Periphere, dünn besiedelte nördliche Regionen: Probleme, Chancen, Herausforderungen

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IRPUD Forschungskolloquium

Dienstag, 19. Juli 2005, 16.15-17.45 Uhr
Institut für Raumplanung Uni Dortmund

Gliederung

- ***1 - Hintergründe***
- 2 - Abgrenzung dünn besiedelter Gebiete
- 3 - Klima und Flächennutzung
- 4 - Bevölkerungsentwicklung
- 5 - Erreichbarkeit und Infrastruktur
- 6 - Wirtschaft
- 7 - Schlussfolgerungen

Ausgangslage: EU-Beitrittsverträge (I)

Article 1

Until 31 December 1999, the Structural Funds, the Financial Instrument for Fisheries Guidance (FIFG) and the European Investment Bank (EIB) shall each contribute in an appropriate fashion to a further priority Objective in addition to the five referred to in Article 1 of Council Regulation (EEC) No 2052/88, as amended by Council Regulation (EEC) No 2081/93, which Objective shall be:
- ***to promote the development and structural adjustment of regions with an extremely low population density*** (hereinafter referred to as 'Objective 6').

Article 2

Areas covered by Objective 6 shall in principle represent or belong to regions at ***NUTS level II*** with a ***population density of 8 persons per km2 or less***. In addition, Community assistance may, subject to the requirement of concentration, ***also extend to adjacent and contiguous smaller areas*** fulfilling the same population density criterion. […]

Ausgangslage: EU-Beitrittsverträge (II)

Article 142

1. The Commission shall authorize ***Norway, Finland and Sweden*** to grant ***long-term national aids*** with a view to ensuring that agricultural activity is maintained in specific regions. These regions should cover the ***agricultural areas*** situated to the ***north of the 62nd Parallel*** and some adjacent areas south of that parallel affected by comparable ***climatic conditions*** rendering agricultural activity particularly difficult.

2. The regions referred to in paragraph 1 shall be determined by the Commission, taking into consideration in particular:
- the ***low population density***;
- the ***portion of agricultural land*** in the overall surface area;
- the portion of agricultural land devoted to ***arable crops*** intended for human consumption, in the agricultural surface area used.

Neuverhandlung Strukturfonds.
Beibehaltung jetzige Förderungen, oder Änderungen? Abschaffung?

Besondere Problemlage

- Extreme klimatische Bedingungen
- Periphere Lage
- Extrem geringe Bevölkerungsdichte

- permanente Handikaps
- prinzipiell individuelle Handikaps
- sich gegenseitig verstärkende Handikaps

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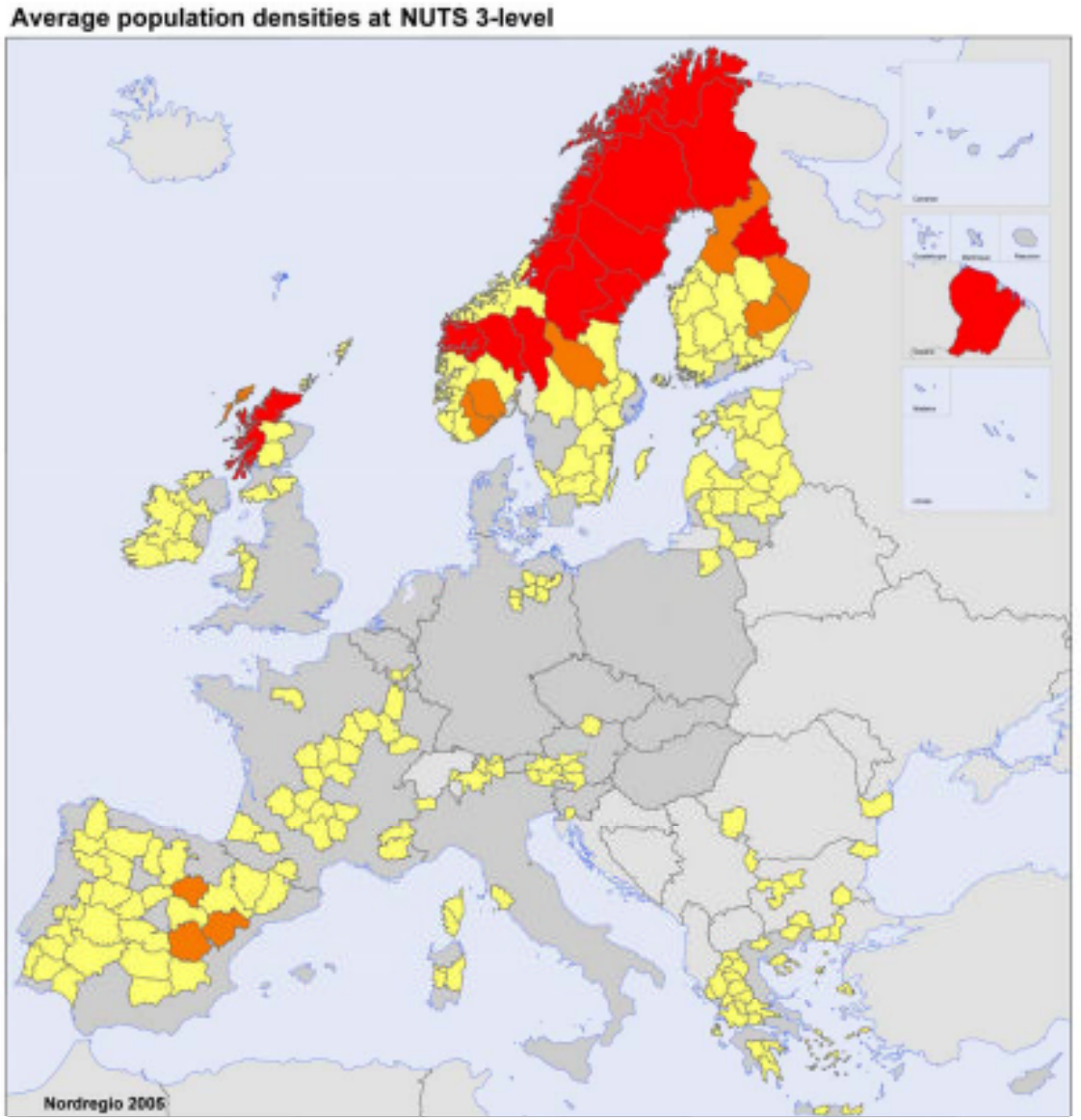
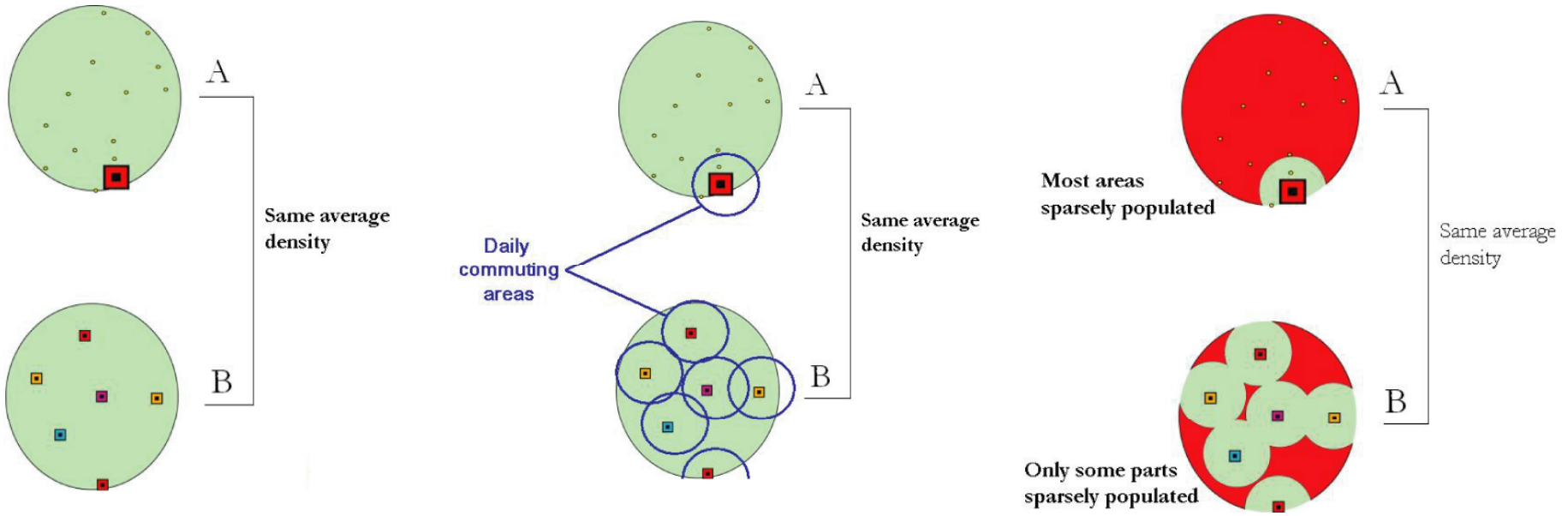
Abgrenzung 1: Bevölkerungsdichte (NUTS-Ebenen)

- ***NUTS II Ebene***
- ***NUTS III Ebene***



Bevölkerungsdichte vs. geringes Potential



Region A – dominierende Stadt, ansonsten kleine Siedlungssprengel
Region B – keine dominierende Stadt, mehrere mittelgroße Kommunen

Obwohl A und B beide die gleiche Bevölkerungsdichte haben, ist die Ausdehnung extrem dünn besiedelter Gebiete unterschiedlich.

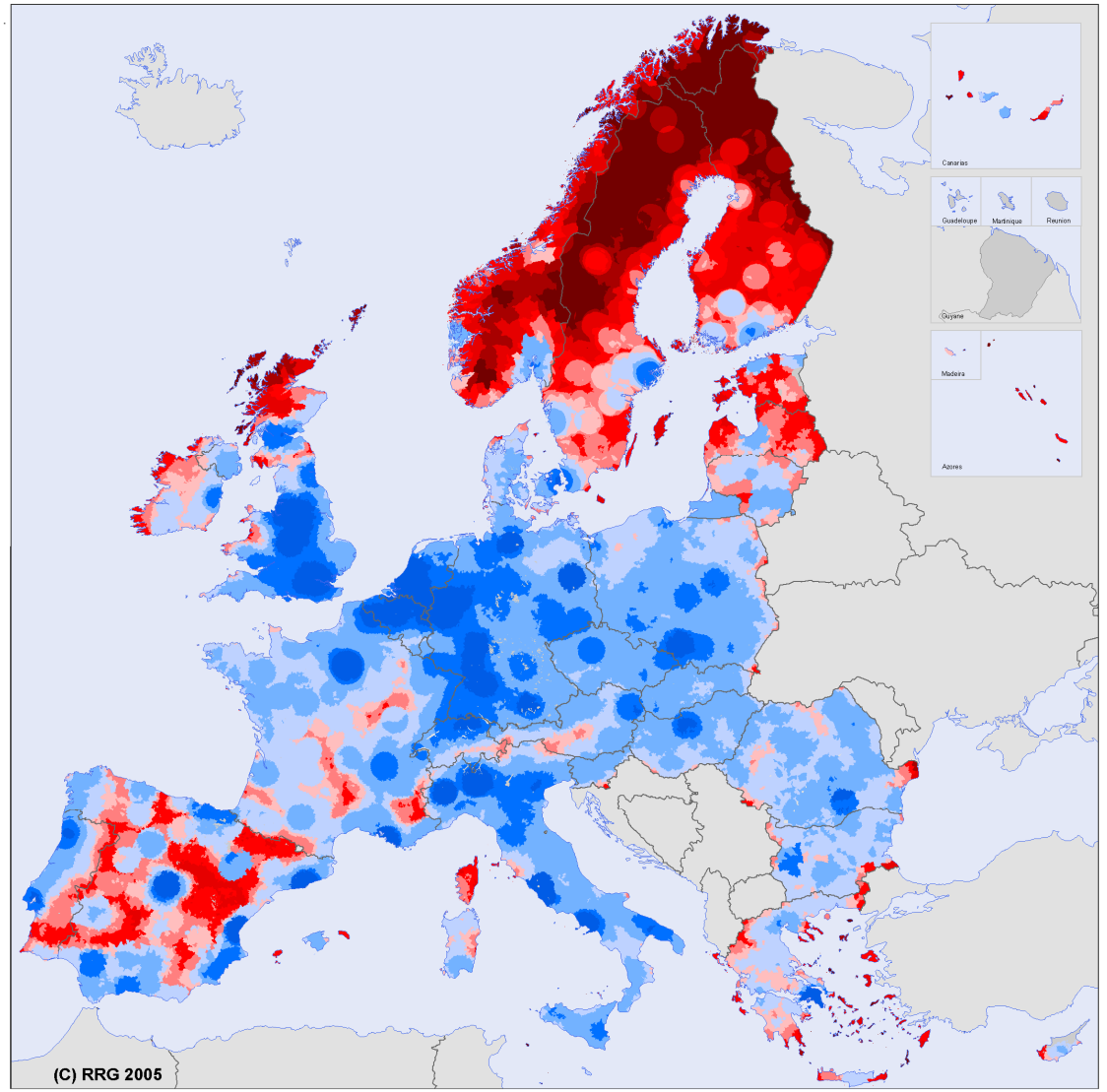
Bevölkerungspotential

Erreichbare Bevölkerung innerhalb 50 km (Luftlinie), standardisiert am europ. Durchschnitt (1x1 km nordische Länder, sonst NUTS 5)

Standardised population potential:
Europe (EU27+NO+CH)=100=287.407

0 - 5	EU countries
5 - 10	Other countries
10 - 25	
25 - 50	
50 - 75	
75 - 100	
100 - 200	
200 - 500	
500 - 1000	
1000 < ...	

Population potential in Europe



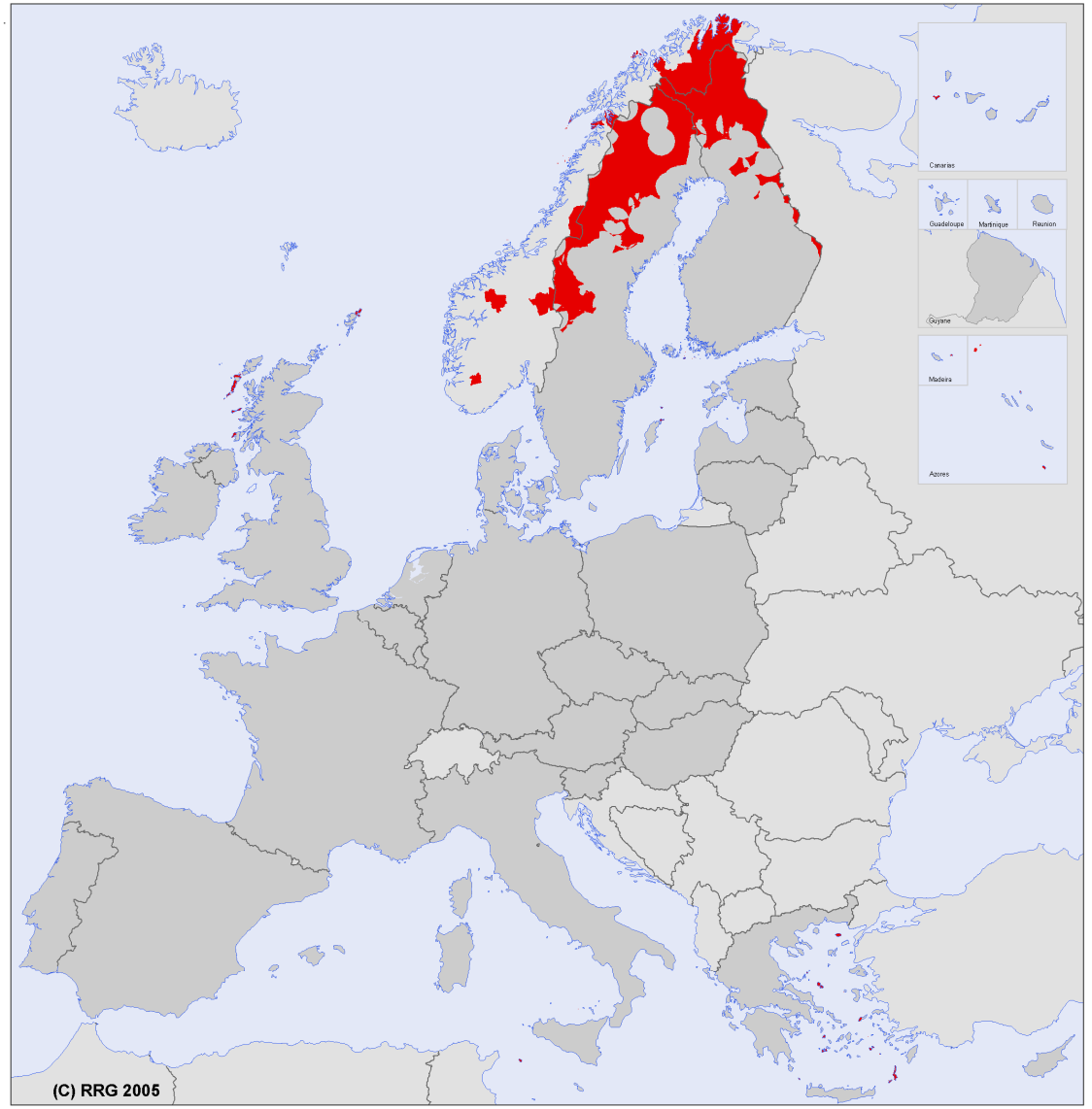
Abgrenzungsszenarien

Szenario	**Minimum Bevölkerungspotential (Grenzwert x 7.854 km²)**	**Minimum Bevölkerungspotential (gerundet)**
50 Einw./km²	392.700	395.000
12,5 Einw./km²	98.175	100.000
8 Einw./km²	62.832	65.000
5 % des europ. Durch.	14.370	15.000
Grundversorgung	10.000	10.000

Dünn besiedelte Regionen in Europa

- 50 Einw./km²
- 12,5 Einw./km²
- 8 Einw./km²
- 5 % Durch.
- Grundversorg.

