

# Bikes for e-mobility in Norway

a best practise report by



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Project

"CLIMA BEST - Better CLIMA based on the BEST experiences

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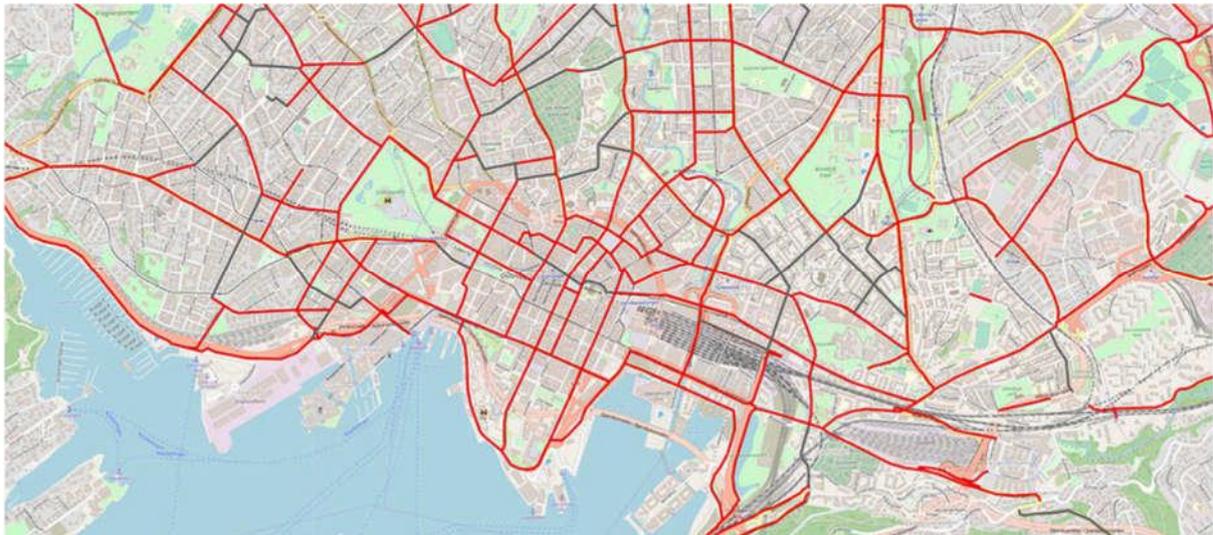


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## Accommodating mobility

Oslo, the capital of Norway and a city of almost 700 000, provides a variety of climate grants (klimatilskudd) to individuals and businesses to help establish good, climate friendly practices. Oslo has recently gained a sizable green political influence in its council and has implemented strong policies to decentivize cars in the city centre. This includes raised toll prices for entering the city, less parking spaces and turning car roads into pedestrian roads. By providing e-mobility tools, the average person gains more ways to travel without cars and also quells the inevitable complaints about difficulties over transportation when cars become less lucrative to travel with.



Planned bicycle network in Oslo  
Plan for bike road network in Oslo<sup>1</sup>

### Better bicycle roads in Oslo

An important step to increase use of e-mobility and similar tools like manual bicycles, is to create bike-friendly infrastructure. In 2018, Oslo adopted an ambitious plan to improve the bike road network. This was a part of the 10 year plan for improving the conditions of biking called “bike strategy 2015-2025”<sup>2</sup>. The overall goals include having a maximum distance to a bicycle road of 200 metres and establishing safe bike roads. A bicycle road is also defined by Oslo municipality in the “Oslo standard” for bicycle facilitation.<sup>3</sup> By providing thorough descriptions of standards expected of the roads, potentially difficult infrastructure to build on (intersections, roundabouts etc.) and solutions for overcoming them, Oslo can ensure that these new bike roads are up to a good standard.

