownership without increasing car use. This is achieved through the strategic placement of car-sharing spaces. The industry itself also has a responsibility to ensure efficient operation and must therefore continue to secure agreements with private car parks, as it does today.

Cars in Norway are stationary on average 98% of the time, and they are becoming ever larger, heavier, and more powerful.²³ Parking along municipal streets and the regulation of this parking provision are increasingly used by the City as policy instruments to reduce car use and

make zero-emission cars more attractive than fossil-fuel cars. Residents’ parking provides cheaper and easier access to paid parking spaces. Paid parking also helps to reduce the appeal of cars, generates revenue for the City, and is used to encourage a switch to zero-emission cars. Larger cars take up more space and contribute to poorer road safety for pedestrians and cyclists. Therefore, the City will consider whether it is appropriate to introduce a weight-and-size component into parking charges (as has been done in Paris²⁴ and the UK^{25, 26}) and into the toll ring for passenger cars. The City will also work to ensure more effective use of measures targeting state and private parking areas, such as a municipal power to impose parking charges.

The City of Oslo has long been facilitating electrification by installing over 2,200 publicly accessible on-street chargers. With support from the City’s energy and climate fund, several fast chargers have also been built, for both light and heavy vehicles. The development of a basic charging network has been an essential part of the transition to electric vehicles. The City will shift its focus from charging infrastructure development based on targets for the number of chargers to increasing the utilisation rate of the existing charging network, managing local capacity, and building where charging needs are not being met. The City will also continue to work on the expansion of charging infrastructure where appropriate. Vans are a vehicle category where the transition to zero-emission vehicles is progressing slowly. The City will ensure that electric vans pay less for charging and parking than other vehicle groups, helping speed up the transition.

In line with the principle of an area-based approach, the City should identify geographical areas where the potential for traffic reduction is greatest. There is a significant difference in the market potential for walking, cycling, and public transport across areas. The City must also lead by example by reducing staff car journeys to and from work and during working hours. 26% of the City’s staff drive to work and parking availability is very good.²⁷

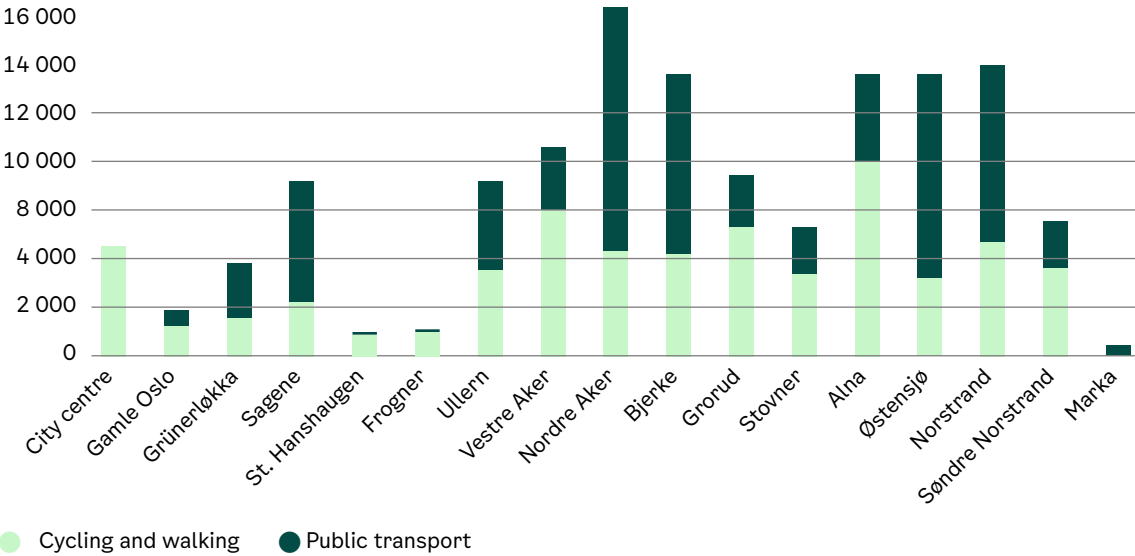


Figure 14: Journeys in the ‘possible to shift from car’ category. Strategic market potential analysis for cycling and walking, and for public transport. The bars show how many of today’s car journeys in Oslo’s individual districts could be shifted to walking/cycling and public transport by introducing various measures²⁶

