Virtual Power Plant for Interoperable and Smart isLANDS

VPP4ISLANDS

LC-SC3-ES-4-2020

GA 957852

Deliverable Report

Deliverable ID	D 8.3	**Version**	V2
Deliverable name	VPP4Islands networking, joint actions and cooperation plan		
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Due date	31/01/2021		
Date of final version	31/01/2021		
Dissemination level	PU: Public		
Document approval	Seifeddine BEN ELGHALI (AMU)		

Acknowledgement: VPP4Islands is a Horizon 2020 project funded by the European Commission under Grant Agreement no. 957852.

REVISION AND HISTORY CHART

Version	Date	Main Author(s)	Summary of changes
V1	28/01/21	M.Y (TROYA), O.K. (TROYA)	
V2	29/01/21	B.A. (TROYA), M.Y.(TROYA)	Re-written

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LIST OF ABBREVIATIONS AND ACRONYMS

Abbreviation	Meaning
ALWA	AlgoWatt
AMU	Aix-Marseille Université
BC2050	Blockchain2050
BornholmsVarme	Bornholms Varme A/S
BoZI	Bozcaada Belediye Baskanligi
BUL	Brunuel University
CIVI	CIVIESCO srl
CSIC	Consejo Superior de Investigaciones Científicas
CU	Cardiff University
DAFNI	Network of Sustainable Greek Islands
DER	Distributed energy resources
DL	Digital Twin
DLT	Digital Ledger Technologies
FORM	Consell Insular de Formentera
FTK	FTK Forschungsinstitut fur Telekommunikation und Kooperation EV
GA	Grant Agreement
GHG	Greenhouse gases
GRADO	Comune di Grado
IDEA	Ingenieria Y Diseno Estructural Avanzado
INAVITAS	Inavitas Enerji AS
LIS	Laboratoire Informatique des Systèmes
JV	Joint Venture
PVM	Protisvalor Méditerranée
RES	Renewable energy sources
RDIUP	RDI'UP
REGENERA	Regenera Levante
SCHN	Schneider Electric
TROYA	Troya Cevre Dernegi
UEDAS	Uludag electric dagitim
VESS	Virtual energy storage systems
VPP	Virtual Power Plant

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1. INTRODUCTION TO VPP4ISLANDS PROJECT

VPP4Islands is a collaborative project, granted in the framework of Horizon 2020 topic LC-SC3-ES-4-2020 “Decarbonising energy systems of geographical Islands”. The project aims to facilitate the integration of renewable systems, accelerate the transition towards smart and green energy and help Islands to exploit energy efficiency potential and innovative storage approaches, foster the active participation of citizens and become self-sufficient in energy, while reducing costs, GHG emissions and reliance on heavy fuel oil to generate power, and creating new intelligent business, growth and local skilled jobs.

To reach these goals, VPP4Islands project proposes disruptive solutions based on digital twin concept, Virtual energy storage systems (VESS) and Distributed Ledger technology (DLT) to revolutionize the existing VPP and build smart energy communities. Based on aggregation and smart management of distributed energy resources (DERs), VPP4Islands increases the flexibility and profitability of energy systems while providing novel services. VPP4slands will also enhance the Demand Response Capability of consumers by understanding their behaviours and promoting self-consumption.

In order to validate and evaluate the proposed solutions, two use cases in real-life with diverse assets in two leading islands are planned. The control and optimization of different systems will be extended to consider not only electrical, but also multi-energy vectors. Moreover, the qualified VPP4Islands solutions will be replicated in 3 follower islands, in order to generate and initiate smart sustainable energy plans. Also, VPP4Islands will generate durable social and environmental values for the benefit of consumers/prosumers. Finally, VPP4Islands project consortium is composed of 2 large companies, 1 DSO, 6 SMEs, 3 universities, 2 RTOs, 3 islands municipalities, and 2 non-profits organisations.

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2. SUMMARY OF OBJECTIVES AND PROPOSED ACTIVITIES OF D.8.3.

The aim of Deliverable 8.3. is to create a framework for networking, joint actions and cooperation activities. These activities will also help the project to identify non-tech obstacles and learn about possible solutions to overcome these barriers.

The main **objectives of networking** are to be carried out by all partners:

- structuring the dialogue among the stakeholders, fostering open information and knowledge sharing,
- presenting and discussing research activities and their results, as well as identifying gaps and research and innovation needs,
- examining knowledge gained from exploration and production projects,
- identifying and assessing emerging technologies including their economic, environment and climate impacts,
- supporting knowledge sharing, avoiding duplication of efforts in public funded projects,
- identifying non-tech obstacles and propose solutions to overcome these barriers,
- sharing lesson learned, avoiding risks and pitfalls,
- building the capacity of European research area,
- increasing access to and sharing of research data and publications,
- engendering possibilities for collaboration in research and teaching,
- raising the public research organisation profile and get publicity,

The main objectives of the Joint Actions (JA) to be done by the VPP4Islands' consortium:

JA 1: coordinate efforts for policy recommendations to overcome barriers identified in WP2 such as the implementation of smart contracts, the integration into the grids and the ancillary services provision.
JA2: Carry out twining actions to use our SPT to define replication plans in other European Islands
JA3: Define common training programs with existing and similar projects to teach young researchers and increase the practices of operators.
JA4: Exchange and elaborate and enrich a knowledge base with meaningful and important information

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The vision of T8.3 is to maximise the impacts and the dissemination of our activities and findings of WPs 3, 4, 5, 6 and 7, distribution and monitoring dedicated to islands. The new concept will promote RES use and revolutionize the existing small grids and Energy Communities (ECs) in islands. The proposed flexible VPP will not be considered as a conventional power plant constituted of small distributed energy sources but as a flexible green power plant that can store surplus energy and modify their behaviour and architecture to support unpredictable growth and change of energy demand, climate and market, delivering stability to the grid.

