Federal Ministry
for the Environment, Nature Conservation
and Nuclear Safety

European
Climate Initiative
EUKI

Projects in Croatian regional government units

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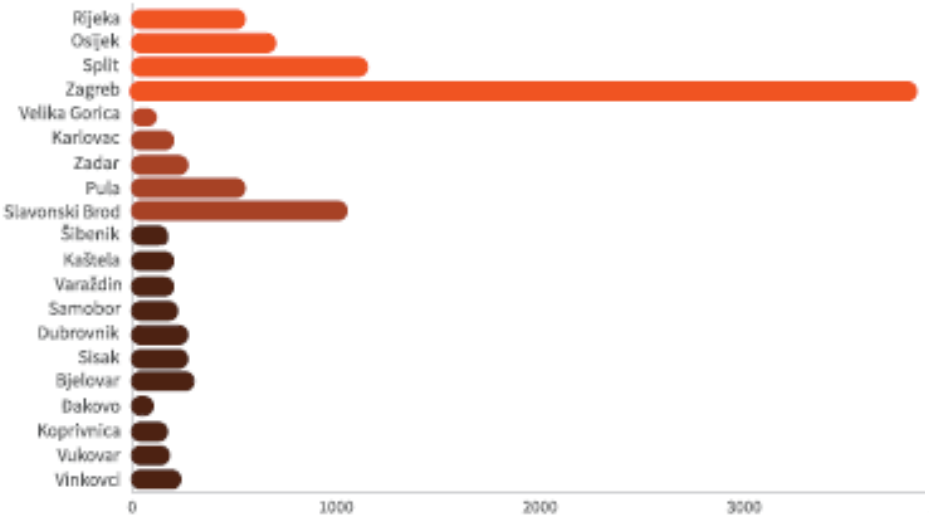
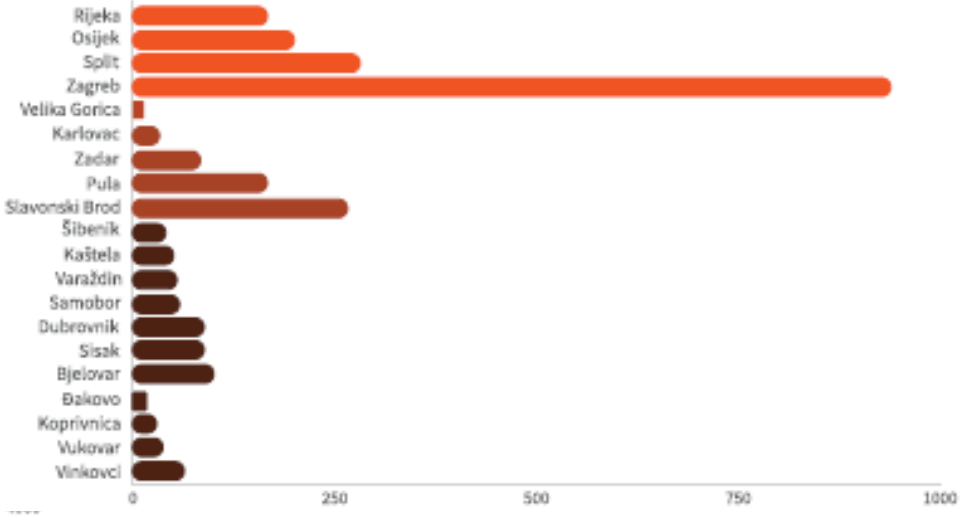
RITEH

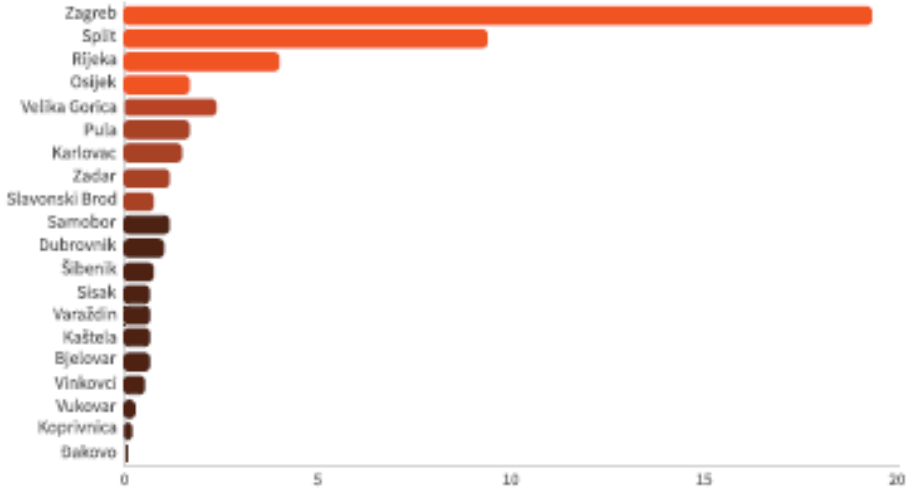
Transport sector in Croatian cities



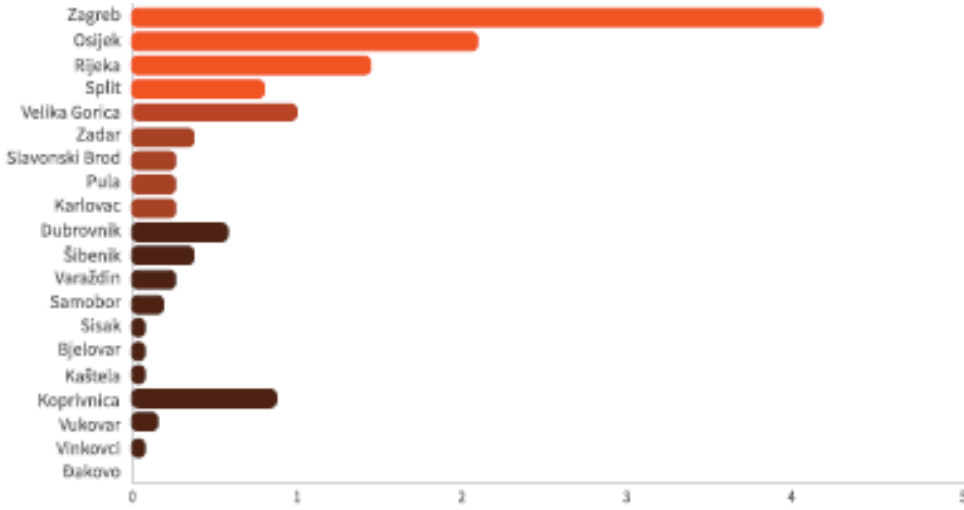
Specific annual energy consumption in the transport sector (MWh / inhabitant)



Specific annual CO2 emissions in the transport sector (tCO2 / inhabitant)



