ESPON.AT Infoday

Räumliche Unterschiede und Potentiale in Europa:
Präsentation der wesentlichen ESPON 2006 Ergebnisse

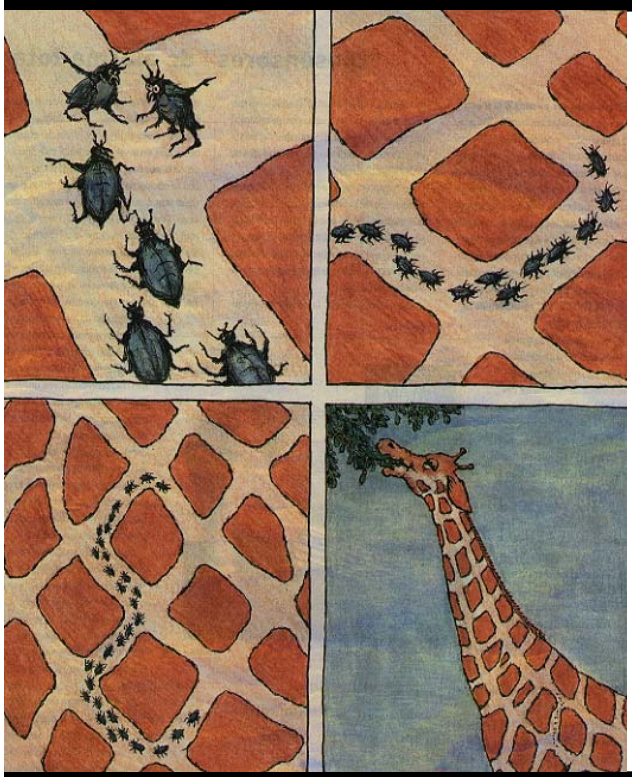
Bananen und Trauben für Erbsenzähler und Feinschmecker

Dr. Kai Böhme

spatial foresight
territorial policy support and research

10 November 2008, Wien

Ergebnisse auf unterschiedlichen räumlichen Ebenen



- **Comparative advantages**
- **Entwicklungen in anderen Räumen**
- **Entwicklungen auf anderen Ebenen**
- **Widersprüche zwischen den Ebenen**
- **Unterschiedliche Traditionen und Kulturen**
- **Interdisziplinär**

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Was hat ESPON gemacht?

Status Quo – Zukunftsszenarien – Auswirkungen von Politiken

Masse + Verteilung von Massen (BIP, Bevölkerung etc.)

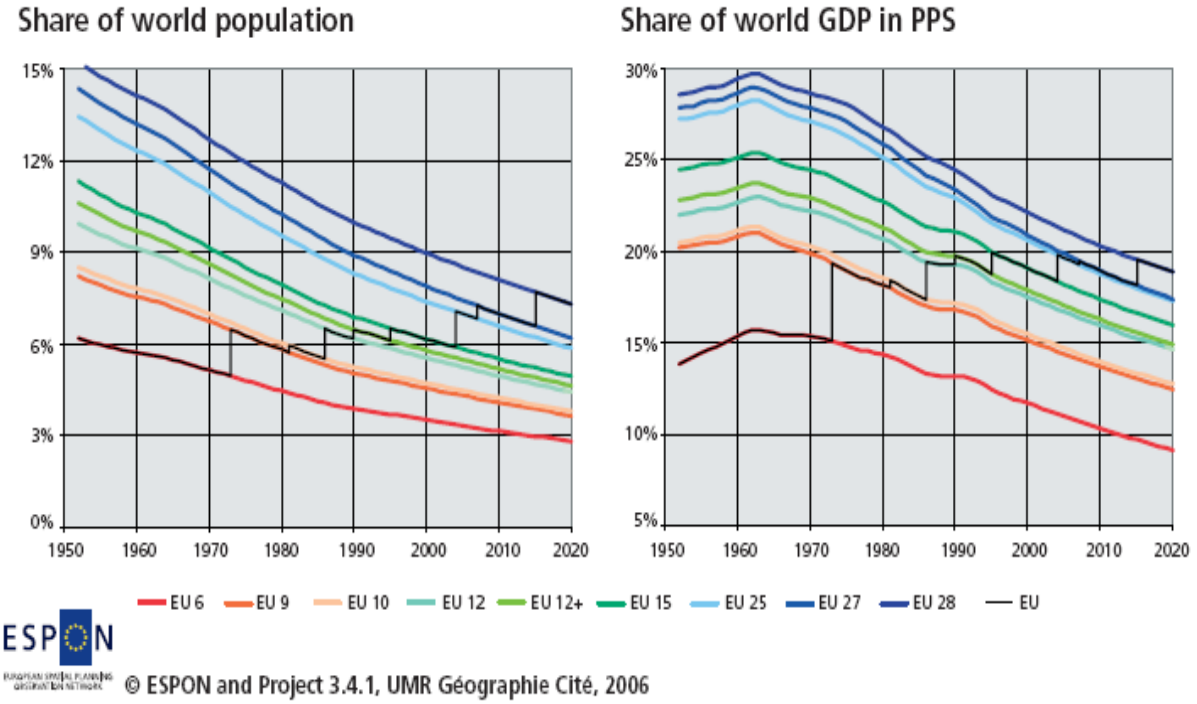
Links + Verbindungen zwischen Räumen (Transport etc.)

Profile + Spezialisierung der Räume

TC = Territoriale Kohäsion

BIP & Bevölkerung

Die globale Größe der EU



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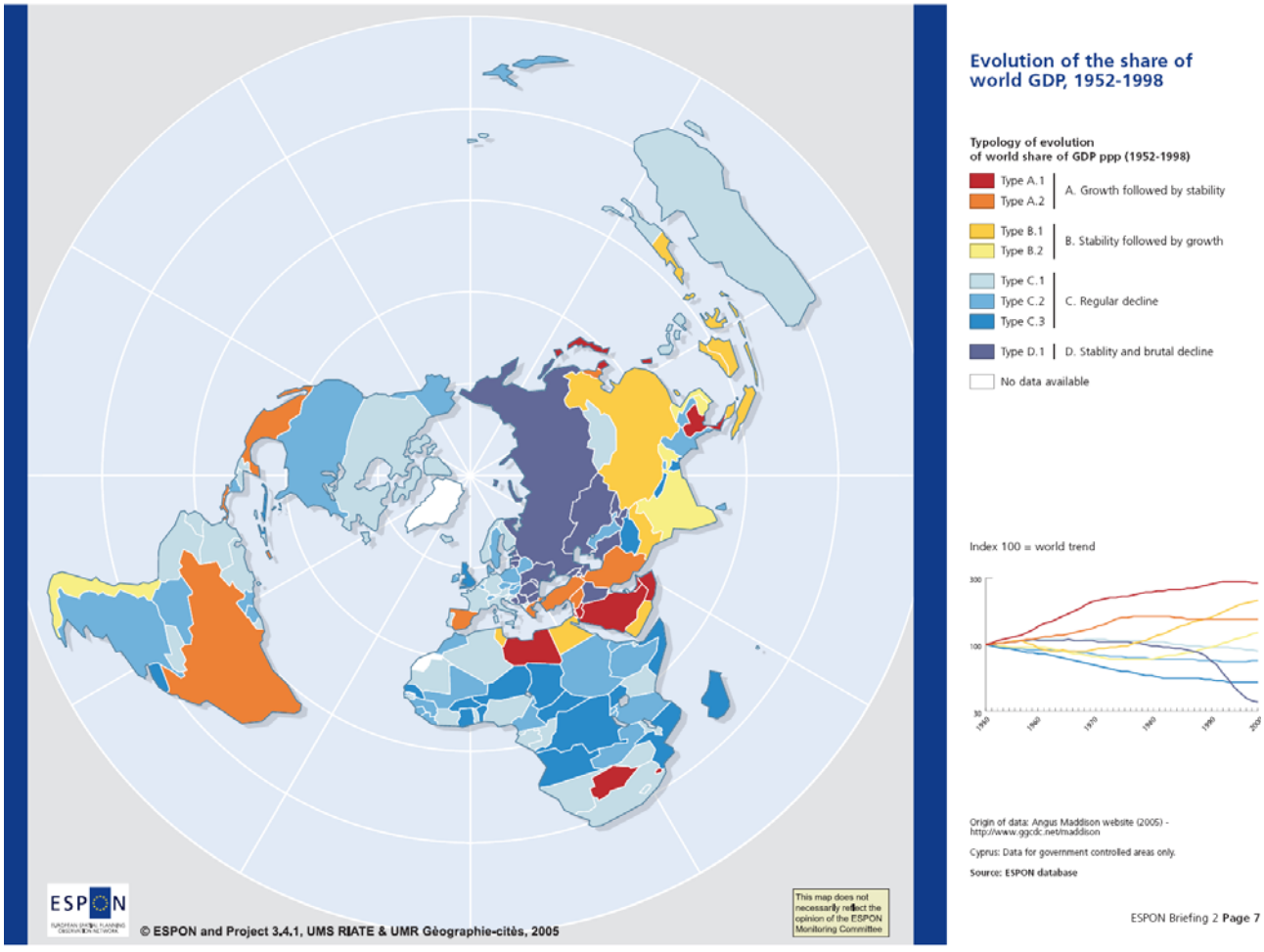
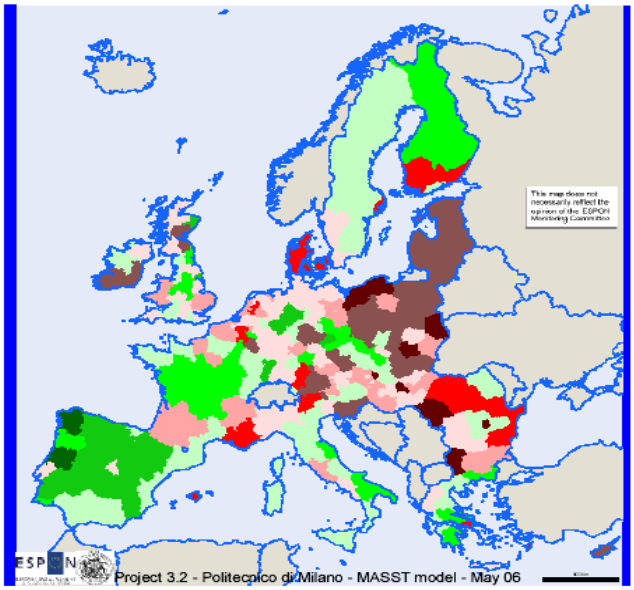
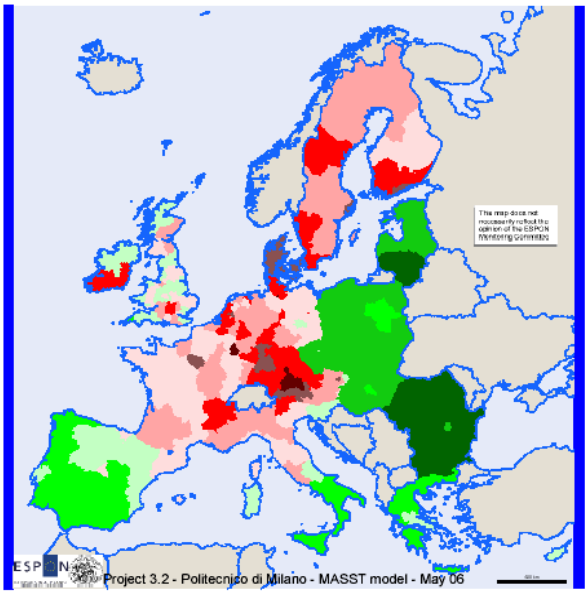


