



E.ON Czech _ STRATEGIC PROJECTS & TECHNICAL DEVELOPMENT

Elektromobilita v pojetí E.ON a projekt přeshraniční sítě rychlonabíjecích stanic

E.ON eMobility and cross-border project of fast-charging infrastructure

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e-on

SMART MOBILITY _ REASONING



CNG already established business in the Czech Republic with focus on sale of commodity



E-Mobility is taken as an important part of our marketing strategy and supporting E.ON Czech USP

The **e-on** logo in white on a red background.

SMART MOBILITY _ NAP EXPECTED PLAN FOR CM^{*)}

- EV endurance 150-200 km/charge (today 100-120 km/charging)
- Charging Stations (CHS) in municipalities with > 100T inhabitants
- 1 300 CHS (500 DC and 800 AC charging points)
- Temporary Measures Applied
- Clear responsibilities of the business model and the role of market players
- CNG Consumer tax will be remained / 50T CNG cars
- 300 CNG stations (200 public/100 non-public)



**SHORT TERM _
YEAR 2020**

- EV endurance over 200 km/charge
- Charging Hubs in municipalities with > 10T inhabitants
- Annual sales 25T EVs / 35T EVs - BEV and 66T PHEV in operation
- Implementation of dynamic tariffs for charging
- CNG consumption tax will be remained until 2025 (depending on target 10% of CNG on car market)
- 200T CNG cars / 500 CNG stations (340 public/160 non-public)

**MEDIUM TERM _
YEAR 2030**



- Charging Hubs available in the same scale as petrol stations
- E-Mobility/CNG standard technology
- 400T EVs in operation / 300T CNG cars in 2040

