



PARMENIDES

Plug&play eneRgy ManagEment for hybrID Energy Storage

Topic:	HORIZON-CL5-2022-D3-01-10 Interoperable solutions for flexibility services using distributed energy storage
Type of action:	HORIZON-IA HORIZON Innovation Actions
Duration:	01.01.2023 – 31.12.2025
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Coordinating organisation:	AIT Austrian Institute of Technology GmbH
Name of coordinating person:	DI Dr. Mark Stefan

Context

The ongoing transition of the energy system is accompanied by digitalization activities, enabling new applications. This results in a fragmentation of existing platforms, protocols, and standards. Therefore, interoperability among various platforms as well as cross-domain interoperability must be ensured. The usage of ontologies provides an opportunity to address cross-platform and cross-domain interoperability.



PARMENIDES aims to develop **a new ontology** with a focus on the electricity and heating domain for buildings, customers, and energy communities. It will support different use cases, focusing on the utilization of **Hybrid Energy Storage Systems (HESS)**.



To support a number of use cases, a new generation of **innovative Energy Management Systems (EMS)** will be developed. This system will be capable of using ontology as a knowledge base. This will enable a very generic software design and ensures the scalability and replicability of the solution.



As a framework for the integration of the EMS, PARMENIDES will define an information and communication architecture, enabling an **interoperable, reliable, and secure exchange of data and instructions**. The developed EMS will be demonstrated in very diverse pilots in Austria and Sweden.



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Energy Storage

The consortium

N°	Name	Country	Type
1	AIT Austrian Institute of Technology GmbH	AT	RTO
2	KTH Royal Institute of Technology Stockholm	SW	UNI
3	Trialog	FR	SME
4	Energienetze Steiermark GmbH	AT	LE
5	MAPS S.p.A	IT	SME
6	R2M Solution SRL	IT	SME
7	European Distributed Energy Resources Laboratories (DERlab) EV	DE	NPO
8	Experientia	CH	SME



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