

General context

Oslo is the economic and administrative capital of Norway. The city is also the main centre for commerce, finance, industry, and transportation in Norway. It is a significant maritime industry and maritime trade hub in Europe.

Oslo, with a population of 700,000 residents, encompasses a metropolitan area that is home to approximately 1.5 mil. citizens. In 2019, Oslo adopted an ambitious climate strategy aimed at achieving a reduction of 95% in greenhouse gas emissions by the year 2030. In accordance with the Climate Strategy, the City of Oslo aims to become have its public transport system completely emission free by 2028, emission-free private cars and vans on all of Oslo's roads by the year 2030 and reduction in the amount of private car usage. The final objective is to reduce the share of private cars in Oslo's total modal split to no more than 10%.

Modal share

According to the latest Mobility and Transport Survey (MIS) published in 2022 by Ruter, the public transport authority in Oslo, the modal share in the city was as follows: public transport - 31%, walking - 32%, bike - 6%, car - 29%, other - 2%. These figures show that Oslo is a city where active and sustainable modes of transport are widely used by its residents and visitors. Walking is the most popular mode, followed by public transport, which includes buses, trams, metro, trains, and ferries. Cycling has a relatively low share, but it is expected to increase in the future as more bike lanes and facilities are built. Car use is lower than public transport and walking, reflecting the city's efforts to reduce traffic congestion. These results show a significant shift from car use to more sustainable and active modes of transport, reflecting the city's efforts to reduce greenhouse gas emissions and improve air quality. This shift is significantly supported by the adoption of strong policies regarding the climate in the city, and the implementation of different strategies such as congestion charge and low emission zones.

Mobility offer

The city of Oslo offers a wide range of mobility services. Public transportation in Oslo consists of an extensive network comprising buses, trams, metro systems, trains, and ferries, which provide extensive coverage of the city and regional area. Public (Sporveien, Unibuss, Vy) and private (Nobina, Boreal sjø, Norgesbuss) companies operate these services. Tickets can be purchased through different means, including online platforms, vending machines, or by using a contactless card while on board. The Ruter⁹ app can also be used for the purposes of journey planning and fare payment for public transport. Car sharing services in Oslo are provided by several companies, such as Hyre, Move About, Getaround, Avis, Hertz, and reservations are made using the website or mobile app. In Oslo, many taxi companies operate, including Oslo Taxi, and Norgestaxi. The taxi fares are regulated by the municipal authorities. On-demand service, operated by the public company Minibuss 24-7 is facilitated using a mobile application. There are several e-scooter providers operating in Oslo, including Voi, and Ryde; the reservation is made by card or by mobile app. The e-scooter may be parked within the designated service area if it does not impede pedestrian movement on the sidewalk or disrupt vehicle traffic flow. The bike sharing is provided by private companies such as Oslo City bike or Lime. Bicycles can be rented using a mobile application or a smart card. Bike leasing offers

⁹ Regional Transport Authority

individuals the opportunity to rent a personal bicycle for an extended duration, with Oslo City Bike serving as a provider for this service.

Last mile delivery services can be found of various aspects, using vans, cargo bike or self-pick-up, but there are restrictions in force that impose the usage of e-vans and e-cargo bikes all over the city.

Oslo implemented a congestion charging scheme, which is based on the Euro standard and fuel type of the vehicles, and, additionally, to the time frame and distance covered.

Transport data collection and integration

Oslo is a city that is committed to improving its transport and mobility systems for the benefit of its residents and visitors. One of the ways that Oslo does this is by collecting various types of data related to traffic, public transport, and alternative mobility services. However, Oslo currently lacks a formalized system for organizing, storing, and sharing these data among different stakeholders. Thus, local administration performs traffic/transport simulation and parking management, transport authority is in charge with public transport management. While other public entities are taking care of traffic flow management and automated fare collection.

