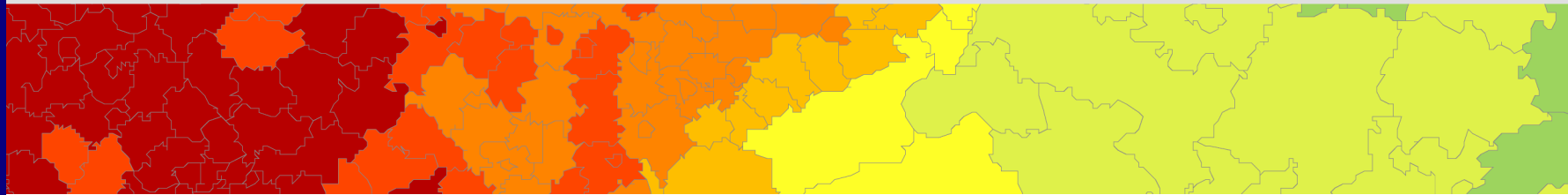




EUROPEAN SPATIAL PLANNING
OBSERVATION NETWORK



WORKSHOP - ECP Luxembourg
14 January 2005

ESPON

European Spatial Planning Observation Network
A Programme under Interreg III

Intervention

- **Fundamentals of the ESPON Programme**
- Flash of some first final results
- Use of results and perspectives for ESPON

ESPON 2006 Programme

- "Programme on spatial development of an enlarging European Union"
- Programme under EU Structural Funds, the Community Initiative Interreg III
- Budget 17 million Euro (14,4+0,7+2 mill. Euro)
- ERDF funding cofinanced 50-50 by EU-Member States
- 26 transnational research projects
- A number of ESPON studies and scientific support projects

Participation, Organisation and Networking

- Monitoring Committee with all 25 EU Member States, Norway, Switzerland and the Commission
- Romania and Bulgaria included in ESPON analysis
- Managing and Paying Authority, Luxembourg, also hosting Coordination Unit
- ESPON Contact Point network, being enlarged with new EU Member States
- Transnational Project Groups with more than 100 partners involved

Expectations

- European territorial trends
- Territorial impact of EU policies
- Integrated concepts, tools and data
- Spatial scenarios
- Policy support (EU and national policies, in particular Structural Funds)
- Operational deliverables (in particular territorial indicators and diagnosis)
- A network and scientific platform for European territorial research

Projects 2002-2004

First round

- Urban system and polycentric development
- Urban-rural relations
- Transport networks, trends and basic supply
- Telecommunication, trends and basic supply
- EU Infrastructure Policy
- EU R&D Policy
- EU Agricultural Policy
- Structural Funds in urban areas
- Integrated tools for the spatial development
- Data Navigator: Inventory on data (EU 27)

Projects 2002-2004 (06)

Second, third and forth round

- Demographic trends and migration
- Territorial trends of enlargement
- Territorial impacts of Structural Funds
- Territorial impacts of pre-accession aid
- Natural and technological hazards (climate change)
- Management of the natural heritage
- Energy services and networks and territorial impact of EU Energy Policy
- Spatial scenarios and orientations

Projects 2004-2006

Fifth and sixth round

- Territorial dimension of the Lisbon process
- Implementation of the ESDP in MS
- Coordination of spatial and urban policy (governance)
- Territorial impact of EU Fisheries Policies
- Cultural heritage
- Integrated analysis of transnational and national territories
- Europe in the World

Coming ESPON projects and studies Seventh round 2004-2006

- Information society
- Economic dimensions of territorial development
- ESPON studies:
 - Role of small and medium-sized cities in territorial development
- Scientific support projects:
 - Mix of Nuts 2 and 3 areas in territorial analysis

Intervention

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- **Flash of some first final results**
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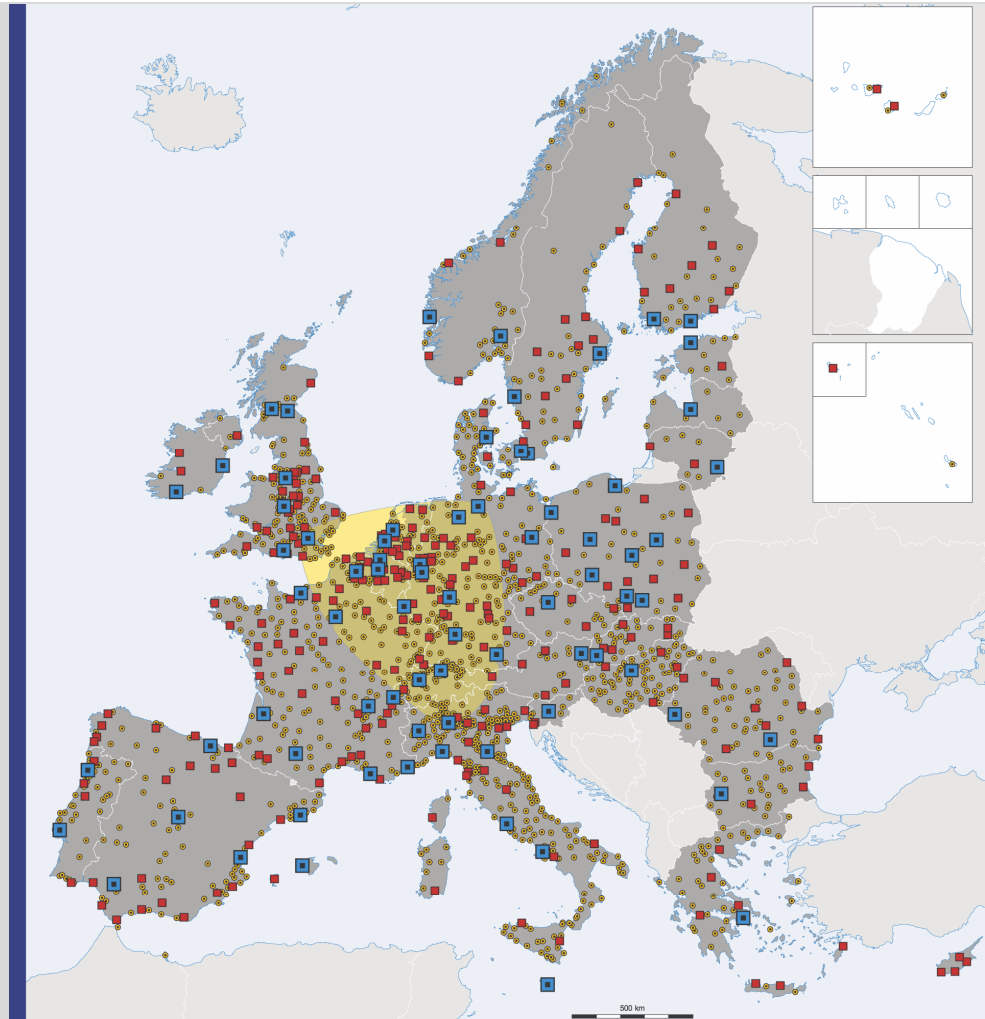
Mega structures and trends

- Geographic concentration (Pentagon)
- Core-periphery patterns at European scale
- Dynamic areas outside core
- Areas with morphological and climatic handicaps
- Imbalances between regions in GDP and employment, knowledge and innovation, services, access and connectivity, natural and cultural amenities
- Diversity of opportunities for development

Mega structures and trends

- Ageing population and migration
 - Population: east to west in Europe
- Global economic competition (not a zero sum game)
 - Wealth: west to east in Europe
- Transport flows: more use of east–west corridors
- Attractiveness a strategic factor for development:
 - Accessibility and telecom connectivity
 - Human resources and innovation support
 - Environmental assets
- Risks and hazards of increasing concern

