

Overview on ESPON Project 3.1
"Integrated tools for European Spatial Planning"

Tasks and Results

Ljubljana, 31 May 2005
Lars Porsche

Organisational Structure of the Programme
Position of the 3.1 Project

ESPON Programme Management

ESPON Managing Authority

ESPON Monitoring Committee

ESPON Paying Authority

ESPON Co-ordination Unit

ESPON Transnational Project Groups

Thematic Field 1
- thematic studies

Thematic Field 2
- policy impact studies

Thematic Field 3
- horizontal and cross-
sectoral studies



The role of the project

taken from the Terms of Reference

- as a third strand project it holds a key position in the elaboration of the whole programme
- preperation of common ground for the other projects
- integration of results towards conclusions

ESPON 3.1 TPG Project Team

8 European partner institutes

from

- Austria
- Belgium
- France
- Germany
- Greece
- Spain
- Sweden

with 50 persons involved

BBR - Bundesamt für Bauwesen und Raumordnung
(Germany)

Contact: Dr. Peter Schön
Bundesamt für Bauwesen und Raumordnung (BBR)
Federal Office for Building and Regional Planning
Deichmanns Aue 31 - 37
53179 Bonn
Tel: +49 (0)1888 401-2329
Fax: +49 (0)1888 401-2260
E-mail: Peter.Schön@bbr.bund.de
Web-page: www.bbr.bund.de



Bundesamt
für Bauwesen und
Raumordnung

Mcrit, S.L.
(Spain)

Mcrit

NORDREGIO - Nordic Centre for Spatial Development
(Sweden)



ÖIR - Österreichisches Institut für Raumordnung
(Austria)



PhDB consultant
(Belgium)



TAURUS - Institut an der Universität
(Germany)



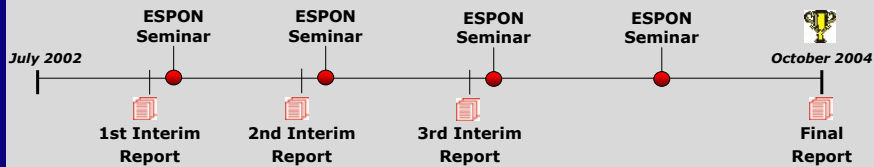
UEHR - Institute of Urban Environment and
Human Resources (Greece)



UMS RIATE - Interdisciplinary Network for European
Spatial Planning (France)



ESPON 3.1 TPG – time horizon



Tasks of the project

3 main tasks

- close co-operation with and support to the ESPON Co-ordination Unit
- co-operation with and support to other ongoing ESPON projects at that time (up to 17)
- own research

Support to the Co-ordination Unit

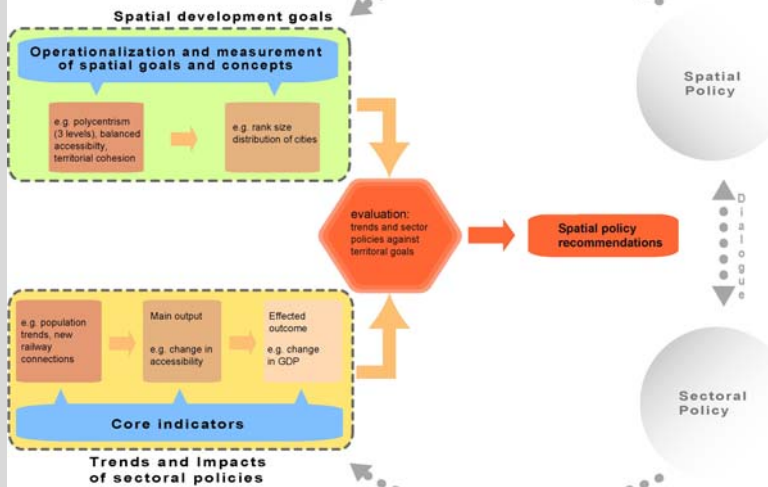
- synthesising (tentative) results from the ongoing projects
- support in the preparation of ESPON Seminars as well as TPG Lead Partner meetings
- preparation of so called Guidance Papers as a follow up of each seminar
- support concerning technical aspects, like e.g. map design
- support concerning the preparation of documents and publications

