
BEYOND VISION

About us

Beyond Vision is a Portuguese UAV manufacturer that was founded in 2013 under the name Beyond Vision - Sistemas Móveis Autonomos de Realidade Aumentada, Lda. (BV). Our headquarters are located at R. José Afonso 28, 3800-438 Aveiro. We specialize in developing novel aircraft with multiple communication systems (Herelink, LoRa, 4G, 5G) and AI. Our cloud asset management platform, beXStream, integrates AI systems and conventional automation, enabling new applications and simplified solutions.

Our strong R&D background allows us to offer state-of-the-art specs while being funded by EU projects. Our UAV technology provides unbeatable value for the military, security, and defense sectors, offering highly capable and affordable options for upgrading capabilities. Our UAVs have been successfully used in several military exercises and training.

HEIFU® Pro

HEIFU is a class 3 hexacopter, powered by a high-capacity battery and controlled by a state-of-the-art flight controller which can be operated locally or by a remote application.

The HEIFU was designed to be a versatile drone in several areas, which go from agriculture to safety, infrastructure inspection, monitoring, support to emergency teams, and others.

It design enables the installation of different modules to answer the needs of the user. It is prepared to be equipped with gimbals and several types of sensors like RGB, multispectral and 360° cameras, as well as LiDAR and other custom supports.

This configuration is ideal to run complex Artificial Intelligence algorithms, making the HEIFU the perfect drone for complex tasks such as event detection or object counting.

Large autonomy

A high-performance Li-Po battery ensures a stable and long duration power supply to all the Electronic circuits of the drone.

Autonomous Missions

The software enables the generation and download pre-planned missions to the HEIFU, which can be executed autonomously in real-time or pre-scheduled.

Advanced communications

The HEIFU allows the usage of local communications (such as Wi-Fi), but also long-range mobile networks like 4G for the best experience of real-time piloting and video streaming.

Just add the accessories: a large set of accessories can be added to the drone, taking the flight experience to a higher level.

Enhanced positioning accuracy

A GNSS RTK (Real Time Kinematic) enhances the positioning accuracy, which can go down to 10cm.

A stable and safe flight

The six rotors concept allows the drone a normal flight and safe landing even in the event of a rotor failure, making the flight safer.

HEIFU® Pro

Intelligence Surveillance Reconnaissance

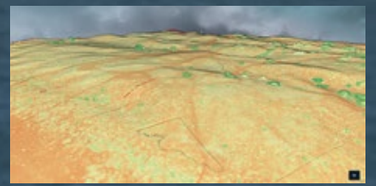
Main technical characteristics

Net weight (w/battery / wo/battery) [g]	11.000 ; 5.000
Weight (payload) [g]	4.000
Battery Voltage [V]	22.2 (nominal)
Battery capacity [mAh]	60.000
Max. Linear velocity [km/h]	80
Max. Angular velocity	720°/s
Max. Autonomy [min]	70
RTK positioning constellations	GPS L1/L2, GLONASS, QZSS, Beidou, GALILEO
RTK positioning accuracy	Down to 10cm
Wired interfaces	USB 3.0
Wireless interfaces	WiFi 2.4GHz, LTE 4G, 5G, Zigbee 2.4GHz
Operating Temperature [°C]	0 up to +40

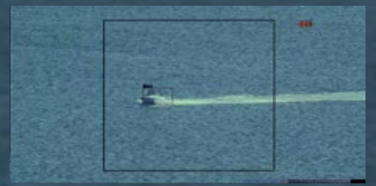
RGB mode

Thermal mode

Zoom



3D Maps



Tracking mode

Multispectral maps

As the global security landscape evolves, the use of unmanned aerial vehicles (UAVs) has become increasingly prevalent in military and defense operations.

At Beyond Vision, we are at the forefront of this technological revolution, providing cutting-edge UAV solutions tailored to meet the unique demands of modern warfare. With a range of customizable payloads and adaptable features, our drones offer unparalleled versatility and effectiveness in a variety of defense applications.

