

DMI's ASIP — AI-Generated Sea-Ice Charts Quadruple Coverage of Greenland's Coastal Waters

AI in the Public Sector · Good practice · Greenland

Quality score: 93/100

Evidence strength: Observational / pre–post

Summary

DMI's ASIP uses a convolutional neural network fusing Sentinel-1 radar and AMSR2 microwave data to generate Greenland coastal sea-ice charts, more than quadrupling output and improving accuracy, now distributed via Copernicus Marine Service.

Key dimensions

Dimension	Score
Evidence of impact / measured public value	3/3
Transparency, fairness & accountability	3/3
Transferability / demonstrated replication	3/3
Scalability beyond pilot	2/3
Governance, capability & sustainability	3/3

Evaluated by C-NAPSE

Data sources

[C-NAPSE web research](#) — accessed 2026-09-15

[Danish Meteorological Institute \(DMI\), with Technical University of Denmark and Harnvig Arctic & Maritime](#) — accessed 2026-09-15

[Frontiers in Marine Science — Greenlandic sea ice products with a focus on an updated operational forecast system \(2023\)](#) — accessed 2026-09-15

[ESA — Using artificial intelligence to automate sea-ice charting](#) — accessed 2026-09-15

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