

Artificial Intelligence Based Virtual Control Room for the **ARCTIC**



Funded by the European Union

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About Al-ARC

The complex and multi-stakeholder nature of today's maritime domain, combined with contemporary technology developments such as global connectivity, particularly in relation to data sharing and storage, has the potential to facilitate significant data collection within a realm which has been relatively untapped until now. When applied to remote areas such as the Arctic and High North, this potential is instantly amplified as a result of the limited exposure these regions have had to modern technologies.

While these vast data quantities present considerable opportunities, they pose a number of challenges, particularly for maritime user communities as they can often hinder the detection of anomalies and threats in regular traffic patterns and overload the operational picture, resulting in delayed or impaired decision-making. The consequences are potentially dramatic in terms of accidents, pollution, border infringements and criminal activities. This is further aggravated in areas as remote and ecologically sensitive as the Arctic and the High North, due to a lack of critical infrastructure and limited connectivity.

The aim of AI-ARC is to create an innovative Artificial Intelligence (AI) based platform, known as the Virtual Control Room (VCR), that provides maritime actors with powerful situational awareness for decision-making and safety, without increasing workload.

Over the course of 30 months, AI-ARC will apply AI, machine learning and virtual reality to its VCR solution to flag detected anomalies and provide threat or risk assessments according to users' predefined needs.

Through novel technologies and innovations, AI-ARC will improve maritime situational awareness, decision-making, communication, available rescue resources, and thus the safety and security of all EU maritime actors, particularly in the Arctic Sea.

The AI-ARC solution will be most particularly valuable for Coast and Border Guard Authorities, private communities and private enterprises, such as the fishing and cruise industries and commercial shipping.

Objectives and value of AI-ARC

By enhancing capabilities of these end-users, AI-ARC partakes in the efforts of the European Union to improve the management of EU borders, build secure societies and protect the freedom and security of Europe and its citizens.

Al-ARC also fully embraces the European Union's ambition for a stronger engagement towards a peaceful, sustainable and prosperous Arctic throughout.

AI-ARC Consortium

Kicked-off in September 2021, AI-ARC gathers 22 partners from 12 different countries:





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101021271.