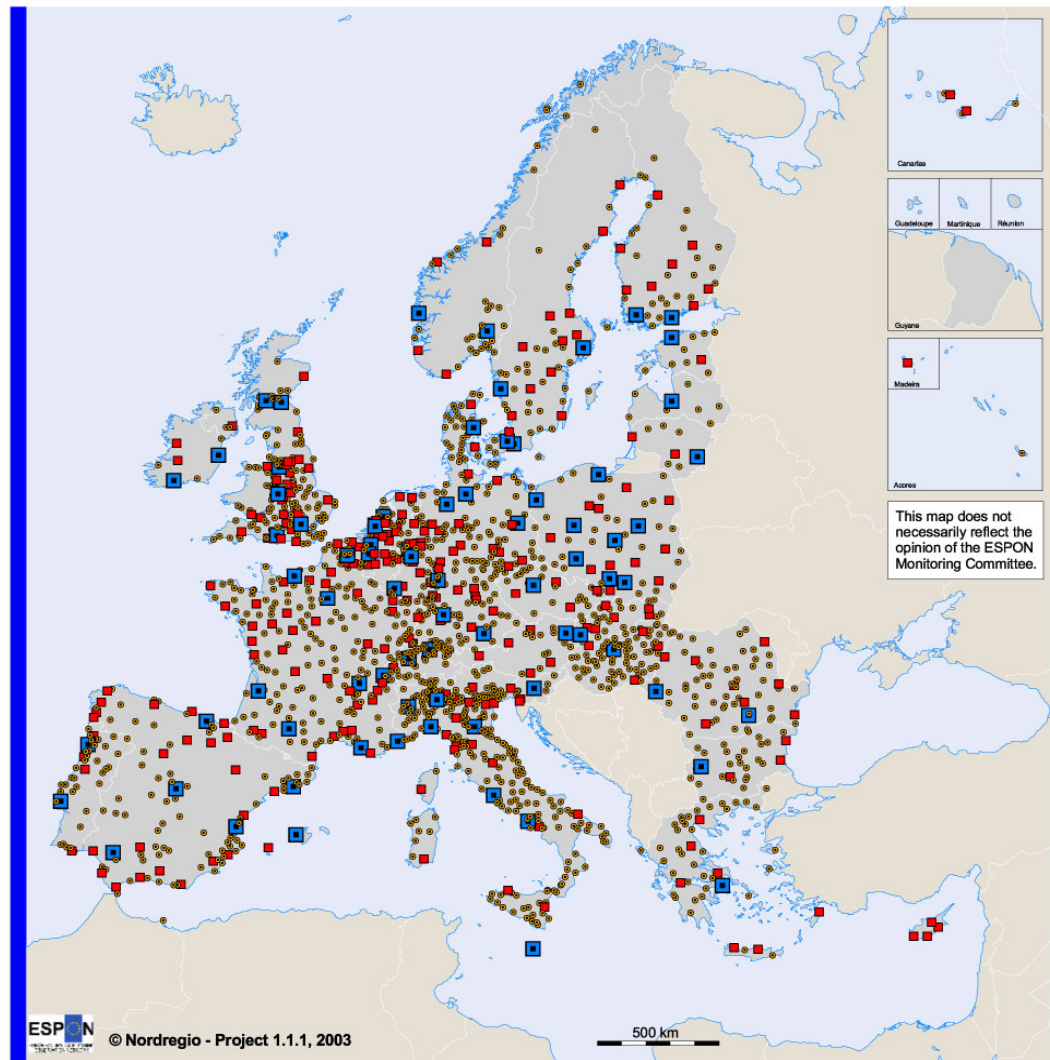
Territorial main structure



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

© EuroGeographics Association for the administrative boundaries
Origin of data: Eurostat, National Statistical Offices, National Experts
Source: ESPON Database

Typology of Functional Urban Areas (FUAs)