Versatile and Adaptable UAV Technology for Defense Applications

Our UAV technology is designed with versatility and adaptability in mind, allowing for a wide range of defense applications. With the ability to integrate various payloads and electronic warfare capabilities, our UAVs are customizable to meet the unique needs of each defense mission.

AI enabled with 80x zoom

Retractile Mounting Gimbal

Lightweight RGB & thermal payloads

Multi-sensing payloads with HD thermal and night vision

Longwave Infrared Thermal Camera Module

Up to 150MP Mapping Payloads

360° LiDAR

Multispectral Payloads

VTOne

Introducing the VTOne, the ultimate hybrid UAV solution for all your surveillance and mapping needs. This state-of-the-art VTOL (vertical take-off and landing) UAV can transition seamlessly from quadcopter to fixed-wing mode, giving you maximum flexibility and efficiency in the field. And with the unique assisted fixed-wing mode, the VTOne can reduce its speed while loitering in fixed-wing.

The VTOne's modular payload compartment makes it compatible with all previous payloads from Beyond Vision, ensuring that your investment in technology is protected. And with a flight time of 150 minutes and multiple redundant communication links, including 4G, 5G, WiFi, LoRa, ZigBee and more, the VTOne is built to keep you connected and informed no matter the situation.

Ideal for surveillance operations and large area mapping, the VTOne is the perfect UAV for any professional looking to take their operations to the next level. With its advanced technology and versatility, it is guaranteed to exceed your expectations and deliver results. Don't miss out on the opportunity to experience the VTOne for yourself and see the difference it can make in your work.

Main technical characteristics

Autonomy	150 min
Category	C3 (EU Reg.2019/945)
Maximum Take-Off Weight	15.5 kg
Cruise Speed	80 km/h-1
Dive Speed (Max speed)	120 km/h-1
NATO Guidelines	In all our aircraft (AEP83 / AEP 89)
Payloads	Modular Payload (LiDARs, Multispectral, 80x zoom + HD Thermal + AI Capabilities)
Communications (default)	Mob. Coms 1 (4G), Mob. Coms 2 (5G), LoRa, ZigBee, Radio 16km, WiFi, Bluetooth
Communications (optional)	P2P 50km range, 5.8GHz Mimo Mesh, P2P 150km range, Satellite
SSD	1 TB

Efficient Retrofit

Into the ecosystem, integrating previous technologies

beXStream®

- Total remote control
- Mission management
- Fleet management and control
- Geomatics
- User-friendly

beRTK®

Extreme precision for advanced operations

The beRTK is a fixed base station used to enhance the navigation accuracy of the drones. The correction signals are sent by a wireless channel to all the moving receivers around.

Carry almost anything up to 7kg

- **Communication Relay and Cargo Delivery Systems** for Remote or Inaccessible Areas
- **Water Sampling Systems** for Environmental Monitoring and Water Quality Testing
- **Atmospheric Sensors** for Environmental Monitoring
- **Ground Penetrating Radar (GPR)** for Search and Rescue Operations

Individual First Aid Kit

Water Purification Kit

Tactical Radio

Small Pelican Case

Unnattended Ground Sensor

Life Vest

Features

- **Remote operation:** Can be operated remotely, allowing for increased safety and flexibility in operation.

