ESPON Contact Point Luxembourg

2. ECP Information and Progress Meeting

Projects' Presentation

12.12.2003

DATUR

1 Rue de Plébiscite, Luxembourg

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ESPON Core projects

- Overview on the latest developments and progresses made in the core projects of ESPON:
  - ESPON 3.1
    Integrated tools for European spatial development
  - ESPON 1.1.1
    The role, specific situation and potentials of urban areas as nodes of polycentric development („Polycentrism“)
  - ESPON 1.1.2
    Urban-rural relations in Europe

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ESPON 3.1: Spatial Concepts

- Spatial concepts relevant for ESPON:
  - Accessibility
  - Polycentrism
  - Global Integration Zones
  - Urban areas
  - Rural-urban (relations)
  - Environment

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ESPON 3.1: Typologies

TPG	nature	description	potentially useful for	in
1.1.1.	I	location of top 1500 companies	economic structure	social potential
	I	R&D personnel	economic structure	social potential
	I	high education level	education	social potential
	T	level of FUA(s)	urban structure	spatial potential
	I	passengers top 500 airports	flows	spatial integration
	I	international air traffic in 2000	gateways	spatial potential
	I	labour participation rate	work force	social potential
1.1.2.	T	urban-rural typology?	urban structure	spatial potential
1.1.3.	T	border regions	borders	spatial position
	I	(un)employment	work force	social potential
1.1.4.	I	intra-European migratory balance	migrations	social integration
1.2.1.	T	depopulation processes	population	social potential
	I	multimodal accessibility	accessibility	spatial position
	I?	transport impact on environment	environment	spatial potential
	I?	nodal points	infrastructure	spatial potential
1.2.2.	I	broadband access of households to Internet	infrastructure	spatial potential
13.1.	T	regions exposed to risks	hazards	spatial potential
1.3.2.	M	natural heritage	natural resources	spatial potential
2.1.3.	T	declining industrial areas	economic structure	social potential

This table shows just a few different analysis tools, it tells between instruments, maps and typologies etc.

It is obvious, that a number of projects are working with typologies.

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ESPON 3.1: Cartography (I)

- ESPON Maps are based on a common map layer, which is used as a default, developed and provided by ESPON project 3.1.
- All projects are obliged to match this default.
- But despite of this obligation, the TPGs are free to work with different technologies: map based GIS, stationary GIS tools etc.
- And all Projects can decide to use this default only for parts of the EU 27+ perspective, e.g. in case of case study work.

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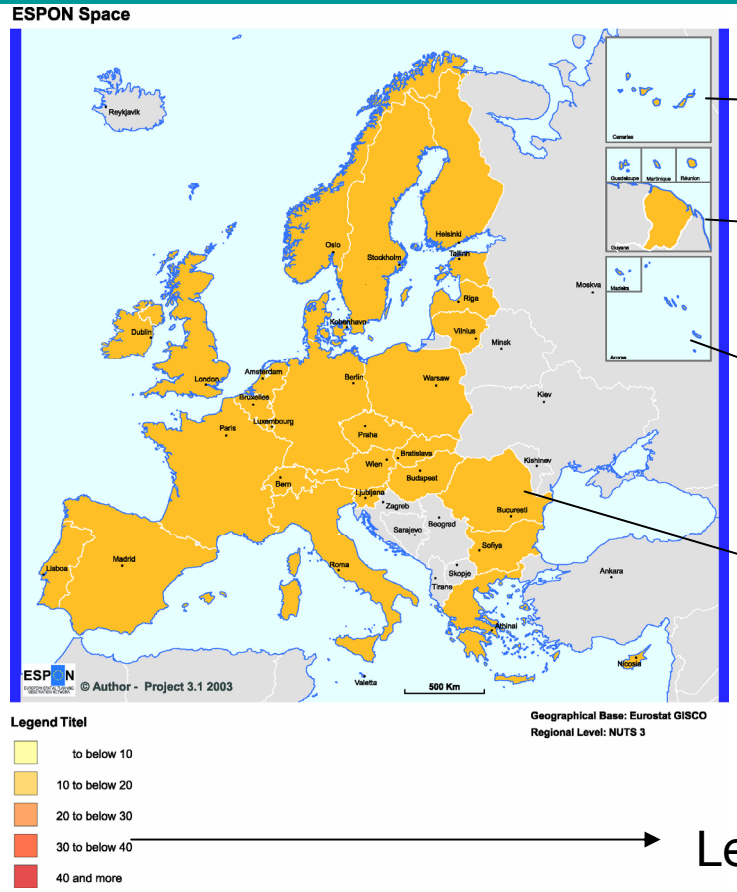
ESPON 3.1: Cartography (II)



Canaries

Guyana, Guadeloupe, Martinique, Reunion,

Acores, Madeira

EU 27+ main space on NUTS 3-level

Legend default

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ESPON 3.1: Policy Recommendations (I)

- ESPON has two main goals:
  1. to produce scientific knowledge about the complex spatial reality of the EU 27+ perspective,
  2. to make use of these insights in the sense of giving political relevant guidance.
- Political relevant means:
  to bridge the gap between exact, but yet too over complex scientific explanations on the one hand and too simplified and therefore maybe even wrong advice.
- One of the methods used for this bridging process are the SWOT analyses combined with a regional classification.