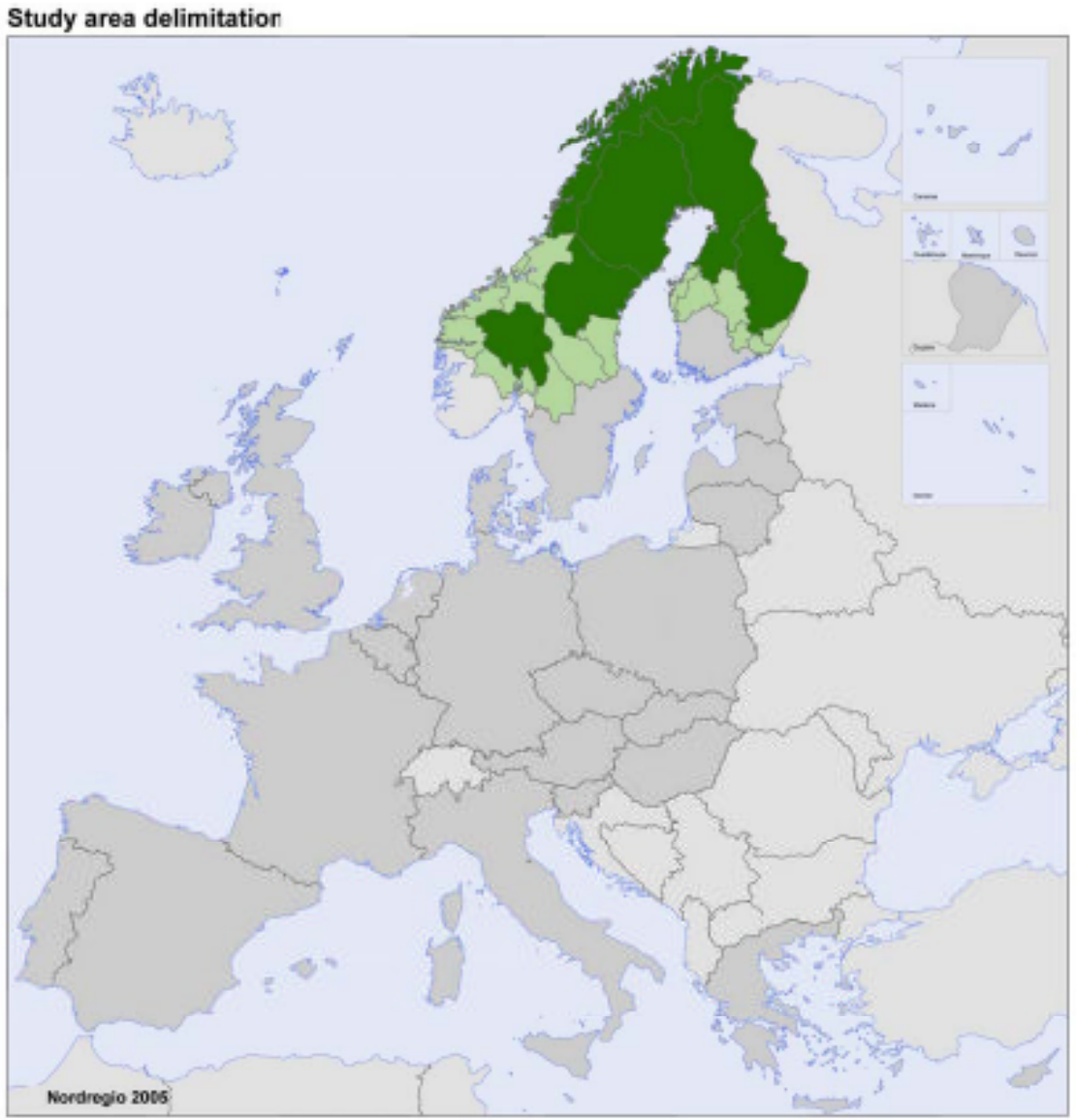
Sparsely populated areas in Europe: Threshold 'daily services'



Ergebnisse Szenariorechnungen

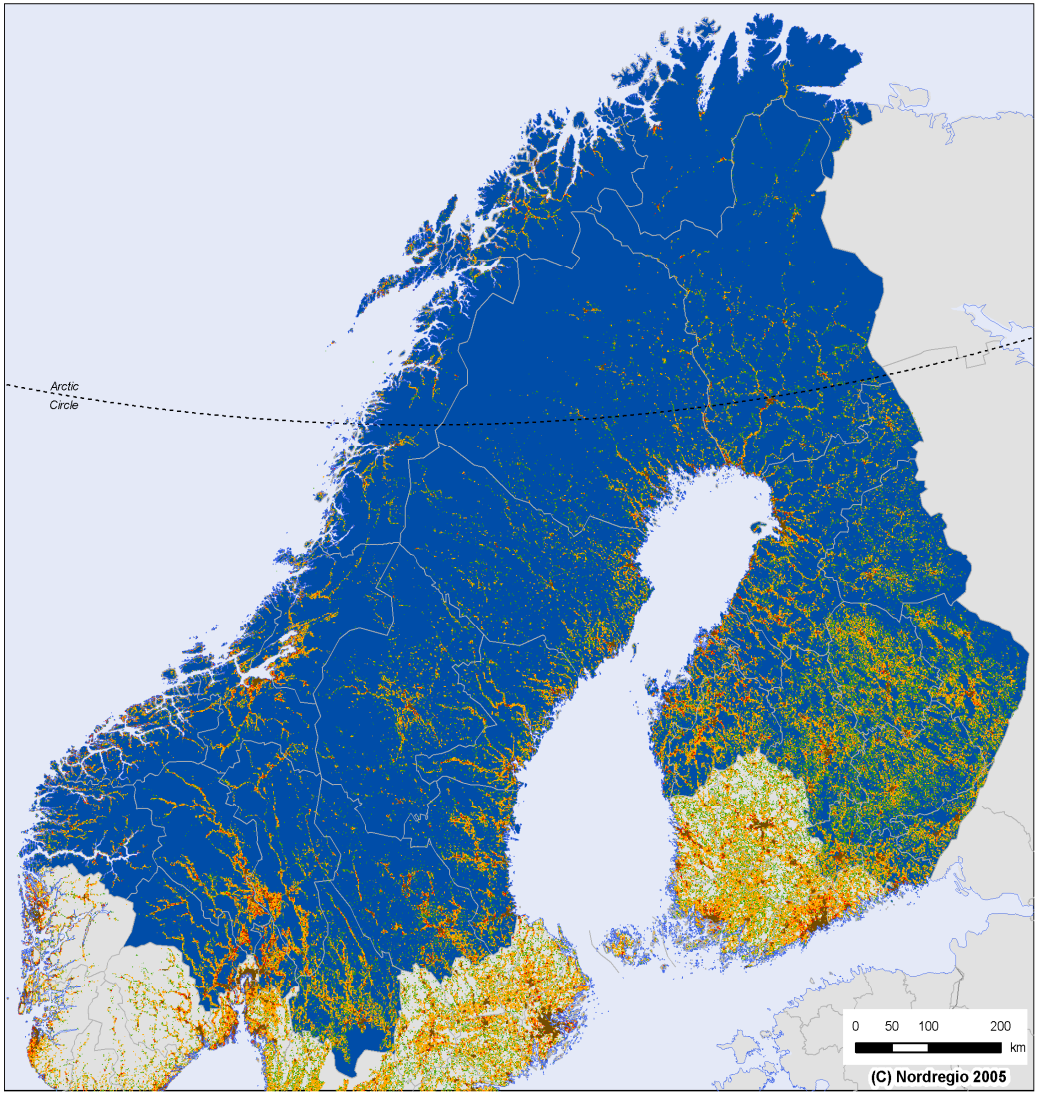
Szenario	Ausdehnung dünn besiedelter Gebiete (in km^2, EU27+2)	Ausdehnung dünn besiedelter Gebiete (in % EU27+2)
50 Einw./km^2	2.011.264	43,0
✓ **12,5 Einw./km^2**	876.494	18,7
8 Einw./km^2	709.529	15,2
5 % des europ. Durch.	340.967	7,3
Grundvers.	251.969	5,4

Abgrenzung Untersuchungsgebiet



Bevölkerungsverteilung (1x1 km Raster)

Population per 1x1 km grid cell in Finland, Sweden and Norway



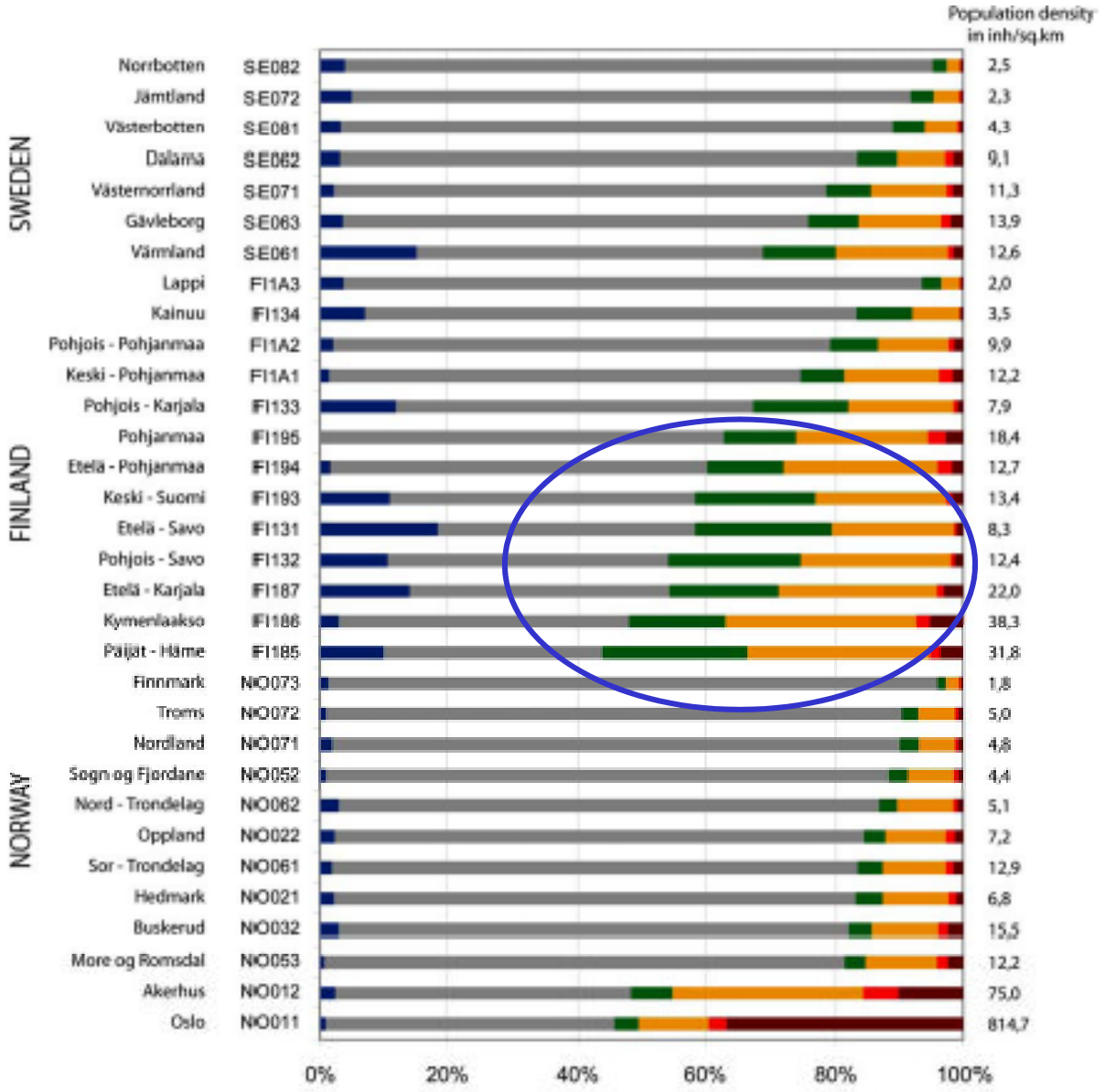
Population (2002)
within each 1x1 km grid cell

- 1 to 4 persons
- 5 to 50 persons
- 51 to 100 persons
- Over 100 persons
- Study area
- Other areas

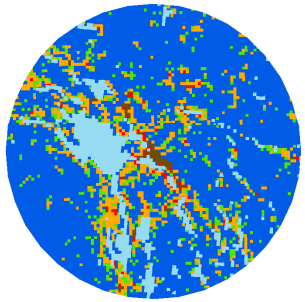
Besiedelte und unbesiedelte Bereiche

% unbesiedelte Bereiche:

	Land	UG
FIN	30	76
SWE	25	88
NOR	82	86

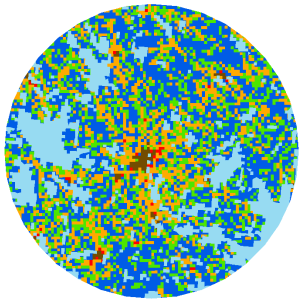


Siedlungsstruktur (Bsp.)



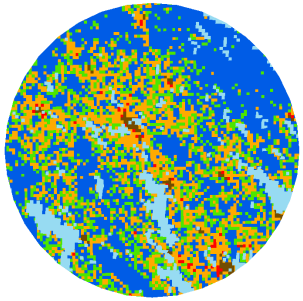
Settlement structure around Östersund (SWE)

Population potential within 50 km: 79,000 - 80,000 people (1x1 km grid cells)



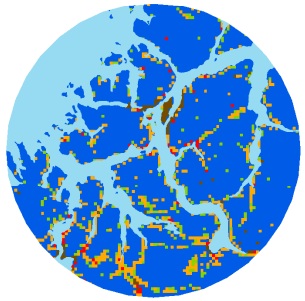
Settlement structure around Mikkeli (FIN)

Population potential within 50 km: 79,000 - 80,000 people (1x1 km grid cells)



Settlement structure around Lapinlahti (FIN)

Population potential within 50 km: 79,000 - 80,000 people (1x1 km grid cells)



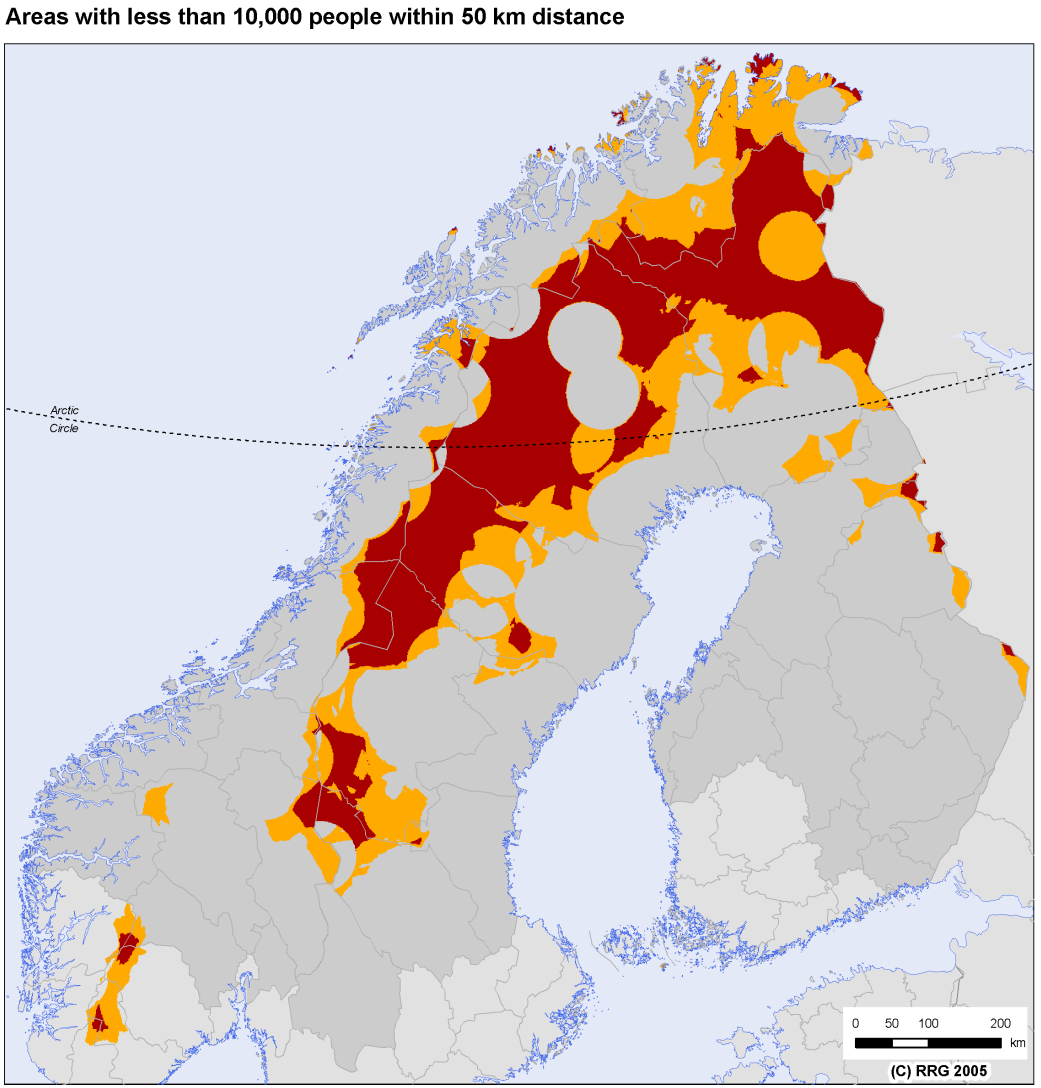
Settlement structure around Tromsoe (NOR)

