

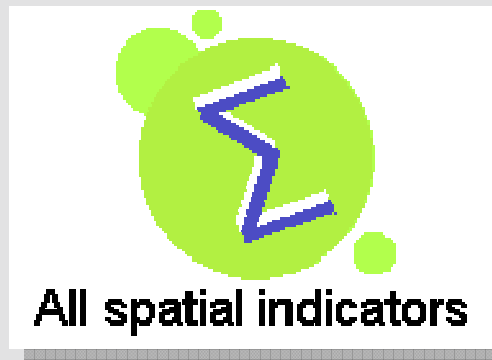
## **ESPON project 4.1.3 Spatial Monitoring – Key,- Core-, or Routing Indicators**

**Raumbeobachtung – Womit lässt sich  
Europa am ehesten verstehen? – Key,-  
Core-, oder Richtungsweisende Indikatoren**

*Christian Muschwitz  
(ECP Luxembourg)*

- 1. An all European spatial monitoring?**
- 2. What are „routing indicators“?**
- 3. Tentative spatial planning report - Some selected results...**

## 1. An all European spatial monitoring?



## An all European spatial monitoring?

- In the past ESPON tried to harmonize data and to create **a so-called ESPON Data Base.**
- Minimum requirements were set out and the data base was filled step by step and fed by the TPGs...
- Right now the ESPON database consists of roughly 450 Indicators



All spatial indicators

# The ESPON database

The  
**ESPON Data Base**  
can be entered via a  
MS ACCESS query  
sheet and is  
organized by themes,  
sub-themes and  
NUTS levels...

The screenshot shows the Microsoft Access interface for the ESPON database. The window title is "Microsoft Access - [FRM\_MAIN : Formular]". The menu bar includes "Datei", "Bearbeiten", "Administration", "Thematic selection", and "Reports". The toolbar contains various icons for file operations and data manipulation. The main area is divided into three steps:

**Step 1: SELECT THEME, SUBTHEME, NUTS-LEVEL and TABLE**

Theme:	Subtheme:	NUTS:	Table:
Population	Population Structure	NUTS_0_03	021_Population_by_age-groups_2001_N203_RM
Employment and Labour Market	Population Movement	NUTS_0_99	021_Population_by_age-groups_1999_N203_RM
Wealth and production		NUTS_1_03	021_Population_by_age-groups_1998_N203_RM
Transport		NUTS_1_99	021_Population_by_age-groups_1995_N203_RM
Research and Development		NUTS_2_03	021_Population_by_age-groups_2002_N203_RM
Utilities		NUTS_2_09	021_Population_by_age-groups_1996_N203_RM
Communication technology		NUTS_2_09	021_Population_by_age-groups_1997_N203_RM

**Step 2: SELECT RECORD by DOUBLE-CLICK**

Variable code:	Variable name:	Regional reference:	Time
PopJtN202	Population total 2002	NUTS 2	2002
PopJmN202	Population male 2002	NUTS 2	2002
PopJfN202	Population female 2002	NUTS 2	2002
PopJt4N202	Population 40-44 years 2002	NUTS 2	2002
PopJm4N202	Population 40-44 years male 2002	NUTS 2	2002
PopJf4N202	Population 40-44 years female 2002	NUTS 2	2002
PopJt9N202	Population 5-9 years 2002	NUTS 2	2002
PopJm9N202	Population 5-9 years male 2002	NUTS 2	2002
PopJf9N202	Population 5-9 years female 2002	NUTS 2	2002
PopJt14N202	Population 10-14 years 2002	NUTS 2	2002
PopJm14N202	Population 10-14 years male 2002	NUTS 2	2002
PopJf14N202	Population 10-14 years female 2002	NUTS 2	2002

