

A Spanish technology company offers autoguided parachute for space and defence applications.

Summary

Profile type

Technology offer

Company's country

Spain

POD reference

TOES20250821010

Profile status

PUBLISHED

Type of partnership

**Commercial agreement with
technical assistance****Research and development
cooperation agreement**

Targeted countries

• World

Contact Person

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Term of validity

21 Aug 2025**21 Aug 2026**

Last update

21 Aug 2025

General Information

Short summary

A Spanish SME has developed an autonomous parachute system guided by AI algorithms for precise recovery of payloads in aerospace and defence operations. The solution enables safe recovery of launcher parts, stratospheric payloads, or tactical supply drops.

The company seeks R&D cooperation under EDF (European Defense Fund) to co-develop applications and integrate the system in larger aerospace or defence platforms.

Full description

An innovative Spanish SME develops autonomous aerospace solutions. The company leads Paratech, a project supported by ESA BIC and a regional government, focused on AI-guided parafoil systems. Unlike traditional unguided recovery systems, this technology combines a parafoil canopy with machine learning algorithms for autonomous navigation, enabling pinpoint landing accuracy even under changing meteorological conditions.

Main applications include:

- Space sector: recovery of launcher elements and satellite components.
- Stratospheric payloads: safe return of scientific or commercial equipment.
- Defence/logistics: precise aerial delivery of supplies, humanitarian aid, or tactical cargo.

The system has been tested at lab and prototype level with progressive flight campaigns planned at increasing altitudes (120 m, 800 m, and drone-deployed scenarios).

The company is seeking partners with:

- Aerospace integrators able to embed the parachute system into launch vehicles, UAVs or tactical capsules.
- R&D institutions specialized in aerodynamics, guidance, navigation and control (GNC), and AI-based flight control.
- Expertise in structural and materials engineering to optimize canopy and payload interfaces (lightweight and high-resistance fabrics, miniaturized avionics).
- Capabilities for test campaigns at increasing altitudes (from 120 m to 800 m and beyond).
- Experience in certification and operational safety for aerospace and defence systems.

The company offers its know-how in aerodynamics, guidance & navigation, and AI-based control for EDF consortia interested in autonomous recovery, aerial logistics, and dual-use systems.

Advantages and innovations

- Unique AI-based guidance system improving accuracy vs conventional PID controllers.
- TRL rising prototypes under ESA BIC with validation roadmap.
- Applicable to both civil (space) and defence (tactical) domains.
- Lightweight (<25 kg) and scalable to larger payloads.
- Flexibility for integration with capsules, UAVs or launch vehicles.

Technical specification or expertise sought

Stage of development

Under development

Sustainable Development goals

- **Goal 17: Partnerships to achieve the Goal**
- **Goal 2: Zero Hunger**
- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 11: Sustainable Cities and Communities**

IPR Status

Secret know-how

IPR Notes

Partner Sought

Expected role of the partner

Type of partner:

- Universities and R&D institutions specialised in aerospace engineering, guidance and navigation systems, and AI-based flight control.
- Large aerospace or defence companies working with launch vehicles, UAVs or logistics platforms.
- SMEs providing materials, avionics or integration services for recovery systems.

Role of the partner:

- Co-develop and validate the autoguided parachute in joint EDF projects.
- Support integration into larger systems such as space launchers, UAVs, or tactical capsules.
- Provide facilities and expertise for flight testing, certification, and safety assessment at different altitudes.
- Contribute to scaling the system for dual-use applications (space recovery and defence logistics).
- Collaborate on intellectual property strategy, standardisation, and pathways to operational deployment.

Type of partnership

Commercial agreement with technical assistance

Research and development cooperation agreement

Type and size of the partner

- **University**
- **SME 50 - 249**
- **Big company**
- **R&D Institution**

Dissemination

Technology keywords

- **02011005 - Space Exploration and Technology**
- **01003003 - Artificial Intelligence (AI)**
- **02011007 - Guidance and control**
- **01003008 - Data Processing / Data Interchange, Middleware**

Targeted countries

- **World**

Market keywords

- **01006001 - Defence communications**
- **02007016 - Artificial intelligence related software**
- **01004008 - Other data communications**
- **02007021 - Other Artificial intelligence related**
- **01006004 - Communications services**

Sector groups involved