

# Compile integrating community Power in ENERGY ISLANDS



## COMPILE

9.12.2021, OnLine for Renewable Energy Coordination Group (Energy Community)

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under the grant agreement N° 824424.

The main aim of COMPILE is to show the opportunities of energy islands for decarbonisation of energy supply, community building and creating environmental and socioeconomic benefits.



## 13 PARTNERS

























Technical coordinator



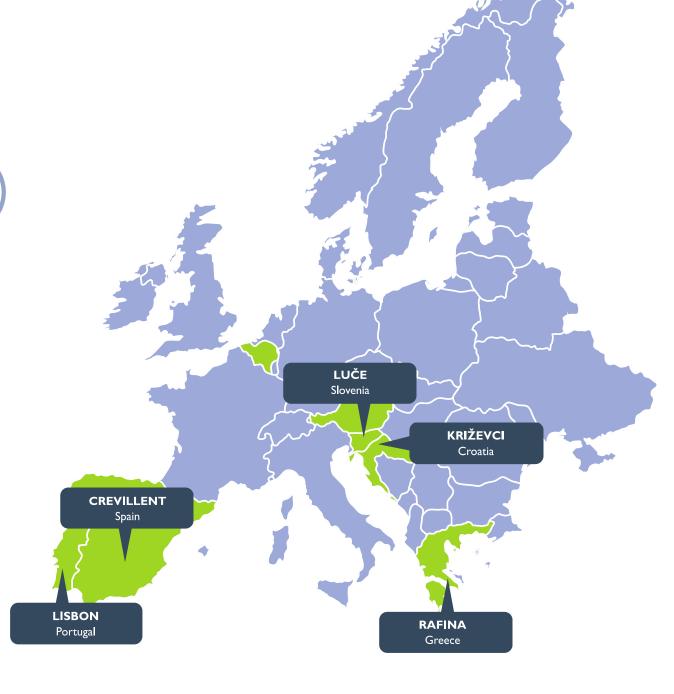
Coordinator



48 months

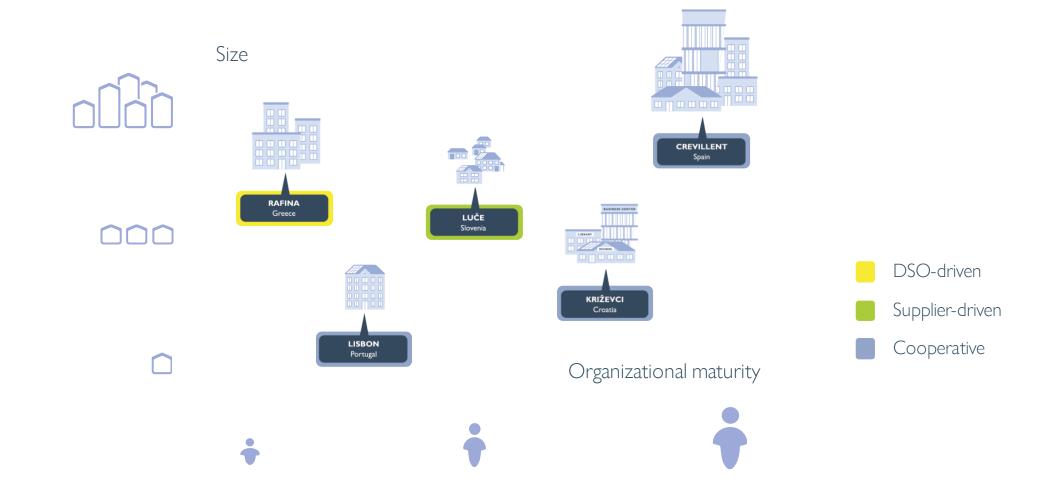


**BUDGET**6.42 mio. €
(5.43 mio. € from EC)





## **5 PILOT LOCATIONS**





pilotna lokacija

LUČE



#### Achievements & milestones



• Signing of PV contracts









#### Installation of PV



- Installation of 102 kW
   PV on 9 houses.
- Instead of 65 kW (firstly only 25kW) as the first limitation from DSO.
- In Luče there was already instaled 50 kW
   PV in 3,5 kW wind turbine.





















