

COMPAÑÍAS

That's how Spanish companies use drones

► [Drone pilot, a profession with a future](#)

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Construction, energy, oil... More and more sectors are betting on incorporating these aircraft into their activity

The drones have landed in Spain to stay. The popularization of these aircraft and the growing development of solutions in the civil and professional field are pushing companies to incorporate them into their activity. From energy companies to oil companies, to transportation and construction companies, there are many sectors in which drones are called to play a leading role in the coming years.

For the time being, **regulation is the main stumbling block** for companies to incorporate this technology. "Many want to do it, but the regulation is strict. Until

the drones have security certificates as commercial aviation has it will not be possible for the industry to grow", says Jaime Guillot, executive director of **Drone Spain**, one of the largest Spanish operators and responsible for advising companies when incorporating drones.

At present, the sector is waiting for a regulation, which modifies the one approved in 2014, and which is expected to make some points more flexible, such as the ban on flying over urban centers and in restricted airspace. "This modification was going to come out in early 2015 but it was delayed. And when it was ready, we have found that there is no one who can pass the law", says Guillot.

Regulation is the main obstacle for many companies when incorporating drones into their activity

ENERGY

By sectors, the energy company is one of the strongest ones that has opted for the integration of drones in **infrastructure inspection and maintenance tasks**. An example is that of **Iberdrola**, which has incorporated a pioneer wind turbine blade inspection system, developed together with the **Arborea Intellbird** company from Salamanca, through a multi-engine drone.

Thanks to the work of these aircraft, costs are reduced and accidents in inspection work are avoided

These wind turbines have wear problems due to weather conditions and often hide cracks and very difficult problems for operators to discover. "Inspection methodologies involve hanging people from the shovels or using lifting platforms. They are very expensive procedures - hundreds of euros per hour - that can easily be replaced by drones", explains Carlos Bernabéu, CEO of Arborea.

In addition to avoiding risks for employees and saving costs, the use of these devices - equipped with thermal imaging cameras and images in high definition - allows, according to Bernabéu, to carry out "predictive maintenance and **extend the life of the 12.000 wind turbines** with that Iberdrola has around the world".

Iberdrola uses drones to check wind turbines and extend the life of its wind farms

Another energy group that has also incorporated drones into their daily work is **Endesa**. The company began working on this project at the end of 2012 and currently has 14 devices for the inspection of high voltage lines. "The objective is that the team can quickly and quickly remove the drone from the trunk and through a tablet view images in high definition of the towers", explains Francesc Alemany, Director of Distribution in Andalusia Endesa Center and responsible for the Drone Project .

SCAVENGE

The oil industry is another in which drones are called to play an important role. In Spain, companies in the field have already begun to investigate what uses they could give to these devices and even some such as **Repsol** have carried out tests with drones in some of their complexes. They are the cases of Sines (Portugal), Cartagena (Murcia) and Puertollano (Ciudad Real), where the energy group has used this technology to evaluate, thanks to the HD images that retransmit, the state of some structures difficult to access by others tracks.

Thus, the oil company includes among its future plans to use them **to transport packages or as an advance in the exploration of new deposits**, since its cameras allow mapping the seabed at a much lower cost than conventional airplanes or helicopters.

CONSTRUCTION

In the field of infrastructure, **Ferrovial** has been one of the precursors in the use of drones for large civil engineering projects. The company headed by Rafael del Pino, which has been licensed as an operator since September of last year, has extended the use of this technology in its construction and services divisions.

"We have introduced drones **to analyze the topography of the land, especially in linear works such as roads and railways**. We are also investigating to introduce thermographic cameras and software to **identify soil types**", explains Alberto López-Oleaga, director of Innovation and Processes of Ferrovial.

Drones have allowed Sando to reduce the time taken to draw roads tenfold

Another construction company that has moved token is the Andalusian **Sando** who, thanks to these devices, **has reduced in more than 25% the cost and in ten times the time taken to draw roads, bridges and roads**.

TRANSPORT

It is the transport and parcels sector that has so far had the most difficulty in incorporating drones in the short term. "Neither we nor anyone else knows yet when it will be able to become a commercial service", says Jordi Escruela, deputy director of Innovation at **Correos**. And is that **at the moment the current legislation does not allow ships to fly over the urban centers**, so that companies are focusing their projects in areas that are sparsely populated.

Correos is testing delivery with these devices in isolated and hard-to-reach areas

Last December Correos carried out its first tests in the Asturian town of Sotres as a tool to help the rural postman. "We propose to use the drones to take the mail to points in the winter is difficult to access. To arrive with drones to zones that by inclemencies climatic remain incommunicadas can be a great public

service", Escruela emphasizes. Another firm that is testing this type of delivery is **MRW**, which last January conducted its first tests in rural areas.

Seven examples in Spain

REPSOL

The Spanish oil company seeks to save costs and avoid unnecessary occupational hazards, and for this it has begun to use these devices, in the testing phase, to check the state of its facilities in Cartagena and Puertollano. In the future, Repsol does not rule out expanding the use of drones to inspect the state of offshore oil platforms and map the seabed for new deposits.

IBERDROLA

The energy company wants to extend the life of its wind farms and for this purpose it has developed, together with the Salamanca company Arbórea Intellbird, an inspection system for wind turbine blades through drones. These devices reduce the duration of maintenance operations, further improving their reliability. Currently, the company is in the process of implementing this inspection system in its network.

ENDESA

The company has fourteen drones deployed in Spain to review high-voltage power lines. Specifically, these unmanned aerial devices operate in Andalusia, Aragon, Balearic Islands and the Canary Islands. The objective is, according to Francesc Alemany, director of Distribution in Andalusia Endesa Center, that "quickly and quickly, a team can take out the drone from the trunk and check the towers".

CORREOS

Last year Correos began to investigate the feasibility of carrying out distribution tests through unmanned aerial vehicles, in order to use these devices in a complementary way to its network of postmen to guarantee shipments to areas of difficult access and in adverse weather conditions. The Asturian town of Sotres, which usually remains isolated in winter, was the first testing ground.

MRW

Since Amazon made public its intention to distribute light packages through drones, transport and parcel companies have been joining the initiative. In the case of MRW, the firm is developing research lines, together with the Spanish company Hemav, for delivery with these

devices in rural areas. As they point out from MRW, this distribution option is not viable in the short term due, among other reasons, to the rigid legislative framework.

SANDO

Through the Las-Roads Project, the Andalusian construction company has developed a system for extracting useful information from the data captured by sensors incorporated in the drones. This information facilitates the layout of roads, bridges and other civil infrastructures, while eliminating dependence on expensive means such as conventional airplanes and helicopters.

FERROVIAL

The Spanish multinational has introduced the use of drones in the construction of large infrastructure. The company pioneered the incorporation of these unmanned aerial vehicles in its construction and services divisions, and now they also plan to work with them on the highway. According to Ferrovial, the use of these devices represents savings of between 20% and 30%.

[Link to original](#) (Spanish)