

Use of ESPON by European Institutions
Workshop on 6 May 2009 in Bruxelles

A snapshot of themes and results from the
ESPON programme



EUROPEAN UNION
Part-financed by the European Regional Development Fund
INVESTING IN YOUR FUTURE

ESPON 2013 Programme

- Support EC Cohesion Policy development
- Comparable information and evidence on European regions and cities covering
- Research and analyses of territorial structures, trends, perspectives and policy impacts
- Reveal territorial capital and potentials
- Policy demand driven
- Use of ESPON with stakeholders
- Scientific platform for territorial science
- 31 countries included
- Budget: 47 mio. Euro, 2007-2013

5 Priorities

- Priority 1: Applied research on territorial development, competitiveness and cohesion
- Priority 2: Targeted analysis based on user demands/ European perspective to different types of territories
- Priority 3: Scientific platform and tools/ Territorial indicators, data, analytical tools and scientific support
- Priority 4: Capitalisation, ownership and participation/ Capacity building, dialogue and networking
- Priority 5: Technical assistance, analytical support and communication plan

Thematic projects (ESPON 2006)

- Polycentric urban development
- Urban-Rural relations
- Enlargement and polycentric development
- Demographic trends and migration
- Transport trends, services and networks
- Telecom trends, services and networks
- Information society
- Natural and technological hazards
- Natural heritage and management
- Cultural heritage and identity

Policy Impact projects (ESPON 2006)

- EU Transport and TEN policies
- EU Research and Development policies
- EU Common Agricultural and Rural Development policies
- Energy trends and impacts of EU Energy Policy
- European Fisheries Policy
- EU Structural Funds
- EU Pre-Accession Aid
- EU Structural Funds in Urban Areas
- ESDP Application and effects in Member States
- Governance of territorial and urban policies
- Environment trends and impacts of EU Environmental Policy
- Integrated analysis of transnational and national territories

Coordinating cross-thematic projects (ESPON 2006)

- Integrated tools and coordination
- Spatial scenarios
- Lisbon/Gothenburg Strategy
- Europe in the World
- EU Economic Policies and location

Preparatory studies and scientific support projects

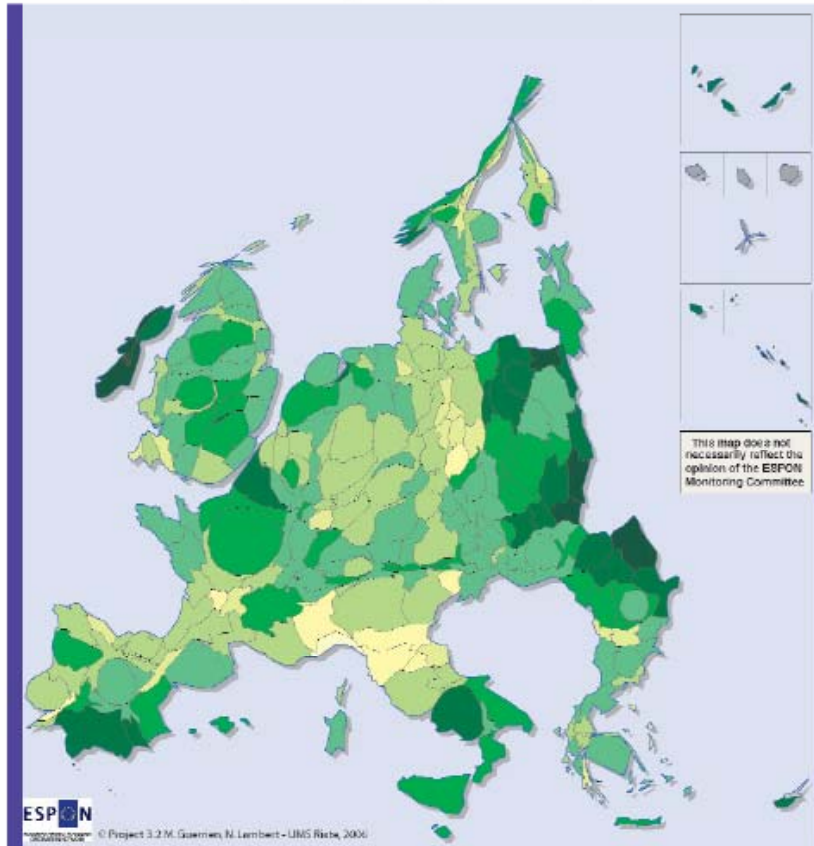
- The role of small and medium-sized cities
- Social dimension of EU territorial development
- Urban Functions
- Feasibility of flow analyses
- Spatially relevant aspects of Tourism
- The modifiable areas unit problem

Scientific briefing and networking (ESPON 2006)

- Indicators monitoring territorial development
- Data Navigator 1: Main data sources in European countries
- Data Navigator 2: Handbook for data collection
- Update of selected data and maps

Territorial imbalances in 2000

Cartogram showing size of regions in terms of population



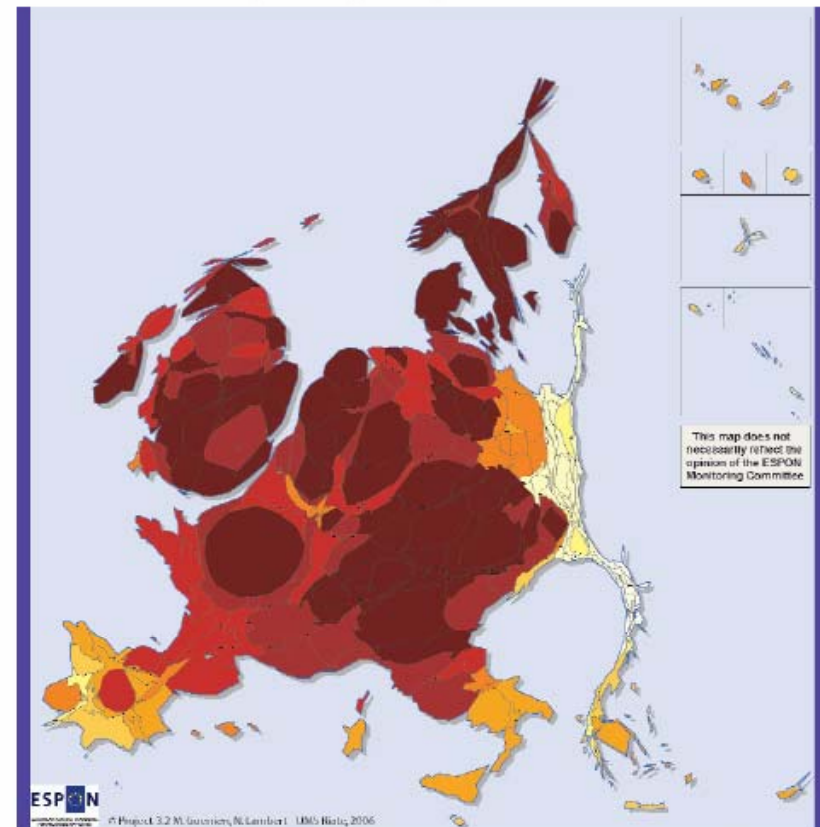
Areas are proportional to population at nuts2 level (in 2000)

