Norwegian Embassy

# Towards zero emission transportation in Norway

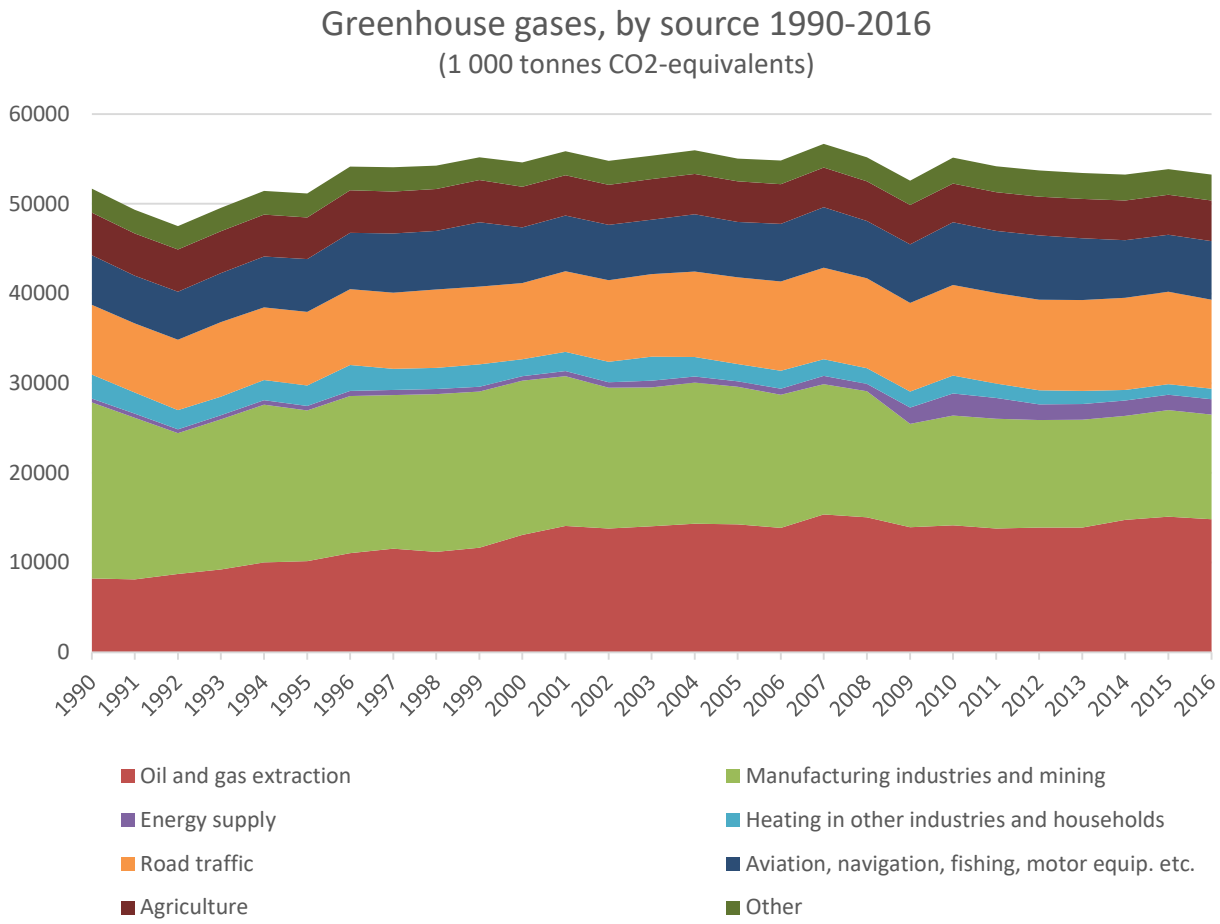
Washington, DC. Karine Hertzberg, January 14, 2019