Co-operation/ support - ongoing projects

- methodological aspects of the common scientific approach of ESPON
- data, typologies and indicators
- technical aspects, like e.g. mapping
- preparation of so called Guidance Papers as a follow up of each seminar

Co-operation/ Support - ongoing projects

example



Own tasks/ research

- Establishment ESPON Data Base
- ESPON GIS
 - web-based GIS
 - Hyperatlas
- spatial analysis tools (MTA, HDA, MAUP, MSM)

Multiscalar Territorial Analysis, Homogeneity and Discontinuity Analysis, Modifiable Area-Unit Problem, Multiscalar Smoothing Methods
- co-ordination and guidance (TIA and SWOT)
- goals and concepts (methodological approach)
- ESPON Policy Support System
- Europe in the world
- Regional Classification Analysis
 - national and trans-national breakdown of results
- synthesis of ESPON project results
 - including approach, methodology, new tools, policy recommendations

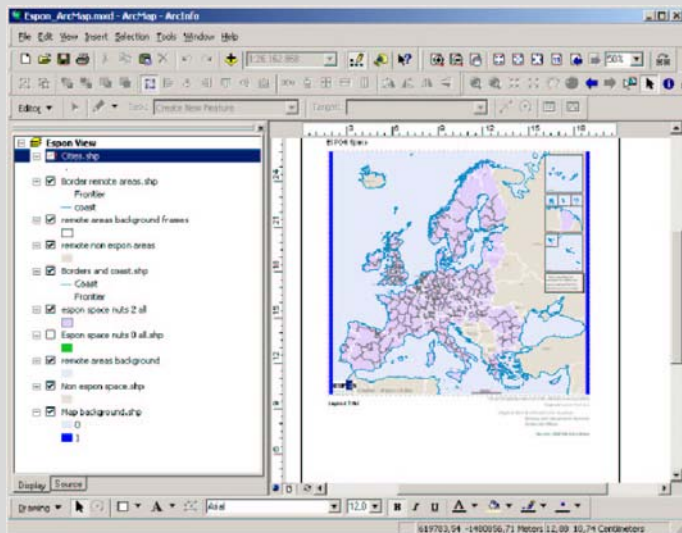
ESPON data base

Microsoft Access - [ESPON_MAIN] - Formulas

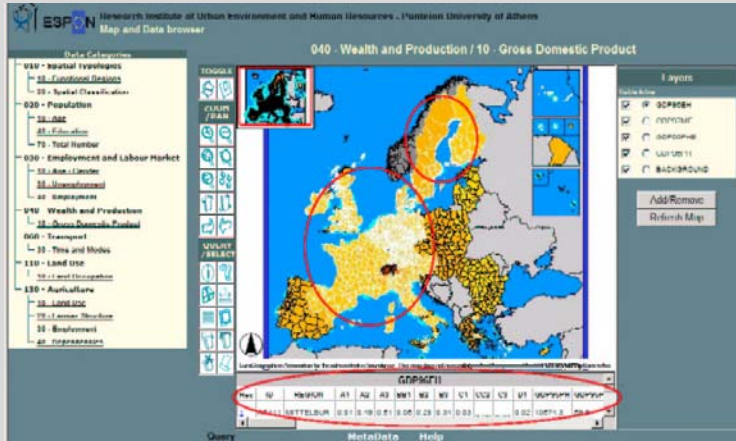
SELECT * FROM ESPON; by double-clicking

Variable code	Variable name	Regional reference	Time reference	Source of data