Concretely the task **8.3 aims to** share the knowledge gained with other projects and initiatives, provide feedback and recommendations for policy makers and explore commercialization opportunities. Therefore, innovative tools and concepts, best practical results and outcomes achieved by VPP4Islands project will be shared with the public and interested parties.

Knowledge transfer, networking, joint actions and cooperation channels specified as;

- Publishing
- Conferencing and contact making activities
- Personnel mobility
- Joint training programs
- Policy recommendations
- Identifying opportunities of replication of VPP4Islands outputs
- Commercialization activities
- Elaboration or enriching of a knowledge base with meaningful information or experiences

All these channels will be explored and detailed plans will be prepared and presented **at further stages.**

In order to build networking, explore opportunities for joint actions and enrich cooperation, TROYA **initially** proposes the following **activities:**

1. Participation in main events and initiatives in Europe which are dedicated to renewable and efficient energy use with an aim to promote VPP4Islands project to establish contacts, share the knowledge and gain information about new developments in this field.

2. Conferences and similar events will be followed to inform the project partners with an aim to gather new developments in this field, share knowledge, promote VPP4Islands and establish contacts.

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3. Networking activities will be conducted with the similar islands with an aim to exchange information and learn from their experience.

4. Networking activities will be carried out with similar projects to exchange information, identifying possible non-tech obstacles and find out the solutions to overcome these barriers, avoid risks and pitfall, promote VPP4Islands project and to establish contacts,

To ensure a successful networking, dissemination and joint actions, TROYA, closely with all partners will assess the main obstacles and will suggest solutions to mitigate these barriers:

- **Confidentiality, foreground IPRs and data protection**
- **How to ensure a fair joint of exploitation of actions while respecting competitions**
- **How to ensure a financing for the different activities especially the feasibility of replication of our solutions**

Tools to be used:

An ***internal newsletter for networking, joint actions and cooperation activities*** will be prepared in regular intervals with an aim to:

- Distribute information about **upcoming conferences**, contact making events and similar events.
- Distribute information about networking / joint actions activities carried out.
- Each newsletter will also provide short information about similar islands, working on energy efficiency or renewable energy.

A ***feedback form*** will be prepared by TROYA and completed by the partners regarding the participated events.

- The partners will be encouraged to participate relevant conferences, contact making events and carry out other similar activities in their area.
- The partners will use this form to provide brief information about the vent, activities held and contacts made.
- This feedback form will also be used to prepare the section in newsletter about activities carried out and as a report in further deliverables.

A **suggestion form** will be prepared and distributed to the partners with the aim to :

- Receive their suggestions about future networking, joint actions and cooperation activities.

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- Explore the opportunities for publishing, joint training programs, policy recommendations, identifying opportunities of replication of VPP4Islands outputs, commercialization activities and elaboration of a knowledge base.
- Learn about the non-tech obstacles partners faced in their other projects and the possible solutions to overcome these barriers.

Communication pack

- *Task 8.2 Communication and training (virtual training and Workshops) activities* proposes to develop a communication pack which will include flyers, technical documentation, documented case studies, and presentation and exhibition materials. Branding and training materials will be developed to engage with customers/users. Activities for this task will comprise, but not be limited to, the creation of marketing material for the project. This task will be led by RDIUP.
- These materials will be used during the promotion, dissemination, conferencing, networking activities by TROYA and other project partners.

This deliverable will be **updated** at least at M12, M24, M36 and M42 by TROYA based on the activities and actions carried out during the project.

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3. PARTICIPATION IN MAIN EVENTS AND INITIATIVES OF RENEWABLE ENERGY SECTOR

There are several important initiatives and events in Europe which are dedicated to renewable and efficient energy use. TROYA proposed to participate in these events and the initiatives with an aim to establish contacts, share the knowledge and gain information about new developments. These are also well-established platforms to promote VPP4Islands project, distribute information, receive feedbacks and discuss cooperation opportunities and possible joint actions.

3.1. BRIDGE INITIATIVE

VPP4Islands has been selected to join the BRIDGE initiative. It will officially be presented during the General Assembly taking place on 2nd, 3rd and 4th March 2021. Some members of the consortium will take part in the three active Working Groups inside BRIDGE: Data Management, Regulation and Customer Engagement

3.2. RESCOOP.EU

Rescoop.eu is a federation of renewable energy cooperatives across Europe, established by a project funded by the European Commission between 2012-2014. It is the umbrella association of the cooperatives and enterprises producing community-based energy. In 2013, 7 energy cooperatives from 6 European countries came together and today the federation brings together more than 1500 renewable energy cooperatives and initiatives. REScoop.eu plays an important stakeholder role in the development of the Clean Energy for All Europeans Package by the European Commission with provisions for citizens and energy communities. Apart from EU advocacy and representation services, REScoop.eu fosters the growth and further professionalization of energy cooperatives across Europe and provides networking opportunities. Furthermore, REScoop.eu facilitates international collaboration between energy cooperatives and developed a wide range of services on financing cooperatives and on electric car sharing.