¹⁹ Norwegian Climate Foundation, Antall personbiler i Oslo (Number of passenger cars in Oslo)
²⁰ City of Oslo, Personbiler i Oslo (Passenger cars in Oslo)
²¹ Norwegian Public Roads Administration, Se utviklingen i indikatorene (See trends in the indicators)
²² Teknisk Ukeblad Media AS, Miljøproblemet elbilerne ikke snakker om (The environmental problem electric car owners do not talk about)
²³ Nenseth og Ellis. 2022. Bildeling i Bergen - erfaringer og effekter (Car sharing in Bergen — experiences and effects). TØI-rapport 1895/2022

²⁴ Forbes, Paris Votes To Triple Parking Charges For SUVs
²⁵ Forbes, Cardiff Becomes First UK City To Introduce SUV Surcharge
²⁶ The Independent, SUV drivers face paying extra for parking under plans by Welsh council
²⁷ Ellis, Nenseth, Lunke og Christiansen. 2023. Reisevaner blant ansatte i Oslo kommune (Travel habits among employees of the City of Oslo). Sammendrag av TØI-rapport 1964/2023



Photo: Fartein Rudjord/Hyper

Urban logistics

Well-functioning and sustainable urban logistics are a key prerequisite for a green, vibrant, and attractive city and have a major impact on how the city and its surrounding area function and develop. Urban logistics encompasses the movement of goods, equipment, waste, and services into, out of, through, and within the city. Urban logistics includes a wide range of transport services linked to goods delivery and e-commerce, construction and civil engineering works, waste collection, municipal operations, and service transport such as servicing, trades, and public services. Sustainable urban logistics is about ensuring that goods, waste, equipment, and services are transported to the right place, at the right time, and using the right vehicle.

In Oslo, heavy vehicles and vans accounted for 54% of road traffic emissions in 2023.²⁸ Efficient and zero-emission urban logistics are crucial for reducing traffic congestion in the city and achieving agreed climate targets. A vibrant city depends on favourable conditions for trade and business, and zero-emission, efficient urban logistics can also help strengthen the competitiveness of the business sector.

There has been an increase in e-commerce and home delivery in recent years, and the need for commercial transport is projected to rise further towards 2030, according to projections by the Institute of Transport Economics on behalf of the Agency for Climate.²⁹ A large proportion of the kilometres driven by vans relate to service and trades services (service transport). To prevent increased transport demand from leading to a sharp rise in traffic, measures must be implemented to make urban logistics more efficient.

The government's zero-growth target does not cover commercial transport. The City of Oslo nevertheless believes it is necessary to view urban logistics and passenger transport in conjunction, and that the overall traffic load must be reduced. The fact that fewer of the city's residents own a car may mean a greater need for home delivery of goods. If the overall traffic load is to be reduced, passenger car traffic in particular must be cut. At the same time, urban logistics must be optimised by enabling shorter supply chains, reduced consumption, and increased reuse. Services should also be available where people live. Further growth will pose challenges for road network capacity, traffic flow, urban life, and road safety. To achieve an effective shift in commercial transport in Oslo, a varied portfolio of policy instruments is required. The City has control over some of these instruments, but must also actively work to influence national policy frameworks and collaborate closely with industry.

Sustainable urban logistics requires a cross-sectoral effort, and land-use planning plays a key role in ensuring sufficient and suitable land. At the same time, urban logistics must be carried out in such a way that it takes up as little space as possible, for example, through the choice of vehicles or timing. Oslo is a compact city with integrated land use and transport planning, where growth is to take place from the centre outwards. Land is a scarce resource that must be managed efficiently through better utilisation of land and infrastructure.

Much of Oslo's commercial transport begins or ends outside the City's boundaries. The 2015 Regional Plan for Land Use and Transport for Oslo and Akershus sets out guidelines for the location of workplaces, retail, services, and urban centres, as well as for freight and logistics operations. The evaluation of the plan highlights that urban logistics must also be viewed from a regional perspective.³⁰ By setting requirements and providing overarching guidelines, regional planning can help accelerate the electrification of commercial transport and manage traffic flows into and through the City. The Regional Plan for Land Use and Mobility is due to be revised in 2026.

Today, there is often conflict between urban logistics and other forms of mobility in the city's central areas. Urban logistics operators find that their day-to-day operations are occasionally squeezed between the Road Traffic Act, increased requirements for facilities for walking, bicycles, and public transport, and the Working Environment Act's requirements for a safe working environment. These issues are often exacerbated in winter.