Szenarien für 2015
Wirtschaftliche Aufholprozesse und Disparitäten



Cumulative % real GDP growth 2002-2015 - Baseline Scenario

- < 25
- 25 - 30
- 30 - 35
- 35 - 40
- 40 - 45
- 45 - 50
- 50 - 55
- 55 - 65
- > 65



Per capita GDP in 2015 - Baseline scenario

- 1.329 - 3.609
- 3.609 - 7.059
- 7.059 - 15.676
- 15.676 - 21.456
- 21.456 - 26.509
- 26.509 - 31.614
- 31.614 - 40.246
- 40.246 - 53.669
- 53.669 - 69.875

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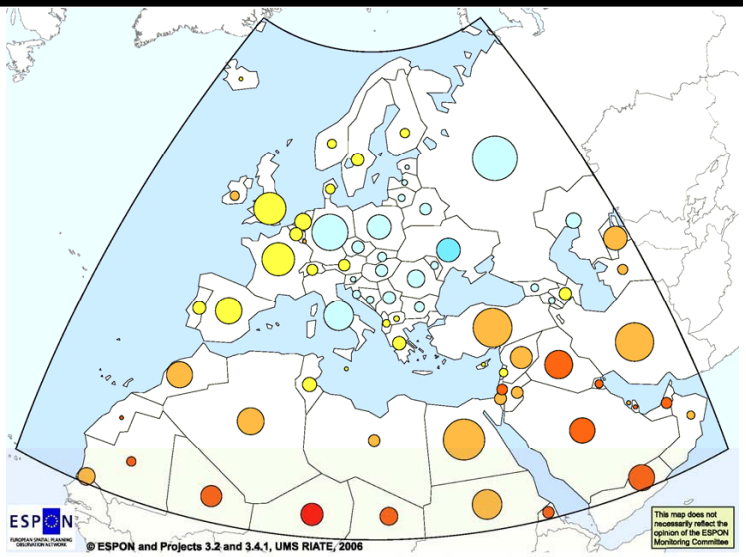
Bevölkerung in Europe und Nachbarstaaten in 2030

Unterschiede zw. Europa und südlichen Nachbarn

Wachstum hauptsächlich außerhalb der EU

Ost-West Unterschiede in der EU mit schwachen Wachstum im Westen (ca. 1%) und langsamen Niedergang im Osten (ca. -1%)



Annual growth rate 2000-2030 (%)

- -2 - -1
- -1 - 0
- 0 - 1
- 1 - 2
- 2 - 3
- 3 - 4

Population in 2030 (millions)

Origin of data: United Nation Population Prospect 2005 (medium hypothesis)

Cyprus: Data for government controlled areas only.

Source: ESPON database

Top 10 of most populated states in 2000

Rank	State	Millions of inhabitants
1	Russian Federation	147
2	Germany	82
3	Turkey	68
4	Egypt	67
5	Iran	66
6	France	59
7	United Kingdom	59
8	Italy	58
9	Ukraine	49
10	Spain	41

(EU Member States in blue)

Top 10 of most populated states in 2030

Rank	State	Millions of inhabitants
1	Russian Federation	125
2	Egypt	107
3	Turkey	94
4	Iran	92
5	Germany	82
6	United Kingdom	65
7	France	64
8	Italy	55
9	Sudan	55
10	Iraq	49

(EU Member States in blue)

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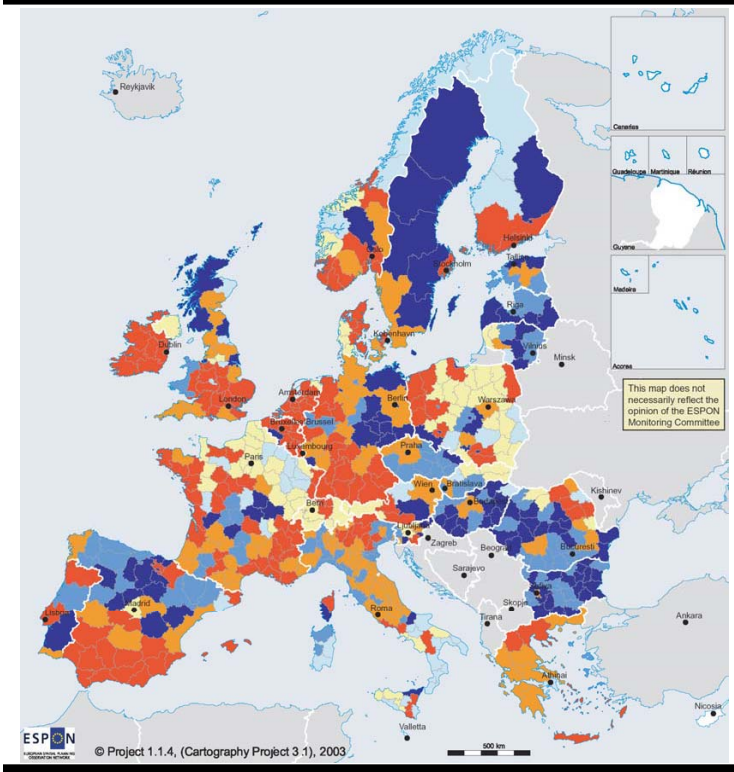
Bevölkerungsentwicklung 1996-1999



Population development by components

Population increase with

- positive migratory balance and positive natural balance
- positive migratory balance and negative natural balance
- negative migratory balance and positive natural balance

Population decrease with

- negative migratory balance and positive natural balance
- positive migratory balance and negative natural balance
- negative migratory balance and negative natural balance

NB: Cyprus and Malta are not covered by this map as there is no comparable migration data available for the period 1996-99.

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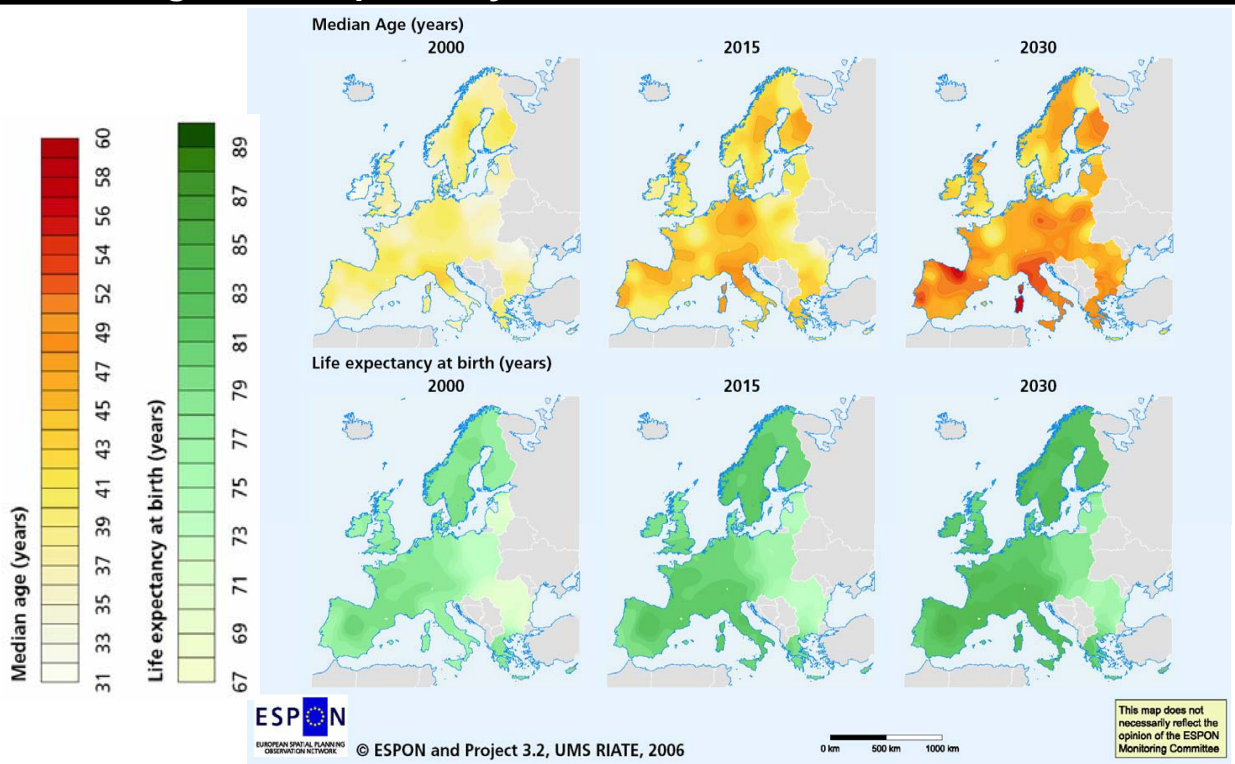
Demographische Szenarien 2015 & 2030
median age & life expectancy at birth



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Relevante und unmögliche Migrationszahlen

Relevante Zahlen:

Zur Beibehaltung der Bevölkerungsmenge (B1):

- 74 millionen Immigranten (2000 - 2050) in EU15 bzw. 101 Millionen in ESPON29

Zur Beibehaltung der aktiven Bevölkerungszahlen (B2)

- 93 millionen Immigranten in EU15, 20,5 millionen in EU10 bzw. 124 millionen in ESPON29

Unmögliche Zahlen:

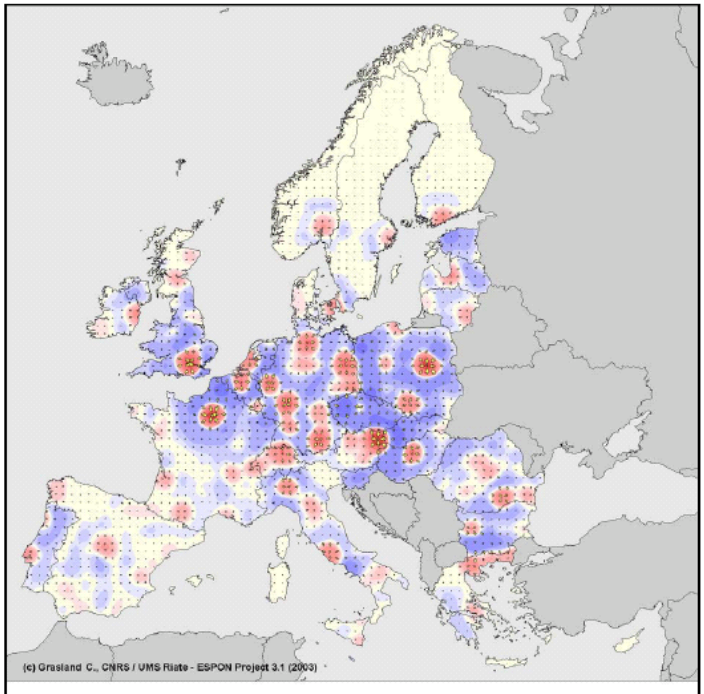
Zur Beibehaltung des Verhältnisses von arbeitender Bevölkerung zu Rentnern etc. (B3):

- 405 millionen Immigranten (2000 – 2050) in EU15 bzw. 542 millionen in ESPON29

Mit aktuelle Immigrationszahlen (B0):

- 41 millionen Immigranten (2000 – 2050) in EU15 bzw. 42 millionen in ESPON29

Map 29 Potential economic polarisation at local scale in 1999 (50-200 km)



Kohäsion & Disparitäten

Balance zwischen BIP und Bevölkerung

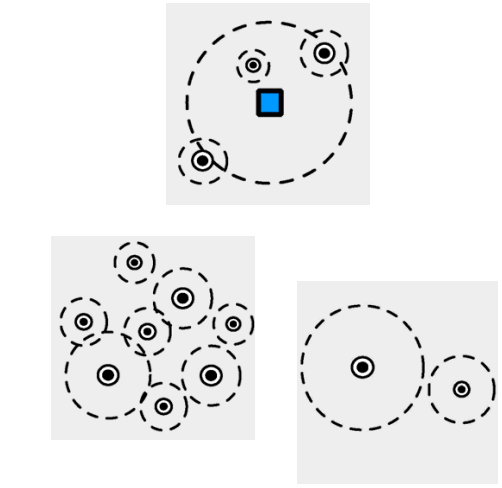
Die ungleiche Verteilung der Bevölkerung (blau) und des Wohlstandes (rot) zeigt ein eher polyzentrisches Bild.