**Step 3: CHECK SELECTION and START QUERY before EXPORT TO EXCEL**

Buttons: Check, Query, Export to Excel, Refresh, Close

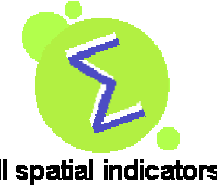
Datensatz: 1 von 57

## An all European spatial monitoring?



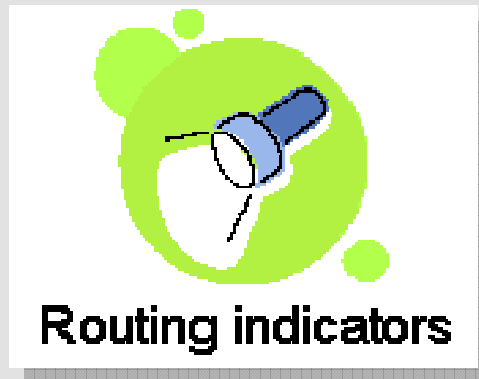
- But the indicators in the database suffer from a huge heterogeneity...
- So some of them were defined as more complete and harmonized as others, they were upgraded as **core indicators**
- Some projects defined some indicators as very important for spatial typologies, these were named **key indicators**
- But unfortunately all these indicators have not been selected according to the specific requirements of an continuous spatial monitoring...

## An all European spatial monitoring?



- The monitoring should serve **policy makers, stakeholders, practitioners** as well as **scientists**
- Should make use of the whole world of existing data and indicators (...also non ESPON sources)
- Should be **easy to handle, targeted** but also **variable**
- Because of the variety of indicators existing a **choice** must be made
- Concentration on a **limited number of indicators**
- this led to the idea of the so called **routing indicators**

