ESPON

# Europe towards 2050

**Andreu Ulied,** MCRIT, Lead Partner

ESPON Territorial Scenarios and Vision for 2050

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# ET2050 Consortium

Mcrit

TERSYN

NORDREGIO
Nordic Centre for Spatial Development

SZKOŁA GŁÓWNA HANDLOWA W WARSZAWIE

ULB
IGEAT

CEFMR
SFBM

POLITECNICO
MILANO

RIKS
research institute for knowledge systems

University of Thessaly

S&W

Ersília

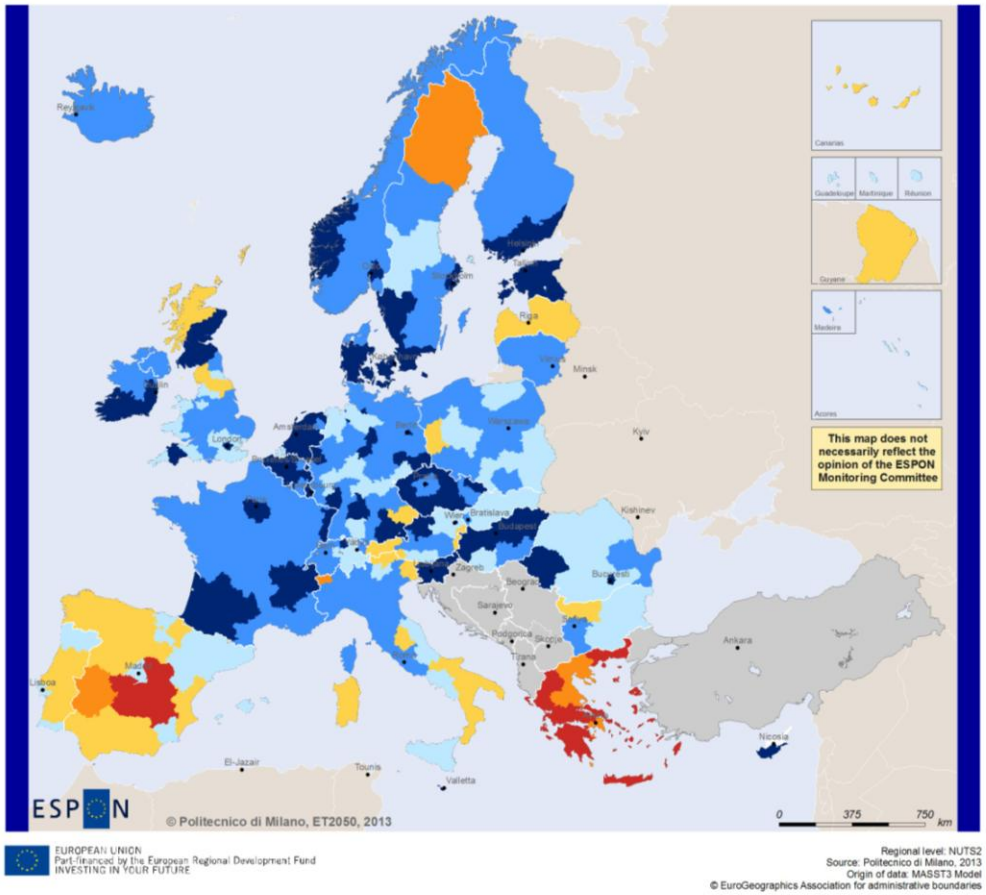
# Forecast Models Applied

| | | | |
|---|---|---|---|
| Demography | **MULTIPOLES (2010-2030)**<br>Cohort-component, hierarchical, multiregional, supranational model of population dynamics (up to 2030) | ESPON at NUTS2 | **IOM** |
| Economy | **MASST3 (2010-2030)**<br>Econometric: social, macroeconomic and Territorial (up to 2030) | ESPON at NUTS2 | **POLIMI** |
| Transport | **MOSAIC (2010-2030)**<br>Integrated modal split and traffic assignment based on TRANSTOOLS OD trip matrices (up to 2030) | EU27 at NUTS2 | **MCRIT** |
| Land-use | **METRONAMICA (2010-2050)**<br>Spatial and dynamic land use model that Uses constrained cellular automata to allocate land-uses (up to 2050) | EU27 at Cells 1 km2 | **RIKS** |
| Integrated | **SASI (2010-2050)**<br>Dynamic System (up to 2050) | ESPON and Western Balkans at NUTS3 | **S&W** |

# GDP Growth 2010-2030 (Baseline) by MASST3

**GDP Growth 2010 - 2030 (Baseline)**

Measured as annual average GDP growth rate along the period




**GDP Growth annual average rate (Units: %)**

Results obtained by MASST3 forecast model

- < 0%
- 0% - 0,5%
- 0,5% - 1%
- 1% - 1,5%
- 1,5% - 2%
- > 2%

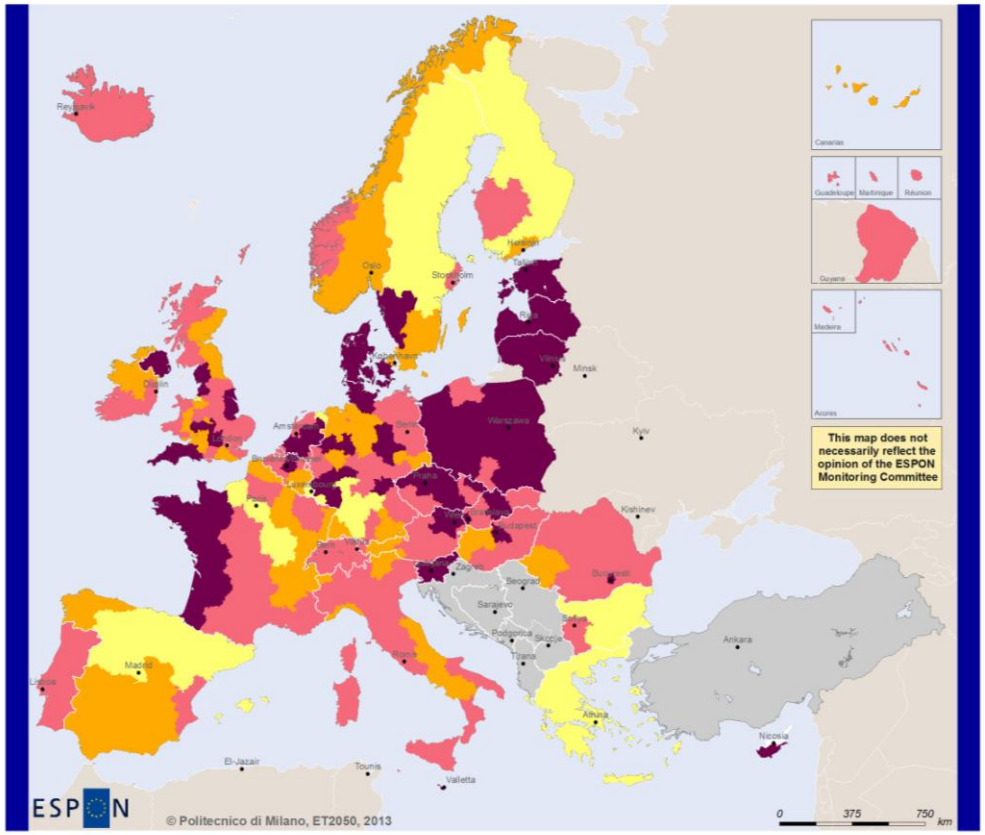
**GDP a.a.: 1,89 %**

**45 regions bellow 1,00 %**

# Employment 2010-2030 by MASST3

**Employment 2010 - 2030 (Baseline)**

Measured as annual average employment growth rate

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Regional level: NUTS2
Source: Politecnico di Milano, 2013
Origin of data: MASST3 Model
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**Employment growth annual average rate (Units: %)**

