



TRONDHEIM MUNICIPALITY

Iceland  
Liechtenstein  
Norway grants

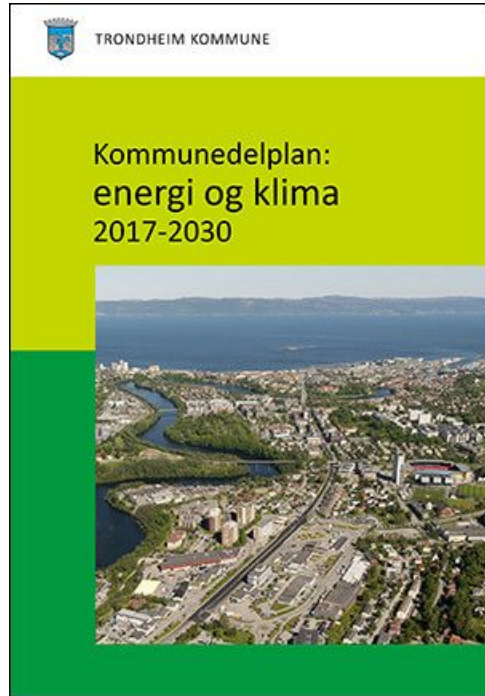
# Emission-Free Transport Solutions



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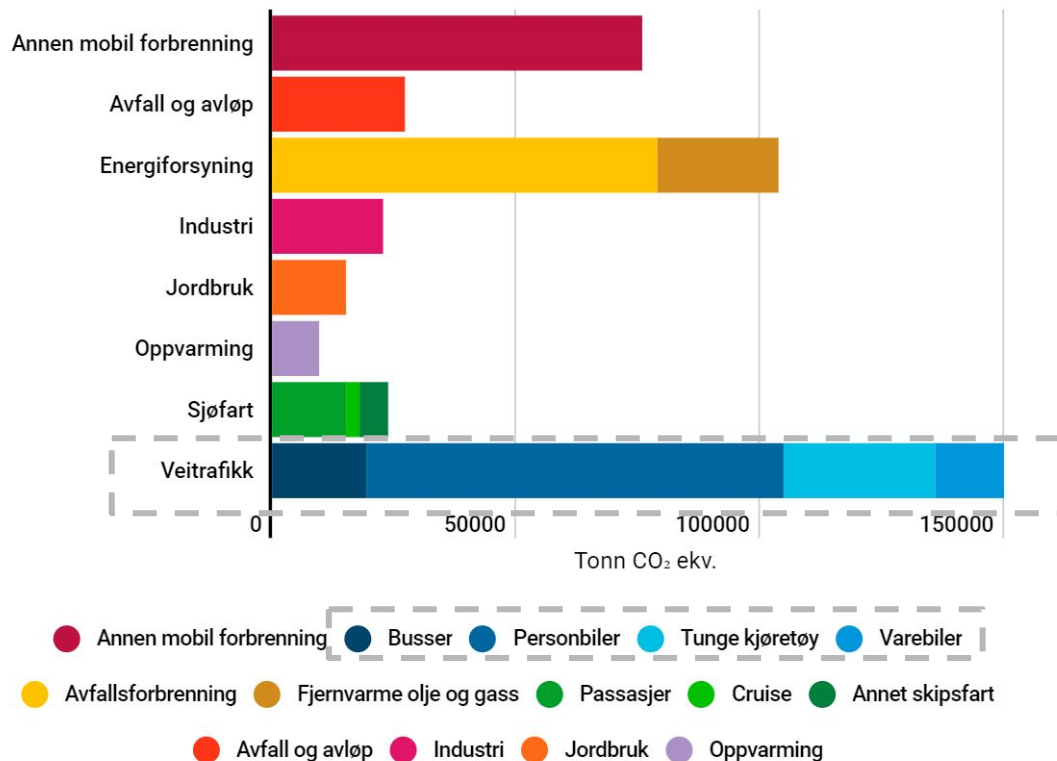
# Municipal Energy and Climate Plan (2017)



The goal of **80% reduction of direct GHG emission by 2030** identified as the overall environmental objective.