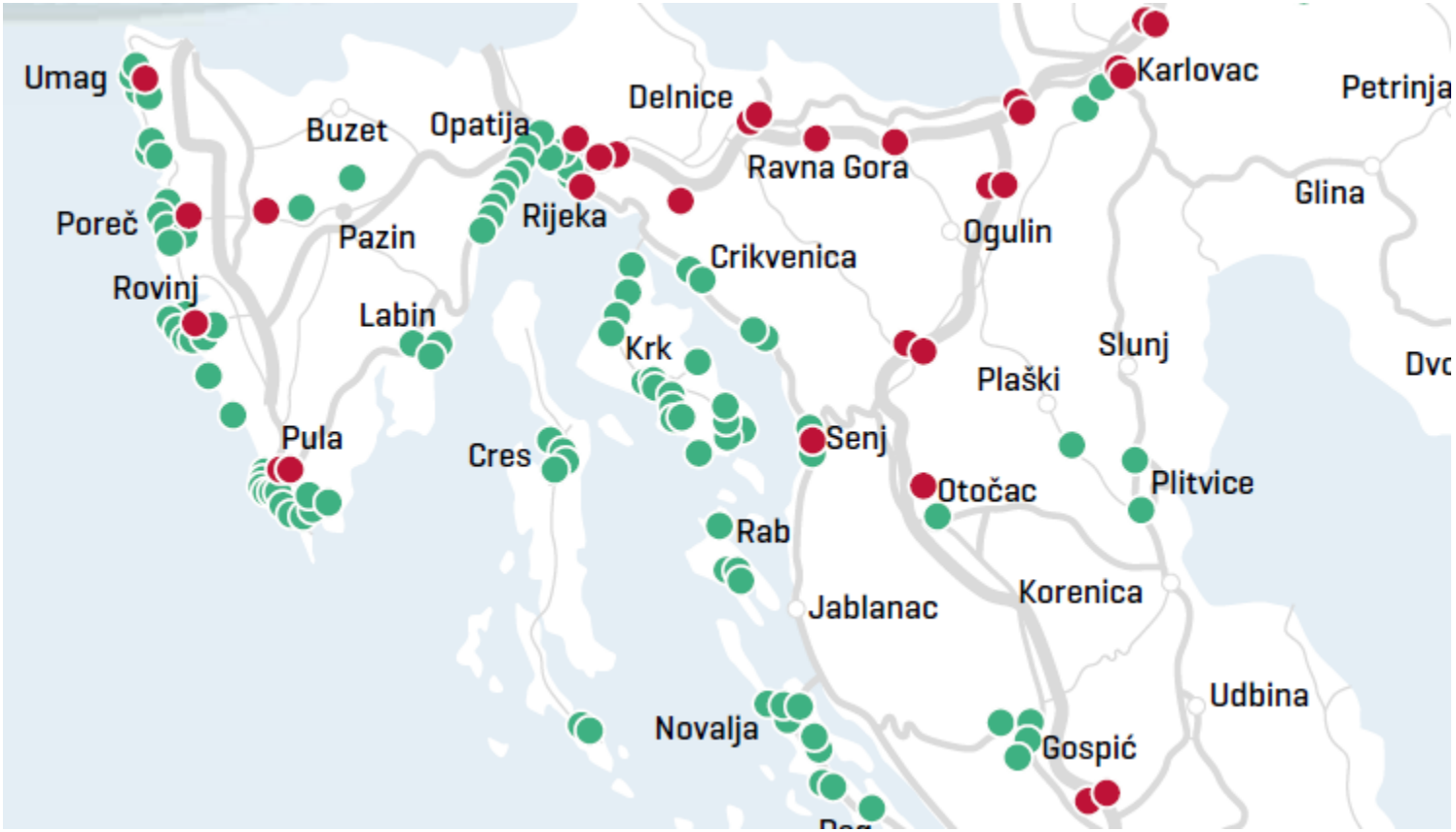
Number of public transport lines



Number of EV charging stations (per 1000 inhabitants)

Source: Analysis of the readiness of Croatian cities for a green (energy) transition in 2021.

Primorje-Gorski Kotar County – charging infrastructure



Source: ZE Mobility

	Primorje-Gorski Kotar County
Area (km^2)	3.588
Population (2011)	296.195
Density (/km^2)	83
Charging stations	60+
EV and PHEV	~500

EnerMOB - Interregional Electromobility Networks for intERurban low carbon MOBility

Charging stations (2x22 kW AC) for electric vehicles have been developed in the framework of the EnerMOB project.

Three AC charging stations have been installed and are operating in attractive tourist and traffic locations in **Rijeka International Airport**, **Municipality of Fužine** and on **island Rab in the port Melak.**

Installation of charging stations for electric vehicles has created conditions for greater use of electric vehicles in the County of Primorje and Gorski Kotar, which leads to a reduction in carbon dioxide emissions generated in road transport, increased energy efficiency and reduced dependence on other energy sources.

With the implementation of the EnerMOB project, the County is more accessible and enables greater mobility of the local population and visitors.

Source: County of Primorje-Gorski Kotar

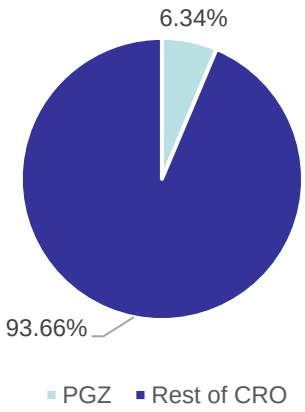
EnerNETMob - Mediterranean Interregional Electromobility Networks for intermodal and interurban low carbon transport systems

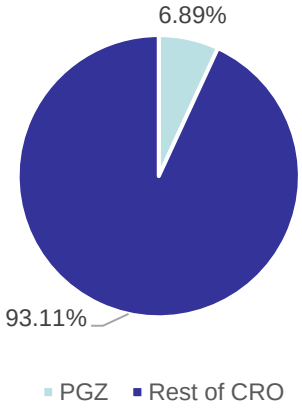
The Mediterranean program covers many regions and cities that do not have developed policies for sustainable mobility, and given the growing growth of electric cars at both European and national and regional levels, it is necessary to systematically develop long-term strategies. So far, small infrastructure networks have not been consolidated in the EU to allow further movement of battery-powered electric vehicles. The EnerNETMob project seeks to address the needs of these two challenges of a lack of charging infrastructure and common standards.

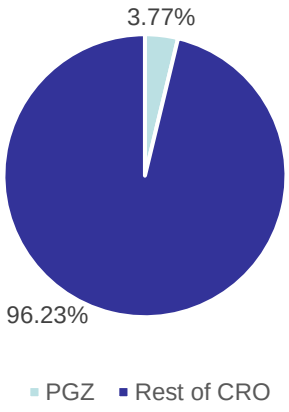
The overall goal of the project is to develop, test and promote sustainable electromobility plans, based on common standards of the electric transport system at the transnational level, by connecting a regional network of electric charging stations, in order to achieve greater mobility between cities and regions in the Mediterranean.

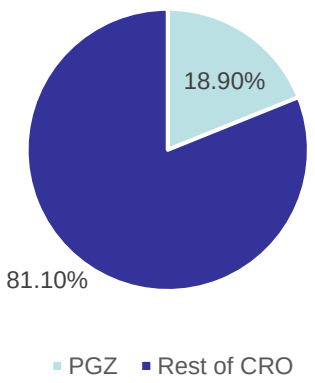
The project budget: 5,742,802.10 EUR
PGZ budget: 415,875.00 EUR

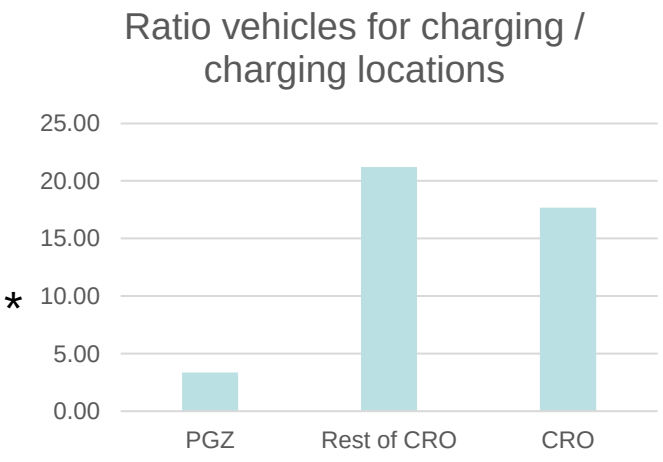
Primorje-Gorski Kotar County vs rest of Croatia