Results obtained by MASST3 forecast model

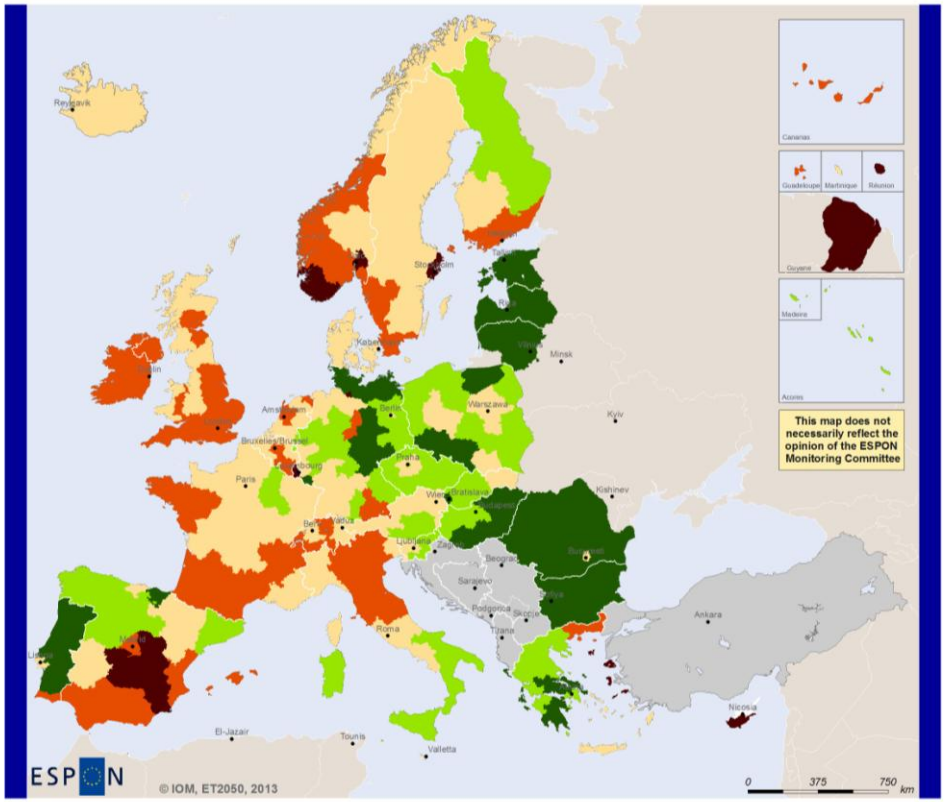
- < 1%
- 1% - 1,5%
- 1,5% - 2%
- > 2%
- No data (ESPON space)
- No data (No ESPON space)

**a.a.: 1,59 %**

# Population Change 2010-2030 by MULTIPOLES

**Total Population 2010 - 2030 (Baseline)**

Measured as annual population change




**Annual population change (Units: %)**

Results obtained by MULTIPOLES forecast model

- < -0,5%
- -0,5% - 0%
- 0% - 0,5%
- 0,5% - 1%
- > 1%
- No data (ESPON space)
- No data (No ESPON space)

**Population: from 514 to 530 inh.**

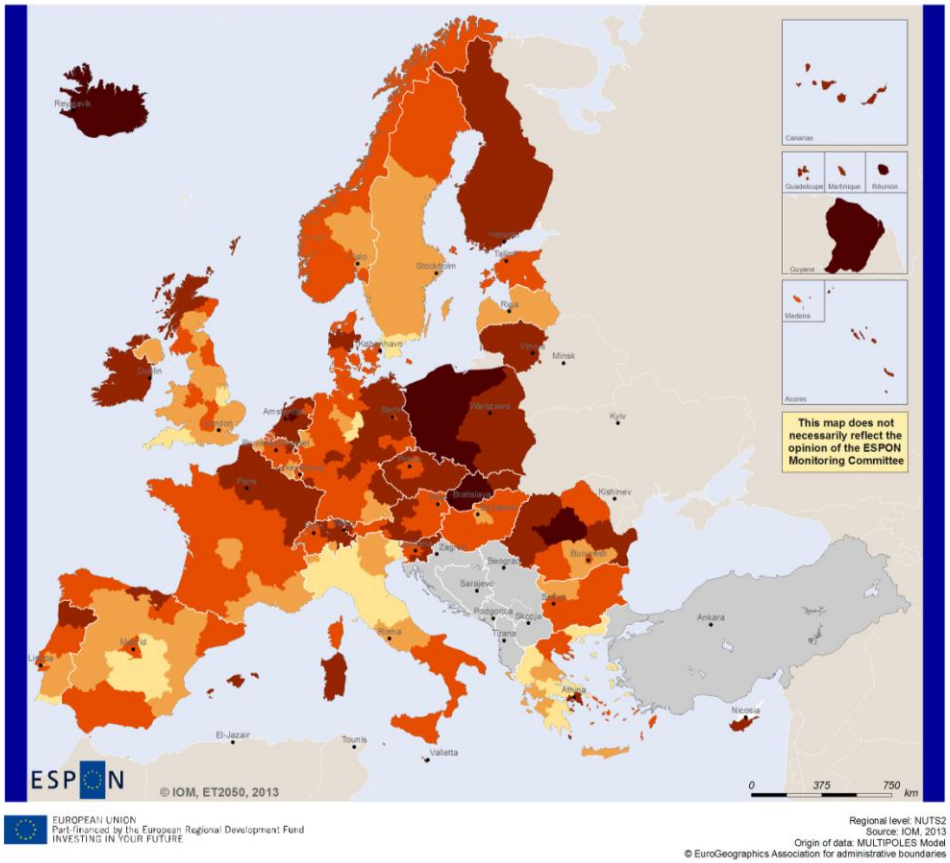
**European population growth will tend towards stabilisation.**
**Total population (ESPON Space) will grow from 514 million in 2010 to 530 million in 2030.**

MULTIPOLES is a cohort-component population dynamics model. It is used for the simulations of complex hierarchical multiregional, multi-country population systems; for analysing impact of various scenarios concerning migration, fertility, and mortality.

