

ARCTIC TEST ARENA

Strengthening Nordic Cooperation and Resilient Railways

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Why Railways Matter for the Nordic Region

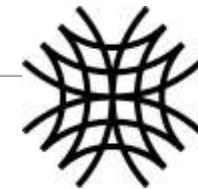
- Increasing **climate and infrastructure risks**
- **Industrial transformation** and growing freight demand
- Strategic importance for **military mobility and security**



A Cross-Border Arctic Test Corridor

Ofoten Line + Malmbanan

- Testing in real railway operations
- Joint Norwegian–Swedish collaboration model
- Structured process for testing new technologies
- Open to industry, railway stakeholders and research



Jernbane-
direktoratet



Supporting research and innovation within Europe's Rail



Why test Here?

Operational conditions

- 31–32.5 tonne axle load
- Heavy-haul freight traffic
- High infrastructure stress

Natural conditions

- Extreme cold
- Snow and ice
- Avalanche risk

If it **works** here, it **works** anywhere



What Does a Test Arena Mean?

- Testing in **real** railway operations
- Technology maturity and risk assessment
- Connecting industry, operators and research
- Faster implementation of new technologies

Our Ambition

Europe's leading Arctic test corridor

- Reduce risk before large-scale deployment
- Strengthen Nordic cooperation in railway innovation
- More resilient railways





Examples of Ongoing Testing

Infrastructure monitoring

- Bridge monitoring
- Fiber-optic sensors
- Landslides and ground movements
- Track geometry, forces and wear

Rolling stock and operations

- Digital condition monitoring
- Wheel monitoring

Why is this relevant?

- Lower maintenance costs
- Better punctuality and reliability
- Improved safety
- More resilient infrastructure



Clear Market Interest

- Launch event:
200 participants
60 organisations
10 countries
- First 3 months - **10 test requests**
- Main topics: AI, digital monitoring
and infrastructure resilience



Relevance for Platform North

- **Cross-border Nordic cooperation**
- Shared learning across infrastructure, operators and research
- Testing and development of new railway technologies
- A part of Europe's Rail programme
- More resilient rail systems





Arctic **Test** Arena

- Ofoten Line + Malmbanan
- Operations and innovation
- Norway and Sweden

Nordic cooperation with European impact

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it **works** anywhere