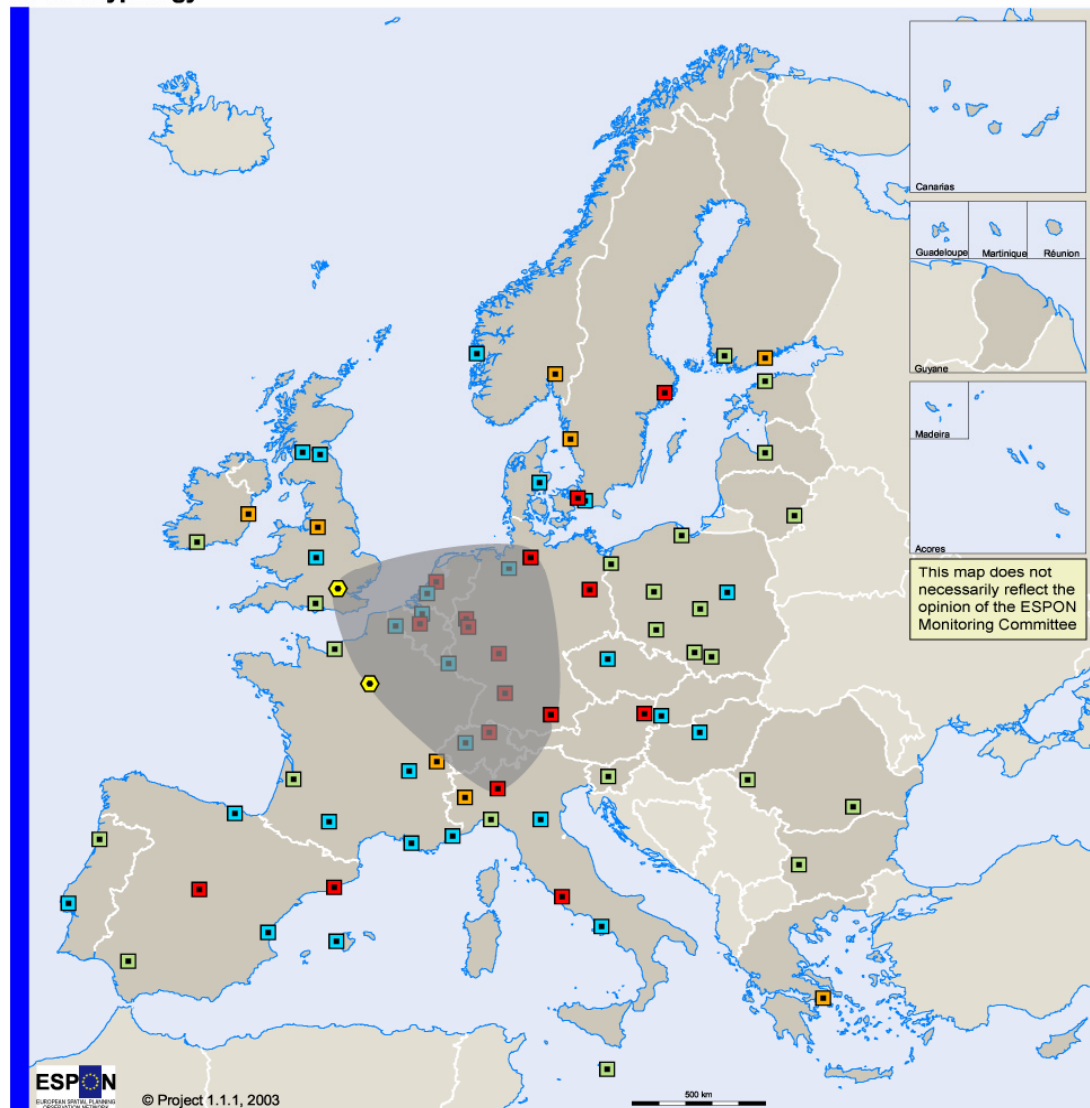
Geographical Base: Eurostat GISCO

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

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

Source: Nordregio

MEGA Typology

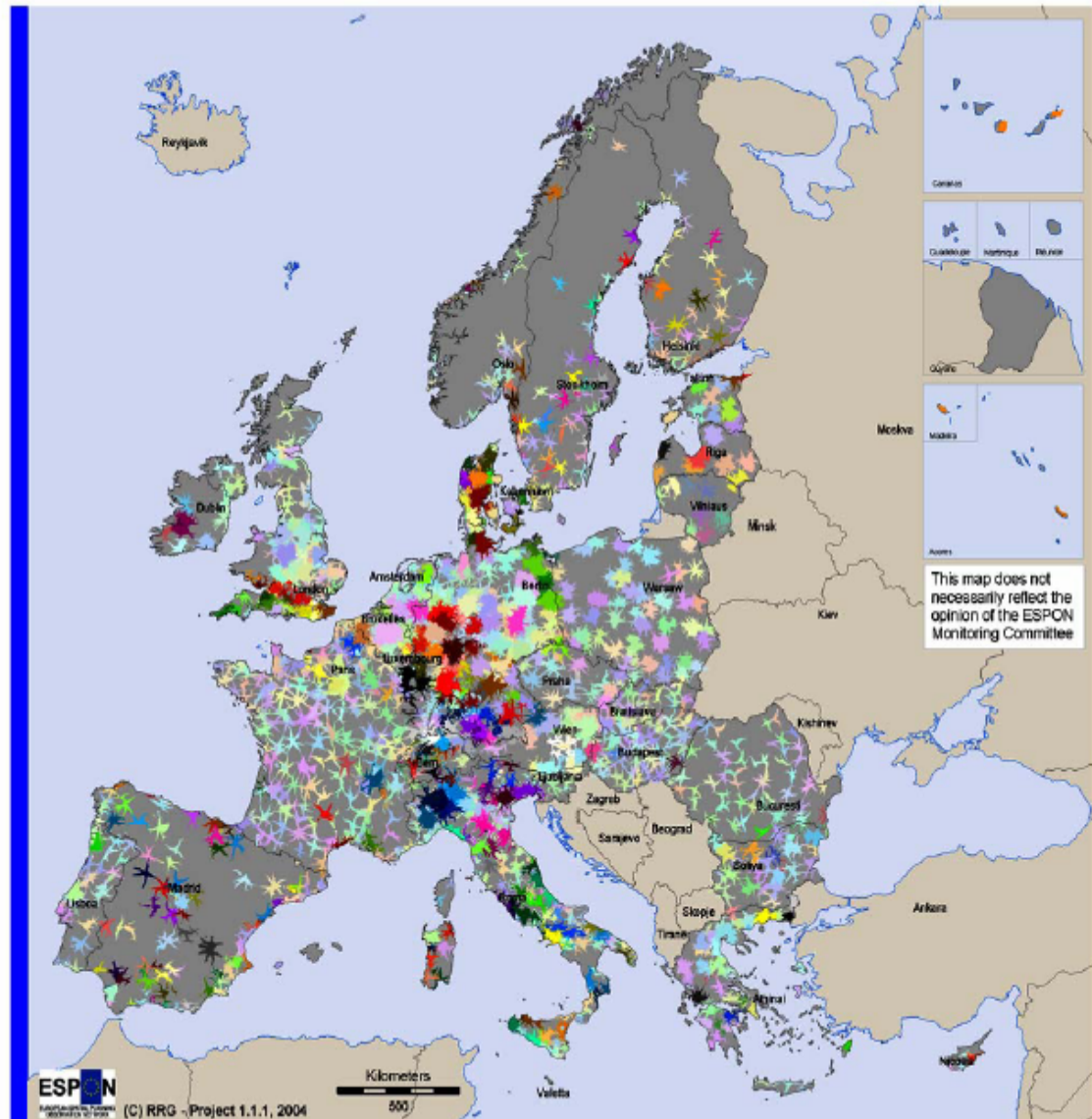


- Global node
- Category 1 MEGA
- Category 2 MEGA
- Category 3 MEGA
- Category 4 MEGA

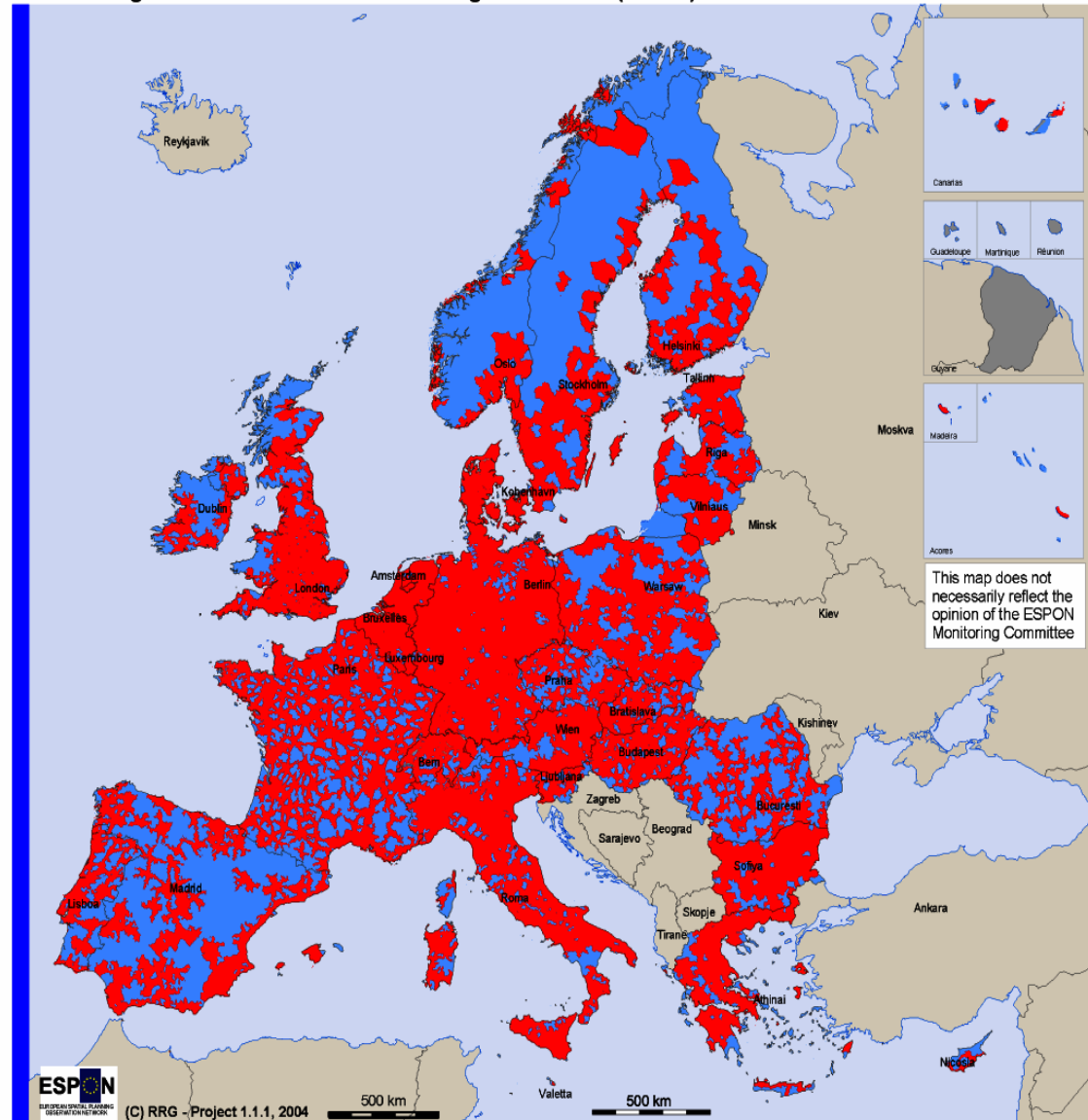
Pentagon area

© EuroGeographics Association for the administrative boundaries
Origin of data: Eurostat, National Statistical Offices, National Experts
Source: ESPON Database

