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# Perseus: from demigod to lead I+D+i

The electricity company has invested 40 million euros in its program, with which it promotes technological initiatives such as the drone *Aracnocóptero*

M. R. / VALLADOLID

If Perseus founded the capital of one of the most prosperous Western civilizations of antiquity, Mycenae, for Iberdrola, the Greek demigod, son of Zeus and Dánae, gives part of the name to its corporate venture capital program, the Iberdrola Ventures-Perseo, through which all the investments destined to technology are distributed –some of high flights, such as the Salamanca *Aracnocóptero*– and disruptive businesses, whose objective is to ensure the sustainability of the energy model.

One of the main and strategic lines of the company chaired by the Salamanca Ignacio Sánchez Galán are renewable energies, such as solar in its photovoltaic and thermal slopes, offshore wind, or marine. But not only the technology itself, but also the active search for business models that make such developments profitable, willing to change the energy paradigm.

The electric giant also works in other fields, closely related to a group of such characteristics, such as energy efficiency, sustainability of the sector or new methods of operation and maintenance.

«Since its creation in 2008, 40 million have been invested in *startups* that develop technologies and new businesses in the energy sector worldwide», said company sources.

In addition, during this five-year period starting in 2012, when the agreement was signed for Perseus to be even more powerful than all the Mycenaean people together, the 25 million euros of Iberdrola and the Centre for Industrial Technological Development, better known as the CDTI, are invested, all of them aimed at I+D+i in energy.

The first investment took place in 2013 at the Salamanca company *Árborea Intellbird*, located in the USAL Science Park, where half a million euros will go. The company is already known for this supplement: it manufactures unmanned aerial vehicles, drones, with many applications. *Aracnocóptero* Eo16 is the small helicopter that watches the blades

of wind turbines.

«Together with its associated *software* platform, it allows you to increase the efficiency of wind turbine maintenance inspections, reducing downtimes and achieving a much higher level of detail than traditional inspection methods», the same sources explain.

Iberdrola invests in the business development of Castilla y León through the ADE Sodical and has participated for five years –as a founding partner– in the Smart-City Valladolid-Palencia initiative, which seeks to promote public-private collaboration to transform cities in sustainable and efficient cities.

In addition to the lines of research in which the electricity company collaborates with different entities such as those

It undertakes several projects related to the efficiency and sustainability of different types of energy

mentioned above, it has several pure and hard I+D+i projects underway in the different aspects of energy, both conventional and renewable. Always looking for the same objective: to offer the best version of energy production.

In hydraulics, Iberdrola completed the Horex project, led from Salamanca by the electricity company and in which the Polytechnic University of Catalonia and the Eduardo Torroja Institute of Construction Sciences of the CSIC participated. The objective was «to investigate the phenomenon of chemical expansion in concrete of dams for the development of new methodologies for diagnosis, monitoring and treatment thereof», they explain from the company.

The Central of the municipality of Velilla del Río Carrión has lived innovation in its meats for almost a decade. Boiler combustion: monitored. The burners: optimized. Result: greater efficiency and lower

emissions of nitrogen oxides (NOx) into the atmosphere.

The Coeben project tries to integrate advanced technologies in this reduction of NOx at a very high level. «The demonstration of its viability would be a world novelty in arc-type boilers and would guarantee the viability of combustion facilities such as Velilla, preparing the plant for future environmental legislation for Large Combustion Facilities of pulverized coal», they say. It is of such importance that process –and results– are intended to be transferred to the Longannet plant in Scotland.

At Iberdrola, they also report on the Sigma project in which, together with the University of Salamanca and the Center for Ultra-Short Ultrasonic Pulsed Lasers, they develop alternative means to capture greenhouse gases.

In the field of energy efficiency, there are projects such as Depoligen that tries to convert

buildings into totally sustainable constructions, without emissions and with an energy demand that respects the environment. Together with the Center for Energy, Environmental and Technological

In 2014, it invested 170 million euros in research, development and innovation, 7% more than in 2013

Research (Ciemat), the Cartif technology center, the USAL, Inzamac, Tecopysa and Ideas TX Ingeniería, they will invest 6 million and work on the Viriato de Zamora campus.

The Tomadatos project tries to optimize the electricity networks, works with the USAL, and they try to automatically capture the information of the transformation substations to incorporate it into