- Production and distribution of energy
- Spatial planning and transport
- Buildings and construction
- Consumption and waste
- Business, technology and the green transition
- Climate adaptation

# 1/3 direct GHG emissions from road traffic



# Coordination needed!

## Levels of governance

- ❖ National level
- ❖ Regional level (counties)
- ❖ Local level (municipalities)

## Types of transport

- ❖ Passenger transport
  - Personal transport
  - Public transport
- ❖ Cargo transport



# Miljøpakken - multi-level partnership

Miljøpakken is a **partnership for sustainable transport** in the Trondheim region. In co-operation, municipalities, county and state invest in new infrastructure to facilitate increased biking, walking and use of public transport.

Miljøpakken promotes alternative means of travel. The overall goal is to ensure that **the inevitable growth in passenger transport is seen in public transport, cycling and walking rather than more driving**. In order to achieve this, new roads, bridges, bicycle lanes, sidewalks and more are planned and built for cutting queues and greenhouse gas emissions, as well as facilitating easy and safe travel.



# Objectives of Miljøpakken



**Main objectives:** zero growth in car traffic and efficient land use

**Sub-objectives:**

1. Lower CO2 emissions
2. Increase in environmentally friendly travels exceeds that of population growth
3. Integrated land use and transport policy reduces need for transportation
4. More accessible urban areas for all
5. Reduced number of traffic accidents with fatalities and serious injuries
6. Compliance with national objectives for air quality
7. Reduced indoor and outdoor traffic noise
8. Greener and more efficient commercial transports
9. Increased user satisfaction of Miljøpakken's measures

**Funding:** The financial framework is approx. NOK 27 billion for the years 2010 through 2029.

About 50 % of Miljøpakken is funded by the state.



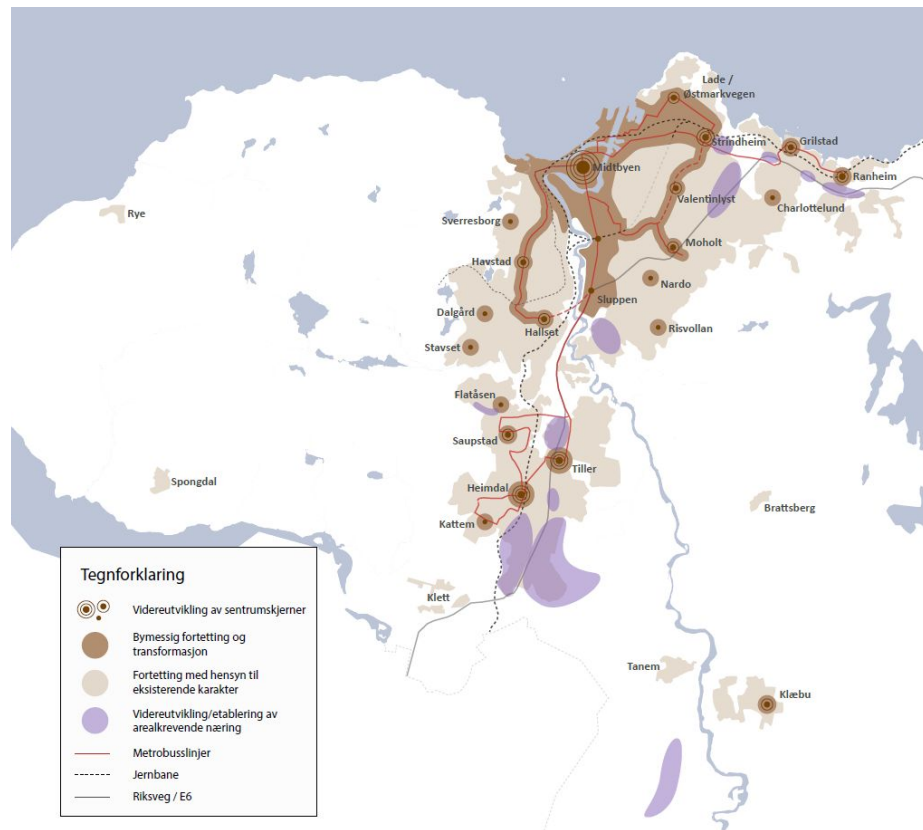
# Policy principles

1. Reducing transport need through urban planning, such as desification and zoning regulations
2. Promoting zero-emission solutions such as walking and biking
3. Zero-emission public transport
4. Promoting zero-emission vehicles (el, H2, bio)
5. Upgrading and optimizing fueling infrastructure
6. Better use of existing infrastructure, such as car-sharing
7. The power of public procurement