UNR0501N2	Unemployment rate over 25 years	NUTS 2	2001	DBR
UNR0590N2	Unemployment rate over 25 years	NUTS 2	1990	DBR
UNR0599N2	Unemployment rate over 25 years	NUTS 2	1999	DBR
UNR0500N2	Unemployment rate total	NUTS 2	2001	DBR
UNR0501N2	Unemployment rate total	NUTS 2	2001	DBR
UNR0509N2	Unemployment rate total	NUTS 2	1990	DBR
UNR0599N2	Unemployment rate total	NUTS 2	1999	DBR
UNR0500N2	Unemployment rate under 25 years	NUTS 2	2001	DBR
UNR0501N2	Unemployment rate under 25 years	NUTS 2	2001	DBR
UNR0509N2	Unemployment rate under 25 years	NUTS 2	1990	DBR
UNR0599N2	Unemployment rate under 25 years	NUTS 2	1999	DBR

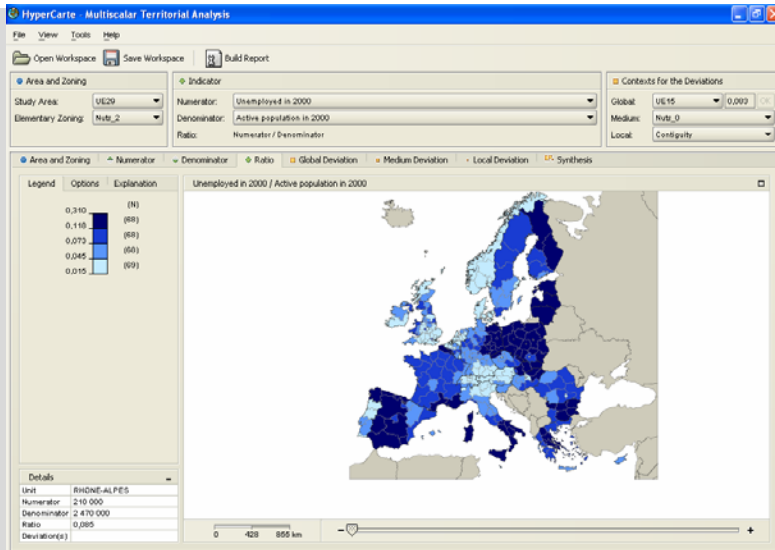
ESPON map tool / map kit



GIS tools - web based GIS



GIS tools - HyperAtlas



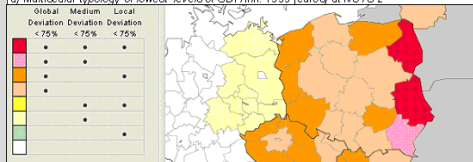
Specific spatial analysis tools

ESPON 3.1 has developed researches in four directions :

- Multiscalar Territorial Analysis (MTA)
- Homogeneity and Discontinuity Analysis (HDA)
- **Modifiable Area Unit Problem (MAUP)**
- Multiscalar Smoothing Methods (MSM)

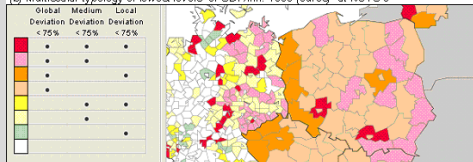
Modifiable Area Unit Problem (MAUP) (MAUP)

