



CATALIS

Cross-program Adoption and Transfer of Arctic Low-carbon Ice-resilient Solutions

Ports, wind farms, coastal roads, offshore foundations, infrastructure investment across the Northern Periphery and Arctic is accelerating. The good news is that proven solutions are already here: low-carbon concrete mixes, icephobic coatings, and Arctic-tested methods developed through years of transnational research. CATALIS makes sure they reach the people building and maintaining the region.



CATALIS clustering project brings together the best results from two Interreg projects and turns them into practical knowledge that engineers, planners, and decision-makers can use today, in their own region.

**“The Arctic is being built.
The knowledge to build it
responsibly already exists.”**

7

partners

5

countries

8

deliverables

12

months

The two projects we build on



Ar2CorD

Low Carbon Concrete for Arctic Climate

Developed low-carbon concrete mixes replacing 30%+ of Portland cement, proposed a modified accelerated freeze-thaw durability setup for low clinker concrete, and established a long-term outdoor exposure station at Narvik harbour.



OFFwind

Offshore Wind Turbine Farms in the Arctic

Developed icephobic coatings for offshore concrete foundations, advanced ice-structure interaction modelling, and explored low-carbon materials for Arctic offshore foundations, including durability based LCA framework.

**Three focused actions.
One lasting impact.**



CATALIS takes what two Interreg projects built, makes it comparable and usable, demonstrates it in the field, and establishes the network that carries results forward. Region by region, partner by partner, challenge by challenge.

What this delivers for you

Infrastructure owners and engineers

Concrete guidance for Arctic conditions. What mixes and coatings perform, how to test them, and how to adapt results to your specific context, without starting from scratch.

Public authorities

Evidence-based investment. A joint roadmap and stakeholder-informed synthesis give you a credible foundation for procurement decisions and long-term infrastructure planning.

Offshore wind developers

Arctic wind is ready to scale. Proven coatings, validated foundation materials, and ice-load models from across the NPA region, available through one network.

Research organisations

A platform for what comes next. The network and roadmap open new pathways for joint proposals, field trials, and long-term Arctic infrastructure collaboration.

Environmental NGOs

Low-carbon Arctic infrastructure needs credible, field-tested proof, not marketing claims. Join the network to help ensure that sustainability commitments in Arctic construction are backed by verified data.

How we create impact

1

Lessons Learned & Next Steps



We compare Ar2CorD and OFFwind results across different themes and produce a cross-project synthesis report and a short practitioner brief. Organised by what practitioners need to decide, not by which project produced what.

2

Micro-Pilot & Feasibility Study



Ar2CorD concrete mixes with OFFwind coatings are placed at the Narvik field station under real Arctic outdoor conditions. Simple, visual, replicable. Parallel feasibility scan identifies the most promising future pilot locations, to convince the industry it works

3

Transfer & Continuation



Transnational network, stakeholder interviews, joint roadmap, and a final public hybrid event in the Faroe Islands. Every activity is designed so that what we build together continues to grow and deliver value well beyond the project period.



Northern Periphery and Arctic



Transnational cooperation is most powerful when it outlasts the project that started it. The Transnational Arctic Durability Network is designed from the start to be a lasting platform, connecting practitioners, authorities, and researchers across the NPA region to develop tailored, region-adapted solutions together. Because the most effective answers to Arctic infrastructure challenges are built collaboratively.

Beyond the project: a network built to grow.

Why transnational cooperation makes the difference

Results from Norway, Sweden, Finland, Iceland, and the Faroe Islands make findings credible and transferable across the whole NPA region.

Cross-border dialogue helps harmonise procurement standards and regulatory approaches, making it easier to adopt proven solutions in practice.

Every partner brings the network's outputs into their own regional context, multiplying reach far beyond what any single institution could achieve.

The roadmap and network position partners strongly for the next generation of Interreg, Horizon, and national Arctic infrastructure programmes.

Tailored solutions, not templates



The network enables region-specific adaptation so that what works in Narvik can be thoughtfully applied in Iceland, the Faroe Islands, or Luleå.

Stronger together



Coordinated transnational effort is more efficient and more credible than fragmented national projects. The network pools expertise, evidence, and access across five countries.

"Knowledge shared across borders builds stronger than concrete."

Interested in joining the network, contributing your regional expertise, or learning how CATALIS results can support your work?



Join via
QR code

Project partners:



SINTEF
NARVIK

