USE CASES

- **UC-1** Hybrid RES & storage
- **UC-2** Smart control of water & energy
- **UC-3** Energy communities through 5G & IoT
- **UC-4** Transition to DC grids
- **UC-5** Local bio-based economies
- **UC-6** Electric transport
- **UC-7** Stabilization of microgrids through storage

The results will validate an **Investment Planning Tool** that will be then demonstrated at 3 Follower Islands for the development of 4 associated Action Plans.

CONSORTIUM

The project team is carefully balanced along all the value chain counting with five public authorities, six energy and water utilities, four technology providers, two energy software developers, six RTOs, one environment NGO, one business models expert, one engineering company and one entity for social aspects and replication. The legal and regulatory framework of 57% of the total population living in EU islands will be directly considered within the project.

Insulae

MAXIMIZING THE IMPACT
OF INNOVATIVE ENERGY APROACHES IN THE EU ISLANDS

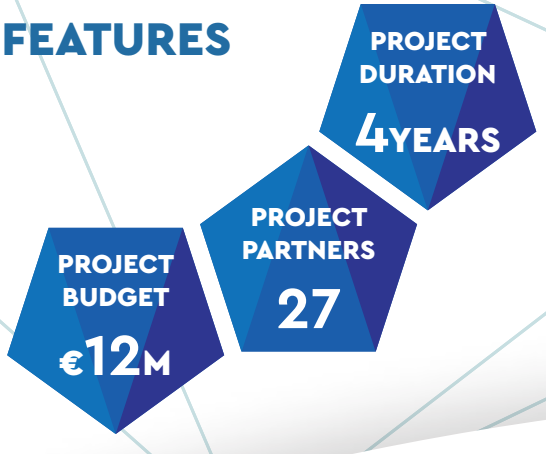
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 824433.

SCOPE

INSULAE will foster the deployment of innovative solutions for the EU islands decarbonization by developing and demonstrating at **3 Lighthouse Islands** (located in Croatia, in Denmark and in Portugal) a set of interventions linked to **7 replicable Use Cases**, whose results will validate an Investment Planning Tool that will be then demonstrated at the **3 Follower Islands** (located in Spain, in Germany, and in Greece) for the development of the associated Action Plans. On top of this the project will reach out to other islands with interest in this topic, and facilitate mutual dissemination between all the islands.

INSULAE contributes to the **Clean Energy for EU Islands Initiative** by providing an Investment Planning Tool (IPT) able to create Actions Plans for the islands to generate their own sustainable, low-cost energy. The three Lighthouse Islands have been selected looking for their representativeness of the whole EU stock of islands. The innovative interventions implemented and tested throughout the project execution will impact the 3 lighthouse islands, fostering their decarbonization.

KEY FEATURES



LIGHTHOUSE ISLANDS

The chosen islands are complementary in many aspects: location, size, connection with the mainland, economic development, renewable share and carbon intensity.

The interventions will prove the ability of the use cases to develop renewable-based systems 40–70% cheaper than diesel generation. Thus, enabling an average reduction of the fossil fuel consumption of 11% after a large deployment of the use cases in the INSULAE islands.

INSULAE's IPT will support the decision makers on the selection and design of cost effective Action Plans looking for the island decarbonisation, and give an alternative to expensive HVDC or AC sea-cables.

1 **UNIJE**
Croatia

2 **BORNHOLM**
Denmark

3 **MADEIRA**
Portugal

FOLLOWER ISLANDS

These islands will demonstrate the IPT application to characterise the islands and will elaborate their action plan, proposing the most suitable investments for the accomplishment of their strategic objectives.

1 **NORDENREY**
Germany

2 **MENORCA**
Spain

3 **PSARA**
Greece

@INSULAE_H2020