

Athens, 8 January 2020



RAAdars for loNG distance maritime surveillancE and Search and Rescue opeRations

RANGER project completes its lifecycle

The RANGER project, funded by the European Union's H2020 research and innovation programme, successfully completed its lifecycle on the 31st of December 2019 after 44 months of research work.

It created an innovative surveillance platform by combining ground-breaking radar technologies with state of the art early warning solutions in order to **detect, track, recognize** and **identify** vessels far beyond existing legacy systems. The response times and interventions capacity of European Search and Rescue (SaR) services and personnel will drastically benefit from this platform thus positively impacting the safety in the Mediterranean basin (Greek archipelago, open sea of Italy and France).

The RANGER system as a whole has been fully implemented, integrated, tested and validated in 4 pilot demonstrations in two areas in the Mediterranean Sea (in France and Greece), in real operational environments. The results such as the detection capabilities of the Over-the-Horizon radar and the phonically enhanced MIMO radar, the multi-sensor multi-target tracking of the Data Fusion module, the unusual patterns identification, statistical behavioral analysis and early warnings provision of the Early Warning System and Machine Learning module, as well as the performance of the RANGER system as a whole are very promising.



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Some of the most challenging aspects in maritime surveillance have been addressed by the project; continuous long range detection and tracking, short range detection and tracking of small vessels, prediction of vessel route, improved situational awareness and early warnings provision through novel data fusion and machine learning techniques, interoperability and seamless integration with legacy systems via a dedicated Uniform Communication Gateway, integration with Copernicus weather data, compatibility and integration with CISE (Common Information Sharing Environment), advanced visualization of the maritime picture for improved operations and decision making. RANGER was the first EU funded project that exchanged operation picture through CISE network with the Greek CISE node. All these results create new opportunities for enhanced EU maritime situational awareness, safety systems and operations, and cross-border collaboration.

Also, during the implementation of the RANGER project the consortium established liaisons with other similar EU funded projects in order to further communicate the solution that the RANGER system offers, evaluate its capabilities and provide recommendations and ideas for future exploitation.

The consortium is consisted of 10 partners from 7 member states of the European Union that namely are UK, France, Greece, Germany, Finland, Italy and Belgium.



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Project's Information

Start Date: 1st May 2016

Duration: 44 months

Budget: 7,992,312.5

Funding Programme: Horizon 2020


Website: www.ranger-project.eu

Coordinator: EXUS Software LTD, EXUS, UK

Partners

- **Diginext Sarl**, DXT, France
- **Institute Of Communication and Computer Systems (ICCS)**, Greece
- **Technische Universität Dresden (TUD)**, Germany
- **LAUREA- Ammattikorkeakoulu (LAU)**, Finland
- **LEONARDO S.p.A (LEONARDO)**, Italy
- **Telesto Technologies Pliroforikis kai Epikoinonion EPE (TEL)**, Greece
- **NATO Science and Technology Organisation (NATO)**, Belgium
- **Ministry of National Defence (HMOD)**, Greece
- **Ministère de l'écologie du développement durable et de l'énergie (DMA)**, France

Social Media

 [@H2020Ranger](https://twitter.com/H2020Ranger)

 [H2020Ranger group](https://www.linkedin.com/company/H2020Ranger-group)

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