(a) Multiscalar typology of lowest levels of GDP/Inh. 1999 (euros) at NUTS 2



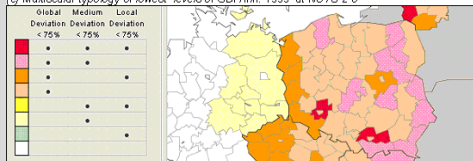
NUTS 2

(b) Multiscalar typology of lowest levels of GDP/Inh. 1999 (euros) at NUTS 3



NUTS 3

(c) Multiscalar typology of lowest levels of GDP/Inh. 1999 at NUTS 2-3

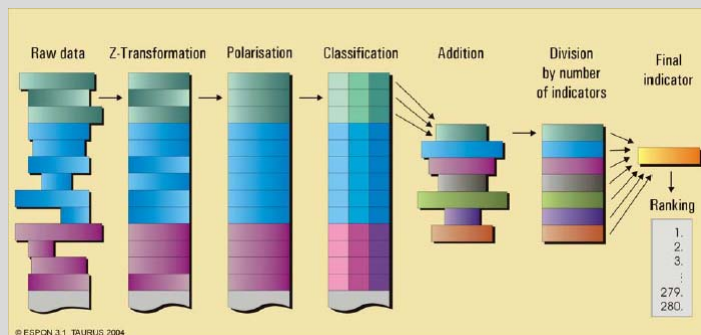


NUTS 2-3

RCE – Regional Classification of Europe

- synoptical aggregation of ESPON indicators in relation to possible spatial policy relevant fields
- uses an additive linkage of indicators, which maybe classified by pre-defined threshold values, to generate more complex single indexes of the regional situation
- focus on the topics of the ESPON projects and the availability of data covering all 29 countries
- seven thematic fields of spatial development have been identified
 - Economy, labour market, demography, environment, hazards, accessibility and spatial structure
- total of 38 indicators were used
- positive aspects of the RCE
 - flexibility to integrate new indicators
 - flexibility to re-arrange thematic fields in relation to policy demands

RCE data transformation



RCE indicators – e.g. economy

- GDP per capita In PPS +
- Expenditure on R&D Share of GDP +
- R&D Business Enterprise Sector BES R&D personnel per 1.000 active person +
- GDP per capita growth In Euro +
- Firms with own website Proportion of all firms +
- Employment in tertiary sector Share of total employment +
- Employment in primary sector Share of total employment -

RCE economy

Regional classification of Europe - economy



RCE - national profiles

Figure 76 Netherlands: Regional spread of RCE-indices by thematic field

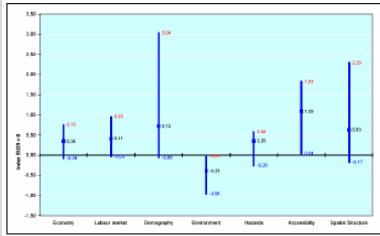


Figure 69 Hungary: Regional spread of RCE-indices by thematic field

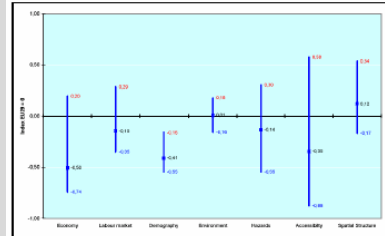


Figure 62 Germany: Regional spread of RCE-indices by thematic field

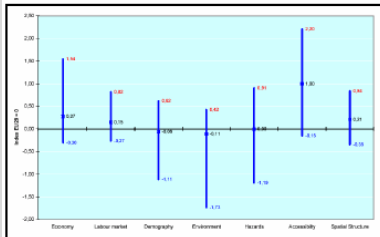
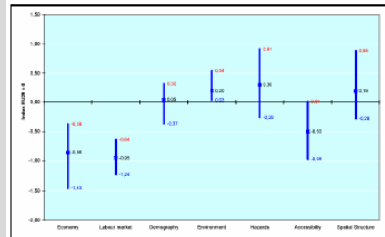


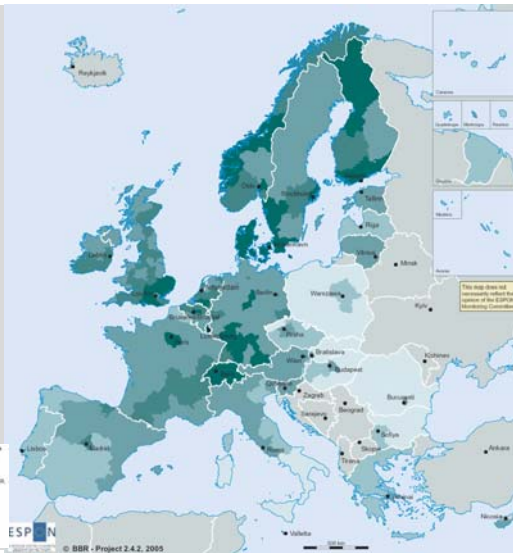
Figure 78 Poland: Regional spread of RCE-indices by thematic fields



