



Training session 1 – Data and mapping tools **Bratislava, 7 december 2016**

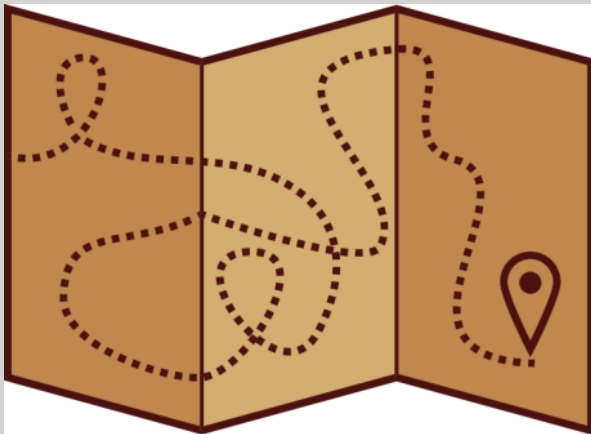
ESPON Database and Mapping

Ronan Ysebaert (UMS RIATE – University Paris Diderot)



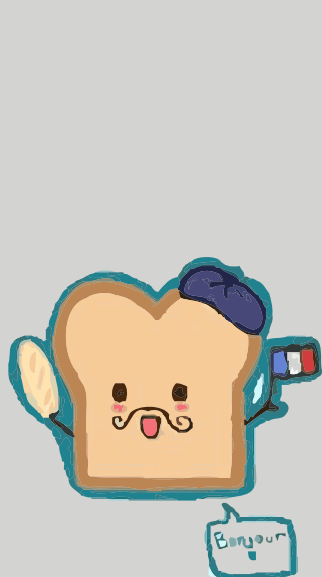
Inspire policy making by territorial evidence

Outline



1. General panorama of the toolbox – a user story
2. Data and tools – current situation
3. Challenges for the future (2016-202x)

1. General panorama of the toolbox



The case-study

How to improve the territorial structures understanding of Slovakia and Bratislava using ESPON tools ?

1. General panorama of the toolbox

ESPON Toolbox : 10 operational tools currently available

ESPON Tools

Guidance sheet

Toolbox

Practical Tools for Analysis and Policy-making

ESPON has developed a series of practical tools to support and simplify the use and analysis of data and maps provided by the ESPON projects. The tools can be used in the preparation of territorial policy strategies and disseminate the data collected and other results from the ESPON projects. They provide an easy communicative way to disseminate ESPON's main findings and results.

The main aim of the ESPON Toolbox is to facilitate the use of territorial evidence by policy makers and researchers. This enables policy-makers and other practitioners to position their region in a wider European context, compare their region with other regions and understand the main relevant European policies that might impact territorial development.


How to use the Toolbox

All ESPON tools can be accessed through the ESPON website, where a short introduction on the aims of the tool is provided and an introductory video.

The ESPON toolbox comprehends two types of tools: tools for policy-makers and tools for carrying out analysis. The tools for policy makers and practitioners can be used to find in a user-friendly way the data and maps they are interested in (Online MapFinder and RIMAP) or to better understand the trends and dynamics affecting their territory (BSR-TeMo and CityBench), or to support a Territorial Impact Assessment (TIA quick check).

Tools for analysis are more targeted towards the scientific community. They support their research and analysis and with that also indirectly the policy makers.

This guidance sheet provides a short introduction to each of the tools. More detailed information and examples on how to use the tools can be found in the tool-specific guidance sheets.



For more information watch the Toolbox video.
You can find it on the Website or the ESPON Youtube channel.

1. General panorama of the toolbox

ESPON Toolbox : 10 operational tools currently available

**RIMAP
Online Mapping**

**Online
MapFinder**

**Functional
Indicators Tool**

CityBench

**TIA web
Application**

**ESPON
HyperAtlas**

**Data
Navigator**

**ESPON Database
Portal**

**BSR
TeMo**

ETMS



✓ **Several complementary tools... For several uses !**

1. General panorama of the toolbox

Tools focused on European data

Data – Methods – Viewers – Policy assessment

**RIMAP
Online Mapping**

**Online
MapFinder**

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Indicators Tool**

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- ✓ What are the relevant indicators and data sources for monitoring territorial policies at various scales ?
- ✓ How updating these indicators ?
- ✓ How giving access easily to useful time-series ?

1. General panorama of the toolbox

Question

How can be characterised **Slovakian cities demography** in a European context ?

Tool

ESPON Database Portal

807 Indicators (and 136 key indicators datasets, e.g. time-series) for several territorial nomenclatures (urban objects, NUTS units).

11 « Case-study » datasets

130 resources related to EU data













ESPON Database Portal

Welcome Resources Upload Help Terms&Conditions Log in

Search by: Theme Policy Project Keyword

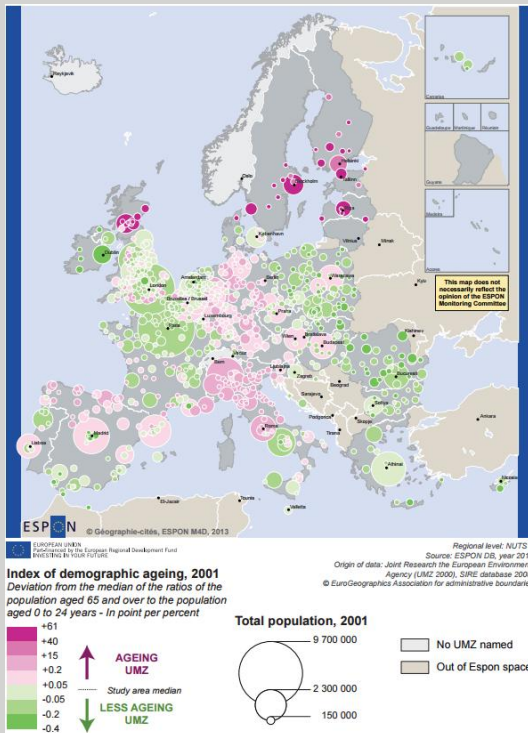
Population and living conditions

Filtered by: SEMANTIC Population and living conditions DATA ALL ALL WHERE EU28+4 WHEN 1628-2100 CLEAR

DATA	Indicator	Years	Territorial	Completeness	
	density of population	2000	UMZ	100	   
	Dwelling by type <input type="text" value="IT"/>	2001	UMZ	86	   
	Population by age and sex, 25 years age-class <input type="text" value="IT"/>	2001	UMZ	100	   
	Population classification	2000	UMZ	100	   
	Population, total	2000	UMZ	100	   
	Total area	2000	UMZ	100	   
	Total perimeter	2000	UMZ	100	   

7 results found in 0.840 seconds. Results by page

1. General panorama of the toolbox



Name	Pop 2000 UMZ (Thousands)	Rank Total Pop Slovakia	Rank Total Pop Europe	Rank (% of 0-24 years)	Rank (% of 65+ years)
Wien	1 756	n/r	18	548	2479
Bratislava	419	1	84	n/a	n/a
Kosice	224	2	178	3569	220
Presov	94	3	456	4108	265
Banska Bystrica	77	4	517	3356	279
Zilina	68	5	621	3723	483
Trnava	67	6	615	3755	156
Martin	66	7	653	3807	306
Trencin	54	8	765	3363	865
Prievidza	50	9	862	3849	157
Poprad	48	10	990	4226	68
...	
Holic	10	62	4280	3278	1851

- ✓ 62 Urban Morphological Zones above 10 000 inhabitants in Slovakia
- ✓ Over-representation of old people for Slovakian cities...
As compared to the other European cities
- ✓ No data for Bratislava...

1. General panorama of the toolbox

Question

Age structure data is not available for Bratislava in the ESPON Database Portal, **who can help me ?**

Tool

ESPON Data Navigator



The screenshot shows the ESPON Data Navigator interface. At the top, there is a navigation bar with links: Welcome, Advanced Search, National Data Providers, International Data Providers, Grid Datasets, and ESPON Tools. Below this, there are two main sections: 'SELECT A COUNTRY' and 'SELECT THEME & SCALE'. The 'SELECT A COUNTRY' section lists various countries, including Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, and Liechtenstein. The 'SELECT THEME & SCALE' section has a 'Browse by Theme' button. In the center, there is a 'Data report' window with the following details:

Indicator:	Urban population by territory, sex, type of indicator and period
Country:	Slovakia
Theme:	Population and living conditions
Year:	2005 - 2011
Territorial scale:	NUTS2, NUTS3
Units:	Persons
Source:	Statistical Office of the Slovak Republic
Contact:	Zuzana Podmanická, zuzana.podmanicka@statistics.sk
Description:	Urban population by territory
Periodicity:	Annual
Cost:	Free of charge
Copyright:	Statistical Office of the Slovak Republic
Website:	Visit website

At the bottom of the 'Data report' window, there is a 'Close' button.

1. General panorama of the toolbox

Spatial and statistical analysis tools

Data – **Methods** – **Viewers** – Policy assessment

**RIMAP
Online Mapping**

**Online
MapFinder**

**Functional
Indicators Tool**

CityBench

**TIA web
Application**

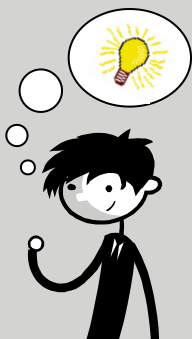
**ESPON
HyperAtlas**

**Data
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**ESPON Database
Portal**

**BSR
TeMo**

ETMS



- ✓ How measuring territorial inequalities in Europe ?
- ✓ Which are the most similar territories, for which criteria ?
- ✓ Which are the most accessible territories ?
- ✓ What are the trends ?

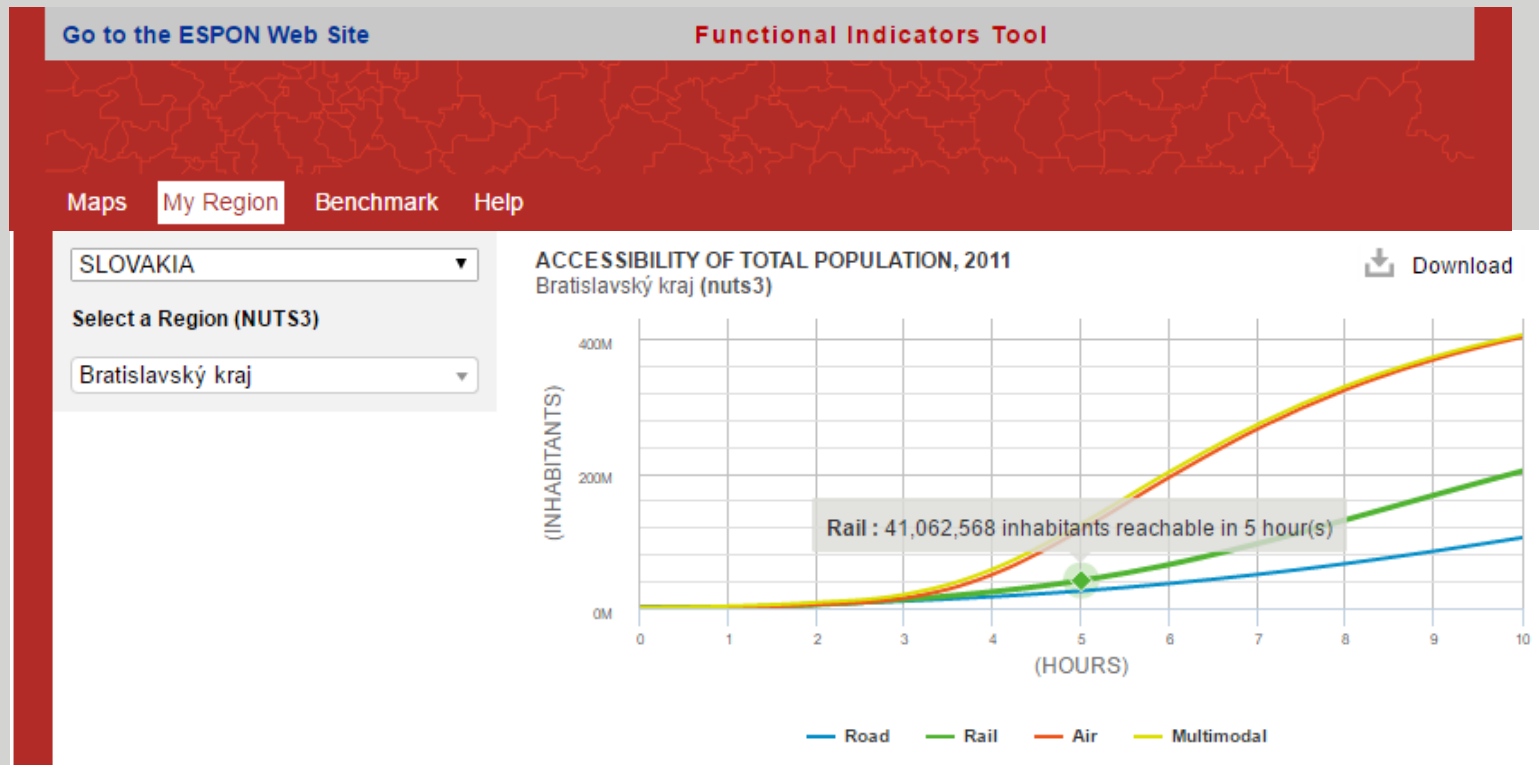
1. General panorama of the toolbox

Question

I want to meet people around Bratislava. What is the most appropriate transport mode to use ?