Nur in wenigen Räumen (weiß) scheinen Bevölkerung und BIP sich die Balance zu halten.

Die neoklassische Regionalökonomie ginge davon aus, dass die Mobilität von Bevölkerung und Kapital die Balance herstellt.

Stadt & Land

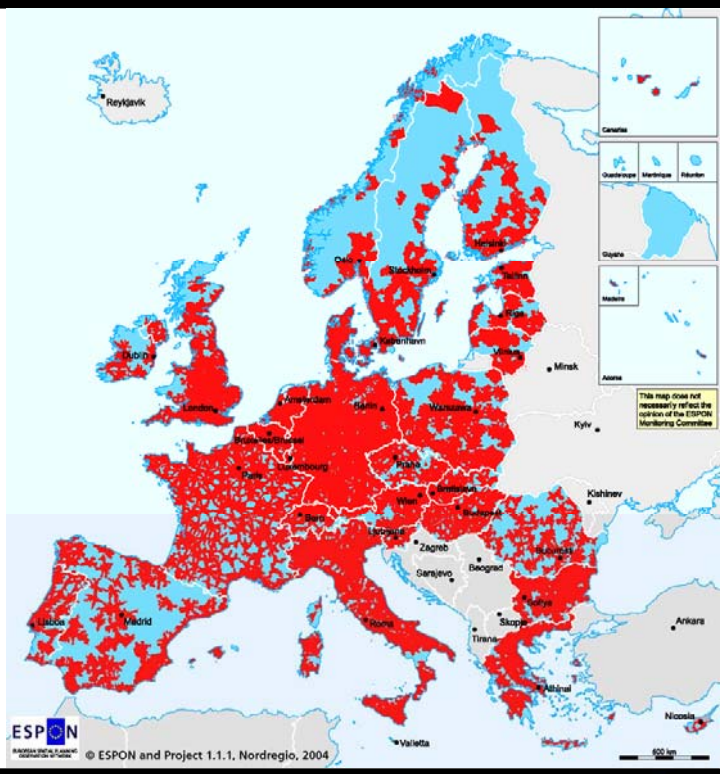
Metropolräume und ihr Hinterland
Räume in 45 Min-Erreichbarkeit

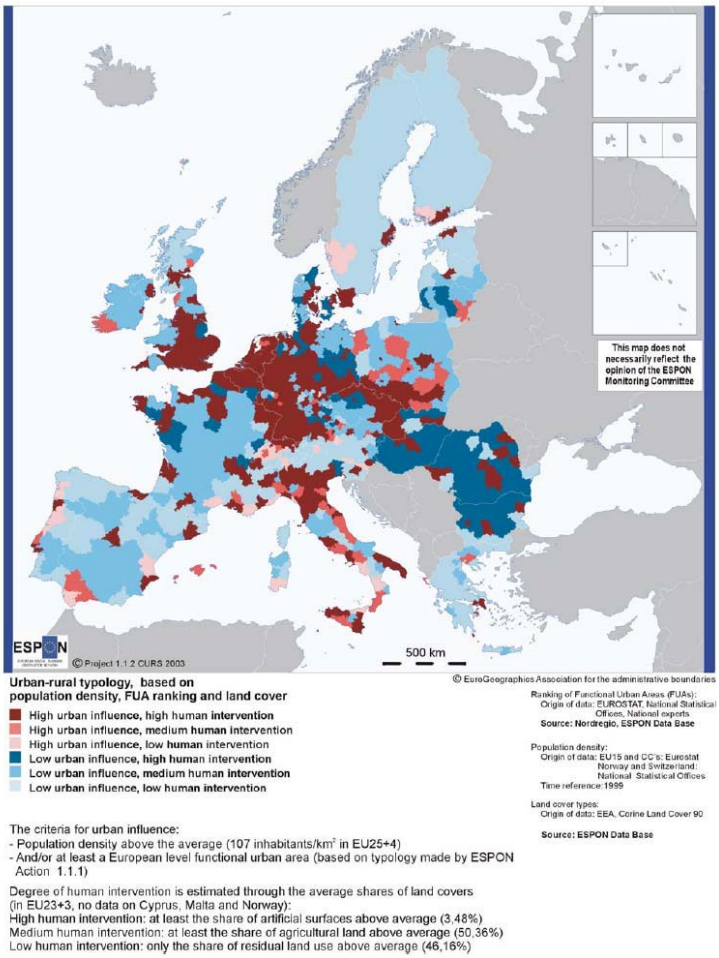


Area in 45 minutes reach from an urban centre (FUA): Potential Urban Strategic Horizons (PUSH)

Areas more than 45 minutes from the nearest urban centre (FUA)

Origin of data: ESPON Project 1.1.1, Nordregio





Stadt oder Land?

Bevölkerungsdichte

Bodennutzung

Europäische FUA

NUTS 3 oder 5 (LAU)?

Europäische oder nationale Messlatten?

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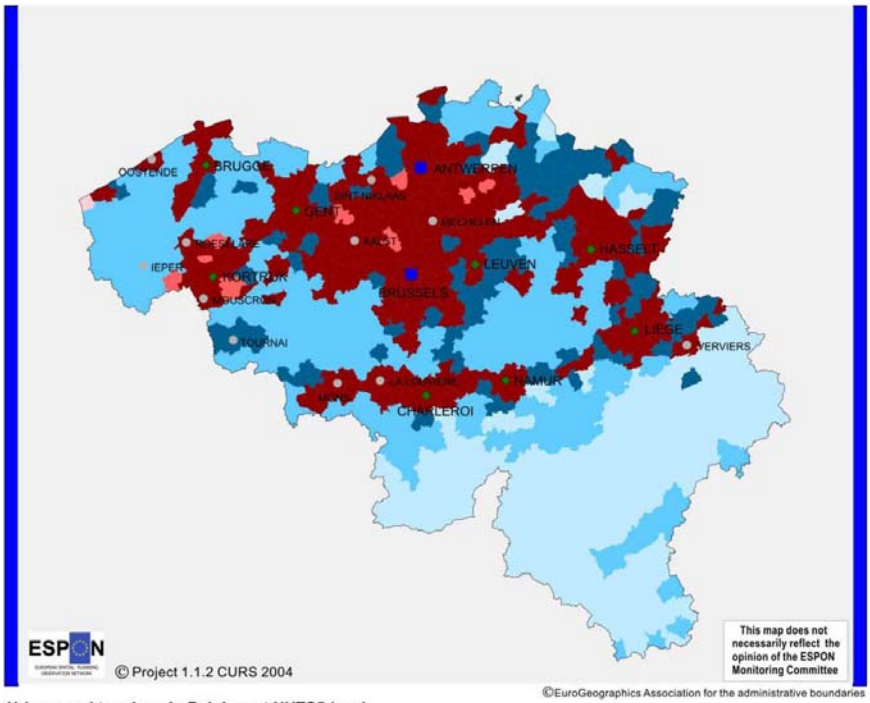

Stadt oder Land?

Gleiche Methode

ABER

NUTS 5

&

Nationale Messlatte

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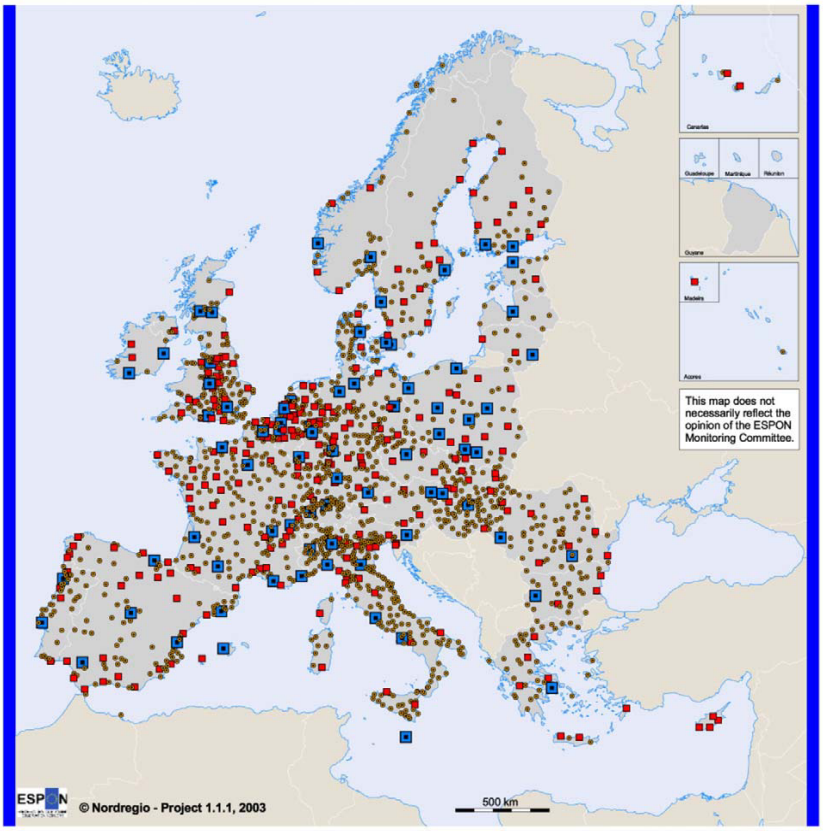
Typology of Functional Urban Areas (FUAs)



Geographical Base: Eurostat GISCO

- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

Polyzentralität

Funktionale Stadtregionen

1.595 FUAs in Europa

76 MEGAs in Europa

…

Kriterien

Bevölkerung

Wirtschaftszentren

Industrie

Wissen

Transport

Tourismus

Öffentliche Verwaltungszentren

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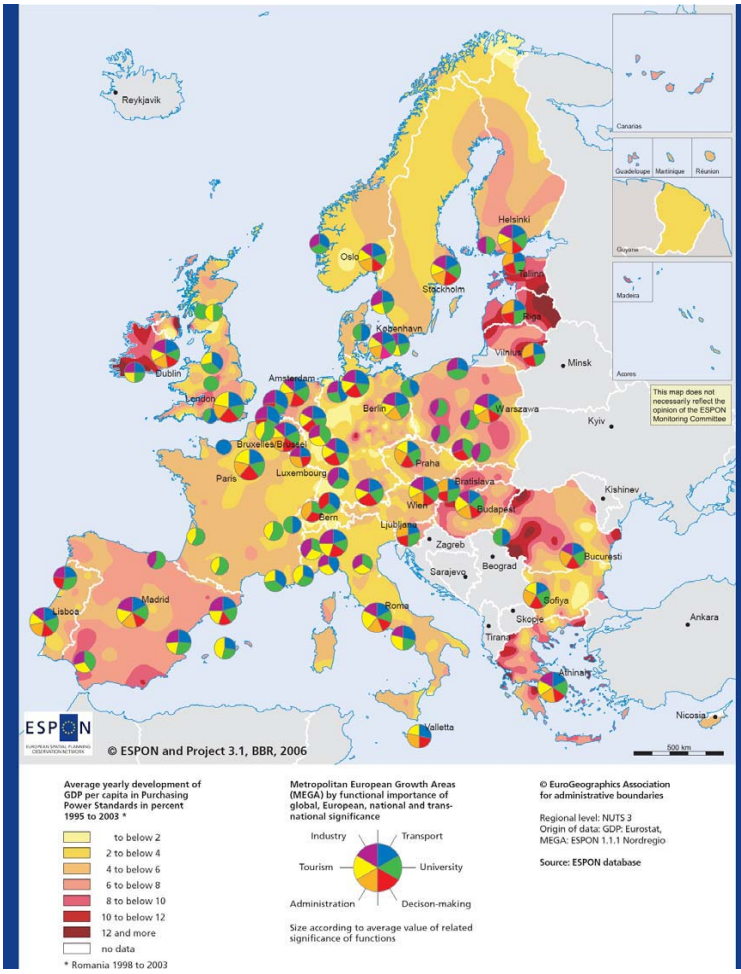

Funktionale MEGAs

Nur 14 MEGAS international in allen sechs Punkten

…

Lässt man die Öffentlichverwaltung weg sind 20 MEGAS international in allen fünf Punkten

…

Was haben Hamburg, Düsseldorf, Frankfurt, München, Barcelona, Mailand und 14 europäische Hauptstädte gemeinsam?