Another key challenge, according to urban logistics operators, is finding space for legal loading and unloading. The operators say that the spaces currently set aside for urban logistics purposes in the city do not function optimally, because there is a lack of real-time information on loading and unloading bays, shared use is not optimised, spaces are used at inconvenient times of the day (for example, during peak hours), or because the spaces are not designed to meet the needs. This also contributes to detours, cruising for parking, and illegal parking.

These findings from the City's own dialogue with the industry align with those in a report prepared by Norconsult on behalf of the Agency for Climate. The report describes urban logistics in Oslo as characterised by a lack of coordination between stakeholders, inaccessible loading bays, inefficient goods reception, and improvised solutions for unforeseen events.³¹ By planning safe, efficient logistics solutions, the risk of accidents can be reduced, and the working environment for drivers and others in urban logistics and commercial transport can be improved. It is also important to reduce other negative impacts of urban logistics on urban life and people, such as noise, traffic volume, congestion, and road safety. Furthermore, there is a need to secure space and access to public and private services necessary for the functioning of the city, such as waste collection, maintenance, and operation of the road network and urban spaces.

In urban logistics, attention is often focused on those who transport goods, equipment, and waste, or provide services, but it is also important to include the recipients of these goods,

²⁸ Norwegian Environment Agency, Utslipp av klimagasser i Norges kommuner og fylker (Greenhouse gas emissions in Norway's municipalities and counties)

²⁹ Pinchasik, Hovi og Steinsland. 2023. Framskrivning av varetransport i Oslo (Projections for goods transport in Oslo). TØI-rapport 1967/2023

³⁰ City of Oslo and Akershus County Council. 2023. Evaluering - Areal- og mobilitetsplan Oslo og Akershus (Evaluation — Land Use and Mobility Plan for Oslo and Akershus)

equipment, and services. The recipients or consumers are the ones who create transport demand, and they hold power through their role as purchasers. Recipients can range from private individuals ordering home deliveries to private and public enterprises, organisations, or event organisers making large-scale purchases of goods and services. It is important to raise awareness and foster a sense of responsibility among this group as key stakeholders in ensuring more sustainable urban logistics.

The City's various roles

The public sector has many different roles related to urban logistics, and the City acts as a regulatory authority, community developer, purchaser, service provider, and infrastructure owner. As a regulatory authority, the City facilitates and regulates urban logistics through land-use planning and traffic management, and by acting as the road and signage authority on municipal roads. This authority is limited by national legislation and regulations. The City also exercises authority in the field of construction and civil-engineering transport, for example, by setting requirements for zero-emission construction sites, zero-emission transport to and from construction sites, and bulk material handling.

As a community developer, the City encourages the use of more zero-emission vehicles by providing charging infrastructure and incentive schemes. The City also plays a role in ensuring that new knowledge is utilised and acts as a testing ground for new solutions. The City of Oslo has been involved in various projects alongside selected carriers, shops, property owners, and cargo owners. These have mainly been projects testing small-scale measures at street level, such as re-signposting attractive goods delivery areas. The measures have usually been implemented in isolation, making it challenging to assess their impact at a system level and their interaction with other measures. Therefore, testing and piloting need to be systematised, and this work is currently underway in the City. This must include the systematisation of evaluations to assess the potential for upscaling and be based on an area-based approach.

The City of Oslo plays a major role as a service provider. The City is responsible for the management of public spaces. This includes, amongst other things, winter maintenance, spring street cleaning, road maintenance, water and wastewater management, and the collection and handling of waste for recycling. The City of Oslo also transports goods as part of its service provision, for example, in home care, library services, or as a client for the City's projects.

The City of Oslo is one of Norway's largest purchasers. Changing its own procurement practices can therefore have a significant impact on service transport and goods deliveries. Climate requirements in procurement have reduced emissions linked to the City's transport and deliveries. Procurement policy can also be used as an instrument to streamline the City's deliveries and thereby reduce transport volume.

Securing sufficient space for urban logistics purposes is a prerequisite for the city to function. There is currently too little available space in urban areas for handling goods transport, service transport, and other urban logistics. This leads to congestion and a great deal of illegal parking. One contributing factor is that urban logistics operators lack incentives to use land more efficiently. The City must ensure sufficient space is available, but at the same time, the available space must be utilised more efficiently. Going forward, the City wishes to see urban space prioritised less for grey, impervious surfaces, and to achieve this in practice, urban logistics must also be made more efficient.