Tool

Functional Indicator Tool



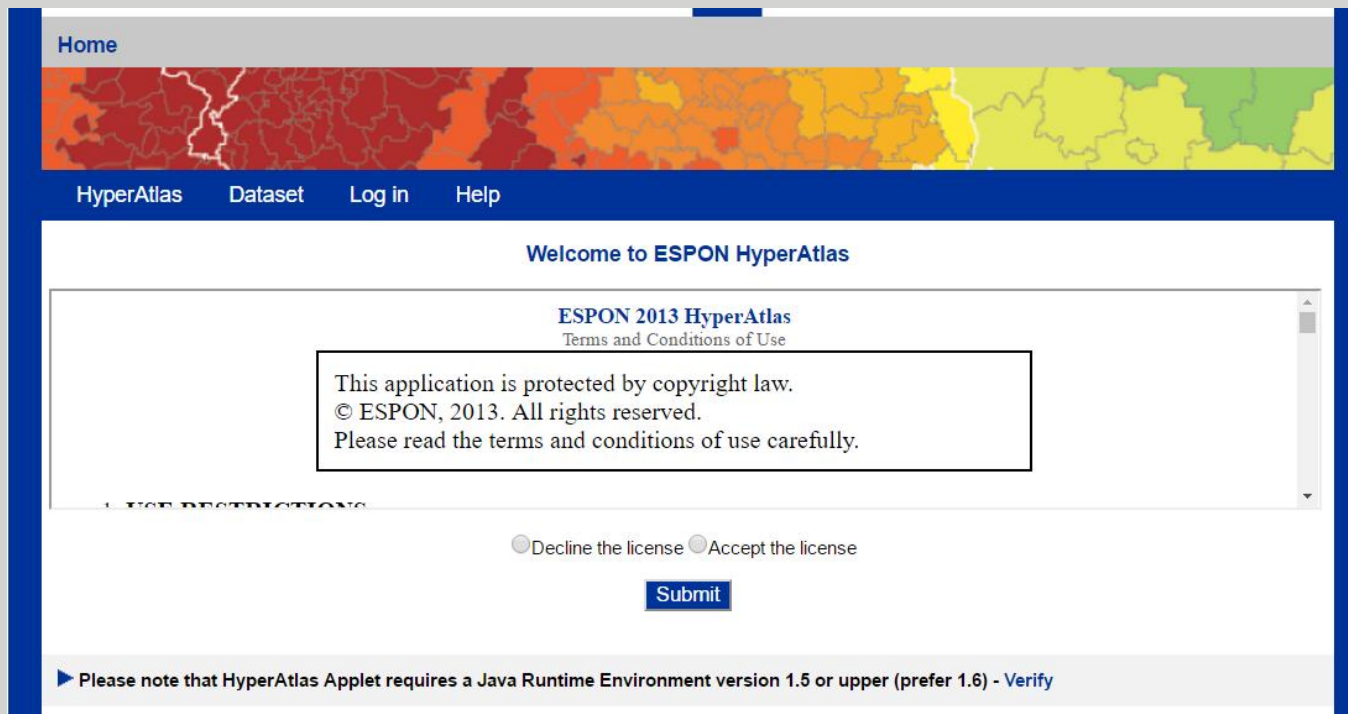
1. General panorama of the toolbox

Question

Are the **Slovakian regions** in a **lagging situation** ? For which **territorial context** (European, national, local) ?

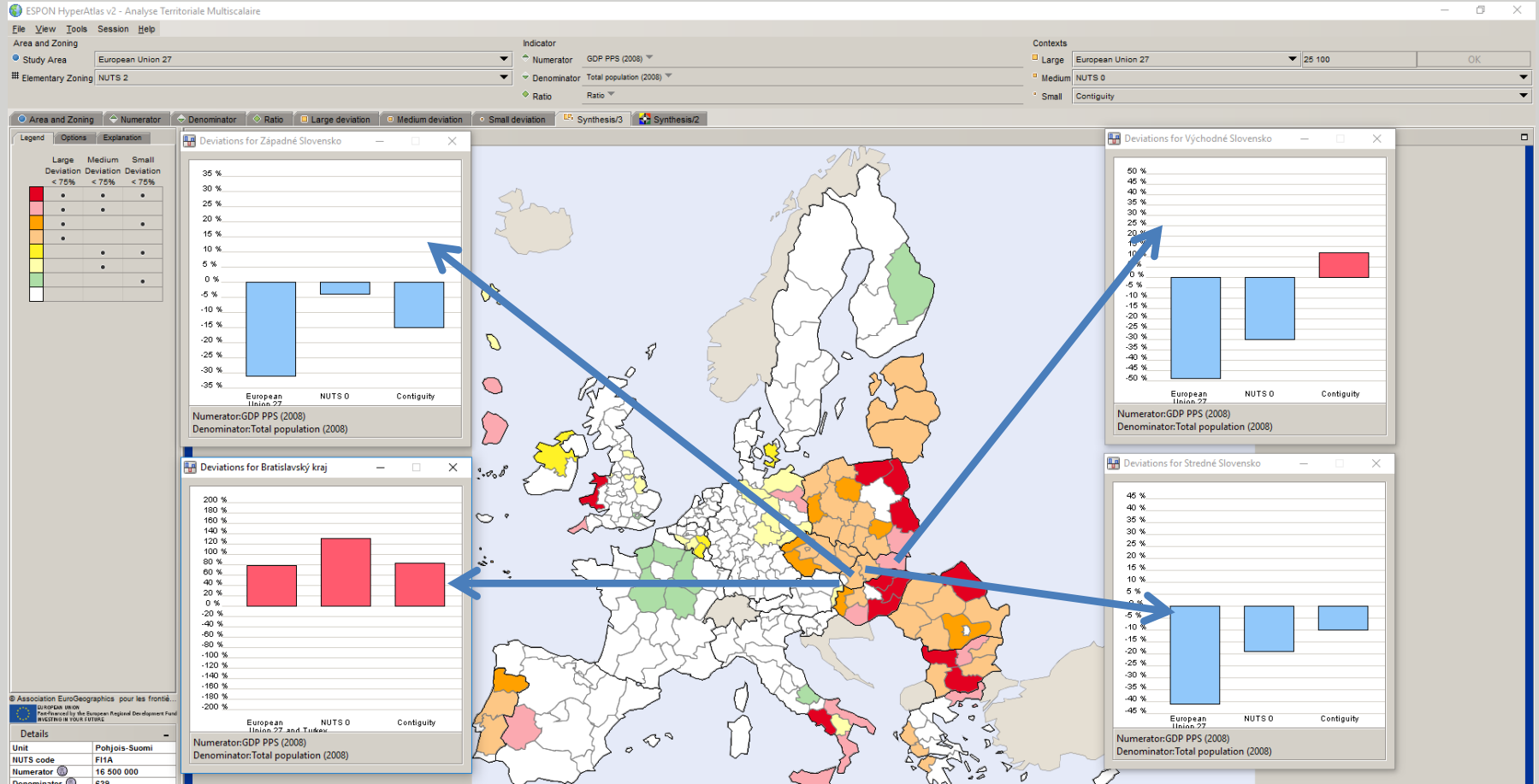
Tool

ESPON HyperAtlas



The screenshot shows the ESPON HyperAtlas web application interface. At the top, there is a navigation bar with the text "Home" and a menu with "HyperAtlas", "Dataset", "Log in", and "Help". Below the navigation bar is a map of Slovakia with a color gradient from red to green. The main content area displays a "Welcome to ESPON HyperAtlas" message. A central box contains the following text: "ESPON 2013 HyperAtlas", "Terms and Conditions of Use", "This application is protected by copyright law.", "© ESPON, 2013. All rights reserved.", and "Please read the terms and conditions of use carefully." Below this box are two radio buttons: "Decline the license" and "Accept the license". A "Submit" button is located below the radio buttons. At the bottom of the interface, there is a note: "Please note that HyperAtlas Applet requires a Java Runtime Environment version 1.5 or upper (prefer 1.6) - Verify".

1. General panorama of the toolbox



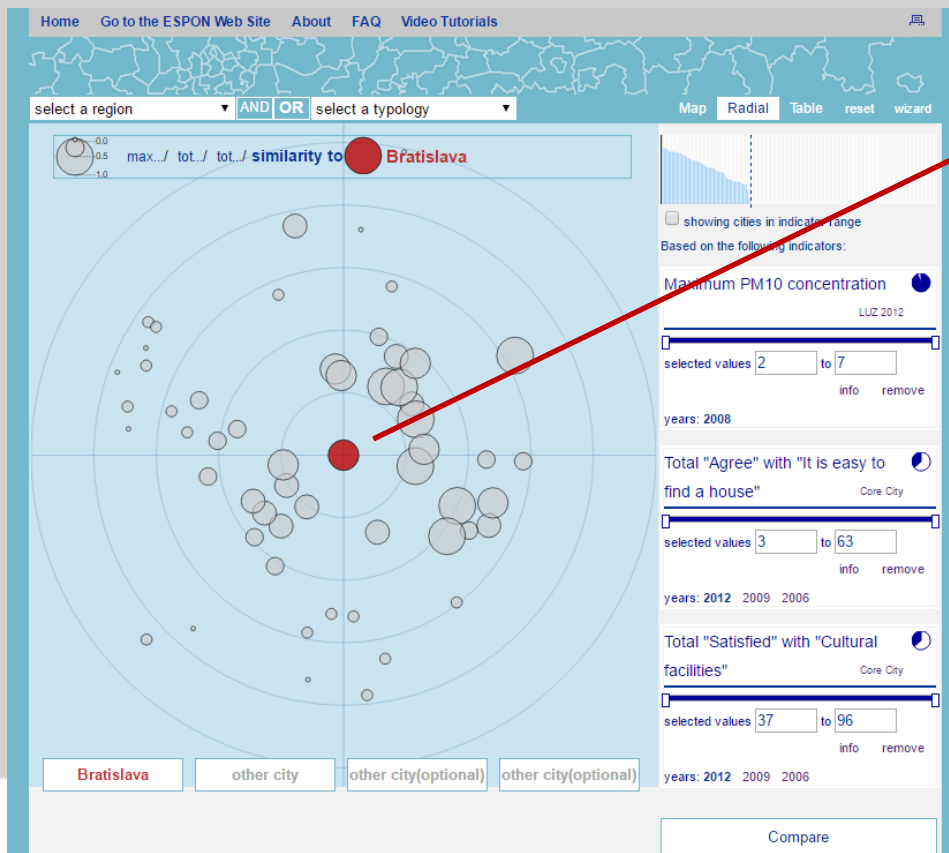
1. General panorama of the toolbox

Question

What is the **statistical proximity** between **Paris** and **Bratislava** regarding **quality of life indicators** ?

Tool

City Bench



Bratislava
Maximum PM10 concentration: 6 (index)
Total "Agree" with "It is easy to find a house": 13 (%)
Total "Satisfied" with "Cultural facilities": 73 (%)
Similarity to Bratislava :1.00 (0-1)

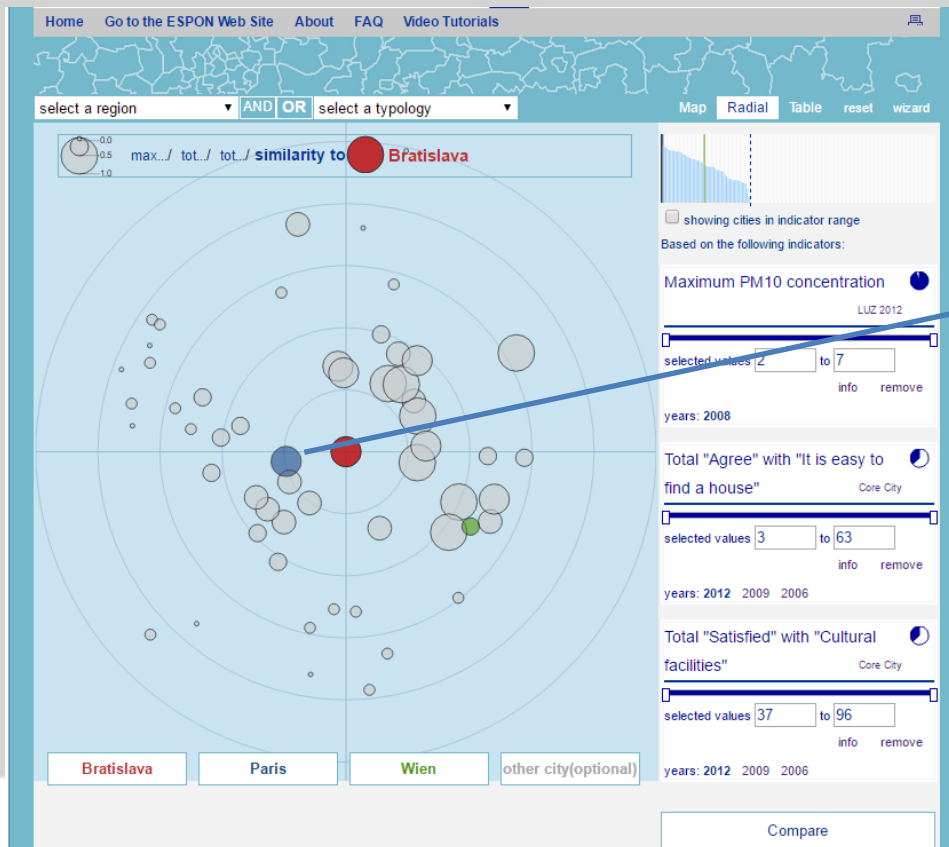
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 Total "Satisfied" with "Cultural facilities": 85 (%)
 Similarity to Bratislava :0.80 (0-1)