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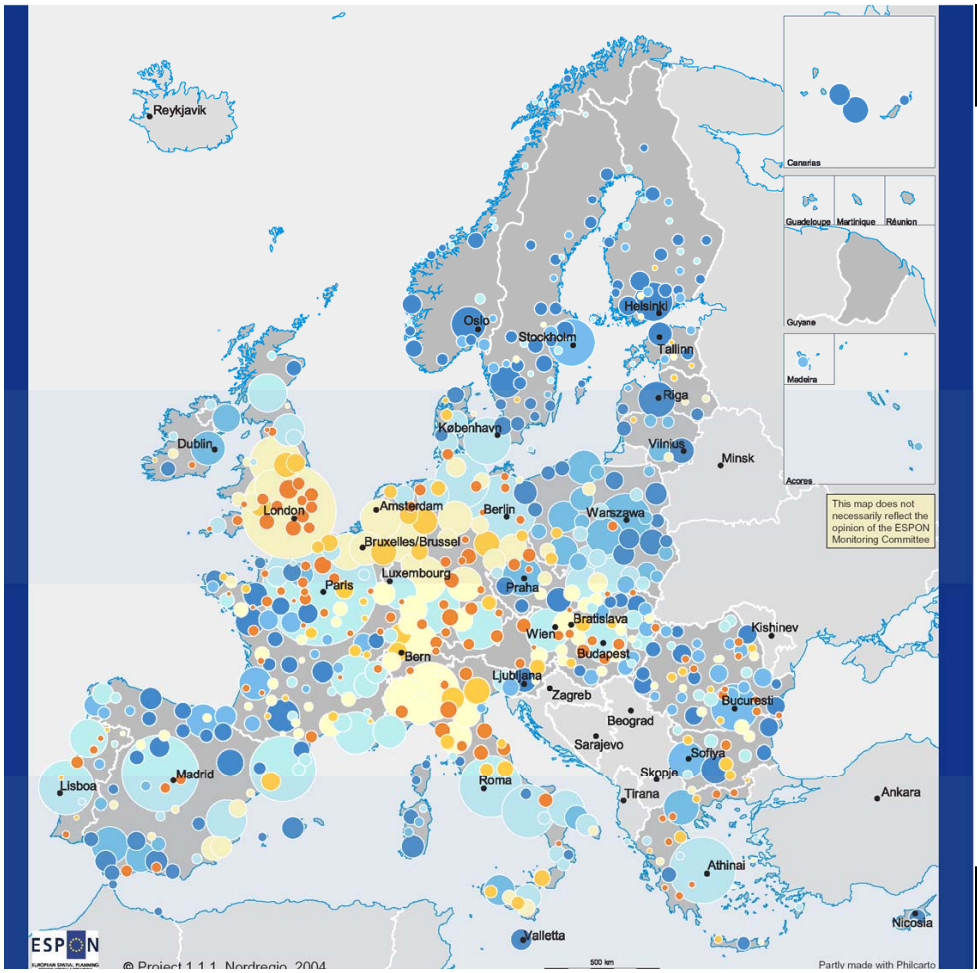
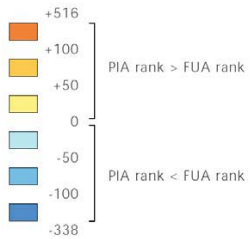


Potentielle polyzentrische Reg



Difference between the European rank of individual cities and the European rank of the corresponding Potential Integration Area (PIA) considering the main city of each PIA only

The Potential Integration Area includes neighbouring cities with overlapping potential commuter areas, which could gain from co-operation and a common use of comparative functional advantages

Population of cities according to national definitions of functional urban areas.

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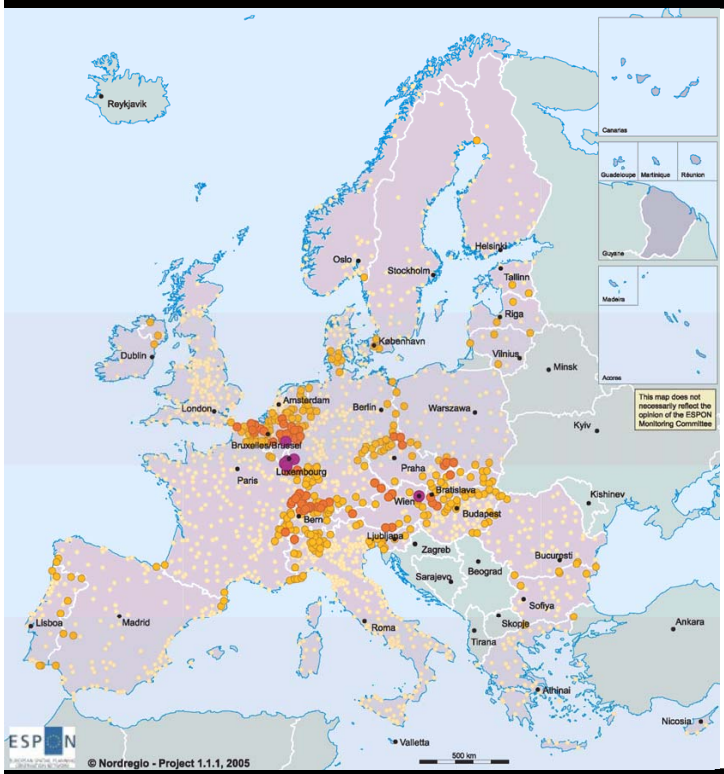
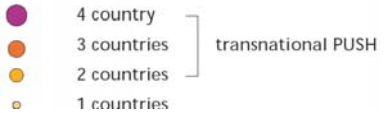
Potentiale transnationale Stadtregionen



23% aller FUAs haben das Potential sich über nationale Grenzen hinweg zu entwickeln.

Number of countries within 45 minutes commuting distance of a functional urban area (i.e. Potential Urban Strategic Horizons, PUSH):*



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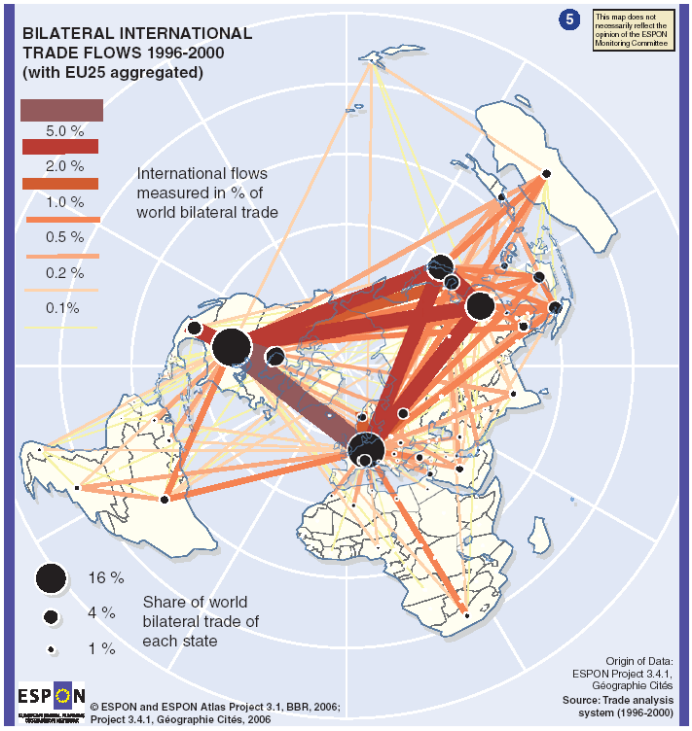
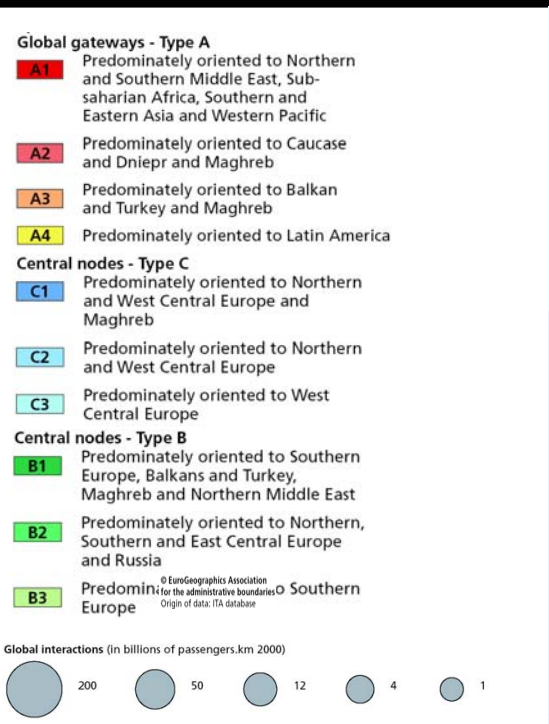
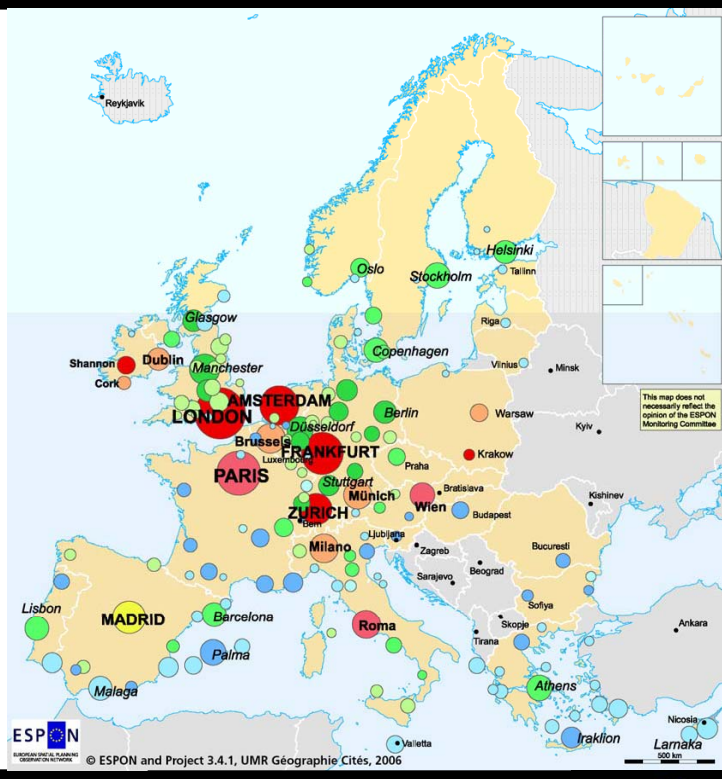
Transport & Kommunikation