<sup>1</sup> <https://www.oslo.kommune.no/slik-bygger-vi-oslo/plan-for-sykkelveinettet/#gref>

<sup>2</sup> [Oslos sykkelstrategi for 2015-2025](#)

<sup>3</sup> [Oslostandarden for sykkeltilrettelegging](#)

Bicycle roads are identified as different roads which accommodate bicycles to the point of making them notably safer and more comfortable to travel. In its report establishing the “Oslo Standard” Oslo municipality divides bicycle roads into three categories:

- bicycle lanes,
- pedestrian and bike priority in slow traffic
- separate road networks for pedestrians and bicycles

Bicycle lanes are primarily built as 2 metre deep lanes with clear demarcations and preferably in red asphalt, or thinner marked lanes of 1,5-1,8 metres for short distances or bike lanes going against traffic in a one-way street. As a temporary solution, or in streets passing obstacles, bicycle lanes can be as small as 1,3 metres. The report also indicates some solutions which are more commonly used in other countries, but which Norway has yet to adopt. These include a raised bicycle lane that is higher than the care lane, but also has a curb towards the pedestrian lane, and physically protecting bike lanes which are particularly vulnerable.



Left: example of bike road separated from car lane in complicated road stretch

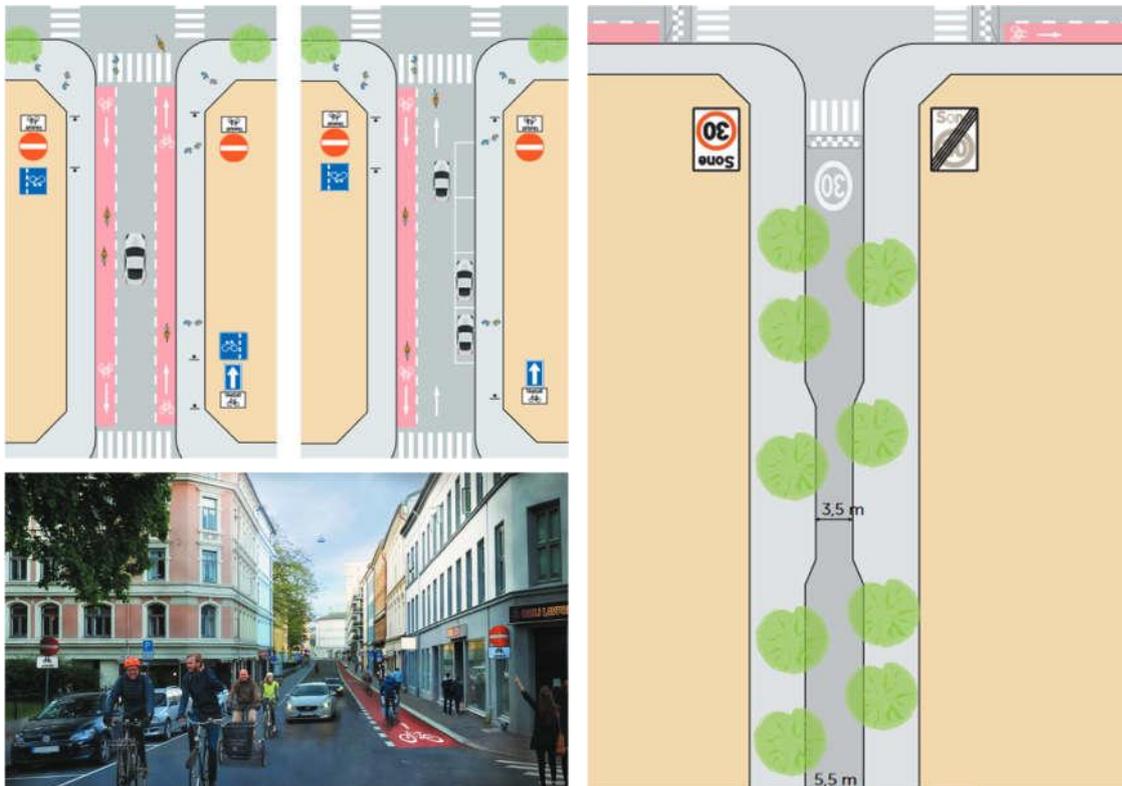
Right: a standard bike lane in accordance with the 2 metre standard