# Population ageing 2010-2030

**Change to Population Ageing 2010 - 2030 (Baseline)**

Measured as annual increase in Old-Age Dependency Ratio




**Annual increase in Old-Age Dependency Ratio 2010 - 2030 (Units: %)**

Results obtained by MULTIPOLES forecast model

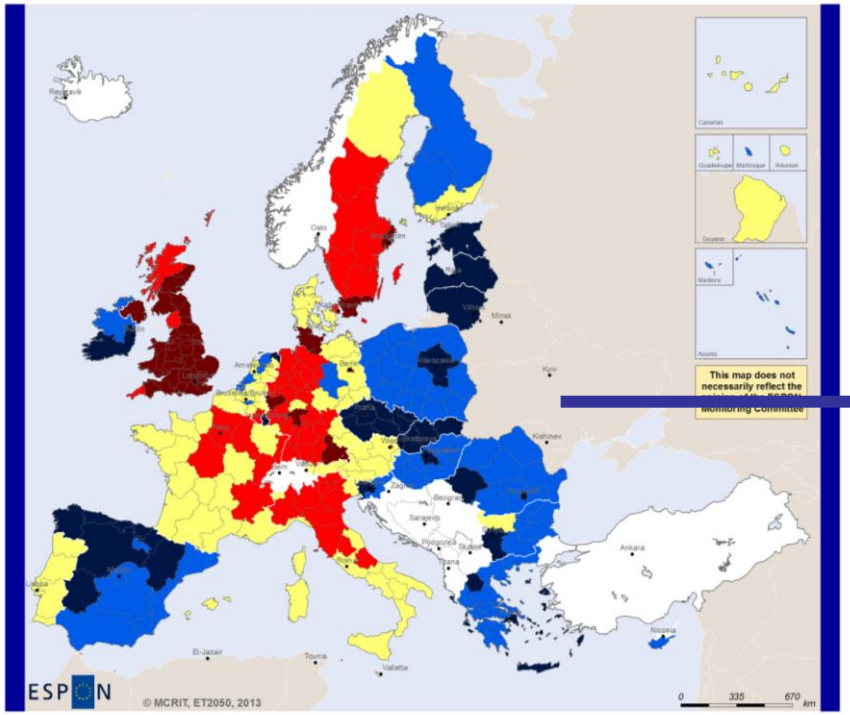
- < 1%
- 1% - 2%
- 2% - 2.5%
- 2.5 - 3%
- > 3%
- No data (ESPON space)
- No data (No ESPON space)

**Population > 65 years: from 17 % to 24 %**

# Growing Regional Disparities

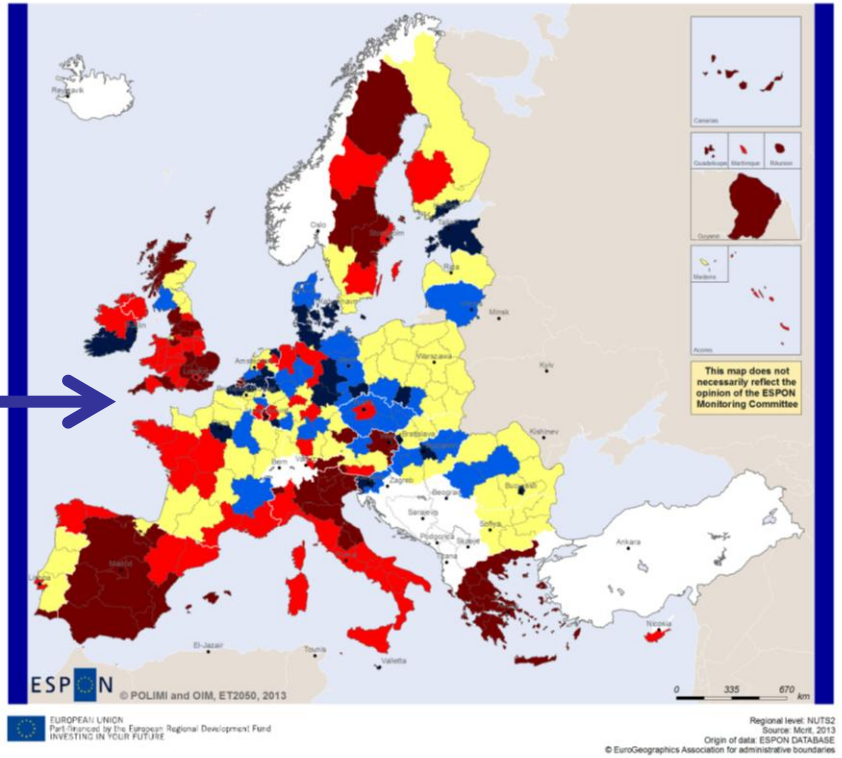
**Relative change in GDP per capita from 2000 to 2008**