Median AGE in 2000 (years)

31.6	33	35	37	39	41	43	45	47.7	no data
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— 1 million inhabitants

Cartogram showing size of regions in terms of GDP



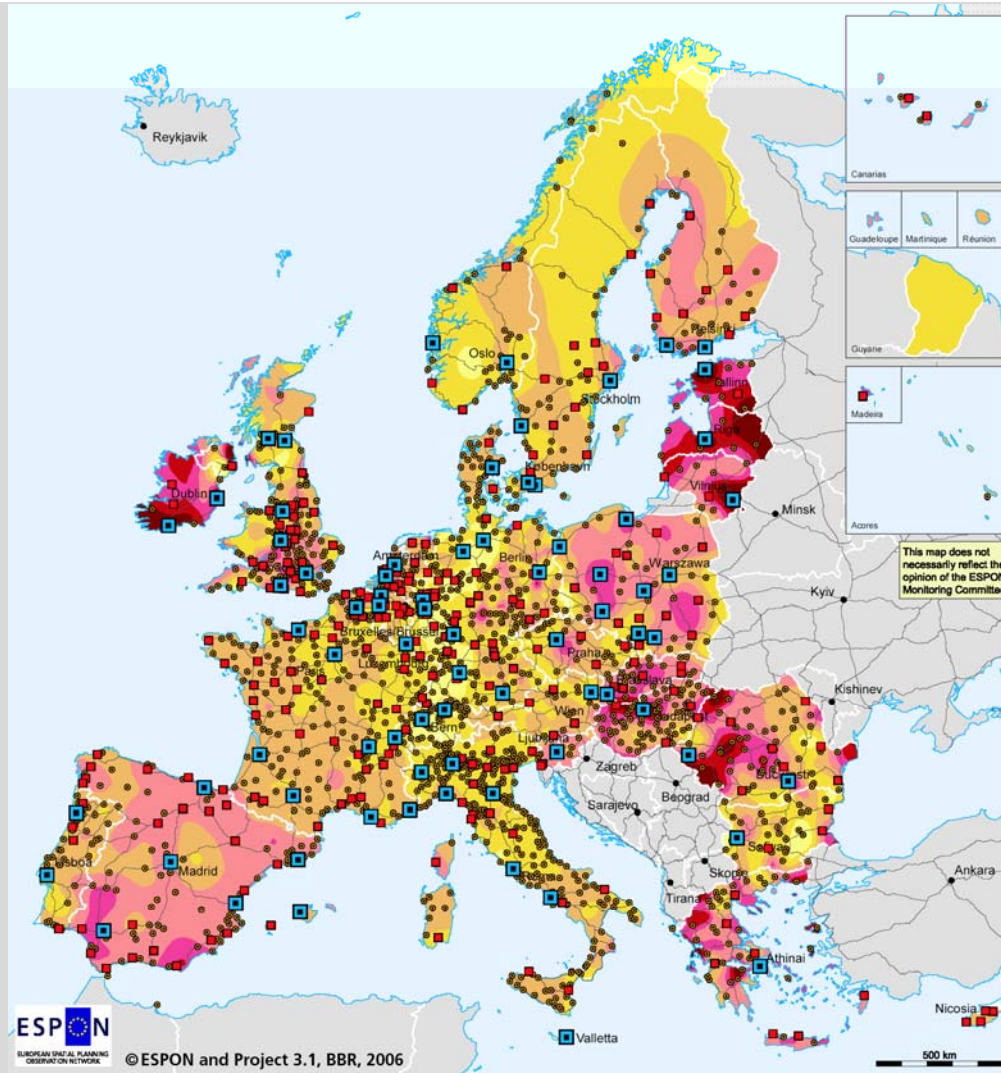
Areas are proportional to GDP at nuts2 level in 2000

GDP per capita in 2000 (€/inh)

1 367	3 000	6 000	9 000	12 000	15 000	18 000	21 000	24 000	62 797	no data
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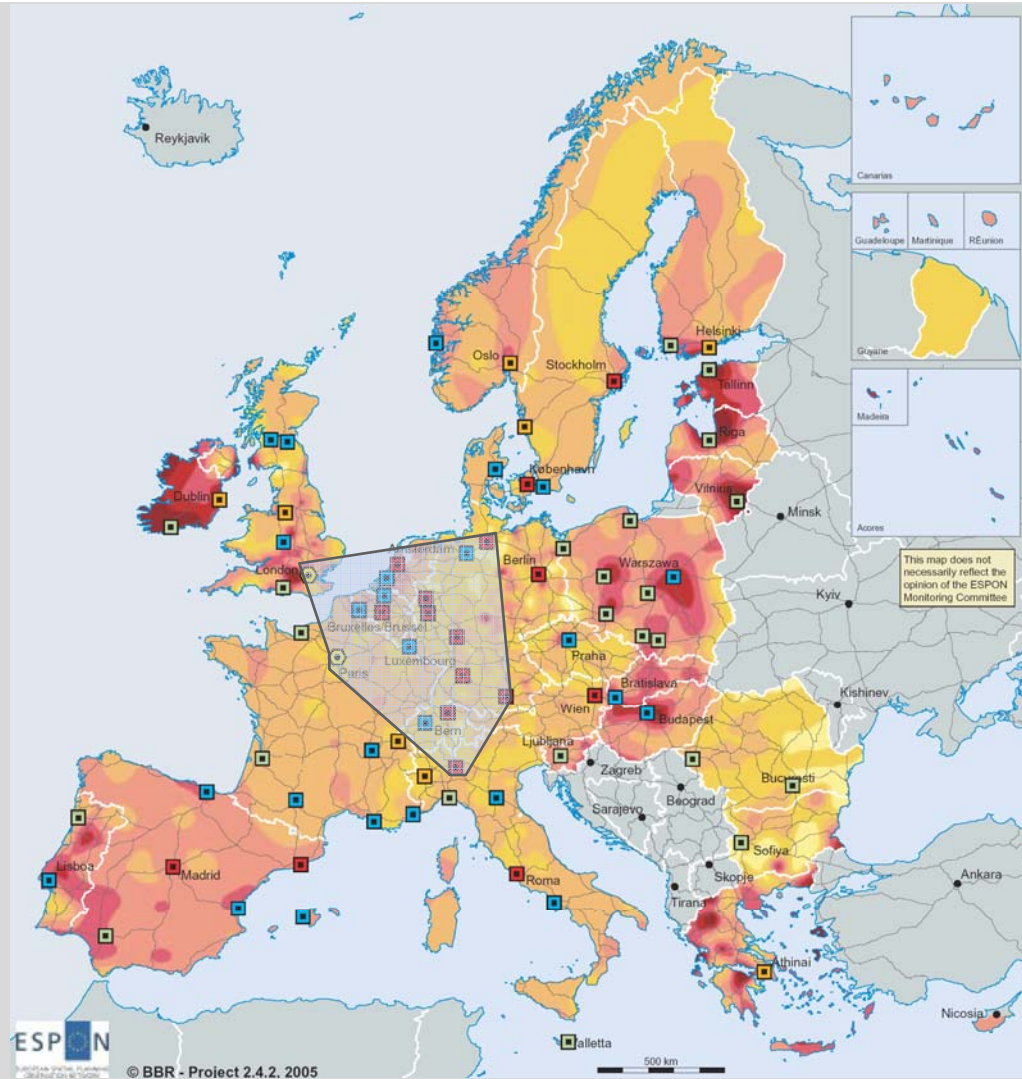
— 20 millions euros