For pedestrian and bicycle priority streets, there are two solutions which are identified as “bicycle accommodating”,

- Cycling in calm traffic
- Cycling against a one way street

When a mix of cars and bicycles are necessary on the same lanes, Oslo municipality identifies 2 ways to accommodate bikes. One is with good use of signs and road markings which can guide cyclists. The other is using speed bumps, narrowing streets, vegetation and speed limits to ensure cars are moving more slowly. When establishing bike lanes in one-way streets, there are two main solutions. One is to make two bike lanes on each side of the street similarly to a two-way street. The other, however, is

to create one lane going against traffic and integrating cycling into the car lane. This allows bike friendly roads even when there is less space for two lanes, or if street parking is wanted on one of the roads.



Top left: the two standard solutions to integrating bikes into one-way streets

Bottom left: example of bike lane and one way street with bike integration

Right: example of using speed limits, speed bumps, vegetation and narrowing of streets to create a more bike friendly road

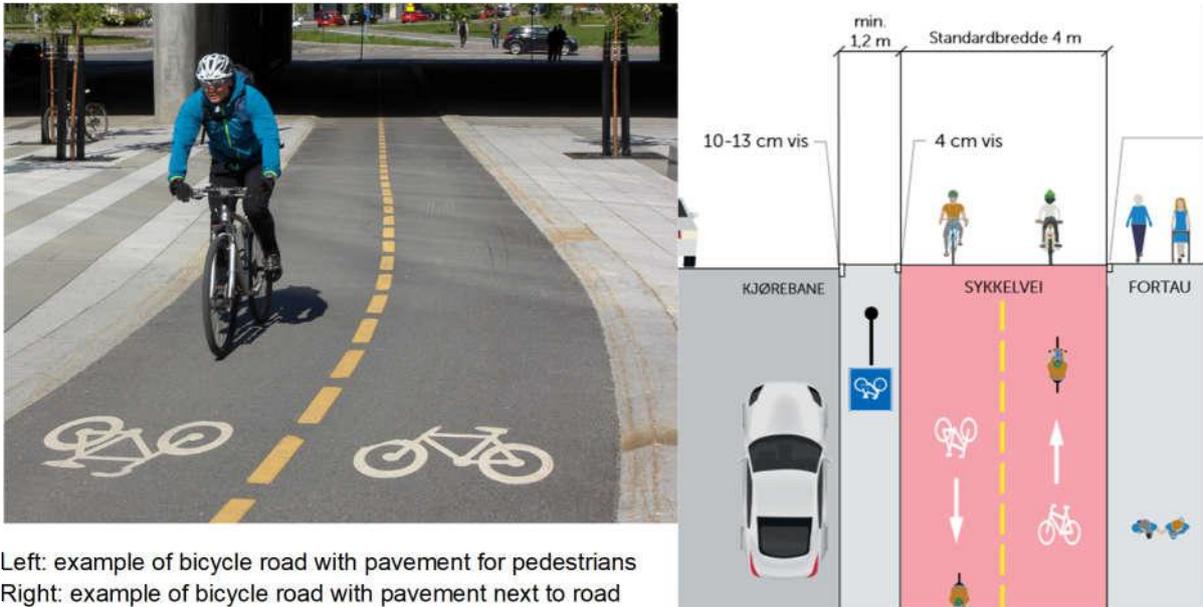
Finally, there are separate roads for pedestrians and bicycles. These are defined as roads where motorised travel is illegal. Two main solutions are distinguished:

- A bike road with pavements for pedestrians
- A bicycle express road

A bicycle road with pavements serves the same functions as a road with pavements. In addition they provide safety, comfort and accessibility to cyclists, who can also travel on them far faster. The downside is that they can, if poorly implemented, suffer from the same issues that a regular road might suffer from, for example a slowdown because of crossings and other potential conflicts with pedestrians because cyclists would have a duty to give way on these roads.