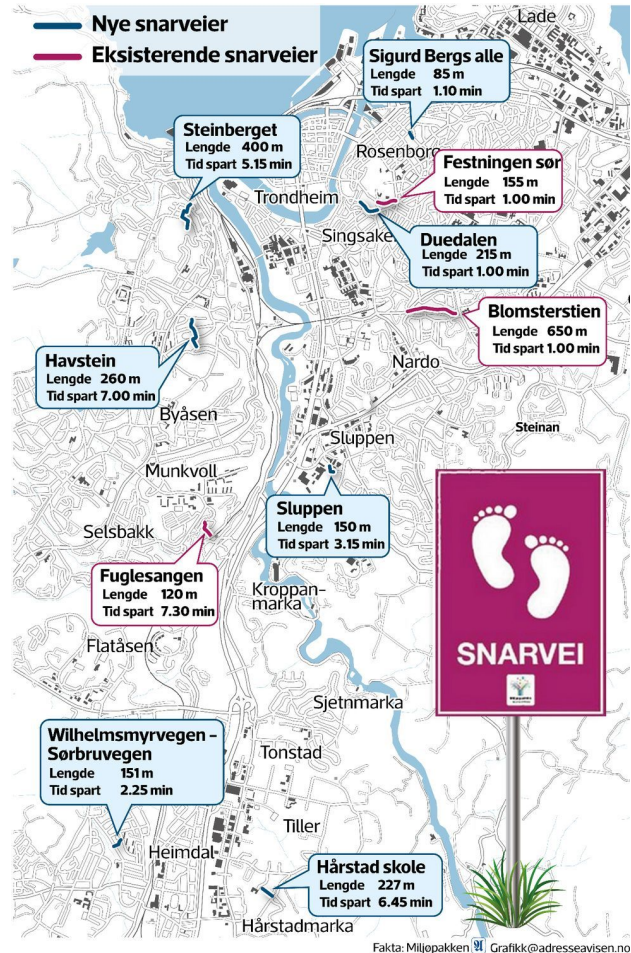
# Let's start from spatial planning

- *Urban Development Strategy for Trondheim - strategy for area and transport development towards 2050*  
- adopted by City Council in 2020.
- *Municipal Master Plan - land-use part 2022-2034 (KPA)*  
- currently under revision.



# Walking and cycling

- Continuous improvement of infrastructure
- Nudging for behaviour change



Fakta: Miljøpakken | Grafikk: @adresseavisen.no

# Zero-emission public transport



- Fossil-free buses
- Emission-free (high-speed) ferries [#innovation](#) [#publicprocurement](#)



E-buses at Brattørkaia



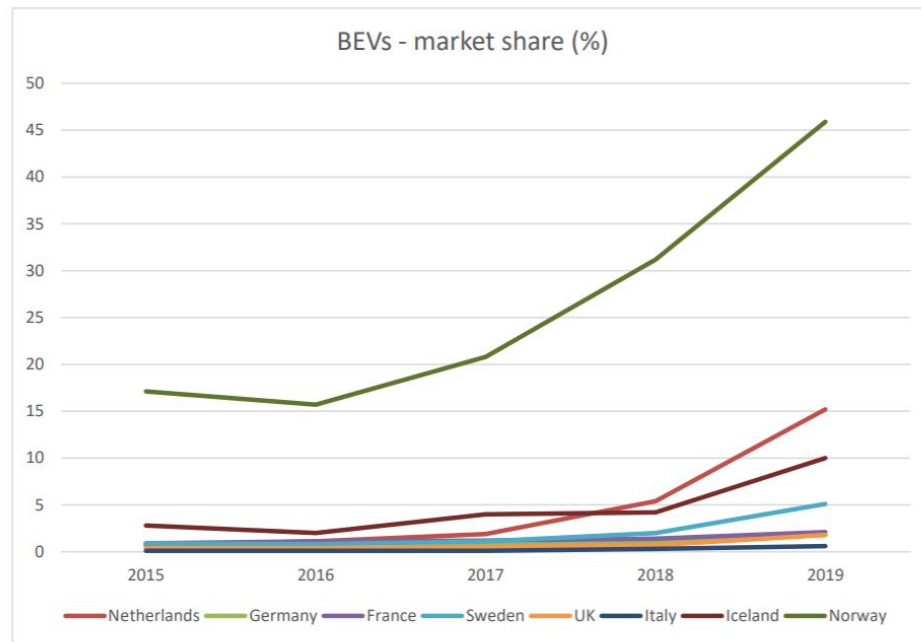
Norway's zero emission high speed ferry concepts

# EVs in Norway - a success story

Norway is not a car-producing country, but has most electric vehicles (EVs) per capita in the world.

