



# Electric Vehicle Conference 2021

## Sufficient recharging infrastructure to boost electric vehicle take up

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# Electric car notrace expedition



# E-mobility market vs climate change

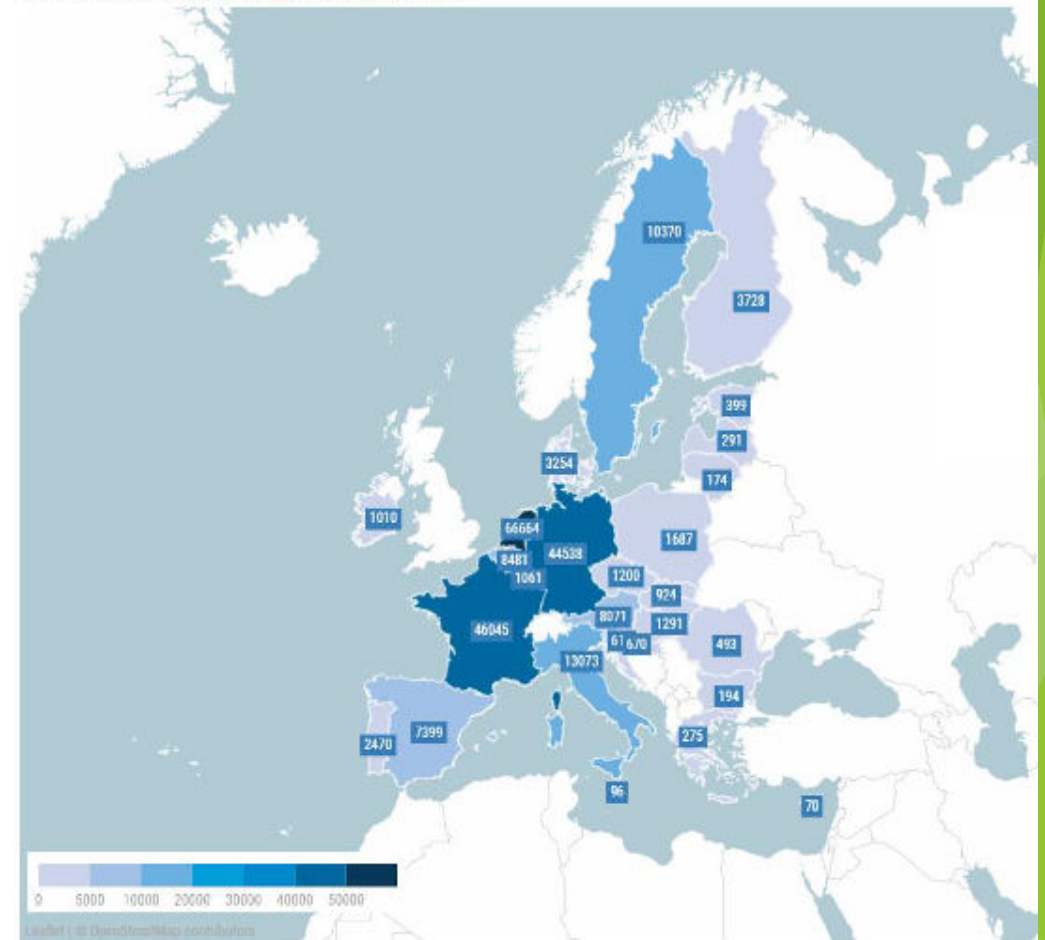


- ▶ Quick response of industry and consumers: sales of battery-electric cars more than **doubled** between 2019 and 2020. At least **48 million** electric vehicles expected by 2030!
- ▶ **How to further support electric vehicles? Provide charging infrastructure!**