The federation's only member from Turkey is Troya Renewable Energy Cooperative. TROYA will attend the annual general assembly of Rescoop.eu which is expected to take place in April 2021 and use this opportunity to:

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- establish contacts with other organizations in the same field;
- promote the VPP4Islands results and impacts;
- share and disseminate information;
- make policy recommendations when possible and necessary.

These activities will be reported in an updated deliverable D8.3.

3.3. EU SUSTAINABLE ENERGY WEEK (EUSEW) CONFERENCE

EU Sustainable Energy Week (EUSEW) is organised by the European Commission and it is the biggest annual event dedicated to renewables and efficient energy use in Europe.

In 2020, The EU Sustainable Energy Week (EUSEW) took place in June under the theme: 'Beyond the crisis: clean energy for green recovery and growth'. Organised throughout Europe by public and private organisations, these digital events were the perfect opportunity to engage their local communities and other green changemakers throughout Europe. Further information can be obtained at: https://eusew.eu/

For 2021, the dates and the theme have not been announced yet. However, TROYA will follow the announcements of the event, distribute the information to the partners, and complete necessary steps to participate and submit a presentation at the 2021 event (or further dates).

3.4. INTERSOLAR FAIR & CONFERENCE

Intersolar Europe is the world's leading exhibition for the solar industry. Furthermore, it organizes a conference in renewable energy or energy efficiency issues. It is a great opportunity to establish links with other energy initiatives, cooperatives, representatives of similar projects to exchange knowledge, promote VPP4Islands project and to learn from others' experience.

The exhibition will take place on June 09–11, 2021 (or further date) at Messe München and the conference will take place on June 08–09, 2021 at ICM München. The conference program includes several subjects close related to VPP4Islands projects.

TROYA will attend the Intersolar fair and conference with an aim to :

- follow up the recent developments in the renewable energy sector
- distribute information received from the fair amongst the project partners
- promote VPP4Islands

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- establish contacts with the representatives of other organisations in this sector

4. MONITORING CONFERENCES AND DISTRIBUTING INFORMATION

There are several conferences that will take place in Europe related to subjects of VPP4Islands project which can be a platform for gaining information about new developments and promoting VPP4Islands.

Planned activities;

- TROYA will follow the announcements about the conferences and distribute information to the project partners by tool of ***internal newsletter*** published at regular intervals.

- The projects partners will be encouraged to attend conferences, contact making events and similar activities in their area to carry out networking activities.
- Follow – up **feedback forms**, use the information provided in deliverables and newsletters.
- **Communication pack** will be used for promoting during proposed activities.

A detailed plan including attendance to the conferences and events o will be provided at **further stages**.

Expected impacts

- gain information about new developments in this field
- share the knowledge
- promote VPP4Islands project
- establish contacts in this sector
- explore commercial opportunities

Relations to the project and joint actions

- The conferences listed in the below table are related to the VPP4Islands project subjects. They may present up-do-date knowledge, new developments in this field.
- They can also be useful platforms to create contacts, promote VPP4Islands, explore cooperation opportunities, build commercial relationships.

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List of the conferences can be seen at the below table. It will be updated regularly and shared with the project partners.

Conference	Link to VPP4Ilands and JAs
4th International Conference on Smart Energy Systems and Technologies (SEST), **6-8 September 2021,** Vaasa, Finland https://sites.univaasa.fi/sest2021/	The SEST conference aims at providing an opportunity to discuss various engineering challenges of smart energy system design and operation by focusing on advanced methods and practices for designing different components and their integration within the grid.
56th International Universities Power Engineering Conference (UPEC) **31 Aug-03 Sep 2021** Teesside University, United Kingdom http://upec2021.tees.ac.uk/	Subject areas covered by UPEC include Power Systems Operations and Control; Distributed Generations; Renewable Energy Systems; Power Systems Simulation and Analysis; Smart Grids; Integration of Renewable Sources; Power Quality; Electricity Markets;
2021 IEEE PES GTD International Conference and Exposition (GTD) **14-17 Sep 2021** Istanbul, Turkey http://ieee-gtd.org/	The GTD focuses on the technical challenges of the future grid which need to be solved with the technological developments in the field of power and energy.
2021 IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids (SmartGridComm) **18-21 Oct 2021** Aachen, Germany	The conference is cross disciplinary and aims to better understand and address emerging control, communication and power/energy management challenges in electrical grids.
2021 IEEE 11th International Workshop on Applied Measurements for Power Systems (AMPS) **29 Sep-01 Oct 2021** Cagliari, Italy http://amps2020.ieee-ims.org/	The workshop deals with all the aspects related to measurement applications in current power systems and in future Smart Grids
2021 IEEE PES Innovative Smart Grid Technologies Europe (ISGT Europe) **18-21 Oct 2021** Espoo, Finland http://ieee-isgt-europe.org/	Some of the relevant topics are: Smart grid planning, design, and operation; Demand response and real-time pricing;
2021 IEEE/ACM 4th International Workshop on Emerging Trends in Software Engineering for Blockchain (WETSEB) **31 May 2021** Madrid, Spain http://www.agile-group.org/wetseb2021/	This workshop aims to stimulate the interest for blockchain-oriented software engineering, and at investigating the need for novel specialized software engineering practices for the Blockchain software ecosystem.
2021 5th International Conference on Smart Grid and Smart Cities (ICSGSC) **18-20 Jun 2021** Tokyo, Japan http://www.csgsc.net/	The ICSGSC 2021 program focuses in smart integration of conventional power generation, renewable generation, distributed generation, energy storage, transmission, distribution and demand management.