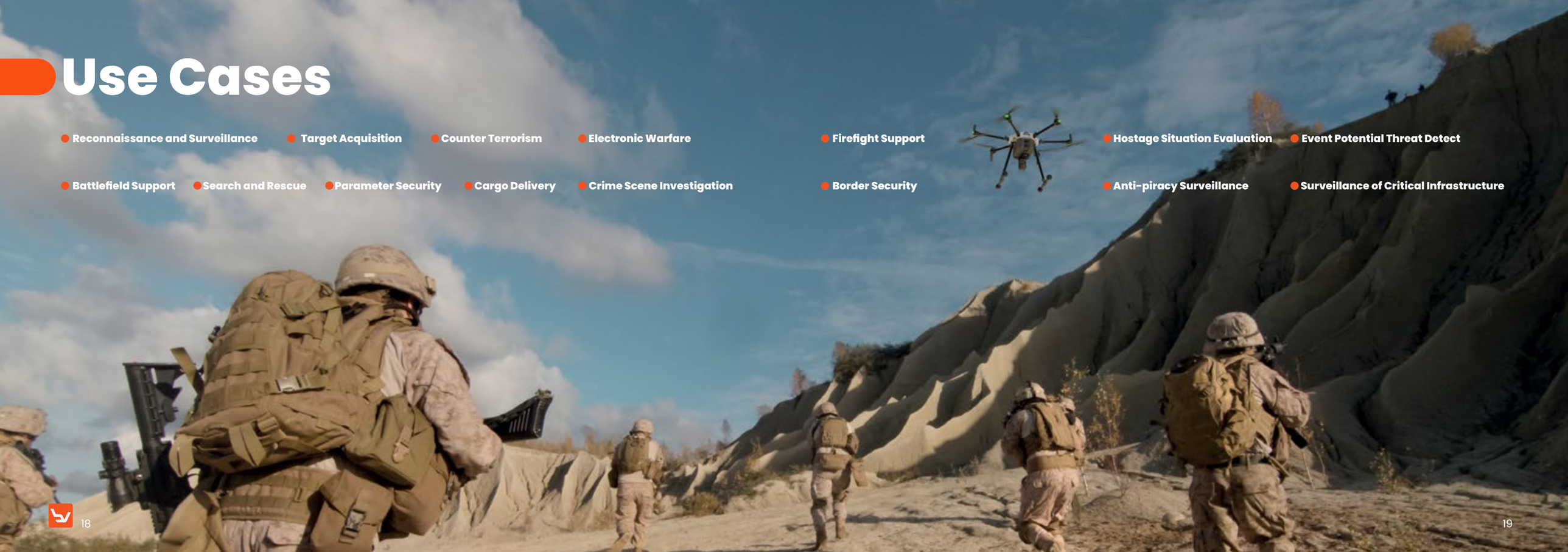
- **Electronic warfare capabilities:** Designed to accommodate and operate with various electronic warfare payloads.
- **Real-time data:** Enabling timely decision-making and effective responses in critical situations.