45 min isochrones around FUA centroids



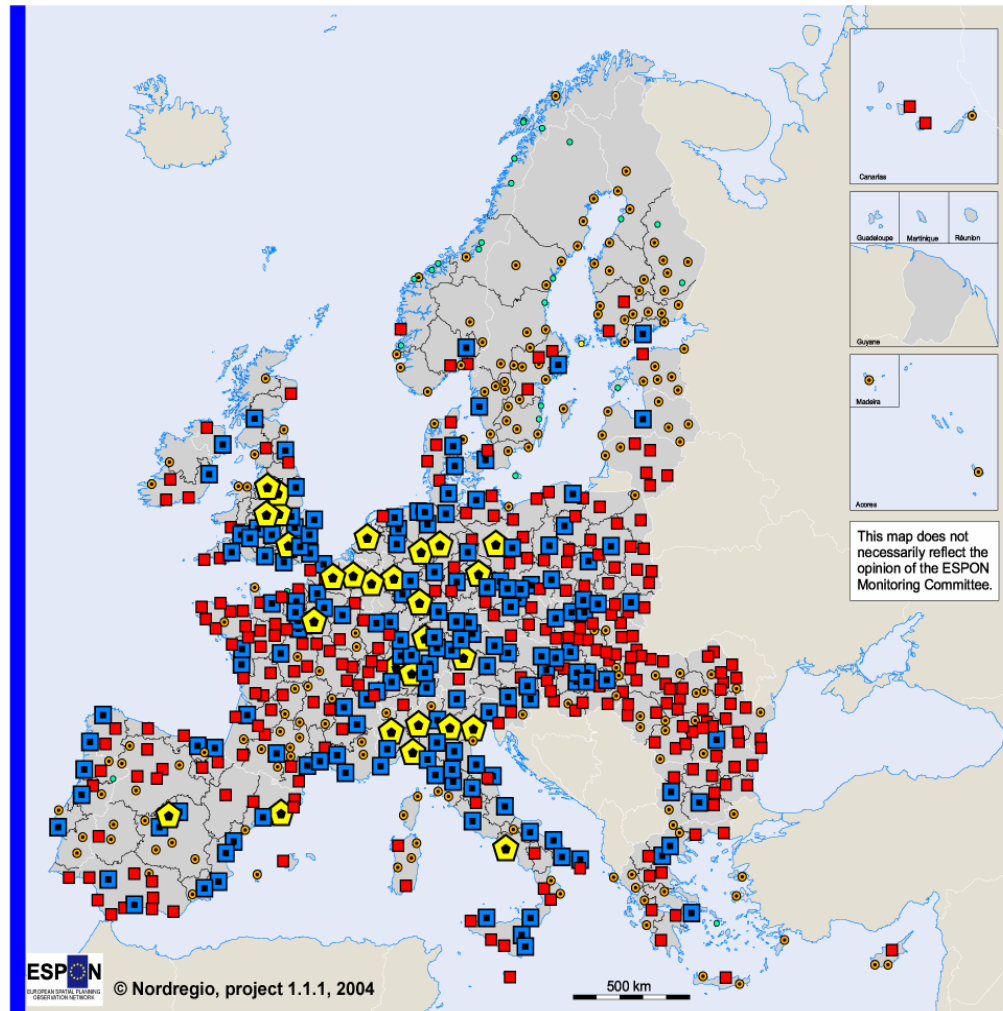
Areas assigned to Potential Urban Strategic Horizons (PUSH)



■ PUSH areas

Geographical Base: Eurostat GISCO
Eurogeographics

Classification of potential Polycentric Integration Areas according to total population



Geographical Base: Eurostat GISCO

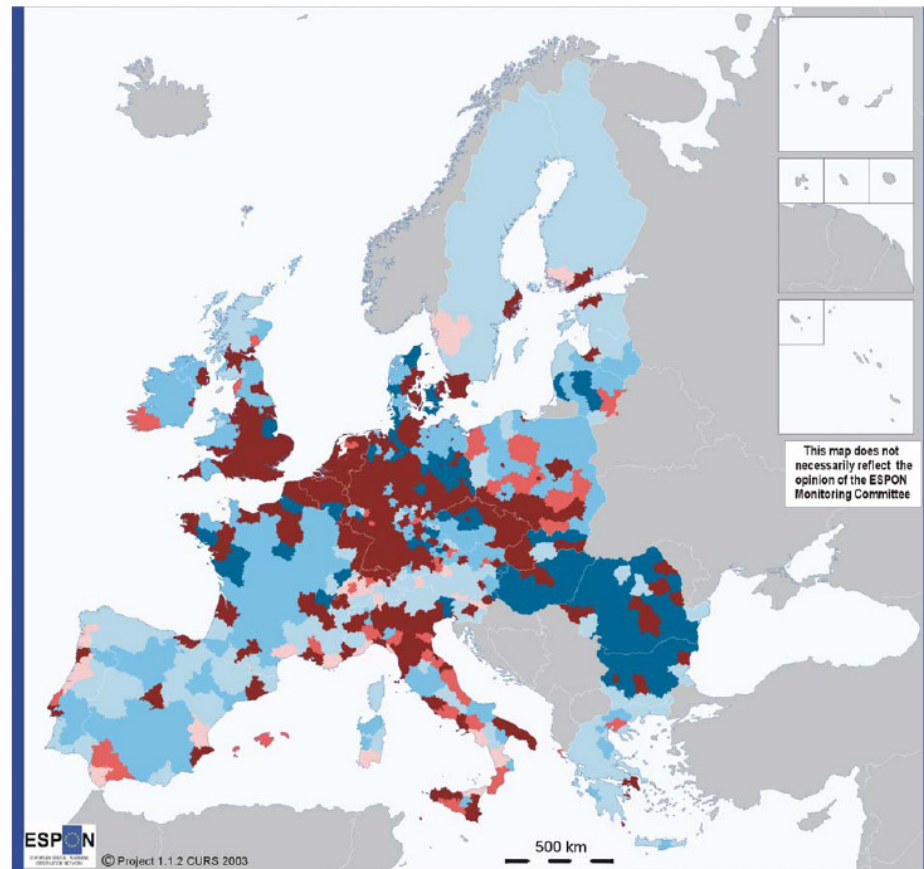
Number of inhabitants
in Potential polycentric integration Area

- ⬠ > 5 million inhabitants
- ⬠ 1-5 million inhabitants
- ⬠ 250 000-1 million inhabitants
- 50 000-250 000 inhabitants
- < 50 000 inhabitants

Origin of data:
National Statistical Offices

Data sources:
ESPON NUTS 5 database

PUSH delimitation: RRG
PIA identification: Nordregio



Urban-rural typology, based on population density, FUA ranking and land cover

- High urban influence, high human intervention
- High urban influence, medium human intervention
- High urban influence, low human intervention
- Low urban influence, high human intervention
- Low urban influence, medium human intervention
- Low urban influence, low human intervention

The criteria for urban influence:

- Population density above the average (107 inhabitants/km² in EU25+4)
- And/or at least a European level functional urban area (based on typology made by ESPON Action 1.1.1)

Degree of human intervention is estimated through the average shares of land covers (in EU23+3, no data on Cyprus, Malta and Norway):

- High human intervention: at least the share of artificial surfaces above average (3,48%)
- Medium human intervention: at least the share of agricultural land above average (50,36%)
- Low human intervention: only the share of residual land use above average (46,16%)

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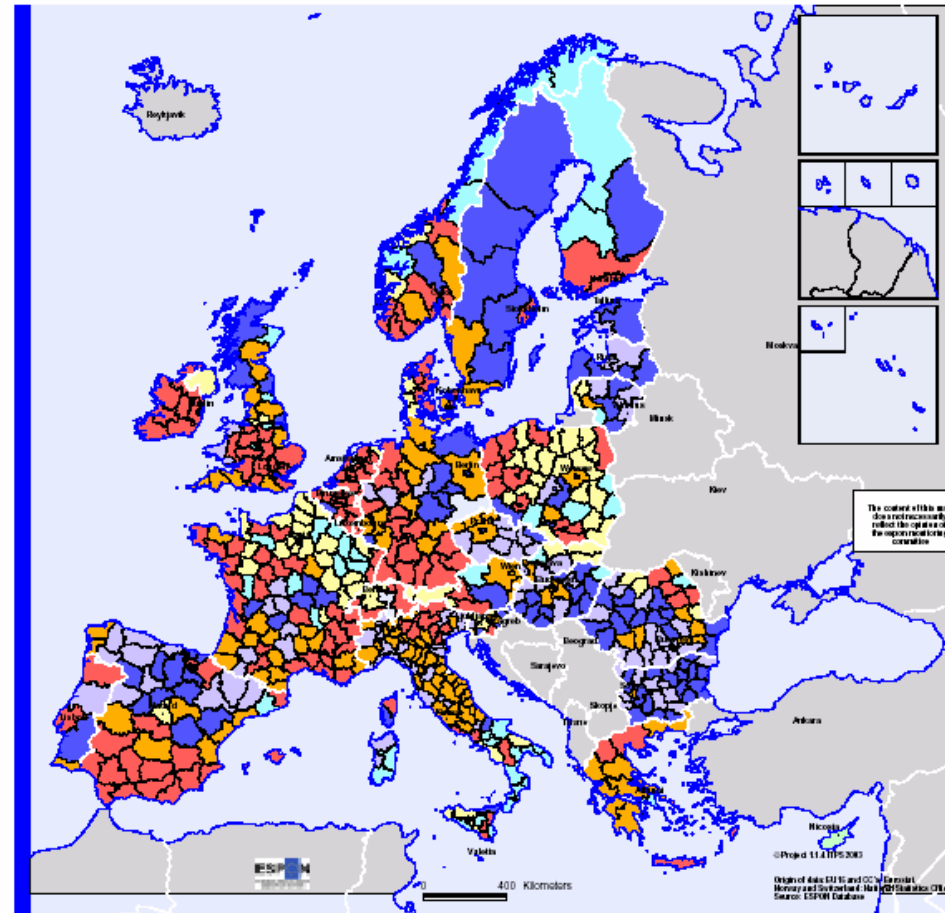
Ranking of Functional Urban Areas (FUAs):
Origin of data: EUROSTAT, National Statistical Offices, National experts
Source: Nordregio, ESPON Data Base

