

# **Patria** CATCHR

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Redefined electronic support measures – Surveillance and intelligence combined



**DEFENCE AND WEAPON SYSTEMS**

#### PROTECTED MOBILITY



#### SUSTAINMENT SOLUTIONS



#### DEFENCE AND WEAPON SYSTEMS



## EXTREME SURVIVABILITY

Finland is known for high technology and extreme resilience. Our harsh nature and limited resources have pushed us to learn and innovate efficiently. Thorough preparation for the future is the backbone of our culture.

Patria is a modern and international defence and technology company with over 100 years of experience. We use resources wisely, create innovative solutions and build intelligent systems that provide extreme survivability in any conditions. We work with our customers throughout the entire lifecycle to ensure maximum value. Honest and straightforward co-operation is at the core of our work.

We build exceptional partnerships that last through critical operations. That's what it takes when you stand for your sovereignty. Trust us, we've been there.

## QUALITY AND SIMPLICITY

In a world brimming with fleeting trends and overengineered solutions, we stand apart by offering tools built with a singular focus: unwavering reliability and uncompromising quality.

We believe in the power of simplicity. Our products are well-designed, robustly constructed, and thoroughly tested to perform their intended task flawlessly, every single time.

Our philosophy is simple: true innovation should help, not complicate. Driven by dedicated research, we develop advanced technologies for real results. Our straightforward approach makes the difference. Engineered for a single purpose - Yours.

**Patria - Extreme conditions embedded.**





In today's crowded electromagnetic battlespace, even the faintest signal can reveal a critical threat. Staying ahead in intelligence and surveillance requires early, accurate detection and the ability to distinguish targets from a dense and dynamic signal environment. Vulnerable active sensors must be complemented with covert and agile passive sensors to ensure mission survivability.

**Patria CATCHR** delivers the full capabilities of a high-performance ESM system combined with advanced signal intelligence features. It intercepts, geolocates, and tracks radar emitters generating a recognized situational picture, while allowing operators to explore detailed signal patterns. When deployed as a distributed sensor network, Patria CATCHR provides passive, wide-area surveillance that remains invisible to adversaries—offering superior situational awareness and enabling rapid countermeasures against evolving threats.

## Patria CATCHR



Interferometer Antenna Units



ESM Sensor Server Unit



Operator Workstation

## Use cases

**Networked tactical surveillance:** Enables wide-area situational awareness across national territory or large operational zones through distributed, passive sensor stations.

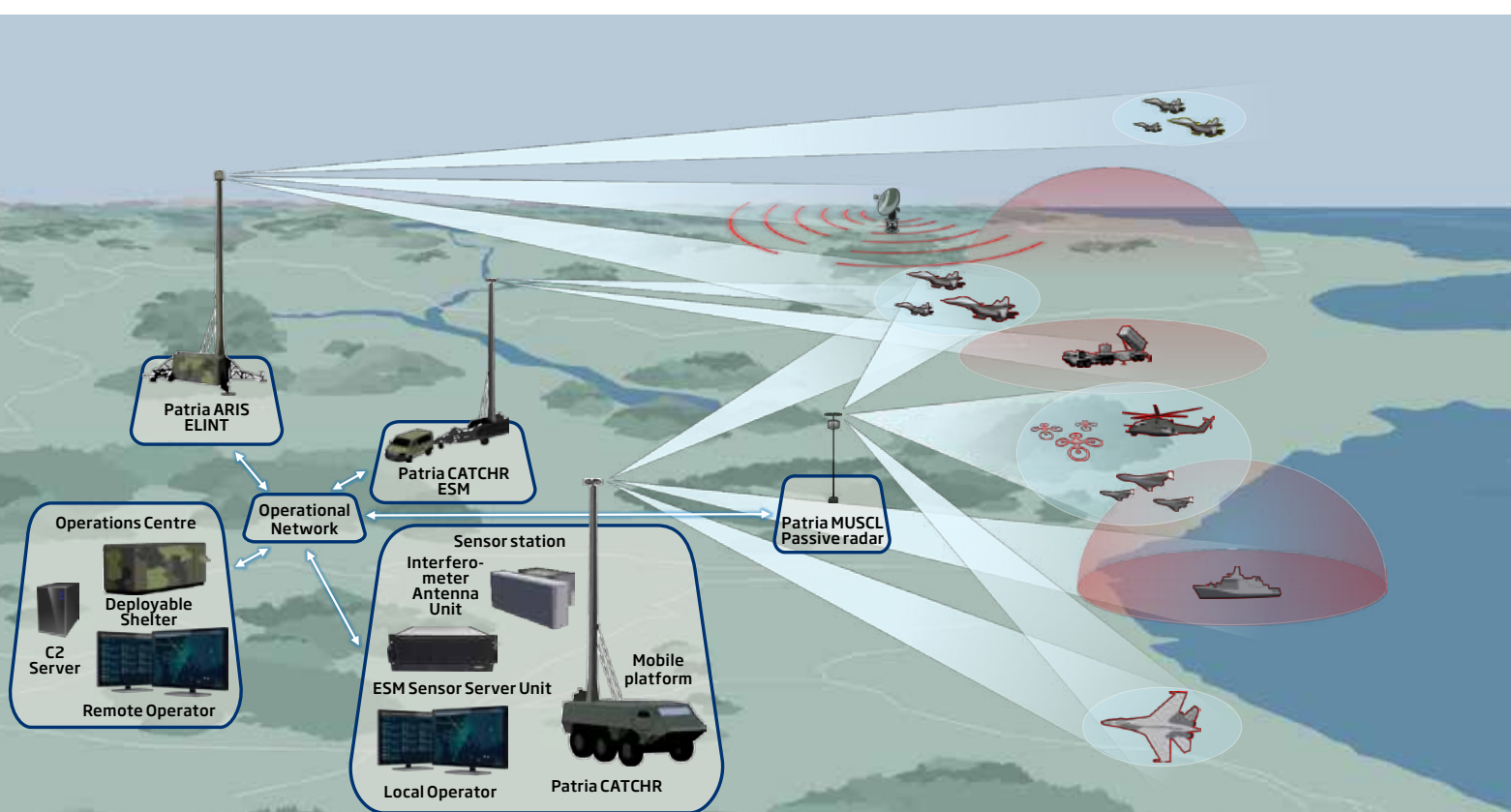
**Strategic ELINT missions:** Supports long-range signal intelligence gathering and validation of ELINT databases for improved threat analysis and mission planning.