# Lack of coherence

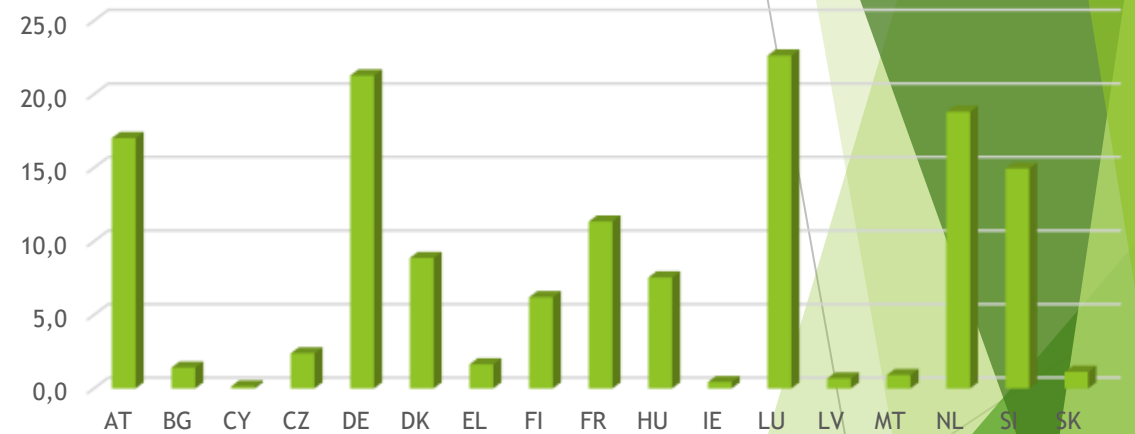
- ▶ More than 70% of all recharging points located in three Member States
- ▶ Around 700,000 recharging points risk to be missing by 2030 in 17 Member States

EU Normal + High-Power Public Recharging Points (1-1-2021)



# Lack of coherence

- ▶ Increase in electric vehicle registration: 91% in 2020 (51% in 2019)
- ▶ Increase in recharging points: 37% in 2020 (38% in 2019)



# User Information / Services

- ▶ Not always easy to find a recharging / refueling point
- ▶ Lack of price transparency
- ▶ Plethora of approaches to payments

# What do you expect from the EU?

- ▶ Legal certainty
- ▶ Financial support and measures
- ▶ Guidelines for better planning, permitting and procurement

# Legal certainty





# AFIR - Mandatory targets road

## Electricity Recharging LDV

Fleet based target, expressed in power installed (kW) per registered ev

Distance based target along TEN-T core and comprehensive network (maximum distance and power)

## Electricity Recharging HDV

Distance based target along TEN-T core and comprehensive network (maximum distance and power)

Safe and Secure parkings (overnight recharging)

Urban nodes (in particular for urban delivery)

## Hydrogen Refuelling, HDV / LDV

Distance based target along TEN-T core and comprehensive network (maximum distance and capacity)

Urban nodes (in particular for urban delivery)

# Recharging infrastructure (operation)

- ▶ Ad hoc payment at all publicly accessible recharging points
- ▶ Display of ad hoc price (price per session, minute, kWh)
- ▶ Mobility service providers to provide prices and all fees available **before the start of the recharging session**

# Data provisions

- ▶ Operators of recharging and refuelling points to provide static and dynamic data through the National Access Points at no costs
  - ▶ Static: geographic location, number of connectors, no. of parkings for persons with disabilities, contact information. For recharging only: identification codes, type of connector, current (DC or AC), power output (kW)
  - ▶ Dynamic: operational status, availability, ad hoc price

# Technical specifications

- ▶ **Physical standards**
  - ▶ Mandate to ESOs and subsequent adoption through delegated acts
    - ▶ Road (e.g. ultra-fast recharging and hydrogen refuelling for trucks)
- ▶ **Communication standards (e-mobility)**
  - ▶ Mandate to ESOs and subsequent adoption through delegated acts
    - ▶ Communication between vehicle and the recharging point

# Better plan, permit and procure

- ▶ Tools: the 2020 **STF Recommendations** for recharging point tenders and summary **Handbook** to help all public authorities
- ▶ Commission will continue its support, in particular through the STF ‘public-authorities’ sub-group. Aim: **European toolbox grouping best practices** on a thematic basis:
  - ✓ best practices guide for permitting and grid connection procedures
  - ✓ development of useful templates, tools, standard contract provisions
  - ✓ recommendations for recharging infrastructure rollout for specialized and captive fleets
- ▶ New dedicated **Knowledge Platform** for public authorities - part of the **European Alternative Fuels Observatory** (‘EAFO’).