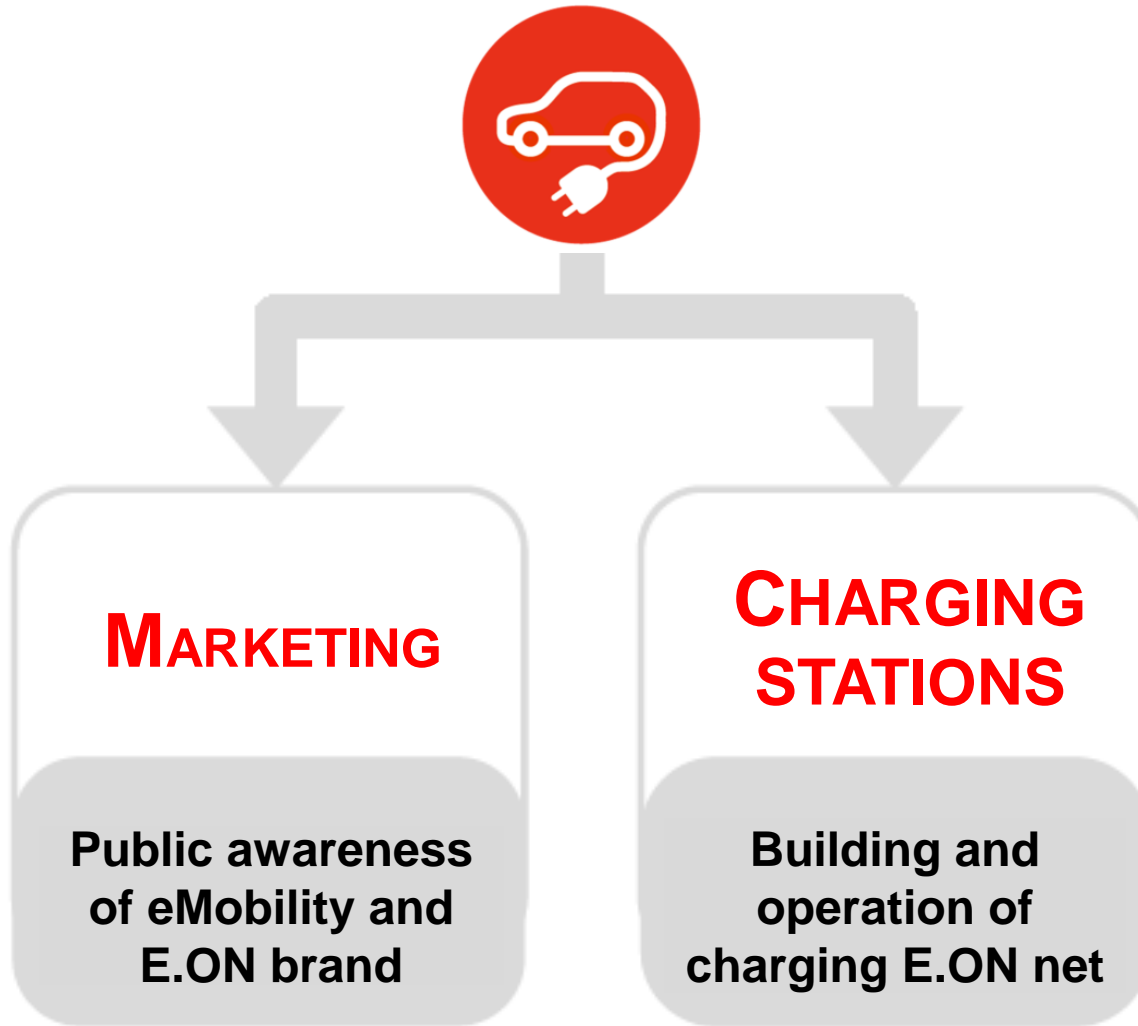
**LONG TERM _
YEAR 2050**



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^{*)}Clean Mobility

eMOBILITY _ TWO STREAMS



Show case e-mobility at Airport Brno

- The cooperation with the airport Brno was launched in 2011 (opening of a public charging stations)
- Press conference at Airport Brno opened of show case in 2011
 - E.ON advertising on boarding pass
 - Rolls – up, billboards, flyers, CLV's
 - advertising on carousels
 - **long-term lending following vehicles:**
 - 1 x smart, 1 x Vito E-cell, 2 x e-scooter E.ON e-max



The value of provided advertising and marketing space fully covers our costs incurred with lending the fleet of e-vehicles

eMOBILITY _ eBIKES/eSCOOTERS RENTING

e-Šumava



Pasohlávky & Vranov



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CUSTOMERS
discount 10 – 30 %

Slavonice



Lipno

Lipno na plný proud

E.ON mi pomáhá šetřit peníze i přírodu



CHARGING IS FOR FREE

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eMOBILITY _ eCAR FLEET

Smart ed (se) – (7x)



Technical specification

- Top speed: 100 km/h
- Engine: 55 kW
- Driving distance: 130 km
- Batteries: 18 kWh

Vito E-Cell (1x)



Technical specification

- Top speed: 80 km/h
- Engine: 60 kW
- Driving distance: 130 km
- Batteries: 36 kWh

BMW i3 (1x)



Technical specification

- Top speed: 150 km/h
- Engine: 125 kW
- Driving distance: 200 km
- Batteries: 22 kWh

VW e-UP! (7x)



Technical specification

- Top speed: 130 km/h
- Engine: 60 kW
- Driving distance: 160 km
- Batteries: 19kWh

VW GOLF-e (1x)



Technical specification

- Top speed: 135 km/h
- Engine: 85 kW
- Driving distance: 150 km
- Batteries: 27 kWh