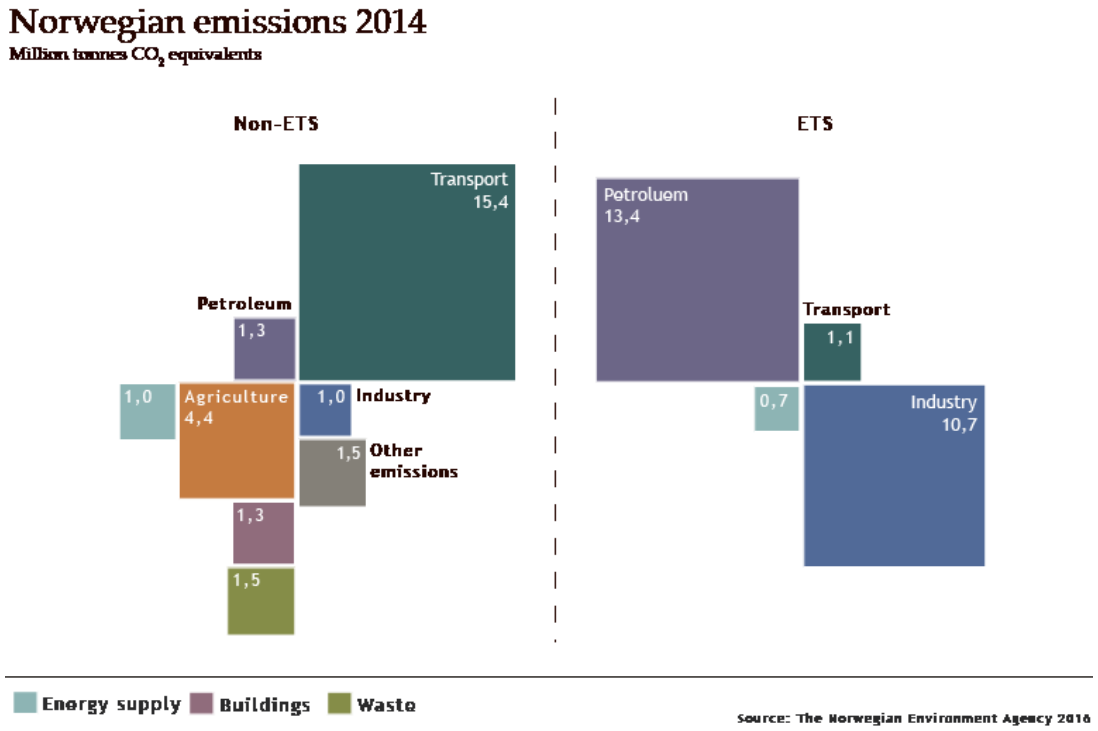
Photo - Guri Dahl/ Tinyagent

# Norway aims to become a low emission society

- **2020:** Reduce global greenhouse gas emissions by 30 % compared to 1990 level.
- **2030:** Reduce emissions by at least 40 % compared to 1990 level.
- **2030:** Carbon neutrality.
- **2050:** A legally binding target of being a low-emission society.

