



eLen:

izvor električne energije

HEP e-mobility project

Alpe-Adria Clean Transport Alliance

Zagreb, 27th of June 2022

e-mobility – main goals

- Following Directive 2014/94EU on deployment of infrastructure for alternative fuels
- Meeting the goals given in National Framework Policy on number of charging points needed in Republic of Croatia
- Reducing of greenhouse gases emissions and noise in urban areas
- Added value for citizens, guests, tourists and clients on every location
- Visibility of location on all EV infrastructure maps and platforms
- Increase of electricity in final energy consumption (overall and in transport sector)
- New service to existing and new customers (EV users)

e-mobility in HEP

Public chargers 259

Wallbox 22kW 34

AC 2x22kW 92

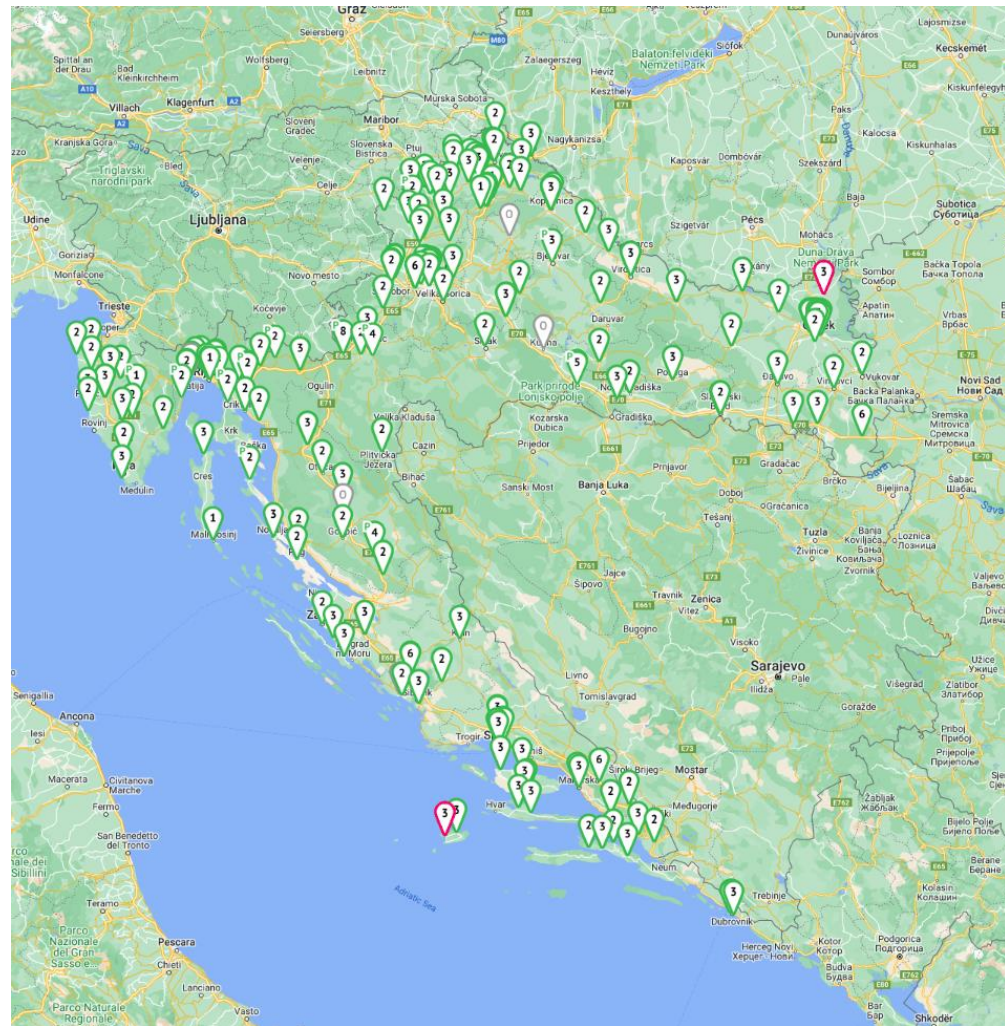
AC/DC 50kW 128

DC 175+ kW 6

Registered users 15.000

HEP EV fleet 70

Private chargers 45

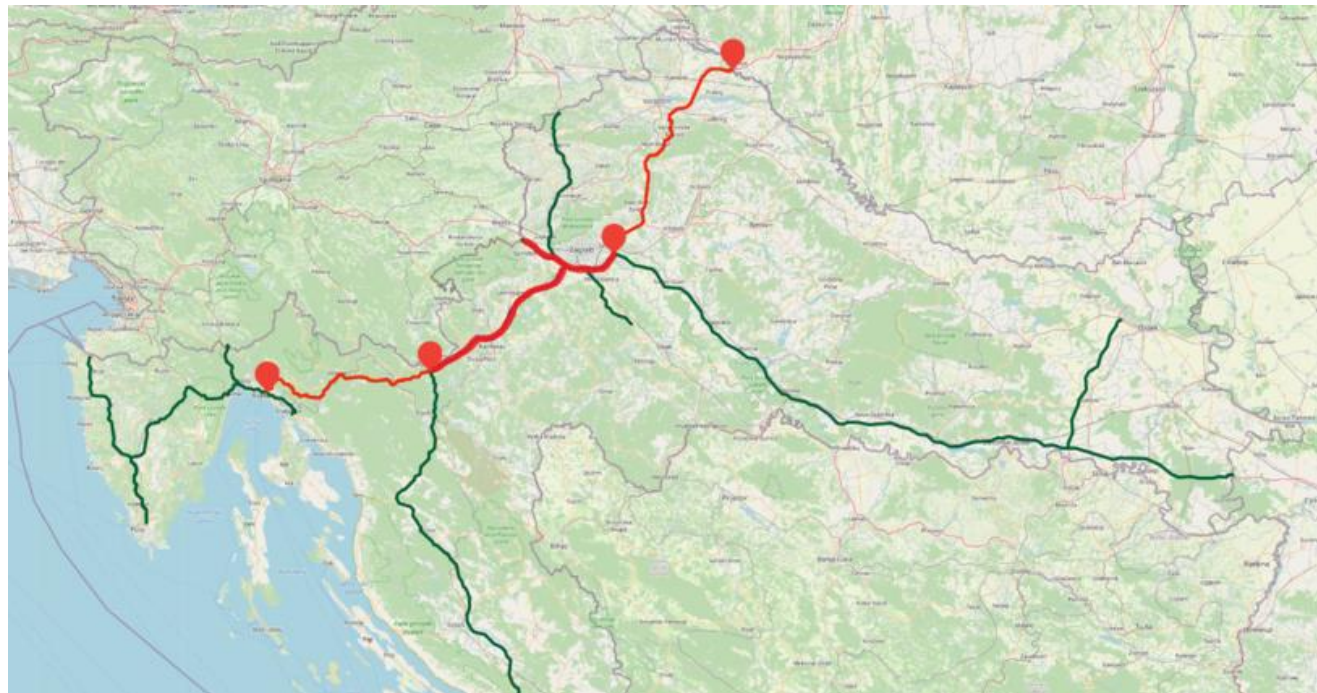


EAST-E

ZSE

e-on

HEP d.d.



