

Press release
29 January 2024

Iberdrola and BCAM will collaborate on the AI Innovation Data Space project to optimise grids

- *This project is framed within the Global Smart Grids Innovation Hub (GSGIH) – a collaborative work environment in which BCAM has been involved since 2021.*
- *The GSGIH's areas of collaboration include the Innovation Data Space ("i-DS") project which, through Artificial Intelligence, aims to streamline and enhance the extraction of value from data to improve the service of distribution networks.*
- *BCAM will participate in the development of the use cases proposed in the i-DS. Specifically, BCAM's work in this project will focus on demand forecasting in the LV (Low Voltage) network.*

BCAM, the Research Center on Applied Mathematics attached to the Basque Government's Department of Education, will collaborate with Iberdrola in the Innovation Data Space (i-DS) project. This collaboration has been implemented through the signing of an agreement within the framework of the [Global Smart Grids Innovation Hub](#) (GSGIH). GSGIH is a collaborative work environment in which [BCAM](#) has been involved since 2021 along with other suppliers, companies, technology centres and universities, with the aim of using innovation as a lever to improve the grid distribution service and the capacity and efficiency of the grid for greater integration of renewable energies and the electrification of the economy.

Among the areas of collaboration of the GSGIH is the Innovation Data Space (i-DS) project in which, through Artificial Intelligence, the aim is to speed up and enhance the extraction of value from data to improve the service of distribution networks. BCAM will participate in the development of the use cases proposed in the i-DS.

More specifically, BCAM's work in this project will focus on forecasting demand in the LV (Low Voltage) grid through management improvement actions based on the generation of future consumption and generation scenarios in order to prioritise actions in the demand forecasting process linked to LV grid planning and investment prioritisation.

This is not the first time that both entities have worked together. For example, BCAM participates in the IA4TES project - Artificial Intelligence for the Sustainable Energy Transition, led by Iberdrola, which is included within the framework of the Artificial Intelligence R&D Missions Programme, within the framework of the Digital Spain Agenda 2025 and the National Artificial Intelligence Strategy. The project started in 2022, was one of five awarded in Spain and has a total grant of more than €12.5M.

The main objective is to investigate the solutions that different Artificial Intelligence technologies can bring to the electricity sector, considering the new paradigm of the electricity system.

On the part of BCAM, the researchers coordinating the work are Ramón y Cajal researcher at BCAM and Ikerbasque Santiago Mazuelas and Vincenzo Nava, Senior Researcher at BCAM and Tecnalia Research & Innovation.

About BCAM

BCAM is an interdisciplinary research centre based in Bilbao and promoted by the Department of Education of the Basque Government; it is part of the BERC (Basque Excellence Research Centers) network. Founded in 2008 by the Basque Government through Ikerbasque, one of its main goals is to put mathematics at the service of society through knowledge transfer, extending the results of its research to sectors such as biosciences, health, energy or advanced manufacturing, and working jointly with local and international institutions and companies.

The centre, which currently has 186 researchers from 34 countries, has been awarded the Severo Ochoa distinction three times (2013, 2018 and 2021) by the State Research Agency, which consolidates the BCAM as one of the most important institutions in its field in Europe.

About Iberdrola Hub

Iberdrola wants to remain at the forefront of the energy transition by developing new business and technological models in distribution networks.

The electricity system is undergoing an unprecedented transformation and grids have become a cornerstone of the energy revolution; an essential platform for moving towards a decarbonised economy – which encourages the development of an electricity system with more renewable sources, sustainable mobility, smart cities and self-consumption.

With the creation of the Global Smart Grids Innovation Hub, the group aims to double the number of innovative projects in smart grids, consolidating and expanding the current successful model of collaboration with electrical equipment manufacturers. To this end, the company has identified from the outset over 120 projects for future development worth €130M. Since this Hub was launched in October 2021, ongoing R&D projects have been registered for a total estimated investment of €42M in Iberdrola Redes España. In addition, agreements have been reached with over 100 technology partners for the development of grid digitalisation solutions, integration of renewables, deployment of electric vehicles and energy storage systems.