

The European Association for Electromobility

# **Driving Change Together**

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Secretary General
PINFA workshop 2019



#### **About Us**

#### History

AVERE – Passion to electrify since 1978

#### **Vision**

AVERE's electromobility vision for Europe is:

- A strong electromobility industry;
- Clean, quiet and healthy cities;
- Energy efficient transport;
- Independence of fossil fuels.

#### **Members**

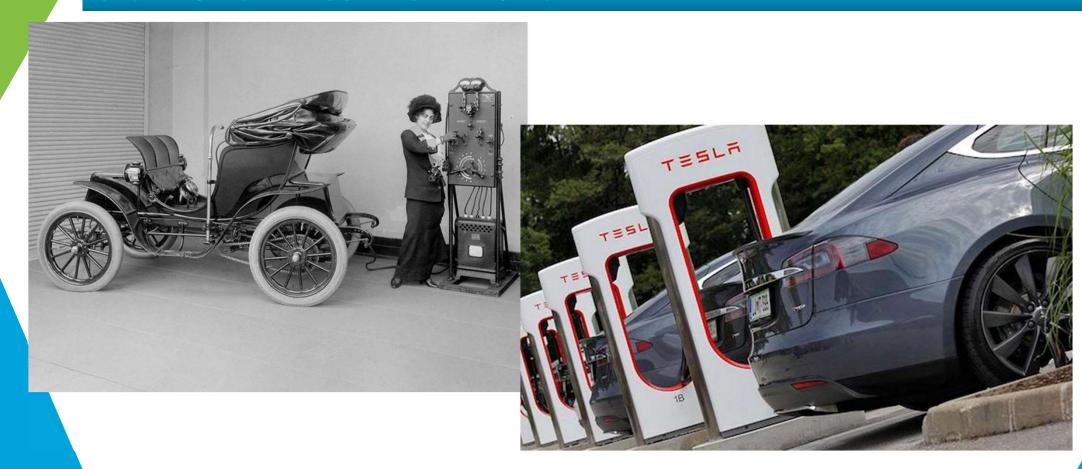
Diverse Network across the Continent (including Turkey): OEMs, CPOs, EV users, Public Institutions, Research & Development entities, and other relevant companies from <u>across the entire e-mobility value chain.</u>







# Old world v best new world





# Old world v best new world

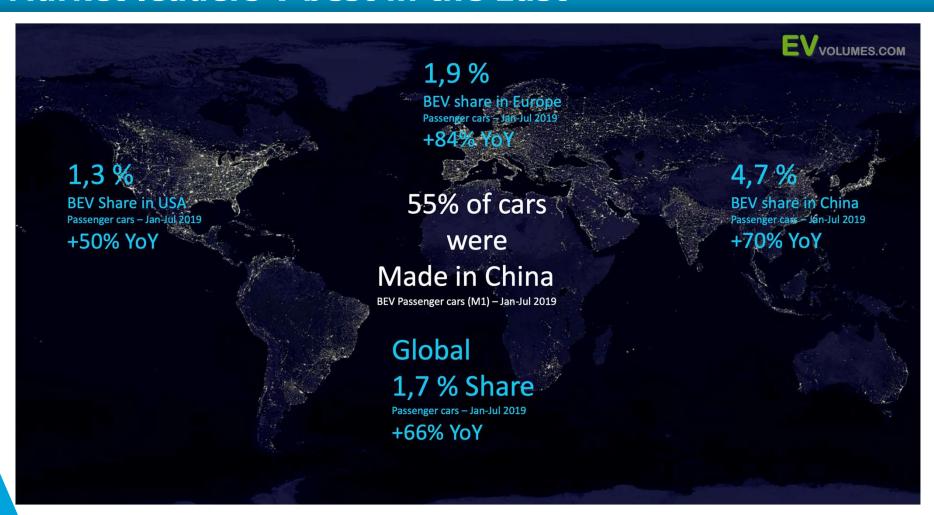
# **Men 1969**

# **Men 2019**





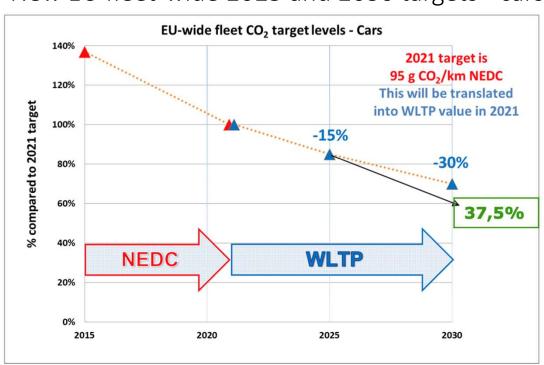
#### **Market leaders v best in the East**