## 2. What are „routing indicators“?

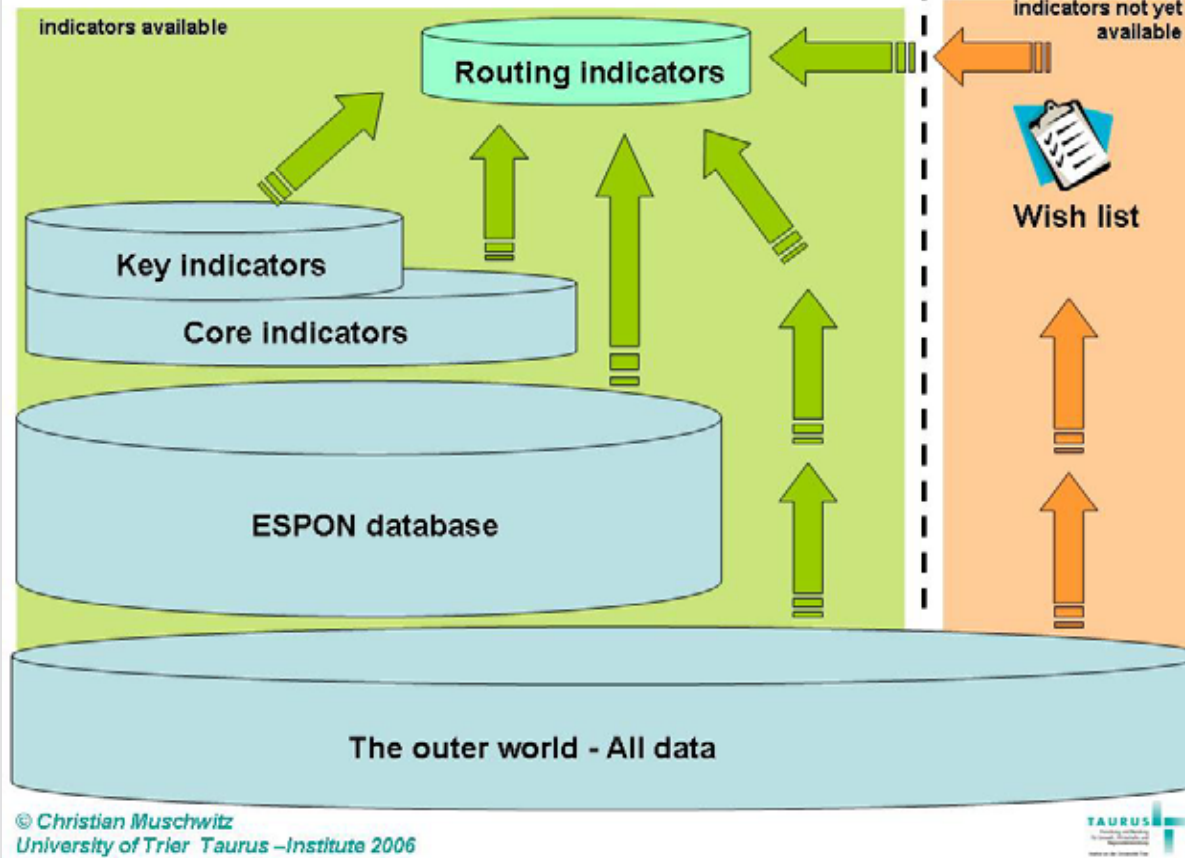




# What are „routing indicators“?



## Where do the routing indicators come from?



## What are „routing indicators“?



Routing indicators

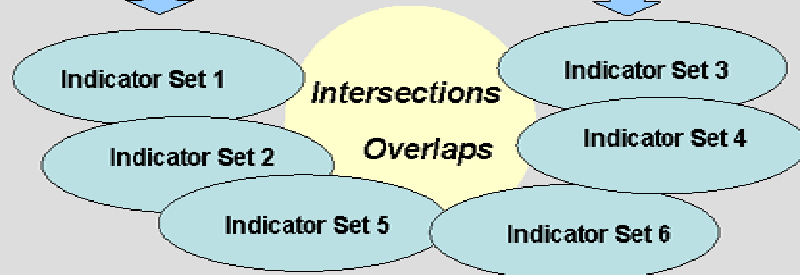
- The indicators should have a high ability to **act as representatives** for a whole thematic field
- They need very strong **explanatory power**
- They highlight a certain thematic field and can act as **early warning system** for changes in a field
- The selection of these indicators **was decentralized** (by WPs)
- Guidance was provided through a **specific methodological approach...**

## Step 1: Indicator search

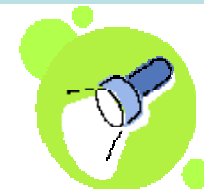
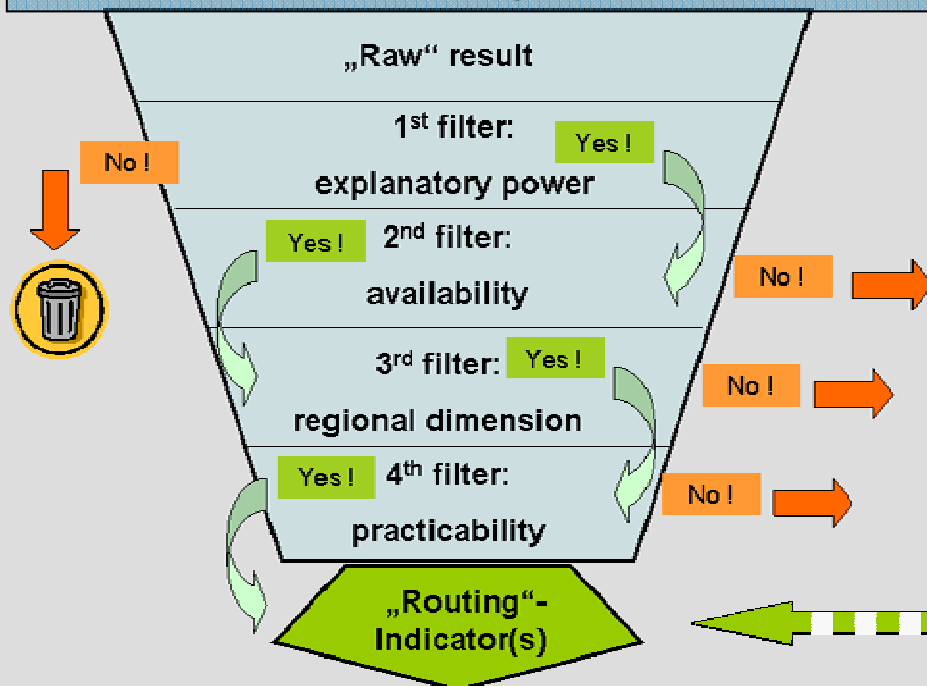
Overall Concept (e.g. Lisbon)

Analysis of different approaches dealing with concept

Search for proposed or used indicators (-sets)



