

# **Patria** Research Services

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Reliable customer-oriented and field testing based problem solving research services



**Battlefield and Critical Systems**

Protected Mobility and Defence Systems



Through Life Capability



Battlefield and Critical Systems



## EXTREME SURVIVABILITY

Finland is known for high technology and extreme resilience. The 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 has grown from its Finnish heritage to 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 condition. 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 have been there.

## TOTAL CONTROL

Improve your critical security with our C5ISTAR and cyber intelligence solutions.

Patria's innovative data services, with insightful visualizations and analytics, ensure that you have real-time, comprehensive situational awareness and a powerful mission control. We create a seamless defence system for those who want to have the advantage in every situation.

Stay one step ahead in your decisions with our turnkey solutions and be in total control.

**Patria - Extreme conditions embedded.**





Patria offers customer-oriented and field testing based problem solving research services to help customers benefit the technology progress in their programs and purchases.

Patria's research experts have strong understanding of digital signal processing, machine learning and data analytics. Patria has over 20 years of experience in different modern technology research programmes.

Research programmes related to radar, acoustic, optics, electronic warfare and AI will begin from formalization of the research problem and will end to reports and demonstrations.

Patria's passive sensor product family is the proven statement of our ISTAR technology know-how. Our research group has experience from public research to very high security classification research.

Patria also has premises to support separate security classification levels. As part of Finnish research ecosystem Patria has an active role in national co-operation with other companies and topic related universities.

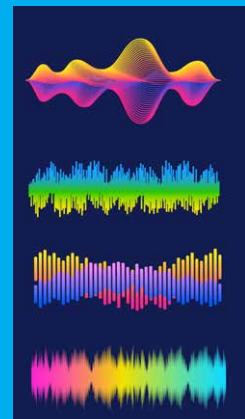
## Electromagnetic Spectrum Dominance

Skills based on Patria products

- New surveillance capabilities
- Passive radar
- Electronic intelligence
- Electronic support measurements
- Electronic warfare and passive operations

Research continuum on

- Air surveillance planning
- System performance modeling and CONOPS
- Radar cross section and kinematics modelling
- Radar signal processing
- Physics modelling
- Sensor fusion



## Security Critical Assets and Infrastructure

Acoustic research in sea domain

- Multi-decade experience from theoretical analysis to product deliveries to all set of questions

Operational analysis

- Self-implemented simulation capabilities from strategic planning to debriefing

Cyber intelligence research

- Modern rapid flow of unstructured information requires modern approaches in data processing

Behavioral sciences

- Human-Machine-Interfaces
- From challenge to outcome



## Autonomy, Artificial Intelligence and Machine Learning in All Domains

Unmanned systems

- Mission management systems
- Mission simulations and CONOPS
- Route planning
- Robust navigation
- Cost-effective threats
- Countering UAS
- Swarming

Intelligent systems

- RF emitter classification and recognition using deep learning
- Acoustic based recognition
- Machine learning based video analysis
- Anomaly and threat detection in cyber intelligence



# Patria

When if is not an option.

[www.patriagroup.com](http://www.patriagroup.com)