

NEWSLETTER – SPRING 2022

Project pilot sites are finally launched!

After a challenging and lengthy period of legal negotiations, the partners have now agreed and signed a multilateral NDA. This agreement permits the confidential and secure sharing of data from different sensors and measurement tools, such as smart meters. With access to this Big Data, service providers will now be able to continue and finalize the development of the 18 services. This means the project can now launch the trial and validation process of the services in respective pilot sites.

The implementation plan of the services on a large scale at five pilot sites across the EU (provided in D7.1), which will also support replicability for other data providers and service users, is the first step in our long-term goal to create success stories that will be of huge value to project target groups and stakeholders and enable them to grasp the business value proposition of each of the services developed. Further, the implementation plan will strengthen the foundations for the marketplace development, where data providers, service providers and service users will be able to access and share data and contract services.

Each of the five pilot sites is collaborating on defining a common set of tools and procedures, set up to follow a common deployment approach across all sites. These tools and procedures will then be applied in the following pilots, three of which are DSOs (Estabanell, Spain; ELCE, Slovenia; and OEDAS, Turkey), one Micro-grid (VUB, Belgium), and one EV charging infrastructure (NUV, Denmark).

In the coming months, progress will be reviewed regularly with pilot leaders to ensure that the data obtained from them is being shared and transmitted correctly to service providers so that they are able to analyze it and apply it to service development work. The 18 services being developed will enhance the efficient planning, management, operation and maintenance of energy distribution grids and associated assets. These innovative AI-based services will be commercially available from the BD4OPEM project open energy marketplace.

Thanks for meeting us at Enlit Europe!

BD4OPEM participated in the Enlit Expo 2021 in Milan in November 2021. Several partners participated in the event and there were lots of discussions, dialogue and seminars. Our aim for the event was to get input from you to create the best marketplace for the kind of energy services you and your company need.



Intellectual Asset Management

As part of the exploitation of key exploitable results work on intellectual property rights is central. BD4OPEM deploys a well-established research-based methodology “Intellectual Asset Management” (IAM) to best approach this work that initially focuses on Intellectual Asset Capture. All intellectual assets must be identified and documented to be able to manage intellectual property rights going forward.

The methodology enables organizations and individuals to document, communicate, collaborate on, manage, and exploit intellectual assets. Providing both a high-level overview and detailed insight into existing valuable knowledge. Capturing intellectual assets includes identifying, defining, and tagging them with metadata that includes among other things, who created it, who carries it, what IPRs are connected to it in what project was it created and what agreements apply.

Intellectual Asset Management is either utilized continuously or at specific events throughout a research and innovation initiative. Once an inventory has been set up it is important to revisit it to keep it updated as the work develops. The initial Intellectual Asset Capture within BD4OPEM partners will add to it when new assets are created and made known.

The BD4OPEM approach

Global demand for electricity is increasing and energy systems have moved from an analog to an interconnected real-time digital world. Currently, huge amounts of data are generated in the different power systems stages, but this data is often underused, if used at all. This data offers a huge potential to develop exciting new services to enhance the management of electrical distribution grids.

BD4OPEM will develop products and services to improve the planning, monitoring, operation, and maintenance of electrical distribution grids, all made available at an open innovation marketplace. The scope is to develop 18 new innovative solutions to improve the planning, monitoring, operation, and maintenance of electrical distribution grids. Our approach is to make these services available from a cloud-based Open Innovation Marketplace.

Using big data techniques such as machine learning, deep learning, AI, and forecasting, BD4OPEM will gain knowledge and create solutions to support and increase the level of renewable energy in power grids while achieving greater energy efficiency levels. Big data from five European data providers (DSOs, microgrids, and electric vehicle charging infrastructures) will be processed using an AI-based analytic toolbox hosted by the project marketplace. The output from this process will enable service providers to develop innovative services and connect back to data providers.

BD4OPEM will create a seamless link between energy stakeholders and service developers. The Marketplace will ensure secure Big Data flows from data providers to service providers, resulting in new data-driven business models, enhanced asset management, and consumer participation in energy balancing. Target user groups, such as DSOs, will be able to find relevant services provided by different specialized companies.

In this way, BD4OPEM will encourage more efficient use of energy resources and the penetration of renewable energy, leading to a reduction in greenhouse gas emissions and promoting more effective and smart usage of energy through flexibility and storage. Greater value will be obtained from this action to improve the decision-making process when operating electrical grids.

This approach will be demonstrated at five large-scale pilot sites (Spain, Turkey, Slovenia, Belgium and Denmark) all with distributed energy generation, such as solar panels, storage infrastructure, electric vehicles and charging infrastructure, hydro, wind and geothermal generation. They represent both typical data providers and service users, providing the initial Big Data input and then trialling and validating the usefulness, usability and commercial viability of the services being developed.

BD4OPEM is an EU H2020 research and innovation project and consists of 12 partners representing eight different countries.

We are BD4OPEM



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