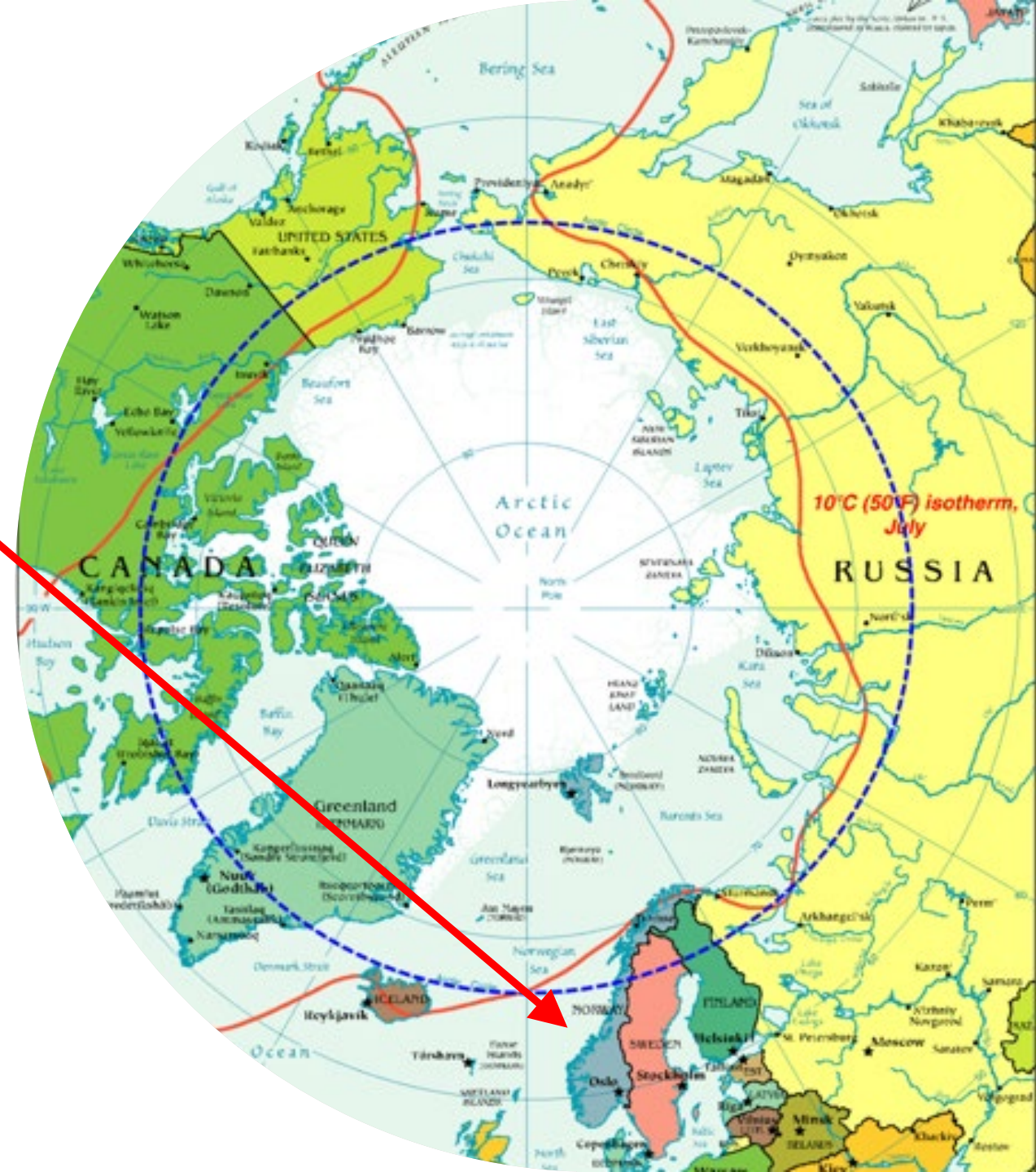


Sustainable Transport in the Frozen North

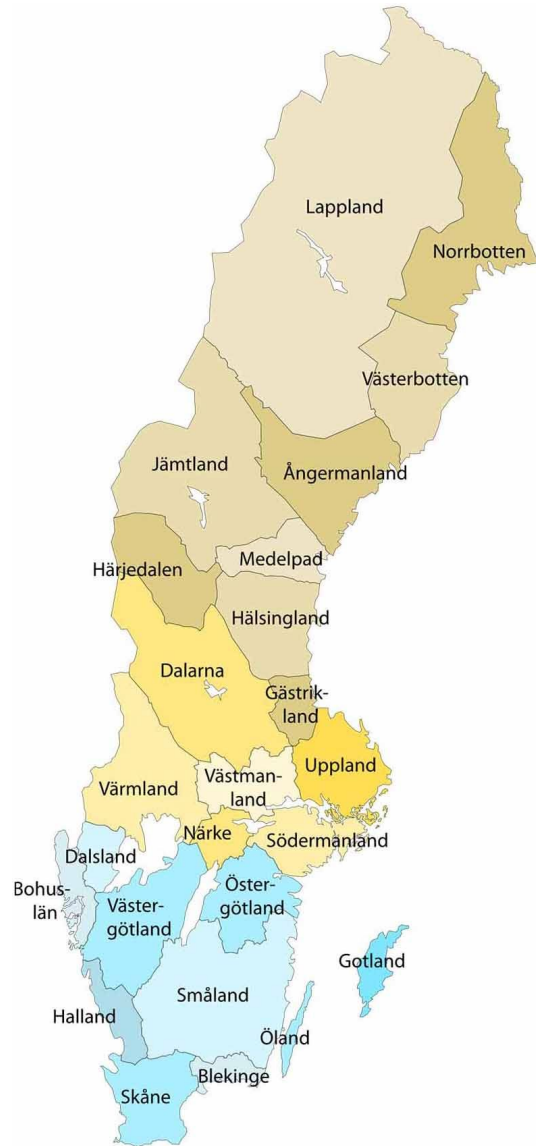
Sofia Leffler Moberg
PostEurop GMF, 26 March 2021

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- Sustainable Transformation
- Sustainable Transport Challenges

