

BD4NRG

Big Data for Next Generation Energy

Leading the way for the big data exploitation in the energy sector by giving a new competitive edge for improved decision-making solutions.

BD4NRG delivers an innovative and smart grid-tailored open analytics modular framework (near real time AI-based), in order to enable new market opportunities for an optimal management of Energy Systems value chains, both at technical and economic levels.



Starting Point: **January 2021**



Project's budget: **11,9 million**



Partners: **35**



Countries: **11**

BD4NRG Framework

Cyber Security
User authentication and authorization for the security of non-open transaction data



Data Governance
Software to act as an intermediary between data users and providers



Scalable Big Data Management & Processing
Smart management and processing of data by an intelligent information broker



Applications
• Open Modular Smart Grid
• Big Data Analytics Toolbox
• Data / Models / Resources / Marketplace



Marketplace
Virtual Workbench to incorporate a variety of assets, including data, third party services, ML models, computing resources, storage resources

Pilot's Applications

The BD4NRG framework consists of 12 large-scale pilots (LSP) which are divided into 3 main categories and are implemented in 8 EU countries

12 LSPs

BD-4-DER

Management of Distributed Energy Resources

BD-4-ENEf

Investments & Efficiency in Buildings

BD-4-NET

Operation of Electricity Networks

BD4NRG Expected Impacts

Increased availability of big data & their management framework

Increased prospects for digital platforms & interoperability among data hubs

Strengthened links with key stakeholders of the energy value chain

Increased number of analytics services and applications in the energy sector

Effective integration of digital technologies in the energy sector for more efficient business models

Enhancing consumer participation via the energy asset management

Increased use of RES offering access to cheaper, efficient & sustainable energy

New data-driven business models for energy management systems