Consideration on public transport service

The public transport system in Oslo has many strengths that make it convenient, efficient, and sustainable for the residents, commuters, and visitors of the city. Some of these strengths are:

- **Availability** - the public transport services operates 24 hours a day, seven days a week, with frequent services and minimal delays.
- **Coverage/network density** - the public transport services covers almost all areas of the city and metropolitan area, with a high density of stops and stations.
- **Accessibility** - the public transport network is easy to reach by walking, cycling or other modes of transport. The stops and stations are well-designed, accessible, and comfortable for all users, including people with disabilities, children and elderly.
- **Integration** - the public transport service is well-integrated with other modes of transport, such as car-sharing, bike-sharing, taxis, trains, and ferries. The users can easily transfer between different modes and different lines within the network, using a single ticket or a smart card. There are also bike racks at many stops and stations, as well as bike lanes and paths throughout the city.
- **Price structure** - the public transport is affordable and fair for all users, with a transparent price structure based on zones and time periods. The users can also benefit from discounts, subsidies and incentives for using public transport.
- **Safe and secure stops/stations and vehicles** - the public transport system is safe and secure for all users, with well-lit, clean and monitored stops and stations, as well as modern, comfortable and reliable vehicles that are equipped with safety features and emergency systems.

However, public transport in Oslo also has some weaknesses that need to be addressed to improve the user experience and satisfaction. These declared weaknesses are Information provision and amenities.

Relation between major mobility stakeholders

The cooperation between mobility providers and the local authorities is crucial for ensuring a sustainable and efficient urban mobility services. As regional public transport authority, Ruter it is responsible for the coordination, administration, funding, and marketing of public transport in Oslo region, that include buses, metro, trams and ferry services. Ruter also collaborate with government-owned transportation company (Entur AS) concerning the regulation of fares on local and regional train services operated within the region. This ensures a very good cooperation with public transport operators and on-demand service providers.

However, the rapid growth of e-scooter and bike sharing services in recent years has also posed some challenges for the city administration. Therefore, Oslo has implemented a set of regulations to manage these services¹⁰: permit from the city council, maximum speed up to 20 km/h and equip them with lights, reflectors and bells, provide helmets for their users and inform them about the traffic rules and safety guidelines, parking is allowed only in designated areas and cannot obstruct sidewalks, bike lanes, pedestrian crossings or other public spaces, report any accidents or incidents to the city council and comply with the city's environmental standards and use renewable energy sources to charge their vehicles. This creates the environment for a good collaboration with these service providers.

On the contrary, the city's cooperation with car sharing and ride-hailing providers is perceived as poorer mainly due to the lack of capacity, despite the willingness to cooperate and integrate these services into the whole mobility system in Oslo.

Vision and policies for sustainable mobility and climate neutrality

The mobility policies of Oslo are characterized by a strong emphasis on the adoption of modern technologies in transportation and mobility, the prioritization of shifting from individual car usage towards more sustainable modes of transportation, the implementation of an integrated approach to ensure sustainable mobility, and a focus on user-centric strategies for promoting sustainable mobility. Currently, political leadership and technical personnel within mobility-related departments are playing an important role in promoting sustainability and stimulating innovation within the city. At the same time, the citizens and civil society show an openness towards sustainable mobility, thus contributing to the advancement of sustainability and innovation. Furthermore, the city's administration follows closely all advancements in the field of urban mobility.

The City administration, the Metropolitan/Regional Authority and the National Authority have a shared responsibility for developing and implementing sustainable mobility measures that aim to reduce greenhouse gas emissions, improve air quality, and enhance liveability in urban areas. Additionally, the City Administration and the National Authorities are also in charge of designing and monitoring climate neutrality plans that set ambitious targets and actions to achieve net-zero emissions by 2050 or earlier. Oslo has already in place a Sustainable Energy Action Plan and Climate neutrality action plan. Because measures for sustainable mobility have been incorporated into the strategy for achieving climate neutrality and linked to other specific initiatives, Oslo does not have a plan for sustainable urban mobility. However, there are a dedicated departments that works on developing and implementing policies and projects that support the achievement climate neutrality and sustainable mobility goals.