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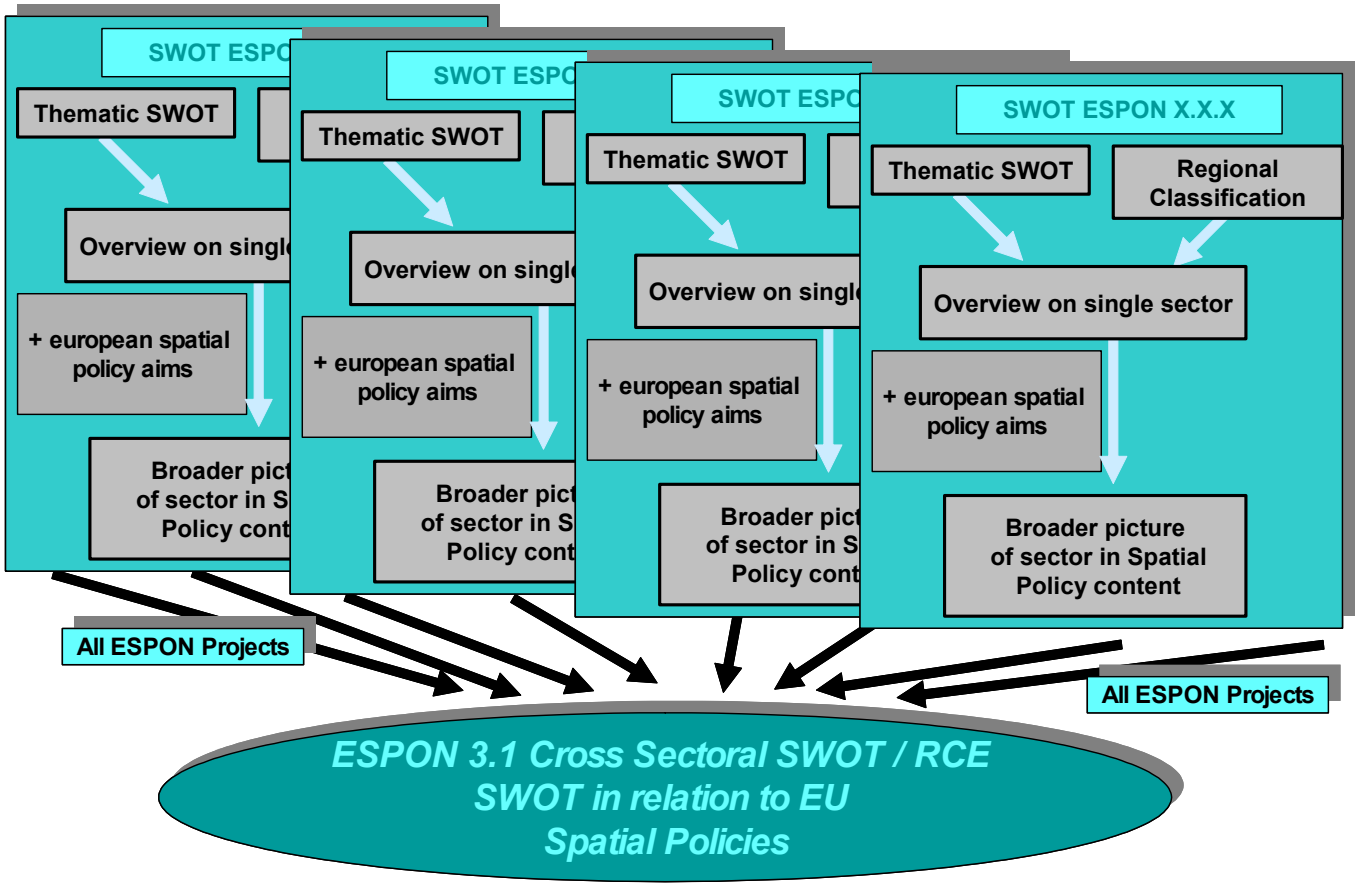
ESPON 3.1: Policy Recommendations (II)



The sketch shows the way from single TPG SWOTs to an ESPON all-over META SWOT.

Policy recommendations will be created by analysing all the cross sectoral findings.

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ESPON 1.1.1: Polycentrism

- Polycentrism was described as a major spatial goal in the ESDP.
- Project 1.1.1 is working mainly on polycentrism.
  - First achievement is a list of cities, that can be called major or capital cities. It marks the highest category within the concept.
  - The next step of the work of project 1.1.1 will be, to identify physical, technological and virtual relations between those cities. By doing so, clusters may occur, they are probably the first glance of Functional Urban Areas.
- Polycentrism is understood as a spatial organisation of cities characterised by:
  - functional division of labour,
  - economic and institutional integration, and
  - political co-operation.

