



## Digitalization to transform the energy sector

Not even two years have passed since its launch, but the Repsol Digitalization Program has already started up more than 130 initiatives. Digitalization is one of the main growth springboards included in the strategic update that the Company presented in June 2018. More than 1,000 professionals are involved in this task, which covers the entire organization and allows Repsol to establish itself as a global energy company through the implementation of technologies such as Data Analytics, artificial intelligence, Omni-channel, RPA or Blockchain.

The digitalization process stretches across the entire value chain of the Company, its business units, and its employees, "from the base teams to senior management. It is not only about the use of technologies, but being part of a culture that is open to change, defining new ways of working, and looking for tangible objectives," explains Valero Marín, Repsol's Chief Information Officer (CIO) & Chief Digital Officer (CDO).

In 2018, more than 70 million euros were allocated to digital initiatives, and by 2019 this figure is expected to be close to 150 million. The objective is to help transform the energy sector and improve aspects such as efficiency, safety, the value of data, resource optimization, and agility.



Digitalization will increase the cash flow of Repsol's businesses by 300 mill. euros per year until 2020



Digital initiatives help Repsol's professionals meet the challenges they face and allow them to improve their work or better satisfy the needs of their customers, who want to access more personalized and advanced services. The initiatives include the following: monitoring of operations in real-time, mobile applications to improve safety in maintenance tasks at industrial facilities, and new non-oil business models in "connected" service stations.

### A 'Data driven' company

Repsol wants to strengthen its position as a "data-driven company", a company that uses data analysis for smart planning and adapts to customers who demand more personalized services and an omni-channel experience. To do this, the Company has identified more than 70 initiatives that will help convert the several petabytes of data that currently has available into a key competitive factor.

Digitalization must also serve to promote a cultural change with resources that train professionals "in a new digital talent map to help us become a more agile organization that tests and launches projects quickly," continues Valero Marín. Therefore, it also includes the implementation of collaborative methodologies such as Agile or open innovation so that digital processes permeate our daily work at the Company.

### New revenues and greater sustainability

Repsol estimates that digitalization will bring a profit of 300 million euros per year until 2020, which will amount to one billion by 2022, resulting from both new revenues and the optimization of investments and expenses. It will also increase process safety, help reduce emissions, and encourage circular economy initiatives.

The digital transformation will lead to the creation of 500 new professional profiles, specialist positions in data analysis, usability, cloud services, Internet of Things (IoT), Robotic process automation (RPA), customer management, or mathematicians and anthropologists. These will be filled by new recruits or internal role changes.

### More than 130 initiatives in all businesses

The more than 130 digital initiatives that are currently under way cover all of the Company's areas and businesses. For example, in the Commercial area a new technological platform has been developed to manage the entire supply chain of the Supercor Stop&Go store network. In the next five years, the intention is to cover 1,000 Stop&Go in Spain and Portugal with this system, which connects the Repsol service stations with the El Corte Inglés purchasing center.

Also in the Commercial area, the Waylet app, which already has more than one million registered customers, has expanded its range to become a "universal wallet" that allows users to pay for purchases in hundreds of restaurant and leisure



facilities in addition to paying for fuel at service stations and providing access to promotions and offers.

The Upstream business is incorporating Integrated Operations Centers (IOC) to improve safety, production, and efficiency in its operations. The IOCs, which have already been successfully tested in the Company's assets in the United Kingdom, allow for more informed decision-making through predictive and powerful data analysis. The Company plans to deploy this tool progressively in the rest of its Upstream assets.

Repsol has developed an app and a device to mobilize operations and maintenance tasks in its industrial facilities. The first pilot test was in Puertollano and Cartagena, and the initiative has now been extended to all of our refining, chemical, and LPG (liquefied petroleum gas) facilities. The device allows users to be mobile and to manage many tasks in situ that, until now, required several trips. The specifications were defined by the users and supervisors themselves in order to improve usability, for example with voice commands, and they are adapted to maximum-security environments. More than 2,000 employees benefit from this solution, which improves the safety and efficiency of operations and reduces maintenance times.

On the other hand, automation is being used to reduce the time spent on repetitive administration tasks in the Global Services department. By using robotic process automation, we have been able to automate processes such as the signing of contracts. Processes will continue to be added until reaching over 35, "something that improves employee satisfaction and facilitates their professional development", says Marín.

### Hubs and collaboration with technological partners

Ten hubs have been created to enable technological change, which are work teams made up of Repsol specialists, Company employees who have been trained in new trends, and external talent that provide technical support to the digital needs of the business units. These hubs include Data Analytics, Design and user experience, Omni-channel, RPA, Blockchain, Digital Analytics or Agile.

Enrique Fernández Puertas, Repsol's Director of Digitalization and Architecture, explains that the Company understands the digital transformation "as an open dialog with the innovation ecosystem. Therefore, we collaborate with more than 40 companies that have become our partners in this process," among which we can find large firms such as Accenture and IBM; companies more specialized in analytics or artificial intelligence such as Turing, Kabel, or Conento; or startups like Finboot "in order to combine their expertise in digitalization with our experience in the energy sector."

The digitalization approach also includes agreements with technology giants such as Google, Salesforce, and Microsoft. A significant agreement has been signed with the latter for the adoption of cloud computing technologies such as the Azure Office 365 software. We are also experimenting with the application of emerging technologies such as High Performance Computing (HPC), 3D printing, and mixed reality for the energy business, in a series of agreements "with a cross-company influence that also work as a ideas laboratory," concludes Fernández Puertas.



Digital transformation will lead to the creation of 500 new job profiles, from IoT specialists to anthropologists



Million euros of investment expected in digital initiatives for 2019

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