Population potential within 50 km: 79,000 - 80,000 people (1x1 km grid cells)

- Uninhabited areas
- 1 to 4 persons
- 5 to 50 persons
- 51 to 100 persons
- Over 100 persons
- Sea / lake

Extrem niedriges Bevölkerungspotential

Erreichbare Bevölkerung
< 10.000 innerhalb 50 km
(Luftlinie) (1x1 km Raster)



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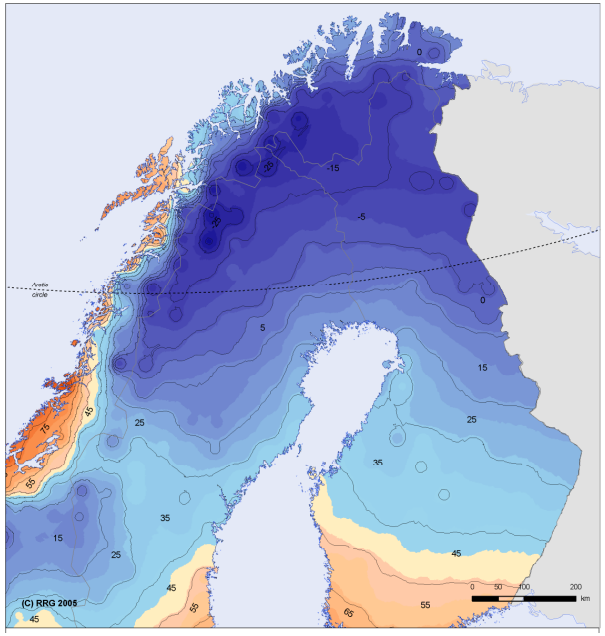
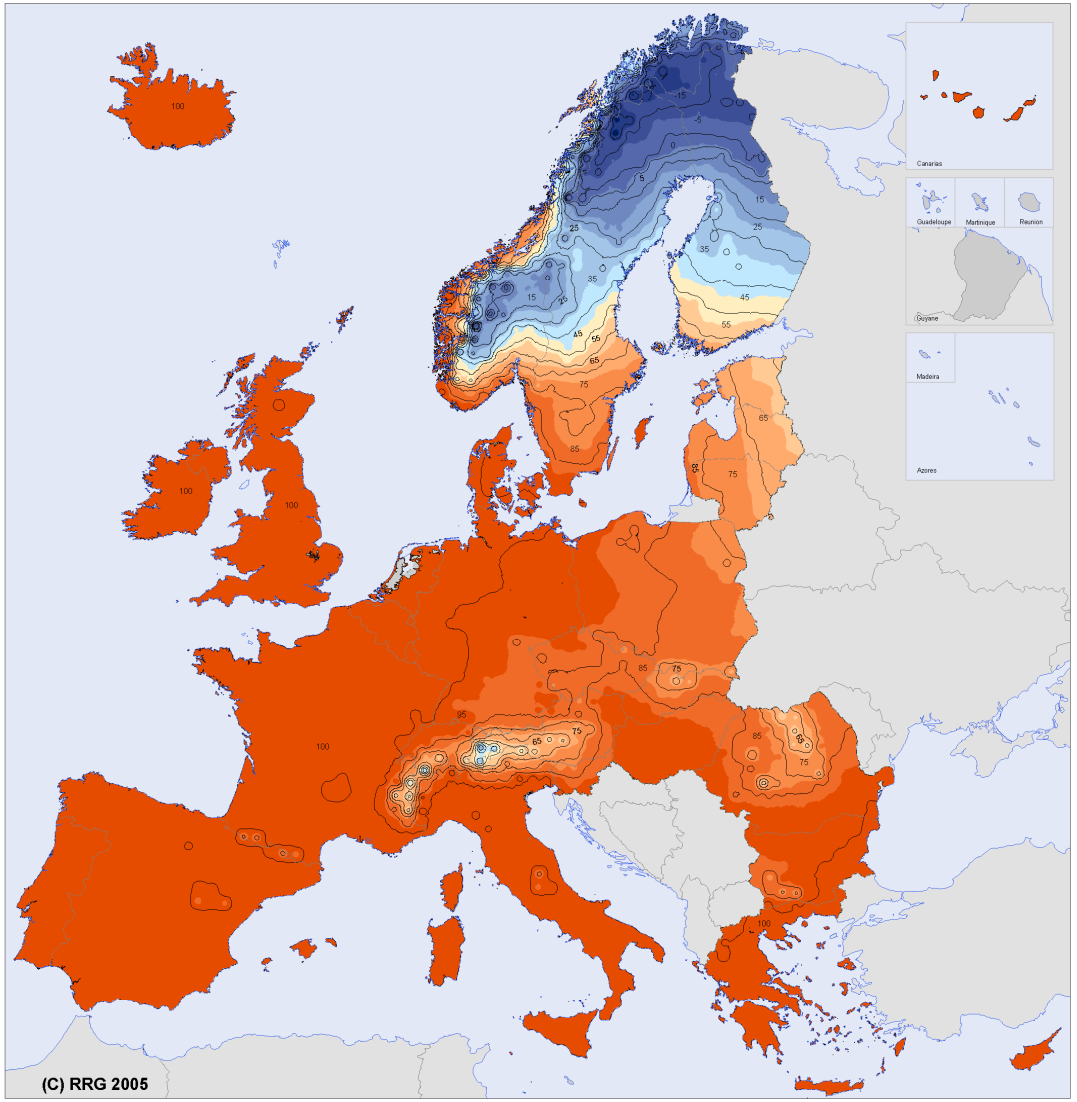
Temperatur-Index



Temperature Contrast Index in Europe, Isolines



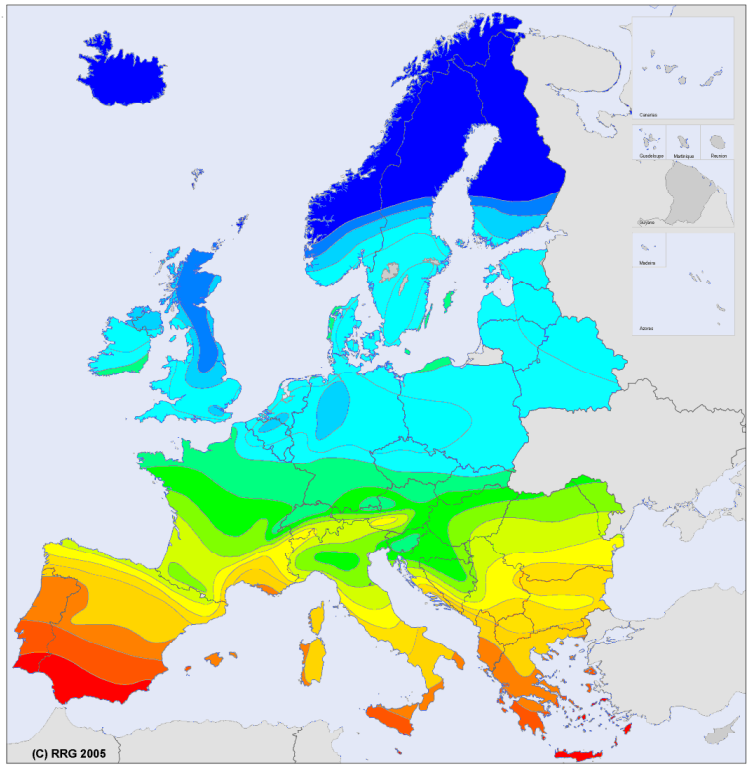
Cl. index * 100

-40 - -31		40 - 49	
-30 - -21		50 - 59	
-20 - -11		60 - 69	
-10 - -1		70 - 79	
0 - 9		80 - 89	
10 - 19		90 - 100	
20 - 29			
30 - 39			

Einstrahlung und Niederschlag

Einstrahlung (kWh/m^2)

Mean annual radiation across Europe



Geographical Base: Eurostat GISCO

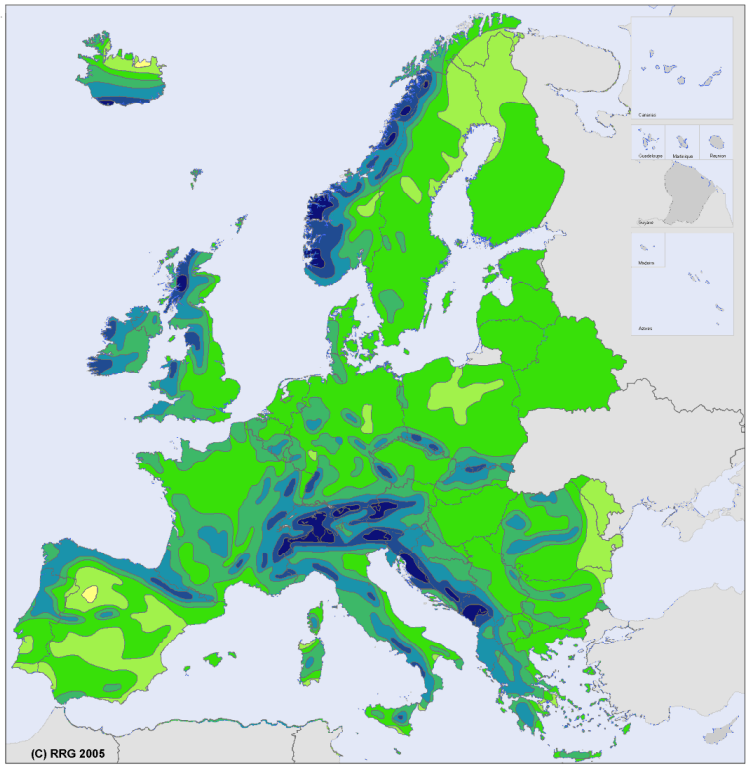
Source: Palz and Greif, 1995

kWh/sqm

0 - 2,20	3,41 - 3,60	4,81 - 5,00
2,21 - 2,40	3,61 - 3,80	EU countries: Data not available
2,41 - 2,60	3,81 - 4,00	Other countries
2,61 - 2,80	4,01 - 4,20	
2,81 - 3,00	4,21 - 4,40	
3,01 - 3,20	4,41 - 4,60	
3,21 - 3,40	4,61 - 4,80	

Niederschlag (ml/m^2)

Average yearly amount of rain



Geographical Base: Eurostat GISCO

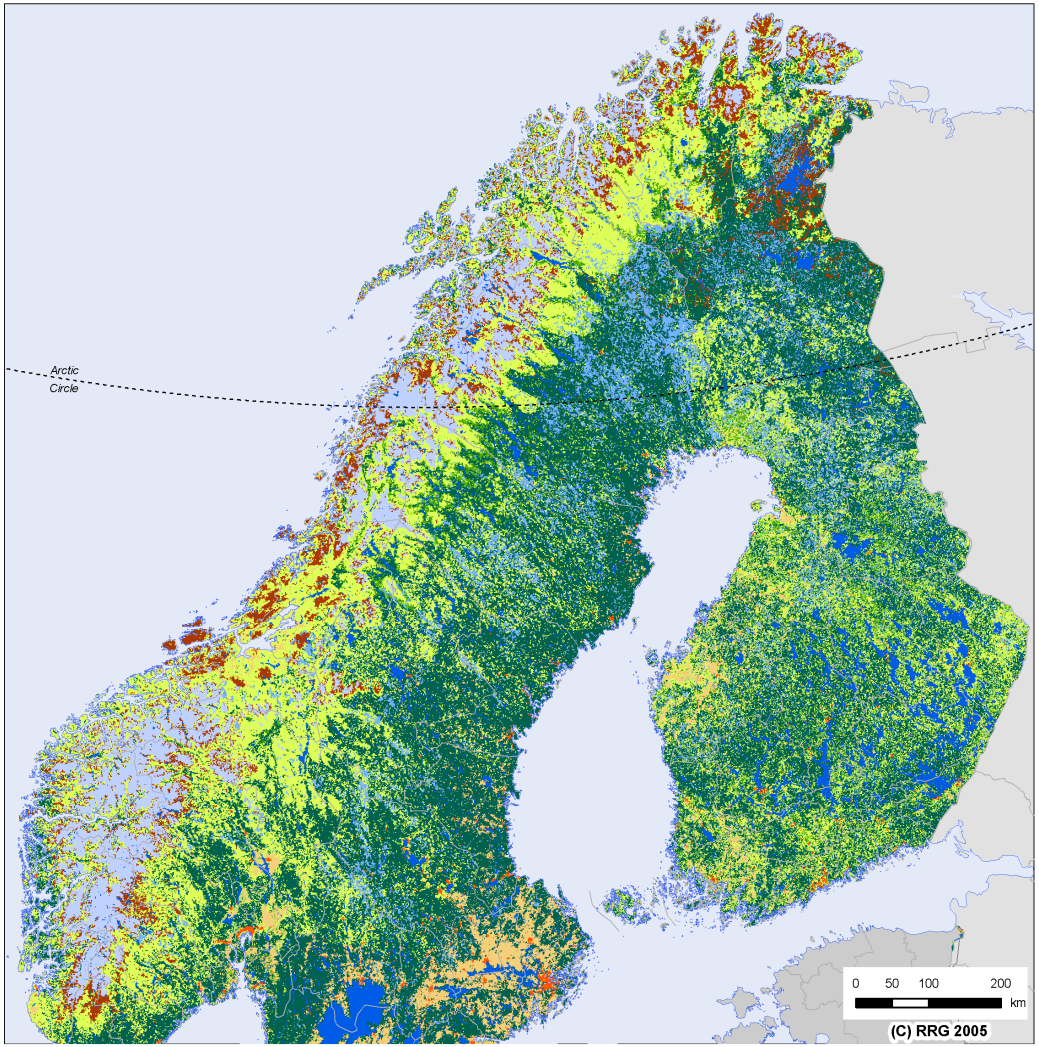
Source: Westermann, 1997

in ml/sqm

0 - 250	EU countries: data not availabel
250 - 500	Other countries
500 - 750	
750 - 1,000	
1,000 - 2,000	
2,000 - 3,000	
3,000 < ...	