Measured in percentage (%) to the EU27 average GDP growth




**Relative change in GDP per capita from 2008 to 2030 (Baseline)**

Measured in percentage (%) to the EU27 average GDP growth




**Relative change in GDP per capita growth in relation to EU27 average**

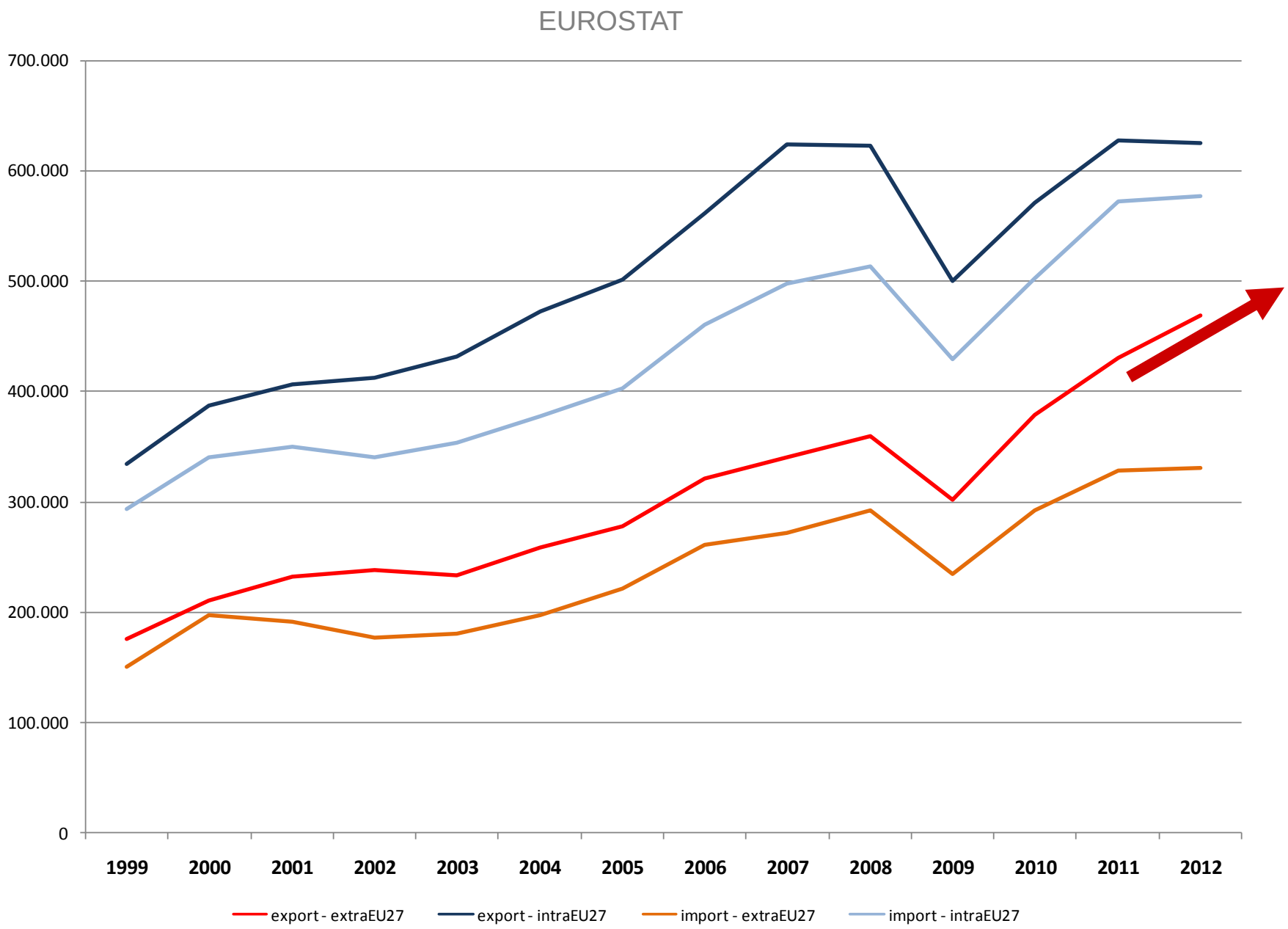
- < -15%
- -15% - -5%
- -5% - 5%
- 5% - 15%
- > 15%

**Relative change in GDP per capita growth in relation to EU27 average**

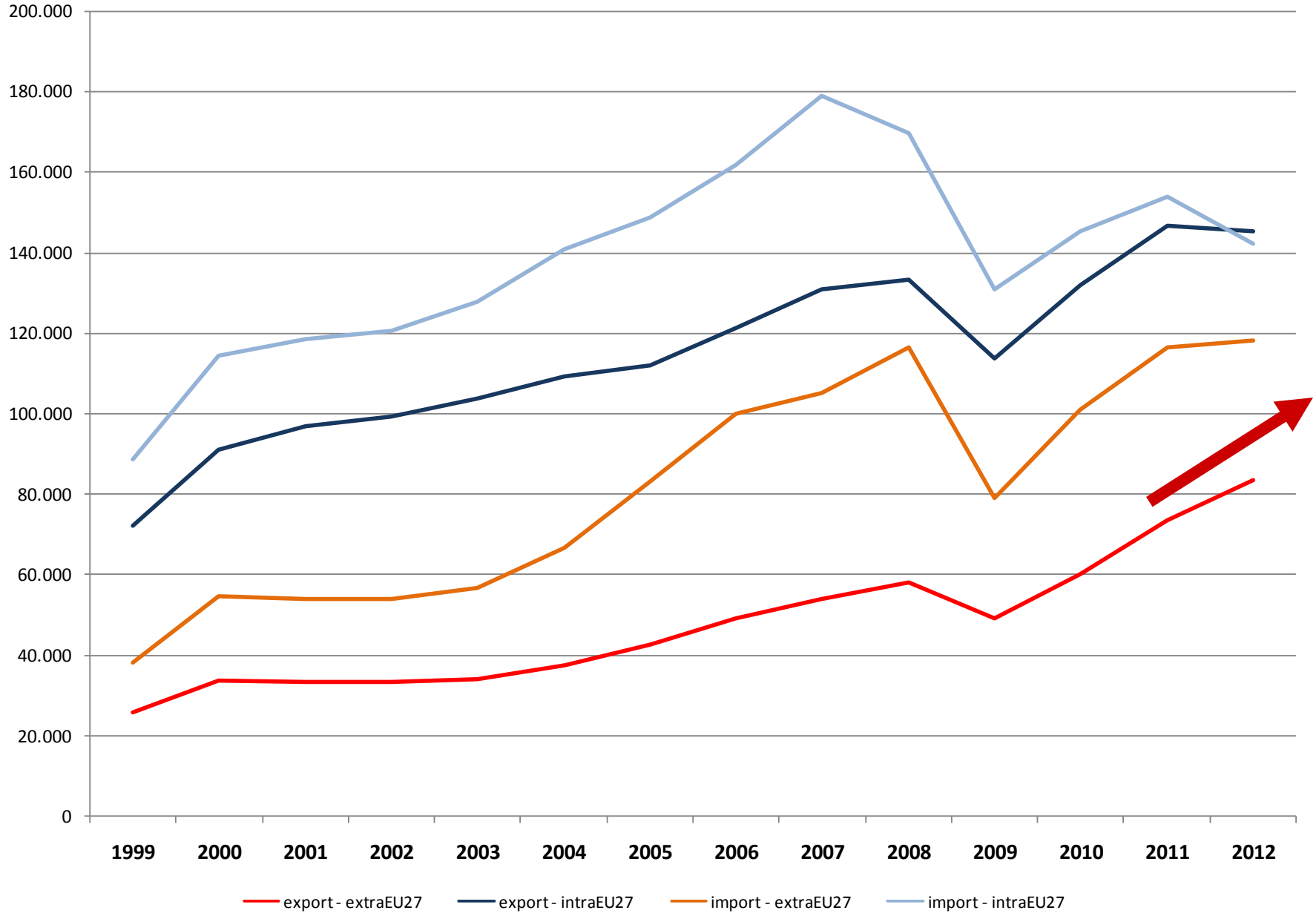
**Results obteined by MASST (Economy) and MULTIPOLES (Demography) forecast models**