One of the main challenges that the city/authority encountered while developing sustainable mobility and climate neutrality planning documents is the lack of adequate policy tools and procedures. Another major obstacle is the organizational fragmentation among the different stakeholders involved in the planning process. A third significant barrier is the difficulty of engaging transport companies, both public and private, in the development and execution of the sustainable mobility and climate neutrality plans. Despite this, the budget dedicated to the implementation of sustainable urban mobility measures is considered to be good and efficiently used. The urban mobility budget is mainly constituted from public funds provided by the local administration.

The Covid-19 pandemic did not significantly impact the development of strategies for sustainable mobility, even though it had a major impact on the implementation of some measures.

The successful implementation of sustainable mobility policies for Oslo was built on several factors. These include public, political, and professional acceptability of the policies, capacity of the actors involved to carry out the actions,

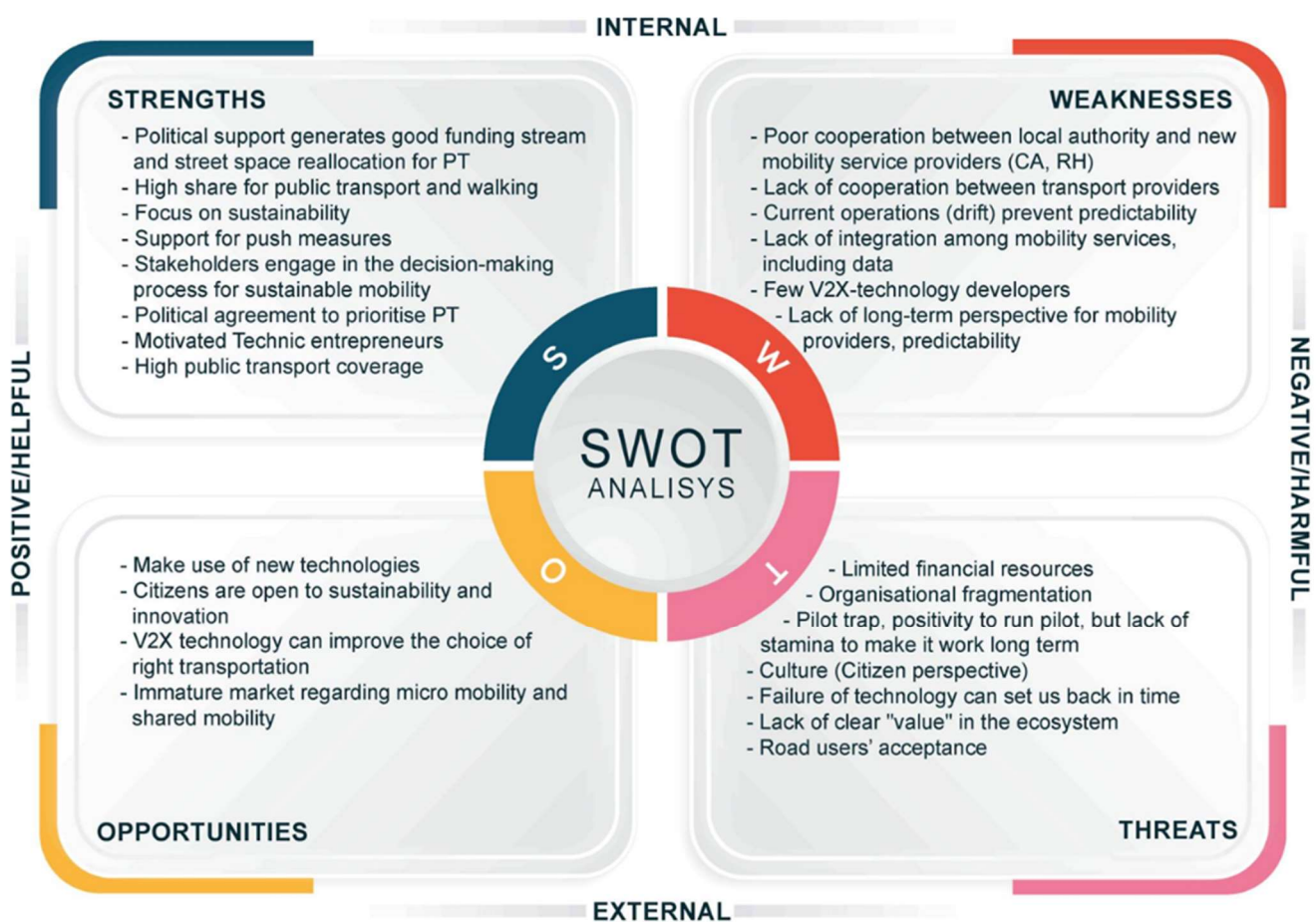
¹⁰ <https://www.eltis.org/in-brief/news/oslo-adopts-restrictions-e-scooters>