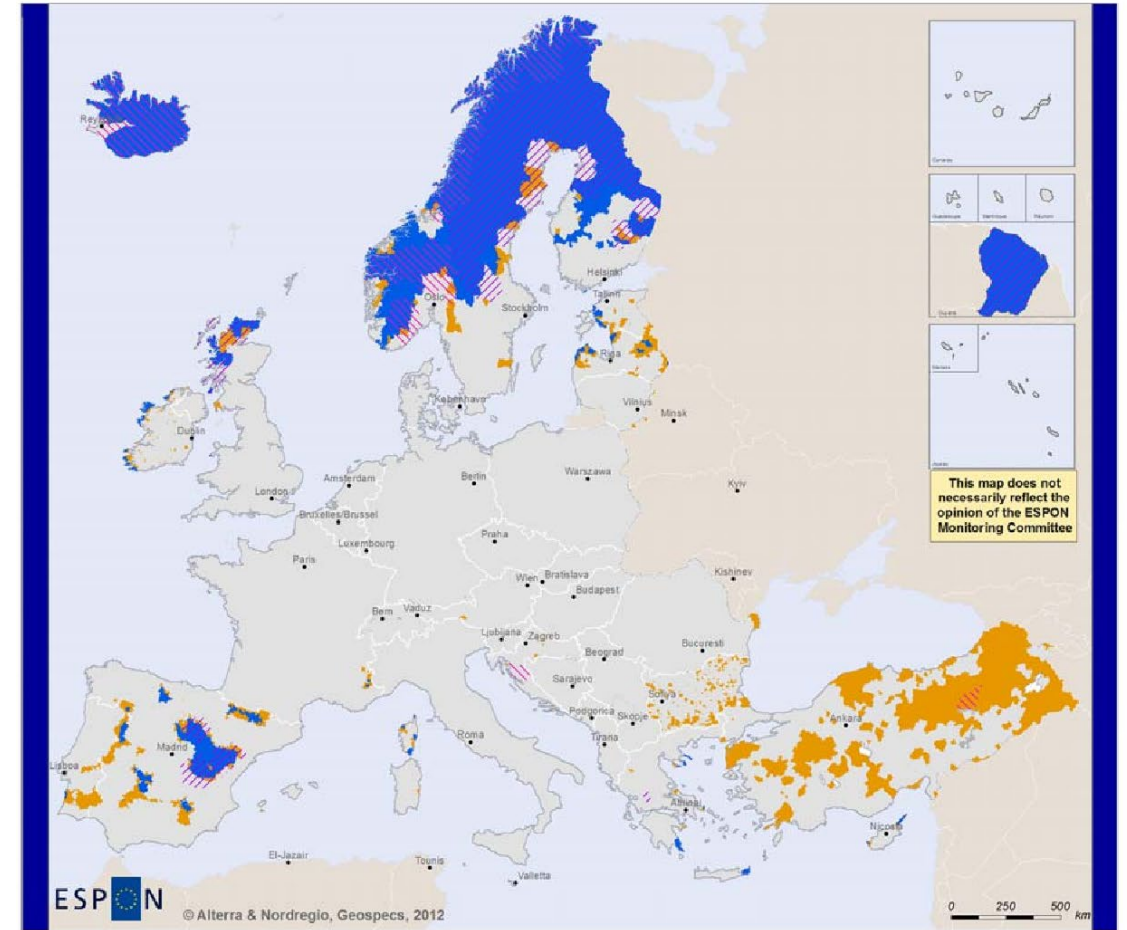


Facts about the Frozen North



-53.9 °F / -47.7 °C	Storsjö kapell	Härjedalen
-50.4 °F / -45.8 °C	Bölestrand	Jämtland
-62.7 °F / -52.6 °C	Vuoggatjälme	Lappland
-43.6 °F / -42 °C	Fränsta	Medelpad
-52.8 °F / -47.1 °C	Björkfors	Norrbotten
-50.1 °F / -45.6 °C	Myrheden	Västerbotten
-50.4 °F / -45.8 °C	Junsele	Ångermanland
-50.8 °F / -46 °C	Grundforsen	Dalarna
-32.1 °F / -35.6 °C	Sandviken	Gästrikland
-46.5 °F / -43.6 °C	Ytterhogdal	Hälsingland
-37.3 °F / -38.5 °C	Askersund	Närke
-34.6 °F / -37 °C	Bie	Södermanland
-39.1 °F / -39.5 °C	Uppsala	Uppland
-43.6 °F / -42 °C	Adolfors	Värmland
-33.7 °F / -36.5 °C	Västerås	Västmanland
-25.6 °F / -32 °C	Marielund	Blekinge
-36.2 °F / -37.9 °C	Svarteborg	Bohuslän
-36.9 °F / -38.3 °C	Bredviken	Dalsland
-27 °F / -32.8 °C	Buttle	Gotland
-29.2 °F / -34 °C	Kinnared	Halland
-29.2 °F / -34 °C	Sjöholmen	Skåne
-37.3 °F / -38.5 °C	Lommaryd	Småland
-34.6 °F / -37 °C	Lanna	Västergötland
-20.6 °F / -29.2 °C	Ekerum	Öland
-36.2 °F / -37.9 °C	Kungsängens flygplats	Östergötland

Figure 1: Sparsely populated LAU2s after GEOSPECS and NUTS3s after the Green Paper on Territorial cohesion



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INVESTING IN YOUR FUTURE

Sparsely Populated Regions

- Sparsely Populated (according to the 50km and 45 min delineations)
- Poorly Connected (according to the 45 min delineation only)

Sparsely populated NUTS3 regions after 12.5 inh./km² delineation

- ▨ Sparsely populated NUTS3 regions after Green Paper
- ▨ Regions with < 12.5 inh./km² outside the EU

Polar night in the city of Kiruna, Sweden

- Polar Night: is a time period when the sun does not rise above the horizon in an Arctic Circle area around the world. The more north you go, the earlier the polar night starts and the later it ends.
- In Kiruna, Polar Night started 10 December 2020 and ended 1 January 2021.
- In short: in the Nordics we're lonely and we're freezing, in the dark!



The PostNord Sustainability Agenda

Most relevant SDG's*



Group aspirations 2025

Promote fair transport
Fair conditions for all
No fatalities or serious injuries

Unleash the power of diversity
Gender equality
An inclusive workplace

Manifest climate leadership
Leading logistics and mail distribution
into the decarbonized economy.
Fossil Free 2030