Flächenbedeckung

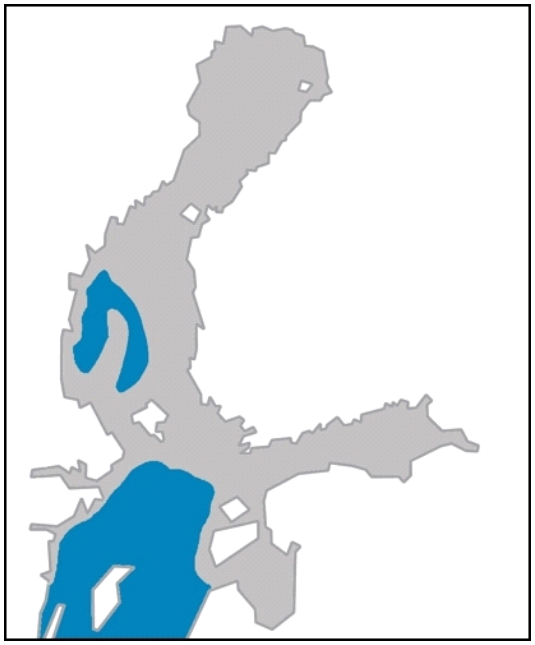
Land cover and land use in the northernmost regions



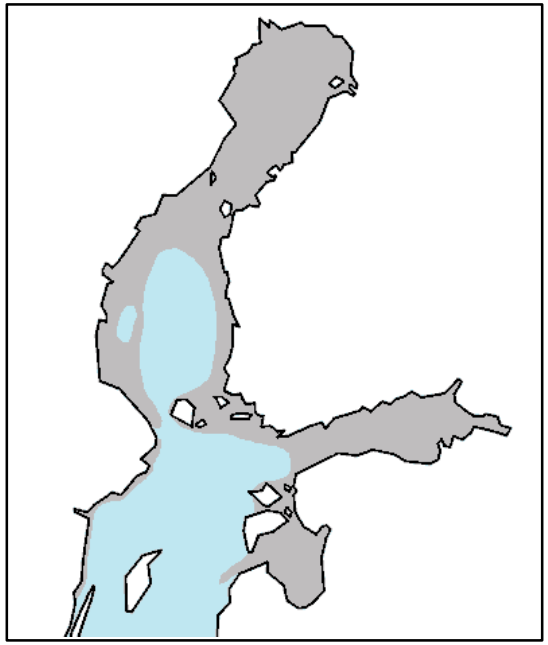
Land cover and land use types

- Coniferous forest
- Dedicuous forest
- Mixed forest
- Grassland
- Rainfed arable land
- Irrigated arable land
- Permanent crops
- Shrubland
- Barren land
- Permanent ice & sr
- Wetlands
- Inland waters
- Sea
- Urban areas

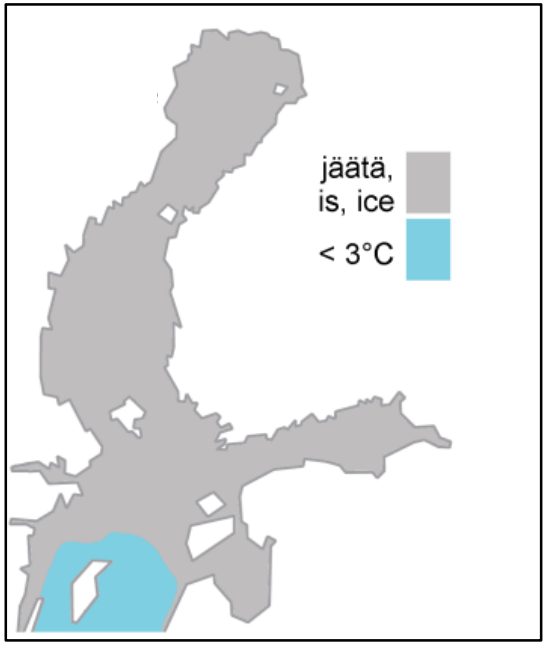
Eisbedeckung der Ostsee (jeweils März)



2005
177.000 m²



2004
152.000 m²

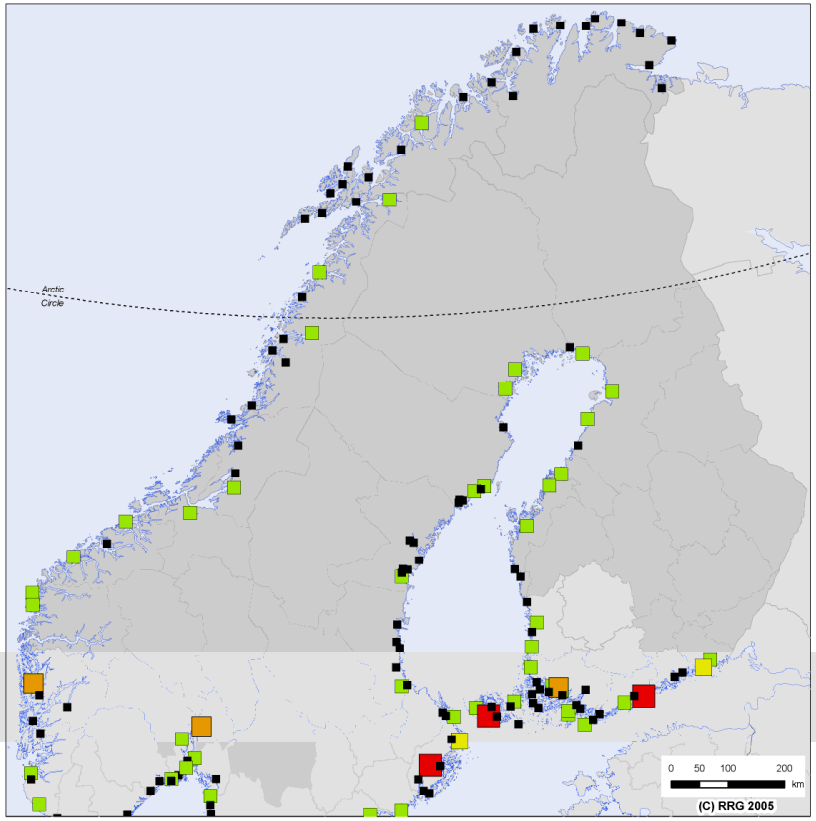


2003
232.000 m²

Häfen

Schiffsankünfte (4. Quartal 03)

Main ports in the Nordic regions: Quarterly vessel arrivals



Number of vessels arriving at ports in a quarter of the year (4th quarter of 2003)

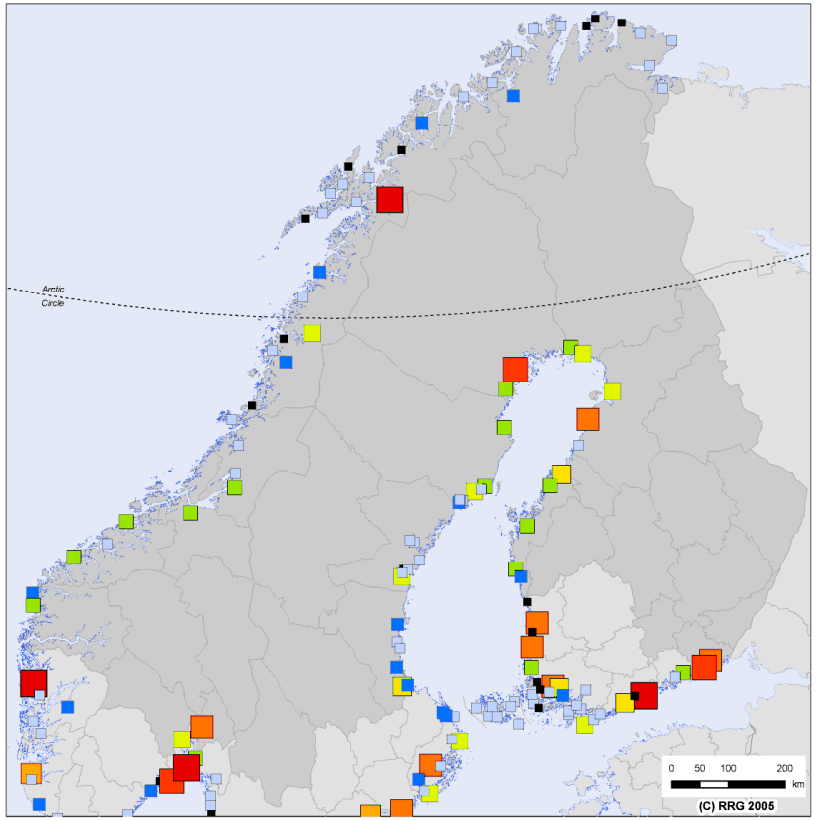
- data n.a.
- 1 to 500 vessels
- 500 - 750 vessels
- 750 - 1,000 vessels
- more than 1,000 vessels
- Other areas
- Non-EU countries

Geographical Base: Eurostat GISCO

Source: RRG (2005)
Eurostat (2005)

Umschlag (1.000 t, 2003)

Main ports in the Nordic regions: Seaborne cargo



Total annual seaborne cargo (in 1,000 tonnes in 2003)

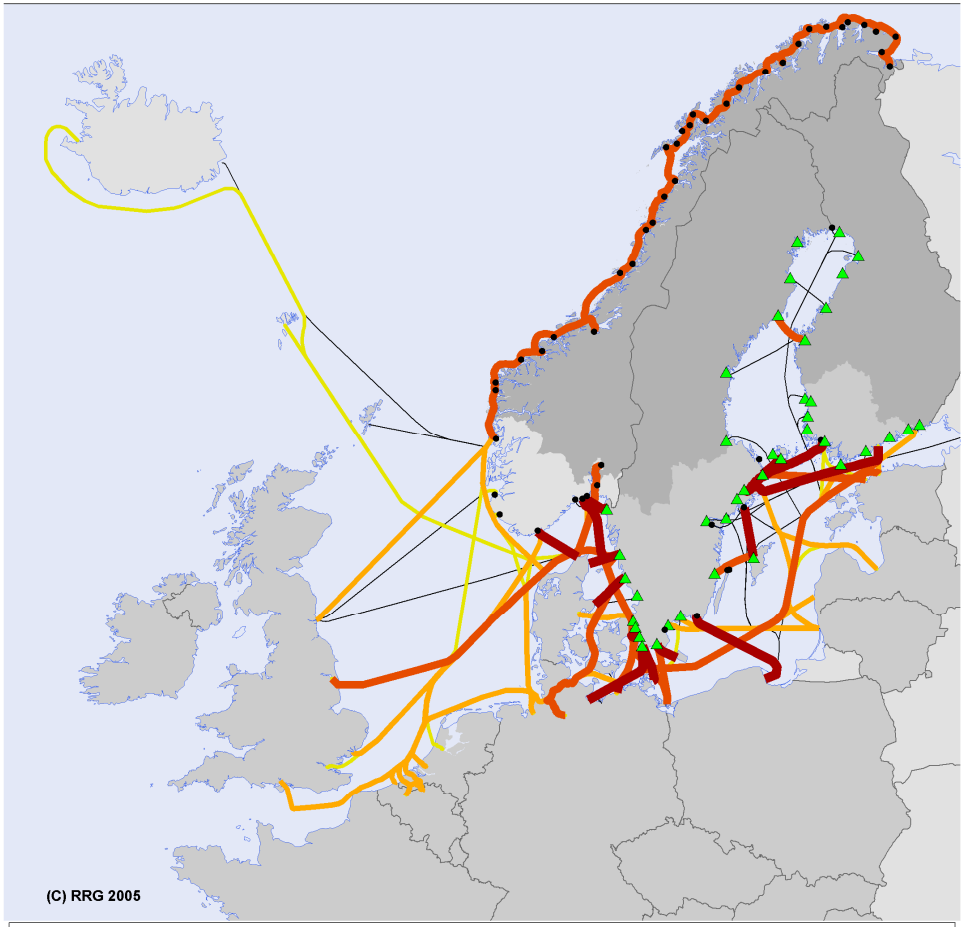
- data n.a.
- 1 to 500
- 500 - 1000
- 1000 - 2000
- 2000 - 3000
- 3000 - 4000
- 4000 - 5000
- 5000 - 7500
- 7500 - 10000
- more than 10000
- Other areas
- Non-EU countries

Geographical Base: Eurostat GISCO

Source: RRG (2005)
Eurostat (2005)

Schiffahrtslinien

Ferry services from Finnish, Swedish and Norwegian ports (2004)



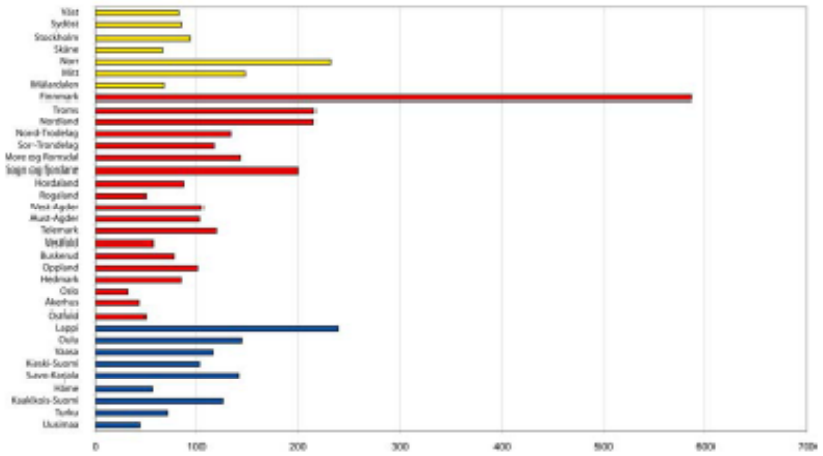
Geographical Base: Eurostat GISCO

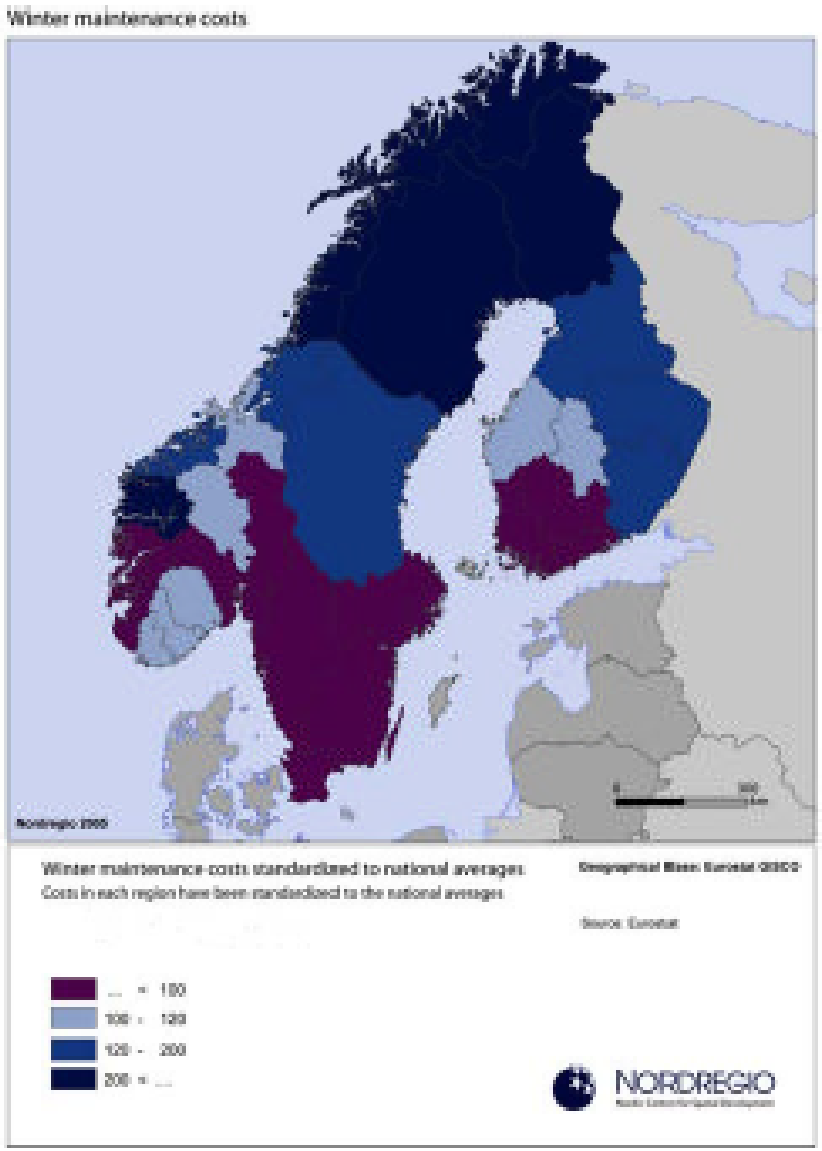
Ferry connections in Northern Europe:
Service frequencies

- Several daily connections
- One daily connection
- Several connections per week
- One connection per week
- Less than one connection per week
- Service frequency n.a.
- TEN port
- No TEN port
- Study area
- EU countries: data not available
- Other countries

Sources:
RRG GIS Database (2005),
DFDS (2004), Faehren.Info (2004),
FerryConsult (2004), Moby (2004),
Ocean24 (2004), Scandlines (2004),
Sellpage.De (2004), StenaLine (2004),
SuperFast Ferries (2004), DG TREN

Zusatzkosten Winterdienst





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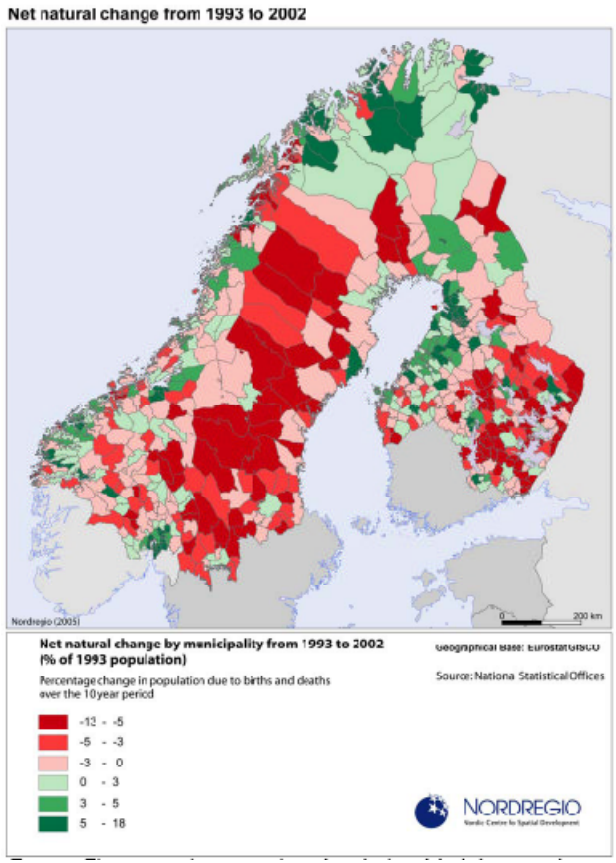
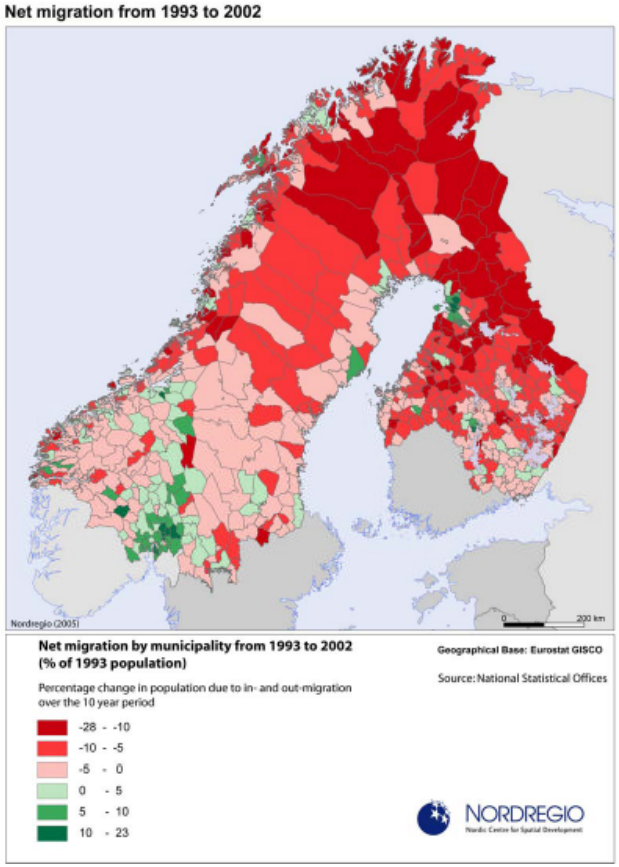
Entwicklung 1993-2002