Policy instruments

The Avoid-Shift-Improve framework — avoid, shift, and improve — can, as in passenger transport, be applied to urban logistics to reduce both emissions and traffic volume. Below is a description of several policy instruments and initiatives that the City of Oslo wishes to pursue further to ensure more sustainable urban logistics.

Establish a zero-emission zone for commercial transport

A zero-emission zone is a geographically defined area where only zero-emission vehicles are permitted. By introducing a zero-emission zone, Oslo can effectively reduce emissions and accelerate the transition to zero-emission vehicles. At the same time, the perceived disadvantages of traffic for the population and urban life, such as air and noise pollution, will be minimised.

At present, the City of Oslo does not have the legal authority to introduce a zero-emission zone, but the government has announced that it will submit a proposal for such authority for consultation. The Norwegian Public Roads Administration, on behalf of the Ministry of Transport, has drawn up a proposal for legislative amendments and regulations to enable municipalities to establish zero-emission zones. In Oslo, the proposed zero-emission zone will initially apply to commercial transport. When establishing a zero-emission zone, consideration must be given to the required infrastructure, such as additional charging infrastructure and urban logistics terminals where carriers without zero-emission vehicles can deliver goods destined for the zone. Consideration must also be given to which exemptions should apply, for example, for specific groups or types of transport, such as emergency vehicles. How the zone will be designed and enforced can only be decided once the legal framework is in place.

Facilitating charging infrastructure

All passenger cars and vans must be zero-emission in Oslo by 2030. Trucks may run on biogas or sustainable liquid biofuels, but the best option for the climate and the environment is for them to be zero-emission (electric- or hydrogen-powered). To ensure an acceleration in the transition from fossil-fuel vehicles to zero-emission vehicles for goods and commercial transport, the City of Oslo will continue to facilitate charging infrastructure with designs and locations tailored to different vehicle groups and urban logistics segments (service providers, last-mile distribution). In addition, other incentives will be considered to support the transition from fossil-fuel vehicles to zero-emission vehicles. Policy instruments that should be considered include priority access, access to parking spaces, and financial incentives.

Securing space for urban logistics

Securing sufficient space for urban logistics purposes is a prerequisite for efficient and well-functioning urban logistics in Oslo. Urban logistics purposes are often deprioritised in favour of other functions when new buildings and urban areas are planned. Urban logistics must therefore be given greater consideration during the planning phase. One measure is therefore to work towards making urban logistics a separate zoning purpose in the Planning and Building Act. The City must also take greater account of the needs of urban logistics in its own planning processes and land use assessments. Local mobility plans must include urban logistics.

Areas designated for urban logistics must be functional spaces that support efficient operations and loading and unloading. To optimise land use, areas designated for urban logistics should, as far as possible, support the co-location of various urban logistics functions and charging infrastructure where appropriate, and these areas must also be considered in the context of wider mobility planning.

Facilitating dynamic use of space

Goods deliveries should take place outside peak hours, particularly in the evening and at night, so-called 'off-peak deliveries'. This shifts goods deliveries to a time of day with the best traffic flow and fewer road safety challenges. Night-time delivery could alleviate peaks in busy loading and unloading zones and minimise cruising for parking. The City will consider

signposting goods deliveries in line with this. Receiving solutions must also be established, and consideration must be given to noise, particularly in residential areas. Here, the City can take the lead and test various forms of delivery rescheduling and coordination within its own deliveries.

As part of this, the City wishes to collaborate with national authorities on a pilot programme for dynamic signage. This requires, among other things, an amendment to or an exemption from the current signage regulations. The purpose of dynamic signage is to enable, for example, 24-hour or time-specific urban logistics operations in areas otherwise zoned for other uses.

Facilitating increased use of cargo bikes and smaller city-adapted vehicles

It is possible to shift more journeys from vans to cargo bikes and other city-adapted vehicles. This applies in particular to service transport and in areas close to the city centre where large vehicles are less desirable. Shifting more transport assignments to active travel modes can also yield public health benefits for those providing transport services in Oslo. Services provided by the City itself can, to a greater extent, be carried out without using passenger cars, vans, or trucks. In several central districts, for example, home care services already use electric bicycles rather than passenger cars.

As a separate measure, the City will investigate how it can encourage increased use of cargo bikes and city-adapted, smaller vehicles in dense urban and city-centre areas, for example, through urban logistics terminals for transshipment to cargo bikes and city-adapted smaller vehicles, or through other incentive schemes. These will also be important facilitation measures in connection with the introduction of a zero-emission zone.

