

Monitoring the EUROPEAN ARCTIC

With VHR Satellite Intelligence



Why the Arctic needs to be monitored

The Arctic is warming nearly **4x** faster than average, the ice in the High North is melting and the sea is becoming increasingly navigable. In 2025 alone, **1812** vessels entered the Arctic Polar Code area, which is a **40%** increase since 2013 when data collection began.

The increased navigability opens the door for unregulated and high-risk activity:

- Shadow fleet
- Illegal fishing
- Smuggling and trafficking
- Increased military presence
- Outdated vessels without ice classification



An oil spill in ice-covered waters can be catastrophic and much more challenging to contain and clean up, compared to ice-free areas, due to the lack of appropriate technologies.

– The Belfer Center for Science and International Affairs



Challenges

Harsh weather

Harsh weather brings difficulties to any staffed activities – **strong winds, high waves and low temperatures** are risky for personnel, especially with search and rescue capabilities being limited in the region. Additionally, UAVs are inefficient for surveillance in the North because the cold temperature reduces their battery life and causes malfunctions.

Large area

The Arctic region is **vast**. For example, Norway alone manages one of the largest maritime zones in Europe, with an EEZ of over 2 million km², much of it in Arctic waters.

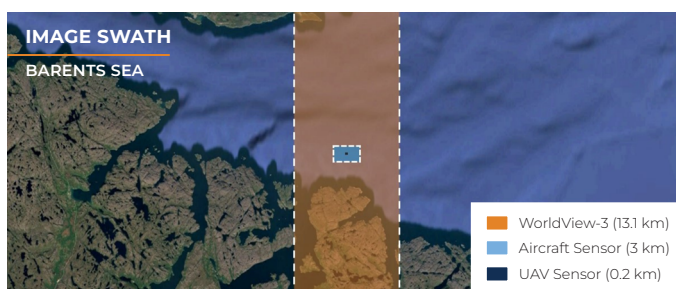
Cost-efficiency

Monitoring such a large area with patrol vessels or aircraft is **expensive**, time-consuming, and in some cases even downright impossible.



Are satellites the solution?

Satellite imagery can significantly increase maritime situational awareness in the High North. Contrary to aircraft, which have been reporting GPS jamming over certain locations in Northern Europe, satellites are **completely unaffected by borders, terrain, or other geopolitical restrictions**. They can collect hundreds of square kilometres in one homogeneous image, no matter how remote the area, and they put no personnel at risk.



How satellites deliver results

Detect and identify vessels

The **30–50 cm resolution** of EUSI-operated satellites allows users to detect ships, including non-AIS vessels, and analyse their deck features.

Monitor vessel behaviour over time

Collect the same area repeatedly to acquire an **objective, persistent record of activity**. Monitor strategic areas, analyse seasonal change, and verify the presence of escort vessels.

Near-Real Time (NRT) insights

EUSI can deliver optical imagery as fast as **15 minutes after collection** – this is possible on a contractual basis, even for several orders in parallel.

SAR helps with clouds

Combine optical images with SAR to penetrate clouds – a product called **DoubleShot**.

Task satellite collections in ATOM

- Web & API platform for satellite tasking and archive
- Customisable parameters and live feasibilities
- Last-minute tasking options
- Built for complex organisational structures, with users with different hierarchies and permissions