funding mechanisms to support the initiatives, and integration into a strategy that aligns with the city's vision and goals.

Considering that stakeholder engagement is very important, the city of Oslo set up a dedicated department in charge of this relation. The stakeholder engagement actions are highly integrated in the decision-making process. A diverse range of stakeholders are consulted before making any decision and all their input and feedback are considered. The aim to achieve a consensus that reflects the needs and interests of all parties involved. However, an important barrier for the engagement is given by limited financial resources.

SWOT analysis

The results of the Oslo SWOT analysis carried out with the main stakeholders in UPPER project are presented in the figure below:



Implementing **acceleration strategies** that can encourage a mind-set in the public's perception of mobility toward more sustainable modes of transportation is a possible approach to use the strengths indicated in the SWOT analysis to take advantage of the opportunities:

- Actions to change citizens mindset through awareness about the good framework for public transport improvement
- Raised political interest in supporting new technologies and business models that can enhance mobility efficiency and environmental friendliness to create a window of opportunity for rapid and effective implementation.
- Accelerate new tech and business models through political support and focus on sustainability.
- Support for prioritizing public transport over car using V2X (vehicle to everything) can help to create a positive feedback loop between users and providers.

The **improvement strategies** that emerged from the SWOT analysis are:

- Conduct testing in living lab and in real life scenarios. This will allow evaluation of the performance, usability, and impact of mobility solutions in a controlled and realistic environment. Testing in living lab and in real life will also help to identify and address any technical, social or ethical challenges that may arise from the innovation.
- Leverage the position as public mobility providers to facilitate cooperation between different modes of transport. This will enable the creation of a seamless and integrated mobility system that meets the diverse needs and preferences of the users.

The outcomes of the SWOT analysis provide several **resilience strategies** as well:

- Secure a strong support from stakeholders.
- Maintain a high level of communication with our stakeholders, ensuring that they understand the objectives of improvement of public transportation.
- Look for funding opportunities that align with city mission and values, and that can help supporting development.

Possible **intervention strategies** to address the declared weaknesses and threats related to public transport system in Oslo could be:

- Efficiently reallocate the space to support the PT and reduce congestion, pollution and accidents.
- Secure funding and incentives for new mobility solutions, especially in times of economic uncertainty and budget constraints.
- Plan and implement mobility policies and projects that are aligned with long-term goals and visions, and that can adapt to changing circumstances and needs.

SUMP + UPPER measures

Oslo has not specifically developed a sustainable urban mobility plan, in the accept of the European guidelines, however, there are integrated national and local policies and strategies that include measures to move towards sustainable transport in the context of achieving climate neutrality. Among these we can mention: Climate and Energy Strategy for Oslo¹¹, Regional plan for area a transport in Oslo and Akershus¹², Norway's Climate Action Plan for 2021–2030¹³.

¹¹ <https://www.klimaoslo.no/wp-content/uploads/sites/88/2018/06/Climate-and-Energy-Strategy-2016-English.pdf>

¹² <https://www.oslo.kommune.no/getfile.php/13114975-1458287220/Tjenester%20og%20tilbud/Plan%2C%20bygg%20og%20eiendom/Overordnede%20planer/Regional%20plan%20for%20areal%20og%20transport%20i%20Oslo%20og%20Akershus.pdf>

¹³ <https://www.regjeringen.no/contentassets/a78ecf5ad2344fa5ae4a394412ef8975/en-gb/pdfs/stm202020210013000engpdfs.pdf>