RCE – continuation

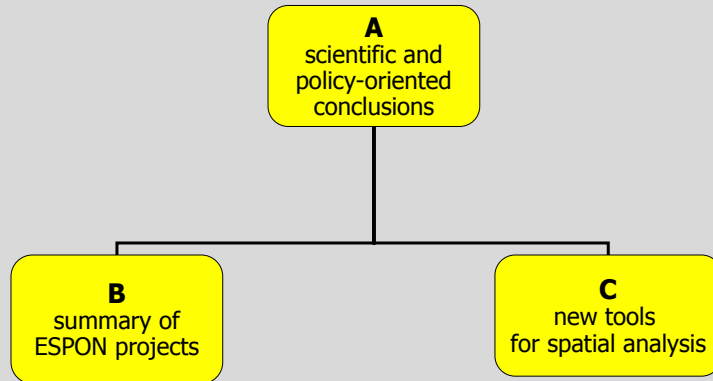
The RCE is currently one of the basic instruments in the ESPON Project 2.4.2 „Integrated Analysis of transnational and national territories based on ESPON results“ (Zooming In)

Example: Lisbon Strategy



Source of regionalised Lisbon performance as an aggregate of 8 indicators:
 - productivity (GDP per person employed 2002)
 - employment rate (employment/total population aged 15-64 2002) -
 - expenditure on R&D (expenditure on R&D / total GDP 2002) -
 - 2002 business turnover (total 2002 turnover per 1,000 active persons 2002) -
 - high educational population (highly educated population / total educational pop. 2002) -
 - 8 EuroGeographics Association for administrative boundaries
 - Regional level: NUTS 2
 - Origin of data: ESPON 2.4.2 RRM, most calculations
 - Source: ESPON database
 ESPON
 © BBR - Project 2.4.2, 2005

Division of the FR 3.1 – find more info



Questions

Do we create our own ESPON world or view on the 29 countries?

What do you think is the value of the ESPON for the national and regional level?

Thank you for your attention!!

Lars.Porsche@bbr.bund.de

Thank you
for your attention!!

Lars.Porsche@bbr.bund.de

Elements of part A

- Background of ESPON and European spatial development
- Territorial Cohesion
 - sector policies
 - disadvantaged and handicapped regions
- Polycentricity
 - Morphology
 - Socio-economic specialisation
 - Preconditions for interaction: Accessibility
 - Co-operation and Interaction

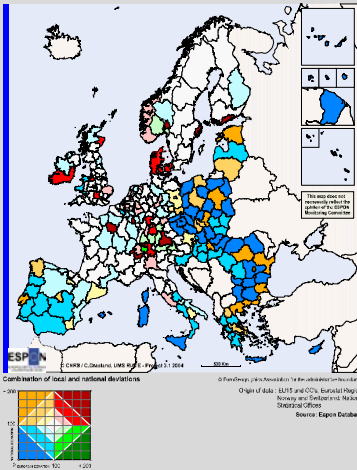
Structure of part B

- Findings
 - main territorial structure (polycentricity)
 - spatial disparities and cohesion
 - dynamics and flows
 - contradictions between levels
 - trans-national level
 - what is new?
- Methods and data
 - spatial analysis methods
 - indicators
- Policy Recommendations
 - uncomfortable trends and policy effects
 - recommended changes in policies and governance