#### HOMERULE - HEMS



We developed and installed 9
 "Home Energy Management
 System" (HEMS), that dynamically
 limits the PV output power
 according to the real voltage
 conditions in the network.







#### Installation of home batteries













Namestitev petih hišnih kW/11,6 kWh, 5 kW/9,8







### Public EV charging station





- 22kW EV public charging station
- 9x 22 kW home EV charging stations







#### Installation of community battery BESS









 Installation of community battery BESS (150 kW/333 kWh).











# Additional challenge – renovation of transformer station











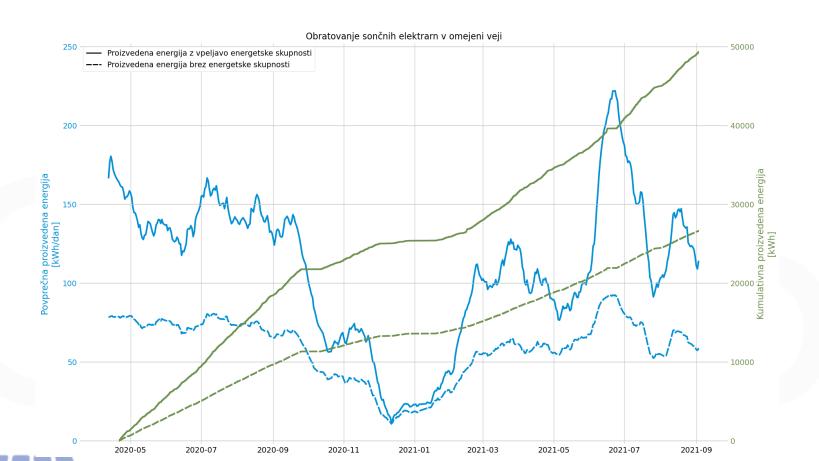






### Operation of PV in EnC





Actual data from operation of the critical part of local network show that with the help of tools and measures implemented in this part of network we managed to increase the RES production for 181% (accumulated savings > 2100 €), while in individual members of EnC this increase is even up for 320%.



#### Pilot site Križevci - Croatia





The goal of Križveci pilot site is to establish an energy community that would replicate the success of crowdfunded PV plant on Technology Park with new actions for further investments in RES, especially PV. Additional goal is to use COMPILE tools to increase self-sufficiency of technology park and support the operation and management of EnC by blockchain technologies.









#### Main achievements: Crowdinvestment for PV plant on Tech park





Before

After





#### Main achievements: Crowdinvestment for PV plant on City library





Before

After

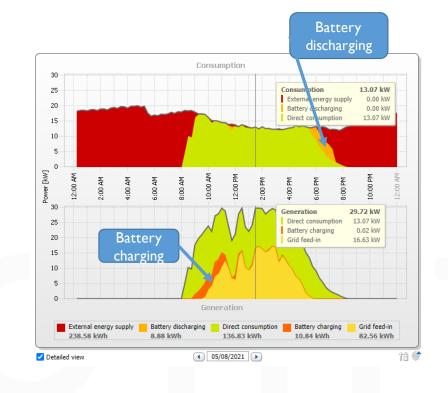




# Main achievements: EV charger and battery storage system













#### Main achievements: Establishment of KLIK (local energy coop)







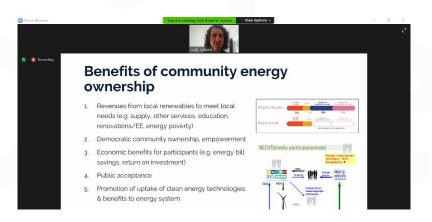
#### Main achievements:



- Panel "Citizens in Energy Transition" 27 April 202 I
  - 70+ participants (European, regional and national)
  - Insights and experiences on involving citizens and local communities in the energy transition



- Policy Brief on Energy Communites
  - Finalized, translated to Croatian and disseminated to relevant stakeholders
  - Public review on Electricity Market Law







#### Main achievements:



# Good Energy Tour – November 2021

- II cities across Croatia
- Workshops for local authorities and citizens
- Promoting energy communities and solar energy for citizens
- Support to cities and citizens in developing RES projects













# Thank you! Questions?

University of Ljubljana, Faculty of electrical engineering, Laboratory of Energy Policy