New city-adapted vehicles that are not yet known may also emerge. The City has experience of this, for example, from the introduction of e-scooters. In other cities, delivery robots are being put into use. These are self-driving robots that can deliver goods, such as food or small parcels. The City should actively and purposefully use research and development to acquire knowledge about and prepare for new solutions that may emerge in the urban landscape. Knowledge of new solutions is important for taking advantage of new technology, whilst ensuring the City is prepared to manage any negative consequences.

Ensure satisfactory design and information regarding loading and unloading

Urban logistics operators express a need for detailed information on existing loading and unloading bays. These areas must be designed appropriately, and all loading and unloading bays on the City's land should be marked with detailed information on size and layout, so that operators know in advance whether they can use the space for their vehicle.

The City will assess the need for and feasibility of a real-time system that allows loading and unloading bays to be reserved via a digital booking system. This could be implemented as a pilot scheme at selected loading and unloading bays before scaling up is considered.

Ensure traffic flow in winter

It is important to ensure traffic flow for urban logistics, particularly in winter. This applies, for example, to loading and unloading bays, pavements used for transporting trolleys, roll containers, rubbish bins, and similar items, as well as cycle lanes and areas for loading and unloading cargo bikes.

Defining appropriate data collection

It is often noted that accessing travel data from transport operators is difficult, but there is less awareness of which data is relevant and how the public sector intends to use it. If the City wishes to access data from the private sector, it should also be clear about how the data will be used. The City of Oslo must continue to work on defining which data is important for the City in order to support and achieve the goals set for urban logistics. This work should be carried out in consultation with the industry. Relevant data may include data on traffic volume, kilometres driven, cruising for parking and empty running, and modal split (e.g., cargo bikes, vans) for various groups of goods and service transport.

There is a lack of good data on vans. A separate van survey is needed to map out goods categories, transport purposes, route choices, and more. The City will explore the possibilities of collaborating with the Norwegian Public Roads Administration and Akershus County Council on such a survey.

Investigate a framework for two-tier distribution

There is great potential in splitting the distribution of goods and waste collection into two tiers to expand the use of city-adapted vehicles. 'Two tiers' refers to one transport leg from the main terminal/depot to the urban logistics terminal, and one transport leg from the urban logistics terminal to the destination. There is potential for significant savings in terms of kilometres driven and road space occupied on the main route from the main terminal to the urban logistics terminal. Instead of many medium-sized distribution vehicles, one or two semi-trailers or trucks are used to transport goods to the urban logistics terminal. Within the city and in city centre areas, smaller vehicles are used, and optimisation is achieved differently, so that the total space occupied in the inner city is significantly reduced. The same logic can also be applied in larger residential areas.

'Urban logistics terminals' is a collective term for various types of urban logistics functions brought together in one place. These can vary in size, available services, functions, ownership, and business and pricing models. There are many, and partly overlapping, terms for such terminals. Previous estimates suggest that urban logistics terminals located close to city centres have the potential to reduce emissions and vehicle-kilometres travelled by approximately 10%. The average load factor of the vehicles used is crucial to the final reduction in traffic. At the same time, driving distances may increase when smaller vehicles with lower load capacity are used. In city centre areas during the day and in the evening, however, smaller vehicles may be preferable.

Based on available information and knowledge from existing urban logistics terminals in Oslo, as well as experiences from other European cities, the City will develop an Oslo framework for urban logistics terminals that sets out requirements for services, functions, size, layout, pricing models, and space requirements. Such a framework must account for the necessary infrastructure to be developed, particularly charging infrastructure and battery cabinets for electric vehicles. This work is to be carried out in collaboration with the business sector, service providers, and stakeholders on both the operator and purchaser sides, and based on the principle of an area-based approach that takes into account local differences and typical destinations for urban logistics operations. The City will draw up site specifications for terminals that describe both land use and estimated land savings. This work should be viewed in the context of establishing a zero-emission zone.

Regulation of heavy vehicles

Different road user groups use the road network at different times of the day. To minimise the risk of accidents, the use of heavy goods vehicles and construction machinery should be restricted to locations and times of day when the risk of conflict with the most vulnerable road user groups is lowest. This may, for example, involve restrictions on the use of heavy goods vehicles around schools during school hours, along children's routes (Barnetråkk), and in specific areas during peak hours.