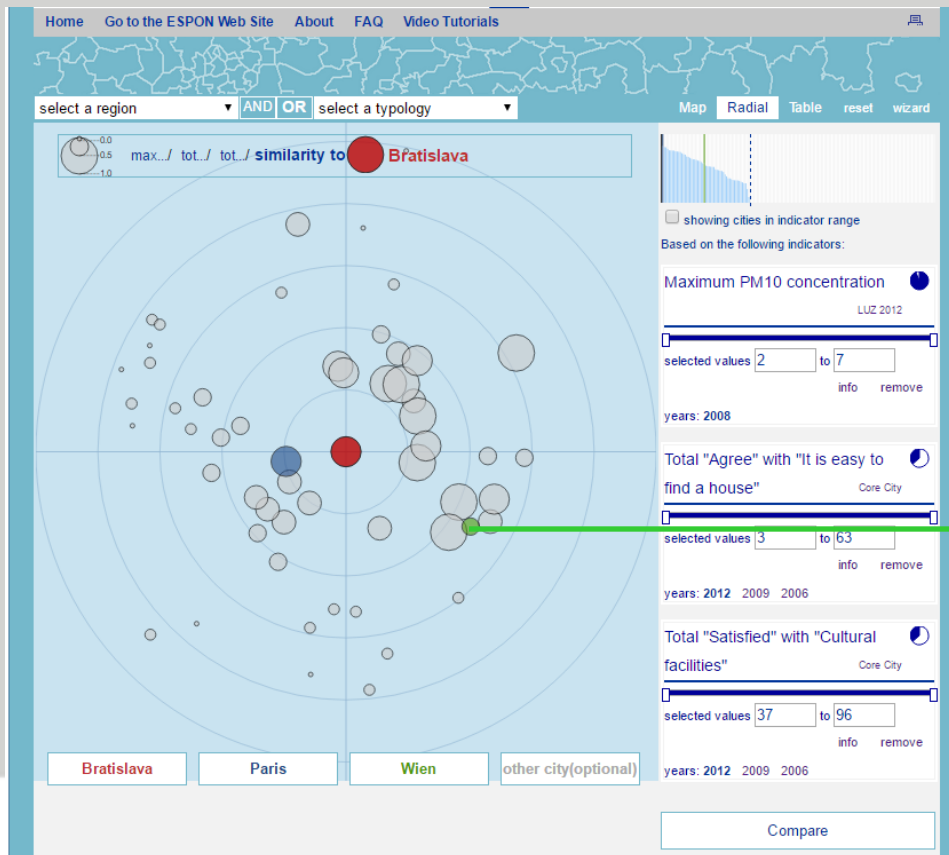
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Wien
 Maximum PM10 concentration: 4 (index)
 Total "Agree" with "It is easy to find a house": 18 (%)
 Total "Satisfied" with "Cultural facilities": 96 (%)
 Similarity to Bratislava :0.52 (0-1)

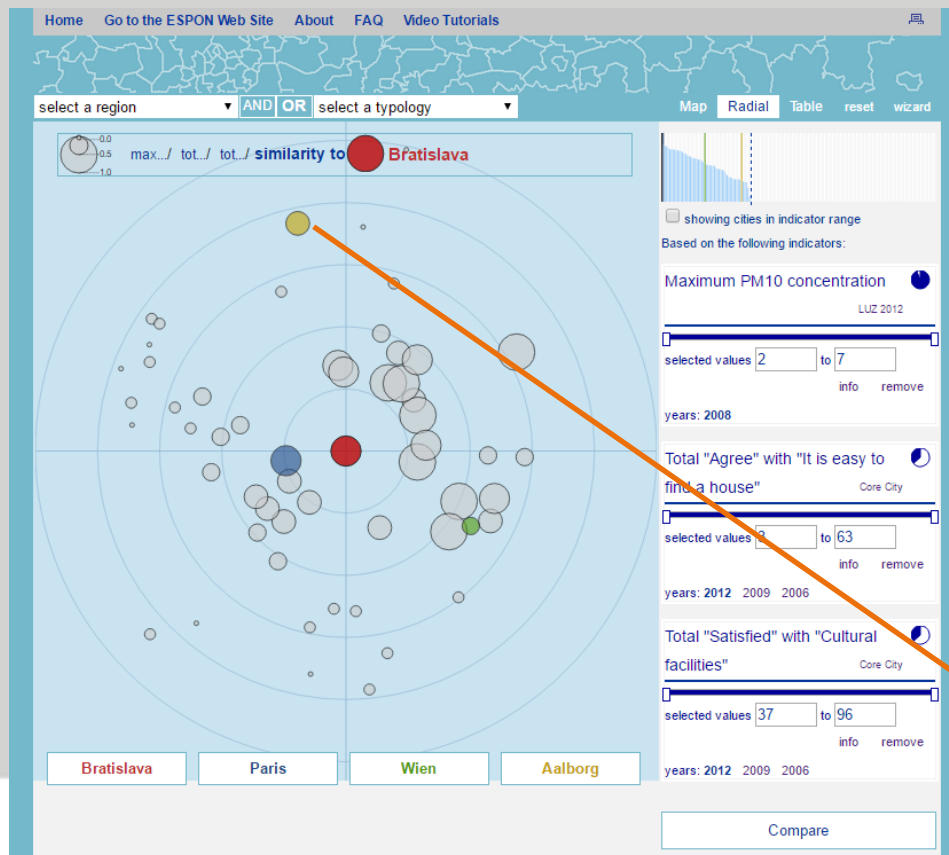
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Aalborg
 Maximum PM10 concentration: 5 (index)
 Total "Agree" with "It is easy to find a house": 62 (%)
 Total "Satisfied" with "Cultural facilities": 92 (%)
 Similarity to Bratislava :0.24 (0-1)

1. General panorama of the toolbox

Mapping tools

Data – Methods – **Viewers** – Policy assessment

**RIMAP
Online Mapping**

**Online
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**Functional
Indicators Tool**

CityBench

**TIA web
Application**

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ETMS



- ✓ Where are located the territories in lagging / favorable situation ?
- ✓ Where are located the most important inequalities ?
- ✓ What are the main spatial configuration patterns ? At which scale ?

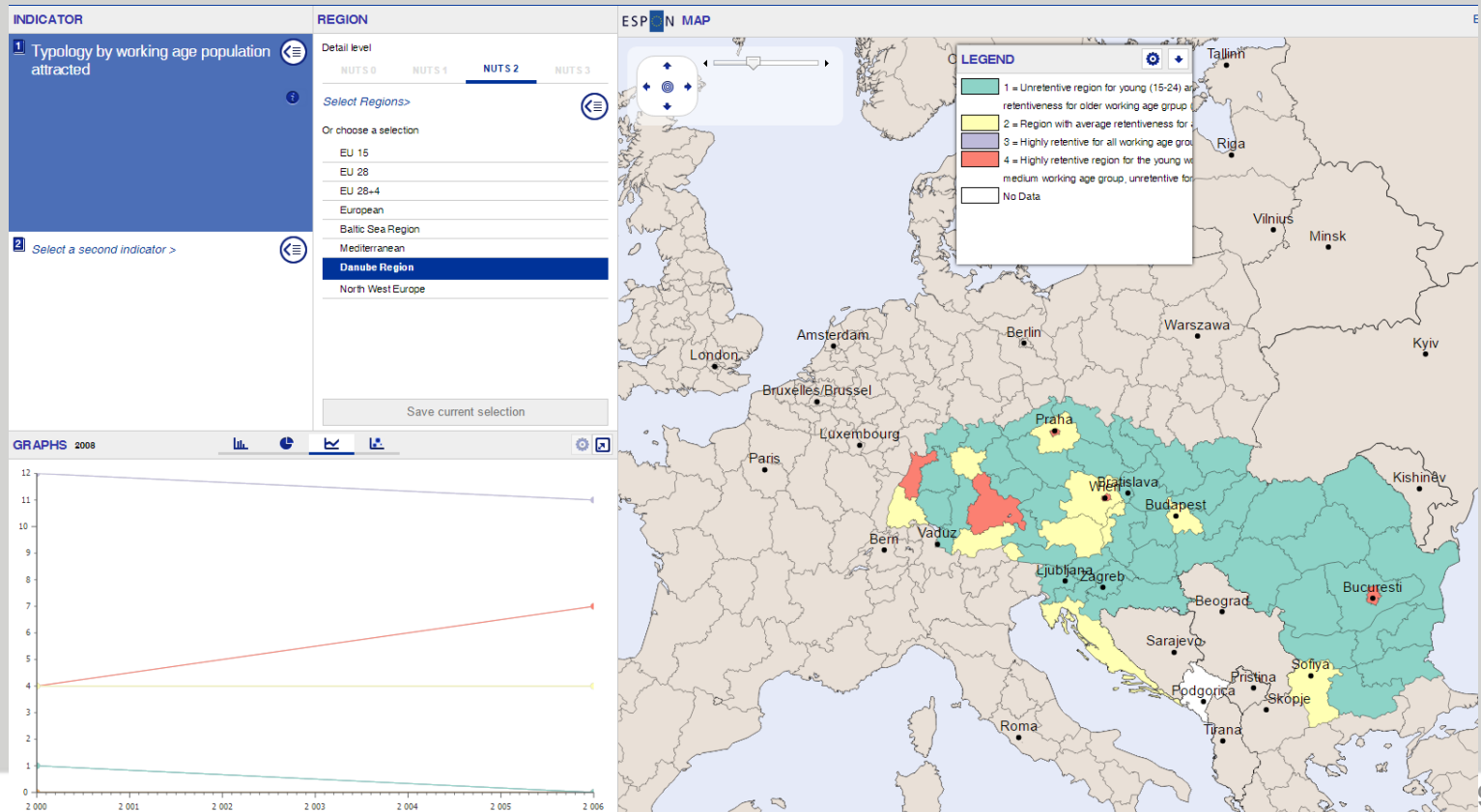
1. General panorama of the toolbox

Question

What are the main labour characteristics of the Danube Cooperation Area ?

Tool

ESPON RIMAP



1. General panorama of the toolbox

Monitoring tools

Data – Methods – Viewers – **Policy assessment**

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ETMS



- ✓ Which links between statistical data and policy decisions ?
- ✓ How to monitor territorial policies ?
- ✓ What are the main findings of the ESPON Community ?

2. Data and tools – Current situation

Some important considerations related to ESPON Tools in 2016...



- Is the data used by ESPON tools exactly the same ?
 - Eurostat data (t, t+1), estimated values, etc.

2. Data and tools – Current situation

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- Is it easy to update ESPON tools with the latest available data ?
 - ESPON is not Eurostat.**

2. Data and tools – Current situation

Some important considerations related to ESPON Tools in 2016...



- Is the data used by ESPON tools exactly the same ?
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- Is it currently possible to test the tools with my own datasets ?
 - Depends on the tool, but difficult in most of the cases.

2. Data and tools – Current situation

Some important considerations related to ESPON Tools in 2016...



Is the data used by ESPON tools exactly the same ?

Eurostat data (t, t+1), estimated values, etc.

Is it easy to update ESPON tools with the latest available data ?

ESPON is not Eurostat.

Is it currently possible to test the tools with my own datasets ?

Depends on the tool, but difficult in most of the cases.

Could this toolbox be improved to better fit with user needs ?

I think so...















































































2. Data and tools – Current situation

Welcome **Search** Resources Upload Help Terms&Conditions Log in

Search by: Theme Policy Project Keyword

Population and living conditions

Filtered by: **SEMANTIC** Population and living conditions **DATA** ALL ALL **WHERE** EU28+4 **WHEN** 1628-2100 **CLEAR**

DATA	Indicator	Years	Territorial	Completeness	
	Ageing and depopulation IT TS	1995-2020	NUTS 1999 level 2	98	  
WHERE?	Ageing index	2000-2010	NUTS 2006 level 3	98	  
WHAT?	Annual natural population development	1996-2005	NUTS 2006 level 0	97	  
WHEN?	Annual natural population development	1996-2005	NUTS 2006 level 1	99	  
	Annual natural population development	1996-2005	NUTS 2006 level 2	97	  
	Annual natural population development	1996-2005	NUTS 2006 level 2/3	97	  
	Annual net migration development	1996-2005	NUTS 2006 level 0	97	  
	Annual net migration development	1996-2005	NUTS 2006 level 1	99	  
	Annual net migration development	1996-2005	NUTS 2006 level 2	97	  
	Annual net migration development	1996-2005	NUTS 2006 level 2/3	97	  
	ATTREG Typology by attractiveness for different working-age populations IT	2001-2008	NUTS 2006 level 2	99	  
	ATTREG Typology by forms of attractiveness IT	2001-2008	NUTS 2006 level 2	99	  
	Average share of population aged 65+ years	2000-2007	NUTS 2006 level 2	100	  
	Birth change according to different policy scenarios IT	2005-2050	NUTS 2006 level 2	99	  
	Births, total TS	2000-2010	NUTS 2006 level 0	100	  
	Births, total TS	2000-2010	NUTS 2006 level 1	100	  
	Births, total TS	2000-2010	NUTS 2006 level 2	100	  
	Births, total TS	2000-2010	NUTS 2006 level 3	100	  
	Capacity of sport stadiums	2009	NUTS 2006 level 0	100	  
	Capacity of sport stadiums	2009	NUTS 2006 level 2	99	  
	Change in Old Age Dependency Ratio	2001-2005	NUTS 2006 level 2	100	  
	Change in Population Aged 20-39	2001-2005	NUTS 2006 level 2	100	  
	Change in population aged 20-64 years	2000-2007	NUTS 2006 level 2	100	  
	Change in population aged 50-64 years	2001-2005	NUTS 2006 level 2	100	  
	Change in population aged 65+	2001-2005	NUTS 2006 level 2	100	  
	Change in population aged 75+	2000-2007	NUTS 2006 level 2	100	  

Database content : Huge heterogeneity

- What is relevant ?
- What requires to be updated ?
- What is missing ?















































































2. Data and tools – Current situation

Welcome **Search** Resources Upload Help Terms&Conditions Log in

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Population and living conditions

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Database content : Huge heterogeneity

- What is relevant ?
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- What is missing ?