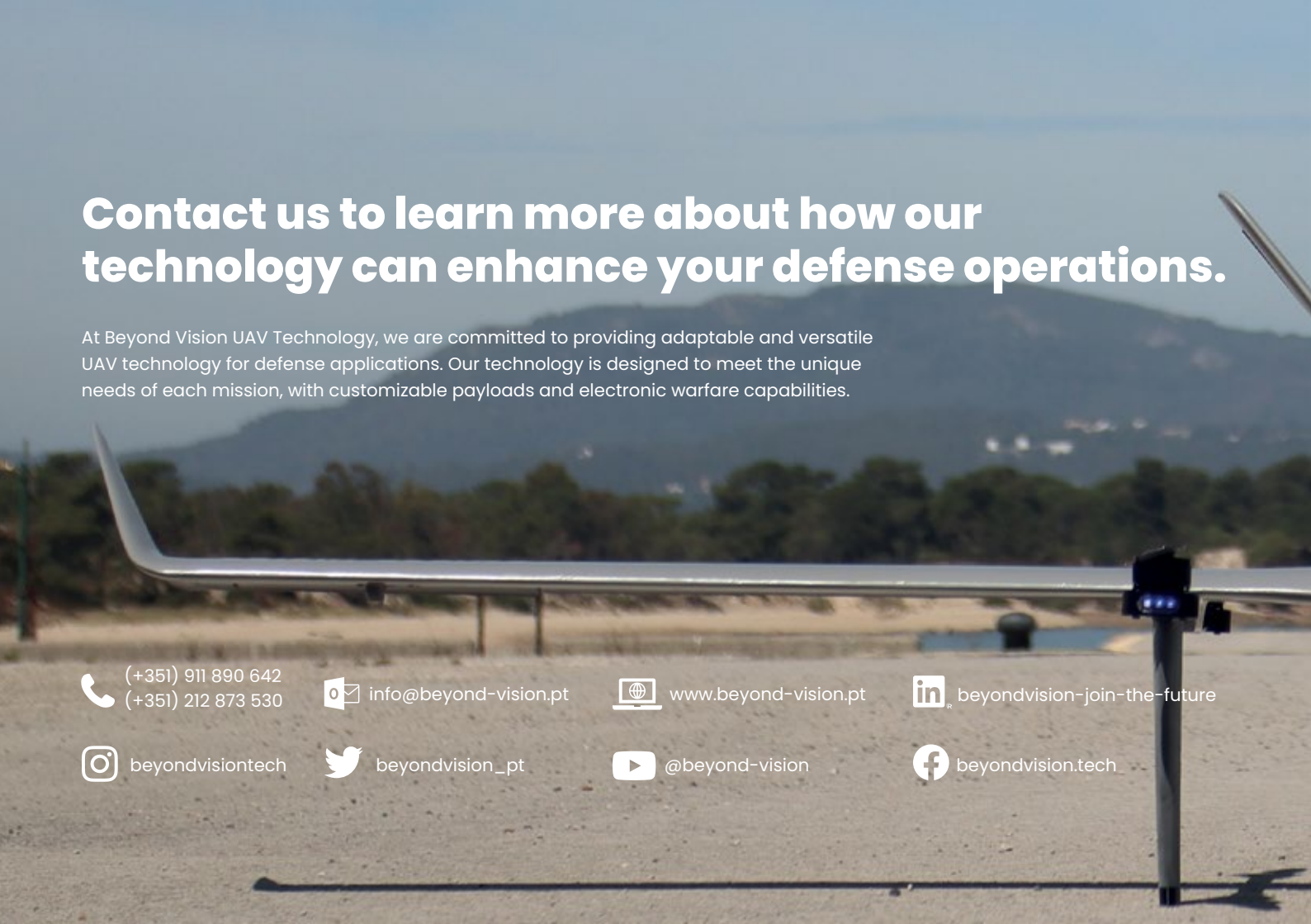
- **Payload versatility:** Can be equipped with a range of payloads, including gas detection sensors, chemical and biological sensors, ground-penetrating radar, atmospheric sensors, communication relays, cargo delivery systems, and water sampling systems.
- **High-performance and durability:** High-quality materials and advanced technology, ensuring their durability and high-performance in challenging environments.
- **Efficient operation:** Designed for efficient operation, allowing for extended flight time and minimal maintenance.

- **Adaptability and customization:** Adaptable and can be customized to meet the specific needs of different defense applications.

Use Cases

- Reconnaissance and Surveillance
- Target Acquisition
- Counter Terrorism
- Electronic Warfare
- Battlefield Support
- Search and Rescue
- Parameter Security
- Cargo Delivery
- Crime Scene Investigation
- Firefight Support
- Border Security
- Hostage Situation Evaluation
- Event Potential Threat Detect
- Anti-piracy Surveillance
- Surveillance of Critical Infrastructure





Contact us to learn more about how our technology can enhance your defense operations.

At Beyond Vision UAV Technology, we are committed to providing adaptable and versatile UAV technology for defense applications. Our technology is designed to meet the unique needs of each mission, with customizable payloads and electronic warfare capabilities.

(+351) 911 890 642
(+351) 212 873 530

info@beyond-vision.pt

www.beyond-vision.pt

beyondvision-join-the-future

beyondvisiontech

beyondvision_pt

@beyond-vision

beyondvision.tech