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ESPON 1.1.1: Functional Urban Areas (I)

- Functional Urban Areas (FUAs) are commuting catchment areas or relevant counterparts, e.g. Greater London Area or the Ruhr Valley.
- But their concrete dimensions, their specific characteristics and their impacts are still not very well analysed.
- Even more, there spatial role within the EU is not yet clear, e.g. it is not clear if they cope with the concept of polycentrism or if they hamper it.
- It is clear, that the power of these FUAs can not be ignored, so a vital, fast and soundly analysis is needed.
- FUAs are building blocks in the analysis of ESPON 1.1.1 for potential polycentric urban regions

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ESPON 1.1.1: Functional Urban Areas (II)

- International level - FUA
  - population (urban region) 5% or more of national population
  - capital functions (administrative)
  - “own” international airport (urban region not smaller than 500 000 inhabitants + airport, more than 1 000 000 passengers 2001)
- National / transnational FUA
  - population (urban region) more than 200 000 inhabitants / core city population more
  - than 2% of national value (no less than 100 000 inhabitants)
  - specific national function (according to experts)
- Regional FUA
  - population 50 000 to 200 000
  - specific regional function (according to experts)

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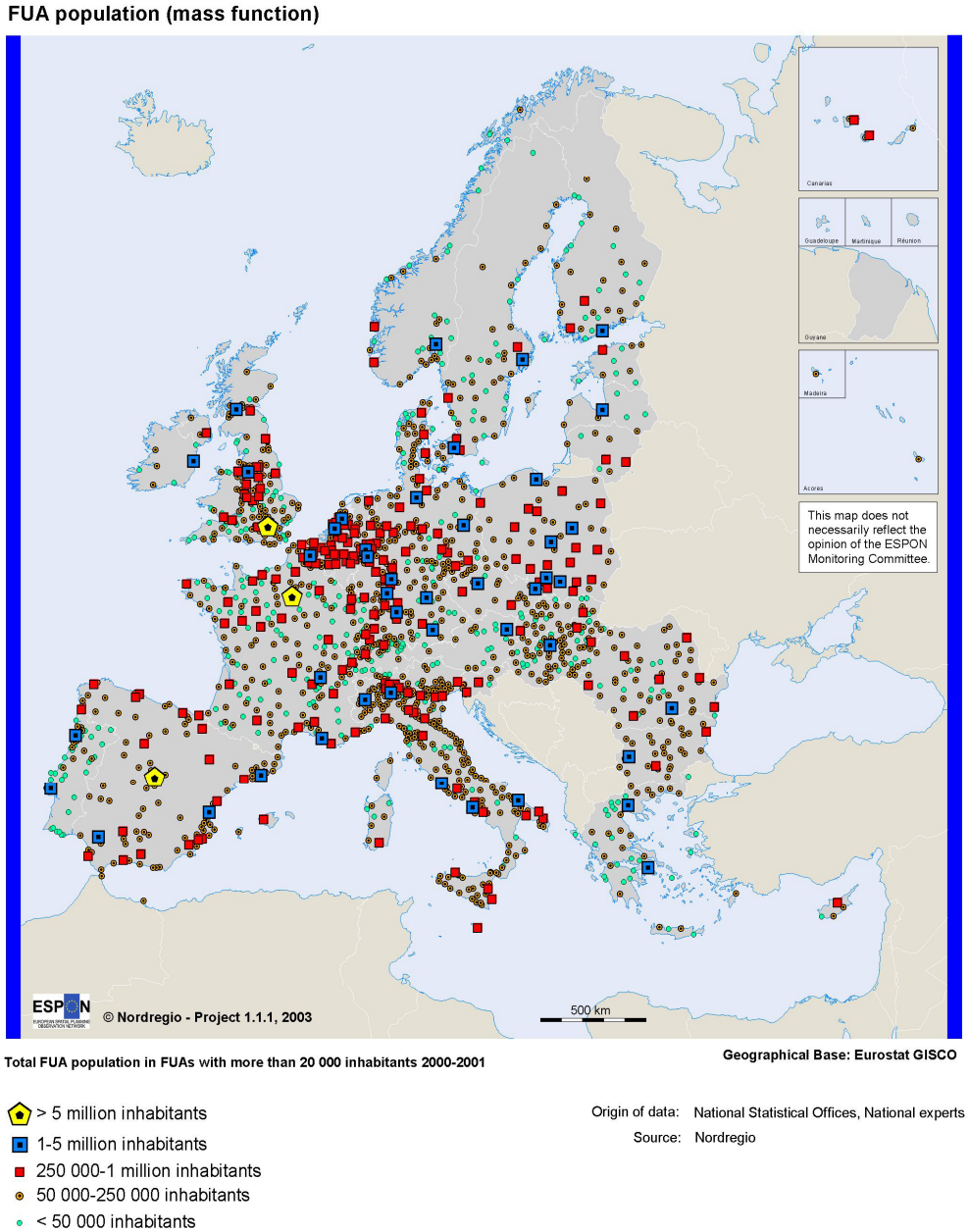
ESPON 1.1.1: Functional urban areas (III)

FUA population

- 1,595 FUAs in EU 27+2
- *Two* bananas: From England
  - to Italy
  - to Hungary
- Next step:
  - Trends



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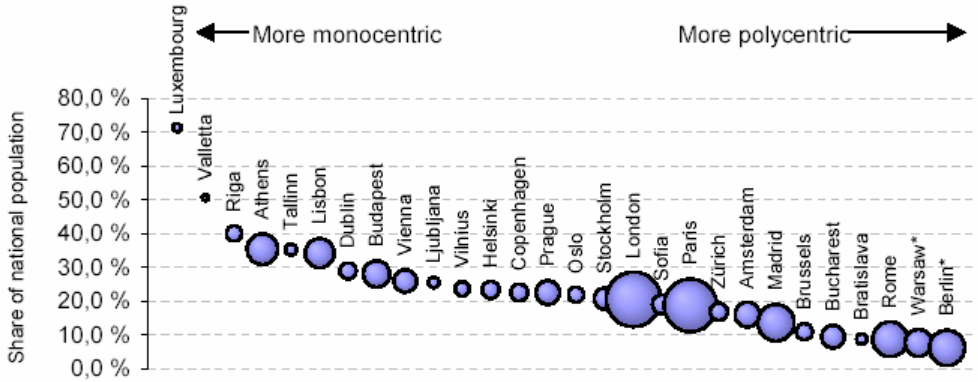
ESPON 1.1.1: Functional Urban Areas (IV)