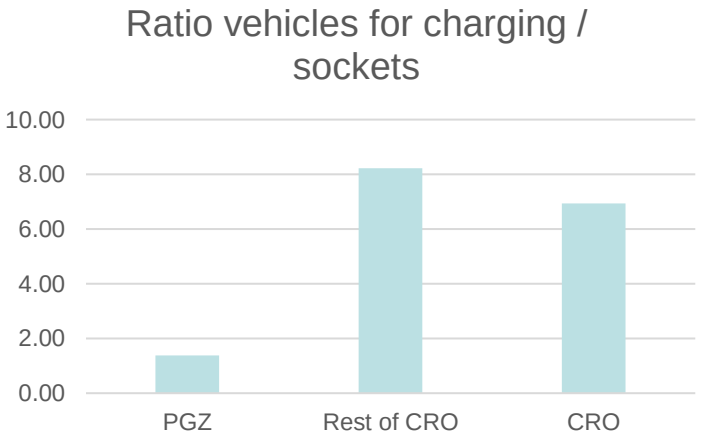


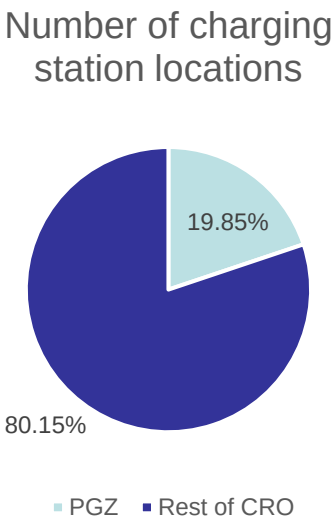








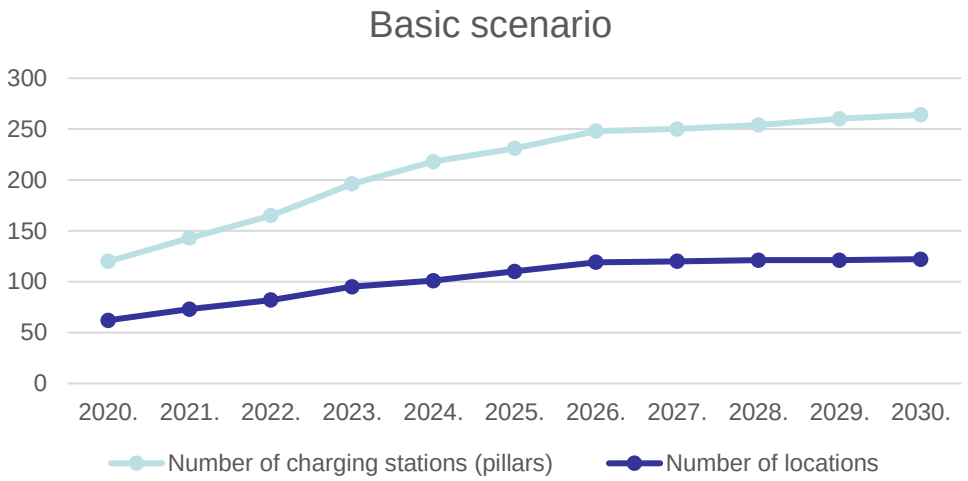


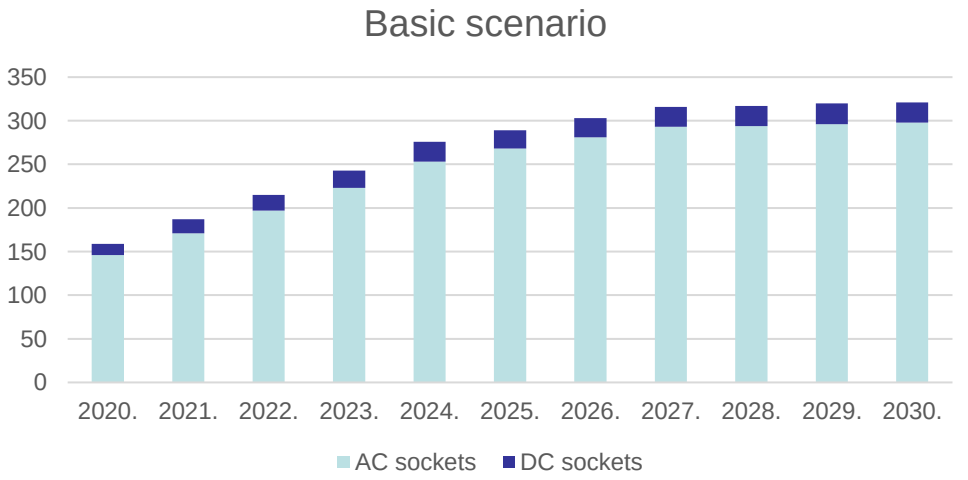


* The EU's Directive on Alternative Fuel Infrastructure – DAFI, 2014.

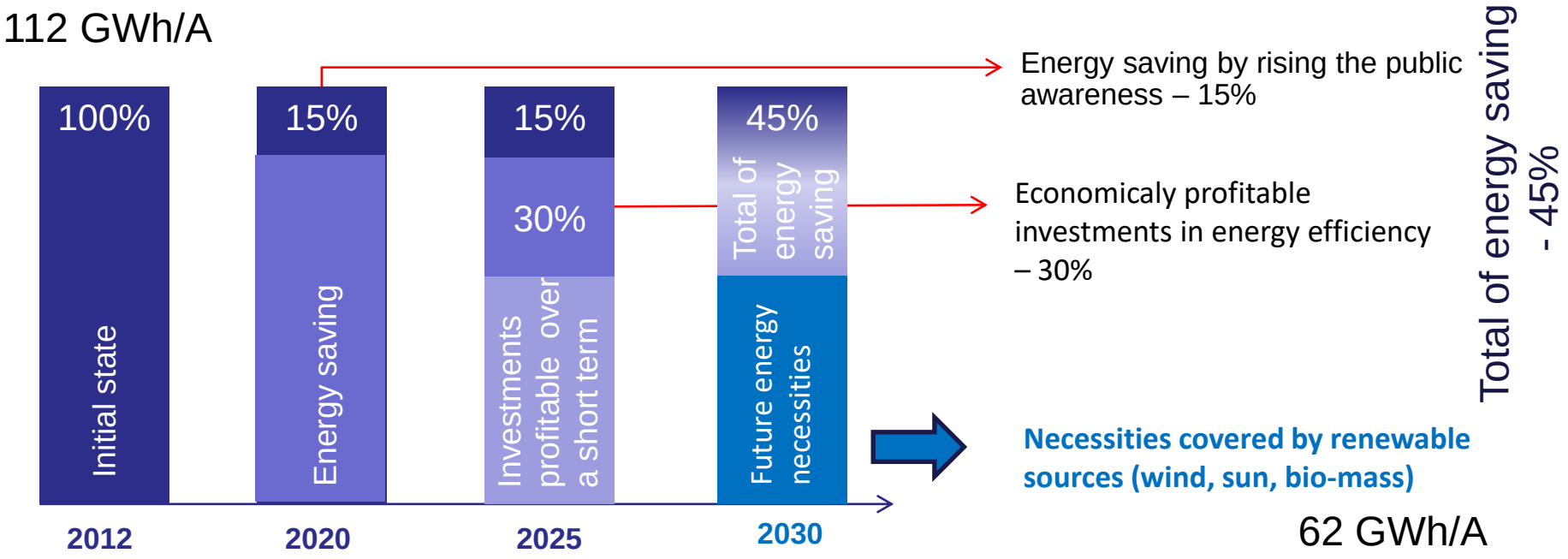
Primorje-Gorski Kotar County projections

Primorje and Gorski Kotar county	Parameter	2020	2025	2030
Basic scenario	AC sockets	146	268	298
	DC sockets	13	21	23
	Total sockets	159	289	321
	Number of charging stations (pillars)	120	231	264
	Number of locations	**62**	**110**	**122**
Moderate scenario	AC sockets	206	330	348
	DC sockets	27	44	46
	Total sockets	233	374	394
	Number of charging stations (pillars)	180	299	323
	Number of locations	**92**	**126**	**134**
Dynamic scenario	AC sockets	263	402	403
	DC sockets	35	46	54
	Total sockets	298	447	457
	Number of charging stations (pillars)	226	361	375
	Number of locations	**116**	**126**	**164**



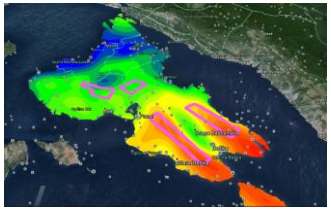


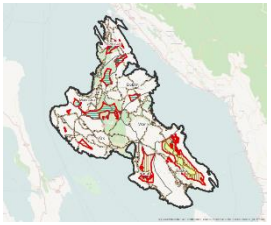
The island of Krk – 2030 strategic aims
Steps towards zero GHG emissions



Source: “Interdisciplinary strategy of zero emissions for integrated development of the island of Krk”, igr AG, Ponikve Eko Otok Krk, Croatia, 2012.