# Norwegian Greenhouse Gas Emissions



# Norway's main strength

Surplus of zero-carbon electricity

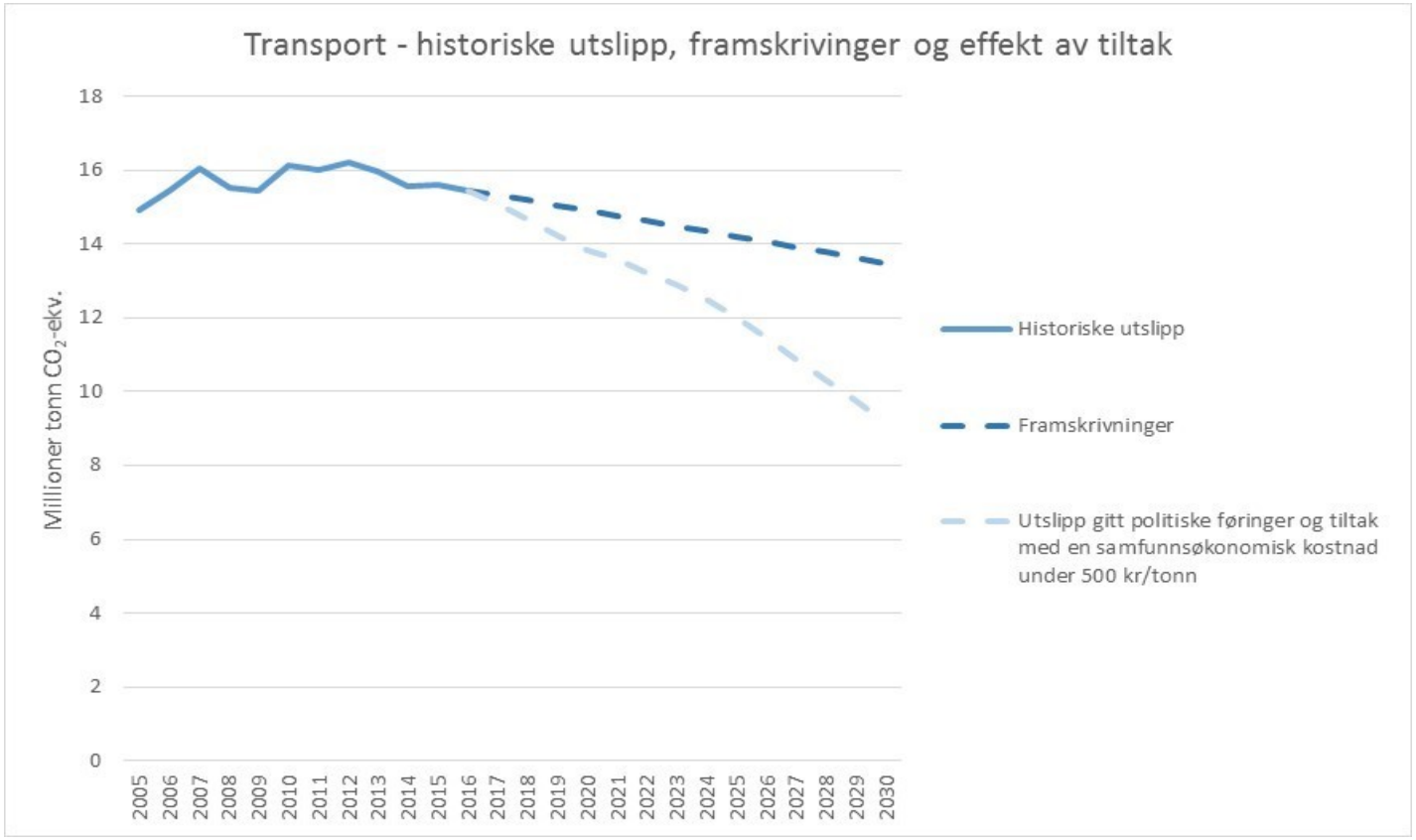
- First phase of the green transition completed