European Urban system



Main European metropolitan areas

- Metropolitan areas important economic drivers in the European/global context
- Pentagon (14-32-46)
- High GDP growth in areas with relatively lower GDP level
- Increasing importance of Metropolitan regions in proximity of and outside the core (Pentagon)



Economic Lisbon performance

7 out of 14 Lisbon indicators:

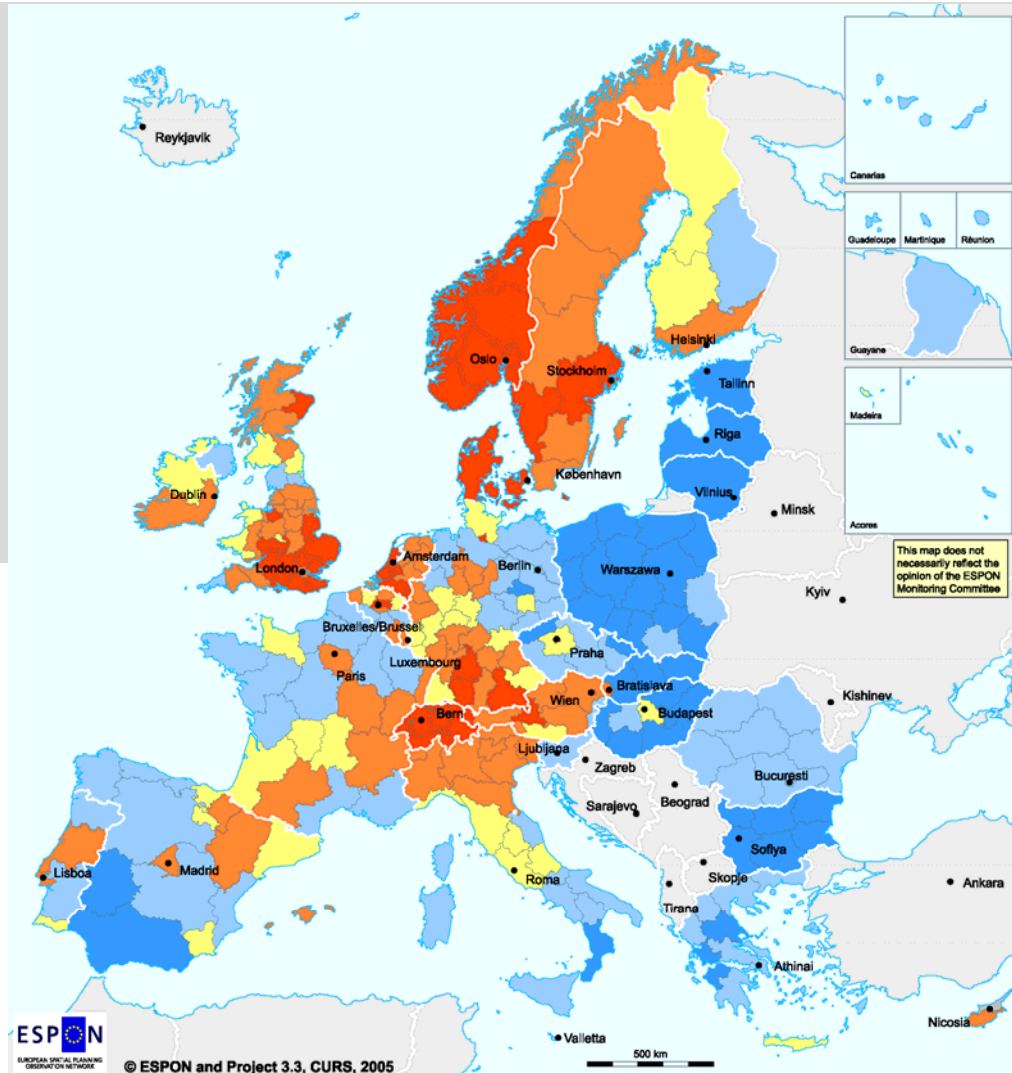
- (1) GDP/capita,
- (2) GDP/employed person,
- (3) Employment rate,
- (4) Employment rate of older workers,
- (5) Gross domestic expenditure on R&D
- (6) Dispersion of regional (un)employment rates
- (7) Long-term unemployment rate

Performance

Number of indicators in the upper quartile minus number of indicators in the lower quartile