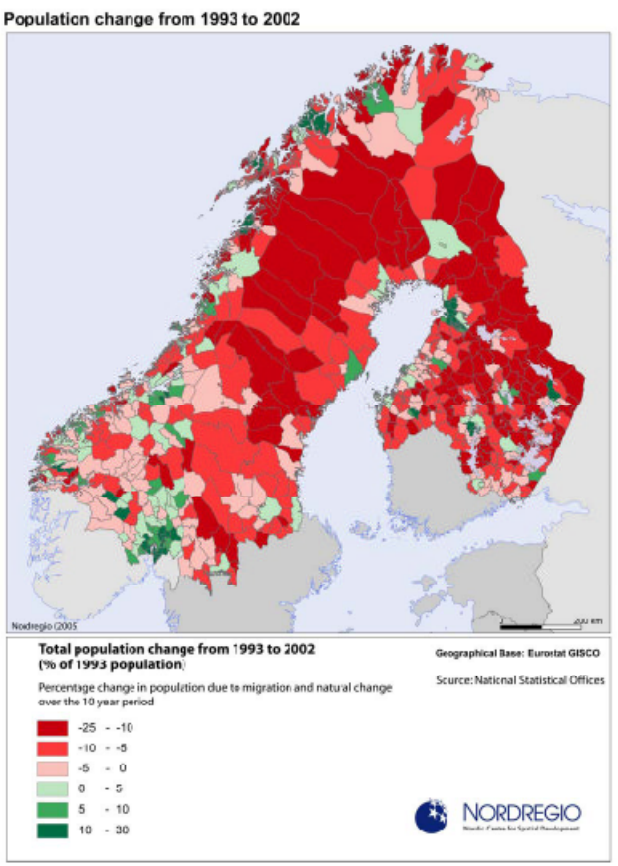
Natürliche Entw.



Wandergsungssaldo

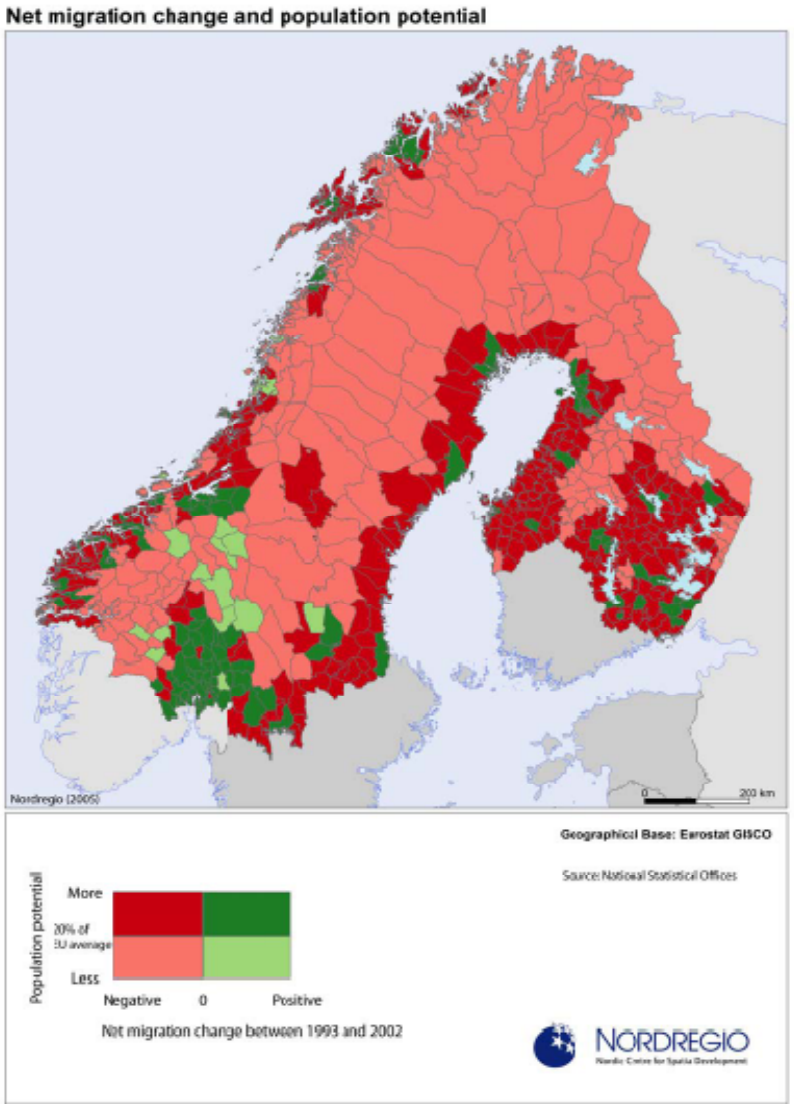


Gesamtentwicklung

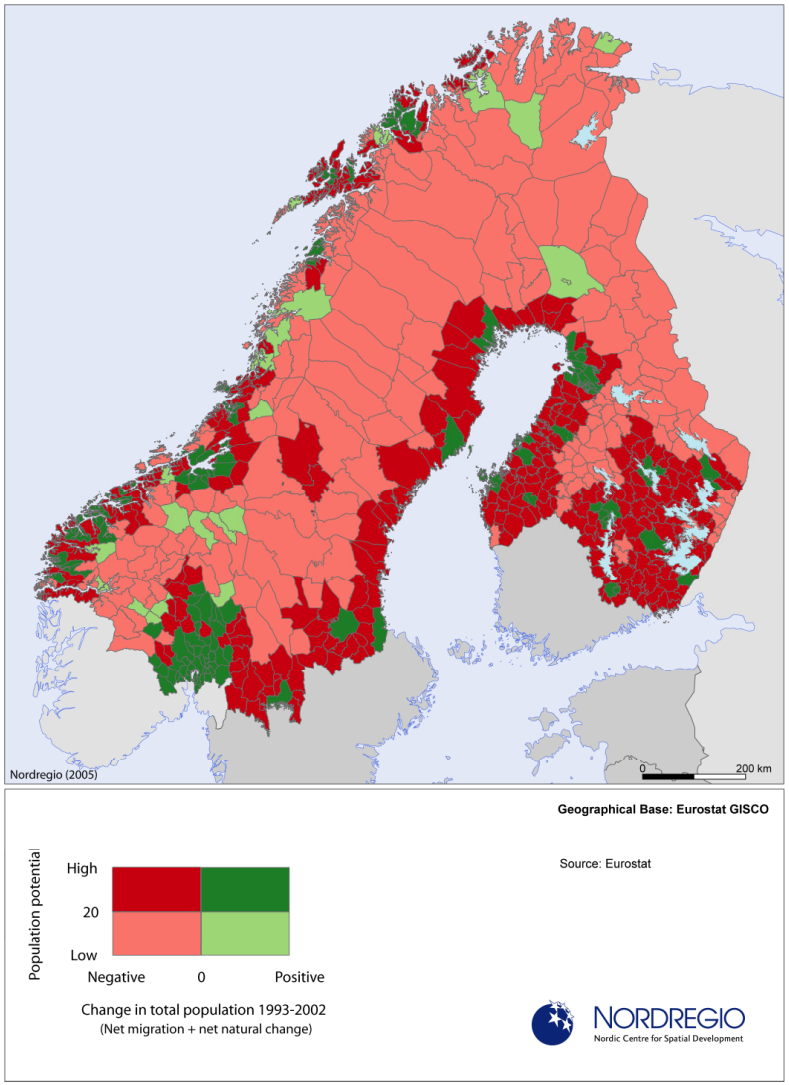


Entwicklung 1993-2002 und Bevölkerungspotential

Wanderungssaldo

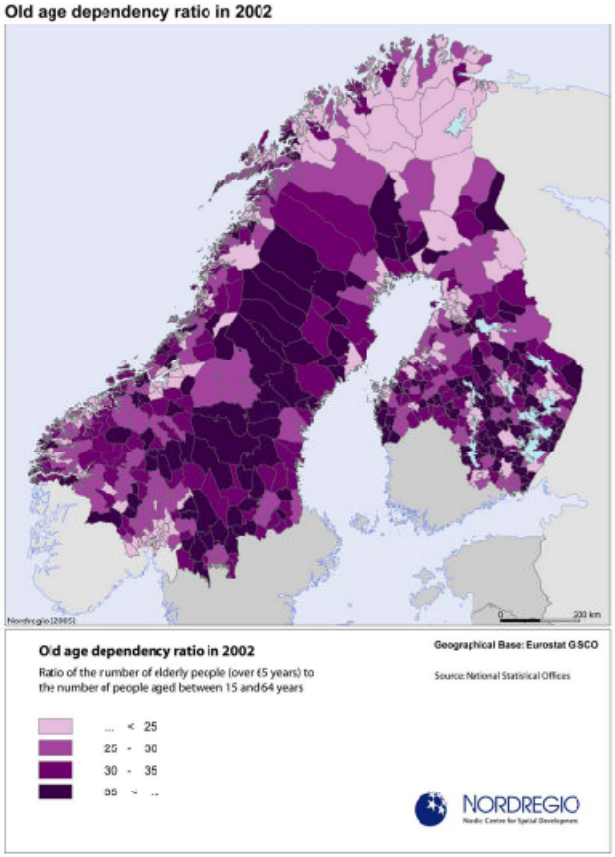


Gesamtentwicklung

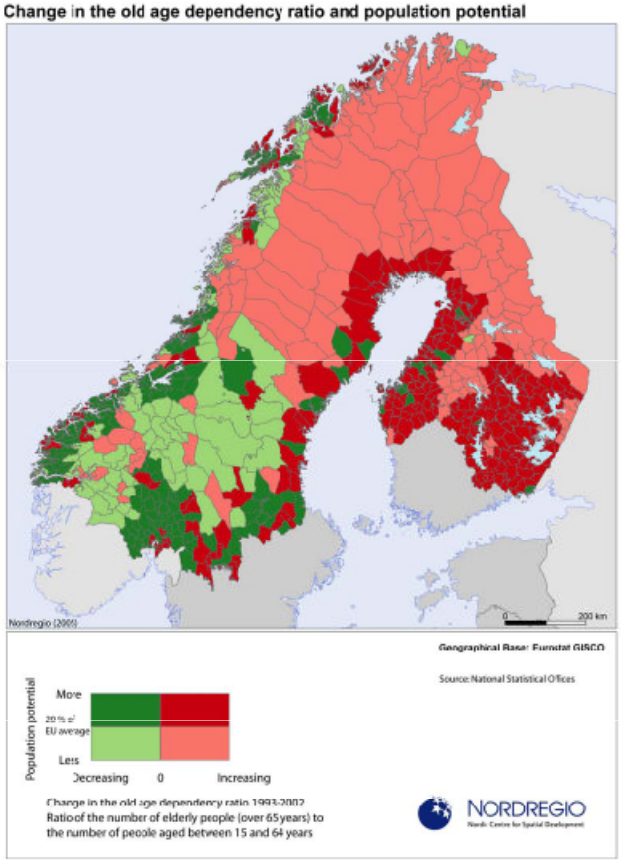


Altersstruktur

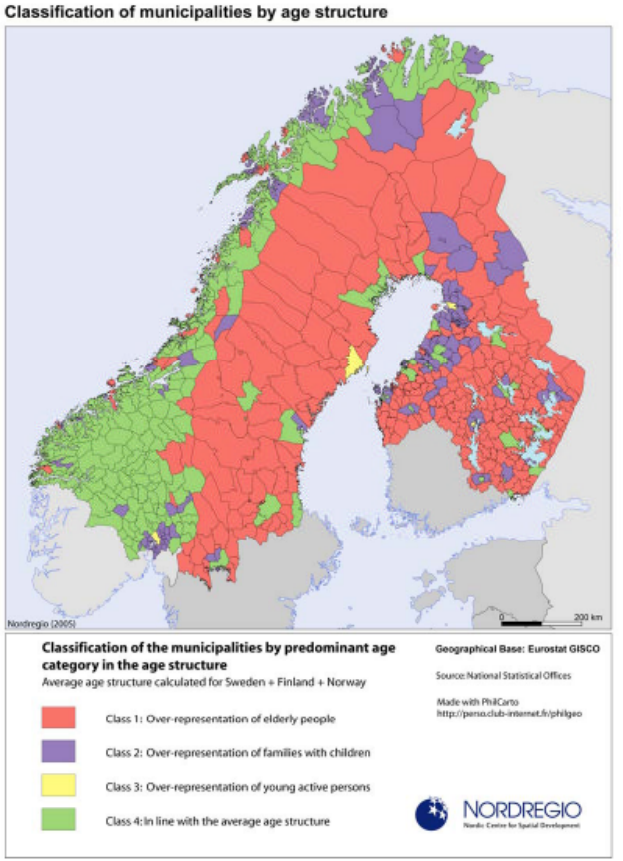
Überalterung



Überalterung (Entw.)



Gemeindeklassifizierung



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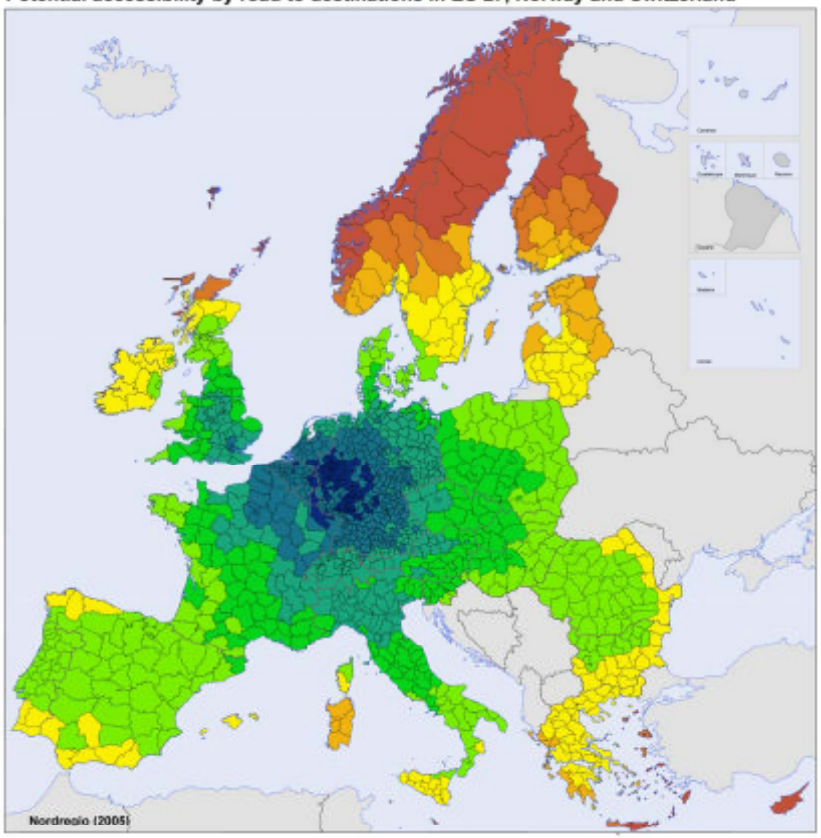
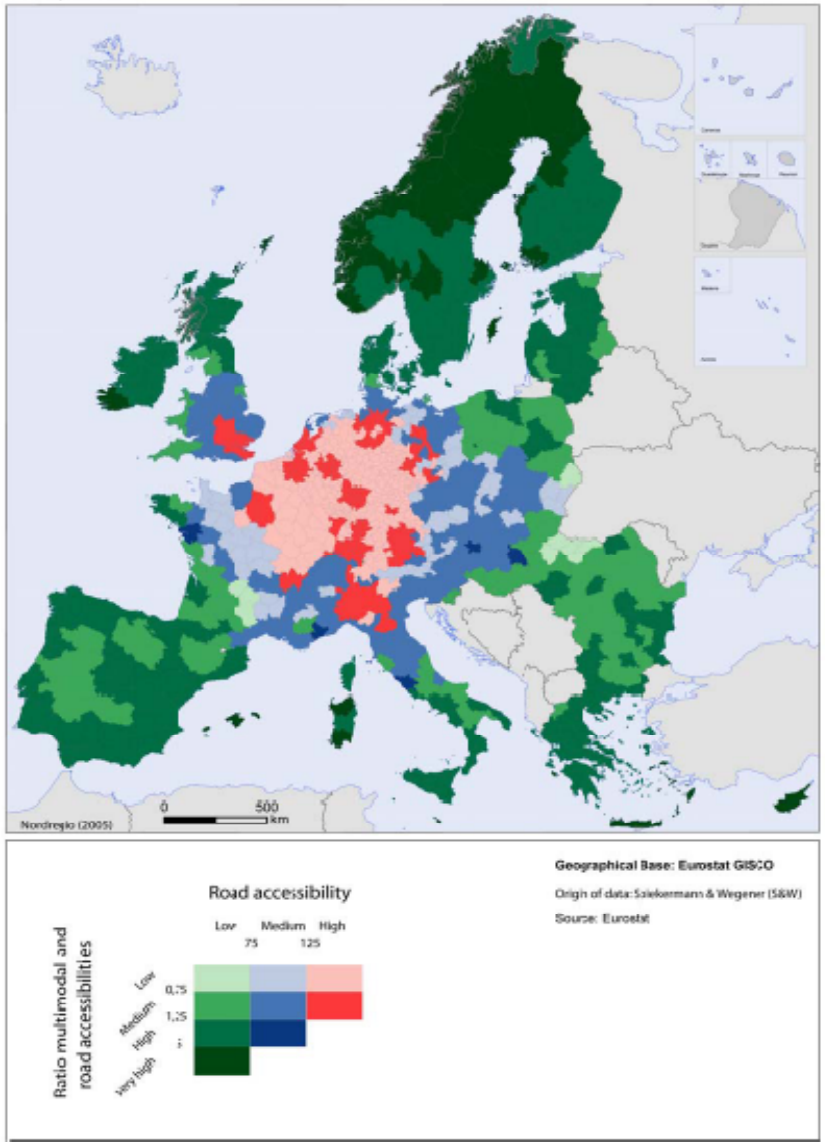
Erreichbarkeitspotential in Europa