#### **Stricter EU-wide Co2 emission limits**

#### New EU fleet-wide 2025 and 2030 targets - cars



Source: European Commission

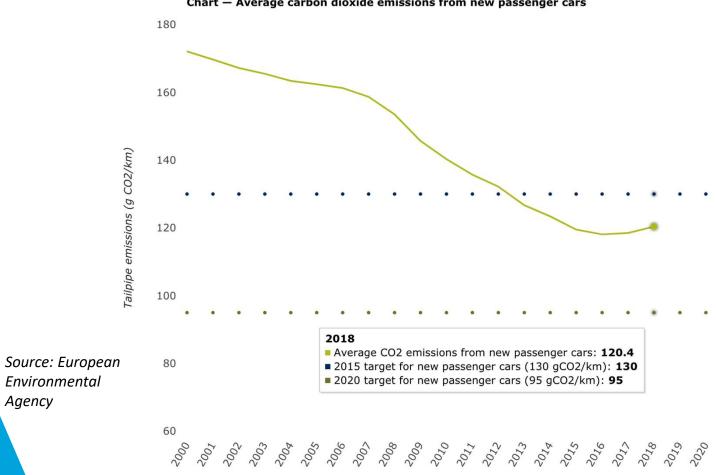


### **Increasing Co2 emissions**

**Environmental** 

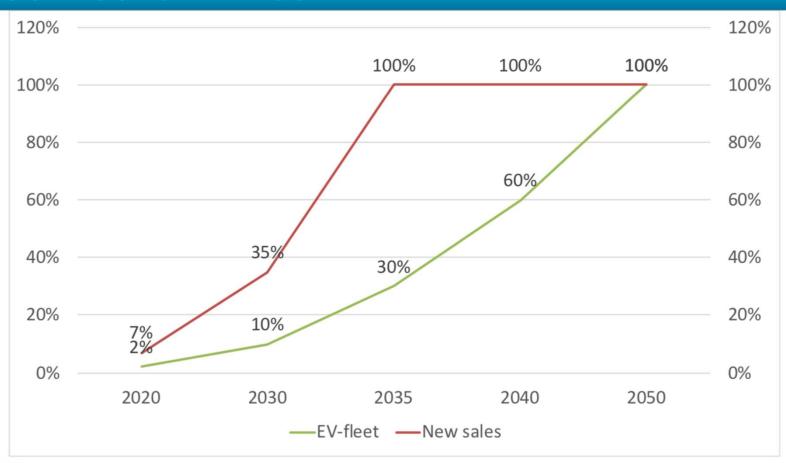
Agency







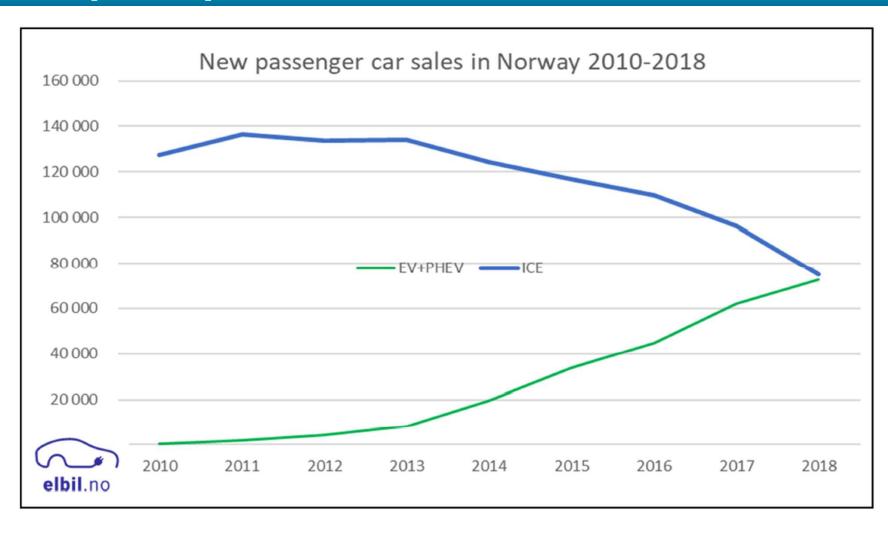
# 2050: 100% EV Fleet



Source: Joeri Van Mierlo, MOBI-VUB



## **Norway Today**

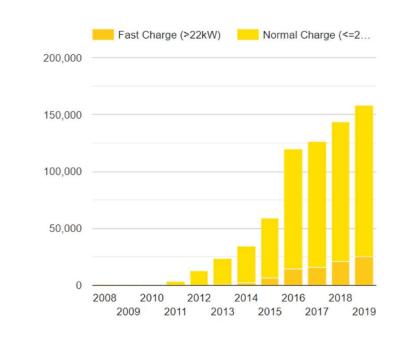


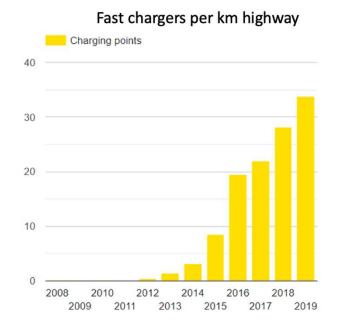


### **EAFO**



# Charging infrastructure EU



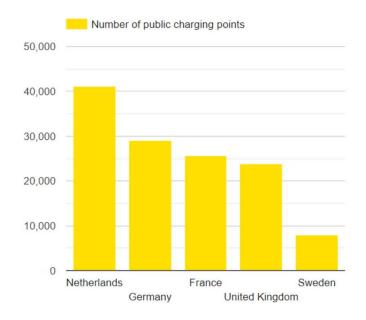




### **EAFO**



# Top 5 Countries charging infrastructure EU





### **Yesterday's barriers**

# Top 3 Barriers for EVs



High purchase cost



Limited driving range

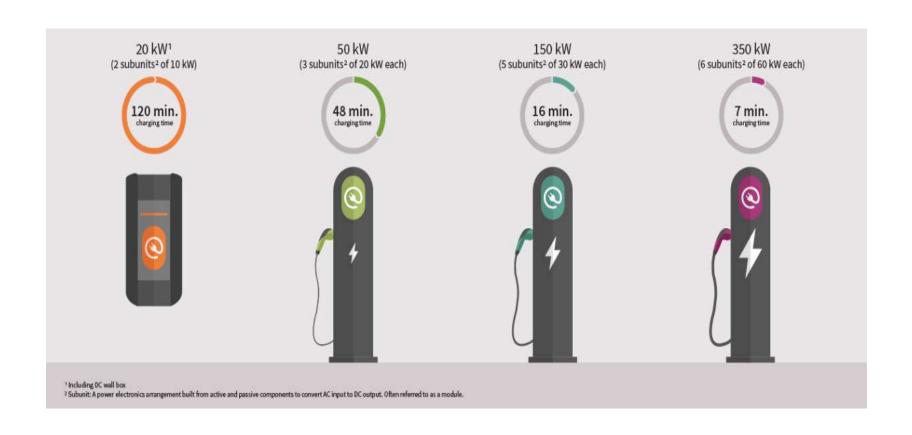


Limited charging infrastructure

Source: Joeri Van Mierlo, MOBI-VUB



# Trends: shorter charging times



Source: Infineon



## Today: more charging stations then petrol stations



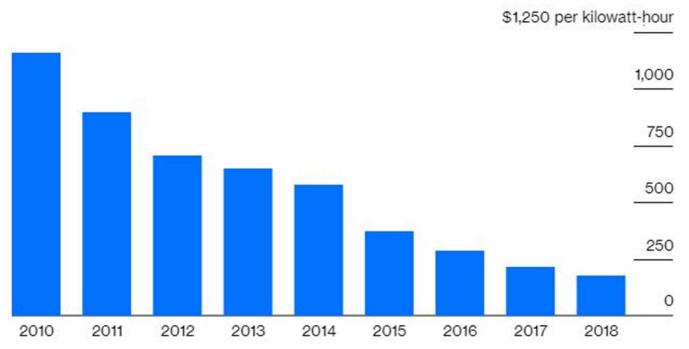
Source: EAFO



### **Trends: battery price**

#### **Downward Trajectory**

Volume-weighted average lithium-ion battery pack price\*



Source: BloombergNEF \*In real 2018 dollars

