The main impacts of VPP4ISLANDS

Technical impacts

01 Increase the performance of the portfolio

02 40% reduced reactive maintenance in less than one year

03 Enhance stability of the power network

Socio-economic impacts

04 Increase incomes up to 50%

05 Reduce investment costs by around 50%

06 Up to 75% reduced time to achieve economic outcomes

07 Facilitate the creation of green energy communities

Environmental impacts

08 Up to 80% energy savings

09 100% renewable energy systems integration

10 Reduction of GHG

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Team managers

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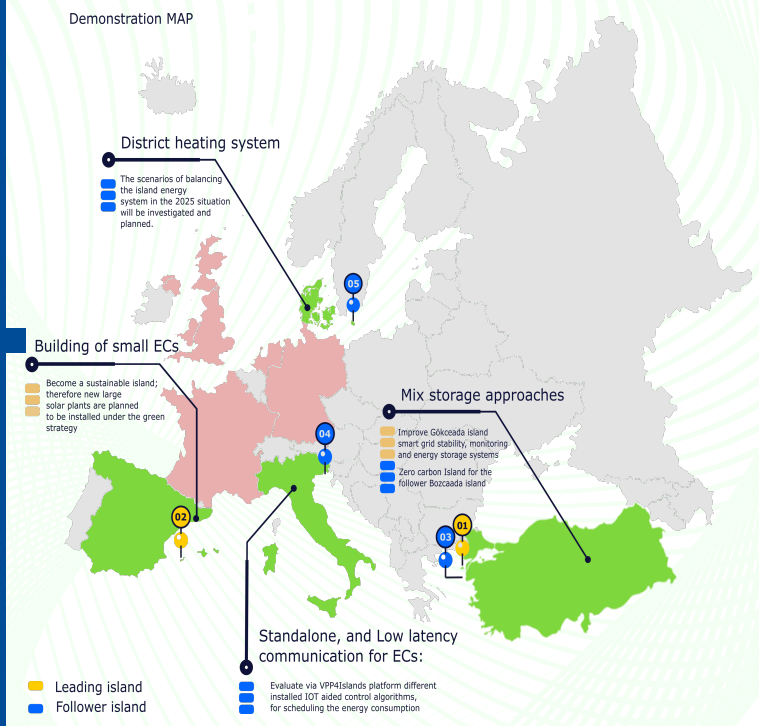
Julia ROCCIO **Project Manager**

VPP4ISLANDS

Virtual Power Plant *for Interoperable and smart isLANDS*

Novel technologies to ensure the stability of smartgrids and the decarbonisation of islands

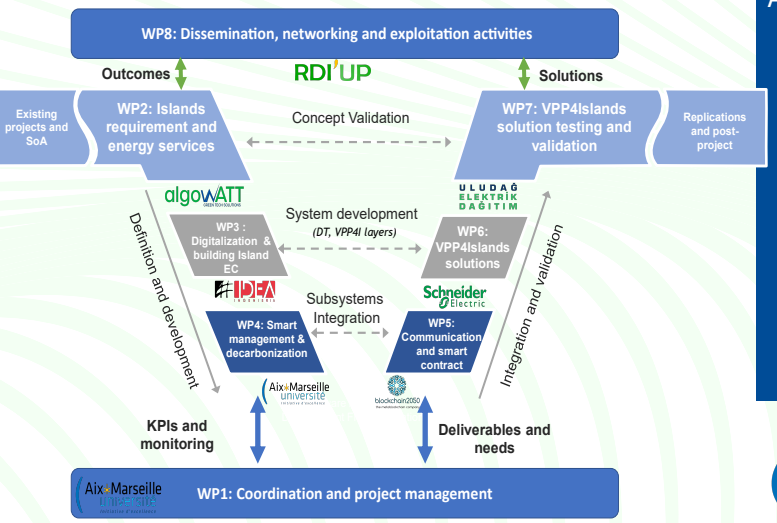
VPP **DT** **VESS** **DLT**



VPP4ISLANDS maximizes the impacts of the green energy transition in European islands by developing and testing at **2 Leading islands** innovative solutions that will be replicated in **3 follower islands**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 957852.

Work Packages



The work plan is composed of 9 work packages enhancing the implementation of RES, reducing fossil fuel consumption while ensuring the electric grid structures stability on islands. The stability of the electric power production is ensured by the developed cloud-based distributed Virtual Power Plant (VPP) that aggregates the capacities of intermittent Distributed Renewable Energy Resources (DRER) and reduce the use of fossil fuels.

The WP2 is devoted to identify islands needs in terms of energy transition, VPP value chain and services. The WP3 to WP6 are dedicated to develop Digital twin, IoT integration and smart functionalities including the DLT, VPP4I-Box and VPP4I-Platform needed in order to achieve the VPP4ISLANDS objectives. The output of WPs 2-6 will be integrated in demonstrations and validation environments in WP7 to provide real-life results of different use cases.

VPP4ISLANDS

Consortium

VPP4ISLANDS Consortium gathers 19 harmonized partners from 7 different European Member States and 1 Associated Country (France, Germany, United Kingdom, Netherland, Italy, Spain, Denmark and Turkey). The consortium includes 5 RTOs, 1 association, 1 large company, 7 SMEs, 2 leading and 3 followers Islands.

Overall project budget: 7 223 108,75 €
EU contributions: 6 119 378,75 €

Start date: 1 October 2020
End date: 31 March 2024
Duration: 42 months

Aix Marseille université — France	Brunel University London — UK	inavitas — Turkey	blockchain2050 — Netherland
IDEA INGENIERIA — Spain	algoWATT — Italy	FTK Forschungsinstitut für Telekommunikation und Kooperation — Germany	Cardiff University — UK
REGENERA energy&environment — Spain	Schneider Electric — Spain	CIVIESCO — Italy	CSIC — Spain
TROYA ÇEVRE — Turkey	RDI'UP Innovative Research — France	BORNHOLMS ENERGI & FORSYNING — Denmark	Consell Insular de Formentera — Spain
Bozcaada Belediyesi — Turkey	Comune di Ventotene — Italy	ULUDAĞ ELEKTRİK DAĞITIM — Turkey	

Our solutions

- **Digital Twin (DT)**
- **Distributed Ledger Technology (DLT)**
- **Forecasting**
  - Weather
  - Price
  - Energy
- **Decision Support System (DSS)**
- **Energy Optimization**
- **Smart Planning Tool (SPT)**
- **Virtual Energy Storage System (VESS)**
- **Knowledge Base (KB)**

Services

- **Ancillary**
- **Flexibility**
- **P2P Market**