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5. NETWORKING ACTIVITIES WITH SIMILAR ISLANDS

The islands with similar projects or activities will be contacted to exchange information and experience, identify non-tech obstacles and learn about possible solutions to overcome these barriers. TROYA will conduct a web search and identify several islands for this purpose. It is planned to do the following activities:

- Contact the island representatives to gain more information about their activities and exchange knowledge
- Networking visits might be planned, all subject to the limitations due to pandemic.
- Explore cooperation opportunities for joint actions
- Learn from their experience
- Send communication pack to promote VPP4Islands project

The main results and lessons learnt will be summarized in the following **updates of D8.3.**

List of the islands with similar experience or projects are listed below with the links for further reading:

Projects	Relation to VPP4Islands
Ameland The Netherlands	In 2015, Ameland installed the biggest solar park in the Netherlands at the time. The 23,000 solar panels, which are connected to the island's electricity grid, cover a ten-hectare piece of land and produce enough energy to cover the needs of 1,500 households per year. https://euislands.eu/sites/default/files/eu_islands_good_practice_IA.pdf
Aran Islands, Ireland	In 2018, an Energy Master plan was developed for the islands Árainn and Inis Meáin. provided technical input for the creation of the Transition Agenda. https://euislands.eu/sites/default/files/2019-11/ARAN_FinalTransitionAgenda_20191118.pdf The Aran Islands were selected as a pilot island by the EU Islands Secretariat in 2019 to develop an island-wide transition agenda which involves all relevant stakeholders on the island. The local transition team is aware that to reach the islands' transition goals, the active contribution and consideration of the needs of all island stakeholders will bekey. https://euislands.eu/sites/default/files/eu_islands_good_practice_IA.pdf
Azores, Portugal	Sustainable development has always been a primarygoal in the Azores, and the 2030 Azorean Energy Strategy will take into consideration the differing needs of the nine islands, energy efficiency in buildings, transport and industry, transport electrification, development of integrated plan for energy saving; solar parks for electricity production.

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	https://euislands.eu/sites/default/files/eu_islands_good_practice_IA.pdf
Culatra Island, Portugal	The Clean Energy Transition Agenda was developed jointly by University of Algarve and by the Residents Association of Culatra Island with the support from the Coordination and Development Commission for the Algarve Region, and the Municipality of Faro.. https://euislands.eu/sites/default/files/2019-11/CULATRA_FinalTransitionAgenda_20191118.pdf
Gigha UK	Gigha is progressing towards a greener, more sustainable future with an interest in energy autonomy. The Trust fund is planning to replace the existing wind turbines in the next 10 years, and to replace the kerosene and natural gas used in households and the commercial sector with locally produced biomethanol (from livestock farms, dairy farms and food waste). https://euislands.eu/sites/default/files/eu_islands_good_practice_IA.pdf
Gotland Sweden	Gotland was chosen by the Swedish government as pilot region for Sweden's future energy system. The transition will require new technical solutions and business models as well as regulatory measures allowing implementation of the technical developments. https://euislands.eu/sites/default/files/eu_islands_good_practice_IA.pdf
Krk Croatia	In 2018, the local authorities on Krk adopted the updated version of their "Zero Emission Development Strategy", pushing for the integrated and sustainable development of the island that goes far beyond in the context of energy. It introduces a long-term socio-economic development plan for the island, with special focus on energy savings through increasing energy efficiency and the share of renewable energy sources (wind, sun and biogas). https://euislands.eu/sites/default/files/eu_islands_good_practice_IA.pdf
La Palma Canary Islands	La Palma is a 100% renewable island thanks to a combination of clean technologies, energy storage and auto-consumption. Energy efficiency, demand reduction and sustainable mobility are the core of the energy transition https://euislands.eu/sites/default/files/2019-11/LaPalma_20191112_2.pdf
Menorca Spain	The island plans to increase its share of renewable generation for electrical consumption to 85% by 2030, reduce fossil fuel consumption by 50% for transport, and by 30% for services, industrial and residential buildings. https://euislands.eu/sites/default/files/eu_islands_good_practice_IA.pdf
Pantelleria Italy	The local electricity producer and DSO SMEDE Pantelleria started an ambitious plan to renew the electricity grid and has begun installing a large PV plant, which will reach an overall capacity of approx. 2MW upon completion. https://euislands.eu/sites/default/files/eu_islands_good_practice_IA.pdf
Samsø Island, Denmark	Energy positive: how Denmark's Samsø island switched to zero carbon