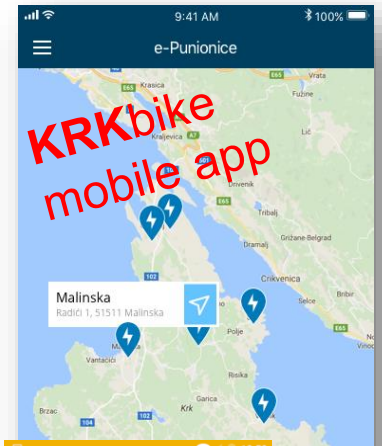
Wind



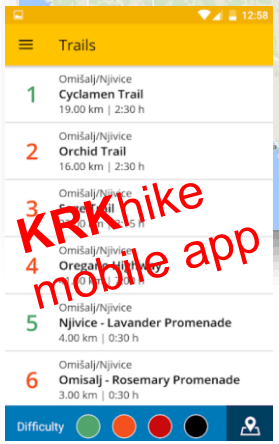


Solar

Strategic documents

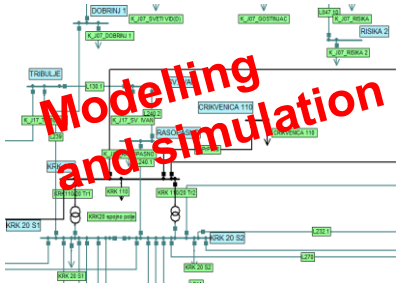


KRKbike mobile app



KRKbike mobile app

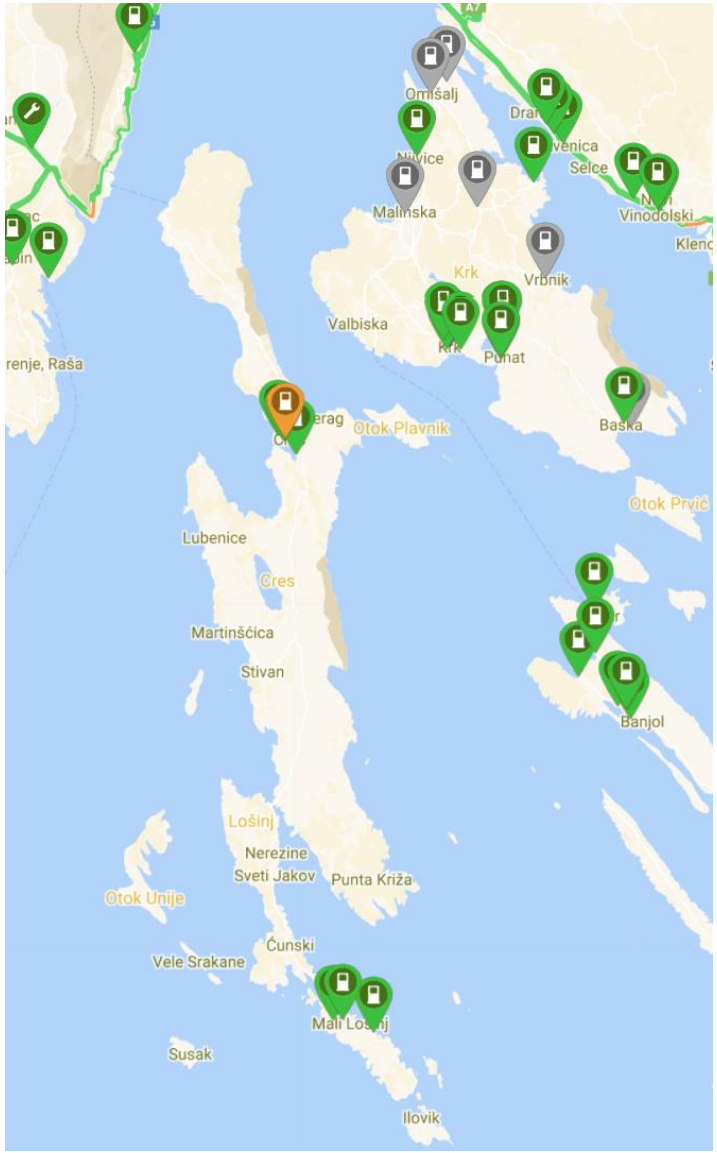
Krk energy conference

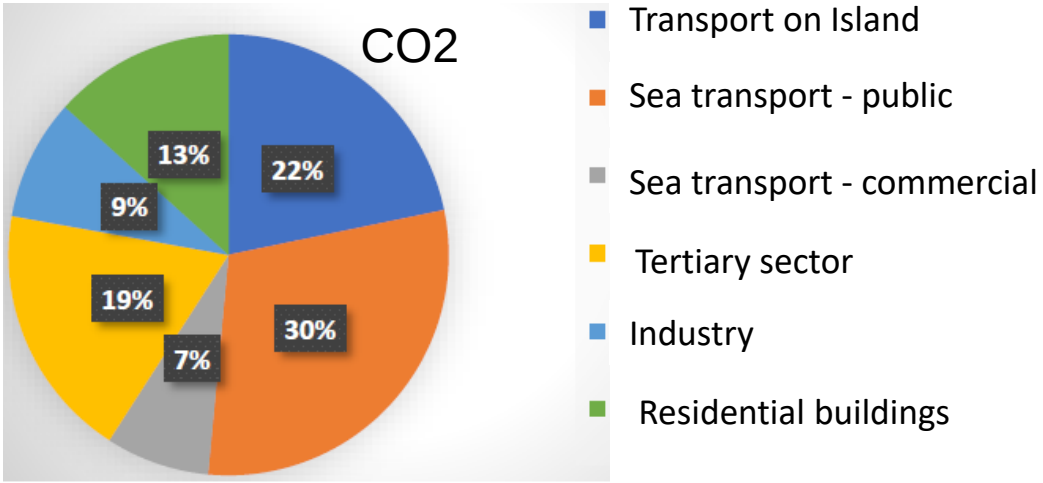


Modelling and simulation

100% elektrik

Energy transition of the Cres-Losinj archipelago

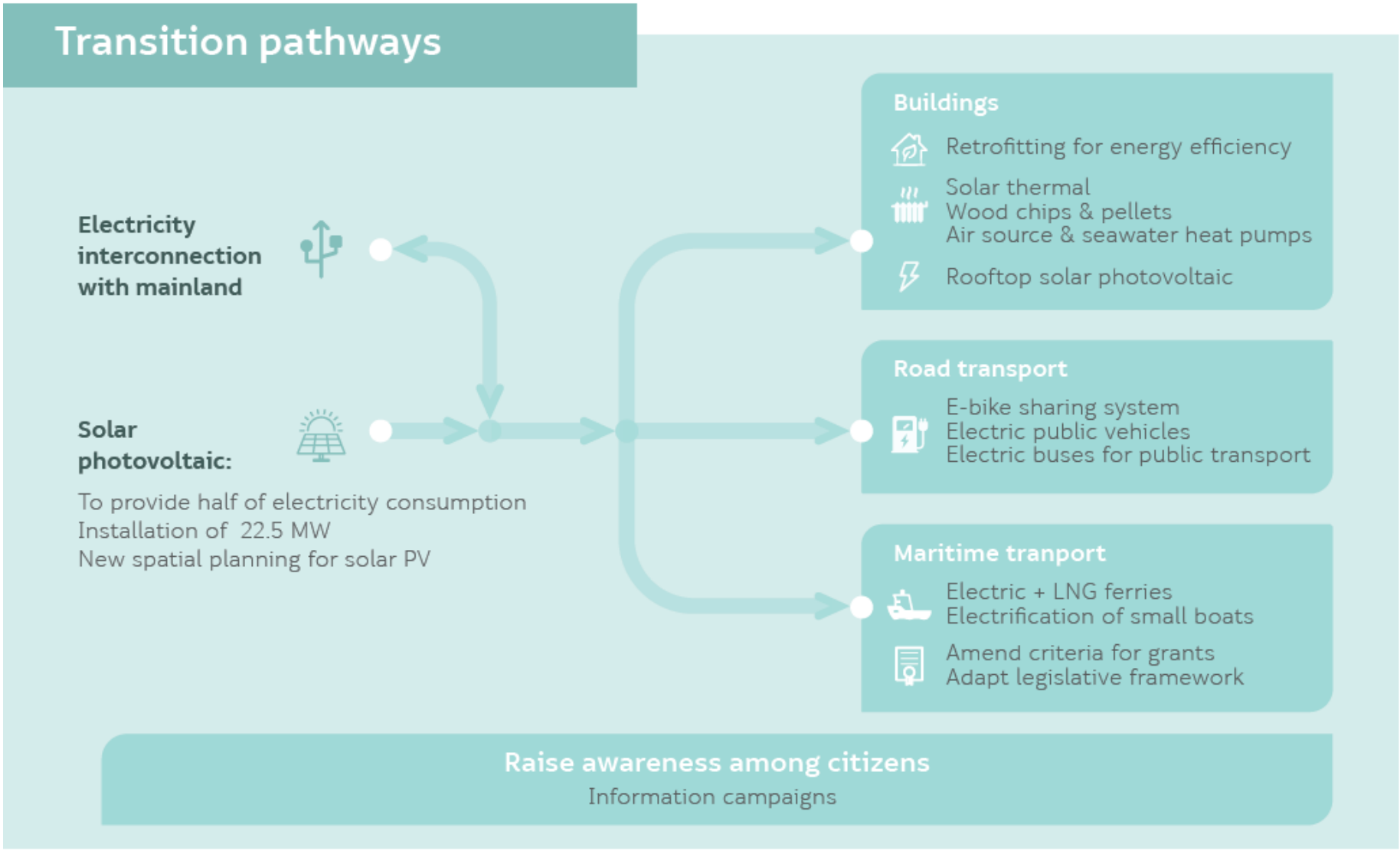




Final Energy Consumption in 2018	[MWh]	CO_2 [tonne]
Electricity	59,666	9,427
Heating	54,683	2,548
Transport to & from	33,000	8,811
Transport on Island	22,862	6,440
Industry	506	135
TOTAL:	170,717	27,361

Source: Plugshare, TRANSITION PLAN TOWARDS CLEAN ENERGY – CRES - LOSINJ ISLANDS https://euislands.eu/sites/default/files/2019-11/CRESLOSINJ_FinalTransitionAgenda_20191118.pdf