# Funding and financial instruments at EU level

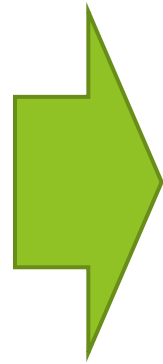
- ▶ **Multiannual budget for 2021-2027** - a substantial increase in support for the rollout of alternative fuels infrastructure
- ▶ **CEF II - Alternative Fuels Facility - blending call for proposals:**
  - ❑ 150 KW, unit contributions
  - ❑ better targeted funding: criteria based on TEN-T infrastructure gaps analysis
  - ❑ appropriate fixed co-funding rate for electricity and hydrogen projects for all modes of transport

# Funding and financial instruments at EU level

▶ **Horizon Europe/Mission on Climate Neutral and Smart Cities** 

recharging infrastructure in cities

- Clean Energy Transition partnership
- 2Zero and Batteries partnerships
- Clean Hydrogen Joint Undertaking
- Battery 2030+
- Innovation Fund



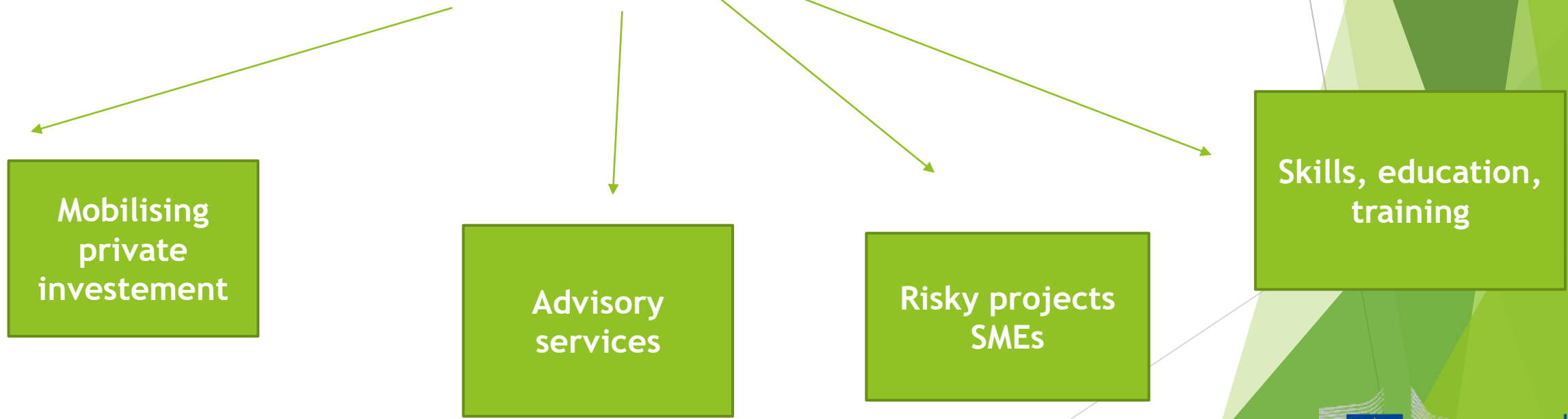
**Research and development**

# Funding and financial instruments at EU level

European Regional Development Fund and the Cohesion Fund

EIB - Cleaner Transport Facility

InvestEU





# What the EU expects from you?

- ▶ **From national governments:** swift agreement in the Council on the relevant initiatives under the “Fit for 55” package, such as the proposed new Regulation for alternative fuels infrastructure deployment; strategic support to e-mobility at national level
- ▶ **From local authorities:** faster permit and well planned procurement - STF
- ▶ **From all stakeholders:** broad-based cooperation between all public and private sector market players throughout the whole value chain, bringing together automotive and energy sectors to provide digitised user services

# Challenges for e-mobility: energy system

- ▶ Local challenge - inefficient electricity network leading to capacity constraints
- ▶ Lack of smart recharging and incentives to shift recharging to periods of high renewable generation and available grid capacities could also lead to high electricity prices for electric vehicles

# Concluding remarks

- ▶ Transition to zero-emission mobility provides a unique opportunity to stimulate economic growth and recovery after the impact of the COVID-19 pandemic.
- ▶ Related investment will create jobs that cannot easily be outsourced and often are rooted in local economies, while generating considerable social and environmental benefits.
- ▶ The Commission is ready to support the accelerated rollout of alternative fuels recharging and refueling infrastructure, including through investments in research and innovation

# Thank you



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