## Step 2a: Filtering procedure



## How to select...

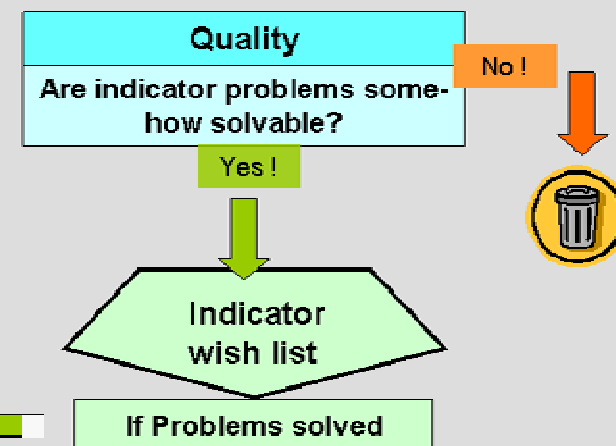
Routing indicators

1. broad indicator search  
inside/outside ESPON

2a. Strict filtering procedure

2b. Wish list procedure

## Step 2b: Wish list procedure





## 4. Tentative spatial planning report – Some selected results...

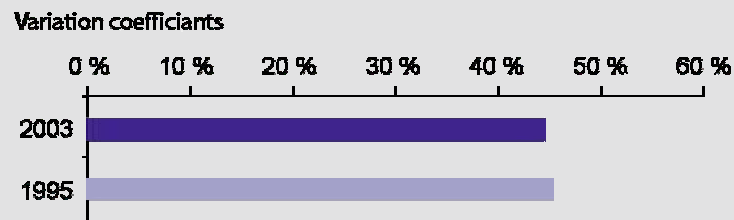


## Tentative Spatial Monitoring Report

- Concentration on a selected range of routing indicators
- Altogether 36 indicators match the minimum requirement of the exercise, others will follow!
- In total only 67 indicators entered the lists (routing indicator and wishlist)

- The routing indicators are related to
  - Economic cohesion
  - Social cohesion
  - Territorial cohesion
  
- Territorial cohesion in the light of
  - Cohesive spatial structure
  - Lisbon strategy
  - Gothenburg
  - Infrastructure and accessibility
  - Socio- cultural
  - Governance

## Selected findings – Economic cohesion

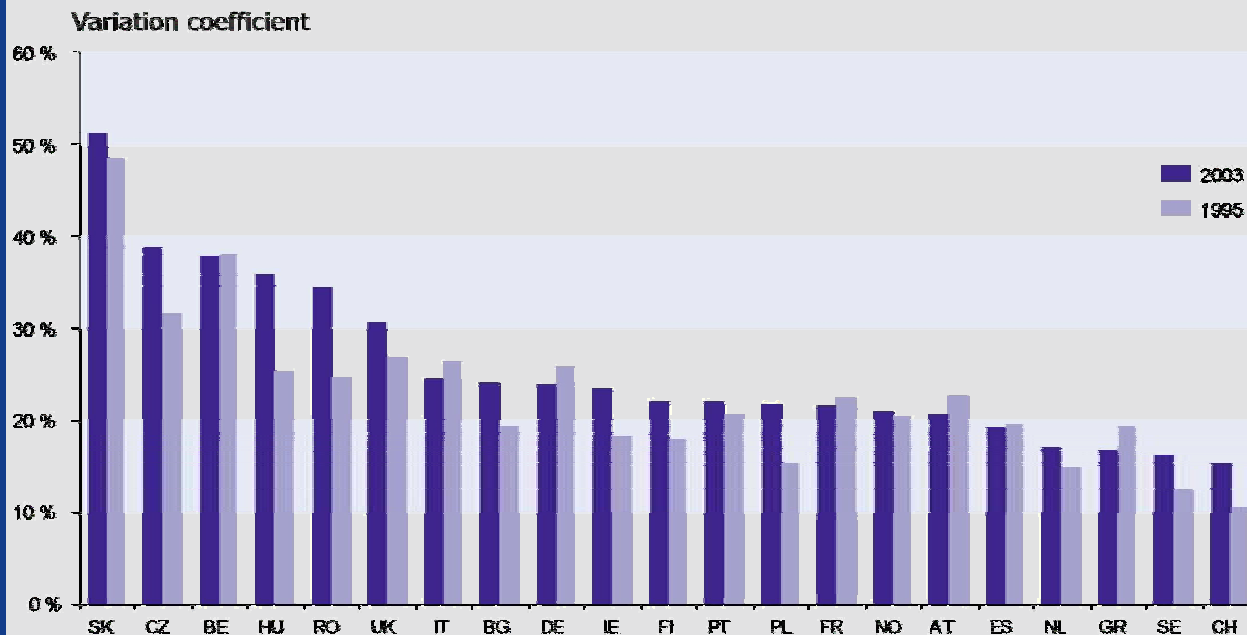


Source: ESPON database

Dispersion of GDP per capita in the ESPON area based on NUTS 0 shows process of convergence between the countries