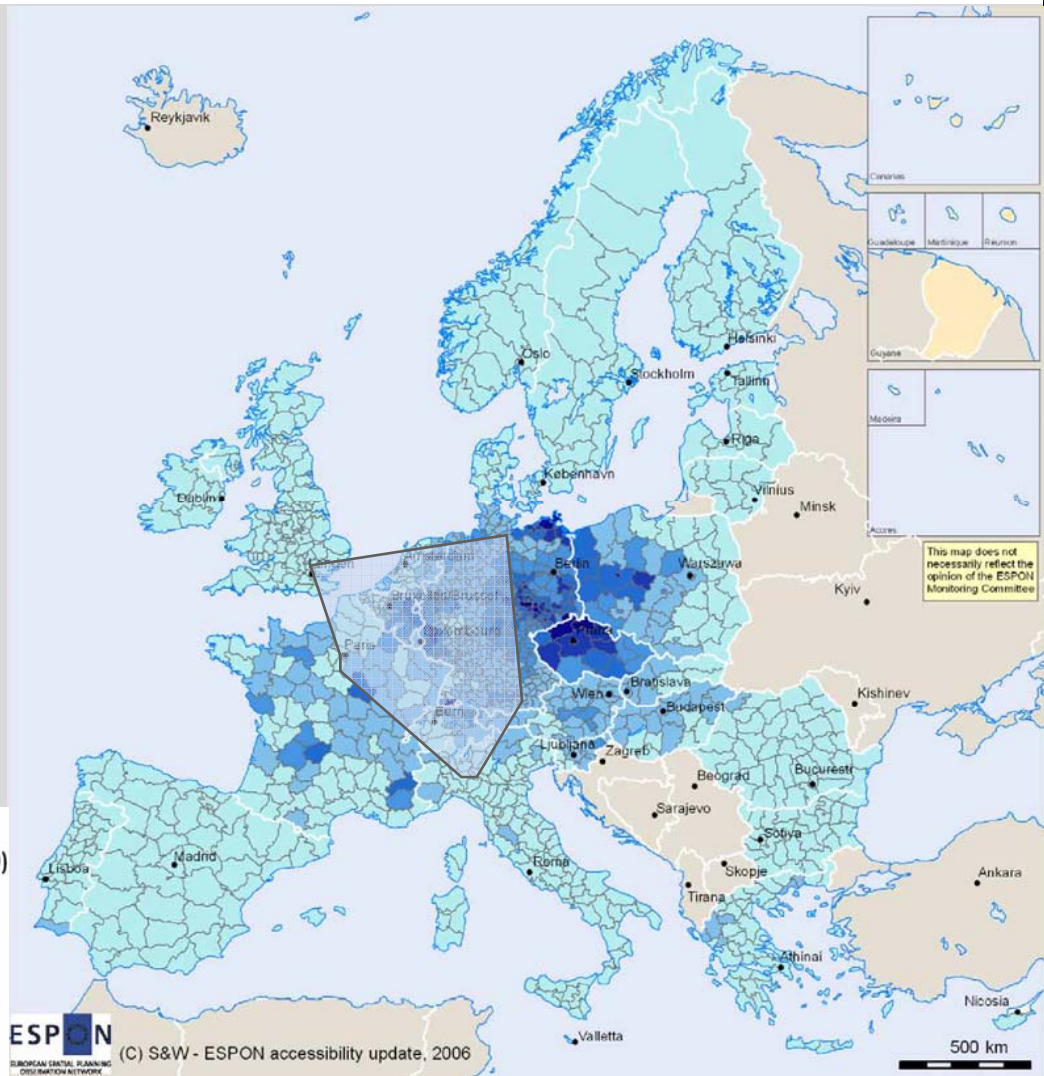
	> 3	Primarily high performance
	1 - 3	
	0	Medium performance
	-3 - -1	
	< -3	Primarily low performance
	No data available	

© EuroGeographics Association for administrative boundaries
Regional level: NUTS 2
Origin of data: Eurostat, national statistical offices
Cyprus: Data for government controlled areas only.
Source: ESPON database



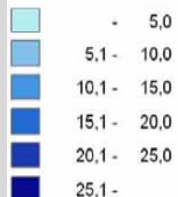
Absolute change of potential accessibility by road between 2001 and 2006

- Areas in the vicinity of the Pentagon are improving in potential accessibility by road
- Eastern fringe of the Pentagon is gaining the most



Potential accessibility

Road, absolute change 2001-2006 (EU27 absolute average in 2006 = 100)



(C) EuroGeographics Association for the administrative boundaries

Data sources:
RRG GIS Database
S&W Accessibility Model

Aggregated natural and technological hazards

Natural hazards:

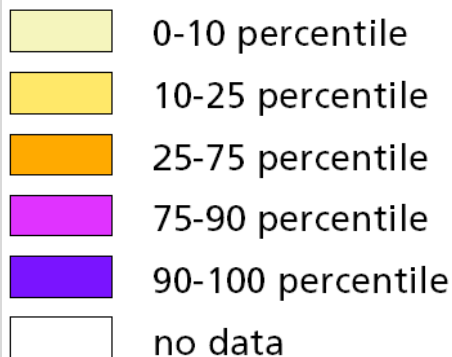
- Avalanches
- Drought potential
- Earthquakes
- Extreme temperatures
- Floods
- Forest fires
- Landslides
- Storm surges
- Tsunamis
- Volcanic eruptions
- Winther and tropical storms

Technological hazards:

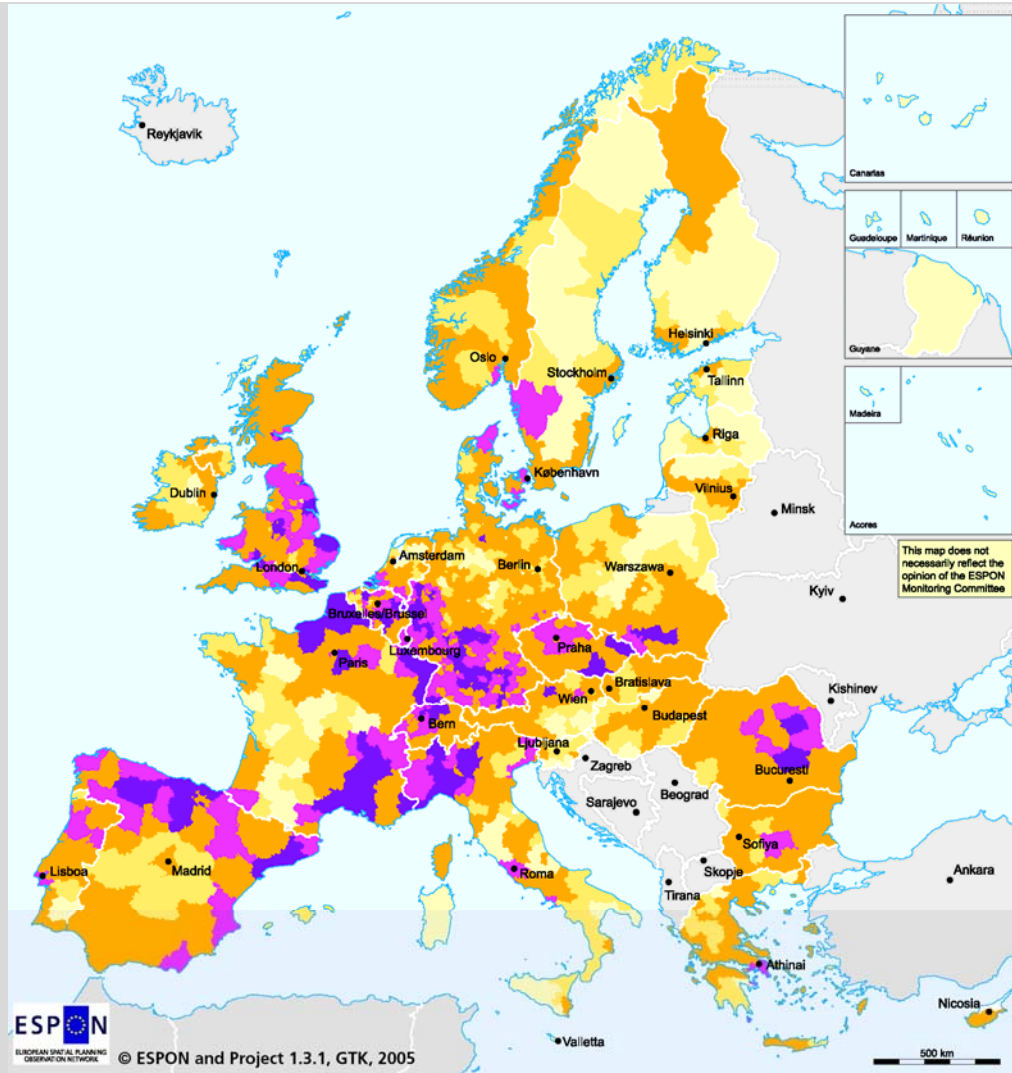
- Air traffic hazards
- Major accident hazard
- Nuclear power plants
- Oil processing, storage and transportation

This map shows the aggregated hazard typology based on 15 hazard indicators. Every indicator gives the value from 1 to 5 depending on the magnitude of the hazard in the NUTS 3 area. For the class "no data" value is 0. These values are then weighted on base of expert opinion (Delphi method questionnaire). At the end the sum of 15 weighted indicators are classified on base of percentile rank. For instance, NUTS 3 areas that belong in 90-100 percentile have their score greater than or equal to 90% of the total of all the summed hazard values.

Hazard classification



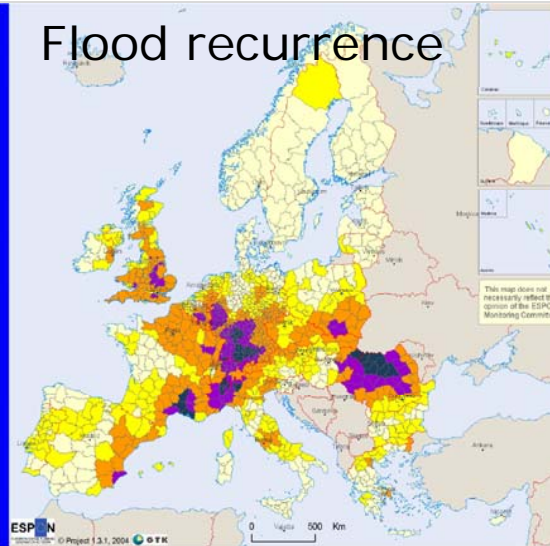
© EuroGeographics Association for the administrative boundaries
 Regional level: NUTS 3
 Origin of data: ESPON Project 1.3.1, GTK
 Source: ESPON database



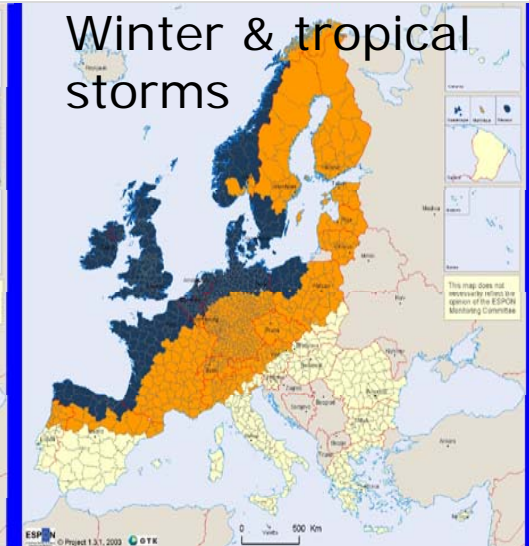
Natural Hazards

- Southern Europe: Forest fires and drought hazards
- Western and Northern Europe: Winter storms, storm surges and floods
- Climate: Affects frequency, intensity and coverage

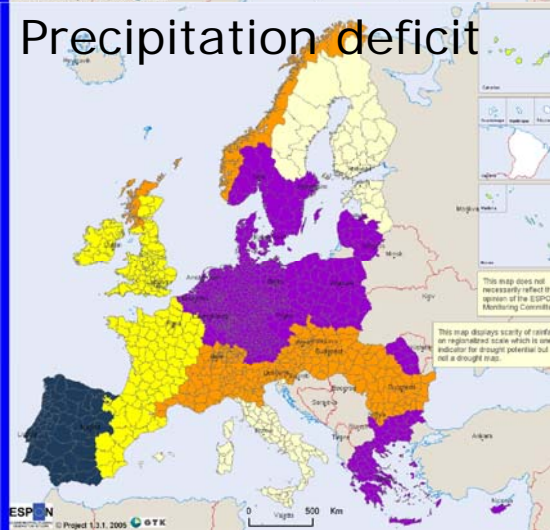
Flood recurrence



Winter & tropical storms



Precipitation deficit



Forest fires



The classification of the forest fire hazard is based on a combination of the numbers of observed fires per 1000 sq. km 1987-2003 (ESA) and the biogeographic regions map of Europe (EEA).