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	The small island's energy makeover took less than a decade and was spurred on by local commitment, providing a template for how regional Australia could transition to renewables https://www.theguardian.com/sustainable-business/2017/feb/24/energy-positive-how-denmarks-sams-island-switched-to-zero-carbon What started with a dream in 1997 had already become a reality by 2007 – but the local community wanted to push the envelope even further. Samsø's vision is to be fully independent of fossil fuels by 2030. https://euislands.eu/sites/default/files/eu_islands_good_practice_IA.pdf
Scottish Islands	The off-grid Scottish Islands consist of six islands; two to the north of Scotland: Fair Isle and Foula; and four to the west of Scotland: Canna, Rum, Eigg, and Muck. These islands are developing a joint clean energy transition agenda (CETA) https://euislands.eu/sites/default/files/EUIslands_ScottishIslands_EnergyBaseline%20(1).pdf
Sifnos Island, Greece	Transition Agenda for Sifnos describes the current context in the island. It illustrates the strategies developed by the transition team to accelerate the energy transition. https://euislands.eu/sites/default/files/2019-11/SIFNOS_FinalTransitionAgenda_20191118.pdf
Tilos Greece	The largest share of the island's electricity supply is covered by local renewables through the first-ever, fully-licensed battery-based hybrid power station in Greece. https://euislands.eu/sites/default/files/eu_islands_good_practice_IA.pdf

6. NETWORKING ACTIVITIES WITH SIMILAR PROJECTS AND NETWORKS

The networking activities with similar projects will be carried out with an aim to exchange information and experience, **identify non-tech obstacles** and learn about possible **solutions to** overcome these barriers. VPP4Islands will exploit the relevant networks of involved partners to facilitate and reach out

6.1. OTHER RELEVANT PROJECTS OF VPP4ISLANDS PARTNERS

The VPP4Islands consortium already benefits of participation of some partners in other on-going EU funded projects. In fact, they are precious for identification of obstacles, keys to success and drivers. The project partners will:

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- share their knowledge gained during other similar projects to identify non-tech obstacles and propose solutions to overcome these barriers.
- promote VPP4Islands project when possible.

List of the projects of the VPP4Islands partners that will be exploited to establish joint actions are listed below:

VPP4 ISLANDS PARTNER	PROJECTS	DETAILS	LINKS
BUL	ASTEP	The main objective of ASTEP project is to successfully demonstrate the viability of applying solar thermal energy to partially cover heating, and heating and cooling demands on two different relevant industrial demo sites located on two different climate regions, and to further develop the implementation of solar thermal energy in industrial processes up to 400 ºC.	https://www.asteppr oject.eu/consortium/
	Smart GEMS	Smart Grids Energy management Staff	https://cordis.europa .eu/project/id/64567 7/it
REGENERA	Smart GEMS	*Idem*	*Idem*
	MAGNITUDE	MAGNITUDE aims to develop business and market mechanisms as well as supporting coordination tools to provide flexibility to the European electricity system, by increasing and optimizing synergies between electricity, gas and heat systems.	https://www.magnitu de-project.eu/
CU	RINNO	RINNO is a H2020 project to develop, validate and demonstrate an operational interface with augmented intelligence and an occupant-centered approach that will streamline and facilitate the whole lifecycle of building renovation (planning-design, retrofitting, monitoring).	https://rinno-h2020.eu/publication s/public-deliverables/
	MAGNITUDE	MAGNITUDE aims to develop business and market mechanisms as well as supporting coordination tools to provide flexibility to the European electricity system, by increasing and optimizing synergies between electricity, gas and heat systems.	https://www.magnitu de-project.eu/

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CIVI	SPARCS	SPARCS is working to create a network of Sustainable energy Positive & zero carbon Communities in two lighthouse and five fellow cities	https://www.sparcs.info/index.php/about
	ATELIER	ATELIER is an EU-funded Smart City project aiming to create and replicate Positive Energy Districts (PEDs) within two Lighthouse Cities and six Fellow Cities.	https://smartcity-atelier.eu/?cn-reloaded=1
	iBECOME	iBECOME is a 42 month Horizon 2020 project which aims at demonstrating a combination of novel technologies and new business models in the form of a virtual Building Management System (vBMS) for optimizing buildings energy performance and comfort conditions, while reducing the operational costs by leveraging demand response.	https://ibecomeproject.eu/about/
SCHN	iBECOME	*idem*	*idem*
Bornholms	INSULAE	INSULAE will contribute to the Clean Energy for EU Islands Initiative by providing an Investment Planning Tool (IPT) able to create action plans for the islands to generate their own sustainable and low-cost energy.	http://insulae-h2020.eu/
INAVITAS	Flexigrid	The Flexigrid project will create an enabling architecture for small and medium distribution system operators (DSOs) to unlock flexibility resources.	https://flexigrid.org/

6.2. FURTHER NETWORKING ACTIONS WITH SIMILAR PROJECTS

Similar projects have been searched and listed below with brief information and related links. Networking activities will include:

- contacting the representatives of the projects
- sending communication pack about VPP4Islands
- explore cooperation activities and opportunities for joint actions
- Attending relevant events of the projects open to the public or other projects
- Providing information, sharing experience

Details of the activities will be determined and discussed and shared with projects partners **in further stages.**

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CLEAN ENERGY FOR EU ISLANDS	***Clean Energy for EU Islands*** *https://euislands.eu/*
It is an initiative aimed at catalysing the clean energy transition on EU Islands. The Secretariat acts as a platform of exchange of best practice for islands' stakeholders and provides dedicated capacity building and advisory services. It provides technical support, capacity-building services and networking opportunities to EU islands. Secretariat is, helping citizens, local authorities, local businesses and academic institutions work together to advance the clean energy transition on their island.	

wiseGRID	***WiseGRID*** *https://www.wisegrid.eu/*
WiseGRID provided a set of solutions and technologies to increase the smartness, stability and security of an open and consumer-centred European energy grid. The project combined and enhanced the use of storage technologies, supported RES penetration and the integration of charging infrastructure to favour the large-scale deployment of electric vehicles.	