Bilaterale internationale Handelsströme



Globale Flughäfen 2002





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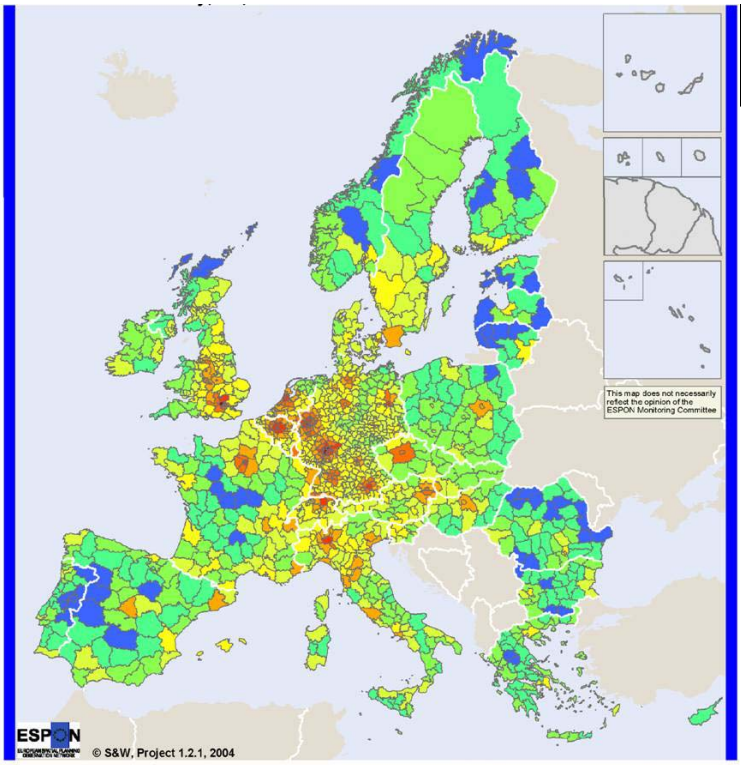
Potentielle Erreichbarkeit Luft, 2001



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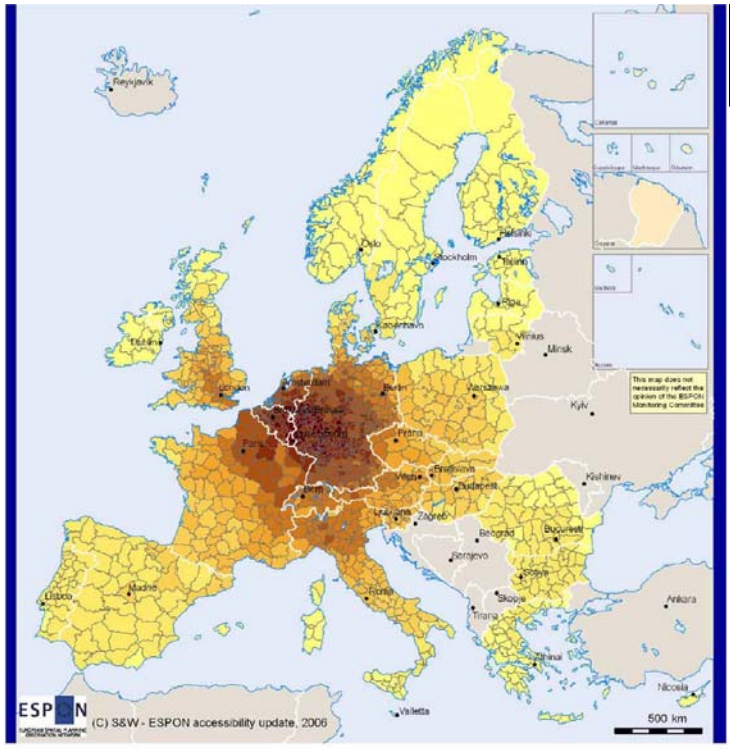
Potentielle Erreichbarkeit Strasse, 2006



Potential accessibility
Road, 2006 (EU27 = 100)

- - 25,0
- 25,1 - 50,0
- 50,1 - 75,0
- 75,1 - 100,0
- 100,1 - 125,0
- 125,1 - 150,0
- 150,1 - 175,0
- 175,1 - 200,0

(C) EuroGeographics Association for the administratives boundaries

Data sources:
RRG GIS Database
S&W Accessibility Model

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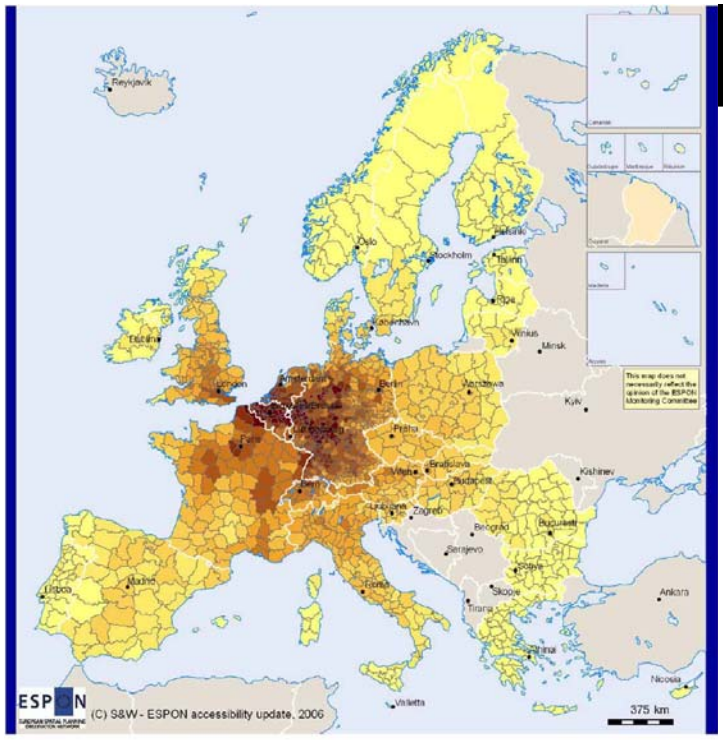
Potentielle Erreichbarkeit Schiene, 2006



Potential accessibility
Rail, 2006 (EU27 = 100)

- - 25,0
- 25,1 - 50,0
- 50,1 - 75,0
- 75,1 - 100,0
- 100,1 - 125,0
- 125,1 - 150,0
- 150,1 - 175,0
- 175,1 - 200,0
- 200,1 -

(C) EuroGeographics Association for the administratives boundaries

Data sources:
RRG GIS Database
S&W Accessibility Model

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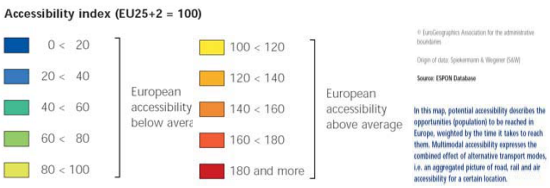
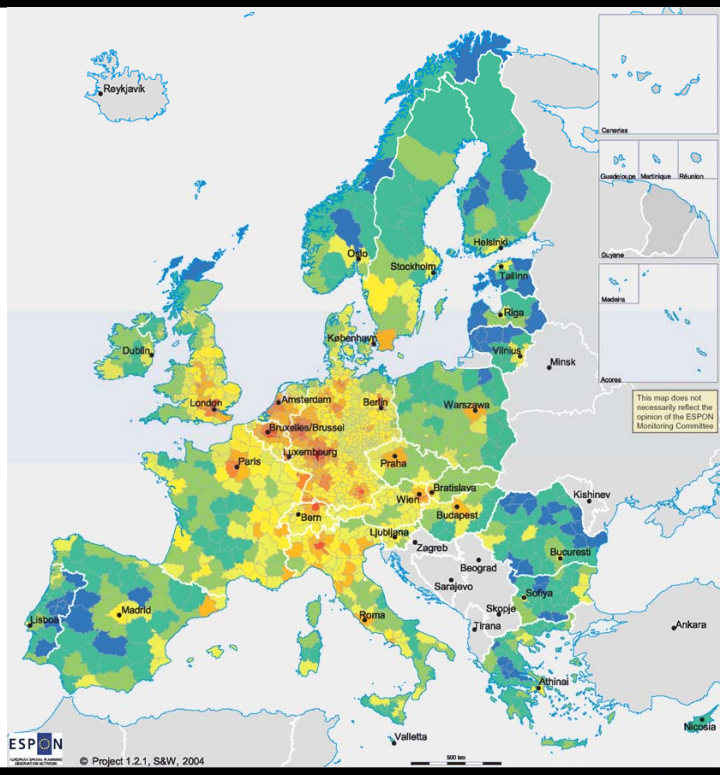
Multimodale Erreichbarkeit, 2001

Erreichbarkeit von Bevölkerung in Zeit.

Zentrum-Peripherie-Bild von Weg und Schiene wird durch den Luftverkehr etwas balanciert.

Europäische und nationale Zentrum-Peripherie-Bilder.





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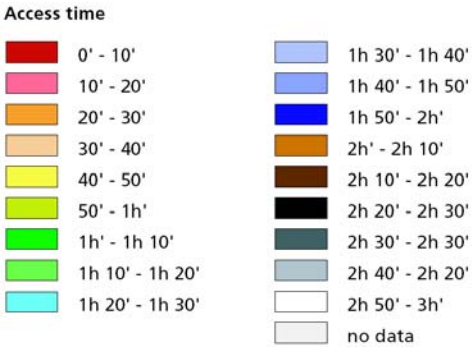
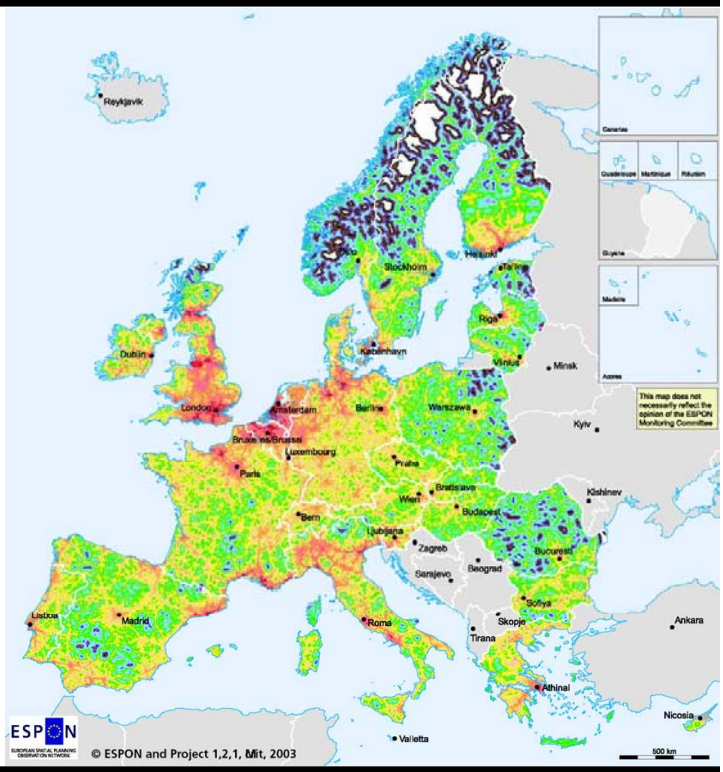
Erreichbarkeit von Transport Terminals

Autobahnauffahrten, Bahnhöfe, Häfen, und Flughäfen.