	Feature / Functions	Measured variable
F1	Population	Population
F2	Industrial functions	Gross value added (sectors C-F)
F3	Tourism functions	Overnight stays in hotels (and similar)
F4	Transport functions	Airport (passengers), ports (container traffic)
F5	Knowledge functions	Location of University, number of students
F6	Decision-making centre	Location of TOP 500 companies
F7	Administrative functions	Administrative status of FUA (three different levels: 1) national capital; 2) province/regional capital; 3) no specific administrative status



Ball size is represents the population of capital urban agglomeration
London 12.2 mill. Amsterdam 2,6 mill. Tallinn 0,5 mill.
(*= not the largest urban agglomeration in the country)

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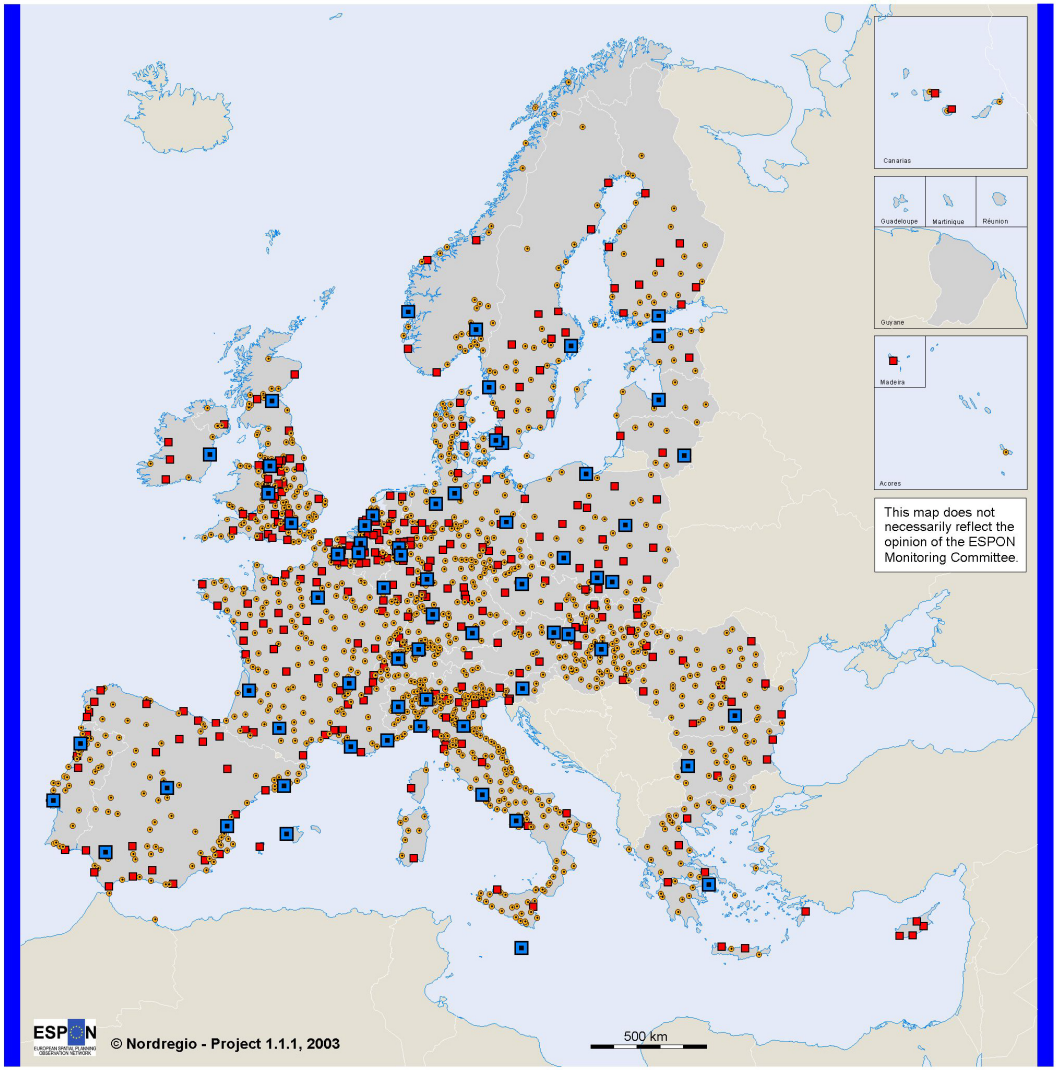
ESPON 1.1.1: Typology of FUAs (I)

- Three types, based on the seven indicators
  - 64 MEGAs
  - Clusters of MEGAs:
    - England, Be-Ne-Lux, Germany
    - Italy, France, Switzerland
    - Czech Rep, Poland, Hungary
  - Solitary MEGAs
  - Tissues of FUAs