Energy transition of the Cres-Losinj archipelago



Source: TRANSITION PLAN TOWARDS CLEAN ENERGY – CRES - LOSINJ ISLANDS https://euislands.eu/sites/default/files/2019-11/CRESLOSINJ_FinalTransitionAgenda_20191118.pdf

Energy transition of the Cres-Losinj archipelago

CLEAN ENERGY FOR EU ISLANDS

otra
OTOČNA RAZVOJNA AGENCIJA

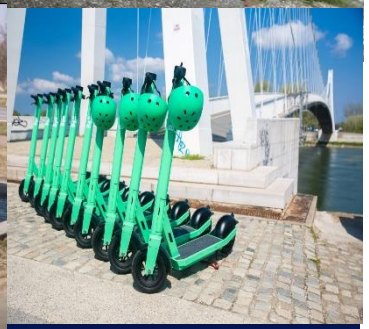
APSYRTIDES
ENERGETSKA ZADRUGA

PAMETNO OTOČJE CRES-LOŠINJ

Source: Examples of energy transition in the Cres-Lošinj archipelago https://www.youtube.com/watch?v=92Jk6MNjn2o

Challenges and opportunities

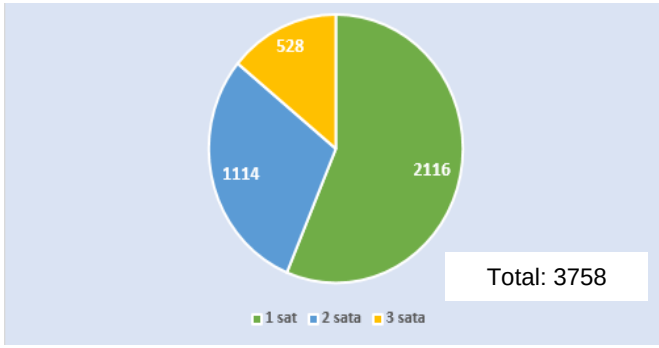
Matt Sertić pokrenuo projekt od 1,65 mlrd. kn: Nakon industrije čipova u Sisak dovodi i automobilsku



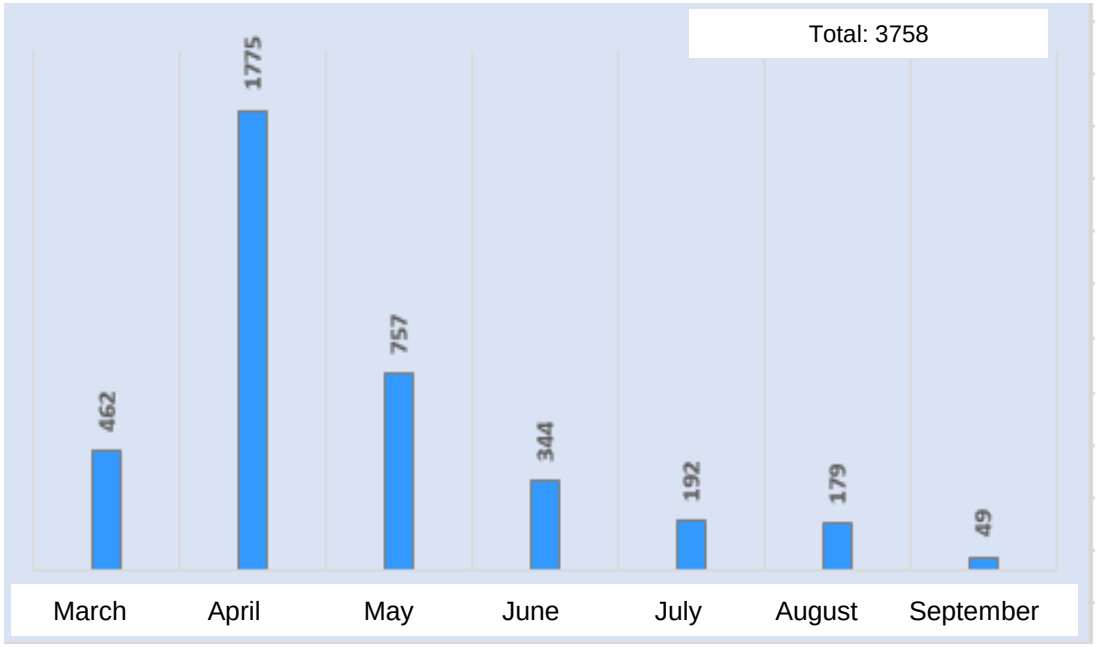
https://www.strujnikrug.hr/electric-car-buying-guide/
https://www.strujnikrug.hr/ev-chargers/