Erreichbarkeit im Alltag?





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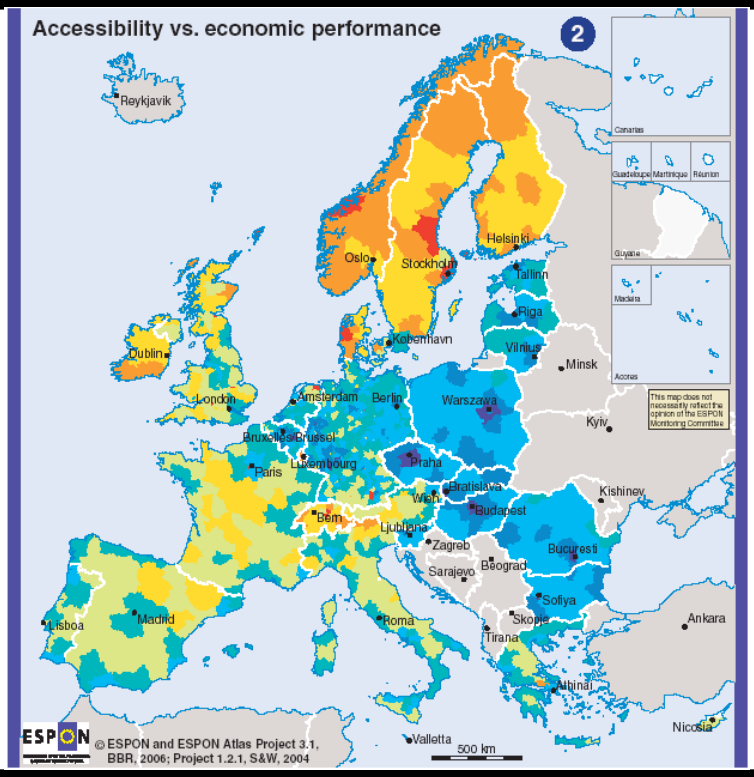
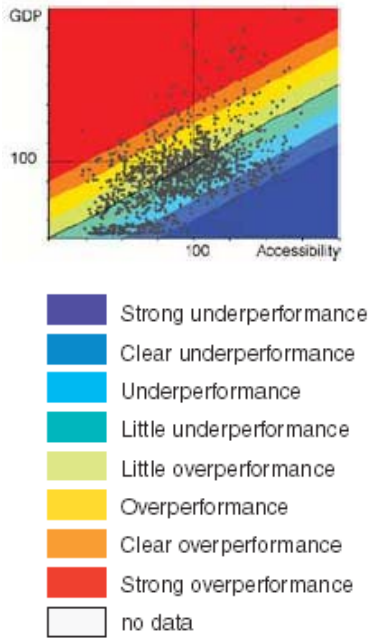
Erreichbarkeit und Wirtschaftsentwicklung





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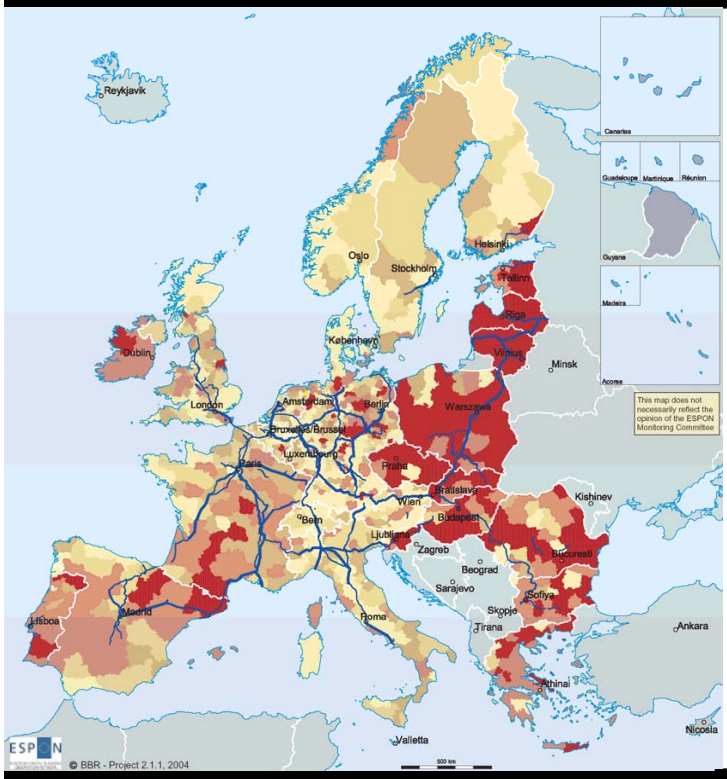
Szenario – Veränderung der Transportströme 2000-2020



TEN-STAC base year 2000 vs. European+ scenario 2020

Regional change of vehicle unit kilometres travelled

- up to 25 %
- 25 % up to below 33 %
- 33 % up to below 43 %
- ESPON space average
- 43 % up to below 70 %
- 70 % and more

Markedly Increasing Railway Transport Flows

- 2.5 up to 5.0 million passengers or 10.0 up to 20.0 million tonnes
- 5.0 up to 7.0 million passengers or 20.0 up to 30.0 million tonnes
- more than 7.0 million passengers or more than 30.0 million tonnes (per year, difference 2000-2020)

© EuroGeographics Association for administrative boundaries

Origin of data: NEA transport research and training, TEN-Stac Scenarios, Traffic Forecast and analysis of corridors on the Trans European Transport Network

1 vehicle unit equals 1 car or 0.5 bus or 0.5 truck

Source: ESPON database

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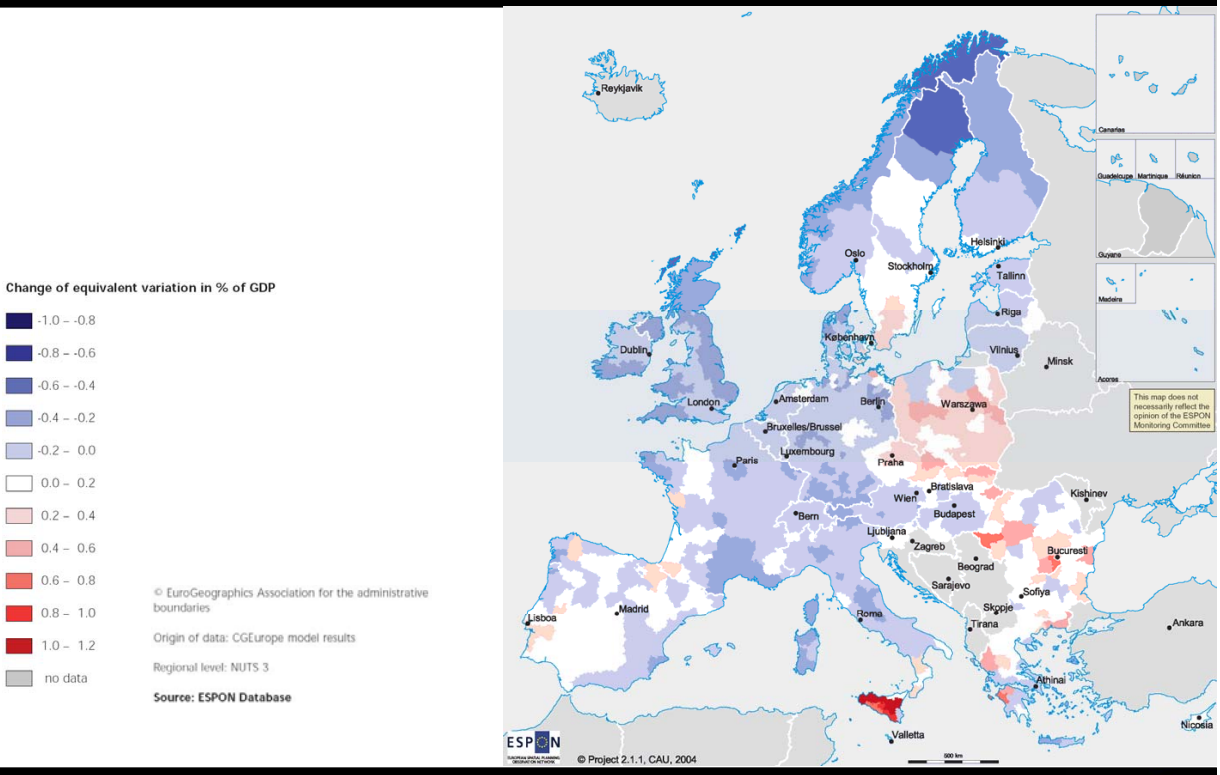
BIP-Veränderung 2001-2021
bei Umsetzung von TEN/TINA und höhren Transportkosten



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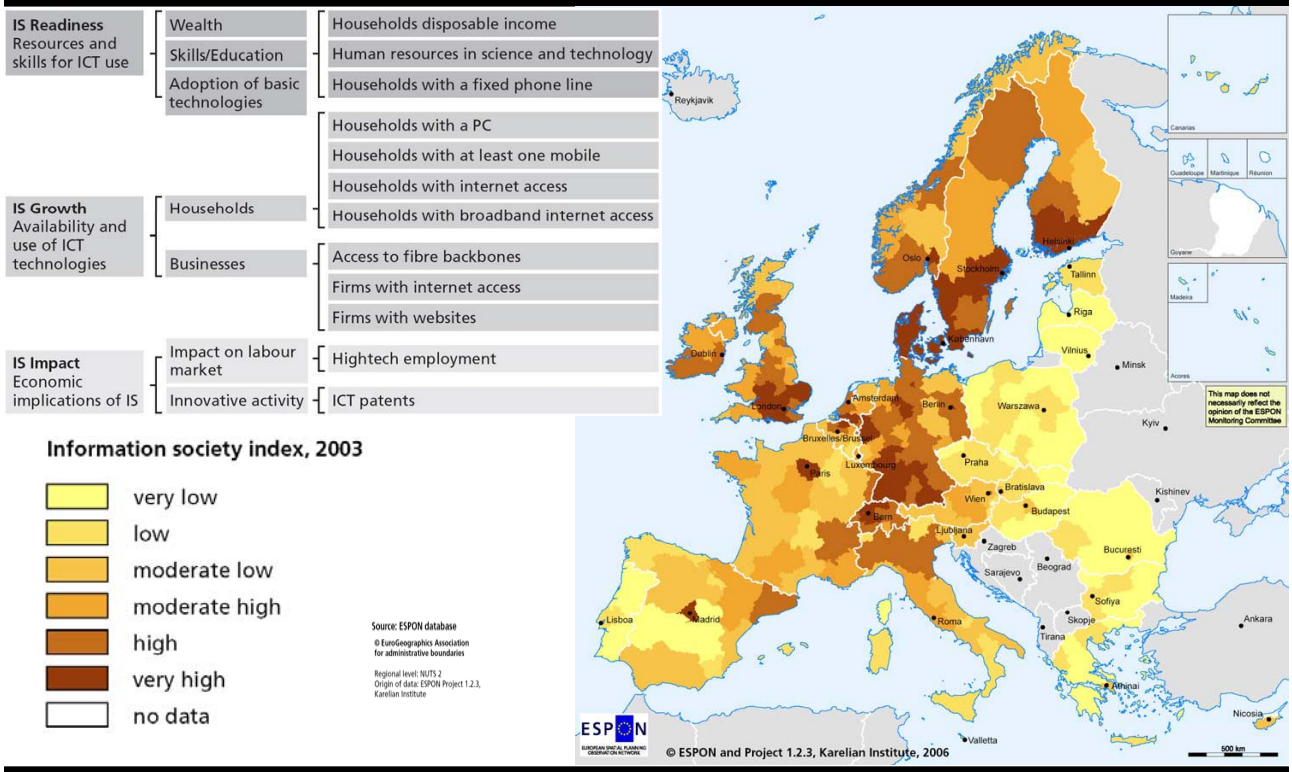
Information society readiness, growth and impact, 2003