Typology of Functional Urban Areas (FUAs)



Geographical Base: Eurostat GISCO

- Metropolitan European Growth Areas (MEGAs)
- Transnational / national FUAs
- Regional / local FUAs

Origin of data: EUROSTAT, National Statistical Offices, National experts

Source: Nordregio

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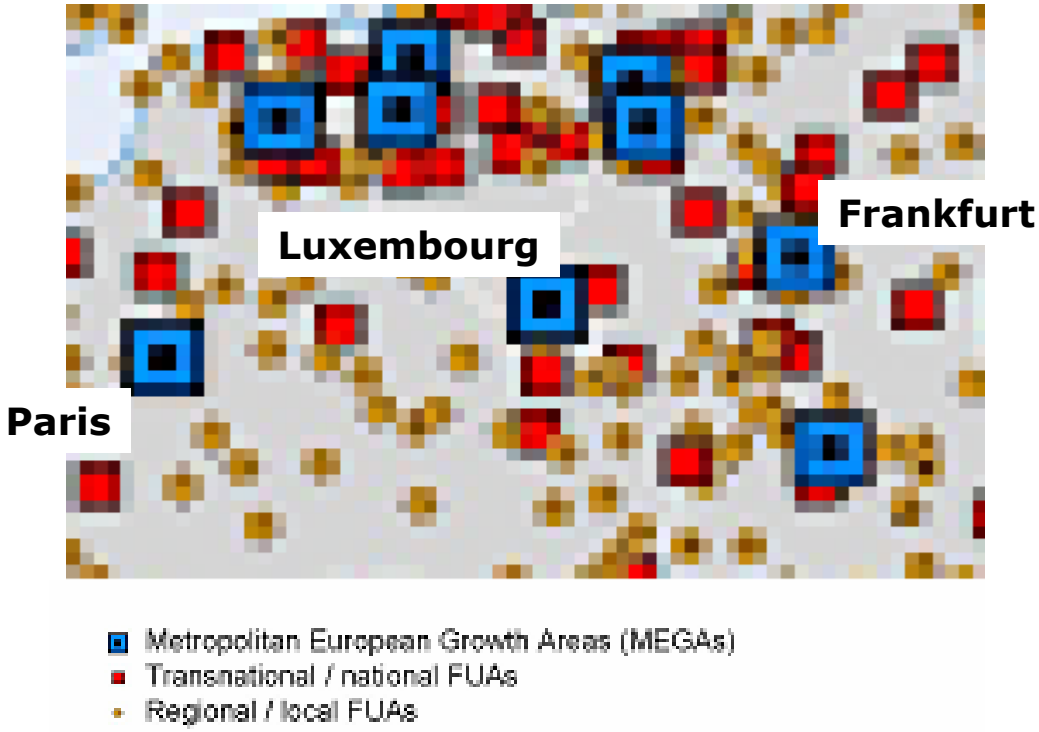
ESPON 1.1.1: Typology of FUAs (II)

- Focus Luxembourg
  - Typology of Functional Urban Areas
  - TPG 1.1.1



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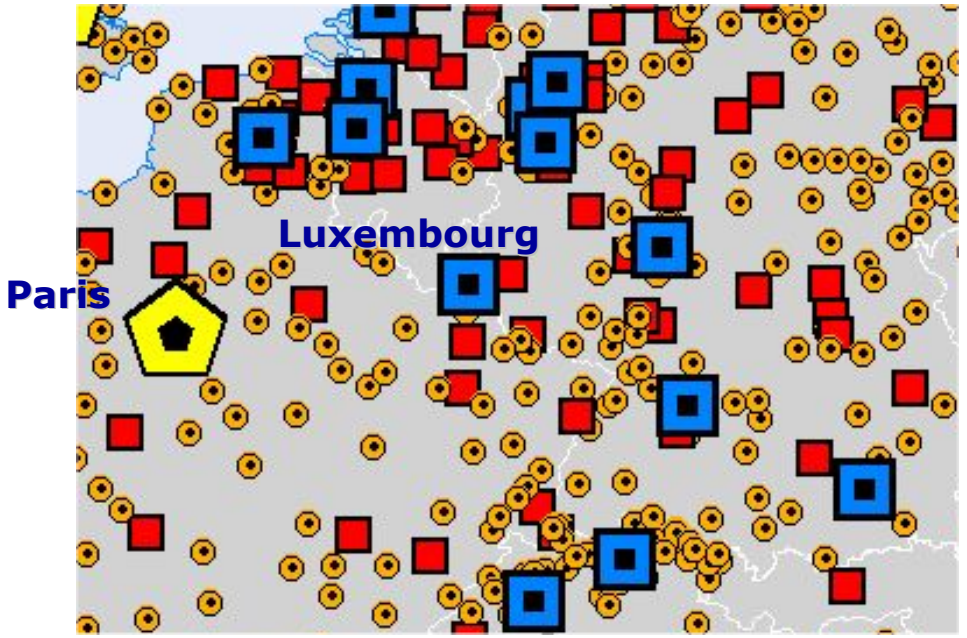
ESPON 1.1.1: Typology of FUAs (II)

FOCUS Luxembourg

Draft typology of FUAs

TPG 1.1.1



Typology of Funtional Urban Areas (FUA's)

- Global
- European
- Transnational and national
- Regional and local

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ESPON 1.1.1: Policy options

- Regional potentials
  - Infrastructure investments: NB: hard and soft measures
  - Strategic planning and co-operation
  - EU: Turn funding from nodes to links / new obj 2 measures for PcR / SWOT based programs / Guidelines on PcR
- More balanced national urban systems
  - Division of labour between national nodes
  - Second tier of cities in mono-centric and acceding countries!
  - EU: funding the 2nd tier / encourage national planning in EU-context
- EU competitiveness and territorial cohesion
  - Identify and strengthen potential new global integration zones - NB: dense urban systems in acceding countries!
  - EU: TENs, EU institutions, funding for PcR: e.g. obj.2 measures for PcR beyond decay and reconstruction / Interreg on joint urban strategies.