→ Eurostat data... downloaded in... 2011 !















































































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Database content : Huge heterogeneity

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- What is missing ?

Count data / Time-series with estimated missing values

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	Change in population aged 50-64 years	2001-2005	NUTS 2006 level 2	100	P D U I
	Change in population aged 65+	2001-2005	NUTS 2006 level 2	100	P D U I
	Change in population aged 75+	2000-2007	NUTS 2006 level 2	100	P D U I

Database content : Huge heterogeneity

- What is relevant ?
- What requires to be updated ?
- What is missing ?

ESPON project indicators derived from count data (evolution, ratios, indexes, etc.)

2. Data and tools – Current situation

Welcome **Search** Resources Upload Help Terms&Conditions Log in

Search by: Theme Policy Project Keyword

Population and living conditions

Filtered by: **SEMANTIC** Population and living conditions **DATA** ALL ALL **WHERE** EU28+4 **WHEN** 1628-2100 **CLEAR**

DATA	Indicator	Years	Territorial	Completeness	
	Ageing and depopulation IT IS	1995-2020	NUTS 1999 level 2	98	P D U I
WHERE?	Ageing index	2000-2010	NUTS 2006 level 3	9	P D U I
WHAT?	Annual natural population development	1996-2005	NUTS 2006 level 0	97	P D U I
WHEN?	Annual natural population development	1996-2005	NUTS 2006 level 1	99	P D U I
	Annual natural population development	1996-2005	NUTS 2006 level 2	97	P D U I
	Annual natural population development	1996-2005	NUTS 2006 level 2/3	97	P D U I
	Annual net migration development	1996-2005	NUTS 2006 level 0	97	P D U I
	Annual net migration development	1996-2005	NUTS 2006 level 1	99	P D U I
	Annual net migration development	1996-2005	NUTS 2006 level 2	97	P D U I
	Annual net migration development	1996-2005	NUTS 2006 level 2/3	97	P D U I
	ATTREG Typology by attractiveness for different working-age populations IT	2001-2008	NUTS 2006 level 2	99	P D U I
	ATTREG Typology by forms of attractiveness IT	2001-2008	NUTS 2006 level 2	99	P D U I
	Average share of population aged 65+ years	2000-2007	NUTS 2006 level 2	100	P D U I
	Birth change according to different policy scenarios IT	2005-2050	NUTS 2006 level 2	99	P D U I
	Births, total IS	2000-2010	NUTS 2006 level 0	100	P D U I
	Births, total IS	2000-2010	NUTS 2006 level 1	100	P D U I
	Births, total IS	2000-2010	NUTS 2006 level 2	100	P D U I
	Births, total IS	2000-2010	NUTS 2006 level 3	100	P D U I
	Capacity of sport stadiums	2009	NUTS 2006 level 0	100	P D U I
	Capacity of sport stadiums	2009	NUTS 2006 level 2	99	P D U I
	Change in Old Age Dependency Ratio	2001-2005	NUTS 2006 level 2	100	P D U I
	Change in Population Aged 20-39	2001-2005	NUTS 2006 level 2	100	P D U I
	Change in population aged 20-64 years	2000-2007	NUTS 2006 level 2	100	P D U I
	Change in population aged 50-64 years	2001-2005	NUTS 2006 level 2	100	P D U I
	Change in population aged 65+	2001-2005	NUTS 2006 level 2	100	P D U I
	Change in population aged 75+	2000-2007	NUTS 2006 level 2	100	P D U I

Database content : Huge heterogeneity

- What is relevant ?
- What requires to be updated ?
- What is missing ?

ESPON project indicators derived from **innovative data collection** during the research activities (capacity of sport stadiums, twin cities, ...)















































































2. Data and tools – Current situation

Welcome **Search** Resources Upload Help Terms&Conditions Log in

Search by: Theme Policy Project Keyword

Population and living conditions

Filtered by: **SEMANTIC** Population and living conditions **DATA** ALL ALL **WHERE** EU28+4 **WHEN** 1628-2100 **CLEAR**

DATA	Indicator	Years	Territorial	Completeness	
	Ageing and depopulation IT TS	1995-2020	NUTS 1999 level 2	98	  
WHERE?	Ageing index	2000-2010	NUTS 2006 level 3	98	  
WHAT?	Annual natural population development	1996-2005	NUTS 2006 level 0	97	  
WHEN?	Annual natural population development	1996-2005	NUTS 2006 level 1	99	  
	Annual natural population development	1996-2005	NUTS 2006 level 2	97	  
	Annual natural population development	1996-2005	NUTS 2006 level 2/3	97	  
	Annual net migration development	1996-2005	NUTS 2006 level 0	97	  
	Annual net migration development	1996-2005	NUTS 2006 level 1	99	  
	Annual net migration development	1996-2005	NUTS 2006 level 2	97	  
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	Average share of population aged 65+ years	2000-2007	NUTS 2006 level 2	100	  
	Birth change according to different policy scenarios IT	2005-2050	NUTS 2006 level 2	99	  
	Births, total TS	2000-2010	NUTS 2006 level 0	100	  
	Births, total TS	2000-2010	NUTS 2006 level 1	100	  
	Births, total TS	2000-2010	NUTS 2006 level 2	100	  
	Births, total TS	2000-2010	NUTS 2006 level 3	100	  
	Capacity of sport stadiums	2009	NUTS 2006 level 0	100	  
	Capacity of sport stadiums	2009	NUTS 2006 level 2	99	  
	Change in Old Age Dependency Ratio	2001-2005	NUTS 2006 level 2	100	  
	Change in Population Aged 20-39	2001-2005	NUTS 2006 level 2	100	  
	Change in population aged 20-64 years	2000-2007	NUTS 2006 level 2	100	  
	Change in population aged 50-64 years	2001-2005	NUTS 2006 level 2	100	  
	Change in population aged 65+	2001-2005	NUTS 2006 level 2	100	  
	Change in population aged 75+	2000-2007	NUTS 2006 level 2	100	  

Database content : Huge heterogeneity

- What is relevant ?
- What requires to be updated ?
- What is missing ?

ESPON project indicators calculated following a specific methodology :
typologies, scenarios, etc.















































































2. Data and tools – Current situation

Welcome **Search** Resources Upload Help Terms&Conditions Log in

Search by: Theme Policy Project Keyword

Population and living conditions

Filtered by: **SEMANTIC** Population and living conditions **DATA** ALL ALL **WHERE** EU28+4 **WHEN** 1628-2100 **CLEAR**

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Database content : Huge heterogeneity

- What is relevant ?
- What requires to be updated ?
- What is missing ?

ESPON added-value ?



[COUNT INDICATORS]

Innovative indicators and multiscalar time-series (not available elsewhere)



[METHODOLOGIES]

Typologies, territorial indicators useful for the monitoring EU policies

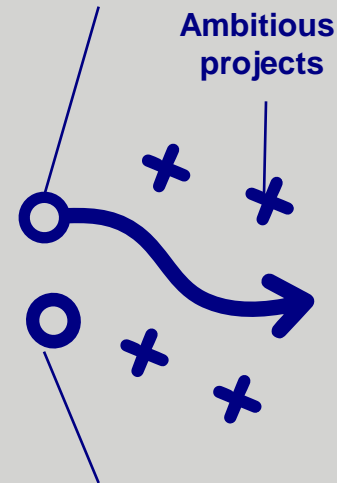
3. Challenges for the future (2016-202x)

The famous ESPON
Tools Rocket launch
Bratislava - 2016.



© CNES, 2015

ESPON 2013 inputs /
EU statistical landscape



Long-term strategy

ESPON Tools in orbit
around European
territories in 202x.



© Thomas Pesquet, 2016

Challenge # 1

A long term strategy for the ESPON Toolbox ?

The need of tools to support policy interventions (TA 2020 of the EU)

*(58) We recall that in the national context the main task of national, regional and local authorities is to define the tailored **concepts, goals and tools** for **enhancing territorial development** based on the subsidiarity principle and the **place-based approach** in line with the EU level approach and actions.*

*(61) We encourage regions and cities to develop and adopt integrated strategies and spatial plans as appropriate to **increase the efficiency of all interventions in the given territory**. Besides coordination and planning mechanisms, awareness raising and **provision of territorial information and methodological support** is essential in this respect.*

3.1 A long-term strategy for the ESPON toolbox ?

How better structure...

**RIMAP
Online Mapping**

**Online
MapFinder**

**Functional
Indicators Tool**

CityBench

**TIA web
Application**

**ESPON
HyperAtlas**

**Data
Navigator**

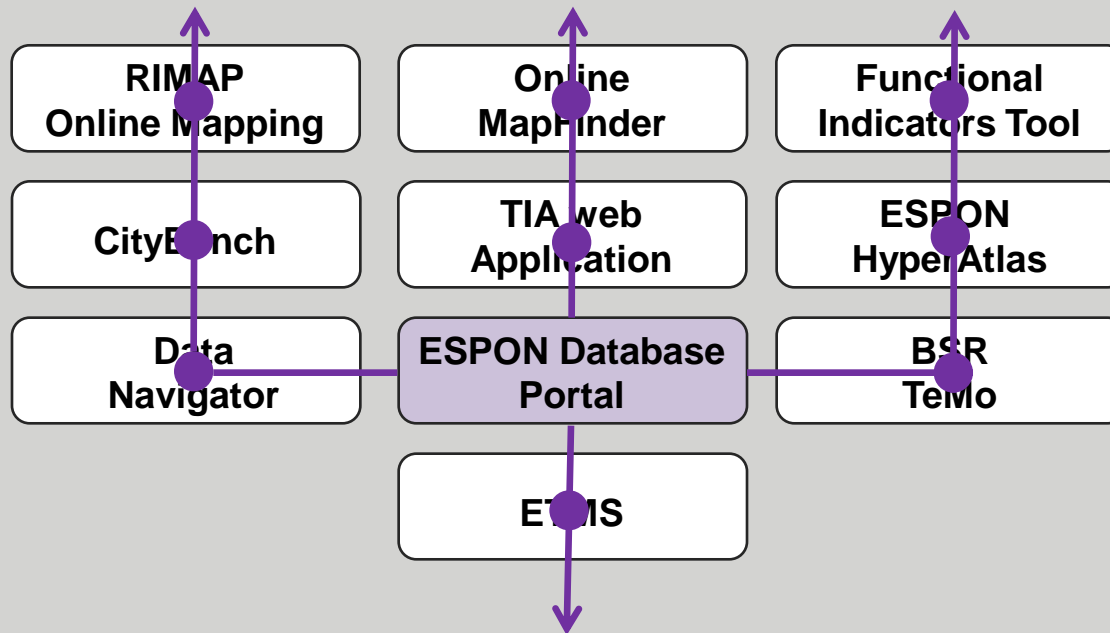
**ESPON Database
Portal**

**BSR
TeMo**

ETMS

3.1 A long-term strategy for the ESPON toolbox ?

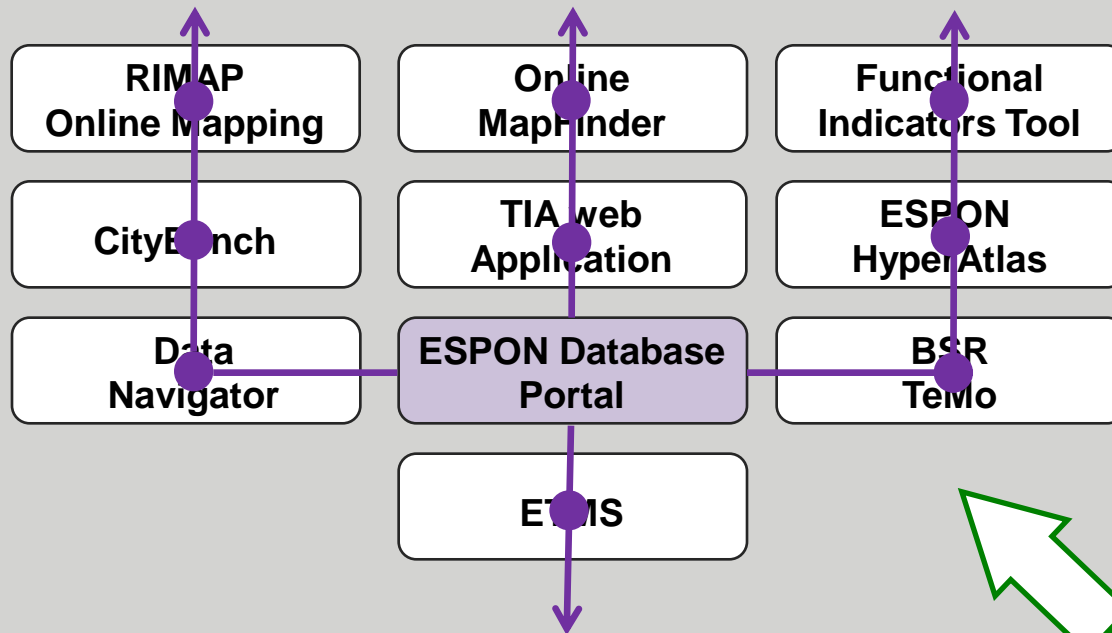
How better structure **relationships** between ESPON tools ?