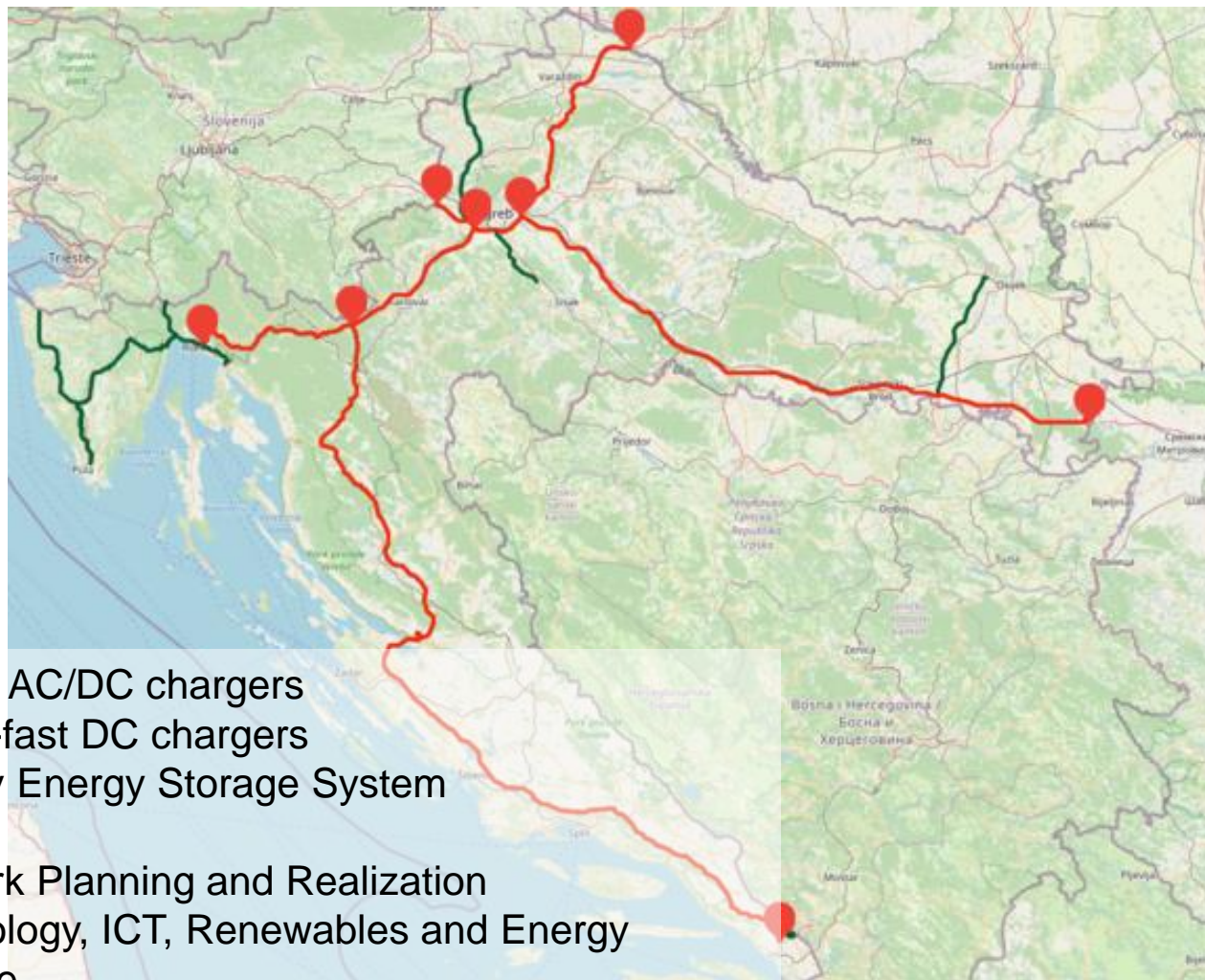
- 27 fast AC/DC chargers
- ICT management solution

1. Market Acceleration and Business Model
2. Synergies with Green Energy
3. Network Planning and Site Finalization
4. Network Specifications and ICT Applications



Sufinancira Europska unija
Instrument za povezivanje Europe

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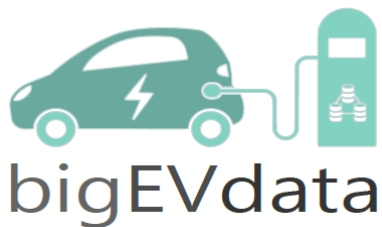