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ESPON 1.1.2: Urban-rural relations (I)

- From a spatial perspective, the opposite of the FUA- and polycentrism- debate can be seen in the rural areas.
- Like the existence of the FUAs, it is as obvious that large quantities of the EU can of course be called rural.
- But the differences are even more complicated, in very dispers countries, such as the scandinavic countries, rural means something completely different than it does for e.g. in the Netherlands.
- And the term rural can not longer be defined as agricultural dominated.
- So the consequence is the same as it is for FUAs: more and better insight is needed desperately.

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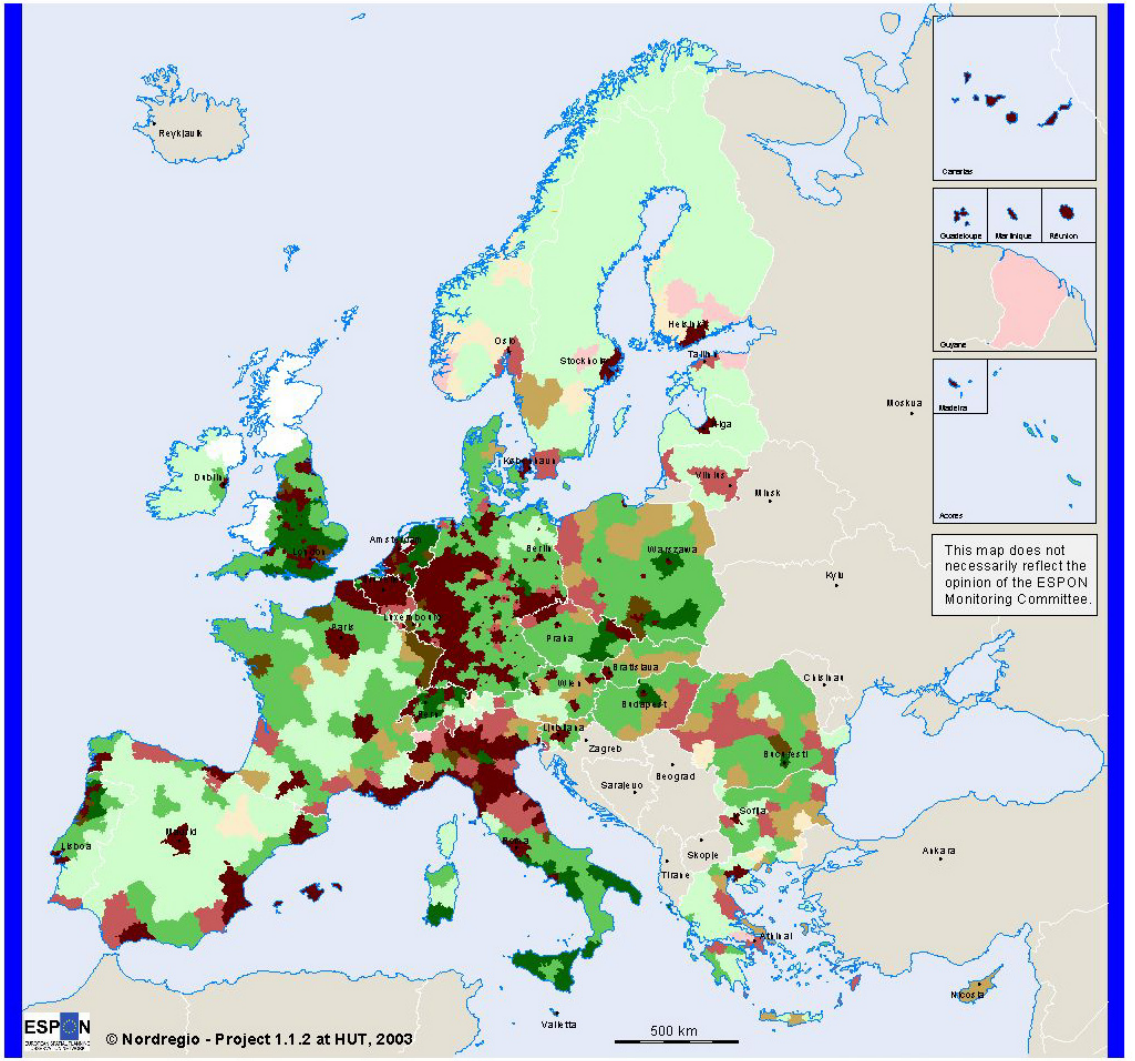
ESPON 1.1.2: Urban-rural relations (II)