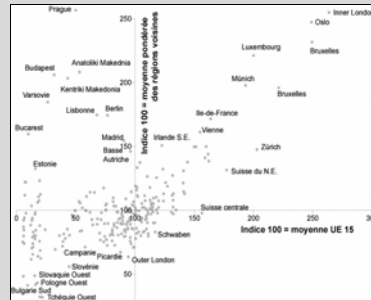
Elements of part C

- ESPON Data Base
- ESPON GIS
- web-based GIS
- Hypercarte
- ESPON Policy Support System
- co-ordination and guidance (incl. TIA and SWOT)
- goals and concepts
- spatial analysis tools (MTA, HDA, MAUP, MSM)
 - Multiscalar Territorial Analysis, Homogeneity and Discontinuity Analysis, Modifiable Area Unit Problem, Multiscalar Smoothing Methods
- Europe in the world + Interreg III B
- Regional Classification Analysis
- national and trans-national breakdown of results
- + annexes

Multiscalar Territorial Analysis (MTA)



Ex. Combination of global and local deviations of GDP/inh. (1999)



Elements of territorial cohesion (approach)

the concept of territorial cohesion is strongly related to

- equity and balance, reducing disparities, supporting the weaker parts of the European territory
- support for geographically handicapped regions (e.g. islands, mountain areas etc.)
- strengthen regional integration and communication, exchange, cooperation and flows between territories

economic, social and territorial cohesion

Aims and differences

- Economic, social (and territorial) cohesion aim at reducing structural disparities between regions and promoting equal opportunities for all individuals. (ScadPlus glossary)

the focusses are different:

- **social cohesion** targets the individual level of persons and households and the avoidance of poverty, unemployment etc.
- **economic cohesion** targets the intermediate level of economic actors (e.g. enterprises) and institutional settings (e.g. competition rules)
- **territorial cohesion** refers to the regional aggregate and regional context of social and economic cohesion.
Territory is a crucial context for individual behaviour and decisions.

Polycentricity - approach

- ambiguous goal that is opposed to monocentricity as well as to total sprawl.
- p. seeks an optimum between (too much) concentration and the absence of concentration (sprawl)
- if concentration corresponds to „economic growth and efficiency“ and de-concentration to „balanced development“, polycentrism can be seen as a „bridging concept“ between these two.
- this makes p. fundamentally ambiguous, esp. when judged on different spatial levels.

Polycentricity – four dimensions

four basic dimensions of polycentricity can be distinguished:

- **Difficult to influence through public policies**
- **functional socio-economic specialisation:** highly specialised
: Can be influenced through public policies (like Oulu for telecommunication)
- **accessibility in terms of transportation and ICT:** the possibility
{ Public policies can exercise influence to information (networks) seem to be of crucial importance
- **co-operation and interaction:** the actual degree and effects
{ Public policies have huge potentials for developing this aspect important.

polycentricity: trends and impacts

•polycentric trends

- European trends on macro level support poly (catching-up of AC12)
- disparities EU15-AC12 get smaller
- rising transport costs support poly.
- development of regional specialisation supports poly.

•monocentric trends

- AC12 are more poly, but trends support mono.
- National trends (meso) support monocentricity
- all transport measures support mono (except pricing)
- disparities within AC12 grow
- population trends in North and East are mono (but not the rest)
- CAP expenditure (pillar 1) support prosperous, accessible regions and discriminate peripheral regions

Levels, actors and goal conflicts

- is there a relationship between level and actor?
- who is the (main) actor on which level?
- who is to solve goal conflicts between levels?

- macro – European – EU
- meso – national/transnational – MS
- micro – regional/local – reg and loc authorities



disparities within member states

- different challenges of internal disparities in MS
 - North – South
 - East – West
 - capital cities – rest
 - disparities in urban system (lack of medium sized cities)

potentials and handicaps in AC12

- dynamic capital regions
- potentials of western border regions
- ambivalence of old industrialised regions
- peripheral Eastern and rural regions
- islands (ML, CYP)