Transport is next

- March 2018: 37% of new cars electric
- Ambitious targets on biofuels

➢ New business opportunities in other sectors

# Target: Reduce emissions in the transport sector by 50 % from 2005 to 2030




# Reducing emissions from transport

1. Reduce transport need. Urban planning, coordinated spatial and transportation planning.

2. Transfer to transport with lower emissions, e.g. cars ⇨ buses/biking, lorries ⇨ ships.

3. Reduce emissions from the individual transporter, e.g. electric vehicles.


Foto: Ilja Hendel/NTBscanpix

# Oslo 2016: More people use public transport than cars for their commute

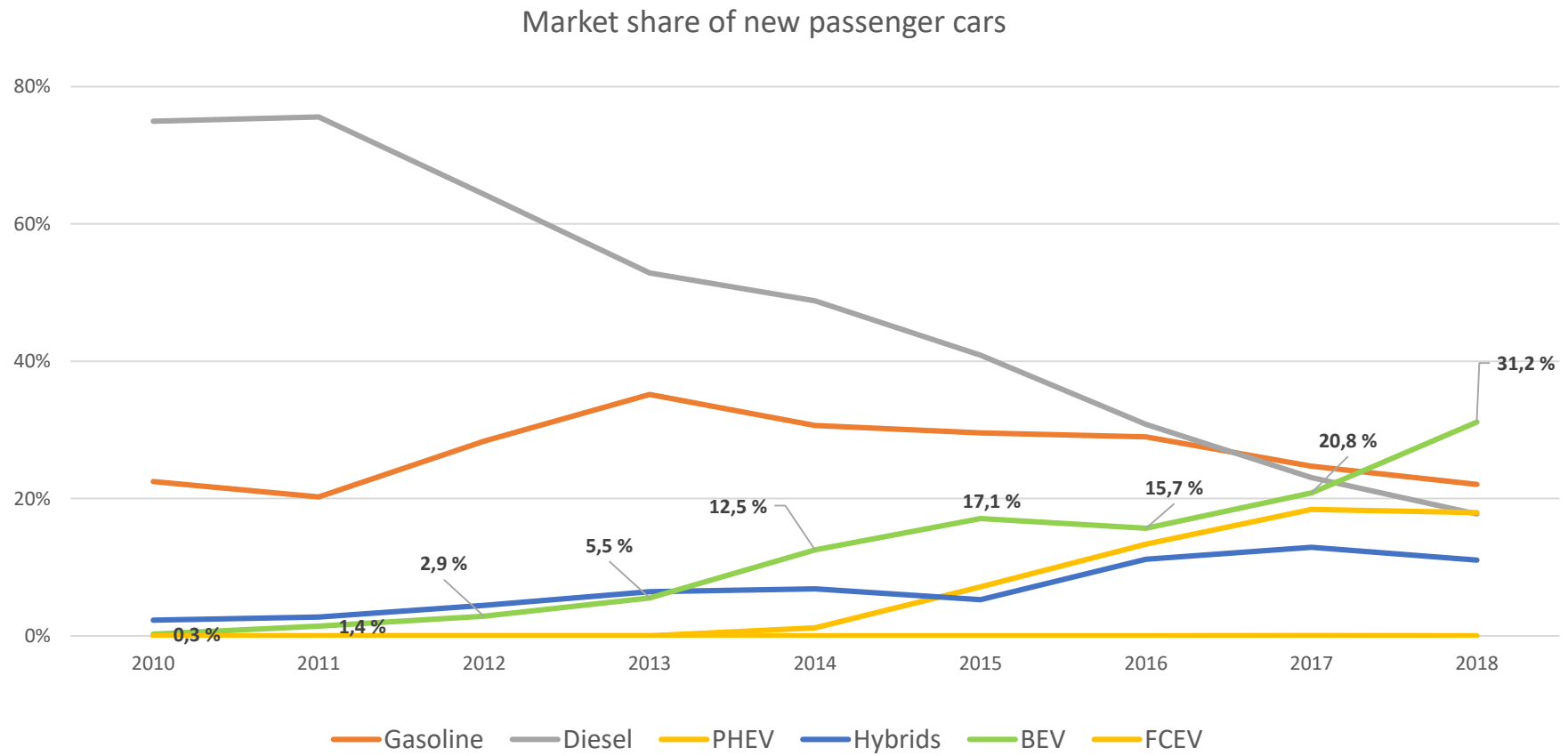
- The largest cities are committed to a goal of no growth in passenger car transport.
- All growth in transport shall be walking, cycling and public transport.
- In return for the commitment, the government provides funding for public transport improvements.