Potential accessibility by road to destinations in EU 27, Norway and Switzerland

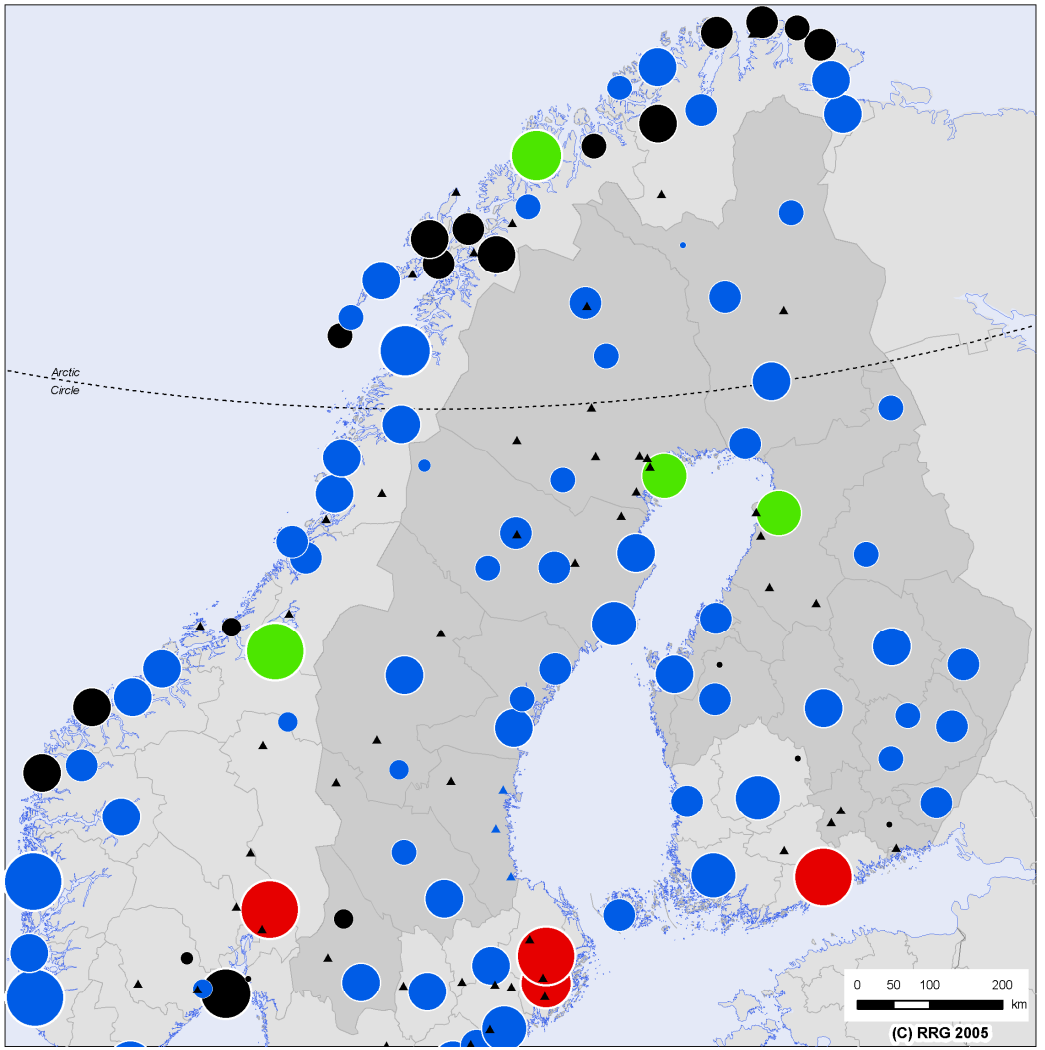


Comparison of multimodal and road accessibilities



Flughäfen: TEN-T & Landungen

Airports in the northernmost regions



Number of landings (scheduled + charter) in 2004

100,000
10,000
1,000

Data n.a.

TEN classification

- International airport
- Community airport
- Regional airport
- Other airports

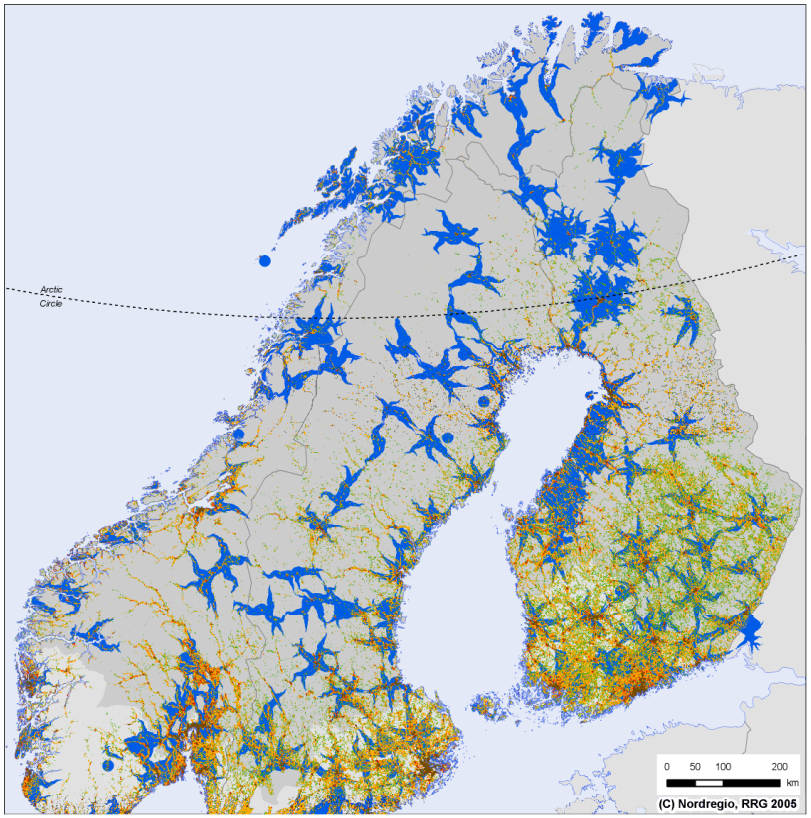
Study area

Other areas

Flugverbindungen

Einzugsbereiche von Flughäfen (1h Isochronen)

Population and airport isochrones



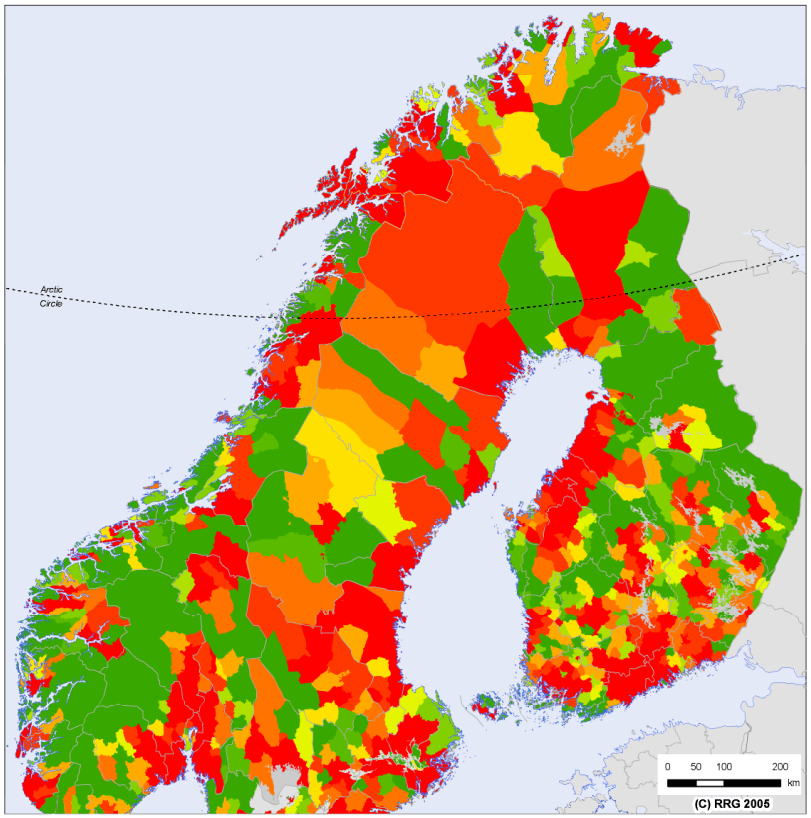
Population (2002; 1x1 km grid)
and airport isochrones (1 hour)

- 1 to 4 persons
- 5 to 50 persons
- 51 to 100 persons
- Over 100 persons
- Other areas
- Non-EU countries
- Airport isochrones

Geographical Base: Eurostat GISCO

Source: Statistics Finland (2005), Statistics Sweden (2005), RRG (2005)

Municipality population within 1 hour airport isochrones



Population within 1 hour airport isochrones
(in % of municipality population)

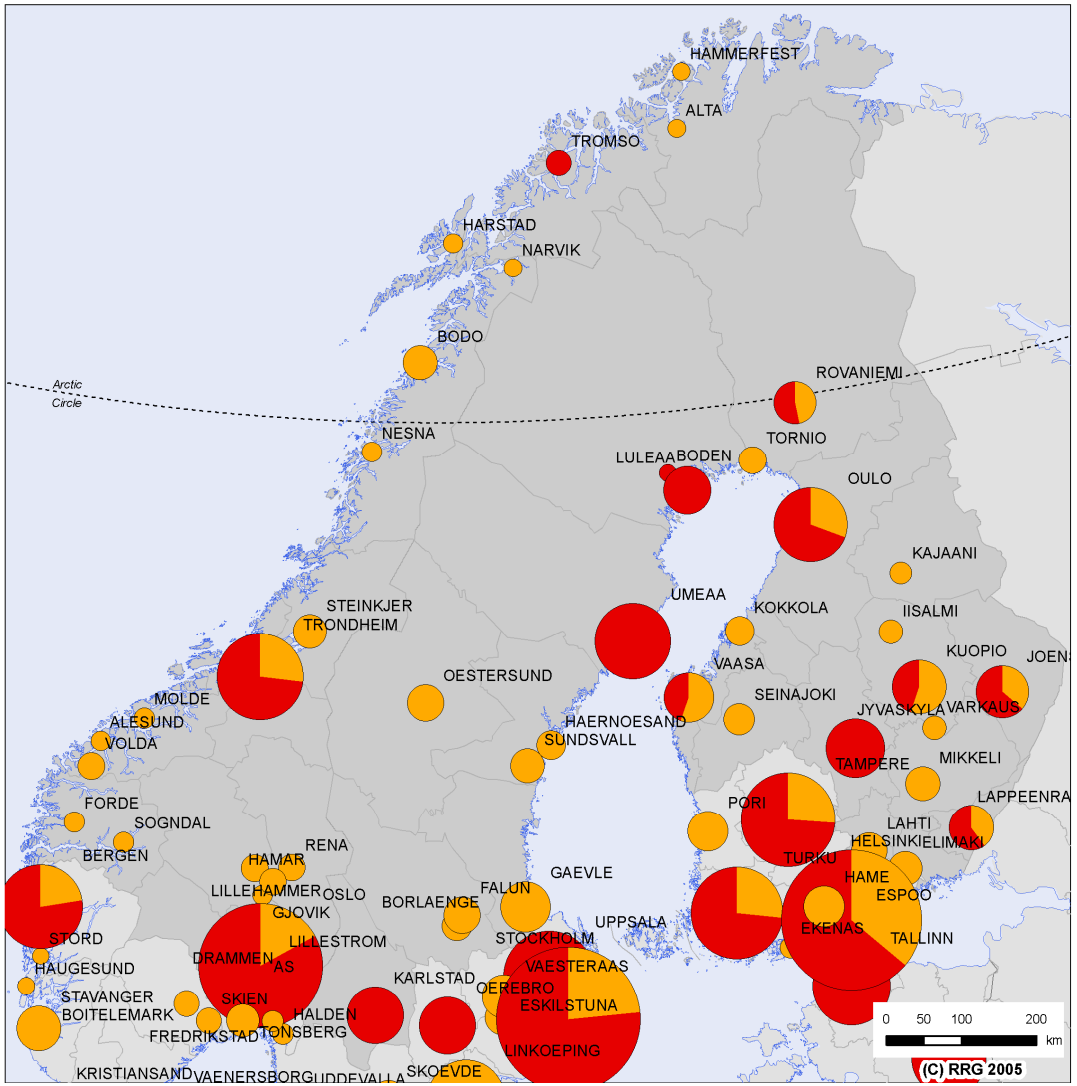
- 0 - 10
- 11 - 20
- 21 - 30
- 31 - 40
- 41 - 50
- 51 - 60
- 61 - 70
- 71 - 80
- 81 - 90
- 91 - 100
- Other areas
- Non-EU countries

Geographical Base: Eurostat GISCO

Source: RRG

Universitäten und FHs

Universities and selected polytechnics in the Nordic regions



Number of students

14.000

Polytechnics

Universities

Studenten

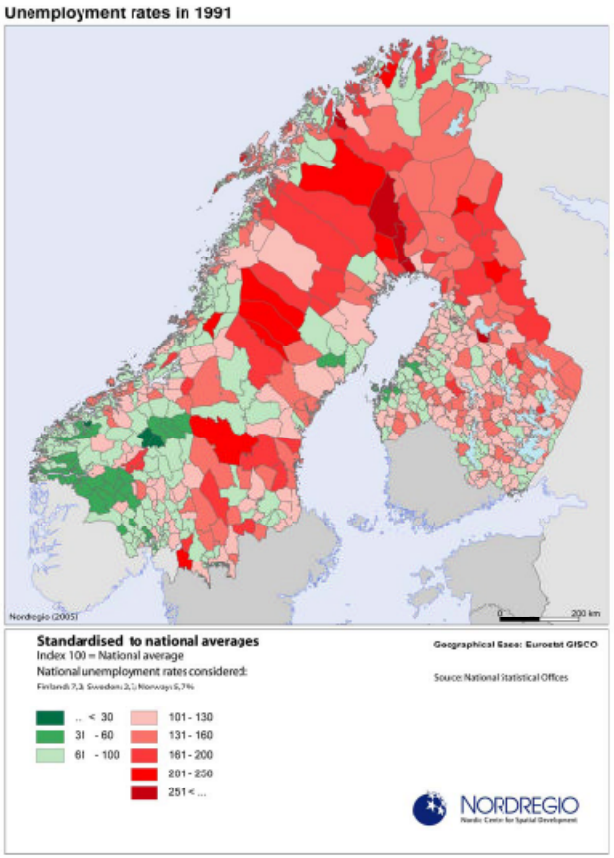
Land	Stadt	Studenten	Bev.	%
Finland	*Helsinki*	*70.136*	*1.355.008*	*5,18*
	Oulo	19.285	204.971	*9,41*
	Kuopio	10.362	121.662	*8,52*
	Joensuu	9.791	97.575	*10,03*
	Rovaniemi	6.326	56.991	*11,10*
	Mikkeli	4.200	54.407	*7,72*
	Tornio	2.616	22.456	*11,65*
	Iisalmi	1.983	40.111	*4,94*
	Varkaus	1.983	41.626	*4,76*
	Kajaani	1.699	55.729	*3,05*
Sweden	*Stockholm*	*73.980*	*2.190.164*	*3,38*
	Umeaa	20.495	137.067	*14,95*
	Luleaa	8.075	140.783	*5,74*
	Östersund	4.655	94.009	*4,95*
	Sundsvall	4.073	110.915	*3,67*
Norway	*Oslo*	*54.713*	*1.036.900*	*5,28*
	Bodoe	4.120	44.892	*9,18*
	Steinkjer	4.010	34.177	*11,73*
	Lillehammer	2.623	35.916	*7,30*
	Volda	2.581	18.581	*13,89*
	Hamar	2.522	58.759	*4,29*
	Tromsoe	2.265	62.551	*3,62*
	Drammen	2.258	142.646	*1,58*
	Sogndal	1.468	13.789	*10,65*
	Forde	1.467	19.200	*7,64*
	Molde	1.460	53.382	*2,74*
	Gjovik	1.409	67.471	*2,09*
	Alesund	1.331	75.534	*1,76*
	Harstad	1.314	30.820	*4,26*
	Narvik	1.154	24.119	*4,78*
	Hammerfest	1.133	10.276	*11,03*
	Alta	1.132	17.079	*6,63*