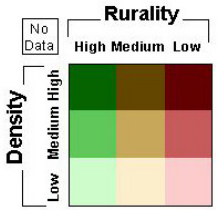
Urban-rural population by national classifications

TPG 1.1.2

Urban - rural population in Europe based on national classifications



Geographical Base: Eurostat GISCO
Origin of data: National Statistical Offices
Source: Nordregio



NUTS 3 regions:

Predominantly urban	Intermediate	Predominantly rural
Densely populated	Densely populated	Densely populated
Medium density	Medium density	Medium density
Sparsely populated	Sparsely populated	Sparsely populated

Rurality:
Share of rural population, index country average = 100
High: > 110, medium: 90 - 110, low: < 90

Density:
Population density (inhabitants/km²)
High: > 150, medium: 50 - 150, low: < 50

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ESPON 1.1.2: Typology work (I)

- Grasping the European urban and rural
  - via national, divers classification systems
    - collecting of definitions used by the NSIs or equivalent
    - indicing the share of rural population with the country average
    - relating the different ruralities with each other via the total population density
  - European, harmonised classification systems
    - physical environment, human intervention: building – agriculture – “non-affected” land
    - population density
    - urban system

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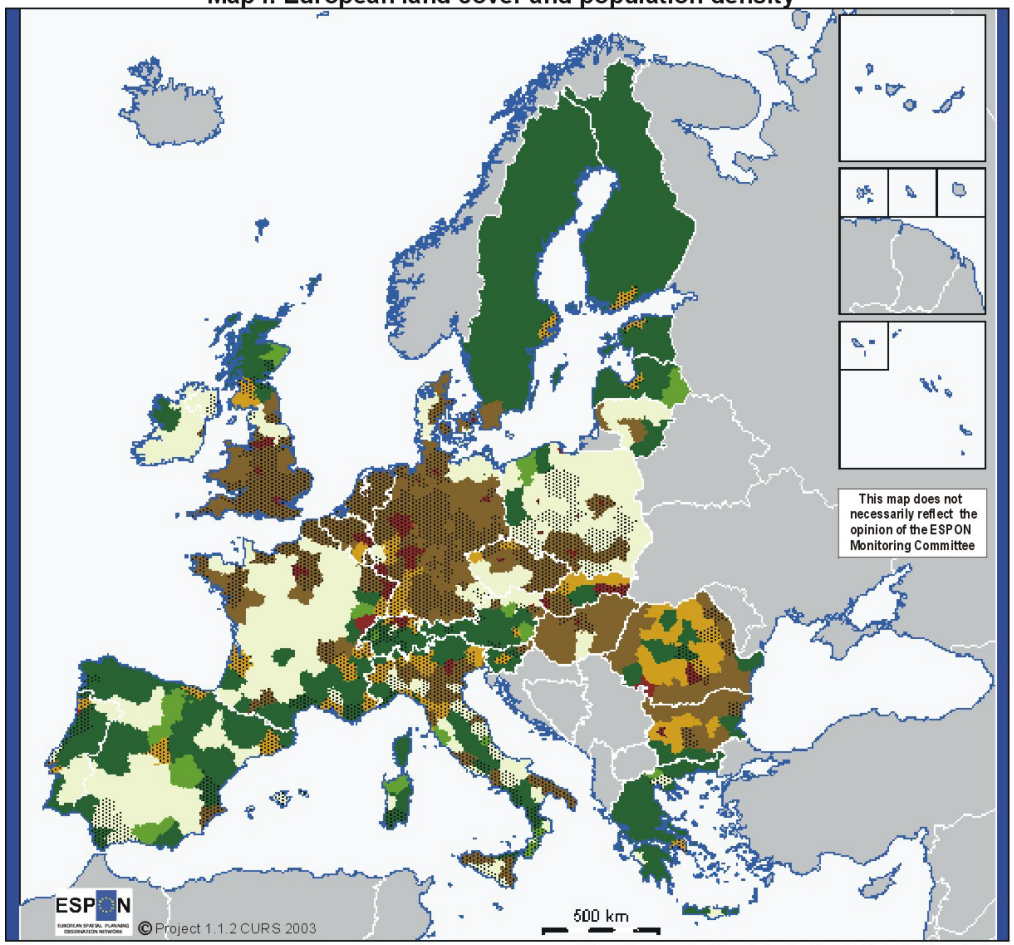
ESPON 1.1.2: Typology work (II)

Land use categories and population density

Map I: European land cover and population density



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Origin of data: EU15 and CC's: Eurostat
Norway, Sweden and Switzerland: National Statistical Offices

Source: ESPON Data Base

Shares of land use types and population density in relation to EU average

- Only the share of artificial surface above average
- Share of artificial surface and agricultural land above average
- Share of artificial surface and "wilderness" above average
- Only the share of agricultural land above average
- Share of agricultural land and "wilderness" above average
- Only the share of "wilderness" above average
- Population density above or equal to average

Average values in Europe (Sweden not included) are:
Share of artificial surface: 3,74%
Share of agricultural land: 52,48%
Share of "wilderness" : 43,78%
Population density: 107 inhabitants/km2

Note:The data from Sweden is not organised according to the Corine Land Cover categories. The corresponding category for agricultural land in CLC is a combination of strongly and less artificial vegetated areas. Sweden is not included in the calculations of average shares of different land use types because of this disparity in classification.