An express bicycle road functions as a means of travelling over distances otherwise reserved for cars. These roads are built with broad lanes, no other means of traversing them but bikes, and as few obstacles as possible. They are built to accommodate

cycling at speeds over 30 km/h and contain space for travel at all speeds. With the recent innovations and availability of e-bikes, these roads will also not just accommodate young, healthy cyclists, but also a broader group which might have found such travel cumbersome or impossible.



Left: example of bicycle road with pavement for pedestrians  
 Right: example of bicycle road with pavement next to road

### Grants provided by Oslo

Oslo also has a variety of grants to help support switching to e-mobility. One of the initiatives is a 200 000 euro yearly grant to any one wanting to establish dry and safe bike parking at house associations or co-ownerships . This can for example be a bikeshed in the backyard, or the building of a bike parking in a garage. Similarly, another grant provides money to establish “safe and dry” parking in workplaces. Businesses are also offered money for more generically “facilitating” workers getting to work by foot or bike. This grant is more generic and covers things like upgrading the wardrobe, for example with a shower, charging stations for el-bikes, and other things which might increase interest in travelling by foot or bike. Other grants include money for e-bikes, e-scooters and e-bikes. E-bikes, in particular, are seen as a focal point of e-mobility in Oslo.

A similar grant is given to businesses for the purchase of cargo bikes. This is to cover the demands of businesses who rely on business in the city centre which require commercial vehicles, like vans, who can carry necessary tools. Common examples are electricians, plumbers and carpenters. People in these professions are necessary to maintain homes and buildings in the city centre, but swiftly opposed the moves to minimise cars in the city. By providing solutions like cargo bikes able to make them

cheaper, the city managed to make this opposition softer. As Oslo's combination of more restrictions and more alternatives show, providing options for facilitating a change to e-mobility, both economically and practically, can not only provide options for people who want to move away from cars but also soften the impact of restricting movement with cars.

## ENOVA

Some of the grants are provided directly by Oslo municipality. Others are state grants. The state grants are provided by, amongst others, Enova. Enova is a state-run company. Their purpose is to administer the Climate and Energy fund so as to contribute to the move towards a greener society. In 2022, the fund has been granted roughly 400 million Euro. This company has much autonomy in how to distribute the money and provide it to a wide variety of areas. Much of the money goes to business and industry to help adopt more environmentally friendly techniques and technology. They are also responsible for overseeing measures like providing money to purchase electric vehicles. An important secondary measure by Enova is a call centre where people can ask questions which will then be answered by energy experts within 24 hours (if possible). By combining funding and expertise, this company is able to help with two of the most important aspects of getting regular households to invest in e-mobility.

## Initiatives in Norway

### **Rent a cargo bike in Trondheim**

The cargo bike rental was initiated by Trondheim's public library. The library not only lends out books and media but also tools, musical instruments, outdoor equipment and cargo bikes. This can be compared with the lending centre in Oslo.

Residents can borrow an electric bicycle with a loading platform. Maximum weight on the loading platform is 100 kilos. The bike has studded tires in the winter and it can be borrowed for up to 3 days. There is an 18-year age limit for borrowing an electric bicycle.

Electric bicycles can be borrowed and delivered at the main library, and at the city libraries at Byåsen, Moholt, Risvollan and Saupstad (from June 2022). It is possible to reserve bicycles by phone and email.