Interreg North-West Europe ECCO	***Ecco*** *https://www.nweurope.eu/projects/project-search/ecco-creating-new-local-energy-community-co-operatives/*
Ecco aims to accelerate the set-up of new energy communities in rural areas in North-West Europe, working in close collaboration with farmer organisations to support the set-up of new community energy projects in Flanders.	

Interreg North-West Europe cVPP	***cVPP - Community-based Virtual Power Plants*** *https://www.nweurope.eu/projects/project-search/cvpp-community-based-virtual-power-plant/*
cVPP project aims to create synergies between the projects cVPP, REScoop VPP and FLEXCoop to ensure an effective implementation of demand-response solutions in energy communities.	

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	FLEXcoop *http://www.flexcoop.eu*
FLEXCoop provides energy cooperatives with innovative tools to operate dynamic Virtual Power Plants (VPPs) in order to achieve a stable and balanced energy grid. As part of the project, tool-suite was developed for energy cooperatives working on demand-response.	

	REScoop PLUS *http://www.rescoop-ee.eu/*
REScoop Plus supported energy cooperatives in setting up and building out energy efficiency services, providing good practices on energy savings and how cooperatives can help their members to save energy.	

	REScoop MECISE *https://www.rescoop-mecise.eu*
Six energy cooperatives from 4 EU countries developed renewable energy and energy efficiency projects and set up innovative approaches to facilitate community energy projects and foster collaborations between cooperatives, local authorities and citizens. Also, a cooperative society was established to provide financing solutions to members.	

	Community Power *https://www.communitypower.eu/en/*
The project aims to create community-owned energy projects all over Europe. . As a result of this project, the Community Power Coalition was founded in 2016. Today, the coalition is still working for a socially fair energy transformation putting people and communities in the centre of it.	

	New Energy Solutions Optimised for Islands *https://www.nesoi.eu*

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The NESOI European Islands Facility's goal is to unlock the potential of EU islands to become the locomotives of European Energy Transition by mobilising investment in sustainable energy and give the opportunity to test innovative energy technologies and approaches in a cost-competitive way.

	REScoop VPP *https://cordis.europa.eu/project/id/893240*
Through REScoop VPP, REScoop.eu will support the set-up of a community-driven virtual power plant that can actually provide flexibility services to the grid. REScoop.eu will organise workshops and manage a working group that gathers interested cooperatives, and manage the project's overall communication.	

	WISE Power *http://wisepower-project.eu/*
WISE Power project worked on improving local support for wind turbines, and local community participation in the planning of wind energy projects.	

OneNET	***OneNET*** *https://cordis.europa.eu/project/id/957739*
With the energy grid moving from a centralized to a decentralized system, energy communities will play an important role for implementing change in current operative business models. It also aims to explore how cooperatives can support the implementation of a decentralised energy system.	

	Interface *http://www.interrface.eu/*
INTERRFACE project will design, develop and exploit an Interoperable pan-European Grid Services Architecture (IEGSA) to act as the interface between the power system (TSO and DSO) and the	

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customers and allow the seamless and coordinated operation of all stakeholders to use and procure common services.

coordiNET	***CoordiNet Project*** *https://coordinet-project.eu*
The three large-scale demonstrators comprise of ten demonstration sites and are implemented by both the DSO and TSO for the networks covered within the respective demonstration areas. The demonstration regions provide sufficient versatility in terms of geographical location and of boundary conditions including load and generation profile, to enable extrapolation of the experiments to the rest of Europe by scaling up and replication rules setting the foundation of future grid codes.	