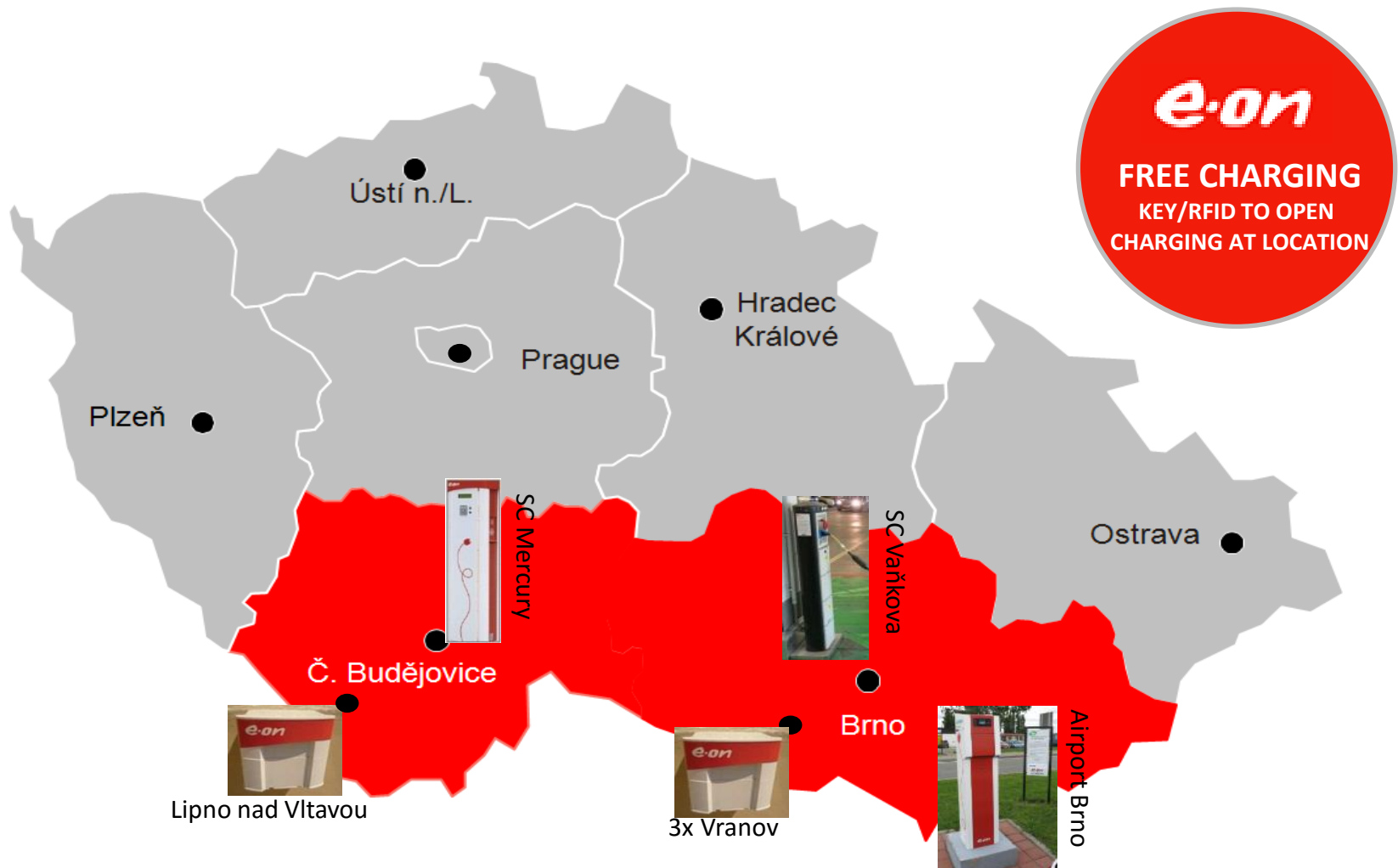
TESLA Model S (1x)



Technical specification

- Top speed: 200 km/h
- Engine: 270 kW
- Driving distance: 400 km
- Batteries: 85 kWh

eMOBILITY _ CHARGING INFRASTRUCTURE



**GOAL IS TO EXTEND CURRENT CHARGING
INFRASTRUCTURE**

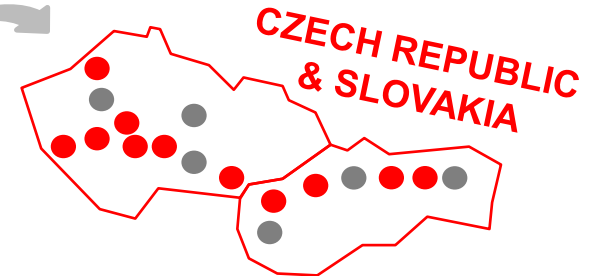
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eMOBILITY _ GROUP-WIDE NET