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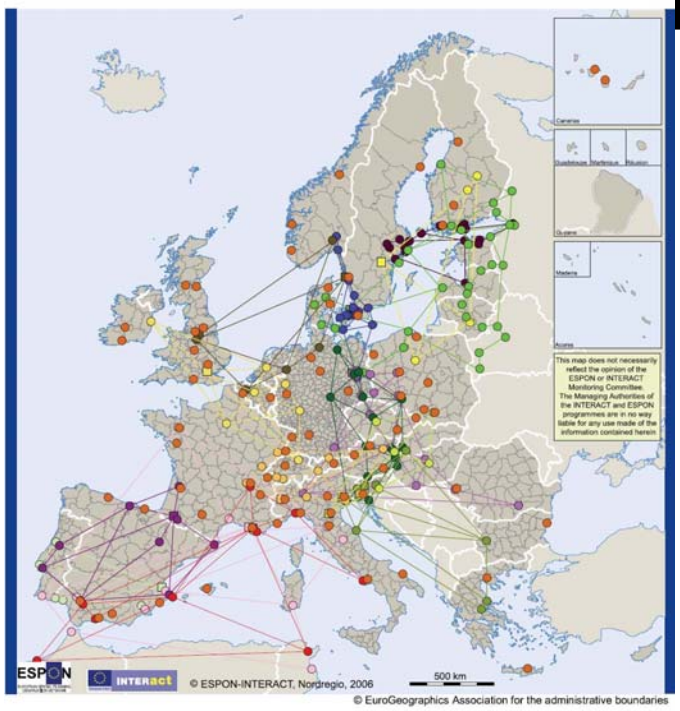
INTERREG IIIB

Figure 13: Second tier cities and main INTERREG IIIB projects dealing with polycentric development



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Spezialisierung

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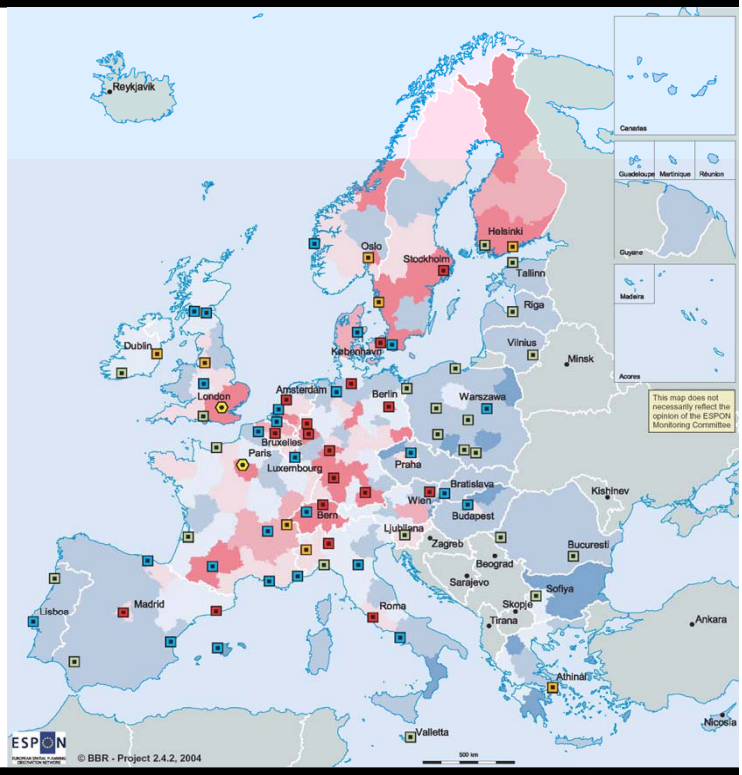
Forschung und Entwicklung: **Business Enterprise Sector**

Die stärksten Metropolregionen haben oft auch starke FuE-Profile.

Hohe FuE-Ausgaben oft in den Hauptstadtregionen.



Degree of importance of research and development as an aggregate of 2 indicators: *

- Low
- Below average
- Moderately below average
- Moderately above average
- Above average
- High

*Additive combination of standardi indicators: expenditure of R&D, anc in BES as percent of total personnel

Metropolitan Growth Areas

- Global City
- European engine
- Strong MEGA
- Potential MEGA
- Weak MEGA

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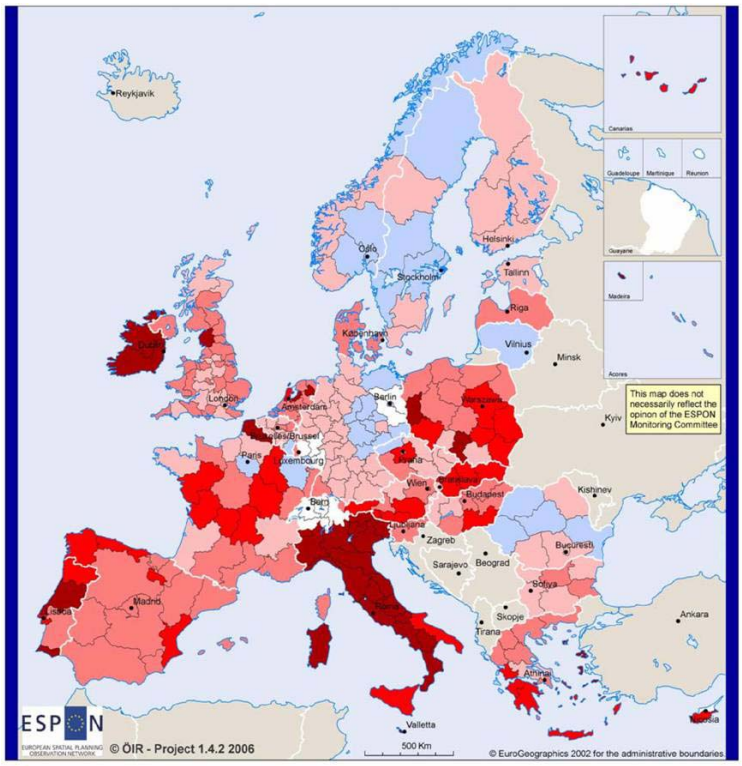

Tertiary education change 2000-2004 in percent

- below 0.0
- 0.1 - 15.0
- 15.1 - 30.0
- 30.1 - 45.0
- 45.1 and more
- no data available

Source: Eurostat

Regional level: NUTS 2

Data not available: France (partly), Germany (partly), Switzerland

Employed persons with tertiary education - change 2000-2004 in %.

Ausbildung

Arbeitnehmer mit Universitätsausbildung

Veränderung 2000-2004 in %

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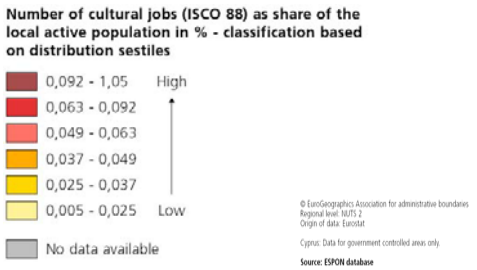
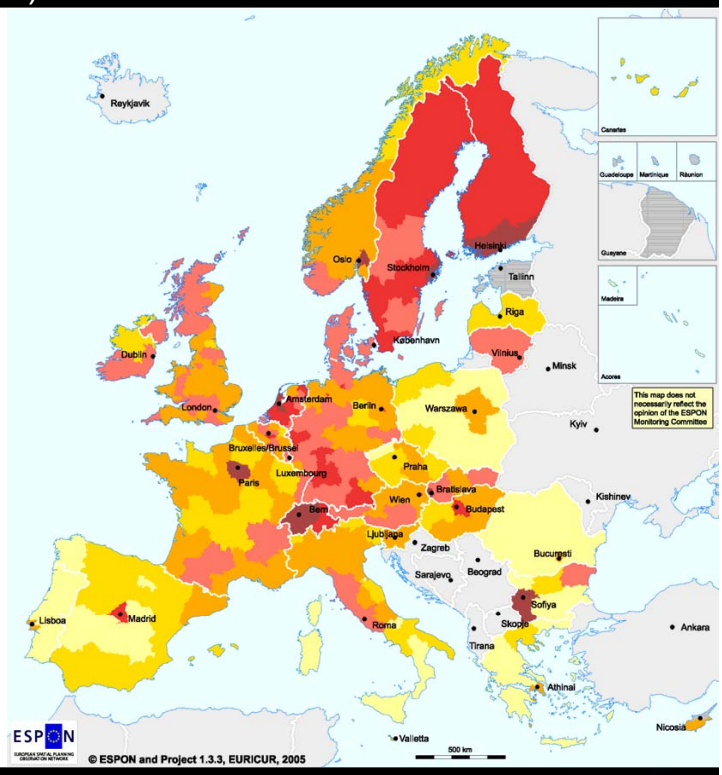
Kulturelle Arbeit, 2005
(as share of local active population)

Beschäftigte in kulturellen und kreativen Berufen (in %)

Finnland, Schweden, Niederlande und Schweiz toppen.

Regionale Variationen folgen der Urbanstruktur.





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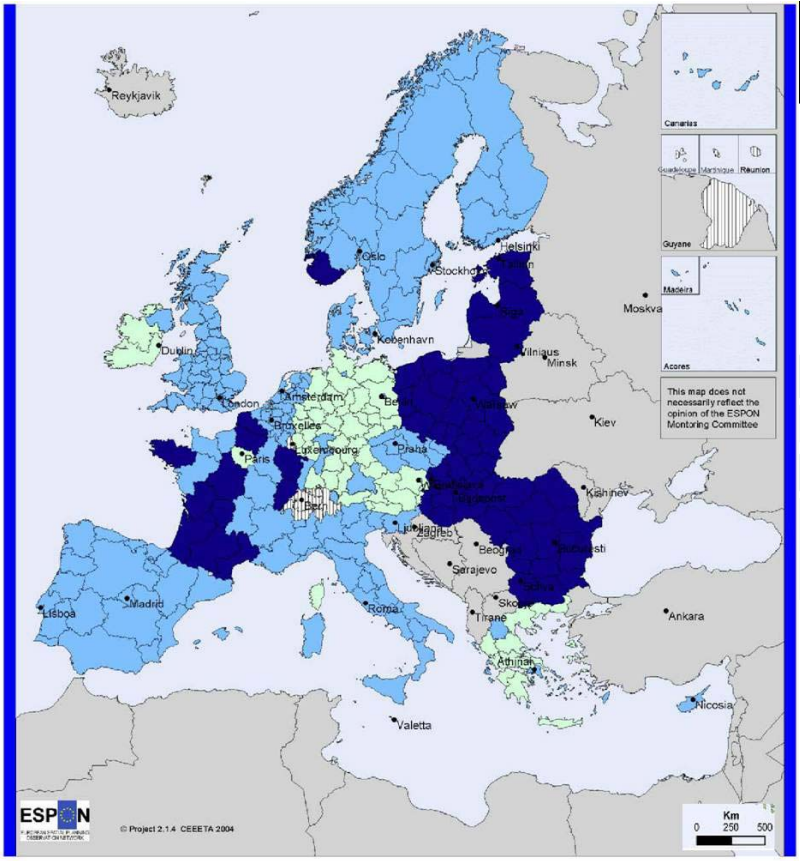
Energie
Preisempfindlichkeit



Sensibility to variations on energy prices
- Low
- Medium
- High
- No Data

© EuroGeographics Association for the administrative bound
Source: Eurostat, National Statistics

High self-sufficiency / Low price sensitivity

UK, Denmark, Norway

Low self-sufficiency / High price sensitivity

Latvia, Lithuania, Hungary, Slovenia, Bulgaria, Slovakia, Cyprus, most of France and parts of Italy.