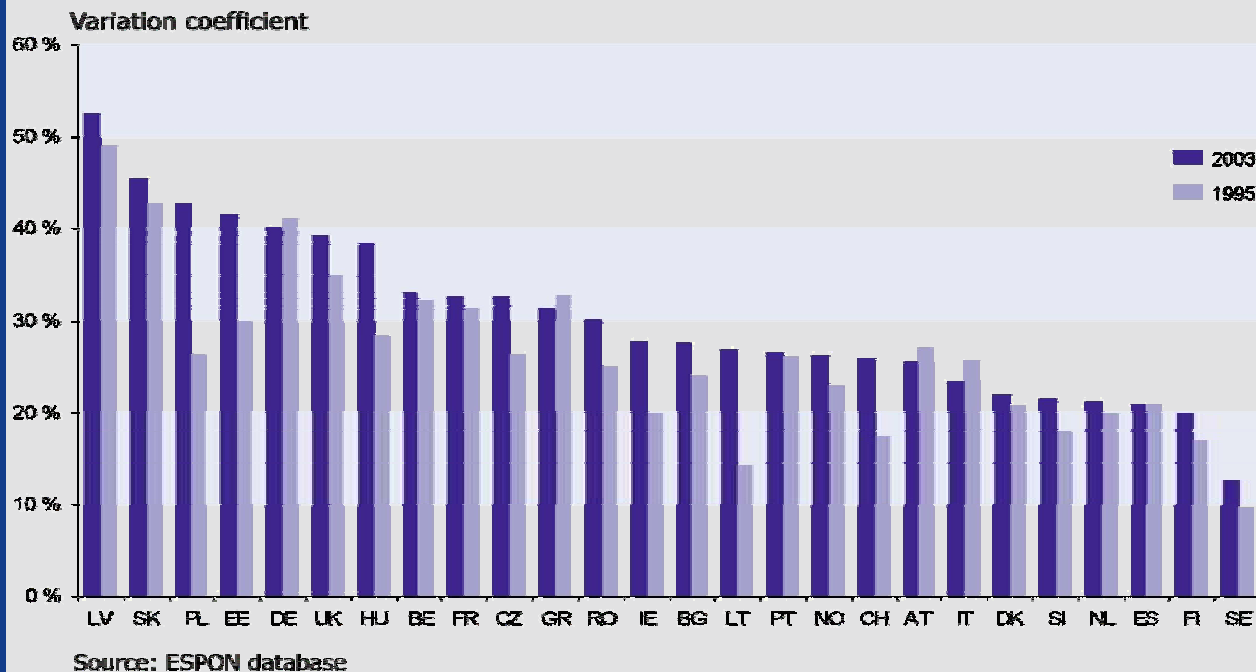
### Selected findings – Economic cohesion