eBike-sharing system City of Rijeka

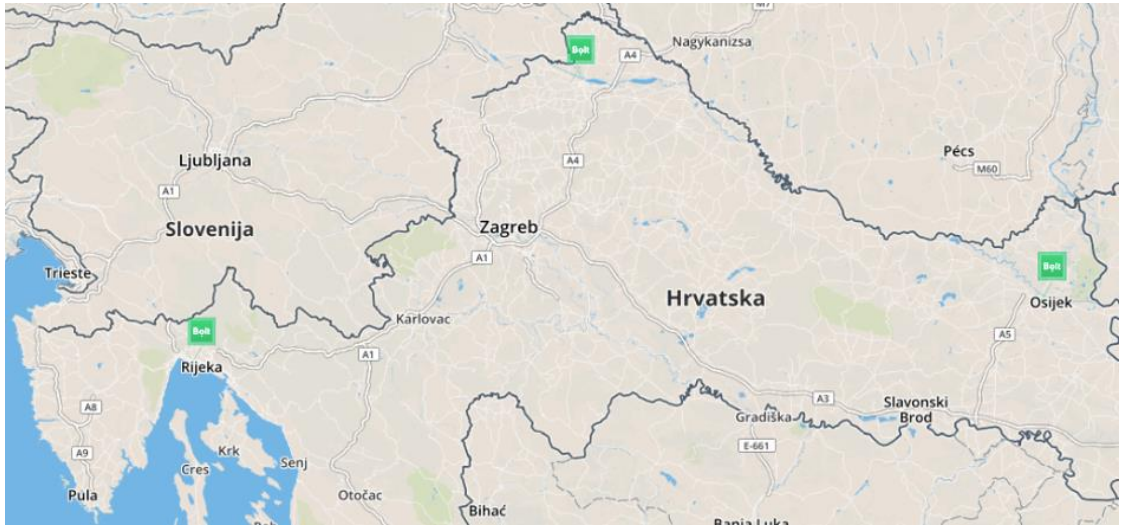
Use of e-bikes by tariffs (hours)

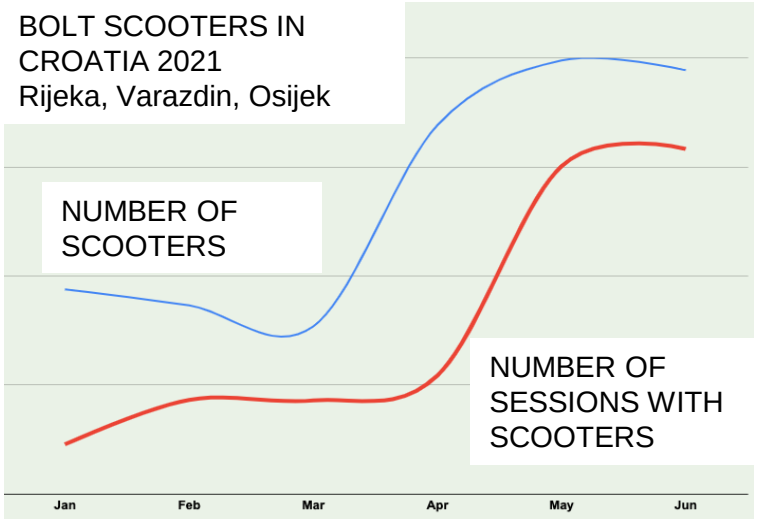


Number of sessions in 2020



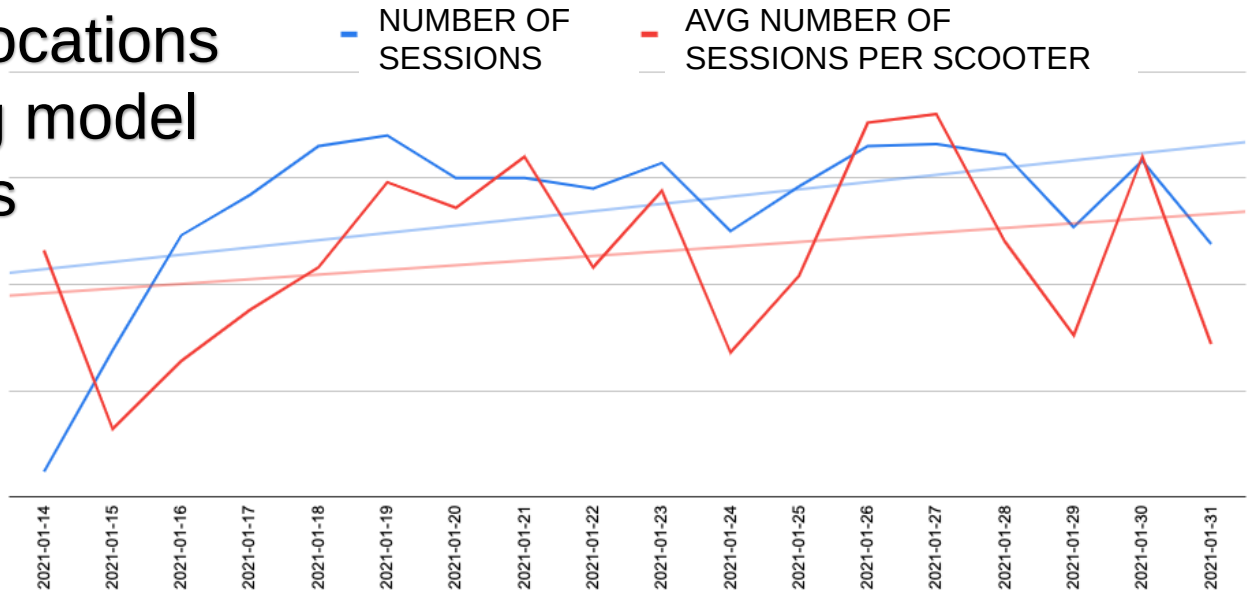
The fast, affordable way to ride.