Population density:
Origin of data: EU15 and CC's: Eurostat
Norway and Switzerland: National Statistical Offices
Time reference: 1999

Land cover types:
Origin of data: EEA, Corine Land Cover 90

Source: ESPON Data Base

Components of population increase, 1996-99

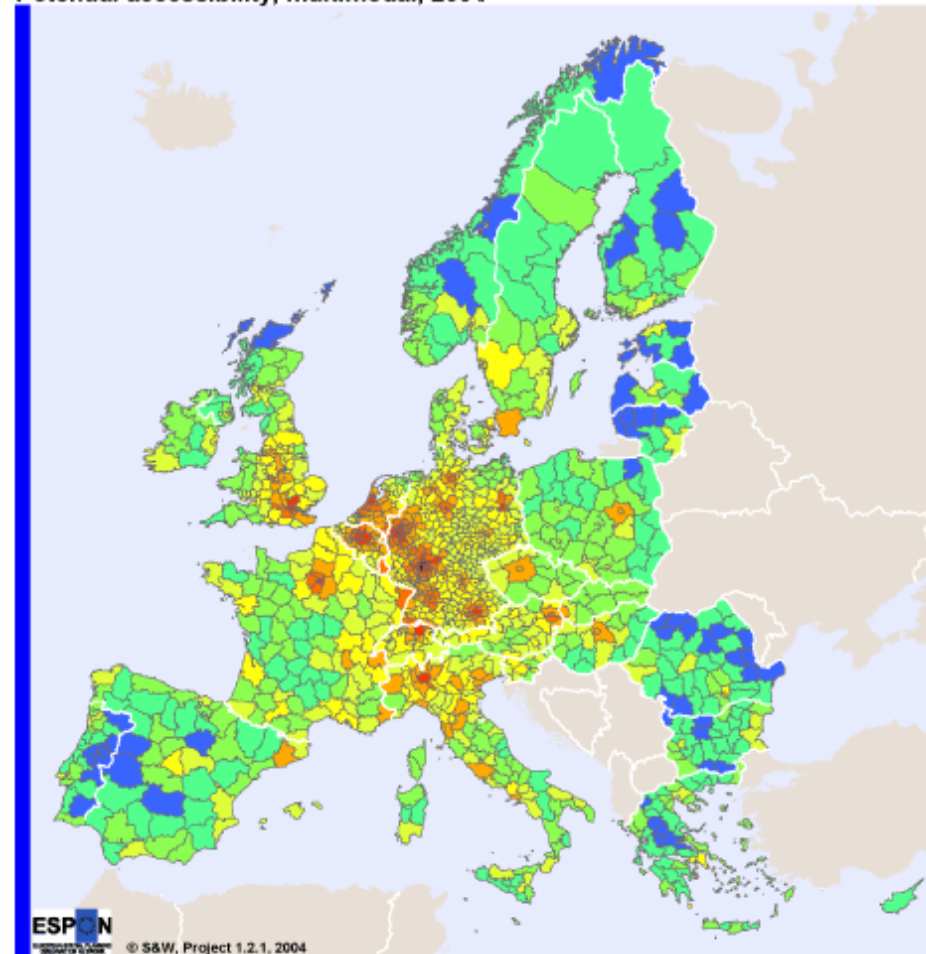


form of increase

- Total evolution > 0; Migratory B > 0; Natural B > 0
- Total evolution > 0; Migratory B > 0; Natural B < 0
- Total evolution > 0; Migratory B < 0; Natural B > 0
- Total evolution < 0; Migratory B < 0; Natural B < 0
- Total evolution < 0; Migratory B > 0; Natural B < 0
- Total evolution < 0; Migratory B < 0; Natural B > 0
- no data

Origin of data : EU15 and CC's : Eurostat
Norway and Switzerland : National Statistics Offices
Own estimation for migratory balance

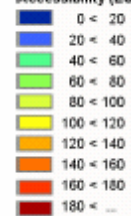
Potential accessibility, multimodal, 2001



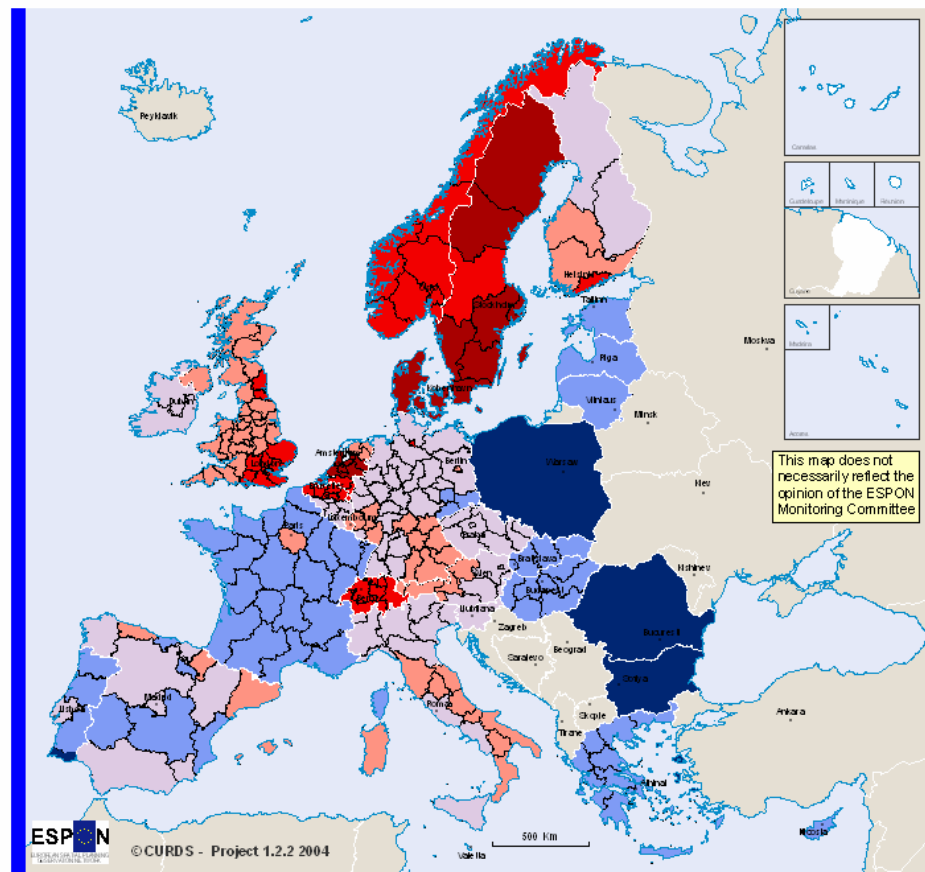
ESPON
© S&W, Project 1.2.1, 2004

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Accessibility (ESPON Space = 100)