- < -15%
- -15% - -5%
- -5% - 5%
- 5% - 15%
- > 15%

# Trade by companies located in Germany (M€)



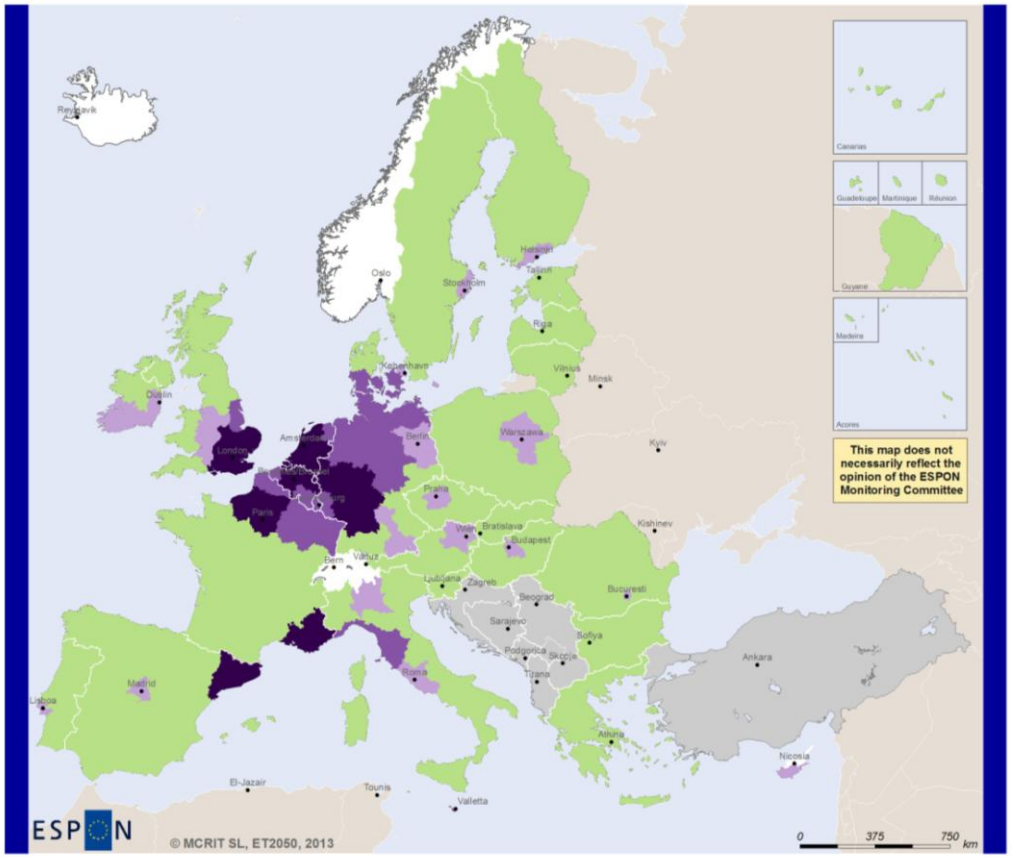
# Trade by companies located in Spain (M€)



# Spatial Polarisation in Global Hubs

**Global Accessibility 2010 - 2030 (Baseline)**

Measured as potential intercontinental airplane seats and containers in relation EU average

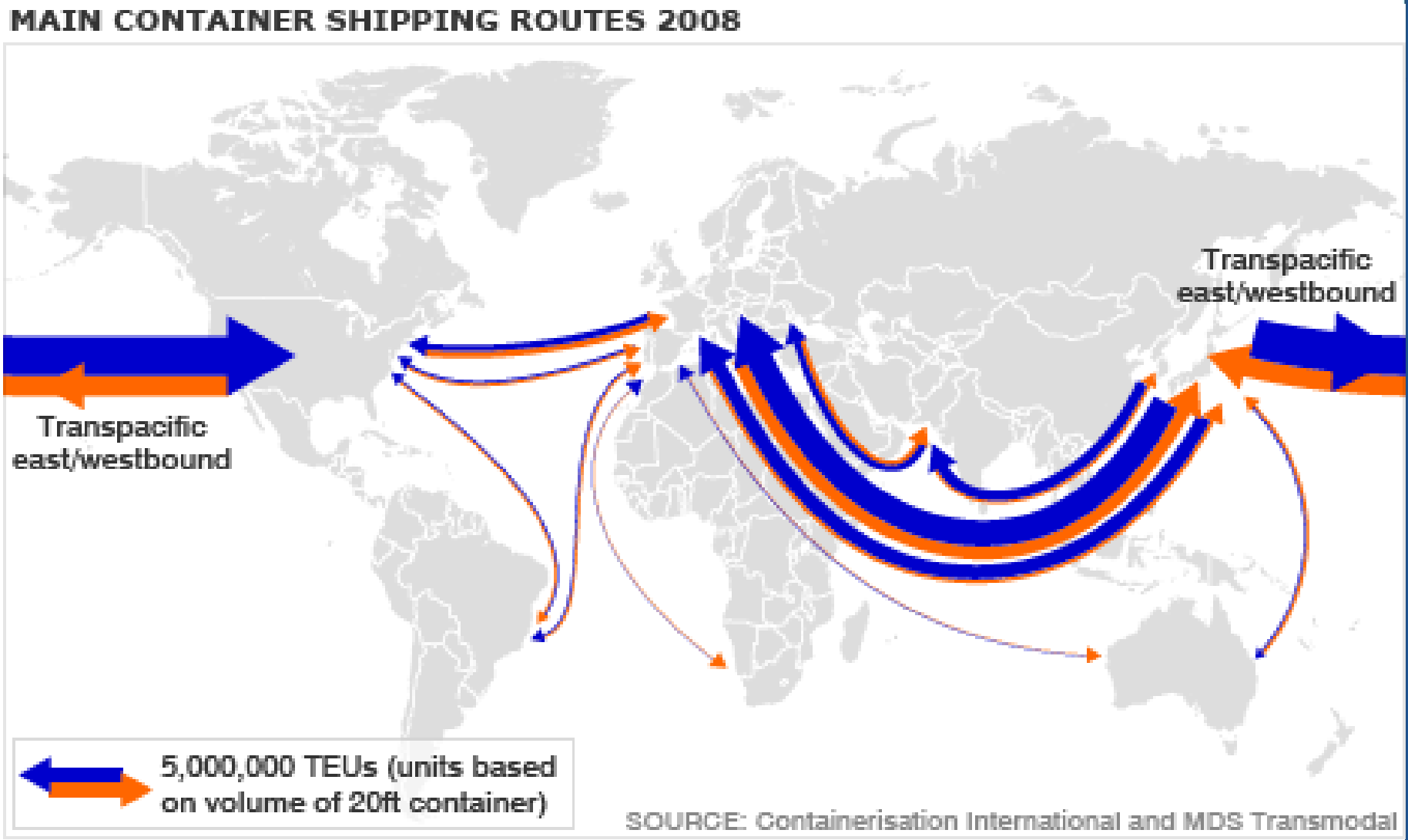



**Passengers and Freight Global Accessibility**

- Passengers and Freight accessibility are expected to increase below EU average
- Passengers accessibility is expected to increase over EU average
- Freight accessibility is expected to increase over EU average
- Passengers and Freight accessibility are expected to increase over EU average

**4 ports: 60% TEUs handled & 4 airports: 70% of outside-EU travellers (2011)**

# Intercontinental Maritime Links



# Key **Territorial Trends**...

1) Moderate Economic Growth…

2) More Jobs and Lower Salaries...

