

SALAMANCA  
EMPRENDE

## Arborea Intellbird Remotely Piloted Air Systems



## THE COMPANY

They completely design and manufacture their aircraft called *Aracnocóptero* and develop the software. They provide services with these systems and train pilots.

- **Wind turbine blade inspection.** It has an associated software that reports damage to wind turbine blades.
- **Inspection of power lines.** The Spanish Electricity Network will use its system.
- **Systems applicable to cartography.** Both in mining and other related jobs.
- **Inspection of industrial facilities.** They provide services such as building checks.
- **Systems for precision agriculture.** They have signed an agreement with Caja Rural to distribute agricultural inspection services to improve crops.
- **Training of civil pilots.** They are pioneers in Spain in practical training to pilot a RPAS.
- **Collaboration in the training of military pilots.** They are pioneers in Spain collaborating in the teaching of pilots with the national school.

An Aracnocóptero and behind it, the team of this company formed by nine technicians specialized in different areas :: ALMEIDA

# Design, create and teach to pilot the Aracnocóptero

This company was born in 2008 by Carlos Bernabeu as Arborea and was re-founded by him, Iberdrola and the CDTI in 2013 with his new name

**SALAMANCA.** Carlos Bernabeu, apart from being the majority partner, president and director of Intellbird Tree, was the main promoter of this company with his work team, which today focuses its activity on its Remotely Piloted Air System, RPAS, called Aracnocóptero, of the same.

Arborea was the name of the initial company, founded in 2008. This appellation was taken from a type of frog, known as the San Antonio frog.

To the original name, they added the Intellbird in 2013, when they were fully dedicated to the Remotely Piloted Air Systems. This second phase occurs when Iberdrola and the Spanish State, through the Center for Industrial Technological Development, CDTI, became part of this company as partners, something that is not usual for the latter, as the CDTI He usually participates with grants but not as a direct partner, as is the case in this case.

But before these two denominations, Carlos Bernabeu, already dragged a trajectory of 15

or 16 years especially in matters of environmental studies and environmental management of innovative projects. One of these projects consisted of the control of invasive urban birds that were developed with different systems. There came a time that they found themselves in a «bottleneck situation», as they had managed to reduce the population of the invading bird to 20%. But there were nests in inaccessible places because they were ruined buildings.

It occurred to Carlos Bernabeu to develop a system to carry grain treated with an inhibitory substance, to reduce the laying of pigeons, but it would have to be thrown through the roof holes of these dilapidated buildings. Bernabeu explains that, "the key was to be able to lift the grain through the air and introduce it in these places." This was the reason that prompted this entrepreneur to look for some type of aircraft to carry out this task, then he realized that there was nothing, just military systems.



**JORGE HOLGUERA**  
WordComunicación

**A team that had soldiers in 2009 created the first multirotor prototype**

**The professionals of this company have a specialized profile in different technical areas**

It was a matter of chance. These were the beginnings of Arborea. It was 2008, when Carlos Bernabeu met a multidisciplinary team in which there were army professionals. The work gave itself the first multirotor prototype manufactured in titanium chassis in 2009, to carry the treated grain and control these invasive species.

## Higher profits

When this system started operating, they realized that there were «potential higher profits», Bernabeu points out. One of these functions to which their aircraft could apply would be the one directed to the wind sector. People in this area proposed to design a specific system to inspect blades. Since then they specialized in this world.

Now, at the hands of Iberdrola, they have opened the doors to more technical information. Apart from the capital, this company has provided them with all added value that has served them to have «the most sophisticated and efficient wind turbine blade inspection system in the world», says Carlos Bernabeu.

This company is in expansion, will soon incorporate more workforce into its workforce made up of nine technicians, including engineers from different areas with enormous specialization.

Its range of action is so wide that for the moment it requires a multifunctional staff.

This equipment manufactures the entire Aracnocóptero system piece by piece. First, they design it according to the function to which it will be applied and then they manufacture it with carbon fiber and titanium. They also program and develop the associated software. Specifically, the complete system is an aircraft with sensors and analysis software.

They also work in training civil pilots and collaborate closely with the national school of military pilots in Salamanca. This close relationship with the military has made them create a kind of symbiosis, with which both they and the army benefit from this relationship.

In the Scientific Park of the University of Salamanca de Villamayor, they carry out these practical training with Aracnocópteros that they themselves manufactured for this task. They have specific Aracnocópteros for the inspection of power lines and have systems applicable to topography. They provide Aracnocópteros and systems, but they also offer services, in any area, but more frequently in precision agriculture and industrial facilities.

In the area of agriculture they have a system applicable to vineyards that are prized for their high quality.