DENMARK

- 40 fast charging stations operated by E.ON Denmark (cooperation with petrol station StatOil and G8) by end of 2015



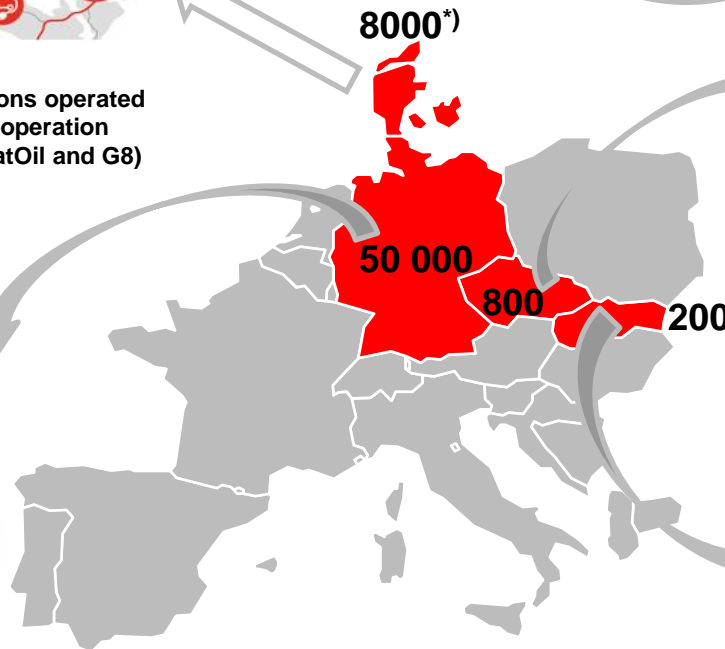
CZECH REPUBLIC & SLOVAKIA

- Fast charging connection across main traffic corridors in the CR and SR and creation of backbone grid of fast charging in this region



GERMANY

- Fast charging connection over A9 between Mnichov and Berlin for long-distance traveling by EVs
- 8 locations on A9 with fast charging stations



SLOVAKIA

- First fast charging stations operated by ZSE (member of E.ON Group) in 2015

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*) EVs – electricity vehicles