# Zero emission transportation targets

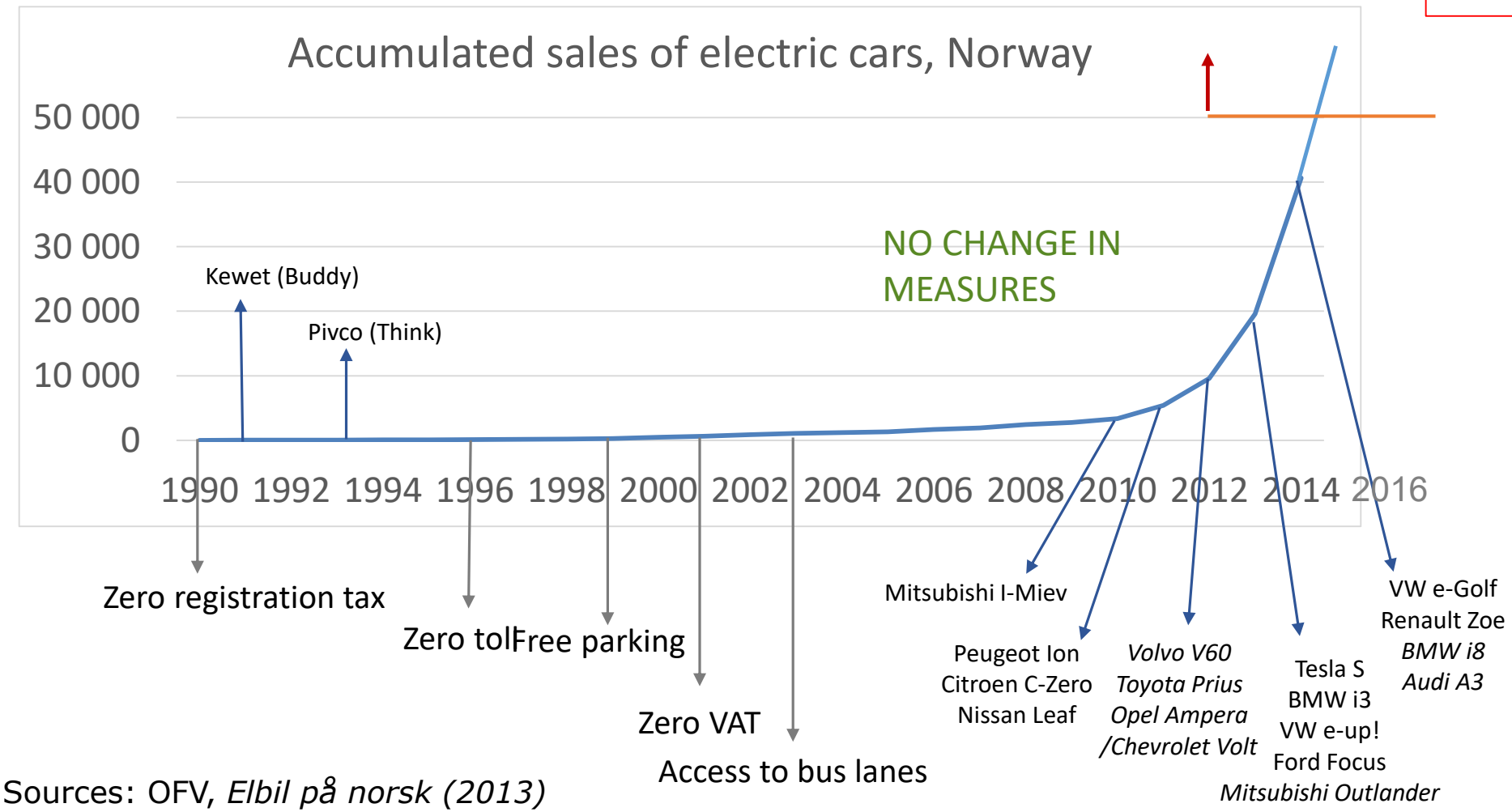
- 2025: All new private cars and light vans should be zero-emission vehicles.
- 2025: All new city buses should be zero-emission vehicles or use biogas.
- 2030: All new heavy vans, 75 % of new long-distance buses, and 50 % of new lorries should be zero-emission vehicles.
- 2030: More or less emission free goods distribution in large urban area

*Important: These are targets. The government does not have plans of banning internal combustion engine vehicles.*

# More than 30% of all new cars sold in 2018 were zero emission vehicles



Today:
Almost 200 000




Sources: OFV, *Elbil på norsk (2013)*

POLICY DEVELOPMENT | MARKET INTRODUCTION

# Why has Norway become the third largest market for zero emission vehicles in the world?

1) **Economic incentives** at the point of purchase – exemption of VAT (25%), registration tax.
2) **Pricing of emissions** – CO2 tax of around $50/ton
3) **User incentives** - Free tollroads, public parking, free access to public charging stations, use of public transportation lanes, reduced fares on ferries
4) Support for **fast charging infrastructure**
5) **Predictability**

# Market-based development of infrastructure


- In urban areas, there is a commercial market for rapid chargers. Some public support to specific areas with low uptake of EVs.
- If by 2025, all new passenger cars are ZEVs, 50 per cent of passenger car fleet is ZEV by 2030.
- Big market for charging providers. Ambition: fully commercial market in the long run.
- Studies show power system will handle it.

# Maritime e-mobility

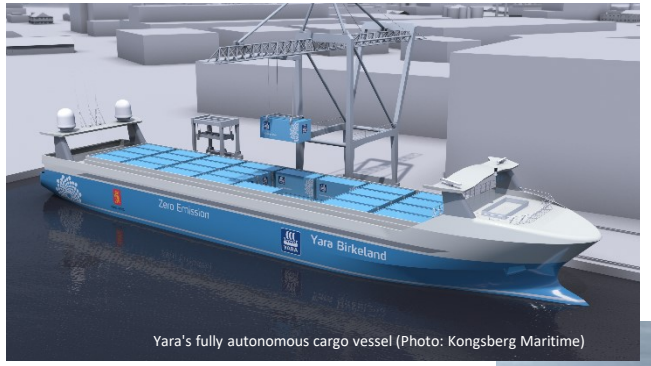
Electric ferries

- World's first electric ferry Ampere
- Around 70 electric car ferries by 2021 (1/3 of car ferries)