Source: ESPON database

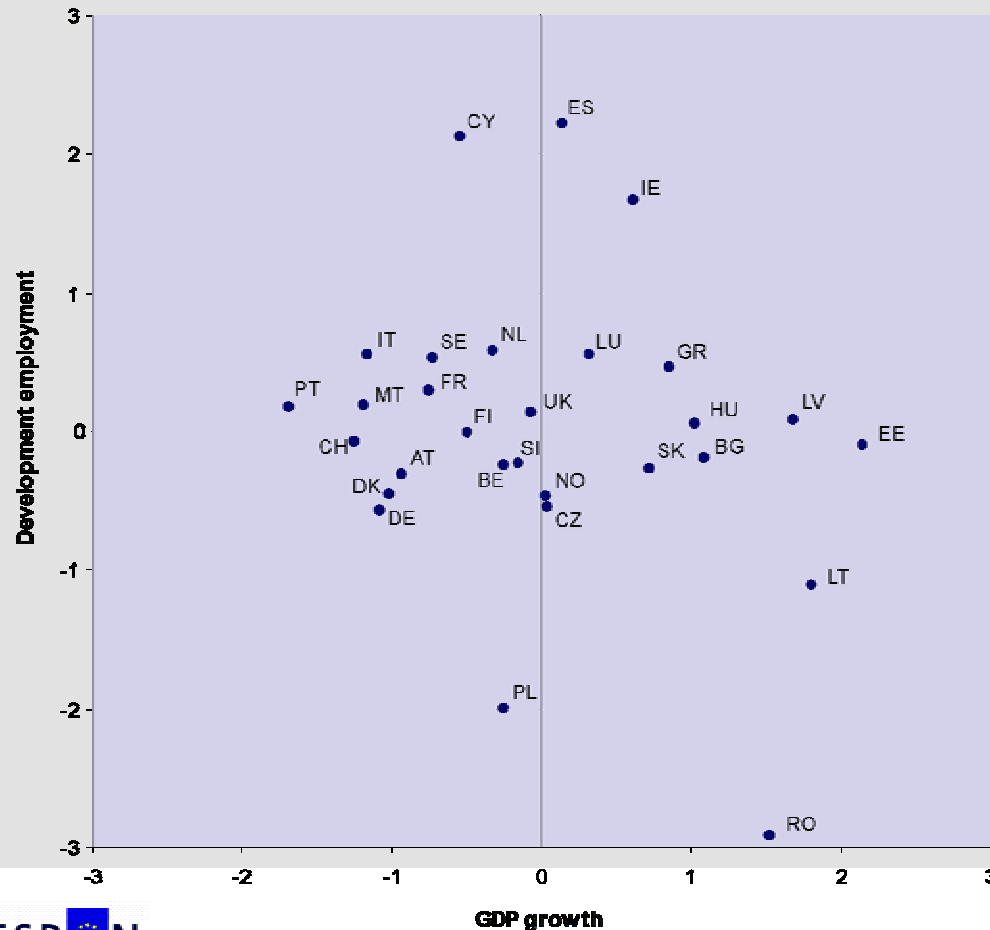
- Dispersion of GDP per capita in the ESPON countries based on NUTS 2 shows that the process of convergence is not balanced yet
- Divergence in the eastern countries, convergence in the cohesion fund countries

## Selected findings – Economic cohesion



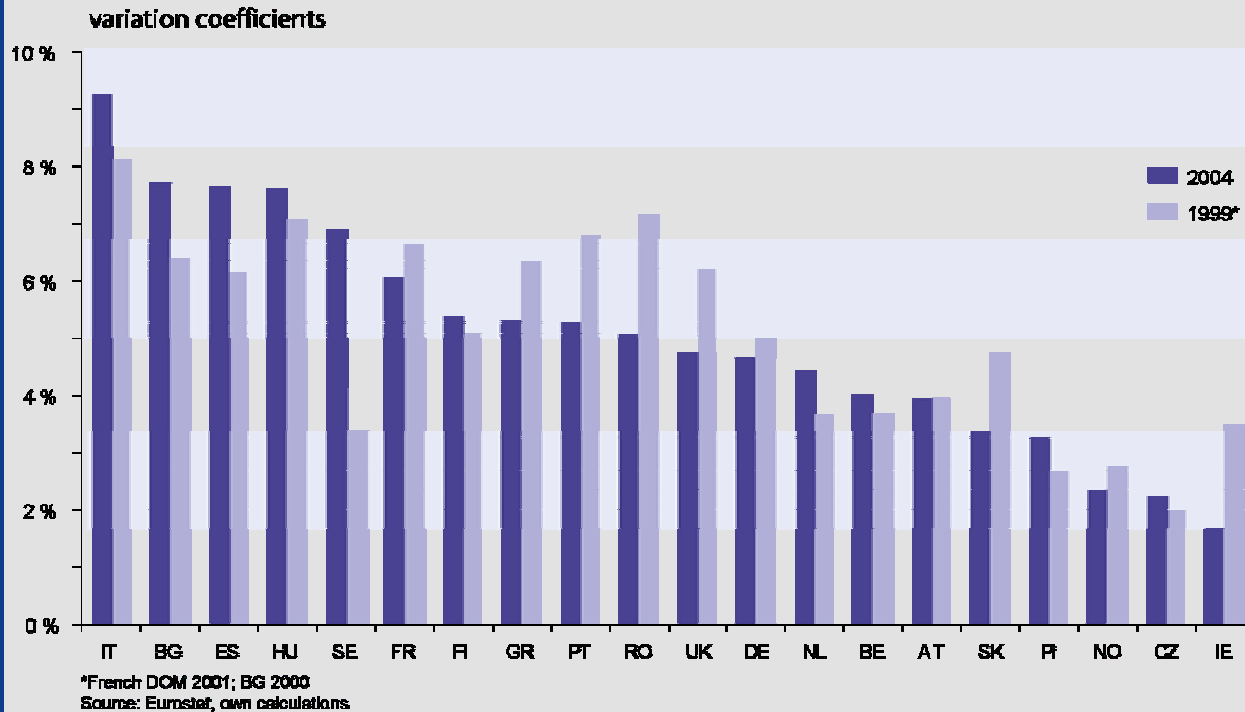
- Dispersion of GDP per capita in the ESPON countries based on NUTS 3 shows convergence in selected countries only
- Deepening disparities in the eastern countries & concentration on the main urban regions