A typology of levels of household telecommunications uptake



Level of household uptake

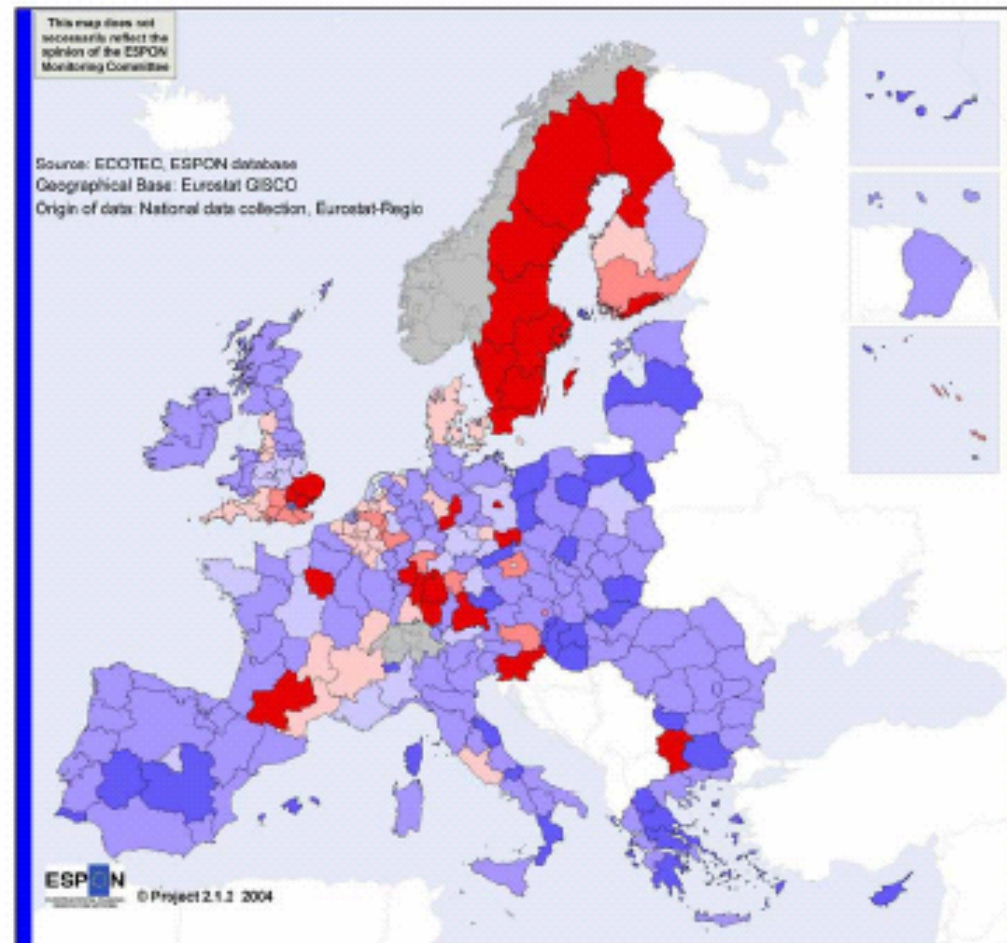


© EuroGeographics Association for administrative boundaries
Regional Level: NUTS 2

Origin of data: CURDS

Source: ESPON Data Base

R&D intensity across the EU-27 against the EU average 1999

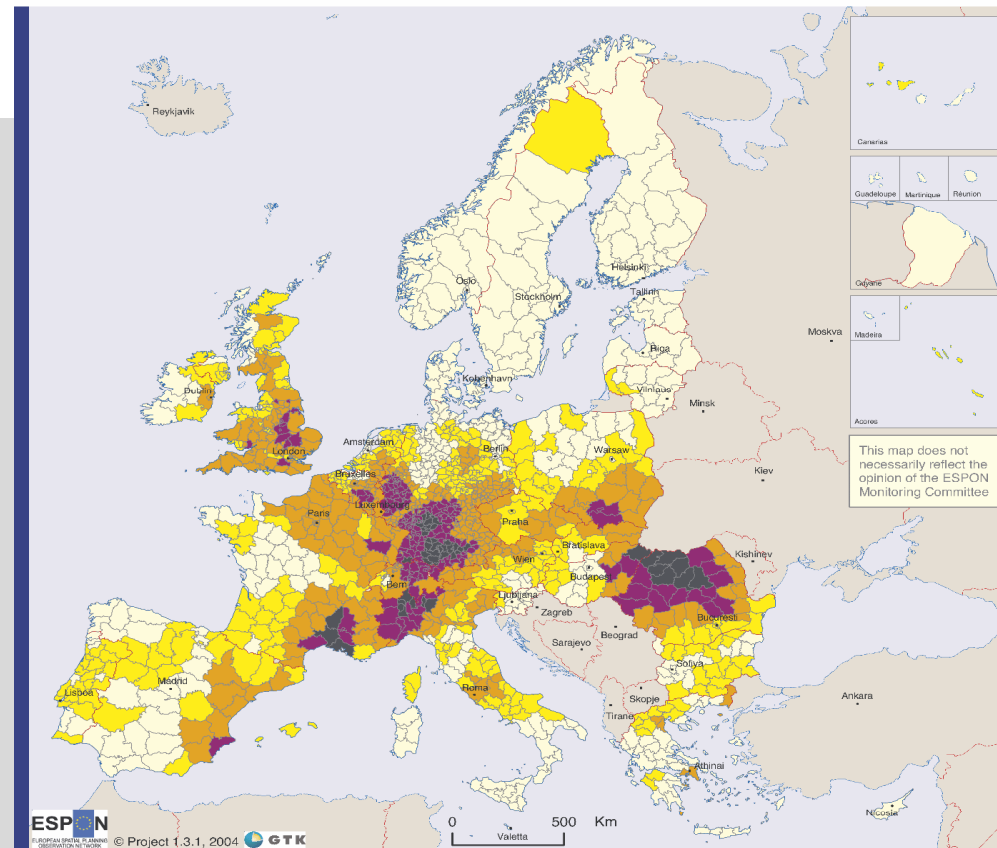


R&D intensity across the EU27 against the EU average, 1999



*EU27 Average = 100, excluding Romania, Lithuania, Cyprus, Malta, and Estonia

Large river flood events recurrence in Europe (NUTS 3)



Flood recurrence

- Very low
- Low
- Moderate
- High
- Very high
- Non ESPON space

Origin of the data: © EuroGeographics Association for the administrative boundaries
Large flood areas © Dartmouth Flood Observatory
Flood areas © ESA ; Earth observation ; Earth online
Rhine Atlas 2001 IKRS/CIPRI CBR

Source: ESPON Data Base

This map shows the hazard recurrence based on average number of large flood events on NUTS 3 level during 1987-2002. Each NUTS3 region has been given an average of the large flood event that fall inside it. To the first class "Very low hazard intensity" only the regions without large flood events are included.