Aspirational target 2030

Stakeholder involvement & communication

Manifest Climate Leadership: Fossil free 2030



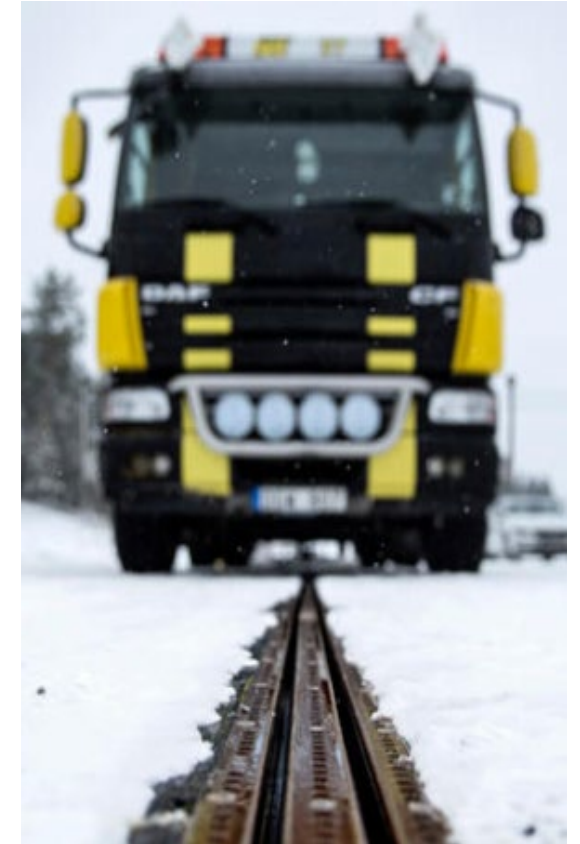
**Efficiency &
Optimization**



Electrification



Renewable Fuels



Innovation & Development

Efficiency & Optimization

Code 380: Inaccessible Area



Efficiency & Optimization

Ice and snow build up



Electrification

Winter Range Anxiety

- Low population density in northern parts of the Nordics result in long daily distances - most EVs have too low range to begin with,
- Add to that a low level of charging infrastructure, and
- Cabin heaters and frigid outdoor temperatures that sap power from batteries.

- Conclusion: for the time being, EVs are mainly for more densely populated areas in the southern part of our region.



Renewable Fuels

Cloud Filter Plugging Points



- The Nordics in general and Sweden and Finland in particular have a long tradition of producing and using biofuels for transportation,
- All fuels have temperature limits (high/low) that vary over season and geography,
- Diesel fuels are generally more sensitive to low temperatures; both fuel and vehicle have to be adapted to where and when they should be used.

	Lowest temp °C
Diesel SE	-34
Diesel EU	-15
HVO100	-30
RME/FAME	-20
ED95 (Ethanol)	No lower limit specified
CNG	No lower limit
LNG/LBG	No lower limit
Electricity (battery)	Decreased distance

Bensin
Diesel
Biodiesel 100

Status	Period	CFPP	Grumlingstemp	Period
●	Vinter period 2	-32	-30	15 december - 1 mars
● ✓	Vinter	-32	-22	16 september - 30 april
●	Sommar	-10	0	1 maj - 15 september
●	Vinter period 2	-32	-22	1 december - 15 mars
● ✓	Vinter	-26	-16	16 september - 30 april
●	Sommar	-10	0	1 maj - 15 september
● ✓	Vinter	-26	-16	16 oktober - 31 mars
●	Sommar	-10	0	1 april - 15 oktober

Begrepp

CFPP (Cloud Filter Plugging Point) - Den temperatur där bränslefilter sätts igen.

Ångtryck - Ett mått på hur mycket avdunstning som sker från bensinen. Ett högre värde innebär mer avdunstning och därmed bättre startegenskaper vid kyla.

Vinterperiod 2 - I norra Sverige finns en period med högre krav. Vi kallar detta Vinterperiod 2 i tabellen.

Biodiesel 100 - Ett drivmedel som är avsett för snabbgående dieselmotorer som är anpassade för 100 procent FAME

A zero vision for work related fatalities or serious injuries

- Roads in sparsely populated areas,
- Rough weather conditions with snow and ice,
- Short days with no natural sunlight.

A zero vision for work related fatalities or serious injuries

The bull moose encounter

- Roads in sparsely populated areas,
- Rough weather conditions with snow and ice,
- Short days with no natural sunlight.

"Postman on mail round attacked by bull moose"



Brevbäraren Ulf Jakobsson attackerades av en älgdjur på sin postrunda. Bilden på älgen är en arkivbild och inte den som attackerade Ulf. Foto: Arkiv SVT/Privat

Brevbärare attackerad av älgdjur på postrundan

UPPDATERAD 13 MARS 2021 PUBLICERAD 13 MARS 2021

Brevbäraren Ulf Jakobssons arbetsdag i torsdags blev annorlunda. Ute

Reflections? Comments? Questions?

Thank you!

Sofia Leffler Moberg
sofia.leffler.moberg@postnord.com