Gliederung

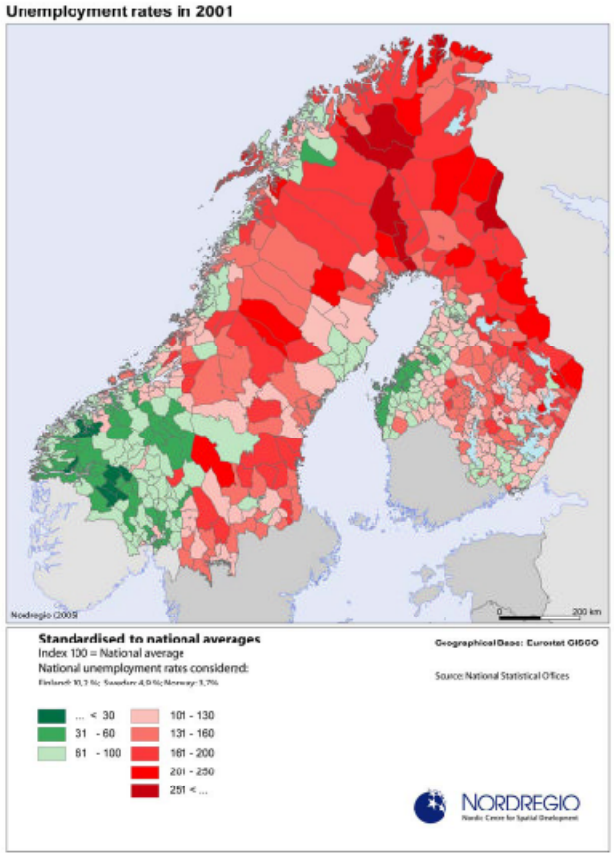
- 1 - Hintergründe
- 2 - Abgrenzung dünn besiedelter Gebiete
- 3 - Klima und Flächennutzung
- 4 - Bevölkerungsentwicklung
- 5 - Erreichbarkeit und Infrastruktur
- ***6 - Wirtschaft***
- 7 - Schlussfolgerungen