# The European Association for Electromobility

#### COUNTRIES BANNING OR CONSIDERING A BAN ON INTERNAL-COMBUSTION (IC) VEHICLES

#### DENMARK **NORWAY** · Copenhagen ban on new diesel cars - 2019 · Ban on internal-combustion engines - 2025 **NETHERLANDS** • Ban on new fossil-fuel passenger cars - 2030 **GERMANY** · After a German court ruling allowing cities to prohibit diesel cars, UNITED KINGDOM German politicians remain unclear about whether they will pursue • End sales of new internal-combustion cars and vans - 2040 bans on IC or diesel. Stuttgart, Dusseldorf, and Munich are all • Ban on cars that don't produce zero emissions - 2050 considering bans on diesel for 2030. • Oxford proposed ban on all non-EVs in city center - 2020 USA · California proposal to ban all internal-combustion cars - 2040 GREECE Government warns automakers MEXICO · Athens proposes 2025 ban internal combustion ban is coming -• Mexico City ban on diesel cars - 2025 on diesel-powered cars Still to be announced ITALY Rome proposes 2024 · Non-binding ban on internal-combustion car sales - 2030 ban on diesel cars **FRANCE BRAZIL** • End sales of cars emitting greenhouse gases - 2040 Ban on diesel cars dating back to 1970s • Parisian ban diesel-powered cars - 2025 · Parisian ban on all internal-combustion cars - 2030 SPAIN · Madrid's city center moving to car-free zone - TBD