Flood intensity

Average value of flooding events on NUTS 3 area

Very low hazard 0

Low hazard 1

Moderate hazard >1 ; <=2

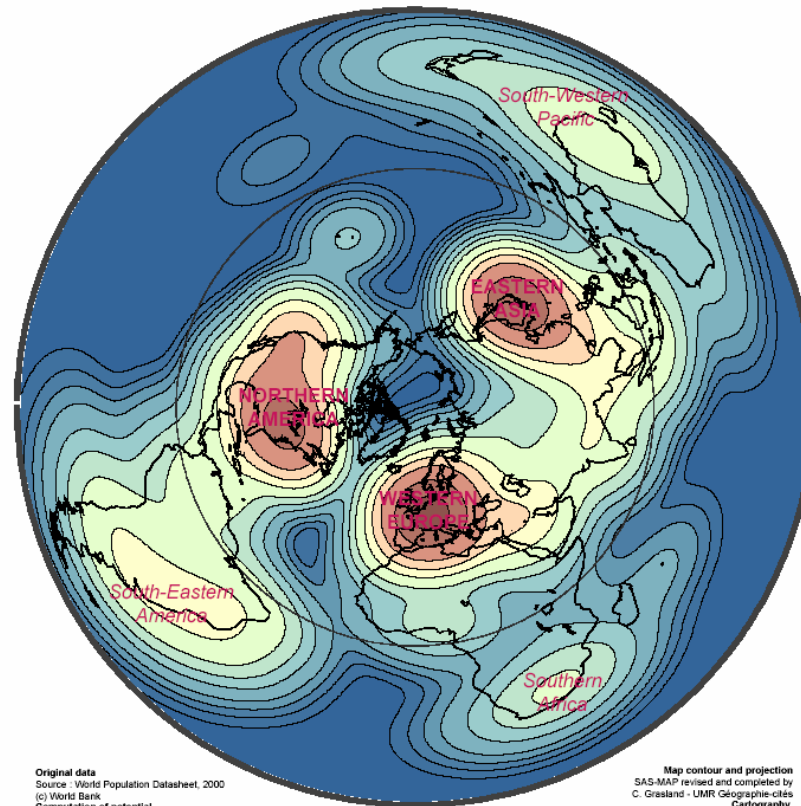
High hazard >2 ; <=3

Very high hazard >3

IMAG /

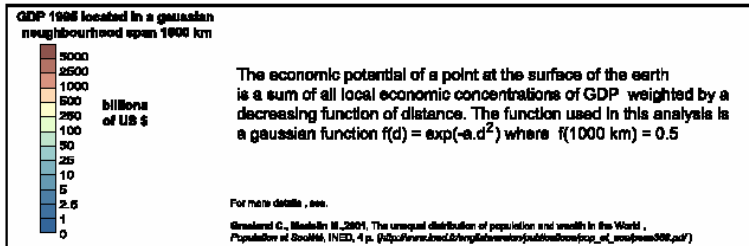
ENR0307_8

European Spatial Planning Observatory Network
ESPON 3.1 / Workpackage "Europe in the World"
WORLD ECONOMIC POTENTIAL



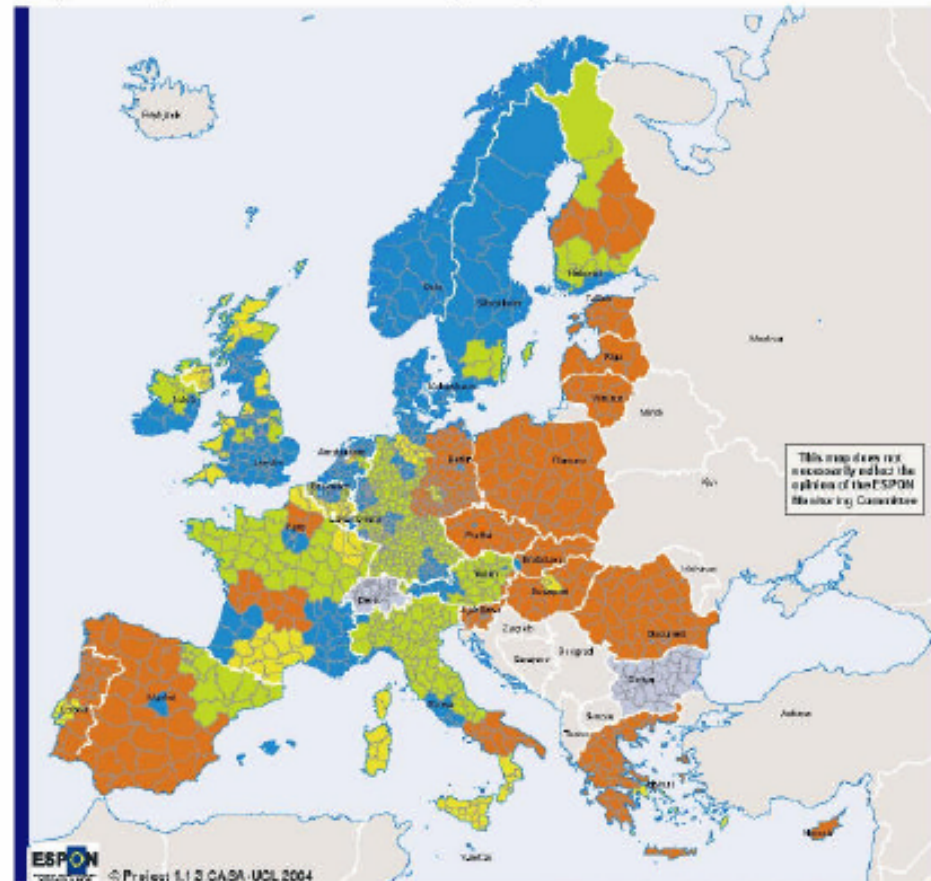
Original data
Source : World Population Datasheet, 2000
(c) World Bank
Computation of potential
ID-IMAG / The Hypercarte Project

Map contour and projection
SAS-MAP revised and completed by
C. Grasland - UMR Géographie-cités
Cartography
Map realised with Surfer



Map 4-1: Typologies of regional specialisation and GDP per capita - 2001 (EU average 18,900€ Purchasing Power Standards per capita)

Regional Specialisation and GDP (2001)



ESPON

Project 1.1.2 CASH-UCS 2004

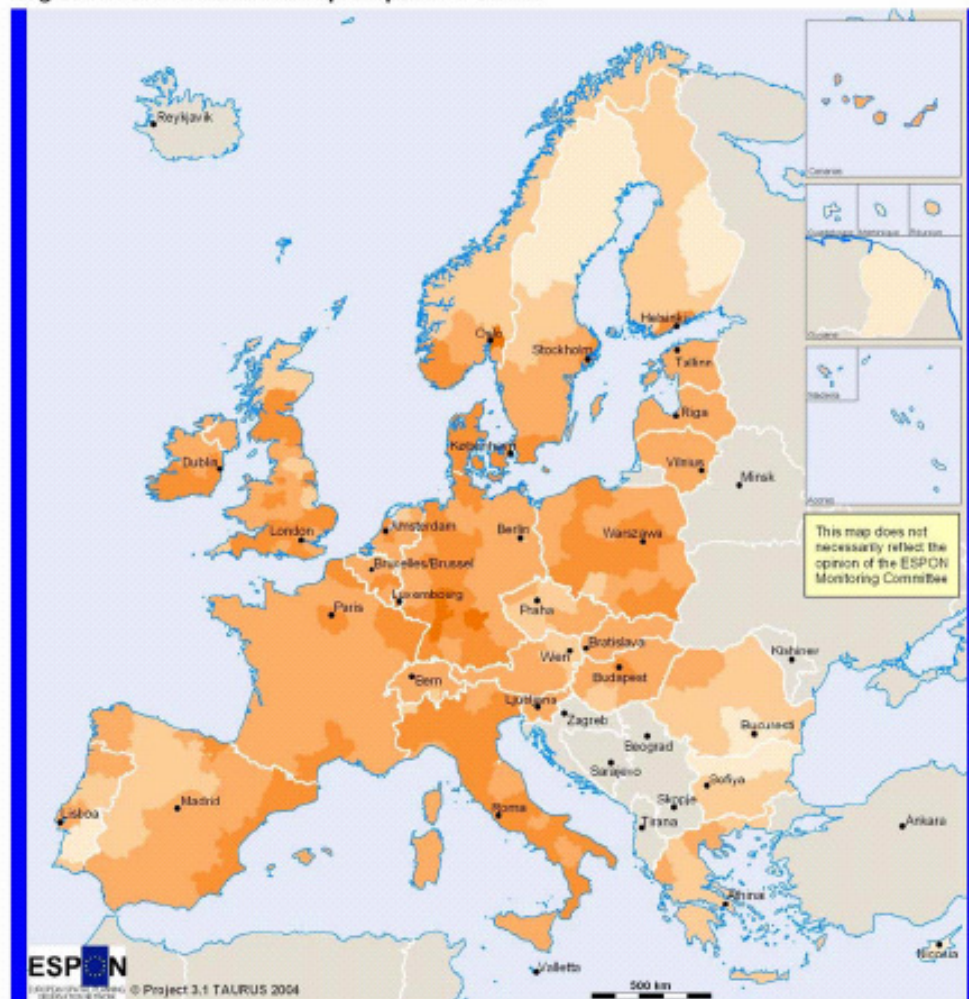
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- GDP/h and Regional Specialisation higher than EU average
- GDP/h higher and Regional Specialisation lower than EU average
- GDP/h lower and Regional Specialisation higher than EU average
- GDP/h and Regional Specialisation lower than EU average