•Autonomous electric cargo ship

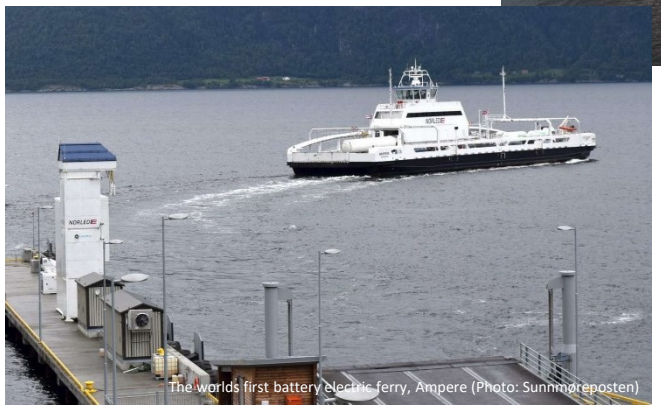
•Coastal route

•On-shore power also for large cruise ships



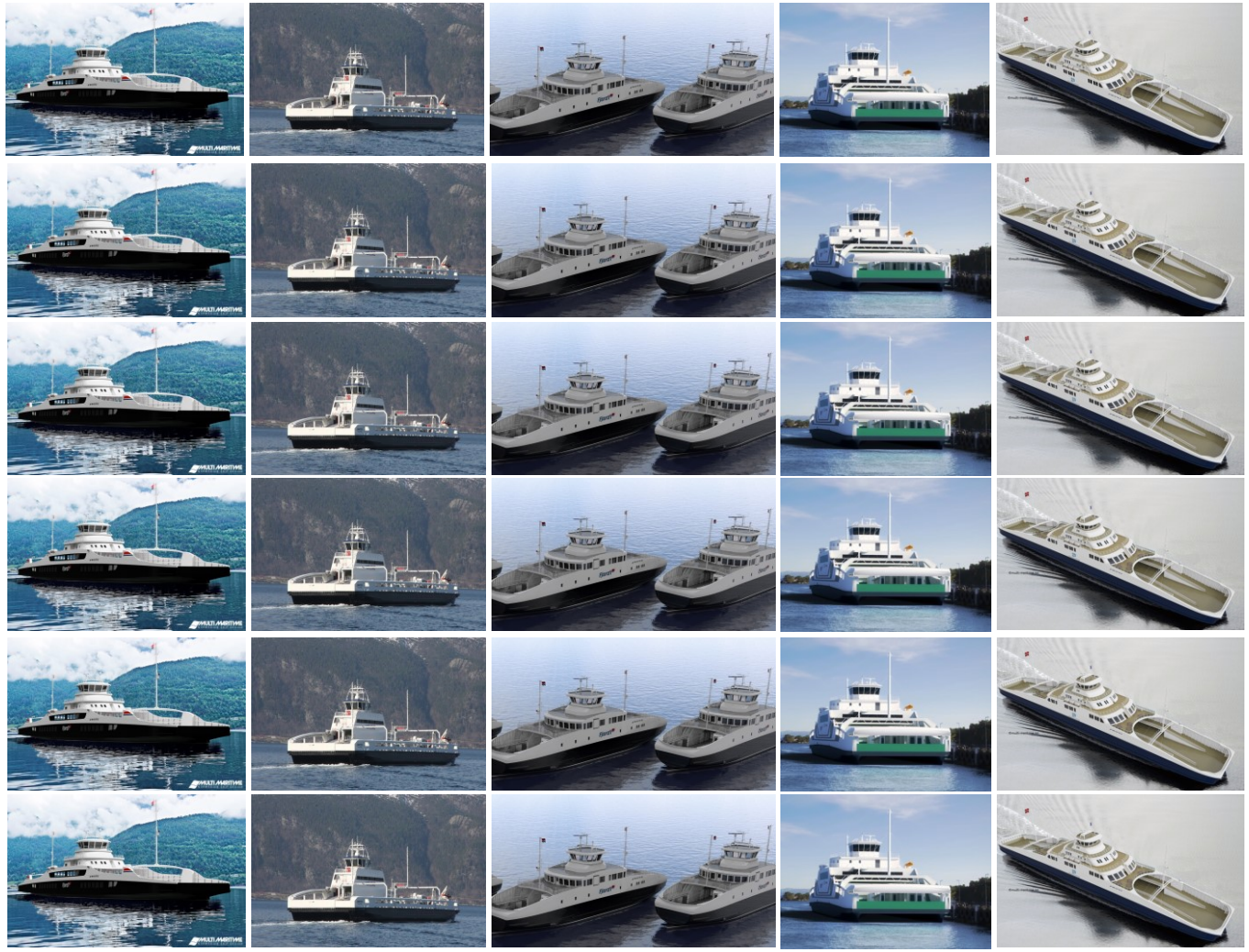
Yara's fully autonomous cargo vessel (Photo: Kongsberg Maritime)