The following conditions apply to borrowing an electric bicycle<sup>4</sup>

- The bikes can be borrowed by contacting the staff
- Age limit for home loans and use: 18 years
- Home loans are only for private individuals and only for private use. Lending / subletting is not permitted
- Familiarise yourself with how the bike and the bike's battery work. Read the enclosed operating instructions
- The bicycle must always be locked to an object that is attached to the ground, for example a found bicycle rack or similar, or placed locked indoors.
- The battery must always be removed when the bicycle is parked. If the bike has a detachable display (only applies to Risvollan and Byåsen), it must also be removed when the bike is parked. It is recommended to park the bike in an area that is not generally accessible.
- If the bicycle is borrowed overnight, it must be locked at night (00.00 - 06.00) due to the insurance terms. Violation of this means that the borrower must cover the deductible of NOK 15,000 to the insurance company if the bicycle is stolen.
- Maximum weight on the loading platform is 100 kilos.
- Follow the applicable traffic rules at all times .
- Report to the library immediately if the bicycle does not work, has damage or defects.
- Trondheim Public Library is not responsible for damage that may occur to people or objects as a result of borrowing and using the bicycle.
- Return must take place at the department the bicycle was borrowed during opening hours.
- The bike must be returned complete and cleaned before the loan deadline.
- In the event of late delivery, a reminder fee must be paid in accordance with the library's rates .
- If the bicycle is not returned, the compensation amount is NOK 50,000. In the event of damage, expenses for repairs and any parts are invoiced afterwards.

### **Safe charging of the battery.**

- Remove the battery and charge it inside
- Do not leave while sleeping or not at home
- Charge on a fireproof surface, the power adapter of the battery charger gets hot during charging.

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<sup>4</sup> [Utlån av elsykler - Trondheim folkebibliotek](#)

- Do not use batteries that have been exposed to shocks and damage. Let us know if there has been any damage to it
- Do not charge the battery with dirt and moisture around the connectors
- Do not use non-original chargers. Use only the equipment provided
- Unplug the AC adapter when not charging

## **Gjøvik**

Gjøvik has started a municipal e-bike sharing service. To use it, you must download the “ShareBike” app. From there you have to register using personal user information, picking Gjøvik as your location and picking “payment solution”. The bicycles are unlocked by using a QR-code on the bike through the app. The lock can be reattached for intermittent periods where the bike is not used. When one is finished with the bicycle, all you have to do is return it to its charging station.

There are two means of payment. One is a yearly subscription costing 26 Euros. When subscribed, a person has three hours of cost free travel each day. After these, every minute costs 0,1 euros per minute with a maximum price of 12 euros each day. The other form of payment is one-time renting. If not subscribed, travel costs 0,1 euros each day with a maximum of 12 euros each day.

## **Oslo electric scooter**

Electric scooters have become very popular means of transportation in Norway’s biggest cities. They function similarly to city bikes or the renting system of Gjøvik but are not placed under strict rules when it comes to parking on bike racks. Instead, if they are within the area assigned as legal for e-scooters, they can be left anywhere as long as they don’t obstruct passage. A few systems provided by the company's offering allow the e-scooters to operate fairly smoothly. For one, they hire people to drive around collecting the scooters to take them to charging stations before returning them to pick-up points. This is possible through tracking technology inside the e-scooters. The tracking is also what allows companies to deactivate the scooters if they are outside of the area which they are allowed to operate within.

## Cycling to work in Norway

### Kallesten Revisjon og Regnskap

The first prominent case of a cycling-to-work-initiative was made by the company “Kallesten Revisjon og Regnskap”, which is a Norwegian accounting company. This soon inspired many other companies in the country to initiate the same progress.

The idea originally emerged from a lack of car-parking places in front of the company’s office building. The solution was to get more people on bicycles. The solution proved so successful that they stuck to it.

The 20 employees receive an extra payment from the employer if they use a bicycle for work, which corresponds to the state's rate for using their own car. It is now four kroner and three øre per kilometre. Exercise, training or exercise for a minimum of 30 minutes per day is registered, and you participate in raffles of gift cards up to NOK. 8000.

An employee bikes regularly to and from work 14 kilometres each way. It gives him just over 112 kroner every day in the "bicycle bonus", which he admittedly has to tax. By cycling every day one can save approximately 50-60,000 kroner a year. It includes compensation and saved expenses for car use.