Origin of data: EU-15 and CCs: Eurostat
Norway and Switzerland: National
Statistical Offices

Source: ESPON Data Base

Regional classification of Europe - spatial structure

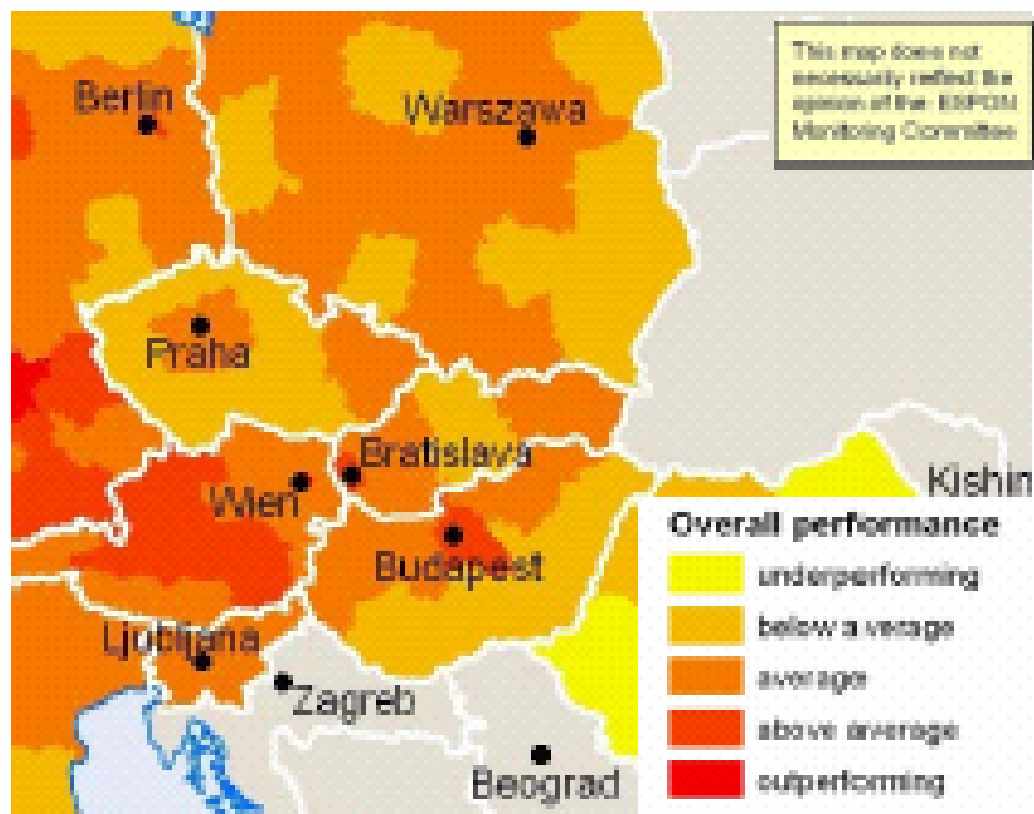


Performance on spatial indicators

- underperforming
- below average
- average
- above average
- outperforming

© EuroGeographics Association for administrative boundaries
Regional Level: NUTS 2
Origin of data: Eurostat, National Statistical Offices, ESPON 3.1
Source: ESPON Data Base

Neighbours to former EU15: Remarkable section of the overall performance

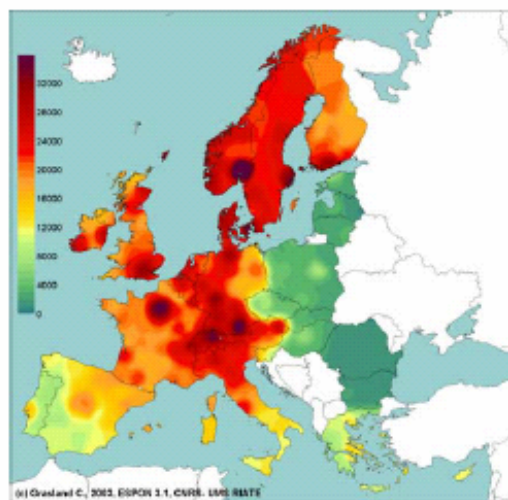


© EuroGeographics: Association for administrative boundaries
Regional Level: NUTS 2
Origin of data: Eurostat, National Statistical Offices, ESPON 3.1
Source: ESPON Data Base

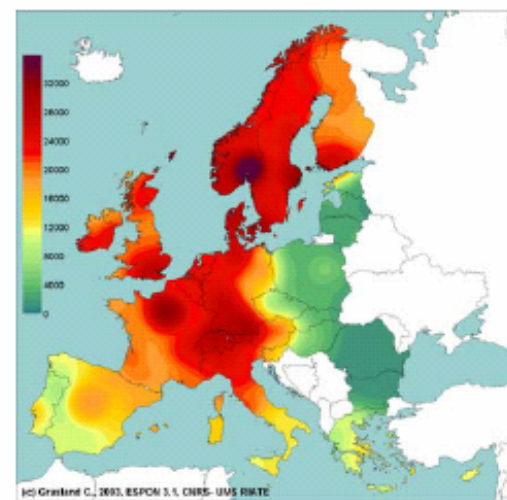
Zoom-in without scale

Map 28 Smoothed distribution of GDP/inh. 1999 at various scales of gaussian neighbourhood

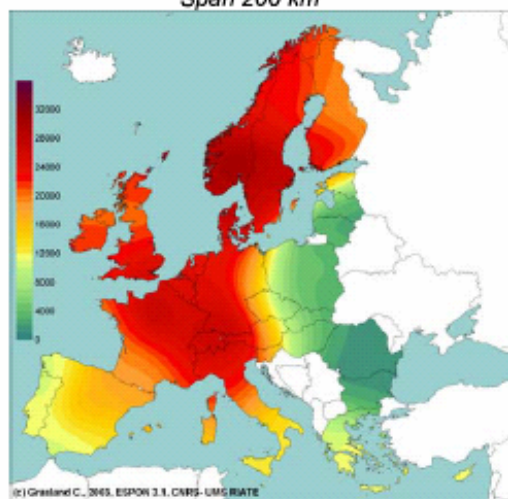
Span 50 km



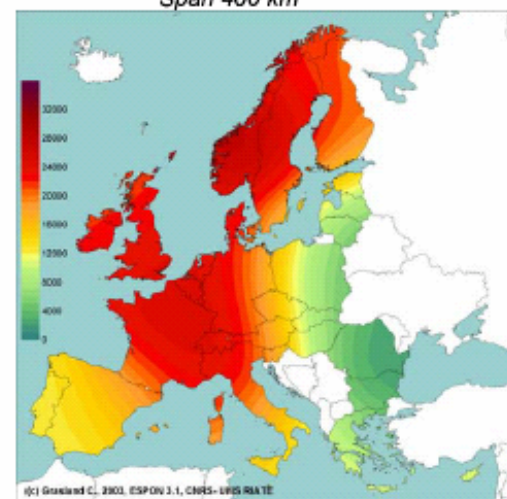
Span 100 km



Span 200 km



Span 400 km



Intervention

- Fundamentals of the ESPON Programme
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Use of ESPON results

- ESPON results in EU documents and Interreg III
- Dialogue with scientific community, policy makers and practitioners
- Practitioners use of ESPON:
 - Own territory in larger context
 - Strengths and weaknesses
 - Potential cooperation and synergy
- Lessons learned so far includes
 - Regionalised data with European coverage
 - Deepening and expansion of themes
 - Digestion and communication
 - Scientific coordination and validation

Perspectives for ESPON

- European policy development in need of territorial knowledge
 - Territorial cohesion
 - Community Strategic Territorial Framework
 - National Framework documents
 - Territorial cooperation
- Member States supports an ESPON 2
 - Luxembourg Ministerial meeting in June 2005

-however, Rome was not built in one day....

More information

Thanks for your attention

Please visit

www.espon.lu

3 Level Approach