eMOBILITY _ CROSS-BORDER PROJECT

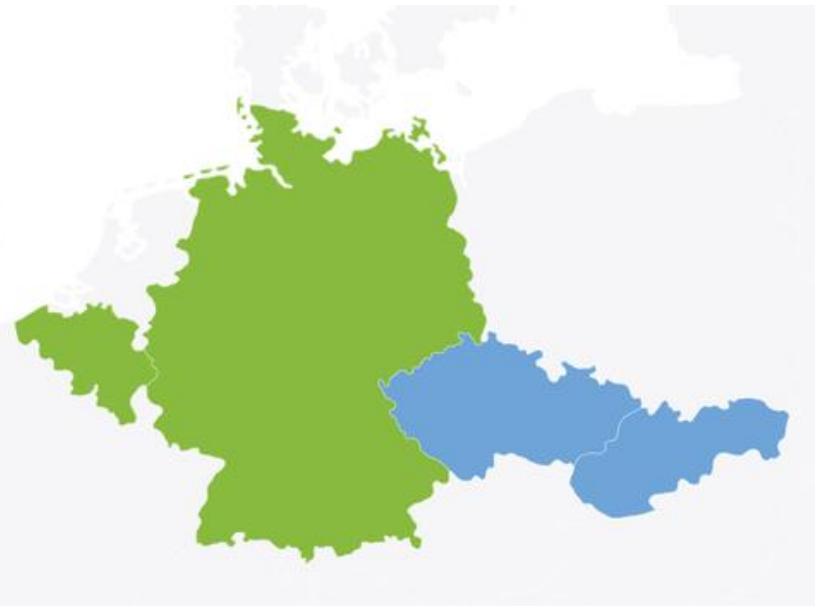


BUILDING UP TO

278

FAST-CHARGING STATIONS
FOR ELECTRIC CARS IN

BELGIUM
GERMANY
CZECH REPUBLIC
SLOVAKIA



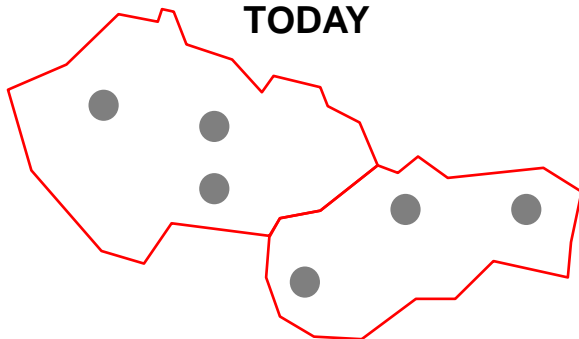
PROJECT PARTNERS



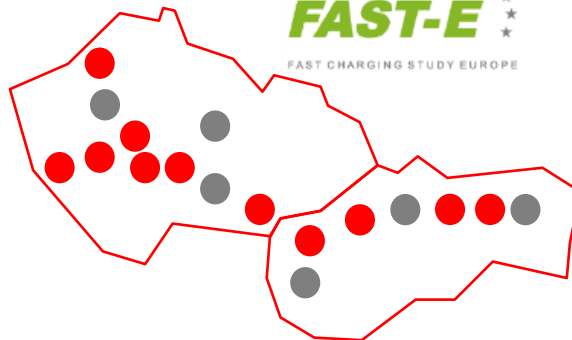
Co-financed by the European Union
Connecting Europe Facility



TODAY



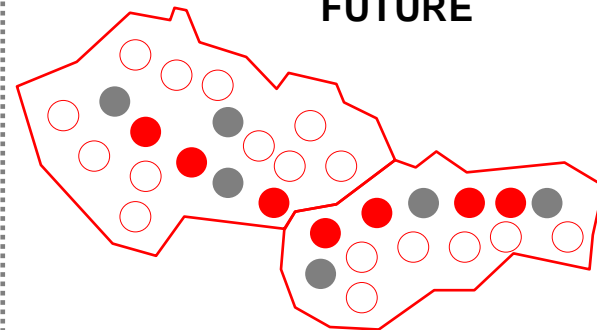
- Isolated islands
- Long distance travel is not possible
- Distance between islands is too far for EV driving



- Pilot corridors
- Long distance travel possible
- Data collection to analyse change of consumer behaviour



