

Spanish company is offering their autonomous flying robots for efficient and safe digitalization of underground and indoor infrastructure

Summary

Profile type

Business Offer

Company's country

Spain

POD reference

BOES20250128021

Profile status

PUBLISHED

Type of partnership

Commercial agreement
Outsourcing agreement
Supplier agreement
Investment agreement

Targeted countries

• World

Contact Person

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Term of validity

28 Jan 2025
28 Jan 2026

Last update

28 Jan 2025

General Information

Short summary

The Spanish company develops cutting-edge autonomous flying robots designed for digitalizing and inspecting challenging indoor and underground environments.

These robots operate independently without GPS, radio communication, or pilots, even in adverse conditions like high humidity, darkness, and toxic gases, ensuring faster, safer, and more accurate inspections of critical infrastructure.

Full description

The Spanish company specializes in designing, developing, and deploying autonomous aerial robots that excel in the digitalization and inspection of challenging indoor and underground infrastructures. These include wastewater collectors, hydropower penstocks, mining facilities, abandoned tunnels, and more. Their patented technology allows their robots to navigate independently in GNSS-denied environments, without the need for GPS, radio communication, or pilots. They operate flawlessly in extreme conditions, including complete darkness, high humidity, and the presence of toxic gases, ensuring precise, efficient, and safe inspections.

Their advanced systems generate high-resolution georeferenced point clouds and panoramic images, enabling the



creation of 3D models and detailed pathology reports in compliance with European standards (UNE-EN 13508-2). All collected data is accessible via user-friendly cloud platforms and standard formats compatible with industry tools, making the digitalization process seamless and accessible. With their pay-per-use operational model, clients can achieve cost-efficient solutions, eliminating the need for capital-intensive investments.

Founded in 2016, the Spanish company began with a focus on mining applications and has since expanded to serve industries such as hydropower, water utilities, and civil construction. By addressing critical infrastructure challenges that traditional methods cannot, they provide faster, safer, and more accurate solutions for their clients.

Their headquarters in Madrid, spanning over 1000 square meters, house a dynamic team of over 10 talented engineers, drone pilots, and UX designers. This dedicated team handles every stage of the process, from design and unit construction to testing and data processing, ensuring quality and customization for each project.

Use cases for their technology include sewer digitalization, abandoned tunnel rehabilitation, Crossrail tunnel mapping, and hydropower penstock inspections. These applications showcase the versatility and reliability of their drones in diverse and demanding environments.

As a trusted partner in digitalizing critical infrastructure, the Spanish company continues to innovate and redefine what's possible in underground and indoor environments. Their goal is to make infrastructure inspections safer, more efficient, and accessible for all industries.

Advantages and innovations

This company's robots provide unmatched efficiency and safety in inspecting complex infrastructure.

Key advantages include:

- Fully autonomous operation without GPS or radio communication.
- Resistance to extreme conditions such as darkness, humidity, and toxic gases.
- Ability to navigate curves and inspect large-diameter infrastructure.
- High-resolution georeferenced 3D models and panoramic images.
- No need for additional equipment; pay-per-use model reduces CAPEX.
- Compliance with European pathology standards (UNE-EN 13508-2).

These innovations position the Spanish company as a leader in the field, offering a safer and more efficient alternative to traditional inspection methods.

Technical specification or expertise sought

Stage of development

Already on the market

Sustainable Development goals

- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 11: Sustainable Cities and Communities**
- **Goal 13: Climate Action**
- **Goal 6: Clean Water and Sanitation**



IPR Status

IPR granted

IPR Notes

Partner Sought

Expected role of the partner

The Spanish company is open to collaboration with partners involved in large-scale infrastructure maintenance, including utilities, construction, and inspection services.

Additionally, they seek partnerships with universities, R&D institutions, and companies specializing in sensor development, as well as industrial and technology partners.

These collaborations aim to enhance and integrate their autonomous flying robots for inspection and digitalization processes, fostering innovation and expanding the range of applications for their technology.

Type of partnership

Commercial agreement**Outsourcing agreement****Supplier agreement****Investment agreement**

Type and size of the partner

• **Big company**• **R&D Institution**• **SME 11-49**• **Other**• **University**• **SME 50 - 249**• **SME <=10**

Dissemination

Technology keywords

- **01001001 - Automation, Robotics Control Systems**
- **01001002 - Digital Systems, Digital Representation**
- **01003020 - Building Automation Software**
- **02008001 - Air Transport**
- **02009011 - Air pollution control for cars and transport**

Targeted countries

- **World**

Market keywords

- **01004007 - Network test, monitoring and support equipment**
- **08004001 - Air filters and air purification and monitoring equipment**
- **08002007 - Other industrial automation**
- **08002004 - Robotics**

Sector groups involved