

Punionice

- tehnologija
- veličina (potrebna snaga)

Zagreb, 08.11.2022.



Predrag Šeatović

Co-Founder & CEO

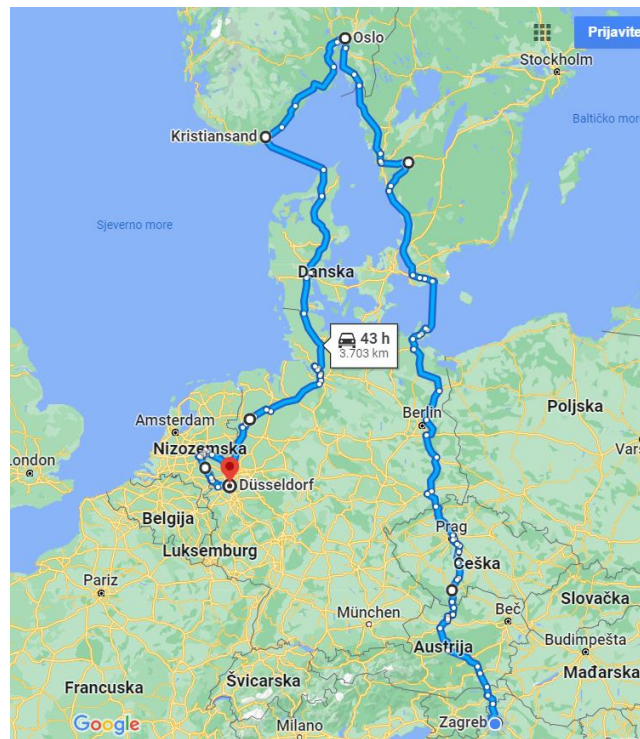
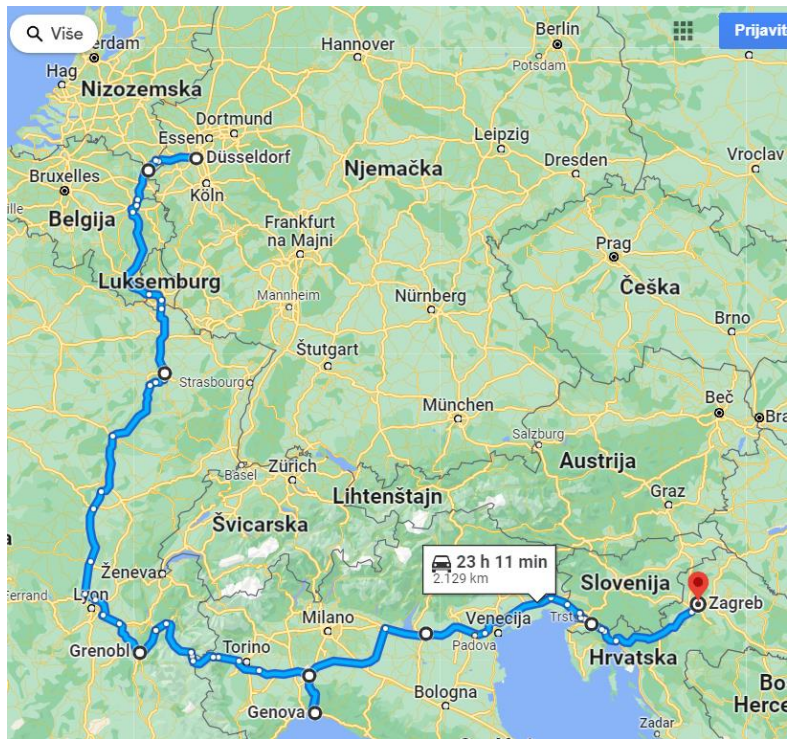
- ERICSSON
- Vodatel/A1
- GEN-I
- Qelo by enasol Group

Pojmovnik:

- „Lokacija“.....
su od jedan (location, site, station, charging park) je mjesto na kojem postavljane jedna ili više „Punionica“ (AC ili DC) koje imaju do četiri „Punjača“
- „Velika lokacija“.....
mjesto na (BIG location, BIG site, BIG station, BIG charging park) je kojem se nalazi 3 ili više DC „Punionica“
- „Punionica“.....
ima od vozilom (EV), (E-Bus) (charger) je uređaj ili agregat koji može biti AC ili DC i koji jednog do četiri „Punjača“ za spajanje s električnim električnim kamionom (E-Truck) ili električnim autobusom
- „Punjač“.....
koje se puni (plug) je utikač kojim se spaja kabel za punjenje s vozilom električnom energijom

Infrastruktura za punjenje EV u EU

Put u Oslo



Švedska:
Varberg Nord

23.07.2022
15:08 (subota)



Norveška: Stajalište Fokserød 26.07.2022. 12:20 (utorak)



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Norveška: Stajalište Ringdalskogen - Larvik 26.07.2022. 12:31 (utorak)



Norveška: Stajalište Ringdalskogen - Larvik 26.07.2022. 12:31 (utorak)

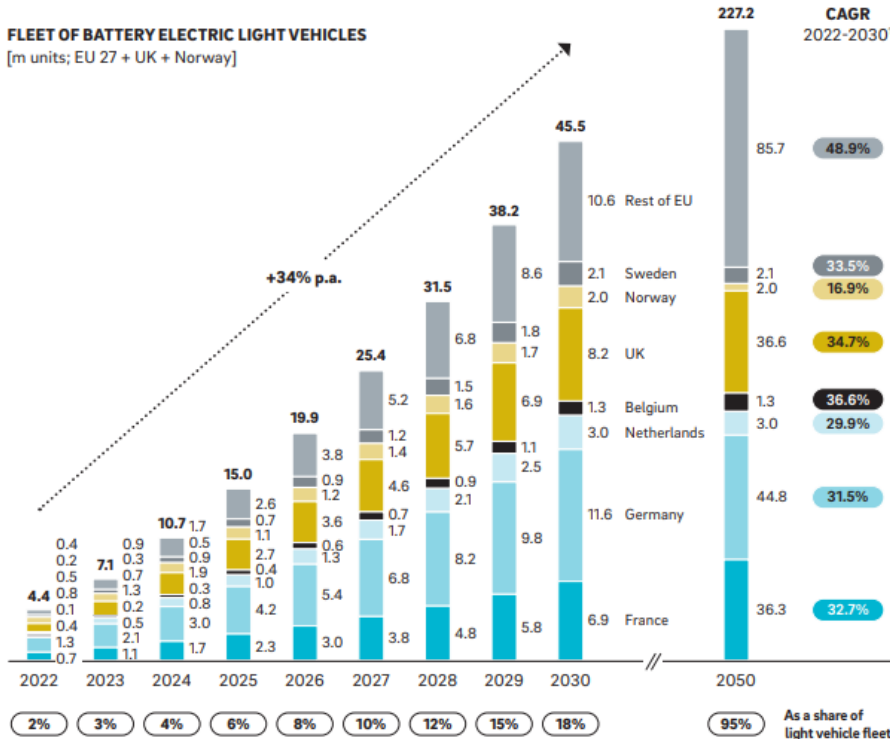


B: Fleets ahead

The European light EV fleet should grow by 34% per year until 2030, reaching 45 million vehicles

FLEET OF BATTERY ELECTRIC LIGHT VEHICLES

[m units; EU 27 + UK + Norway]



¹ As of December 31

Source: Roland Berger market model, IHS

EV u Hrvatskoj

- U RH očekujemo 4000 EV do kraja 2022.
- 0,23 % registriranih osobnih vozila su BEV
- PHEV su prelazna faza koja nema veliki utjecaj na ee mrežu (GRID)
- Broj turista s EV je značajno veći od broja domaćih EV (izjednačavanje ne prije 2030.)
- EK definira obaveze razvoja infrastrukture za EV u RH do 2025, 2030 i 2035 g.
- 2035. g. zabrana kupovine novih ICE