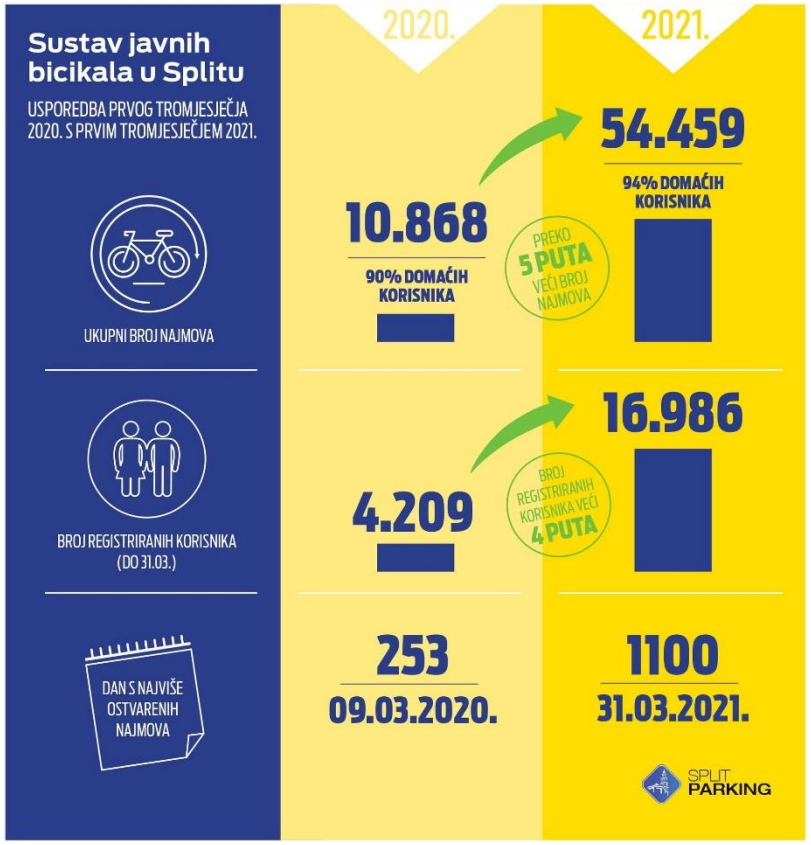


electric scooter rentals
City of Rijeka

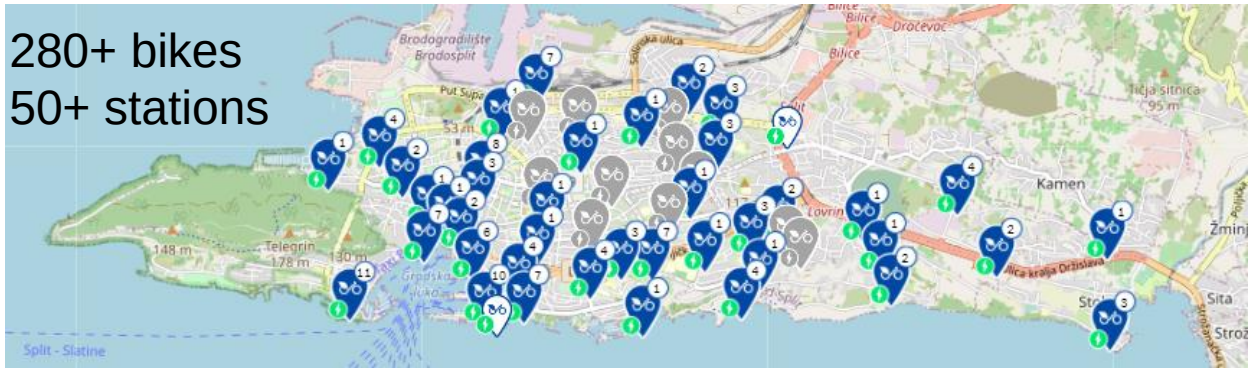
10 starting locations
Free floating model
200 scooters
0,1 Eur/min



electric bike rentals - City of Split

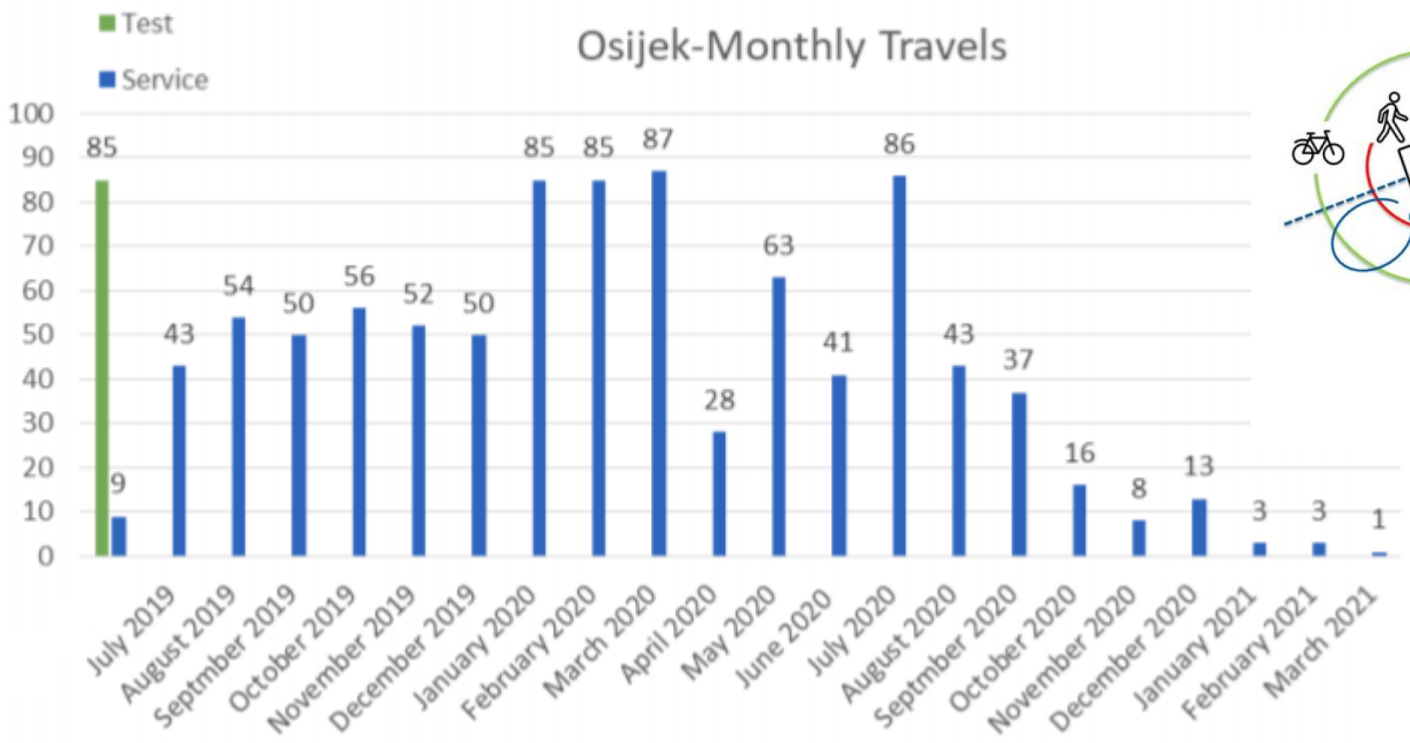


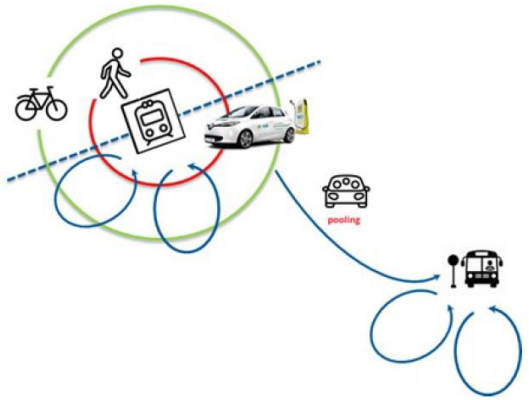
280+ bikes
50+ stations



I-ShareE LIFE

Innovative sharing solutions
for full electric travels
in small and medium size urban areas





http://www.i-sharelife.eu/en/news/
http://www.i-sharelife.eu/wp-content/uploads/2021/05/5-OSIJEK-BROCHURE-EN.pdf

Climate neutral mobility concept

1) Electrification of vehicle fleet
- the analysis of energy consumption and the development of a basic inventory of emissions of the existing fleet of vehicles
- decarbonization plan

2) Innovative mobility concepts
- sharing systems (car, bike, scooter)
- mobility on demand