FUTURE

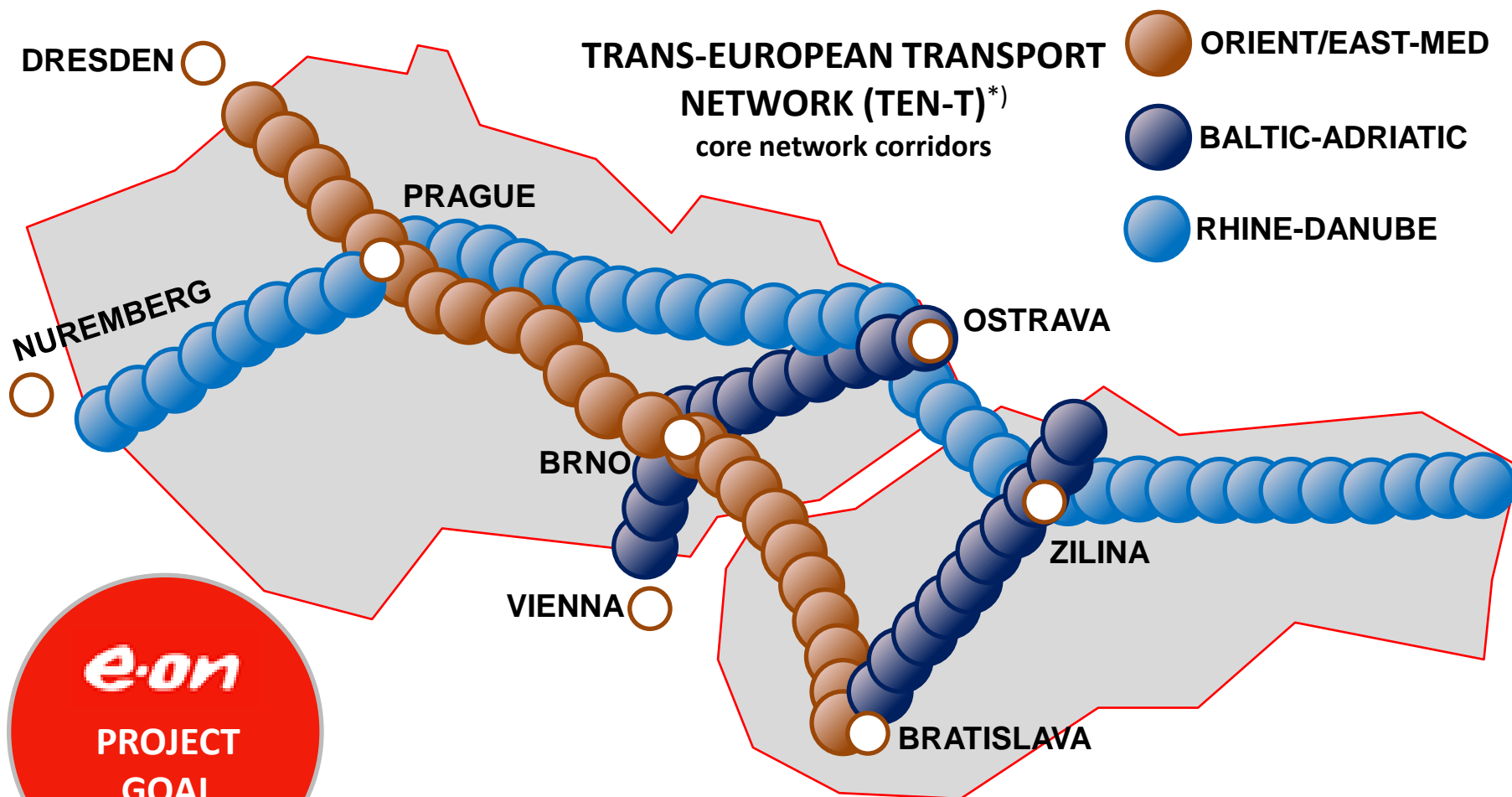


- Estimated network deployment by 2030
- E.ON contribution to NAP Clean Mobility of the Czech Republic



Co-financed by the European Union
Connecting Europe Facility

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Building up the pilot corridors for long way EVs traffic across the Czech Republic and Slovakia
Accelerate the penetration of EVs in this region

eMOBILITY _ FAST CHARGING IN CZ / SK

FAST-E

FAST CHARGING STUDY EUROPE

FAST CHARGING _ multi-standard charging _ all EVs supported

DC CHARGING

CCS Combo # 50 kW



CHadeMO # 50 kW



AC CHARGING

Menekes Type 2 # 43 kW



MITSUBISHI CITROËN



HYUNDAI

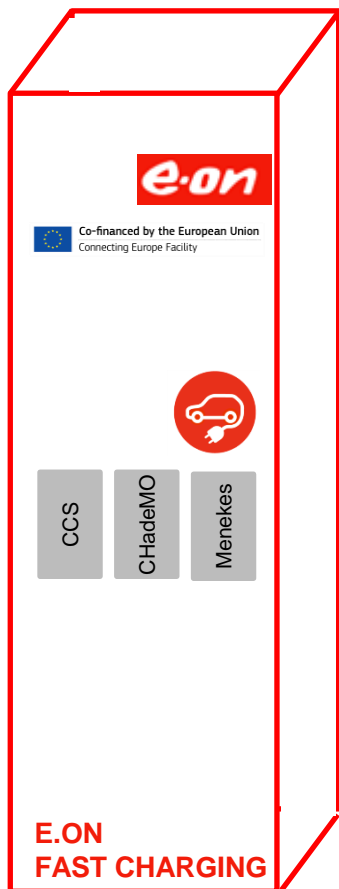


TESLA MOTORS



PARALEL CHARGING AC/DC #
maximal load 93kW

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WWW.FAST-E.EU

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