

Patria

 **eALLIANCE**
ECOSYSTEM

Global Challenges & Opportunities

Globally

Development of defence technologies is currently **significantly behind** civilian technologies

Lack of joint interoperability between the defence and civil platforms is limiting the development

There is an urgent need for rapidly **reducing greenhouse gas emissions** in the defence sector

eALLIANCE addresses identified **challenges** and combines knowhow across the **civil-defence spectrums**. This has already been **strongly demonstrated during the programme's first two years**.

In Finland

Finnish defence sector is at risk of falling behind in the digital development, resulting to **missed business opportunities** for Finnish industries

Further **cooperation opportunities** for civil and defence technology companies are required

Dependencies on **external supply chains** and **technologies** are undermining the overall concept of comprehensive security in Finland

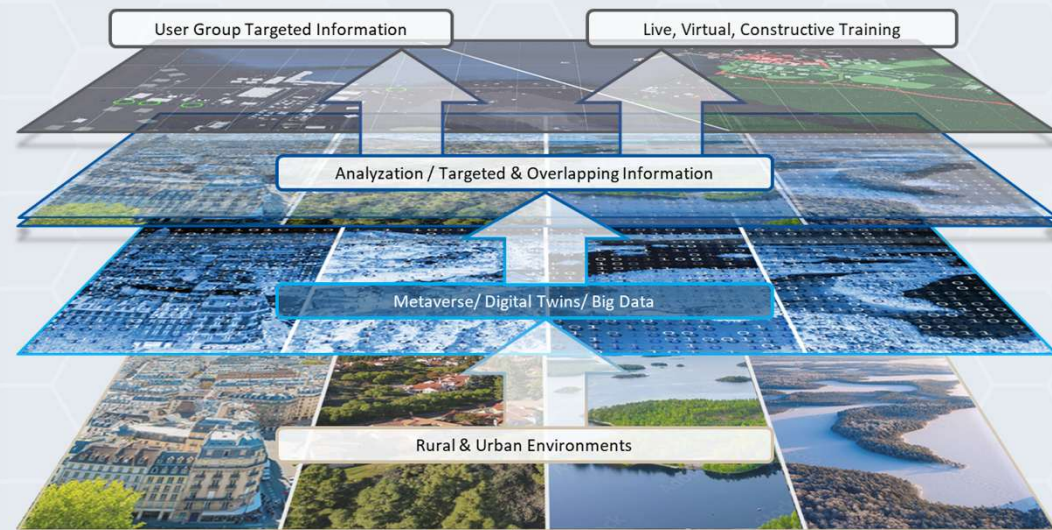
eALLIANCE develops solutions from holistic metaverse to future physical platforms and digital services.

The result of the collaboration between Patria and partners in eALLIANCE:

Integration of different vehicle systems and multiple data sources into a metaverse for advanced data sharing and processing, enabling convergence of systems.

Physical platform study and development work up for iterative platform prototyping:

Developing scalable digital services together with ecosystem partners.



Mission: integrate disruptive digital solutions across civil, security and defence technologies for more secure societies

eALLIANCE will help to **bridge** the technology **gap** between **civil industries** and the **defence sector** in Finland.

The impacts will be explored on several levels, from **data level** all the way to domestic and **international market opportunities**.

CIVILIAN INDUSTRIES



DEFENCE SECTOR

Market opportunities

Civil markets

Security markets

Allied nations

Networking opportunities



Systems solutions

COMMUNICATION SENSORS
 AUTOMATION QUANTUM COMPUTATION
 ENERGY SYSTEMS CLOUD SERVICES

SYSTEM INTEGRATION SOLDIER SYSTEMS
 EDGE ARMoured VEHICLES

Data level solutions

SPACE OPEN DATA SOURCES
 WEATHER ARTIFICIAL INTELLIGENCE
 LOCATION DATA

DUAL-USE Technologies

LOCAL SITUATIONAL AWARENESS
 SITUATIONAL AWARENESS

INDUSTRY/RESEACH/MILITARY



eALLIANCE Key Objectives

- Bring forth a digital systems-of-systems concept that enables tailored solutions, integrating emerging and disruptive technologies with existing solutions, create new future physical platforms and digital services business models.
- Introduce ways to increase the sustainability of military platforms by introducing new digital solutions, simulation environment and vehicle performance & usage optimization methods. Furthermore to prototype and create new physical platforms and new digital service business models.
- Provide a unique ecosystem for creating digital platforms enabling agile digital integration of multiple mobility solutions on both civil industries and the defence sector - a first of its kind in Finland and internationally.
- Promote Finnish state-of-the-art knowhow and result-oriented approach for international defence exports.
- Introduce innovative SMEs to the defence sector and defence projects, which are traditionally difficult to enter from the outside.



eALLIANCE 2.0 Roadmap

Technology and use cases

WP1

Holistic metaverse platform definitions
(Use cases, architectures, applications, interfaces & standards)

Technology enablers

WP2

Data collection
(Sensors, unmanned land & aerial vehicles architectures, connectivity, data storage)

WP3

Advanced data analytics
(Edge computing, AI, HMI, Data management & protection, simulations)

WP4

Physical platforms (Secure core HW, Next Gen Vehicle, Drones)

Study of future mobility requirements and operation concepts

Key technology area assessment, prioritization and iterative prototyping

Technology demonstrations and physical prototype development

WP5

Digital Service business offering

Market study on defence and civilian mobility and operational needs

Studies of digital services for vehicle platforms and user communities

Testing and proof of concept of business models and services

NEW

Platforms

WP6

Developing defined metaverse platforms & concepts

WP7

Demonstrating defined metaverse enabled capabilities

WP8

Ecosystem leadership

2024

2025

2026

2027

2028

2029

2030

eALLIANCE Ecosystem

Patria