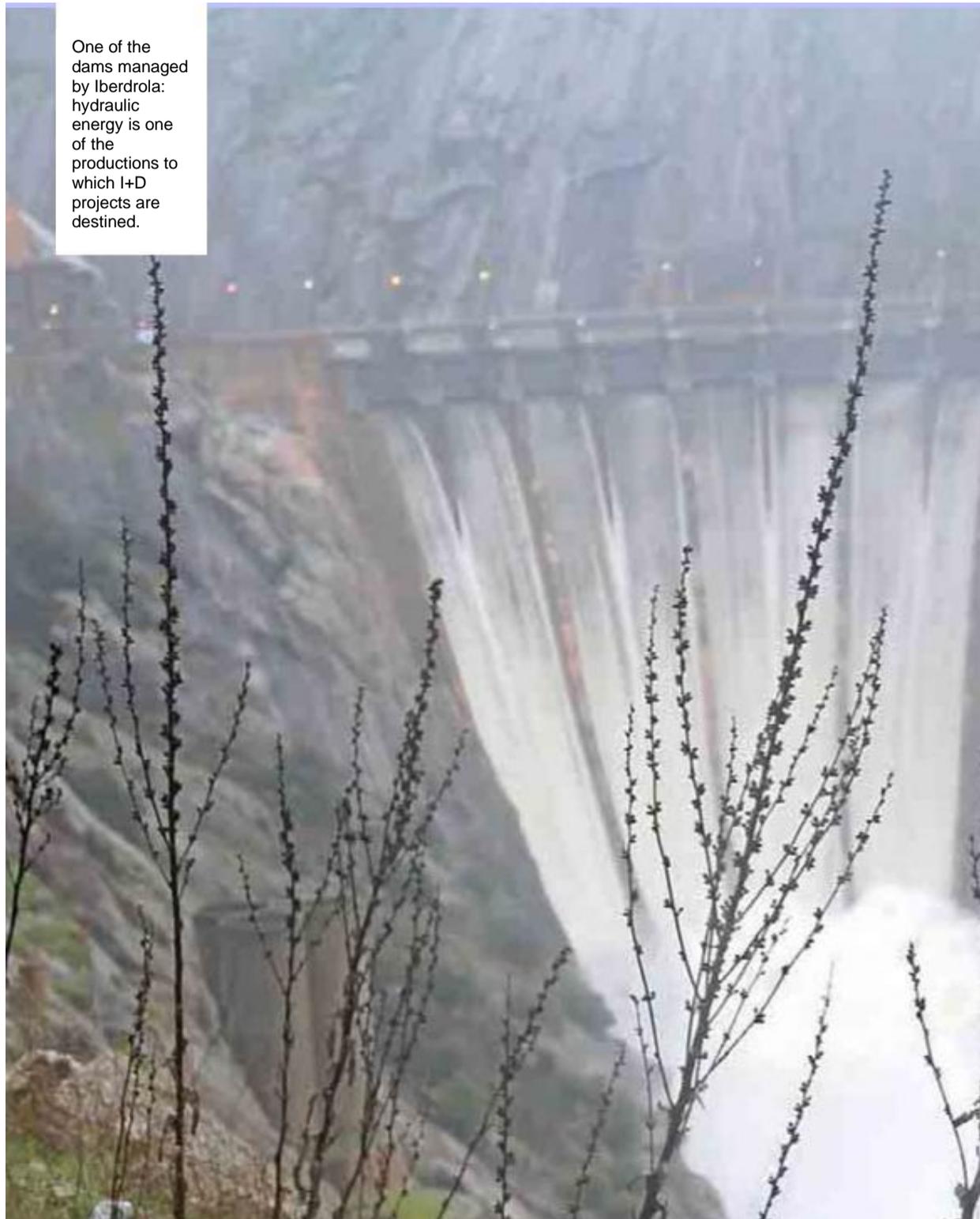
CAE technology tools.

Together with the projects, infrastructures: in collaboration with the University, it maintains with IBM the Center for Technological Innovation in Aldeatejada (Salamanca) and the Iberdrola Classroom in the Pontifical.

The Group invested 170 million euros in I+D+i in 2014, 7% more than the previous year, which has earned it the most innovative Spanish *utility* and the fifth in Europe.

A large part of these funds have gone to the aforementioned Iberdrola Ventures-Perseo program: «Through it, it has entered the capital of the Silicon Valley QBotix company, which develops robotic technology for renewable generation facilities, and the launch of the Open Innovation Ventures program, in order to collaborate with Iberdrola technology providers», they say.

One of the dams managed by Iberdrola: hydraulic energy is one of the productions to which I+D projects are destined.





The rector of the USAL, Daniel Hernández Ruipérez, and the president of Iberdrola, Ignacio Sánchez Galán.

## The *Cénit* of Aldeatejada: rising node

- **A few days ago**, Iberdrola, through the Center for Technological Innovation (*Cénit*) of Aldeatejada, and the University of Salamanca, reached an agreement to expand its facilities in the scientific park of the teaching institution and create 200 new jobs. In total and since 2008, the Center launched with IBM will reach 600 professionals.
- **«Iberdrola** has taken another step to promote the creation of quality employment among young engineers in the Community of Castilla y León, especially those who study at the University of Salamanca and the Pontifical University of Salamanca», value Electrical sources.
- **Aldeatejada's software factory** currently has 400 young professionals. 190 are directly developed with I+D projects of the electricity company.
- **The result** after making the accounts seems round: «600 quality jobs promoted by the company are added to the other more than 300 generated by the activity of Iberdrola in Salamanca, which raises the total number of jobs created in the province to the 1.000».
- **According** to the calculations that were left on the day of the inauguration of the *Cénit*, back in September 2008, the value that this place would create would be a minimum amount of 200 million euros. «The goal is to create technological solutions that help companies increase their productivity».