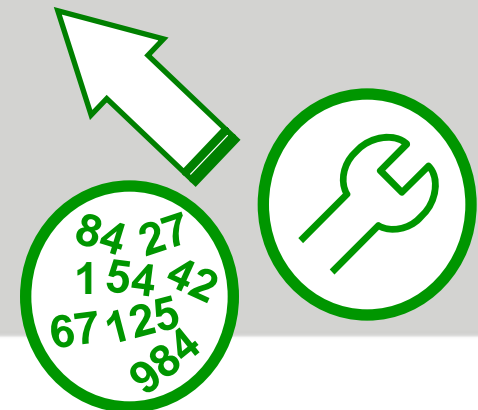
And how...

3.1 A long-term strategy for the ESPON toolbox ?

How better structure **relationships** between ESPON tools ?

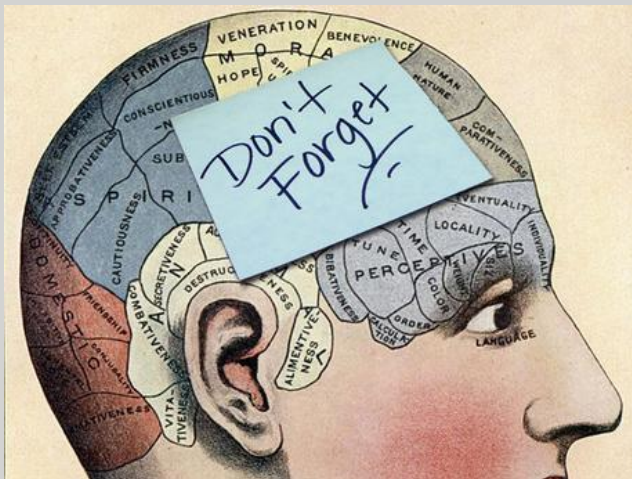


And how updating these tools with adapted **data and methods** ?



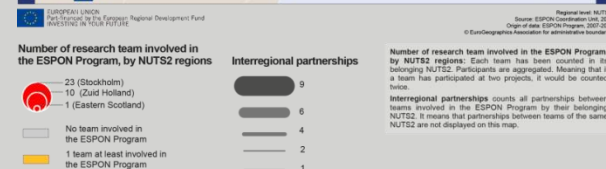
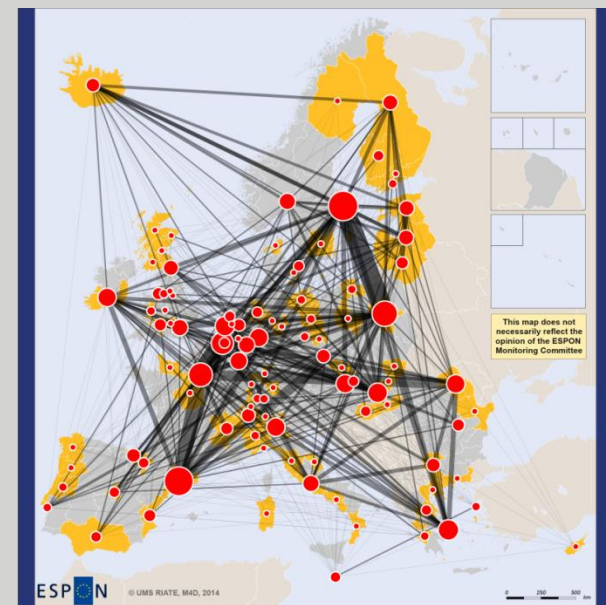
3.1 A long-term strategy for the ESPON toolbox ?

ESPON 2006-2020 programmes An impressive accumulated knowledge !



- Approx. 100 projects ! Hundreds datasets, GIS databases...
- Various thematics, territorial nomenclatures, geographical objects, etc.

An impressive research Network across Europe

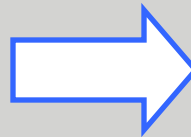
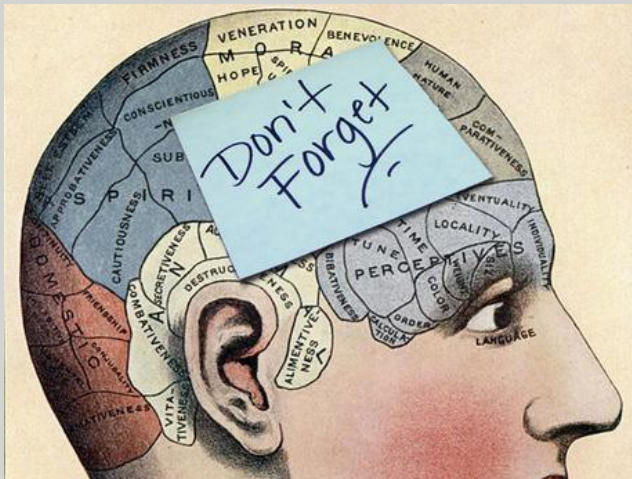


The ESPON Network 2008-2014
 Source : ESPON Synthesis Report # 3

3.1 A long-term strategy for the ESPON toolbox ?

ESPON 2006-2020 programmes

An impressive accumulated knowledge !



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- Various thematics, territorial nomenclatures, geographical objects, etc.

A « ESPON Project » database used by appropriate tools ?

ESPON

Home

Map Finder All Maps Comparison List (0) Log in

- Observations for policy
- Policy context
- Main interpretation
- Concepts and methods
- Keywords

Search Map

-Theme-
 -Project-
 -Publication-

Keyword

Search

Comparison List

There are no maps to compare. Click on the comparison button of a map to add it to the comparison list.

Compare

Unemployment in Europe, 2010

Theme
 Labour Market

Project
 ESPON Database

Programme
 ESPON 2013 Programme

Publication
 First ESPON 2013 Synthesis Report

Options

- Enlarge map
- Explore with a lens
- Print map
- Download map
- Add to list

Share

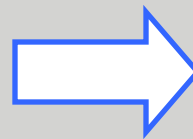
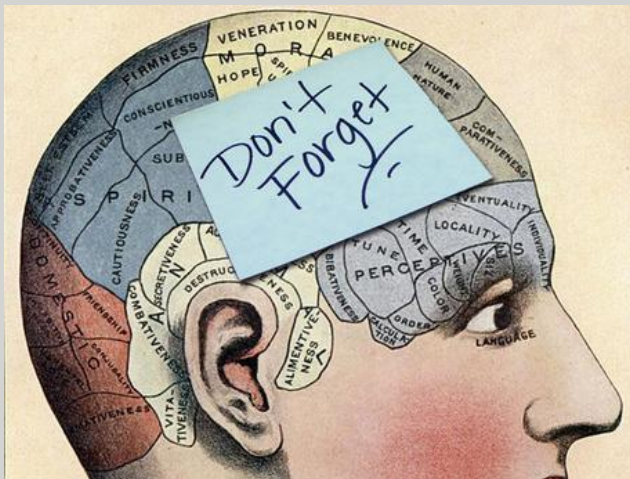
Unemployment is a central issue to understand the current economic and financial crisis

- Possibility to download both data, metadata and maps.
- Adapt existing tools and resources (**Map Finder**, project page)

3.1 A long-term strategy for the ESPON toolbox ?

ESPON 2006-2020 programmes
 An impressive accumulated
 knowledge !

**A « ESPON Project » database used
 by appropriate tools ?**



About Projects Calls Events Tools and Maps Publications Press Search

Applied Research
 ESPON 2013 Projects
 Project Overview
 Applied Research

- Attractiveness - ATTREG
- Cities - FOCI
- Climate change - ESPON Climate
- Demography - DEMIFER
- Economic Crisis - ECR2
- Energy - ReRisk
- EU directive - ARTS
- EU 2020 Strategy - SIESTA
- Globalisation - TIGER
- Governance - TANGO
- Green economy - GREECO
- Growth poles - SGPTD
- Innovation - KIT
- Land use - EU-LUPA
- Neighbour Regions - ITAN
- Poverty and exclusion - TIPSE
- Rural areas - EDORA
- Scenarios - ET2050
- Seas - ESaTDOR
- Specific types of territories - GEOSPECS
- Services of general interest - SeGI
- Territorial Cooperation - TERCO
- Territorial impact assessment - TIPTAP
- Town - TOWN
- Transport - TRACC
- Targeted Analysis
- Scientific Platform
- Transnational Networking Activities
- Transnational Project Groups
- Stakeholder Consultation
- ESPON Partner Café

ESPON 2006 Projects

FOCI - Future Orientation for Cities

Theme
 Cities and Urban Agglomerations: their functionality and development opportunities for European competitiveness and cohesion.

Thematic scope
 Cities and urban development are a focal point of current territorial development policy. Against the background of the Lisbon Agenda's aim of growth and jobs, cities are seen as the main potential motors for the achievement of the set goals, which was also acknowledged in EU Cohesion policy documents for 2007 – 2013, including the Community Strategic Guidelines, as well as the Territorial Agenda and the Leipzig Charter on Sustainable European Cities, complementing the Territorial Agenda by focusing on the issue of sustainable cities. This project shall thus analyse the current state, trends and development perspectives for the largest cities and urban agglomerations within the European territory. It shall identify the driving forces of urban development which are the most relevant for understanding urban evolutions and offer scenarios for the development of Europe's cities leading to alternative policy options.

Please read more about the main research areas and main results envisaged on the next page.

Lead Partner
 Free University of Brussels – IGEAT Brussels (Belgium)
 Detailed information on the contracted project team can be found under Transnational Project Groups

Sounding Board
 Karl Peter Schön, Germany
 Wiktor Szydarowski, Sweden

Budget: € 998 888 00

Project's lifetime: September 2008 – December 2010

Delivery of Reports
 Inception Report: 11 November 2008
 Interim Report: 30 April 2009
 Draft Final Report: 20 September 2010
 Final Report: 15 December 2010

Publishing
 Reports will be published once they are approved by the ESPON Monitoring Committee

More information
 Please contact the Project Expert at the ESPON Coordination Unit:
 Michaela GENSEHEIMER, e-mail: michaela.genseheimer@espon.eu

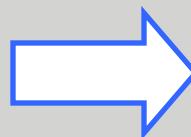
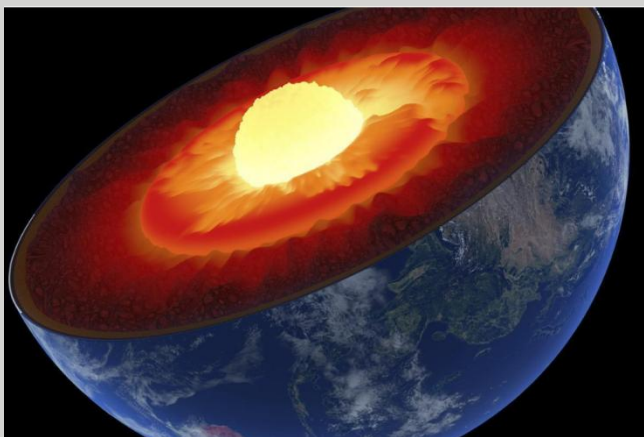
Name	Type	Size
Final Report - Executive summary	PDF	896,69 KB
Final Report	PDF	6,92 MB
Final Report - Scientific Report	PDF	23,49 MB
Draft Final Report	PDF	15,62 MB
Draft Final Report-Executive Summary	PDF	8,32 MB
Draft Final Report-Scientific Report	PDF	63,30 MB
Press Release-Interim Report 08 July 2009	PDF	22,68 KB
Interim Report	PDF	1,00 MB
Interim Report Annex	PDF	11,48 MB
Inception Report	PDF	190,15 KB
Inception Report Annex	PDF	332,08 KB
Project Specification	PDF	76,41 KB

- Approx. 100 projects ! Hundreds datasets, GIS databases...
- Various thematics, territorial nomenclatures, geographical objects, etc.

- Possibility to download both data, metadata and maps.
- Adapt existing tools and resources (Map Finder, **project page**)

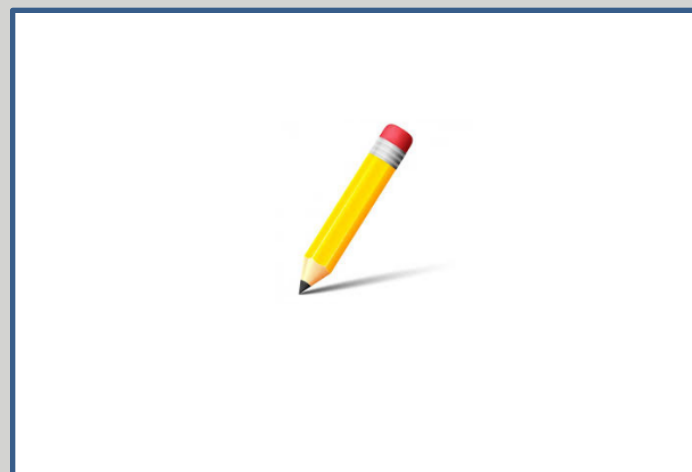
3.1 A long-term strategy for the ESPON toolbox ?