### Selected findings – Social cohesion



None of the ESPON countries significantly fit into the basic economic assumption that 1.5 % economic growth is necessary at least to create jobs in phases of economic revival.

### Selected findings – Social cohesion



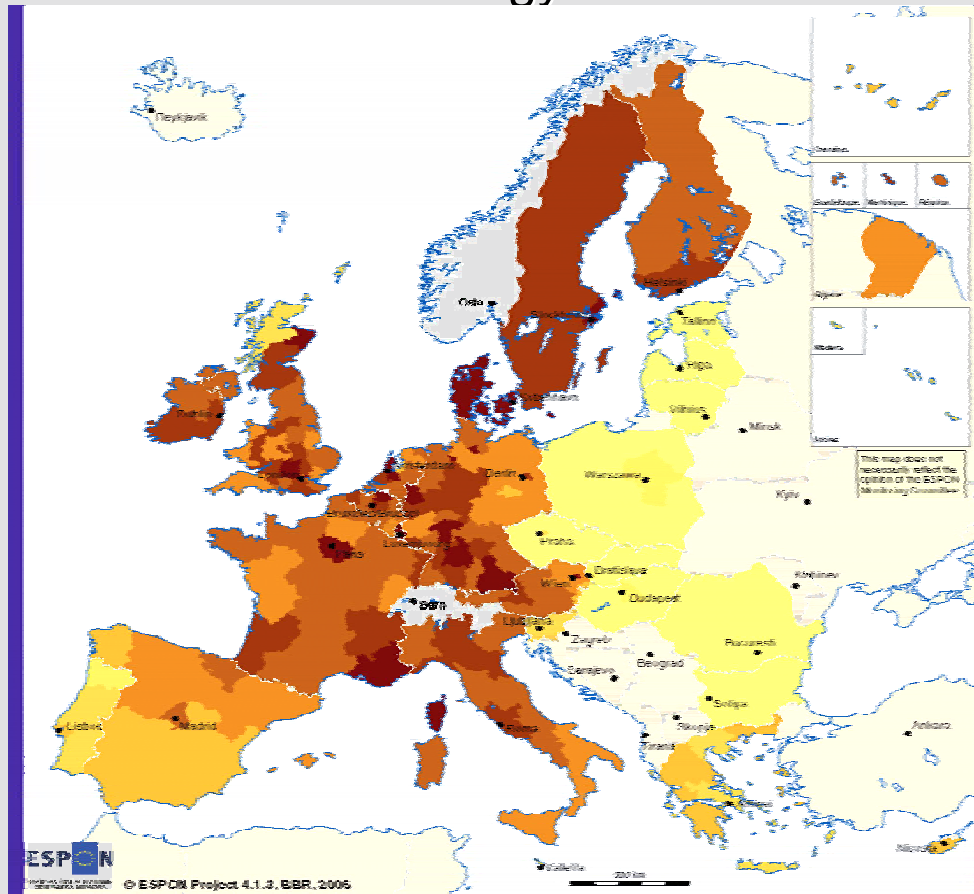
- The dispersion of the activity rate on NUTS 2 shows the regional differences despite adequate national values compared to the Lisbon threshold
- Deepening disparities especially in urban – rural comparison