High self-sufficiency / High price sensitivity

Estonia, Poland, Czech Republic, Romania,

Low self-sufficiency / Low price sensitivity

All regions of Portugal, Spain, Ireland, Sweden, Finland, Germany, Austria, Belgium, most of Italy, parts of France, all Greece

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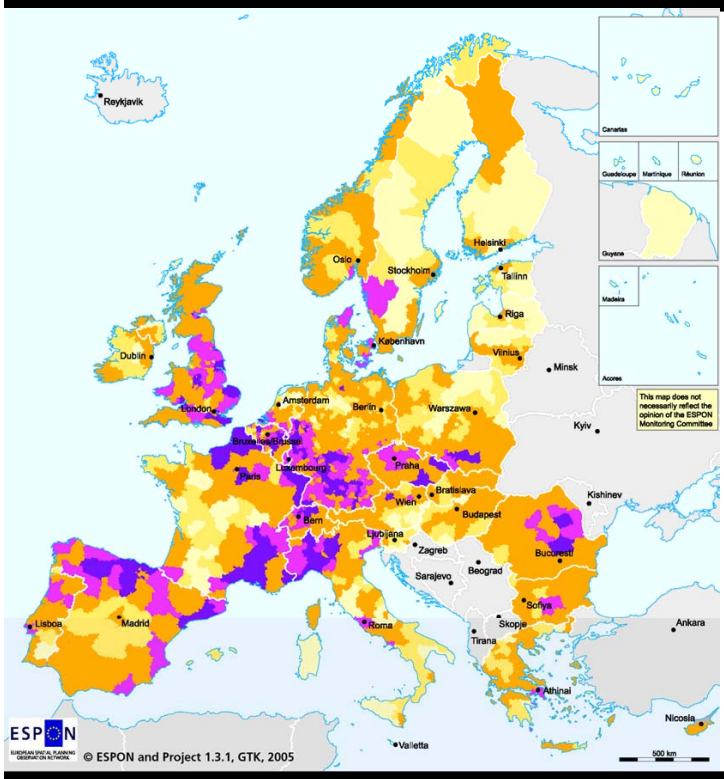
Natürliche und Technische Katastrophen



Naturkatastrophen

- Lawinen
- Dürren
- Erdbeben
- Extremtemperaturen
- Überschwemmungen
- Waldbrände
- Erdrutsche
- Sturmfluten
- Tsunamis
- Vulkanausbrüche
- Winter- und Tropenstürme

Technische Katastrophen

- Flugverkehrsunglücke
- Atomkraftwerke
- Ölindustrie

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2 x 3 macht 4 Widdewiddewitt und Drei macht Neune

Das Pentagon dehnt sich aus.

Es gibt starke Metropolen außerhalb des Pentagons.

Erreichbare Metropolen haben die besten Lissabonwerte.

Die Geographie von FuE und Kulturbeschäftigten ist urban.

Funktionelle Spezialisierung von Städten ist wichtig.

Räumliche Zusammenarbeit von Städten und Hinterland ist wichtig.

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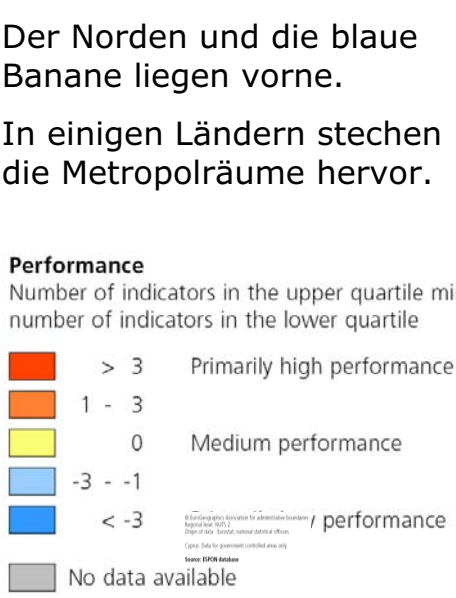
Wirtschaftliche Lissabonindiktoren

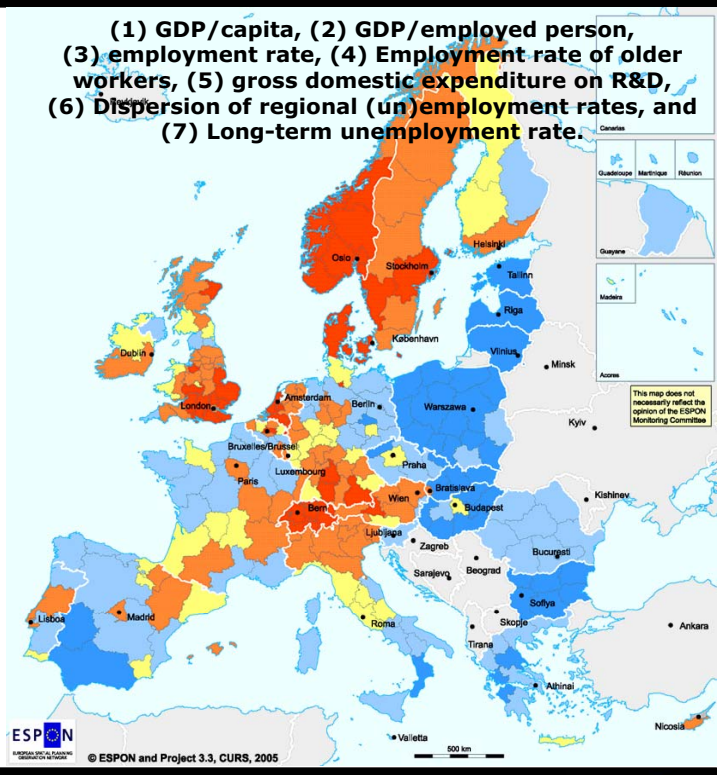
7 der 14 offiziellen Lissabon-indikatoren sind auf regionalen Niveau erhältlich.

Der Norden und die blaue Banane liegen vorne.

In einigen Ländern stechen die Metropolräume hervor.

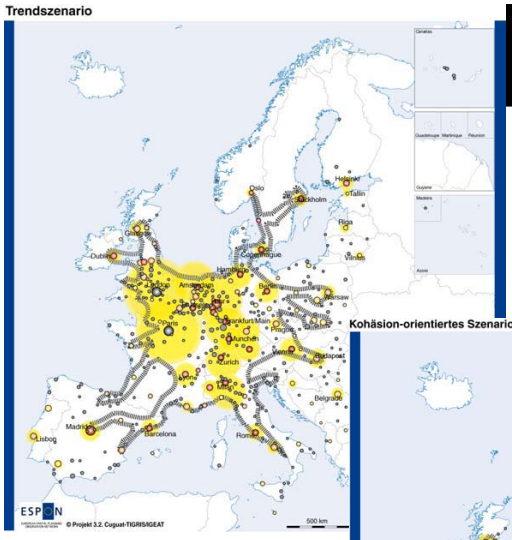
(1) GDP/capita, (2) GDP/employed person, (3) employment rate, (4) Employment rate of older workers, (5) gross domestic expenditure on R&D, (6) Dispersion of regional (un)employment rates, and (7) Long-term unemployment rate.



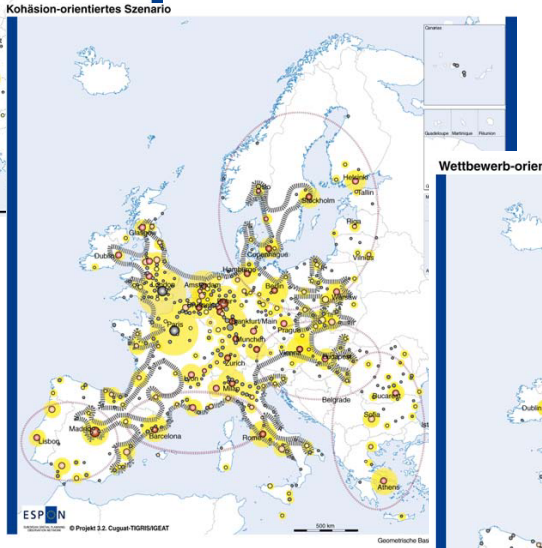


Szenarien 2030

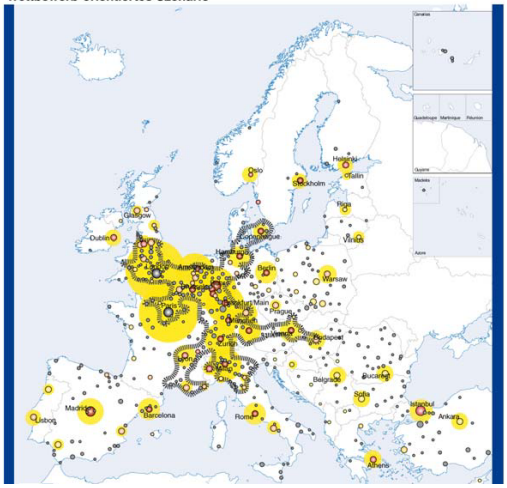
Trendszenario



Kohäsion-orientiertes Szenario



Wettbewerb-orientiertes Szenario



ESPON Werkzeugkasten

Wo gibt es welche Daten?

➔ ESPON Data Navigator

Vergleichbare regionale Daten für 29 Länder

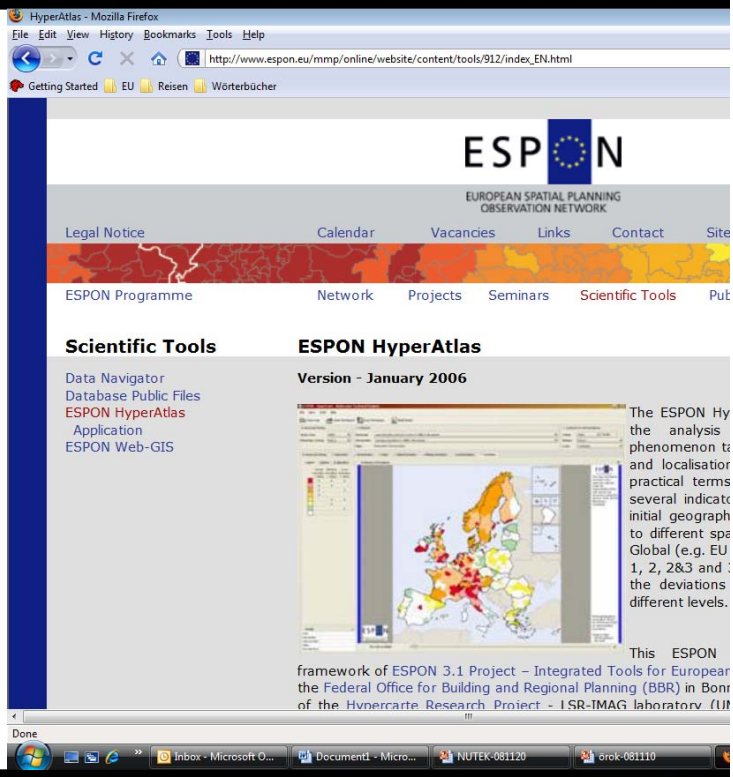
➔ ESPON Database

Do it yourself Europa Karten

➔ ESPON HyperAtlas

➔ ESPON Web-GIS

www.espon.eu



Vielen Dank für Ihre Aufmerksamkeit!

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