The number of observed fire per 1000 sq.km 1987-2003:

- 1 = No forest fires
- 2 = <1 observed fire
- 3 = 1-4 fires
- 4 = 5-10 fires
- 5 = >10 fires

Biogeographic regions:
 1 = Alpine and Arctic,
 2 = Atlantic,
 3 = Boreal,
 4 = Continental, Black sea, Pannonian and Steppic,
 5 = Mediterranean

Origin of the data: © EuroGeographics Association for the administrative boundaries

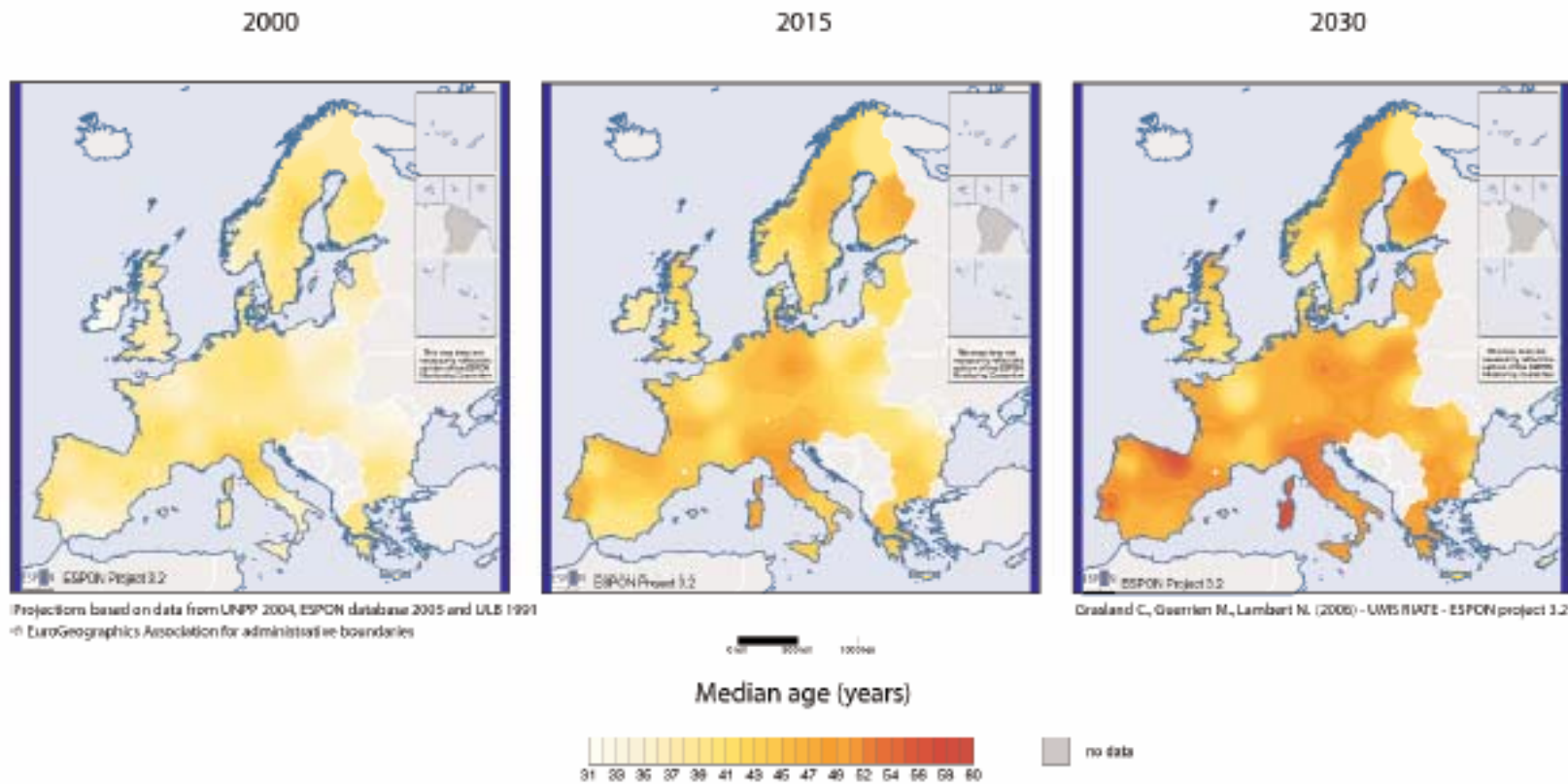
Forest fires years: 1987-2003; ESA
 Biogeographic regions: EEA