**Covert deployment in high-risk areas:** Enables undetectable intelligence collection in contested environments, complementing active sensors without revealing presence.

**Border and coastal monitoring:** Provides continuous surveillance and emitter tracking in critical regions using fixed, transportable, or vehicle-mounted installations.

**Ground-based air defence support:** Enhances early warning and threat classification as part of integrated air defence sensor networks.

**Electronic warfare support:** Strengthens EW operations by enabling precise emitter detection for effective jamming and deception.



## Key operational advantages

**Early threat recognition:** Reliable detection and continuous tracking of emitters from extended distances.

**Top performance in complex signal environments:** Accurate separation and tracking of fast-maneuvering targets in dense signal conditions, including modern low-probability-of-intercept (LPI) waveforms.

**Expanded EOB:** Detection and classification of previously unknown signals in addition to predefined threat libraries improving the Electronic Order of Battle.

**Scalable architecture:** Suitable for detached operations as well as full-network situational awareness. Versatile interfaces for easy integration into higher level C2 and ISR systems.

**ELINT capability:** Mission replay and detailed signal analysis from emitter activity timeline available through advanced operator interface.

**Efficient geolocation:** Accurate emitter positioning with a minimal number of sensors.

## Technical specifications

### Performance

- **Frequency range:** instantaneously 2-18 GHz
- **System sensitivity:** down to -94 dBmi
- **Direction finding accuracy:** better than 0.35°
- **Signal recording and analysis:** real-time spectrum monitoring and post-mission EOB analysis, replay, and detailed pulse analysis (PRI, PD, RF, modulation, scan pattern)

### Main features

- Situational awareness map (EOB)
- Track activity dashboard
- Sensor-level tactical ESM and spectrum monitoring displays
- Multi-level recording and post-mission analysis
- Technical signal analysis tools (ELINT)
- C2, database and mission management tools

### System configuration

- **Sensor:** Interferometer Antenna Unit (1-4 units, 90° ea.), Power Distribution Unit, ESM Sensor Server Unit, 100 GbE Switch
- **Sensor network:** C2 Server, which operates within standalone sensors or in coordinated networked configurations. Client application for operating and monitoring the system.
- **Interfaces:** STANAG 4658 CESMO and STANAG 4676 NITS for integration with C2, ISR, and EW systems
- **Options:** turn-key sensor site solutions, integration to transportable platforms and vehicles, training, life-cycle support services

### Hardware characteristics

- **Interferometer antenna unit:** 800 x 450 x 350 mm, 45 kg, 460 W, mast mount
- **ESM sensor server unit:** 483 x 180 x 420 mm, 18 kg, < 500 W, 19" rack mount 4U



# Patria

When it is not an option.

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