The arguments for a national scheme with mileage allowance for bicycles seemed so good that Kallesten Revisjon og Regnskap sent a letter to the former Prime Minister, Jens Stoltenberg in 2011, asking the government to change the rules for taxation of bicycle allowance to a tax-free solution. It was emphasised that this will stimulate companies to pay bicycle allowance, the employee gets better health and saves transport costs, the state saves costs in the healthcare system as well as public costs for road development and transport. In a response from the Ministry of Finance, the proposal was rejected on the basis of existing environmental taxes as an existing incentive to choose a bicycle, as well as violating the general principles in the tax system where all benefits are to be taxed equally.

## **Syklisternes Landsforening (Cyclists' National Association)**

Kallesten Revisjon og Regnskap is now trying to be certified as a bicycle - friendly workplace by the Cyclists' National Association. To become one, the company must offer good conditions for employees who cycle to work. They have improved the facilities for bicycle parking, established a gym and the opportunity to wash and maintain bicycles.

29 workplaces with a total of close to 7,000 employees have so far been certified by the Norwegian Cyclists' Association as bicycle-friendly. Work is underway to certify another seven companies with 1,600 employees.

The Cyclists' National Association noticed an increased interest from both public and private workplaces, large and small. When a workplace requests certification, the National Cyclists' Association goes on an inspection and conducts a travel habits survey among the employees. They look at 50 indicators within bicycle parking, cloakroom facilities, incentives and management. Based on a points system, the company can achieve bronze, silver or gold standards.

## **From the website of the Cyclists' National Association**

**The benefits for the employees are many. We are ready to help you quickly.**

Cycling to work is an excellent way to start the day. When you know that the bike is safe and the facilities at work are good, it contributes to both motivation and cycling joy among the employees.

The employer can do a lot for more people to choose a bicycle. Bicycle parking, cloakroom with lock, drying cabinet and storage space are some of the employee benefits many people appreciate. Bicycle-friendly workplace is a certification scheme where workplaces can receive advice on how to facilitate in the best possible way and be certified as bicycle-friendly.

### **What is a Bicycle Friendly Workplace?**

Bicycle-friendly workplace is a certification scheme owned and operated by the Norwegian Cyclists' Association (SLF). Workplaces have the opportunity to be certified as bicycle-friendly and receive advice on facilitation so that more people choose a bicycle for work.

Among the employers who have certified their own workplaces: PwC, Telenor, Avantor, Oslo City Hall, the Norwegian Public Roads Administration, the Hospital Pharmacies, the Renovation Agency in Oslo, Undervisningsbygg in Oslo, Akershus County Municipality and Bærum Municipality.

### **Why become a bicycle-friendly workplace?**

- Create well-being and a good working environment
- Demonstrate climate and environmental responsibility
- Achieve a strengthened reputation and increased profitability

### **What is mapped in the certification process?**

Secure bicycle parking, accessibility, cloakroom facilities, services, management and incentives are some of the areas that are mapped. In total, there are around 50 indicators, which together with a digital travel survey provide the basis for a report that describes the conditions for facilitation at the company, and advice with specific new measures is provided. Depending on the results, the company can obtain gold, silver or bronze certification.

Lists of companies and public institutions who have been certified:

<https://syklistforeningen.no/sykkelvennlige-arbeidsplasser/forvaltning/>

<https://syklistforeningen.no/sykkelvennlige-arbeidsplasser/eiendom/>

<https://syklistforeningen.no/prosjekter/sykkelvennlig-arbeidsplass/kundehistorier/>

### **Sources for section on initiatives in Norway:**

<https://syklistforeningen.no/prosjekter/sykkelvennlig-arbeidsplass/>

<https://www.nrk.no/norge/far-betalt-for-a-sykle-til-jobben-1.14532188>

<http://www.sykkelloftet.no/nyheter/suksesshistorier?newsId=2f0c98cb-ffe9-43cd-ad3b-a8d1d7d2de77>