Source: ESPON Data Base

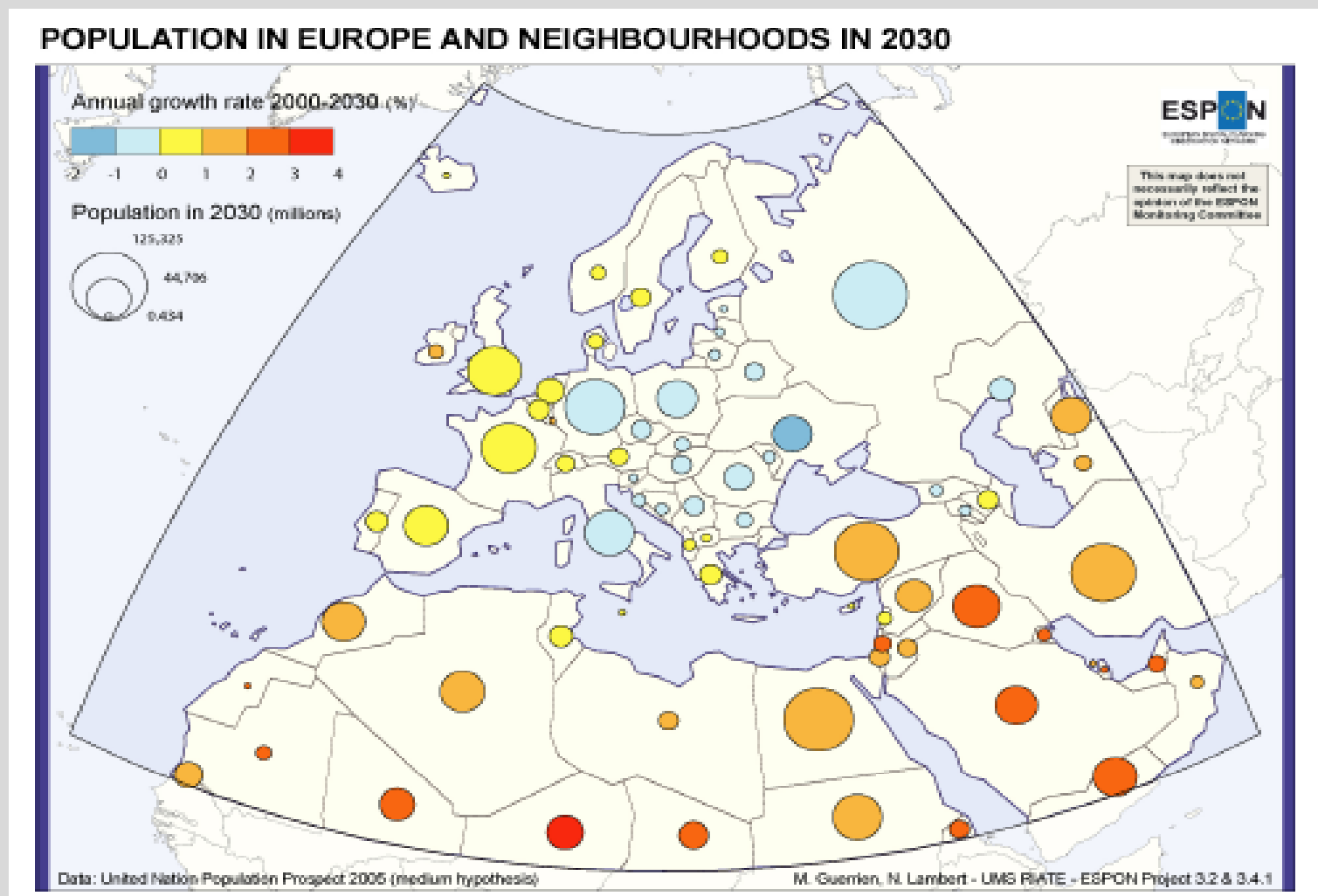
Forest fire hazard

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

Population ageing towards 2030

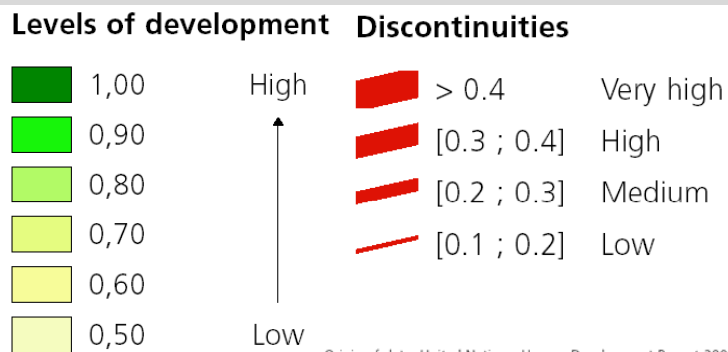
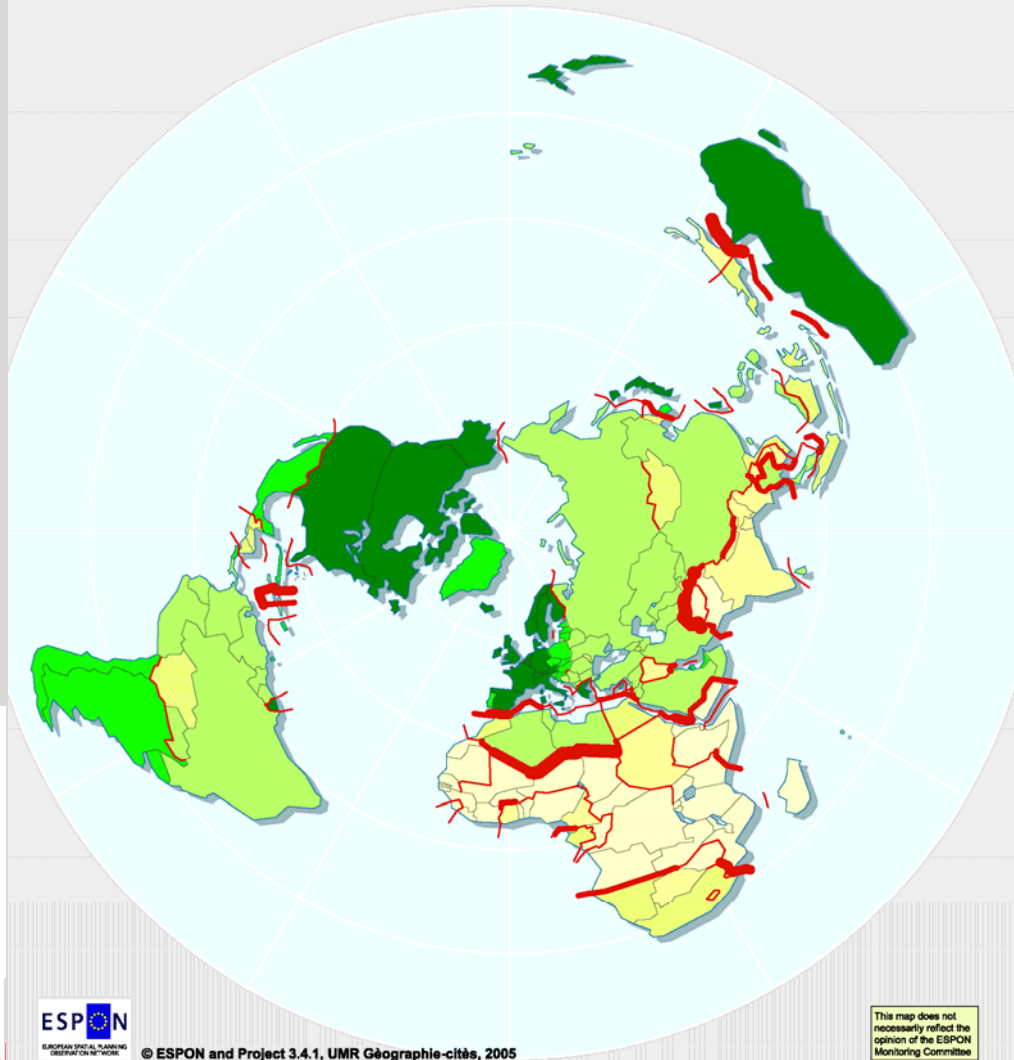