· Madrid considers 2025 ban on diesel-powered cars - TBD

Madrid considers higher parking fees on internal-combustion cars - TBD



# **Charging Station Revolution**



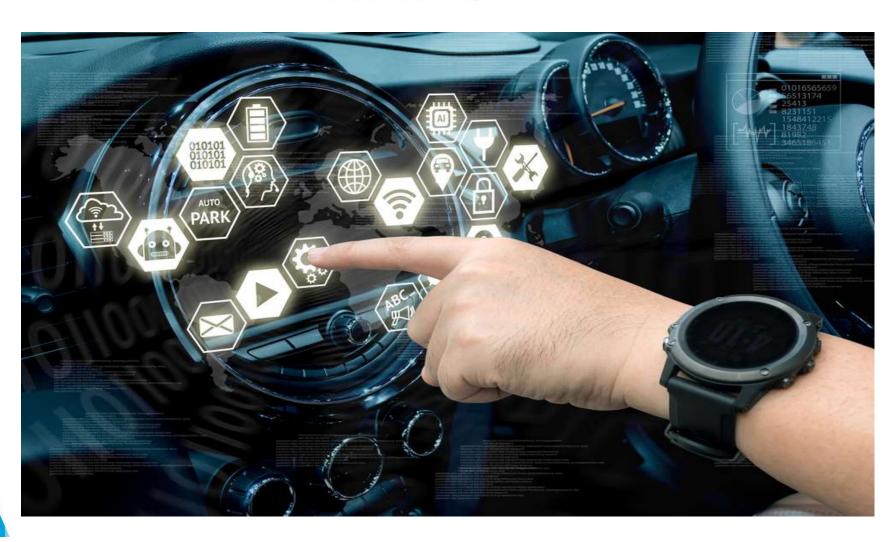


# **Industry Answers**



# AVERE

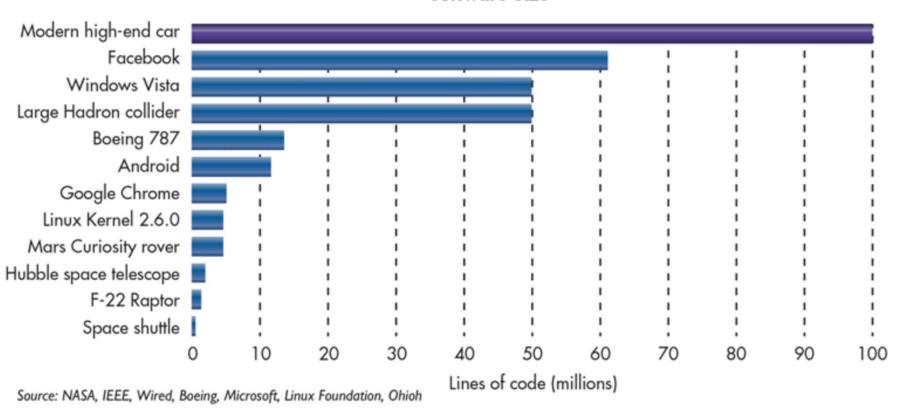
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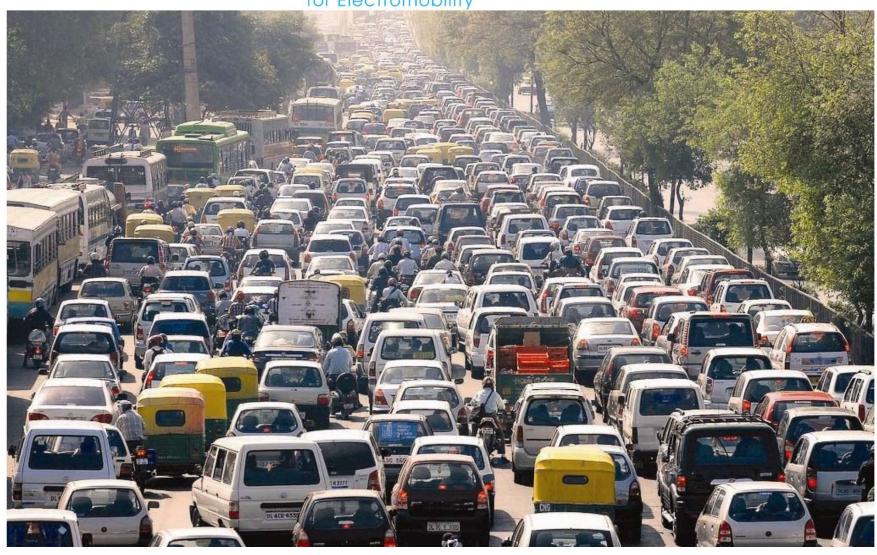
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#### Software Size



# AVERE

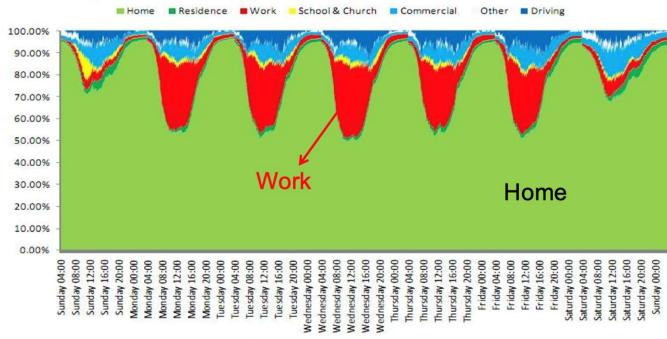
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# Infrastructure needs Where is your car during one week?