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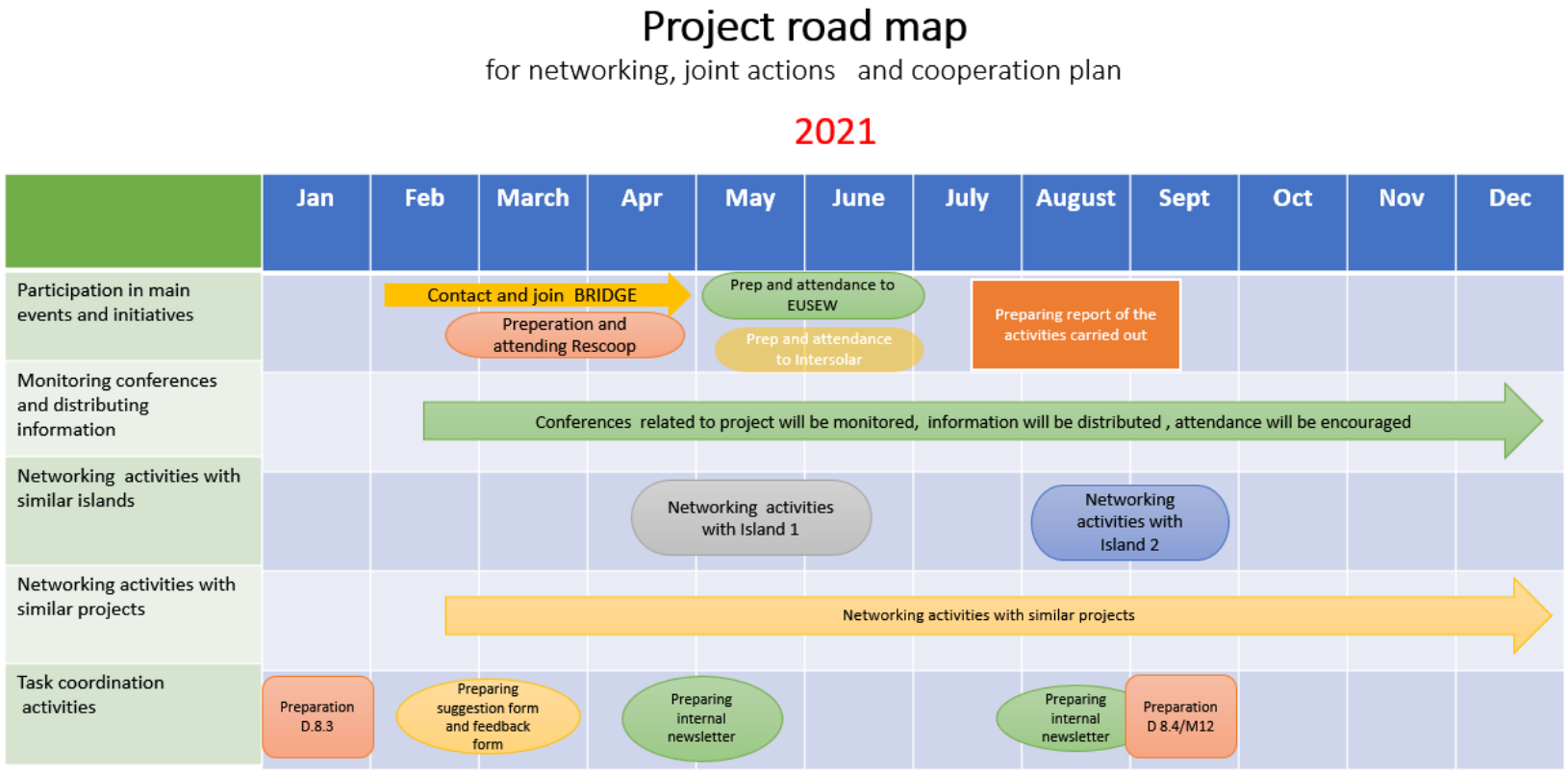
7. ROAD MAPS

Road maps for the planned activities has been created to present the timeline for the networking, joint actions and cooperation. However, it will be renewed in M12 according to the upcoming developments and related cooperation plans.



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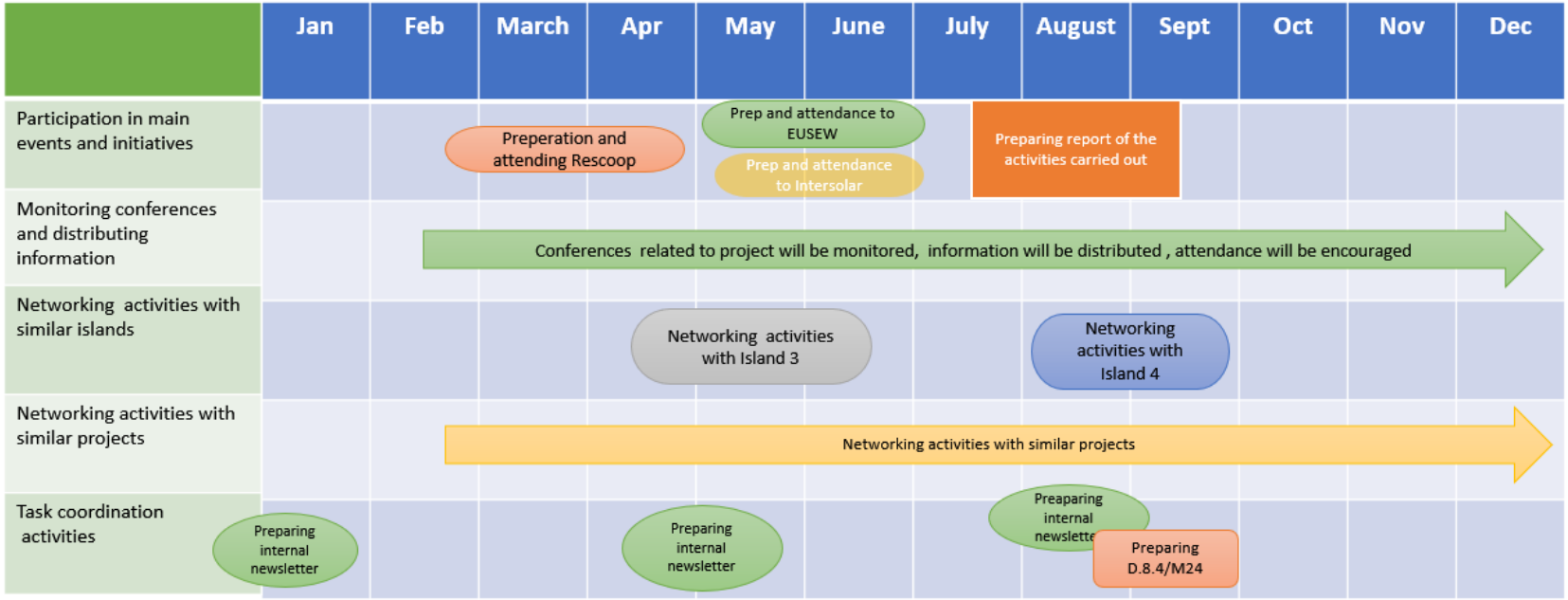
Project road map