Long-term ESPON Tools DB



- Core indicators (time-series).
- Multi-geographical objects, easy to update.
- Using ESPON methodology to transform basic data into « territorial indicators ».

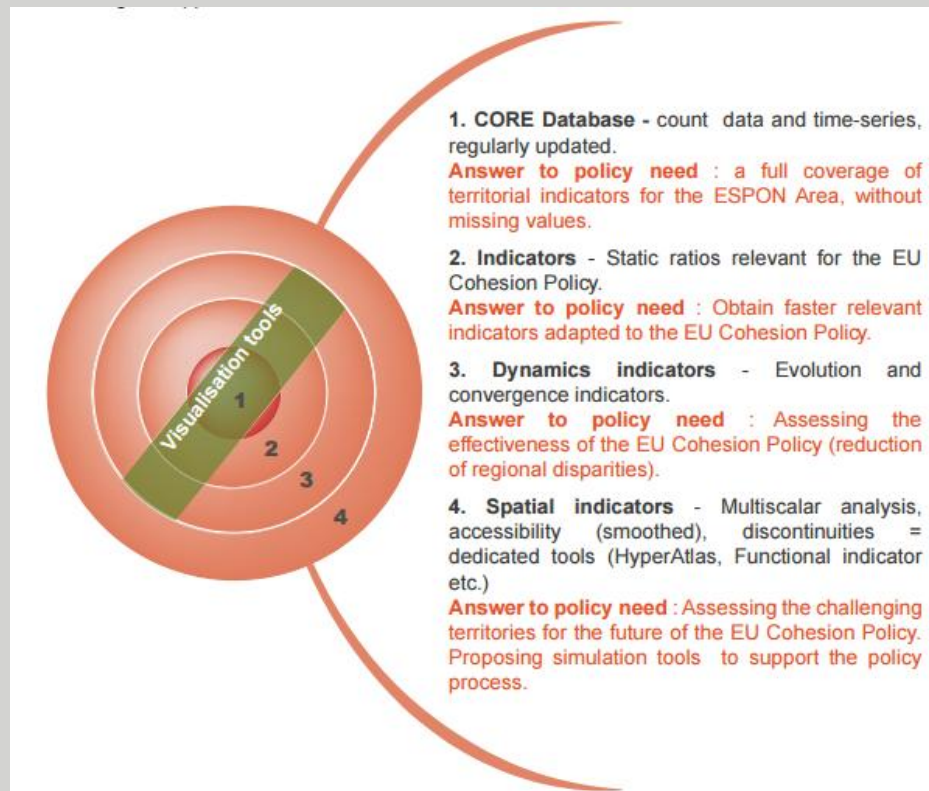
The ESPON 202x toolbox



- Answer to data needs (basic data & time-series at European level)
- Monitoring of EU policies
- Modern visualisation libraries based on data.

3.1 A long-term strategy for the ESPON toolbox ?

The M4D proposal : the Core Database Strategy



Requirements

1. Update regularly count data and time-series (NUTS versions)

- ✓ *M4D core indicators (NUTS 2006)*
- ✓ *Filling gaps in the DB (NUTS 2010)*
- ✓ *ESPON 2020 Data and map updates (NUTS 2013)*



Quality rather than quantity !!

2. Automatic creation of indicators (ratios, evolution...) useful for the EU Cohesion Policy and European studies.

- ✓ *To be defined : Database 2020 project ? Experts panel ? EU 2020 Strategy indicators ?*

3.1 A long-term strategy for the ESPON toolbox ?

ESPON Typologies methodology

Identification	
code	typ_sparsely
name	Sparsely populated regions
units	index
abstract	Sparsely populated regions are regions with a population density below certain thresholds.
methodology	As described in Regional Focus No. 1/2011. The threshold taken here is 12.5 inhabitants per km2, taken from paragraph 30(b) of the Guidelines on national regional aid for 2007-13 (2006/C 54/08). More information on how to apply the typology can be found in the guidance note.
classification	1 Sparsely populated region 0 Not a sparsely populated region

ESPON Metadata

Measuring territorial discontinuities

MAP 12 : GDP PER CAPITA (euro), 1999
RELATIVE DIFFERENCE

It is interesting to consider discontinuities not only as an absolute differential but also as a relative one. As an example, we can compare GDP/Inhab differential between Brussels (47000) / Vienna Brabant (24 000 euros) and Praha (10600) / Stredny Czechy (4200). In absolute terms, we would conclude that the differences between each capital region and its surroundings are much more important in Belgium (23000) than in the Czech Republic (6400). However, in relative terms, the ratio between the centre and the periphery is higher in the case of the Czech Republic (2.6) than in the case of Belgium (2.0). Relative differences may reveal as well potential complementarities that could induce flows, and should therefore not be neglected.

The map of main relative discontinuities shows a different pattern of inter-regional contrasts than what has previously been observed. The most important ones are much more clearly located along the former "iron curtain", and more specifically in border areas between Greece and Bulgaria, Germany and Poland, and Austria and Czech Republic.

The highest relative discontinuity can be observed between the Greek region of Anatoliki Makedonia and its Bulgarian neighbours: the GDP of *Anatoliki Makedonia & Thraci* is not very high at European or national level (9200 euros/in.) but it is 7.5 times the level of the region of *Jutoken itienarria* (1242 euros/inh.) and 3.5 times the level of *Turkey* (2636 euros/inh.).

Concerning Switzerland and Norway, it is interesting to observe that the differences between UE and AELE appears not so important in relative terms as they were with the criteria of absolute differences.

The ten highest differences

i	j	Region i	Region j	GDP _i	GDP _j	Ratio
GR11	BG05	Anatoliki Makedonia	Yuzhen Tsentralen	9209	1243	7.4
AT12	SK02	Niederosterreich	Zapadne Slovensko	20447	3267	6.3
DE23	CZ04	Oberpfalz	Severozapad	24303	4190	5.8
GR12	BG04	Kentriki Makedonia	Vangotrichen	11314	2000	5.7
DE24	CZ04	Oberfranken	Severozapad	23470	4190	5.6
DE23	CZ03	Oberpfalz	Jihozapad	24303	4641	5.2
AT11	CZ03	Oberosterreich	Jihozapad	23220	4641	5.0
DE02	PL04	Breslen	Lubuskie	16325	3417	4.8
DE22	CZ03	Niederbayern	Jihozapad	21935	4641	4.7
DE4	PL04	Brandenburg	Lubuskie	16146	3417	4.7

Measuring economic convergence

Regional Convergence, Growth and Interpersonal Inequalities across EU¹

Report Working Paper of

Philippe Monfort
 Directorate General Regional Policy
 European Commission

January 2009

DG REGIO Working papers

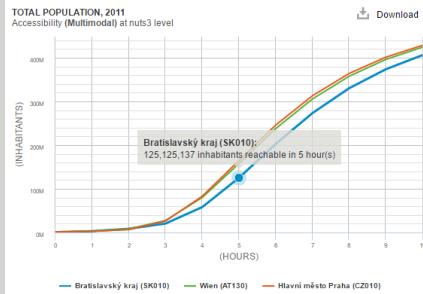
Requirements

3. Define reproducible methodologies derived from ESPON background to create temporal and spatial indicators useful for territorial monitoring.

- ✓ Territorial Multiscalar analysis (HyperAtlas).
- ✓ Thematic and territorial typologies.
- ✓ Benchmarking geographical objects (City Bench Tool).
- ✓ Accessibility indicators (Functional Indicator Tool, Spikermann & Wegener methodology).
- ✓ Territorial discontinuity analysis.
- ✓ Economic convergence
- ✓ ...

3.1 A long-term strategy for the ESPON toolbox ?

Interactive plot for benchmarking regions



Functional Indicator Tool

Radial interactive plot for comparing cities



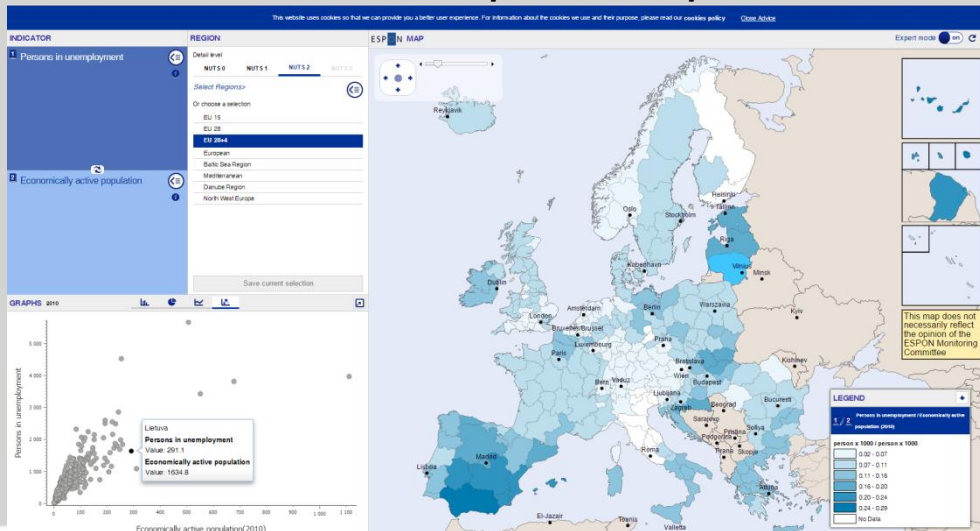
Citybench Tool

Requirements

4. Think about visualisation and graphics

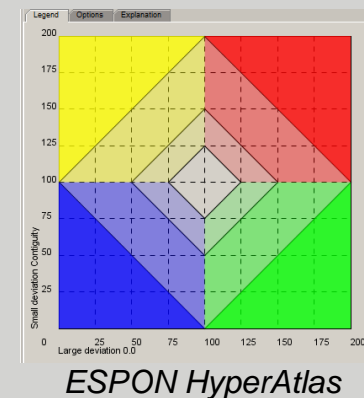
- ✓ Provide an added-value to understand the data.
- ✓ Simple to understand.
- ✓ Interactive / modern.

Combination of plots and maps



ESPON Online Mapping Tool

Plot inequalities for several territorial contexts



3.1 A long-term strategy for the ESPON toolbox ?

Requirements

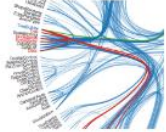
4. Think about visualisation and graphics

- ✓ *Provide an added-value to understand the data.*
- ✓ *Simple to understand.*
- ✓ *Interactive / modern.*

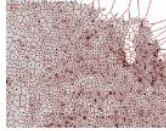
Explore the potential offered by visualisation libraries

D3.js is a JavaScript library for manipulating documents based on data

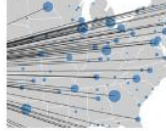
Hierarchical Edge Bundling



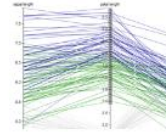
Voronoi Diagram



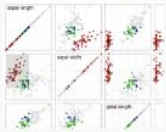
Symbol Map



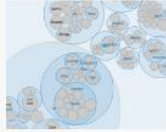
Parallel Coordinates



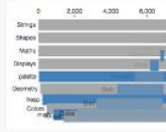
Scatterplot Matrix



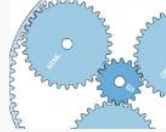
Zoomable Pack Layout



Hierarchical Bars



Epicyclical Gears



Collision Detection



Collapsible Force Layout



Force-Directed States



Azimuthal Projections



Choropleth



Collapsible Tree Layout



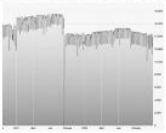
Zoomable Treemap



Zoomable Partition Layout



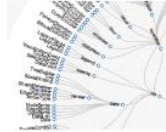
Zoomable Area Chart



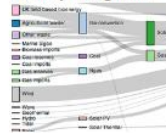
Drag and Drop Collapsible Tree Layout



Rotating Cluster Layout



Sankey Diagram

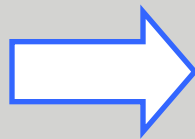


3.1 A long-term strategy for the ESPON toolbox ?

The tool development project team (2/3 years)



A tool usable for couple of years !



**If no maintenance /
no update /
no methodological
capitalisation**

Requirements

5. Consider the timing of a project

- ✓ *Possibility to update the tools after the end of the consortium developing the tools.*

Challenge # 2

Supporting the territorial multilevel approach?