3) Rural emigration to more developed urban regions…

4) Population Ageing all across Europe…

5) Increasing Regional Disparities…

6) Diversified Globalisation…

7) Induced Polarisation in Global Hubs…

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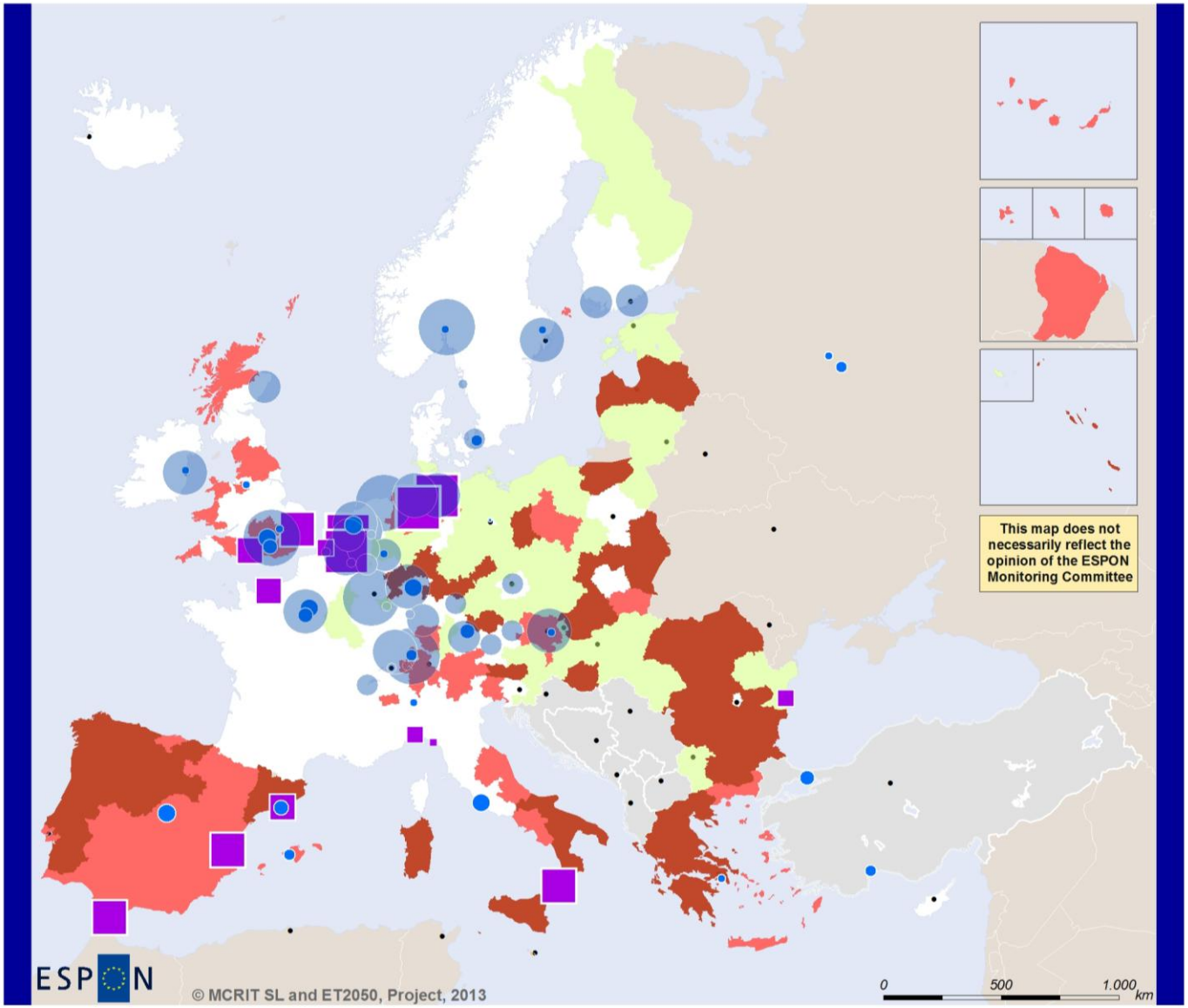
# Key Territorial Trends towards 2030

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Regional level: NUTS 3
Source: MCRIT, 2013
Origin of data: ET2050, 2013
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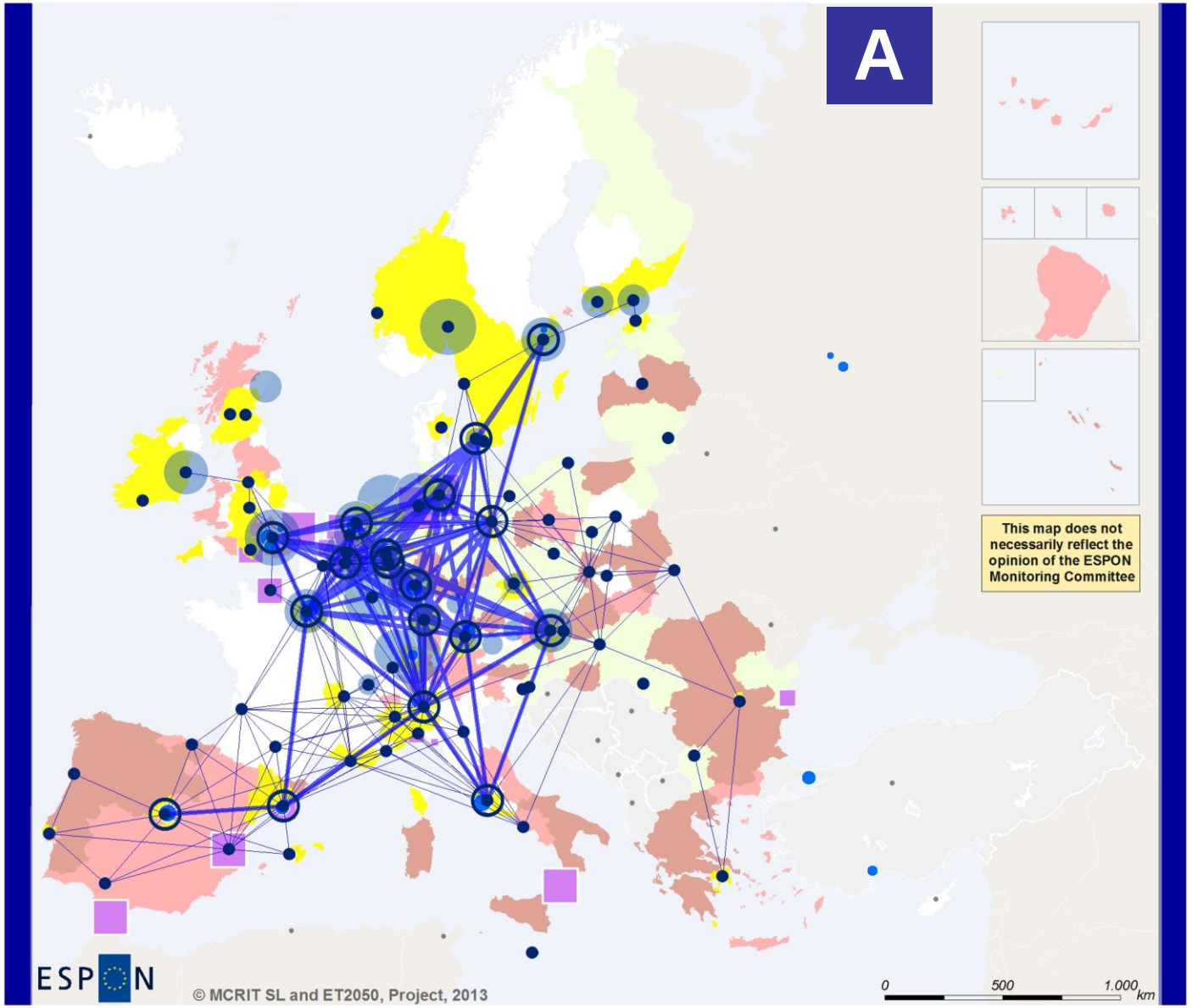
# Promotion of Global Cities