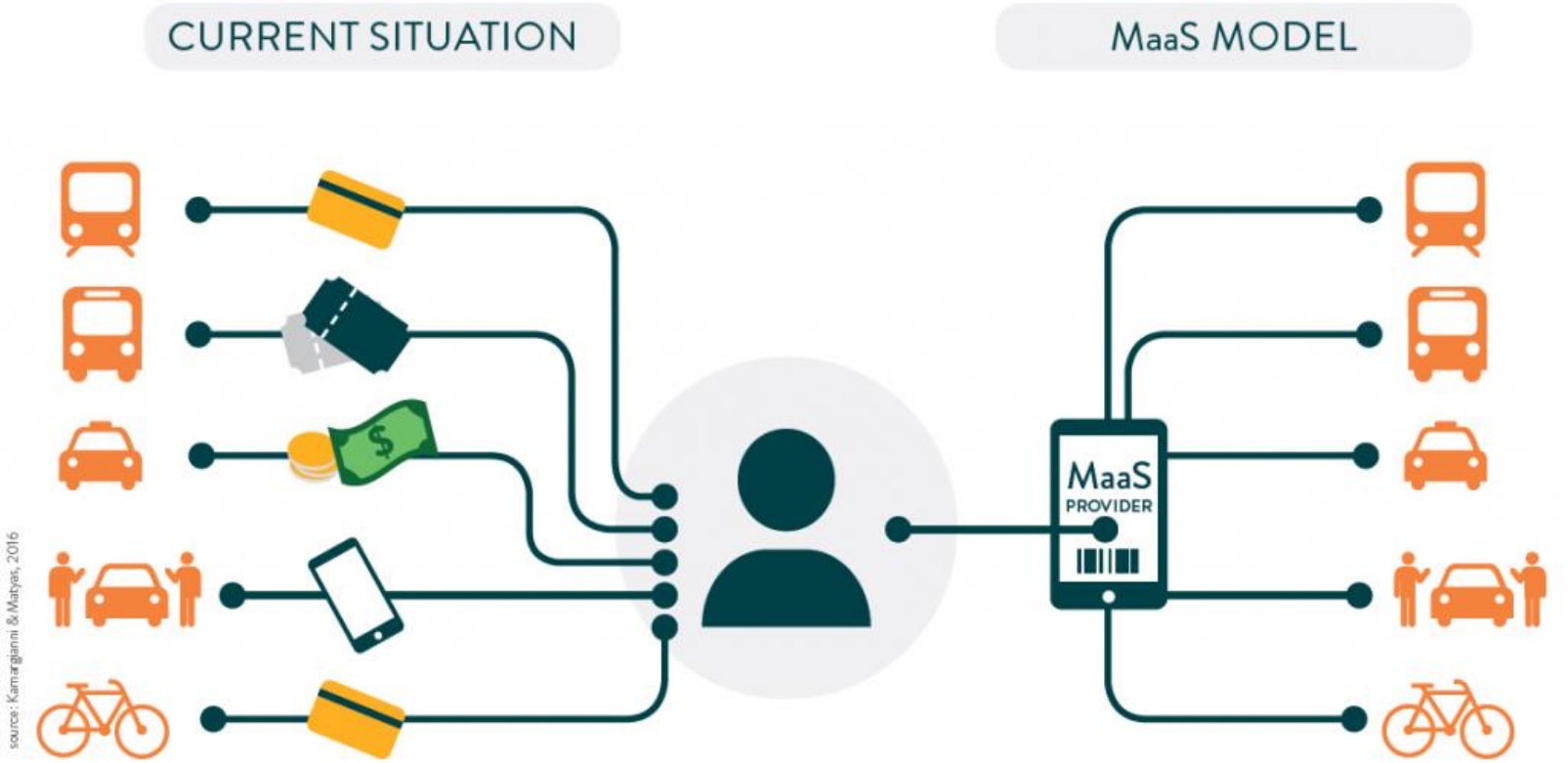
3) Integration with renewable energy sources
- (non)integrated, microgrids, V2X

4) Energy infrastructure for vehicle charging
- chargers on public lighting poles, domestic chargers - family houses and apartment buildings, destination chargers, travel (fast and ultra fast) chargers

5) Active participation of locals and visitors

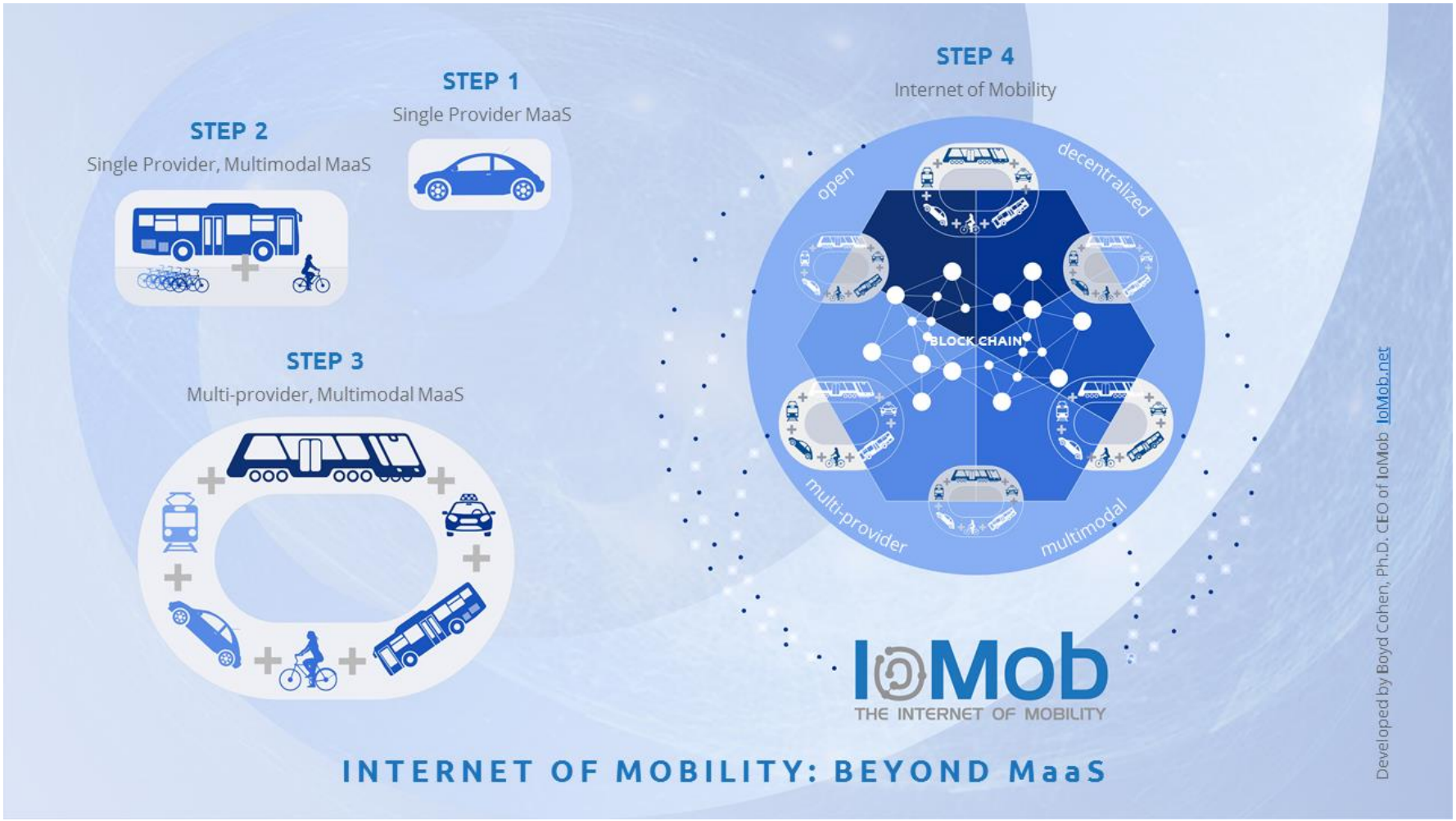
Mobility As A Service - MaaS

*„The key concept behind MaaS is to put **the users at the core of transport services**, offering them **tailor made mobility solutions** based on their **individual needs**. This means, for the first time, easy access to the most appropriate transport mode or service will be included in a bundle of flexible travel service options for end users."* The European Mobility as a Service Alliance



http://www.bipformaas.it/what-is-maas-lets-learn/
https://maas-alliance.eu/homepage/what-is-maas/

Future of mobility



https://medium.com/iomob/mobility-as-a-service-maas-and-mobility-on-demand-mod-via-blockchain-64e36a2f6676

Why Mate Rimac is working on electric robotaxis

„...electrification will not change anything concrete. The real revolutionary change will not be brought by electric cars. Smartphones have changed our lives, and we can expect the same in the future with cars: ***changing mobility will change our lives****... Market change refers to vehicle ownership as well as autonomy. In such a scenario, people will no longer buy or own cars, but will use them and pay only when needed."* – Mate Rimac, conference Auto2030

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