The need of tools to support policy interventions (TA 2020 of the EU)

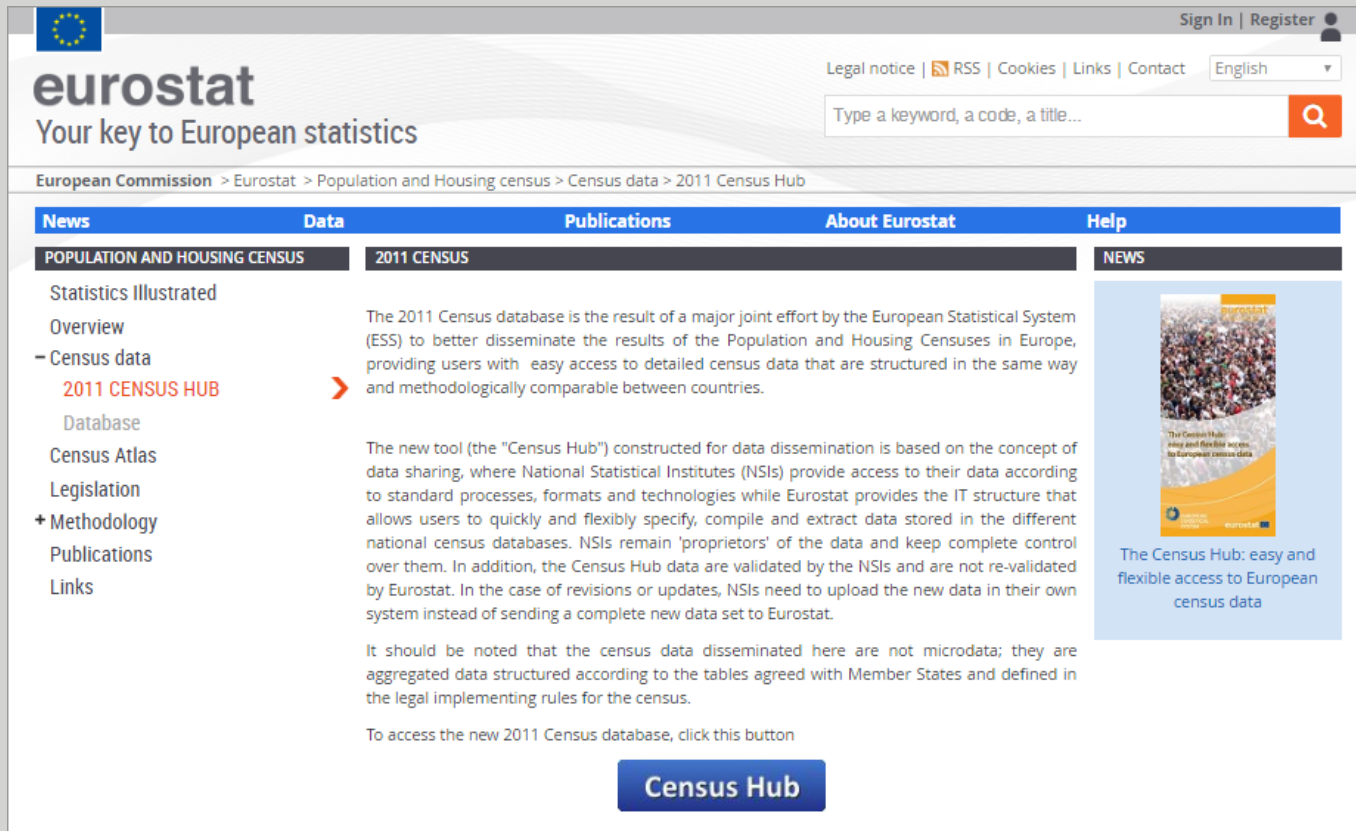
“(10) We call **states, regions, cities** (incl. small and medium sized towns), other territories and sectoral policies at all **relevant levels** to contribute to common European territorial priorities”.

(11) We consider that the place-based approach to policy making contributes to territorial cohesion. Based on the principles of horizontal coordination, evidence-informed policy making and integrated functional area development, it implements the subsidiarity principle through a multilevel governance approach.

“(16) Globalization can bring about important territorial consequences at EU, national, regional and local levels”.

3.2 Supporting the territorial multilevel approach?

Overall context : An increasing availability of comparable data at local level in Europe



The screenshot shows the Eurostat website interface. At the top, there is a navigation bar with the Eurostat logo, the text "Your key to European statistics", and links for "Sign In | Register", "Legal notice", "RSS", "Cookies", "Links", "Contact", and a language selector set to "English". A search bar is also present with the placeholder text "Type a keyword, a code, a title...".

The main content area is titled "European Commission > Eurostat > Population and Housing census > Census data > 2011 Census Hub". Below this is a navigation menu with tabs for "News", "Data", "Publications", "About Eurostat", and "Help". The "Data" tab is active, showing a sub-menu for "POPULATION AND HOUSING CENSUS" with "2011 CENSUS" selected.

The main content area is divided into two columns. The left column contains a list of links: "Statistics Illustrated", "Overview", "Census data", "2011 CENSUS HUB" (highlighted in red), "Database", "Census Atlas", "Legislation", "Methodology", "Publications", and "Links". The right column contains the main text of the page, which describes the 2011 Census database and the new "Census Hub" tool. It states that the database is the result of a major joint effort by the European Statistical System (ESS) to better disseminate the results of the Population and Housing Censuses in Europe, providing users with easy access to detailed census data that are structured in the same way and methodologically comparable between countries. It also mentions that the new tool (the "Census Hub") is based on the concept of data sharing, where National Statistical Institutes (NSIs) provide access to their data according to standard processes, formats and technologies while Eurostat provides the IT structure that allows users to quickly and flexibly specify, compile and extract data stored in the different national census databases. NSIs remain 'proprietors' of the data and keep complete control over them. In addition, the Census Hub data are validated by the NSIs and are not re-validated by Eurostat. In the case of revisions or updates, NSIs need to upload the new data in their own system instead of sending a complete new data set to Eurostat. It should be noted that the census data disseminated here are not microdata; they are aggregated data structured according to the tables agreed with Member States and defined in the legal implementing rules for the census. To access the new 2011 Census database, click this button.

At the bottom of the right column, there is a blue button labeled "Census Hub". To the right of the main text, there is a "NEWS" section featuring a thumbnail image of a crowd of people and the text "The Census Hub: easy and flexible access to European census data".

3.2 Supporting the territorial multilevel approach?

Overall context : An increasing availability of comparable data at local level in Europe

The screenshot shows the homepage of data.gov.fr, the French open data platform. At the top, it features the logos of the French Republic and the European Union, along with the text 'data.gov.fr' and 'Open platform for french public data'. Navigation links include 'Discover OpenData', 'Data', 'Dashboard', 'Events', 'Etablab', and 'CADA'. A search bar is prominently displayed. A central banner reads 'Share, improve and reuse public data' with a 'CONTRIBUTE!' button. Below this, there are two sections: 'BEST REUSE CASES' and 'LATEST REUSES'. The 'BEST REUSE CASES' section features two line charts: one for 'Justice' (2005-2015) and one for 'Politique France' (2005-2015). The 'LATEST REUSES' section lists recent data reuses, including 'JT_Notbook' by alexis eidelman (October 24, 2016), 'Anonymiser les textes de loi' by armand gilles (August 11, 2016), 'scanR', and 'Enseignement supérieur et Recherche' (July 6, 2016).

data.gov.fr
Open platform for french public data

Discover OpenData Data Dashboard Events Etablab CADA Sign In / Register

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Agriculture et alimentation
Culture
Économie et Emploi
Éducation et Recherche
International et Europe
Logement, Développement Durable et Énergie
Santé et Social
Société
Territoires, Transports, Tourisme

Share, improve and reuse public data
+ CONTRIBUTE!

BEST REUSE CASES

Justice
Politique France

ALEXIS EIDELMAN
JT_NOTBOOK

LATEST REUSES

JT_Notbook
alexis eidelman
October 24, 2016

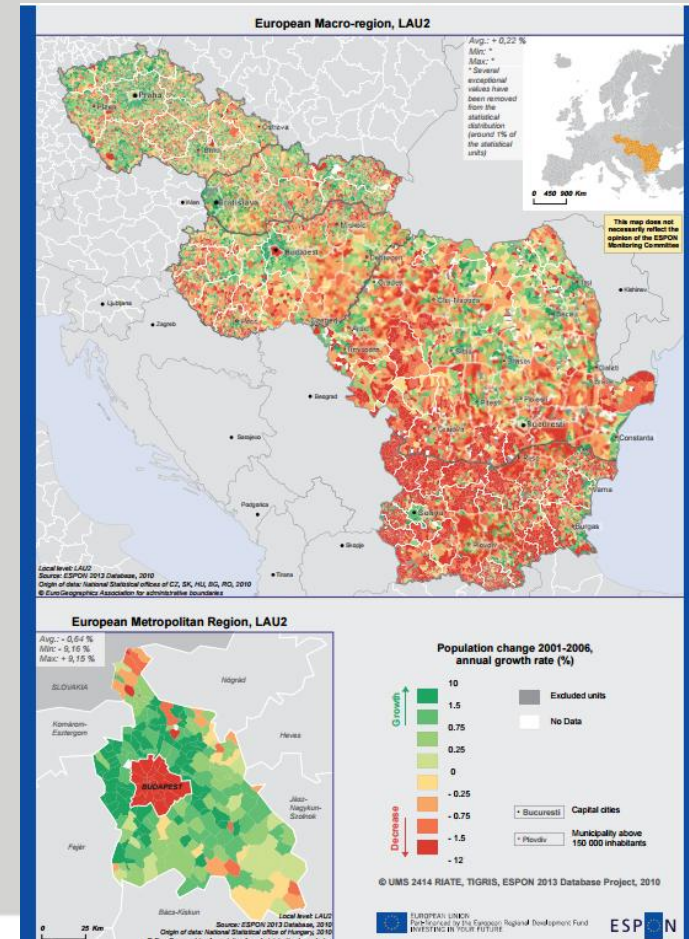
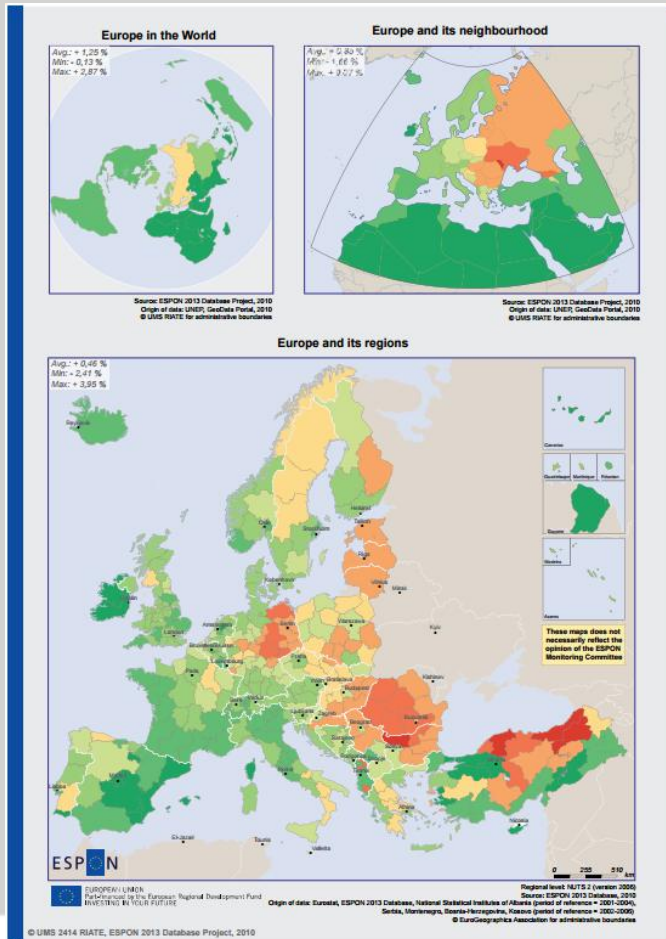
Anonymiser les textes de loi
armand gilles
August 11, 2016

scanR
Enseignement supérieur et Recherche
July 6, 2016

3.2 Supporting the territorial multilevel approach?

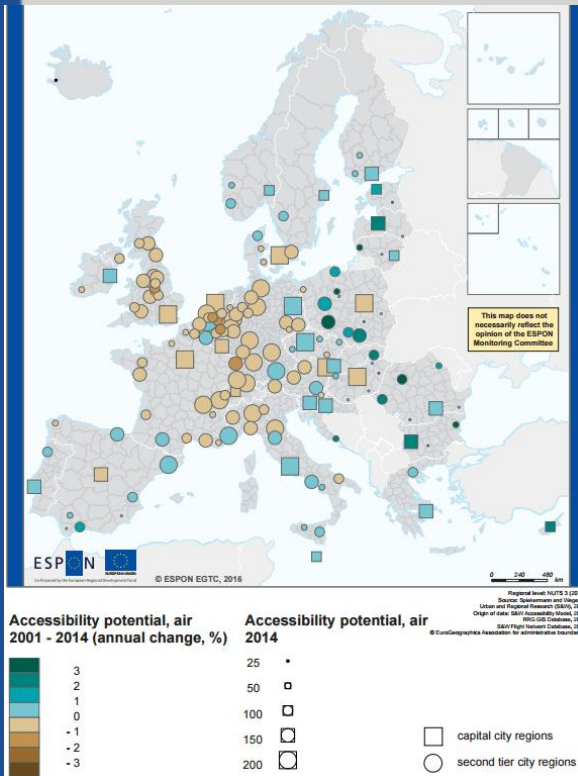
1. Core data collection / harmonisation for several geographical areas

5 levels-approach ESPON Synthesis Report 1 (2010)