Source of Data - 2001 National Household Travel Survey; GM Data Analysis (Tate/Savagian) - SAE paper 2009-01-1311





MOBILITY, LOGISTICS & AUTOMOTIVE TECHNOLOGY RESEARCH CENTRE



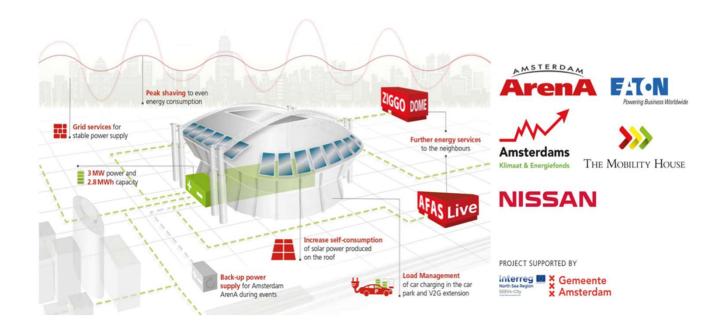
### The future of e-mobility

**Connected** 

**Autonomous** 

**Sharing** 

**Electric** 

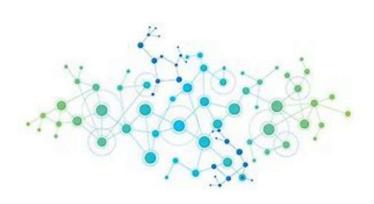






# Challenges









#### In conclusion

The question of sustainable transport is complex and lot will change, but:

The future belongs to those who recognize the **opportunities** brought forward by change.

'Not taking risk' is also very risky





### **Thank You**