Arbeitslosigkeit 1991-2001

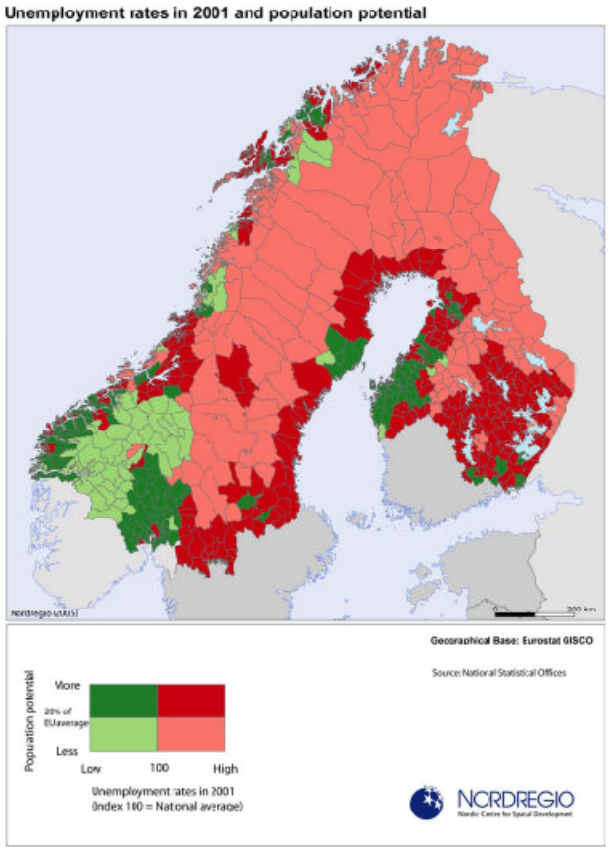
1991



2001

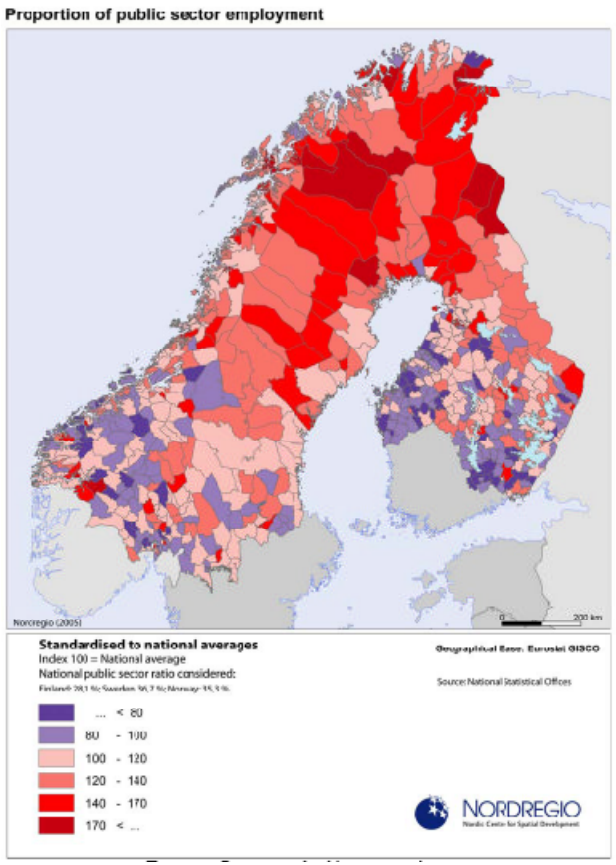


Vgl. mit Bevölkerungspotential

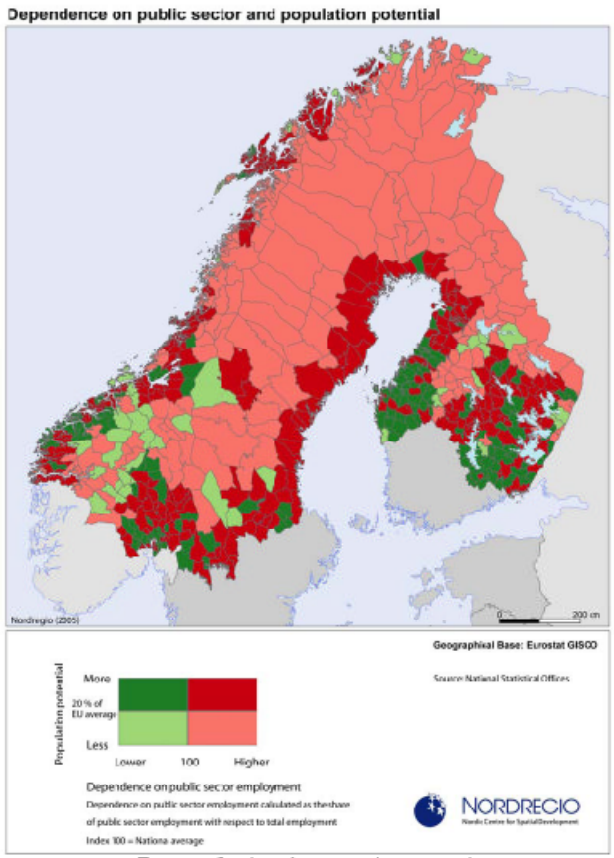


Abhängigkeit vom öffentl. Sektor

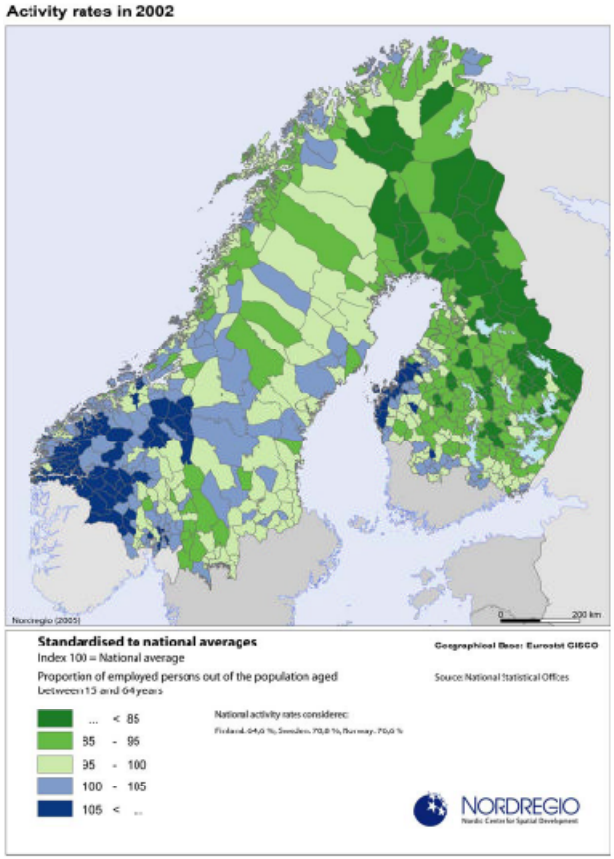
Besch. öffentl. Sektor



Vgl. Bevölkerungspotential

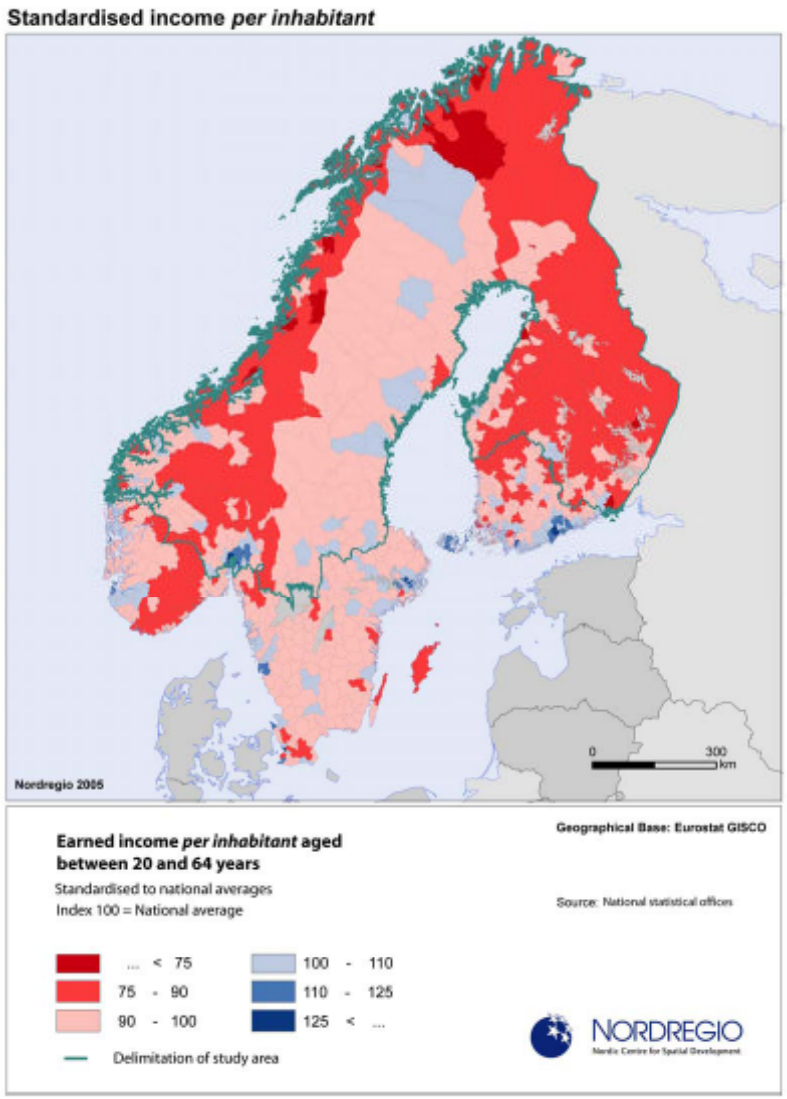


Erwerbsquote

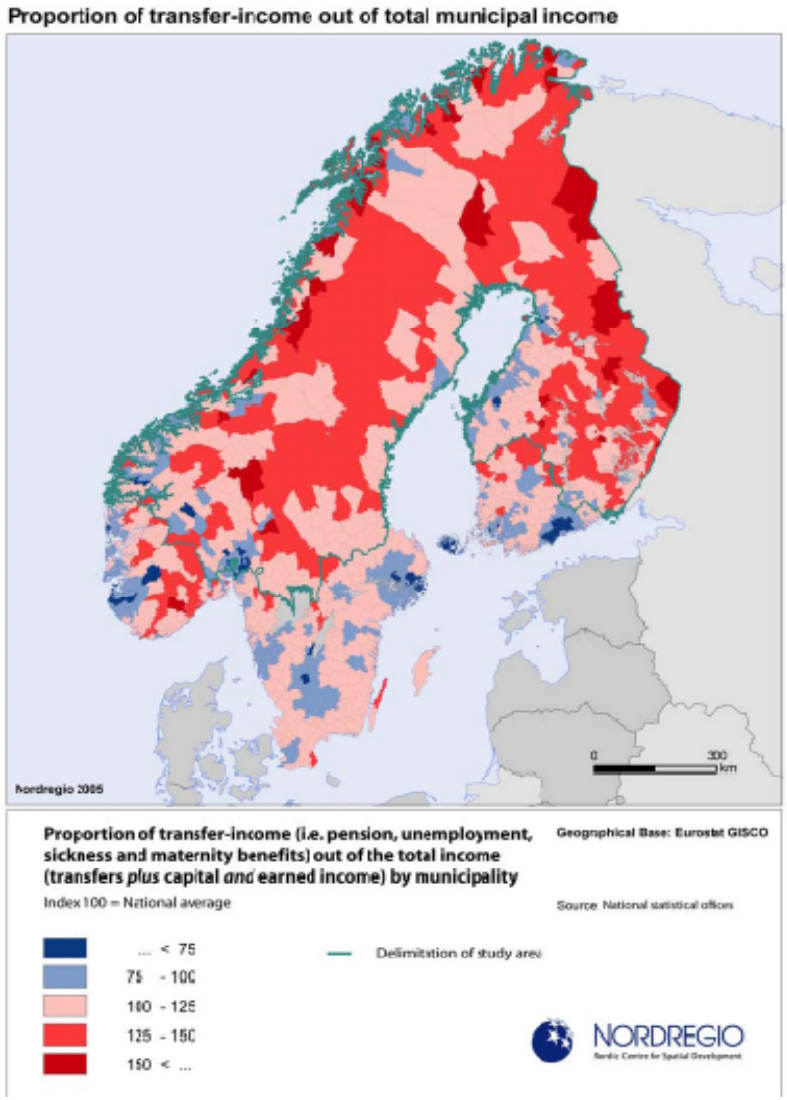


Einkommen

Pro-Kopf-Einkommen

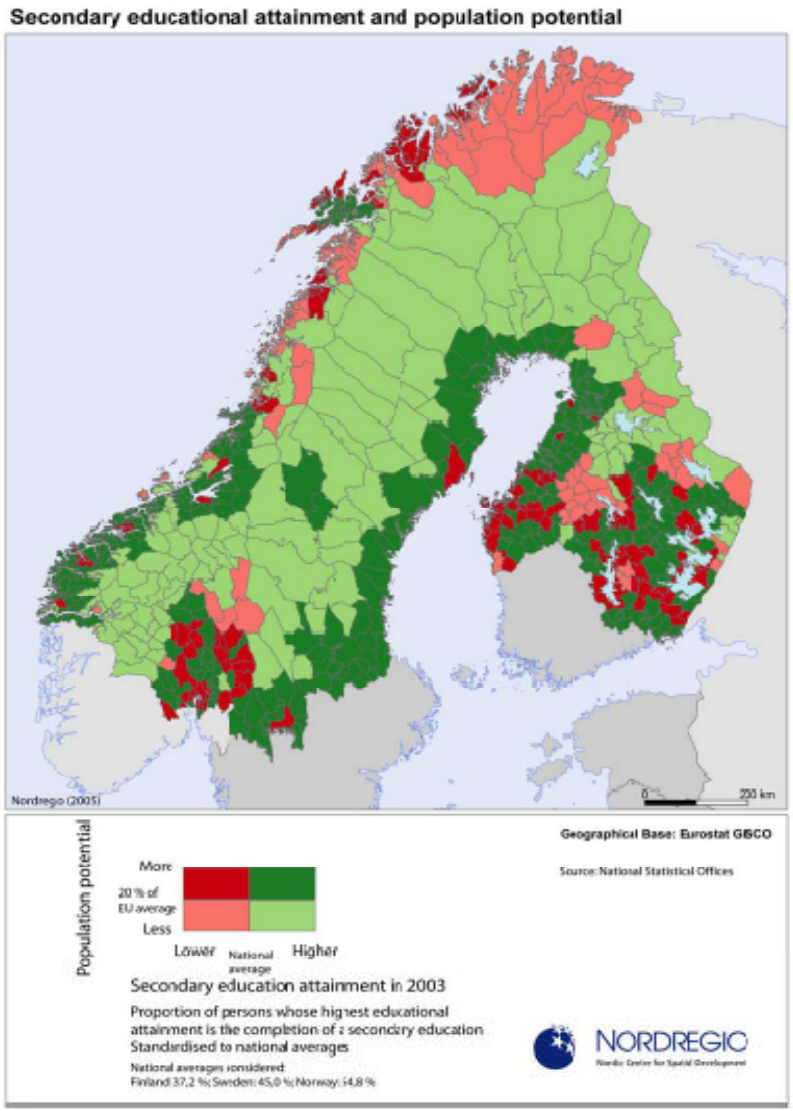


Transferleistungen

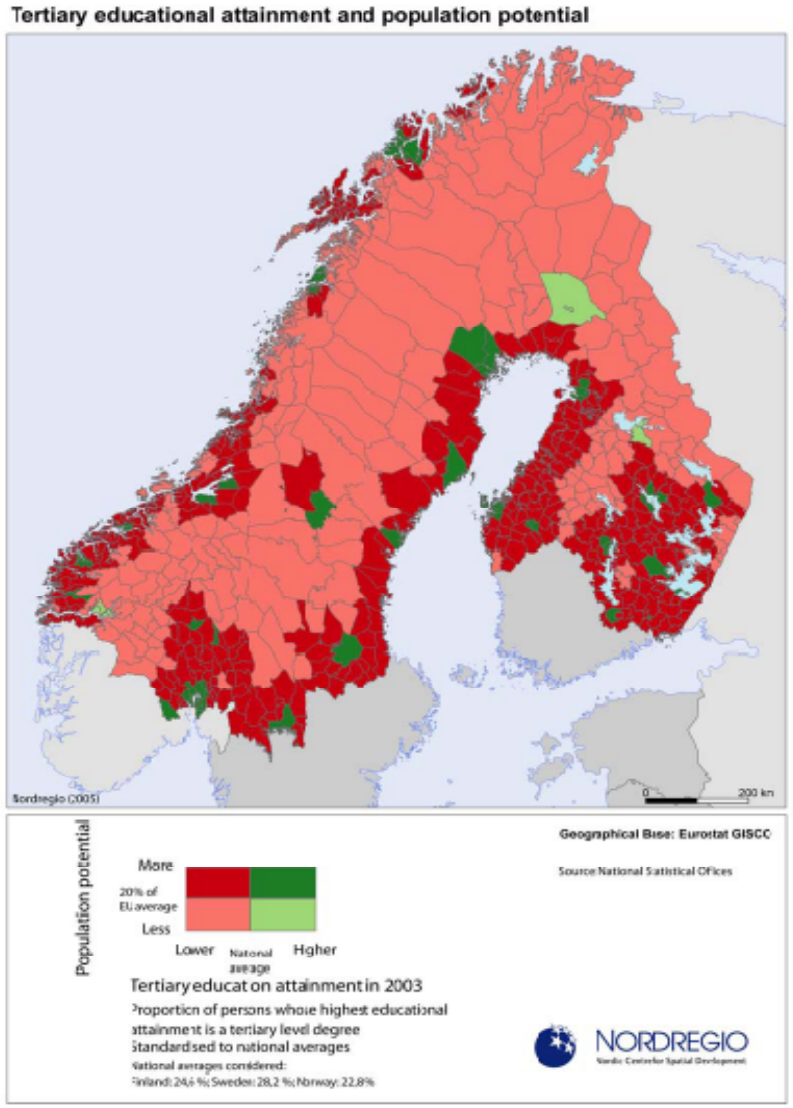


Bildung

Mittlere Reife

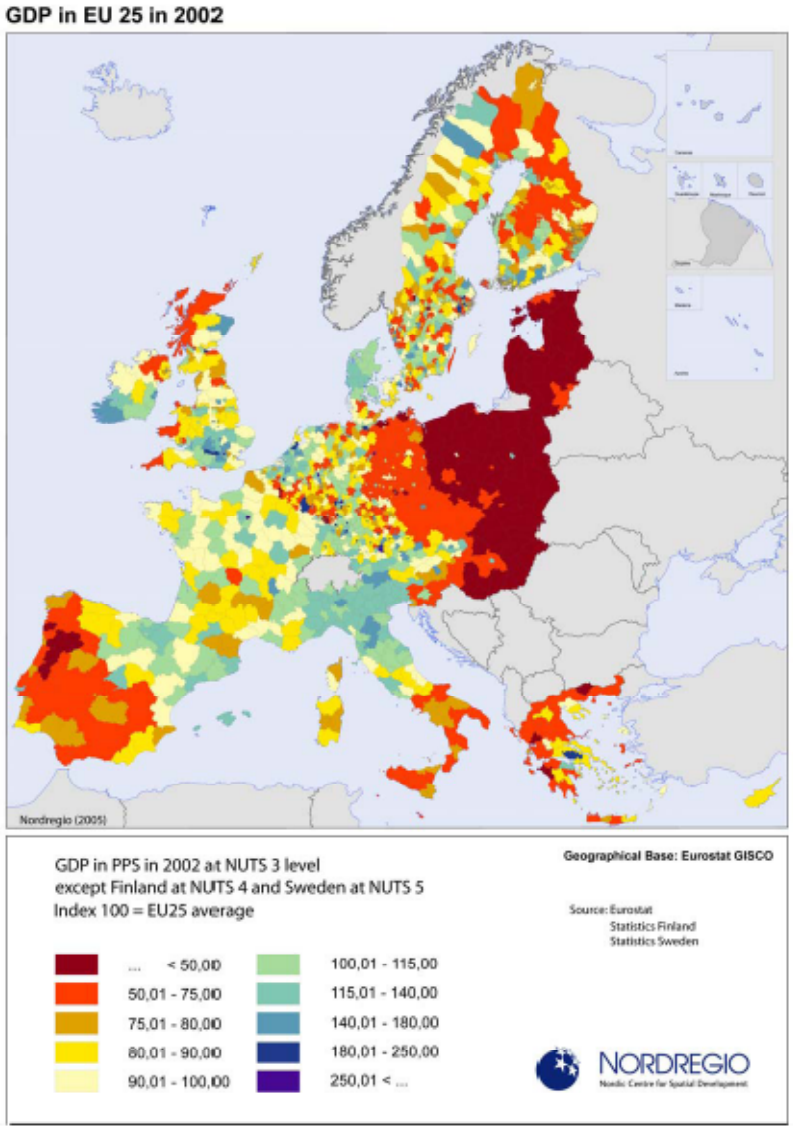


Universität-/FH-Abschlüsse



Bruttoinlandsprodukt

BIP 2002 NUTS-4/5



Gliederung

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- ***7 - Schlussfolgerungen***

Demographie und Siedlungsstruktur

- insgesamt ***tendenziell rückläufige Bevölkerung***, vor allem aufgrund von Migration (Ausnahme: ‚Bible belt')
- ***zunehmende Überalterung*** (Ausnahme: Teile von NOR)
- räumlich unterschiedliche Entwicklungen zw. den ***Küstengebieten und dem Süden***, sowie den ***rückwärtigen Regionen***.
- ***dünn besiedelte Gebiete ≠ ländliche Gebiete*** (Landwirtschaft nicht möglich)
- in vielen Teilen ***erhebliche Probleme*** der ***Aufrechterhaltung der Grundversorgung*** aufgrund disperser Siedlungsmuster bzw. aufgrund großer Entfernungen zwischen Siedlungseinheiten (‚Isolation')

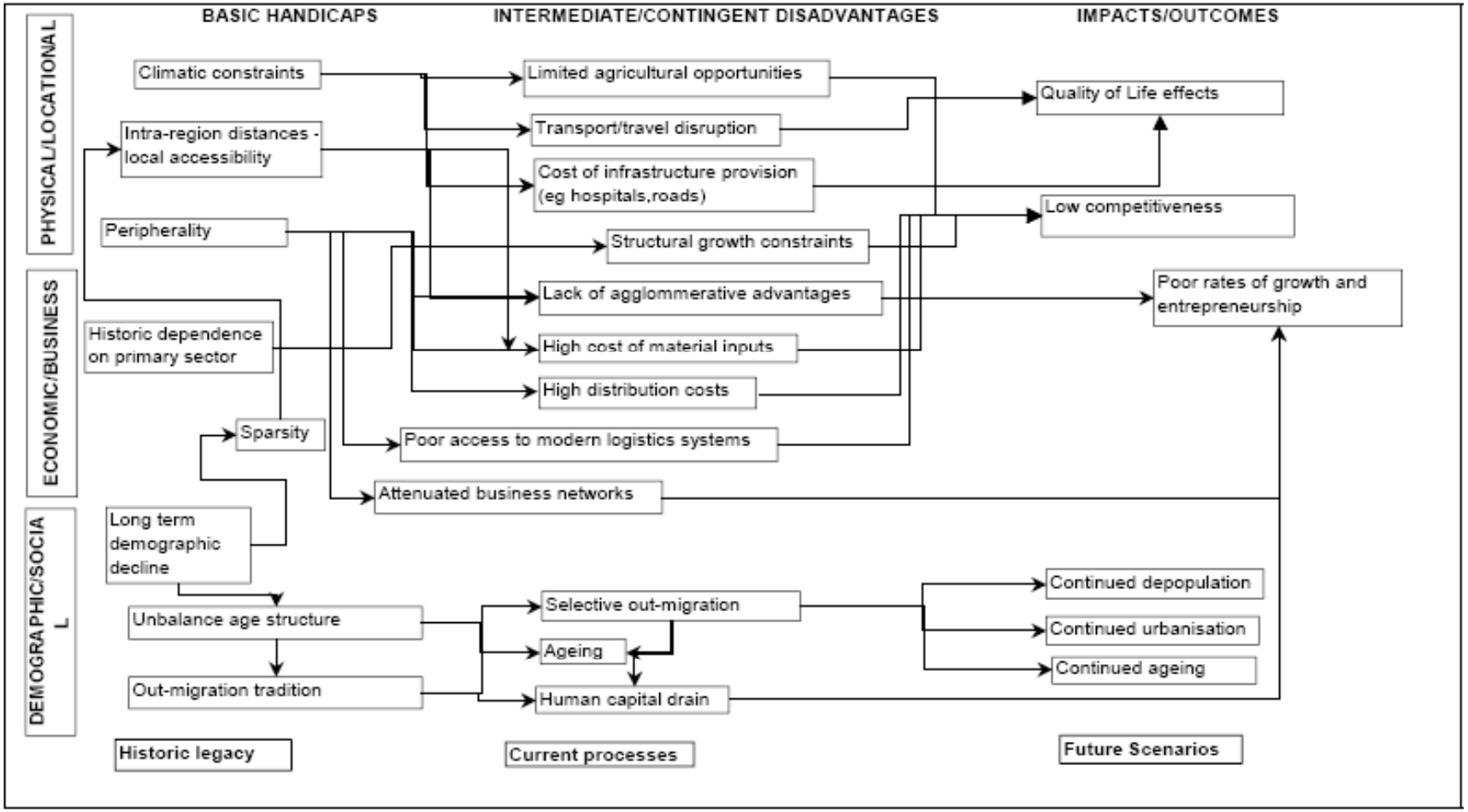
Erreichbarkeit und Infrastrukturen

- ***schlechte Erreichbarkeit*** im europ. Kontext
- ***Flugzeug einziges Verkehrsmittel*** für mittlere u. lange Distanzen
- ***große Anzahl an Flughäfen***, aber nur ***kleines Flugnetz*** mit ***Konzentration auf Hauptstädte*** (SE, FI)
- bedeutende ***Seehäfen***, allerdings nur ***eingeschränkt benutzbar*** (Eis)
- ***Winterdienst*** f. Straßen u. Eisenbahnen verursacht ***hohe Zusatzkosten***
- relativ hohe ***Anzahl an Universitäten und FHs***; ***Studenten*** sind in vielen Städten ***signifikanter Wirtschaftsfaktor***

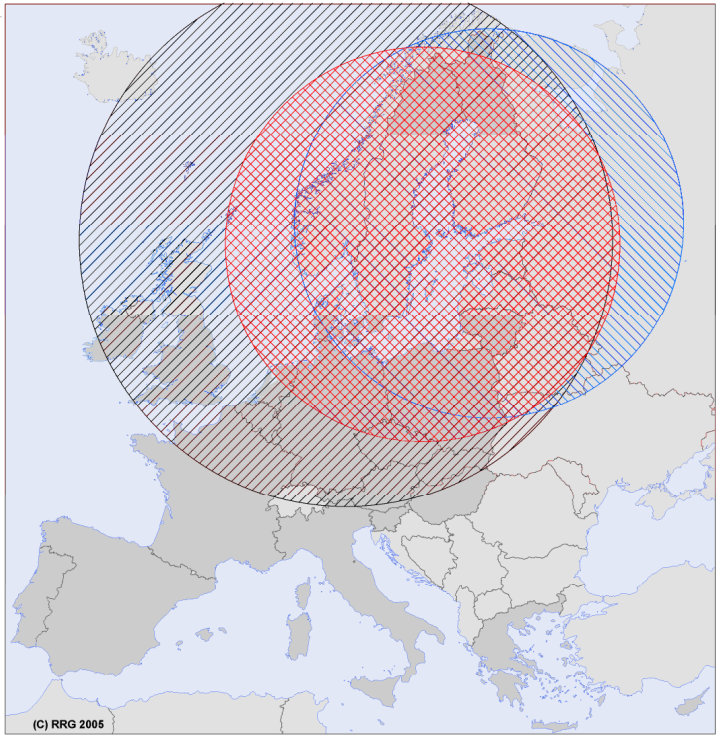
Ökonomische Auswirkungen

- ***höhere (Transport-)Kosten*** für Vorprodukte / Rohstoffe
- ***fehlende Agglomerationsvorteile***
- ***fehlende*** Einbindung in ***moderne Logistiksysteme***
- ***fehlende ‚Netzwerke'***, fehlende innovative Milieus
- fehlende ‚economies of scale' (fehlende kritische Masse), ***‚diseconomies of scale'***
- ***Zusatzkosten*** für Bau u. Unterhalt von öffentl. Infrastrukturen
- Abhängigkeit von ***Beschäftigung im öffentl. Sektor***
- relativ hohe ***Arbeitslosigkeit, geringe Erwerbsquote***
- Abhängigkeit von ***Transferleistungen***

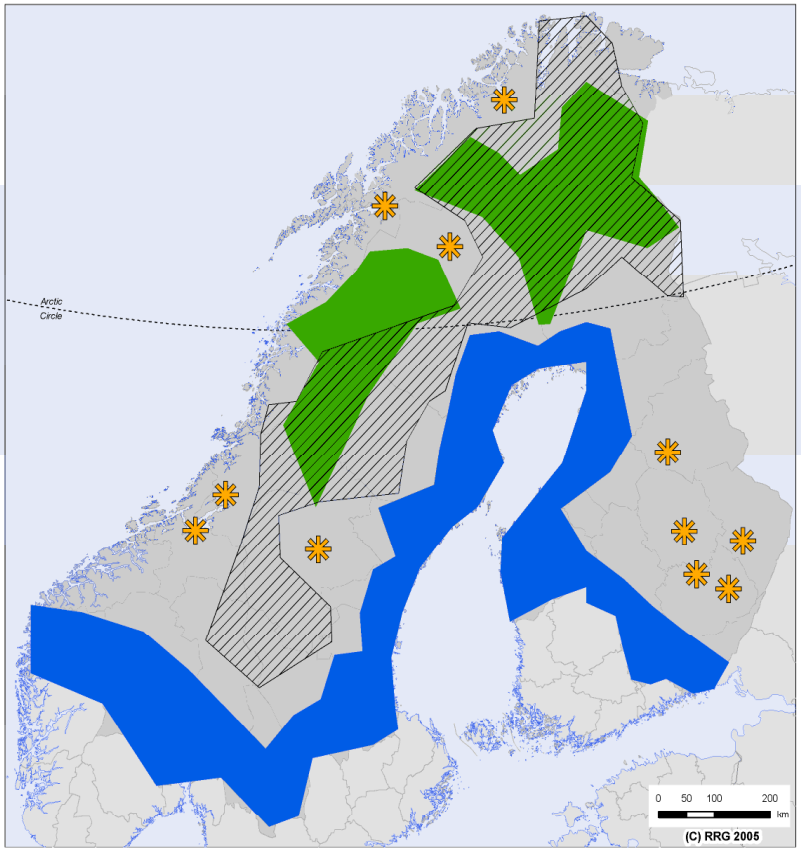
‚Syndrome der Benachteiligung‘



Räumliches Entwicklungsszenario



Räumliche Entwicklungsperspektiven



Geographical Base: Eurostat GISCO

Source: RRG

- Entwicklungs-Belt
- Ökologischer Ausgleichsraum
- Entleerungsgebiete
- Entwicklungspole

Weitere Informationen

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