

CASSATA Project successfully completed its first year in advancing Covert Multi-Modal Sensing Technologies!

2nd Press Release: March 2025



CASSATA project, funded by the European Defence Fund (EDF), celebrates the successful completion of its first year, marking significant advancements in covert multi-modal sensing technologies for enhanced Intelligence, Target Acquisition, and Reconnaissance.

About CASSATA

This project brings together 27 organizations from 9 EU Member States (Greece, France, Germany, Italy, Netherlands, Spain, Austria, Sweden, and Bulgaria) in a 36-month initiative that started on December 1, 2023, dedicated to advancing the forefront of defence innovation.

CASSATA's primary mission is to develop advanced covert sensing technologies and platforms that enhance intelligence, surveillance, target acquisition, and reconnaissance (ISTAR) capabilities. Over the past year, the project has laid a robust foundation for achieving its goals by focusing on integration, innovation, and collaboration.

Highlights from CASSATA's first year

- **Study of the operational background of ISTAR missions, emphasizing covert sensing applications and use cases.**

One of the key accomplishments in the first year of CASSATA involved a comprehensive study of the operational background of ISTAR missions, emphasizing covert sensing applications and use cases. This study encompassed a State of Play analysis, describing the context of ISTAR missions; a Case Study analysis that showcases relevant applications and lessons-learned from past missions; and an assessment of end-user engagement approach and analysis of feedback. This multifaceted approach concluded in the definition of a set of Scenarios, Use Cases and high-level requirements that will shape the project's future activities.

- **Feasibility study of an overarching architecture able to orchestrate CASSATA's diverse technologies.**

Another crucial achievement was the completion of a feasibility study of an overarching architecture able to orchestrate CASSATA's diverse technologies. To design this architecture, it was crucial to collect the specifications of the technologies from each Technical Area. In the meantime, the development of performance indicators to evaluate the technologies' effectiveness was also completed and the initial evaluation procedures were established, providing a structured approach to achieving the project's objectives.

- **Strategies for covert optronic sensing report, outlining the strategy on covert sensing in the framework of CASSATA.**

The Strategies for covert optronic sensing report summarizes the strategy on covert sensing identifying key technologies; explaining the advantages of the use of these technologies in covert sensing; and proposing the strategy to improve State-of-the-Art optronics sensors for defence applications. Furthermore, it highlights advancements in covert sensing, including light detection and ranging with 3D imaging, laser range, and up-conversion active imaging. It also introduces innovations like metalenses, covert UAVs with enhanced navigation, and sensor networks for environmental monitoring.

- **State-of-the-Art Report on acoustic/seismic sensors.**

The State-of-the-Art report provided an overview of the existing and emerging transducers and sensor technologies used for the detection of aerial, underwater and ground threats (microphones, hydrophones, geophones, fiber-optical, etc.) and signal processing techniques. In this context, the report included a summary of the relevance of acoustic/seismic sensors in the context of the use-cases dedicated to the CASSATA study. For each use-case presented, an innovative sensor and a sensor that is currently in use were mentioned, thus allowing to make a fair comparison between the new sensor and the sensors currently in use.

- **Investigation and assessment of realistic scenarios for design and testing.**

Finally, CASSATA achieved one more key milestone this first year, by identifying and investigating realistic scenarios, in collaboration with end-users. CASSATA established a set of use cases that include target specifications, environmental conditions, spatial set-up, etc., to guide the design and testing of the proposed solutions. These scenarios are crafted to rigorously assess sensor performance, ensuring the technologies adhere to the standards required for defence applications.

Looking Ahead

As CASSATA enters its second year, the focus will shift to refining these technologies designs, testing, simulation and concept validation. The project aims to deliver advanced, interoperable, and sustainable technologies that bolster the EU's defence capabilities.

Stay Updated:

Website: www.cassata-project.eu

- **E-mail:** info@cassata-project.eu
- **LinkedIn:** [CASSATA project](#)
- **Twitter:** [@CassataProject](#)

Partners



Contact Information

Website	www.cassata-project.eu
E-mail	info@cassata-project.eu
LinkedIn	CASSATA project (CASSATA project LinkedIn)
X (Twitter)	@CassataProject CASSATA project (@CassataProject) / X (twitter.com)



**Funded by
the European Union**

Funded by the European Union (EDF-2022-RA-CASSATA; Project Number: 101121447). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Commission. Neither the European Union nor the granting authority can be held responsible for them.