## Selected findings – Territorial cohesion – Lisbon strategy

Labour costs

**Labour Costs - Regional wages and salaries per employee in 1000 Euro 2005**

- up to 10
- 10 up to 15
- 15 up to 20
- 25 up to 30
- 30 up to 35
- 35 up to 40
- more than 40
- no data

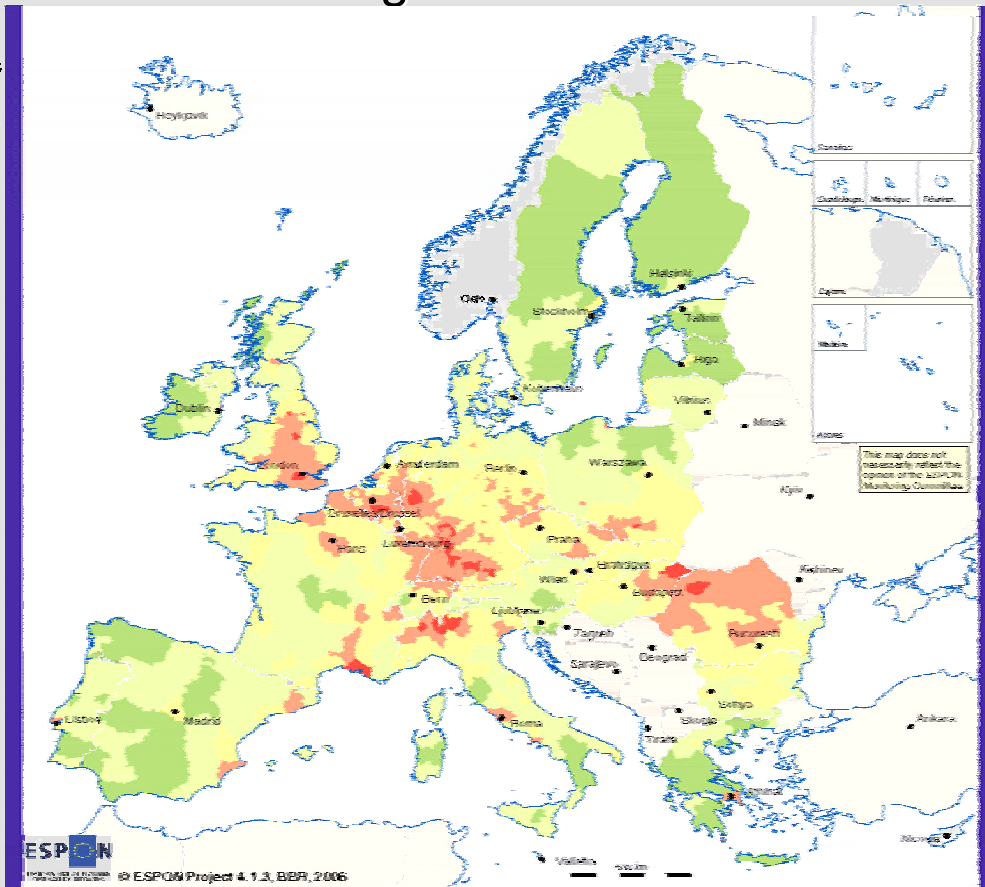


### Selected findings – Territorial cohesion - Gothenburg

Share of settlement /  
artificial areas and share  
and number of flood events  
1987 - 2002



Flood endangered settlement  
and artificial areas



## An all-European spatial monitoring!



All spatial indicators

- ESPON 4.1.3 showed for the first time ever that an all-European spatial monitoring system is possible.
- It is based on routing indicators, with a very specific quality...
- A first sketch of a tentative spatial planning report was shown.
- This is indeed the a solid foundation for a sequential reporting and it is far more than just an addition of a number of national reporting systems!