- 26 fast AC/DC chargers
- 4 ultra-fast DC chargers
- Battery Energy Storage System

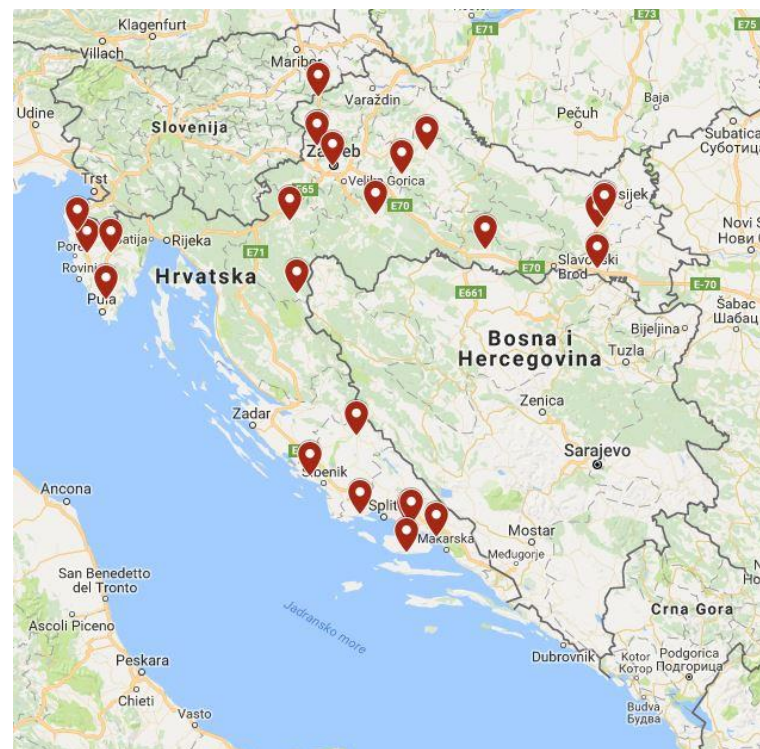
1. Network Planning and Realization
2. Technology, ICT, Renewables and Energy Storage
3. Pan-Cohesion EV Roll Out and Business Plan



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- 12 AC/DC chargers
- 10 AC chargers
- 10 AC wallbox chargers
- (10 wireless chargers)
- Predictive analytics system and IT solution development
- Demonstration and validation in development and operational environments
- Protection of intellectual property



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Instrument za povezivanje Europe



Business challenges

New digital services implementation into energy system
Transport paradigm shift with users and drivers

