EUROPEAN DEFENCE AGENCY

Factsheet

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PESCO Critical Seabed Infrastructure Protection (CSIP)

Protecting Europe's underwater lifelines

The PESCO Critical Seabed Infrastructure Protection (CSIP) project is a multinational EU defence initiative dedicated to strengthening the protection of critical maritime and seabed infrastructure against natural disasters, intentional attacks and deliberate sabotage. It addresses a growing strategic vulnerability in the underwater domain, where Europe's economic prosperity, security and resilience are increasingly at stake.

Since August 2025, CSIP is conducted as an EDA Ad-Hoc Category B project. Participating Member States: Belgium, France, Germany, Ireland, Italy, Portugal, Spain, Sweden. Observers: Bulgaria, Denmark, Finland, Estonia. In process to join: The Netherlands

Why it matters

- Critical seabed infrastructure is essential to Europe's economic security, energy supply and digital connectivity
- The underwater domain faces growing hybrid, sabotage, and grey-zone threats.
- The underwater environments make detection, attribution and response challenging.
- No single Member State can effectively protect seabed infrastructure alone due to scale, cost and complexity.

Aim and ambition

Increasing the EU's operational efficiency in protecting critical maritime and seabed infrastructure by improving detection, understanding, decision-making and response in the underwater domain.

CSIP directly builds upon EDA's prioritised pillars of action supporting the operationalisation of the Priority Capability Area "Maritime", with a strong focus on Underwater Situational Awareness (UWSA) as a key enabling capability.

A coherent European UWSA capability

CSIP develops and integrates UWSA by leveraging existing technologies (including dual-use) while developing future systems and integrating them into a secure-by-design, interoperable European network of systems. It connects national and EU-level command and control structures.

UWSA is enabled by a mix of permanent and deployable equipment, including unmanned systems, fixed seabed sensors, and naval ships. These assets are connected through a secure underwater network that links to national and EU command-and-control centres.

UWSA data are validated and evaluated via Member States' Maritime Operations Centres (MOCs) and disseminated and

shared with relevant stakeholders through EU Maritime Surveillance Exchange Networks (e.g. MARSUR III).

Core operational functions

At full maturity, CSIP supports four core operational functions at national and EU levels:

1. Surveillance and early warning in the underwater domain.
2. Validation, evaluation and dissemination of UWSA data.
3. Coordinated response, where mandated.
4. Reviewing of effectiveness, improving planning, lessons learned and future capability development.

Strategic Impact

- Enhance Europe's protection of critical seabed infrastructure
- Support the EU's ambition for a comprehensive, multi-domain defence capability
- Improve collective readiness and resilience in a contested security environment
- Bridging the gap between technology and operations, connecting R&D, procurement and operational users into a coherent and credible capability pathway

A secure, shared underwater operational map helps Member States detect, assess and respond to threats to Europe's critical seabed infrastructure faster

Phased, incremental approach

Phase 1 – Initial UWSA (by 2030): Utilises existing technologies (including dual-use) to deliver an initial UWSW / Initial Operational Capability (IOC). Supports joint evaluation and procurement preparation and aligns with EU Defence Readiness 2030, leveraging EU financial support instruments such as EDIP.

Phase 2 – Advanced UWSA (around 2035): Integrates new R&D-driven technologies to enhance performance and coverage, connects with national C2 systems, and delivers results from EDA and EDF-supported R&T projects.

Phase 3 – Integrated UWSA (long term): Achieves full integration of UWSA with effectors, providing an end-to-end capability from detection to response and a mature, interoperable EU-level system at Full Operational Capability (FOC).

Benefits for participating Member States

- Early access to emerging underwater technologies
- Shape standards, interoperability and future architectures
- Share costs, risks and lessons learned
- Strengthen national and collective capabilities
- Position industry and R&D actors for future procurement opportunities