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Regional level: NUTS 3
Source: MCRIT, 2013
Origin of data: ET2050, 2013
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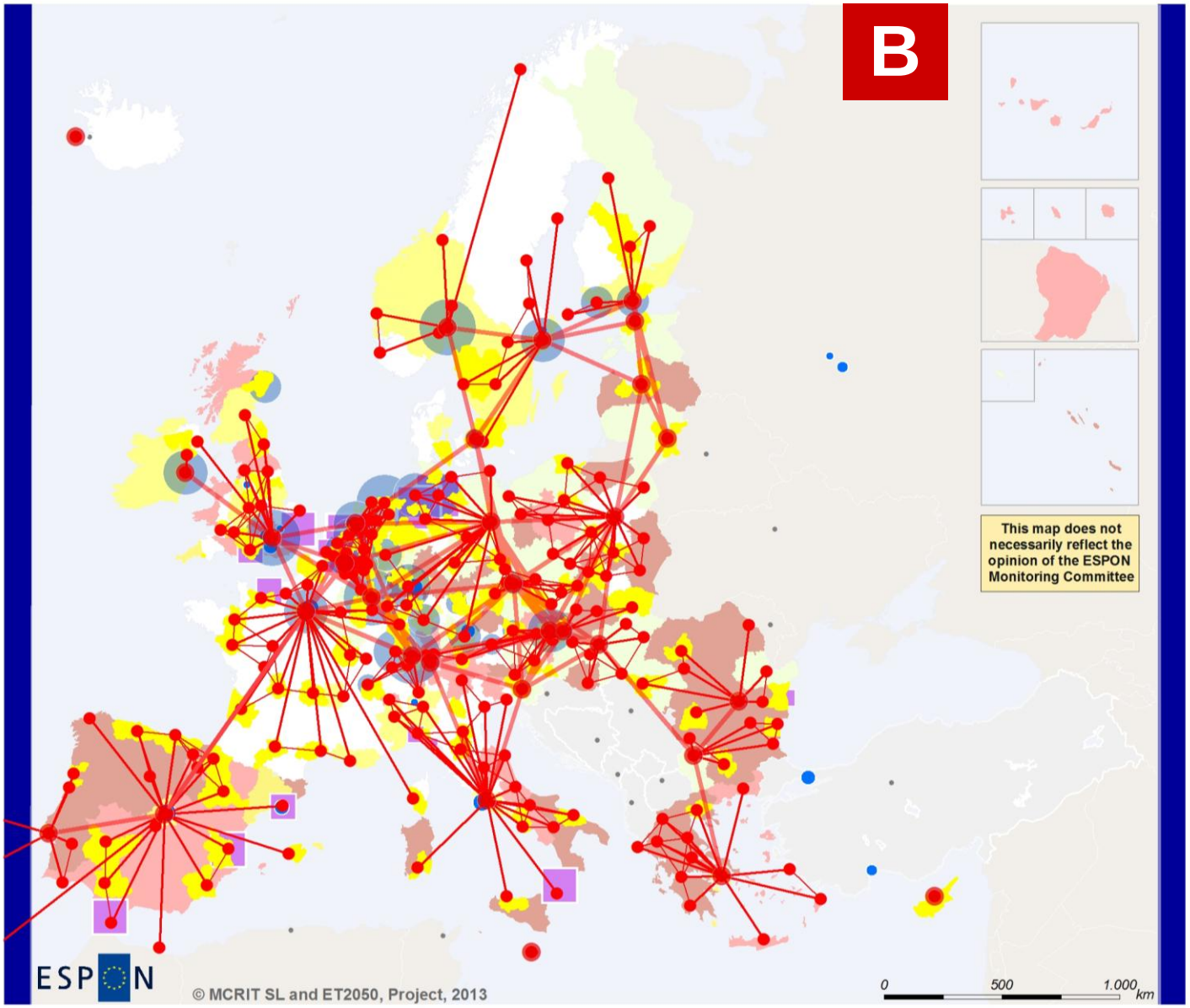
# Promotion of Networks of Cities