Chicken / egg situation between infrastructure and Evs on local/regional roads



INVESTING

Identification of equipment and grid connection co-financing sources

EAST-E



NEXT-E



bigEVdata



Creating regulations for optimal e-mobility development and management

REGULATORS

OPERATORS

SERVICE PROVIDERS

IT SOLUTIONS

EV MANUFACTURERS

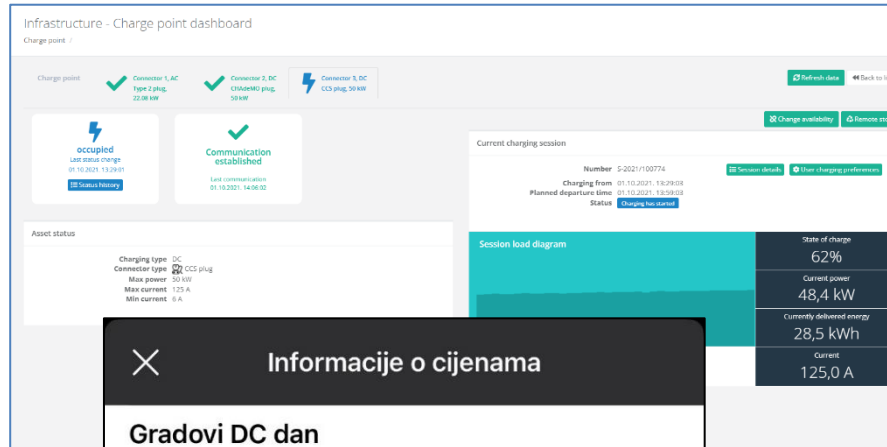
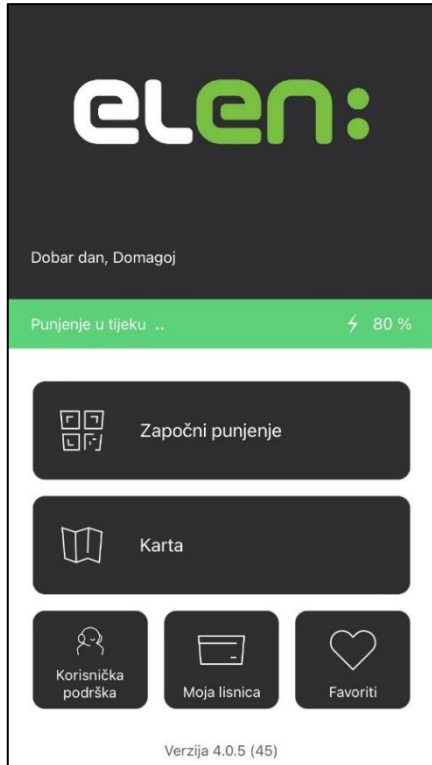


COSTS

Low energy / High power (grid reservations)
Land usage fees



Commercial energy service in digital world

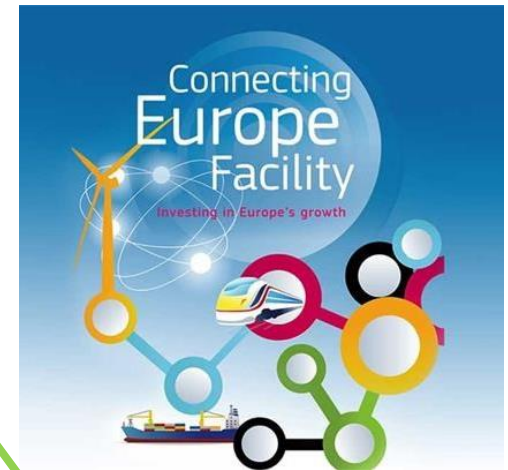


Informacije o cijenama	
Gradovi DC dan <i>DC punjenje u gradovima dnevno</i>	
Naknada za potrošenu energiju	2,95 HRK /kWh
Prekomjerno zauzimanje punionice (po minuti) nakon: 60 minuta	0,5 HRK /min
Gradovi DC noć <i>DC punjenje u gradovima noćno</i>	
Naknada za potrošenu energiju	2,55 HRK /kWh
Prekomjerno zauzimanje punionice (po minuti) nakon: 60 minuta	0,5 HRK /min



What's next?

- Identifying further co-financing sources (**CEF2** i local)
- Communication with state-level stakeholders about EU directive goals and obligations on **e-mobility**
- **Communication with local / regional governments on their role in e-mobility development**
- New business models
- New tariff models and/or user contracts



31.12.2025.

- 350kW on every 60km of TEN-T corridor (LDW)
- 1400kW on every 100km of TEN-T corridor (HDW)
- 600kW on city nodes

Local / regional government role?



Reducing of greenhouse gases emissions and noise in urban areas

Added value for citizens, guests, tourists and clients on every location

Visibility of location on all EV infrastructure maps and platforms

HEP + local
government public
chargers

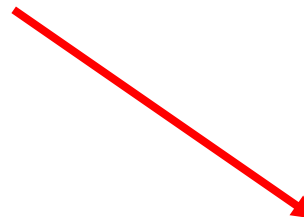
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Investing

(design, permits, procurement,
works, financing and/or co-financing)



*Different kind of core-business
participation?*



**Operating, Managing,
CRM, service providing,
operational costs,
maintenance...**

***When the charger is deployed –
that's when the work (and costs) start!***

Examples of usual practice



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