Hurtigruten's hybrid electric vessels (Photo: Rolls-Royce)


The worlds first battery electric ferry, Ampere (Photo: Sunnmøreposten)

# 2015


# 2021

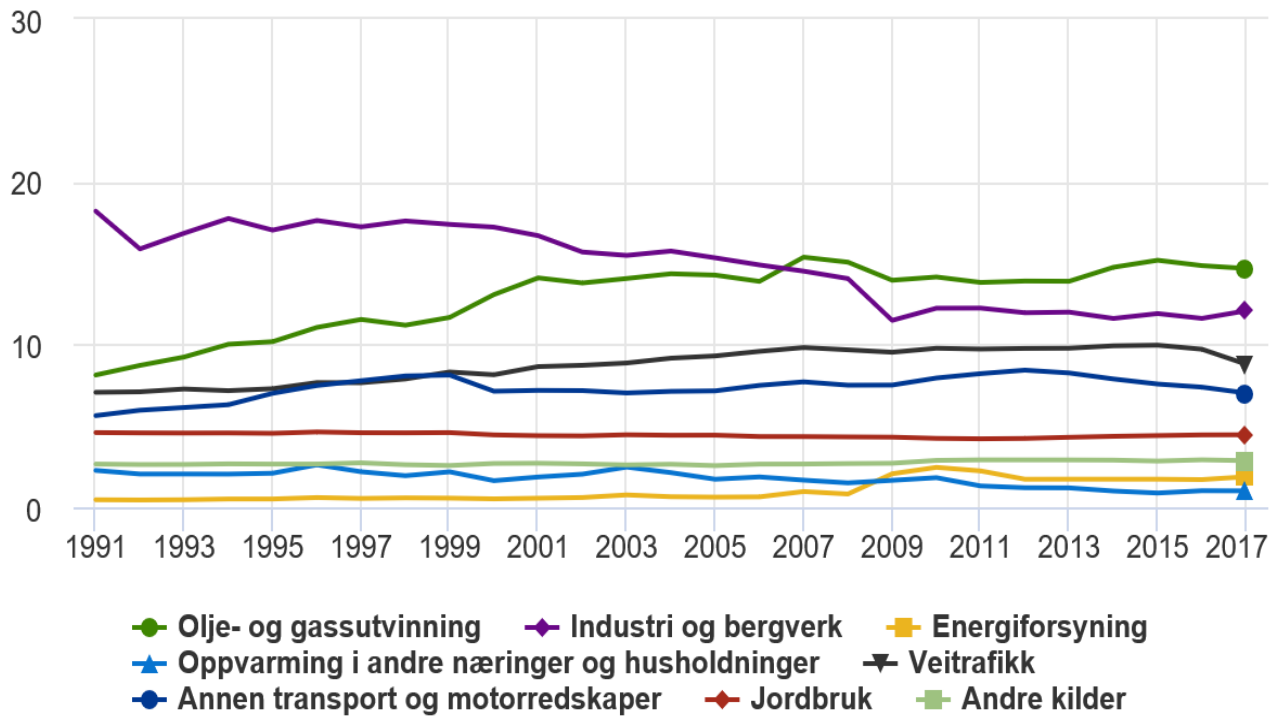


# Transport emissions are going down

9,5% reduction in emissions from road transport from 2016-2017

- Higher shares of biofuels
- Higher shares of public transport in cities
- Higher shares of zero emission vehicles

**Figur 2. Innenlandske utslipp av klimagasser, etter kilde**




Kilde: Utslipp til luft, Statistisk sentralbyrå.