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Regional level: NUTS 2
Source: MCRIT, 2013
Origin of data: ET2050l, 2013
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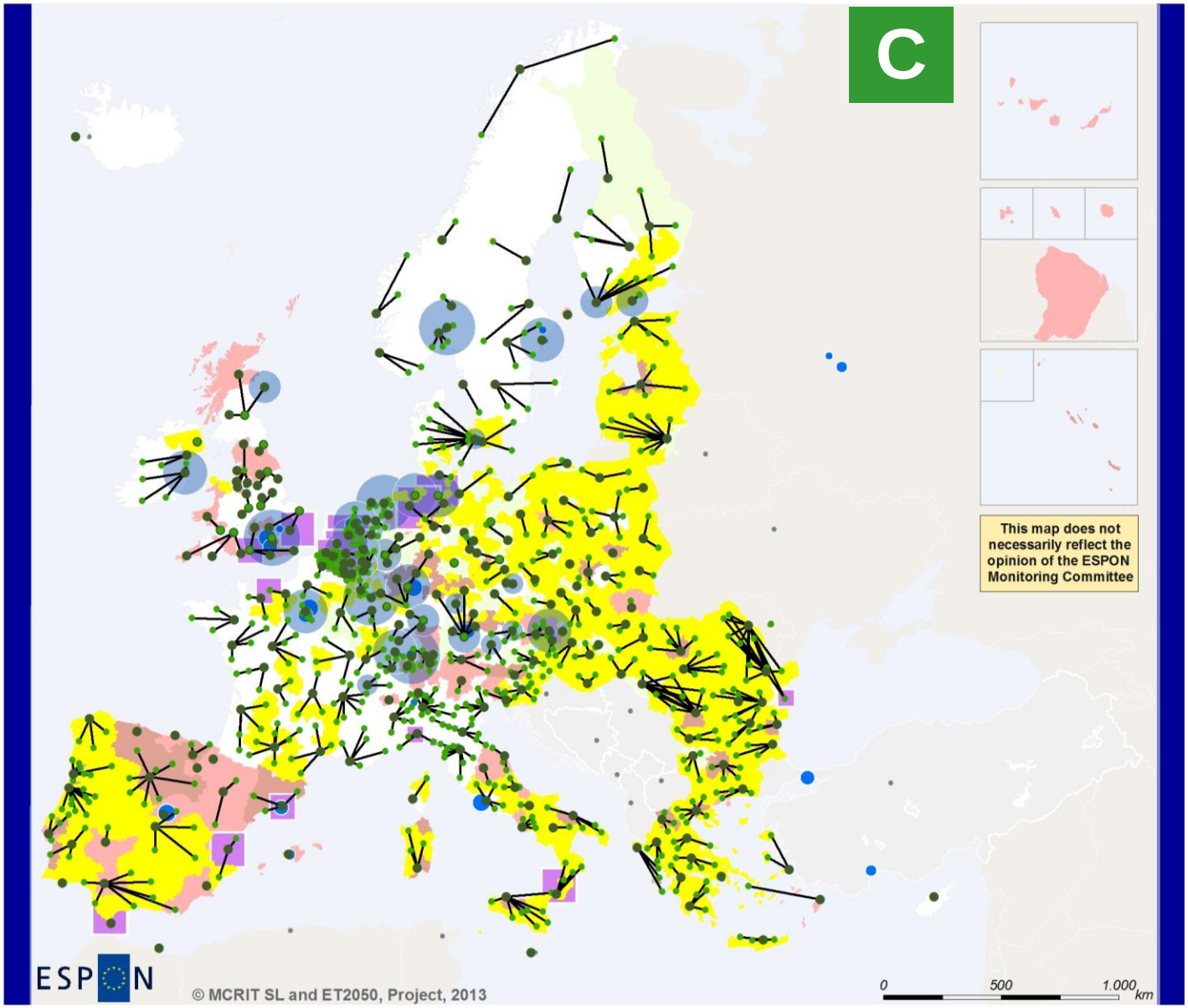
# Promotion of Rural and Peripheral Regions

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Regional level: NUTS 3
Source: MCRIT, 2013
Origin of data: ET2050, 2013
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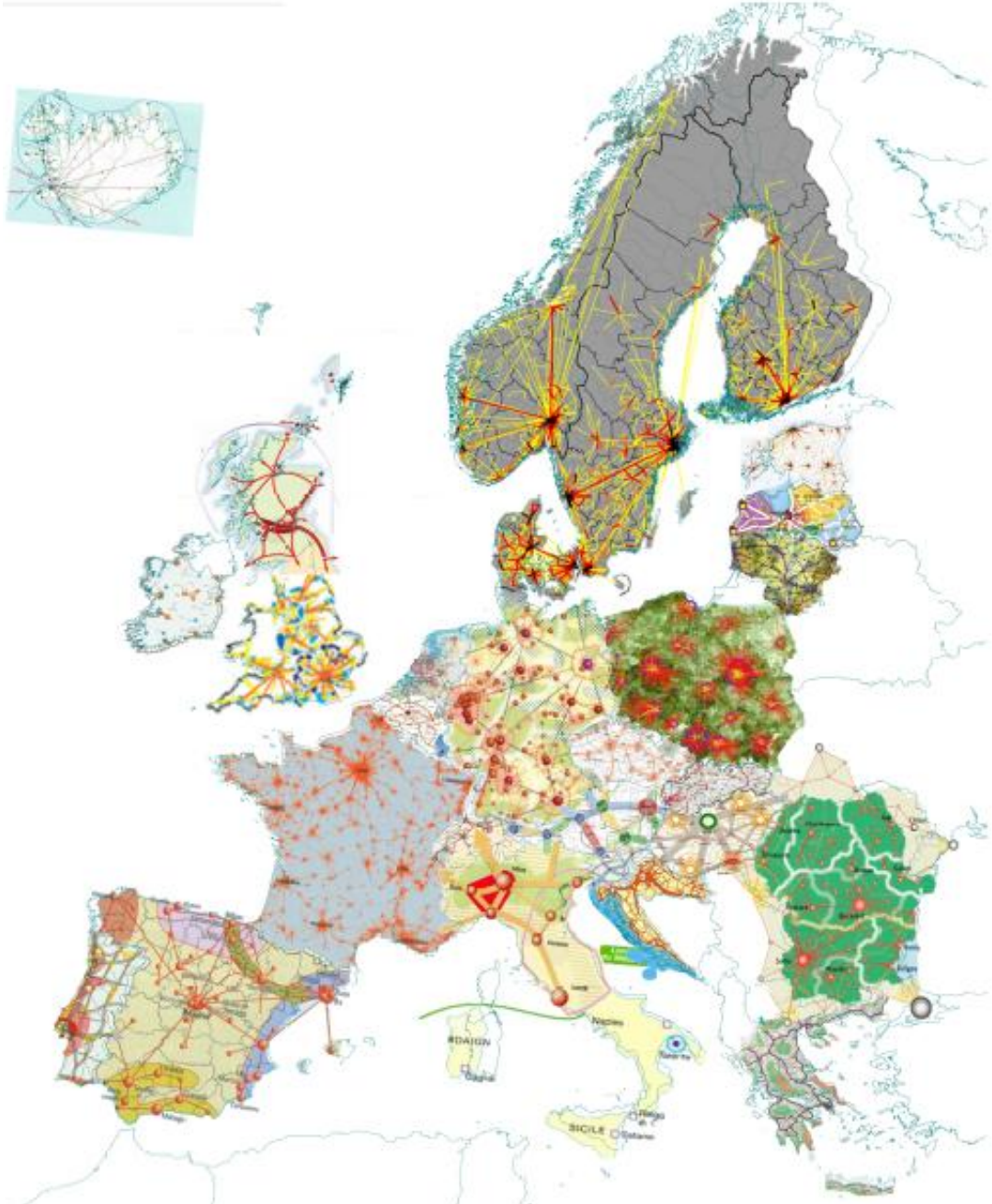
# National Spatial Development Strategies and Visions



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# Further information:

## www.espon.eu

## www.et2050.eu (working documents)

## ulied@mcrit.com

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