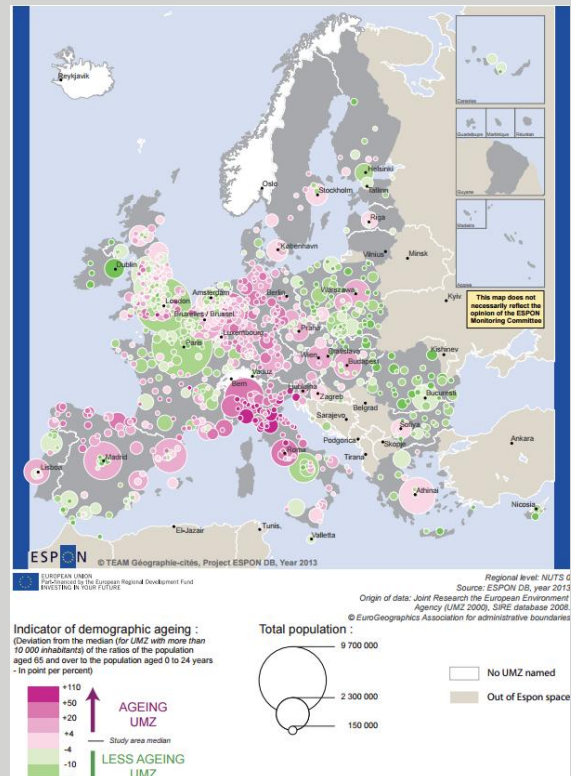


3.2 Supporting the territorial multilevel approach?

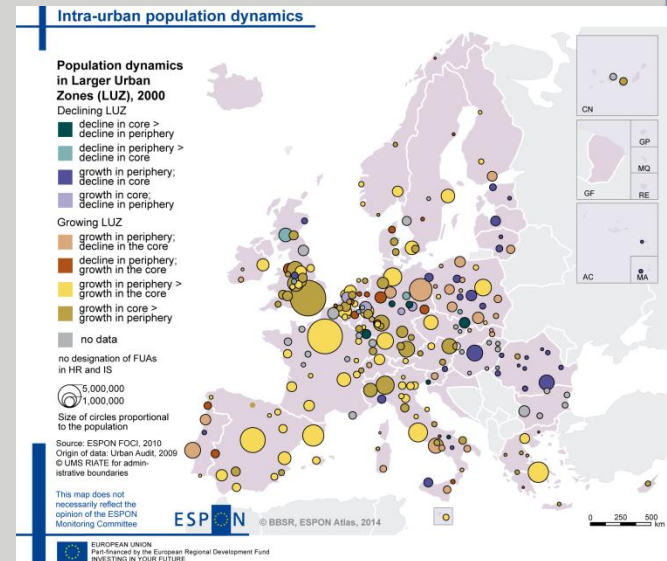
2. Several complementary databases to build for urban objects



Second Tier Cities
55 urban objects derived from the NUTS classification



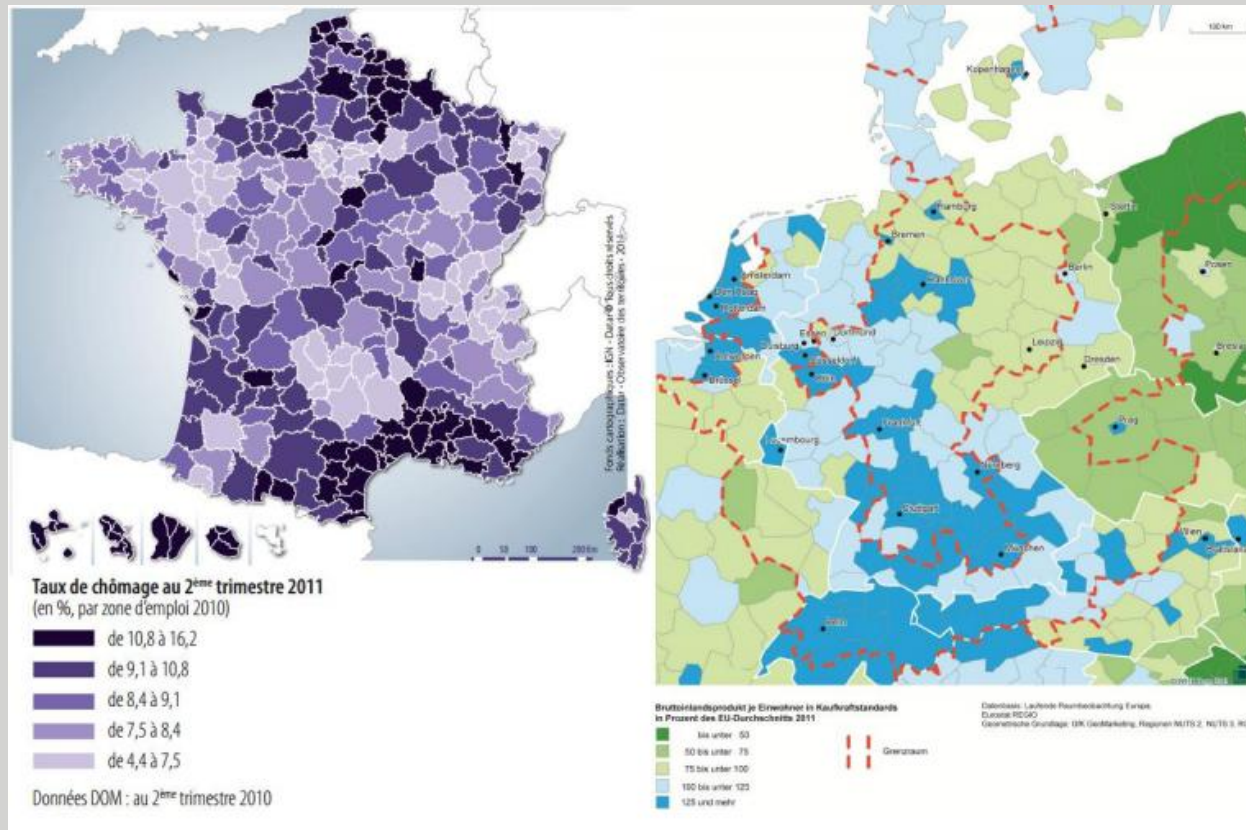
Urban Morphological Zones
4300 morphological urban objects



Large Urban Zones
700 morphological/functional urban objects

3.2 Supporting the territorial multilevel approach?

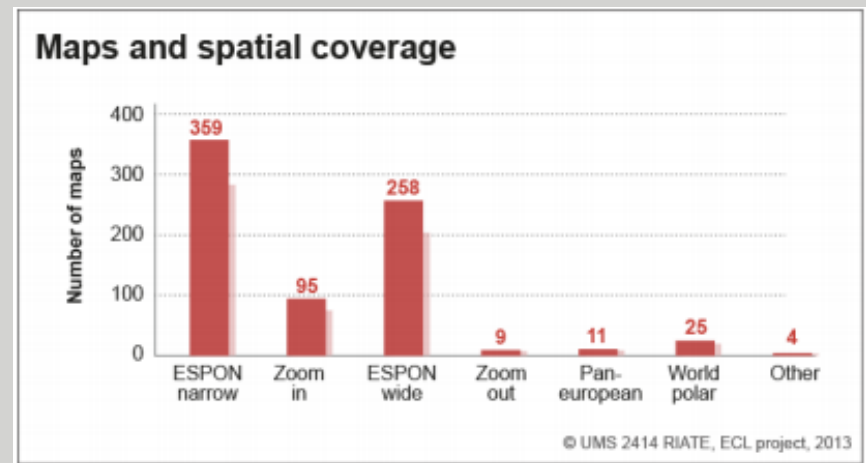
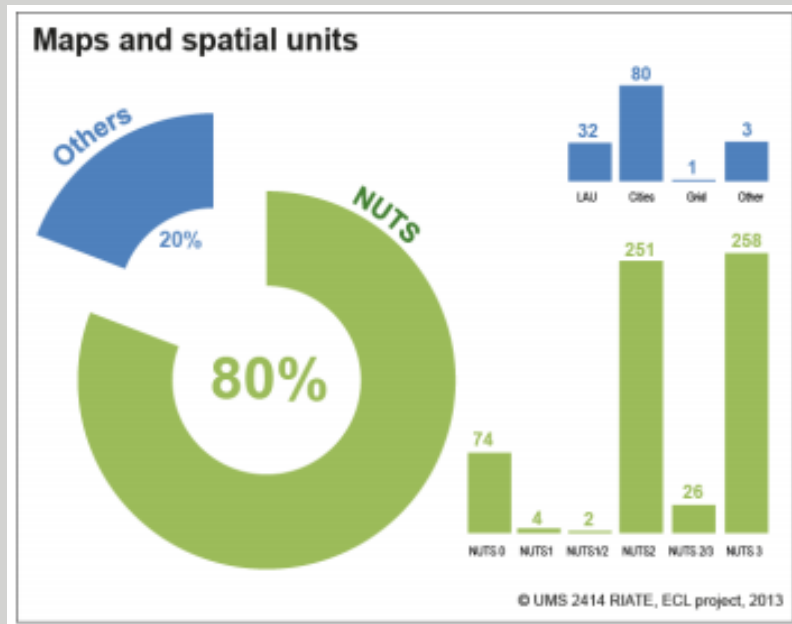
3. Exploring new territorial levels for analysing labour market dynamics



The French Zones d'emploi and the german Raumordnungsregionen

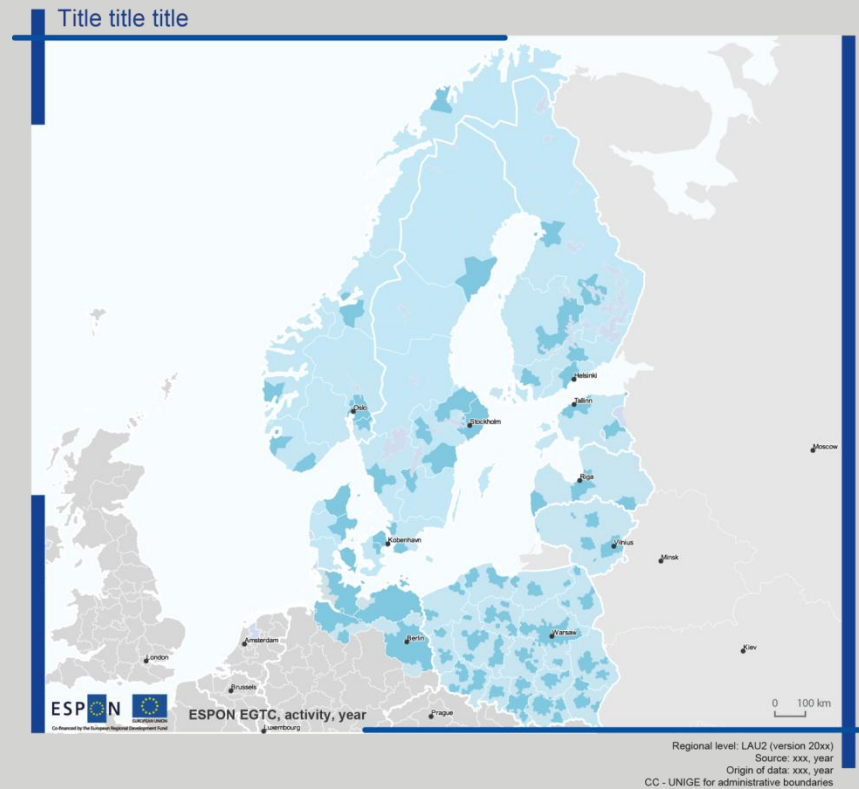
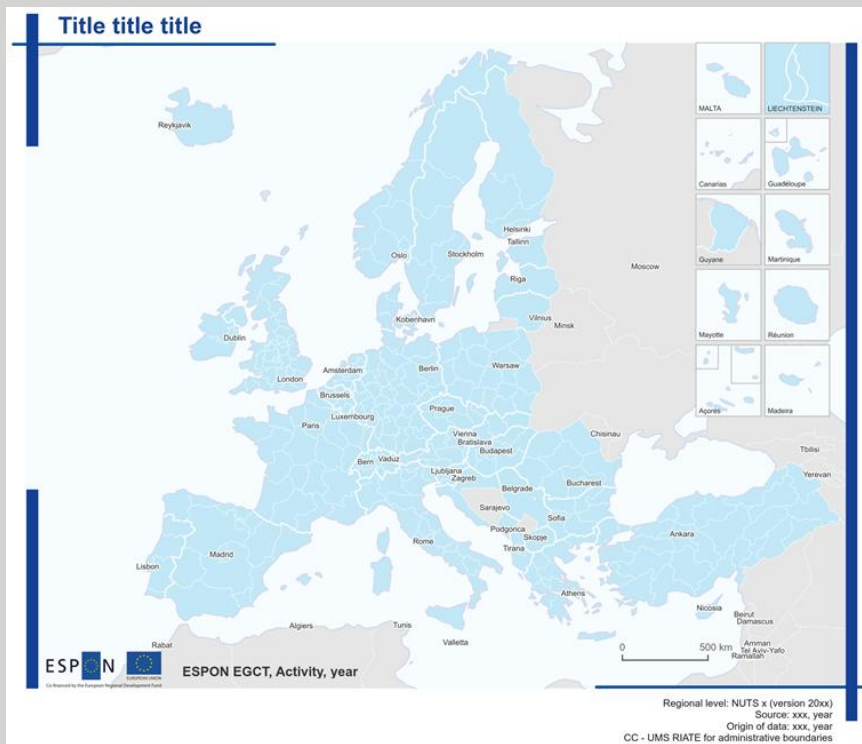
3.2 Supporting the territorial multilevel approach?

4. ESPON 2020 MapKits – the mapping material in creative commons license to explore new dimensions (time, space, territorial level)



3.2 Supporting the territorial multilevel approach?

4. ESPON 2020 MapKits – the mapping material in creative commons license to explore new dimensions (time, space, territorial level)



Thank you for your attention...



One of the data scientist of a policy maker using with a great pleasure the ESPON toolbox in 202.. (hopefully)

Ronan.ysebaert@ums-riate.fr