Norway adopted its first incentives for EVs in the 1990s. In May 2021, EVs account for 13 percent of total registered cars in Norway, slightly lower than 370,000 in number.

Figure 1.5 Market share of battery electric vehicles in the new car sales in European countries from 2015 to 2019



Source: EAFO



## Incentives for EV owners

- ★ Advantages at purchase
  - Exemption of one-time fee and VAT
- ★ Advantages at use phase
  - Exemption from tolls on all national roads
  - Free or reduced price of ferries
  - Access to public transport lanes
  - Free parking

## Ambitious goals in the National Transport Plan

- ❑ New passenger cars and light vans will be zero-emission vehicles (electric cars and hydrogen cars) from 2025.
- ❑ New city buses will be zero-emission vehicles or use biogas in 2025.
- ❑ By 2030, new heavier vans, 75 percent of new long-distance buses and 50 percent of new lorries will be zero-emission vehicles.

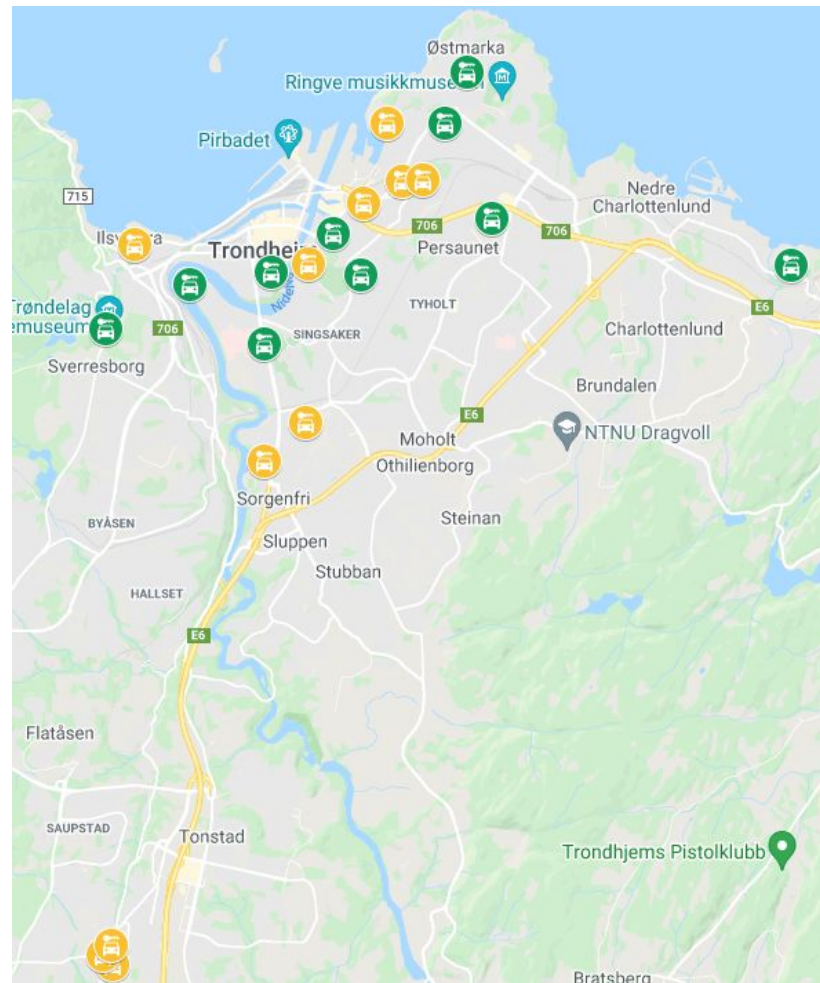
# Infrastructure for greener fuels

From large-scale energy stations to EV charging for housing associations



# Car-sharing in Trondheim

- Local regulation adopted to enable reservation of parking space for car-sharing
- **Green** - established, **Yellow** - coming



# Urban logistics

- Holistic situation analysis
- Subsidies to companies for purchase of electrical transport bikes



# Electrification of the municipal vehicles

The power of public procurement!



Tusen takk!  
Tänan teid väga!