Električni kamioni -> E-Trucks
i
Električni autobusi -> E-Buses

EU - obaveze, Business potrebe i ostalo



ALTERNATIVE FUELS INFRASTRUCTURE REGULATION HEAVY-DUTY VEHICLES



ELECTRIC CHARGING INFRASTRUCTURE

	COMMISSION PROPOSAL			NEEDED IN REALITY			
	31 Dec 2025	31 Dec 2030	31 Dec 2035	1 July 2025	1 July 2027	1 July 2030	1 July 2035
TEN-T core network							
Power output per recharging pool	≥1,400kW	≥3,500kW		≥5,000kW		≥6,500kW	
Number / power of recharging stations	1 x 350kW	2 x 350kW		4 x 350kW 4 x 800kW		4 x 1,200kW	
TEN-T comprehensive network							
Power output per recharging pool		≥1,400kW	≥3,500kW		≥1,400kW	≥3,000kW	≥5,000k
Number / power of recharging stations		1 x 350kW	2 x 350kW		2 x 350kW	2 x 800kW	2 x 1,200kW
Safe and secure parking areas							
		1 x 100kW		4 x 100kW			
Urban nodes							
Aggregated power output	≥600kW	≥1,200kW				≥1,600kW	
Individual power output	≥150kW	≥150kW				All ≥150kW + 2 x 350kW	

Zero-emission trucks are beginning to hit the road in large numbers. However, suitable (public) infrastructure is still missing almost completely – this is something the Alternative Fuels Infrastructure Regulation (AFIR) needs to address urgently.

The **technical specifications and requirements** of charging and refuelling infrastructure for battery and fuel-cell electric heavy-duty vehicles are **completely different from those for cars**.

Particularly with respect to:

- Locations of charging and refuelling stations
- Space requirements
- Minimum power output levels

AFIR KEY RECOMMENDATIONS

TRUCKS IN FIGURES



13 The average age of Europe's trucks is 13 years.

€4.9 BILLION

Trucks generate an annual trade surplus of €4.9 billion for the EU.

247,499

new trucks were sold in the EU in 2020, a drop of 25.7% compared to 2019.

3.4%

of new trucks sold in the EU are alternatively-powered vehicles (battery electric, plug-in hybrid, hybrid and alternative fuels), but they only represent 0.7% of all trucks on the road today.

3,090,000

3.1 million people are employed in the road freight transport sector.

54 There are 54 truck assembly plants in Europe.

435,976

trucks were manufactured in the EU in 2020.

159,190

trucks (over 5 tonnes) were exported worldwide in 2020, worth €5.7 billion.

150

In modern economies, 85% of road freight tonnage is carried over distances of 150km or less, along routes for which no other form of transport would be realistic. Less than 1% gets carried over 1,000 km.

96.5%

of all new trucks sold in the European Union are powered by diesel, and 0.1% by petrol.

55% Despite the increase in freight transport, fatalities involving heavy goods vehicles decreased by 55% between 2001 and 2018.

50%

of heavy trucks built in the United States now come from European-owned factories, based on European technology.



6.2 MILLION

Today, there are some 6.2 million trucks in circulation throughout the European Union.

(acea) European Automobile Manufacturers' Association

150

In modern economies, 85% of road freight tonnage is carried over distances of 150km or less, along routes for which no other form of transport would be realistic. Less than 1% gets carried over 1,000 km.

Circle K's e-truck charging station opens in Gothenburg - Švedska



Prvo punjenje na Megawatt punionici [MCS](#)



NOVA SPEKTRUM

First Public Megawatt Fast Charging Simulation by CharIN at EVS35 Oslo 2022





Hvala!

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