for networking, joint actions and cooperation plan

2022



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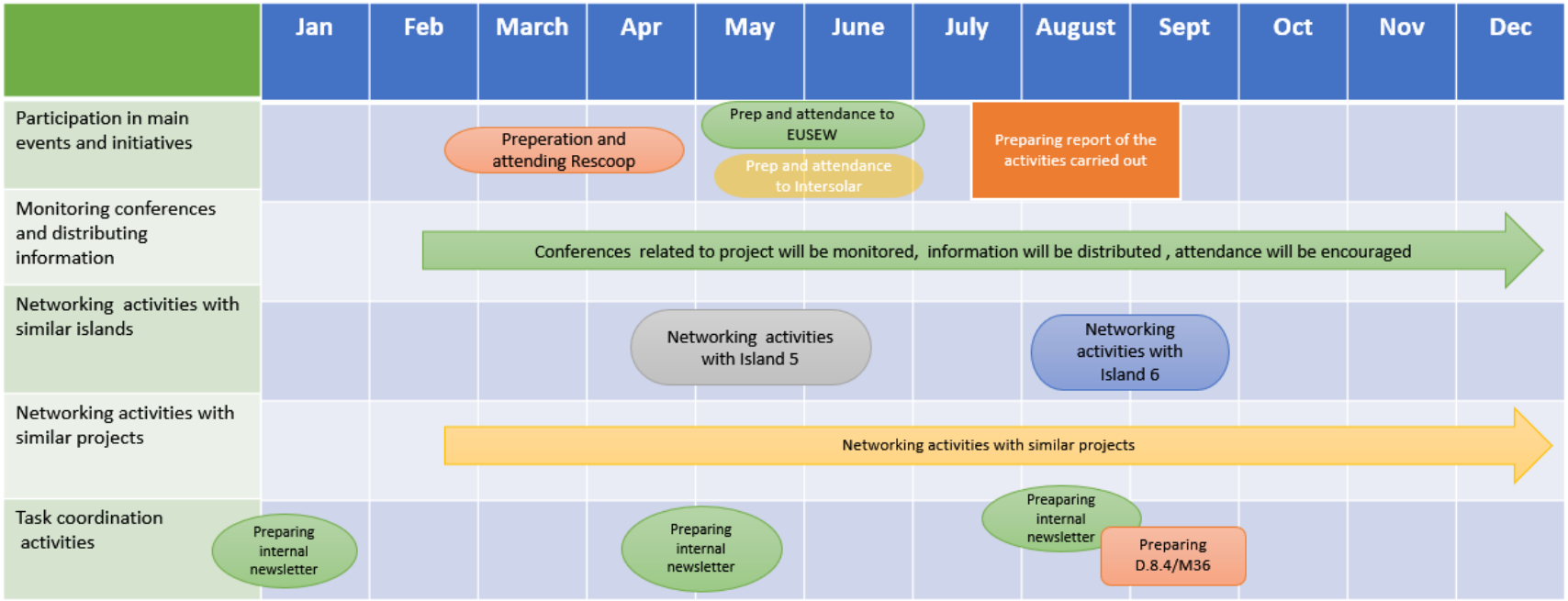
Project road map

for networking, joint actions and cooperation plan

2023



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Project road map

for networking, joint actions and cooperation plan

2024

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8. PI MANAGEMENT AND CONFIDENTIALITY ASPECTS

Protection and allocation of Intellectual Property has been detailed in Task T.8.6 and will be led by BUL and will establish an exploitation agreement throughout the project and ensure correct patentable results of the project. This will be done through the conduct of exploitation activities in a structured and effective way during the project which is aimed at accelerating the post-project uptake of expected findings. Further a*d hoc* Joint Ownership Agreements (JOAs) will be set and signed by the interested beneficiaries, if necessary.

Moreover, this task will ensure a proper management of innovation during the project and, at the same time, advise partners about implementing successful innovation strategies beyond the project's framework. In this direction, the project represents a great opportunity for exchanging synergies among participants as well as supporting them to integrate innovation processes into its business model.

The consortium will define and detail the innovation management plan that will take all background IPRs owned by consortium members into consideration to ensure that we will be effectively exploited during the project. This will involve exploring and implementing suitable methods to protect different project results: applying for patents, designing rights or copyright as and when appropriate. Also, the management of knowledge and foreground IP created through the work carried out during the project will be the responsibility of the Exploitation Manager.

VPP4Islands will use the DESCA model for the Consortium Agreement (CA). Within the CA, IPR management rules will be defined and agreed by all participants, they will cover the IPR issues including ownership and protection of knowledge and access rights.

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