Europe and its neighbourhood towards 2030



Human development index 2002 – Global component

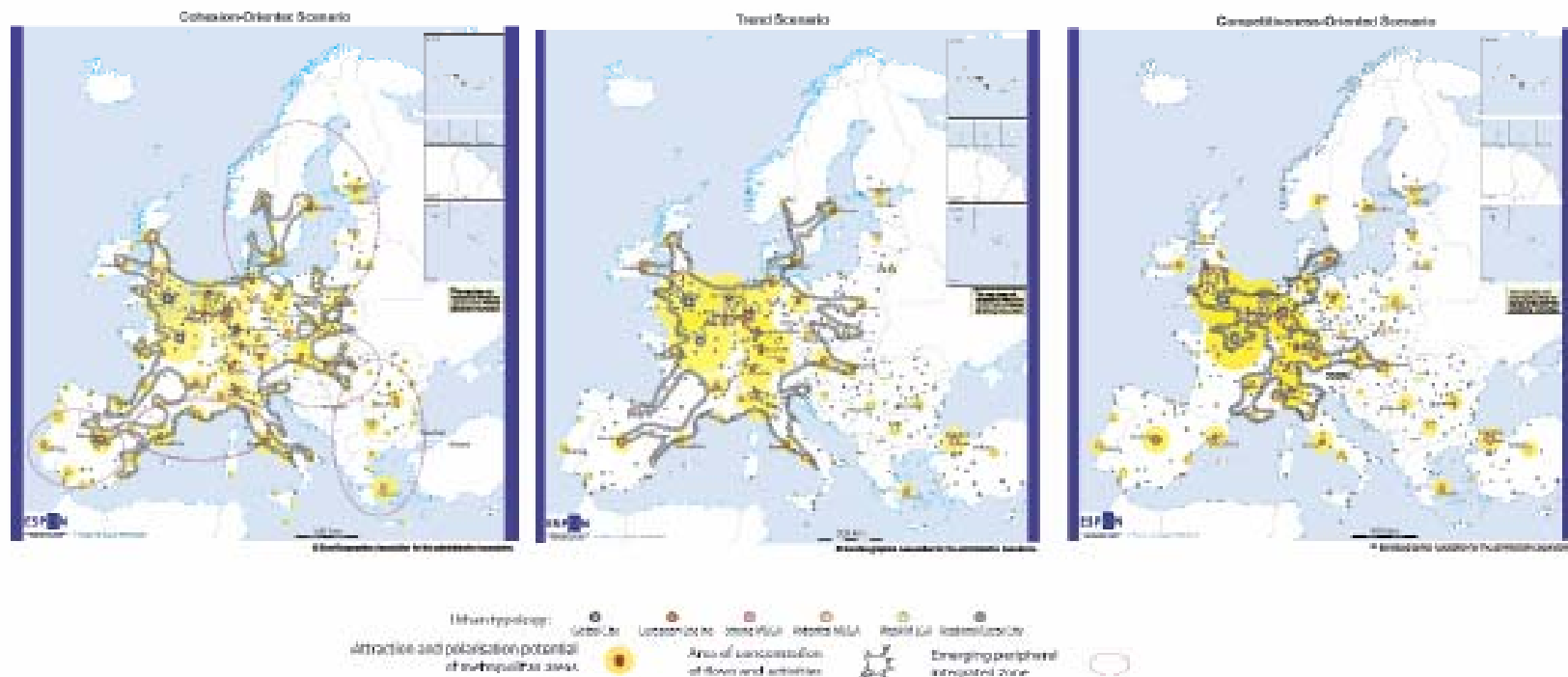
- The majority of European countries have a high level of human development.
- Main discontinuity between the EU and its neighbours in the South.
- Another major discontinuity is located in the Sahara between Northern Africa and the Sub-Saharan countries.



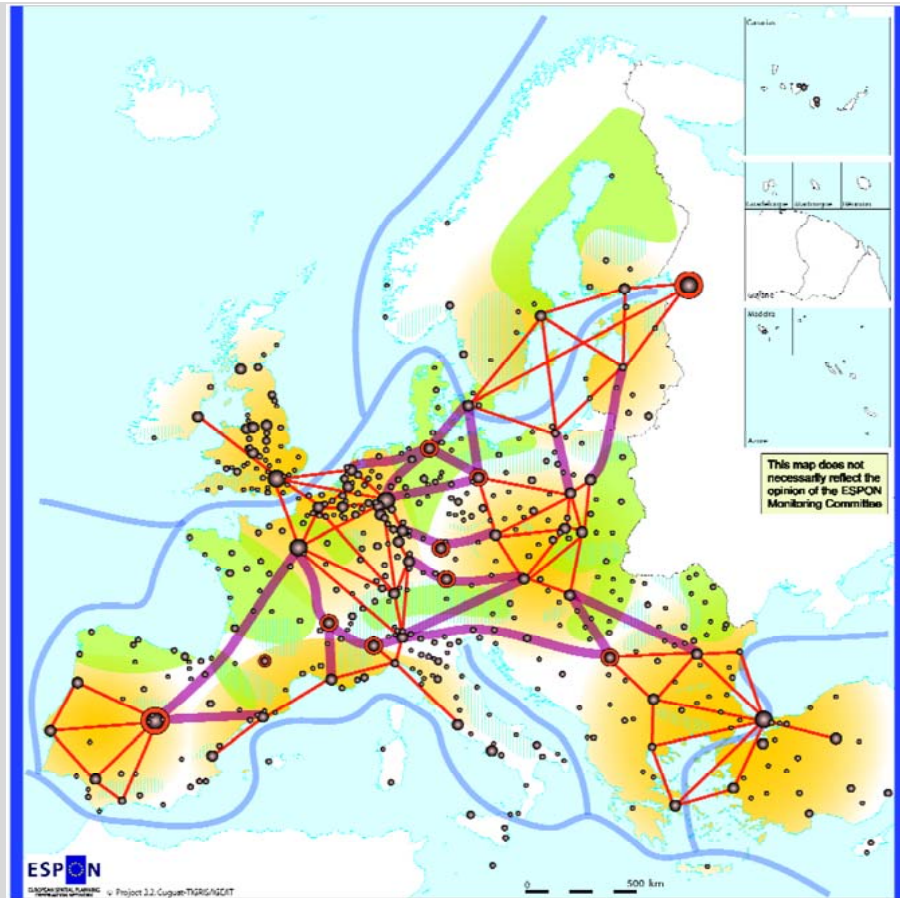
Origin of data: United Nations, Human Development Report 2004

Comparing territorial effects of scenarios 2030

Comparing scenarios: Spatial structure and urban hierarchy in 2030



A proactive scenario image 2030



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 EUROPEAN UNION
 Project 22 Cogeun-TIGRISANZIT

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- Area of economic integration
- Major urban network
- Link between areas of economic integration
- Linking city
- Major maritime freight route
- Biomass production area
- Area with dynamic residential economy

More information

Thank you for your attention!

More information on
ESPON results
can be found on

www.espon.eu