The impact of heavy vehicles can also be reduced by imposing design requirements. The City should set requirements for the design of heavy vehicles in its own tenders and work with national authorities to ensure that such requirements are established. Zero-emission requirements will help to reduce noise and air pollution. Requirements regarding cab design, sightlines, blind-spot technology, and pedestrian detection will reduce the accident risk.

Municipal operations, waste management, and bulk material transport

Municipal operations, freight, and waste management under the City's auspices must be carried out in the most climate-friendly way possible. The City of Oslo sets climate requirements in operational and construction contracts, and municipal operations are powered by electricity, hydrogen, or biogas. There are still exceptions for certain specialised machinery and vehicles used for winter maintenance. The City will act as a driving force in testing, piloting, and introducing new zero-emission machinery and vehicles in collaboration with contractors. By increasing demand for more climate-friendly machinery and vehicles in road maintenance, the City can accelerate innovation and reduce additional costs in the long term.

Construction often generates surplus materials. This could, for example, be rock blasted away to make room for a basement. The materials excavated or blasted out are rarely reusable without processing and often end up in landfills and bulk material reception sites in neighbouring municipalities. A more circular approach to bulk material handling, where bulk materials are reused locally to a greater extent, can reduce transport demand and ensure that natural resources are used more efficiently. To reduce the number of kilometres driven for bulk material transport, consideration will be given to weighting tonne-kilometres in tenders that include bulk material transport.

Coordinate procurement and enhance procurement expertise within the City

The City of Oslo has worked purposefully to introduce requirements for zero-emission transport in the City's own procurement. At the same time, a unified approach to procurement across the City is important, as this helps to reduce the number of deliveries and, consequently, the number of journeys. This requires improved procurement expertise, coordinated routes, and measures that make goods deliveries to the City more efficient. This includes both coordinated deliveries and procurement within the City.

Coordinated procurement requires the City to coordinate its own procurement procedures. This necessitates standardisation, common templates, and digital solutions as an initial step. Coordinated procurement enables the City to influence the number and type of vehicles, time spent, and areas used. This should be viewed in conjunction with coordinated deliveries. Coordination of deliveries within the City determines how transport is to be carried out. In its procurement, the City must stipulate that orders are to be coordinated and consolidated. This should be viewed in conjunction with two-tier distribution, which is also discussed in this plan. Coordinated deliveries are already in use in several municipalities in Sweden, with promising results in terms of reducing the number of deliveries.

Influencing consumer behaviour and cargo owners

The rise of e-commerce has led to an increased volume of goods being transported to consumers. It is important to raise consumer awareness of the transport volumes and greenhouse gas emissions generated by ordering and returning goods. In this way, consumer behaviour can be influenced to minimise the number of kilometres driven for goods deliveries and returns to private individuals. Advocacy efforts must also target carriers and cargo owners, so that delivery options are offered that are (more) sustainable, making it easy for customers/consumers to choose these options and providing customers/consumers with information on how sustainable the various delivery options are.

Develop a strategic approach to pickup points

Goods can be delivered directly to the home, to collection points, or to parcel lockers. By not delivering directly to the home, more goods can be delivered to a shared pickup point, which reduces the distance travelled by the goods supplier. Parcel lockers and other pickup points should be integrated into existing infrastructure and located in such a way that collecting goods from a parcel locker results in as little extra travel as possible for the recipient. This could, for example, be near public transport or within walking distance of the home.

There is a need for a strategic approach to the regulation of parcel lockers in Oslo, where the objectives of reducing traffic volume and mileage (for both the goods supplier and the recipient), ensuring road safety, and safeguarding public space are taken into account. A strategic approach involves assessing the need to draw up requirements and guidelines relating to permits, physical design, location, purchasing, and procurement of parcel lockers, and evaluating where other pickup points should be located, including in-store pickup or home delivery.

Developing public-private cooperation and partnerships with business stakeholders

The City of Oslo plays a vital role as a driving force for sustainable urban logistics. A key part of this work is maintaining close dialogue with business stakeholders, both urban logistics operators who transport goods, waste, and equipment and provide services, and the recipients responsible for procurement. To succeed with measures that have a lasting effect at the system level, close cooperation between many stakeholders is required.

Public participation and dialogue with the industry are important to ensure that the operators' experience-based knowledge is shared and helps to inform the City's work on urban logistics. At the same time, close dialogue between the City and the industry is key to ensuring predictability for the business sector.

As a possible further development of public-private cooperation within urban logistics, the City will assess in more detail whether more binding partnerships with stakeholders should be established to ensure more sustainable urban logistics.