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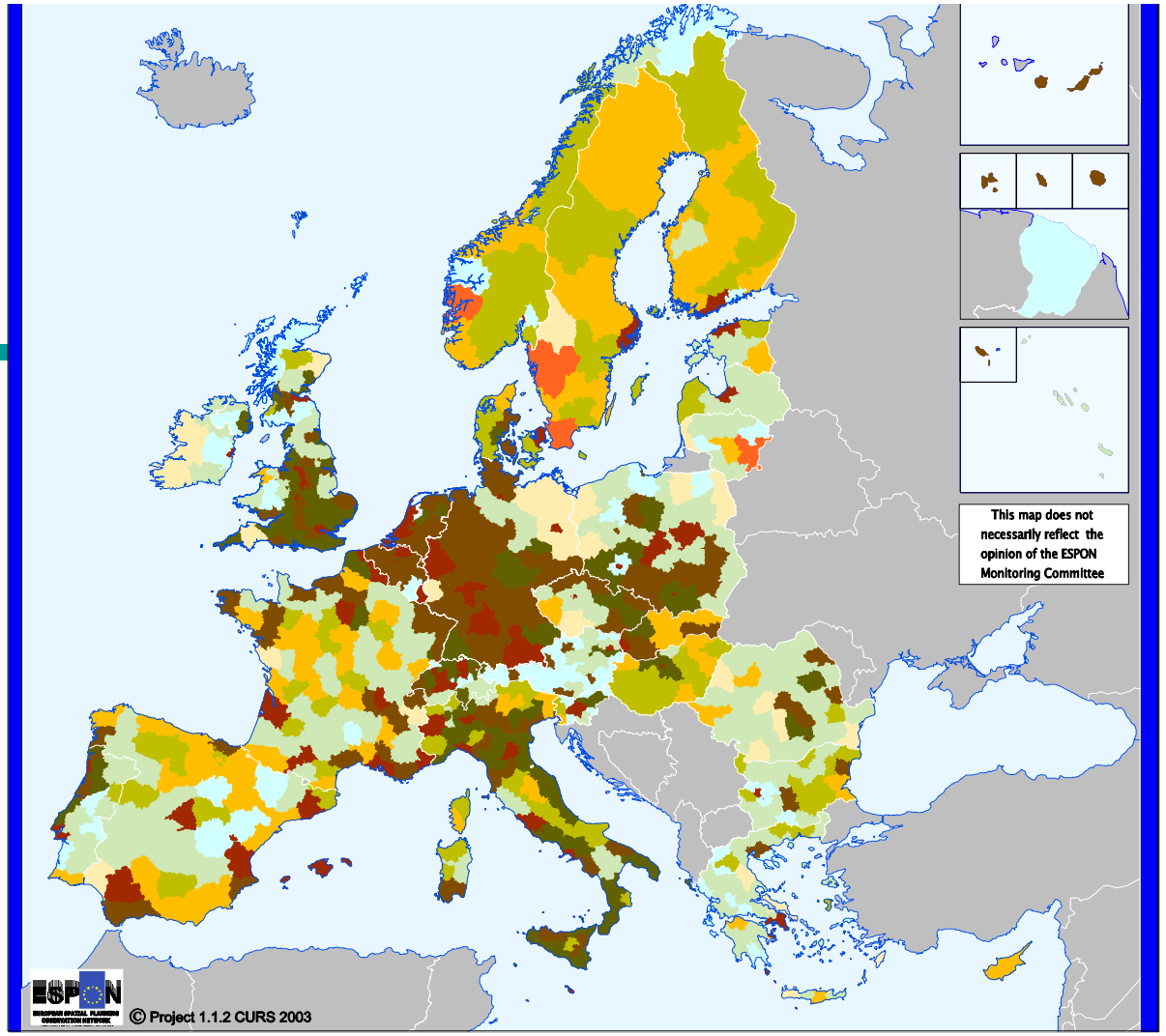
ESPON 1.1.2: Typology work (III)

FUA ranking and degree of urban integration



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Origin of data: EU15 and CC's: Eurostat
Norways and Switzerland: National Statistical Offices

Source: ESPON Data Base

- FUA 4, population density above average
- FUA 4, share of population living in FUAs above average
- FUA 3, population density above average
- FUA 3, share of population living in FUAs above average
- FUA 3, population density and share of population living in FUAs below or equal to average
- FUA 2, population density above average
- FUA 2, share of population living in FUAs above average
- FUA 2, population density and share of population living in FUAs below or equal to average
- No FUAs, population density and share of people livin in FUAs below or equal to average

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ESPON 1.1.2: Urban-rural typology (I)

- High share of artificial surface only
  1. Urban, densely populated and high urban integration
- High share of artificial surface and agriculture or “wilderness”
  2. Urban-rural, densely populated and high urban integration
  3. Urban-rural, not densely populated but high urban integration
  4. Urban-peripheral, not densely populated and low urban integration
- High share of agriculture only or agriculture and “wilderness”
  5. Rural-urban, densely populated and high urban integration
  6. Rural-urban, not densely populated but high urban integration
  7. Rural-peripheral, not densely populated and low urban integration
- High share of “wilderness” only
  8. Peripheral-urban, densely populated and high urban integration
  9. Peripheral-rural, not densely populated but high urban integration
  10. Peripheral, not densely populated and low urban integration

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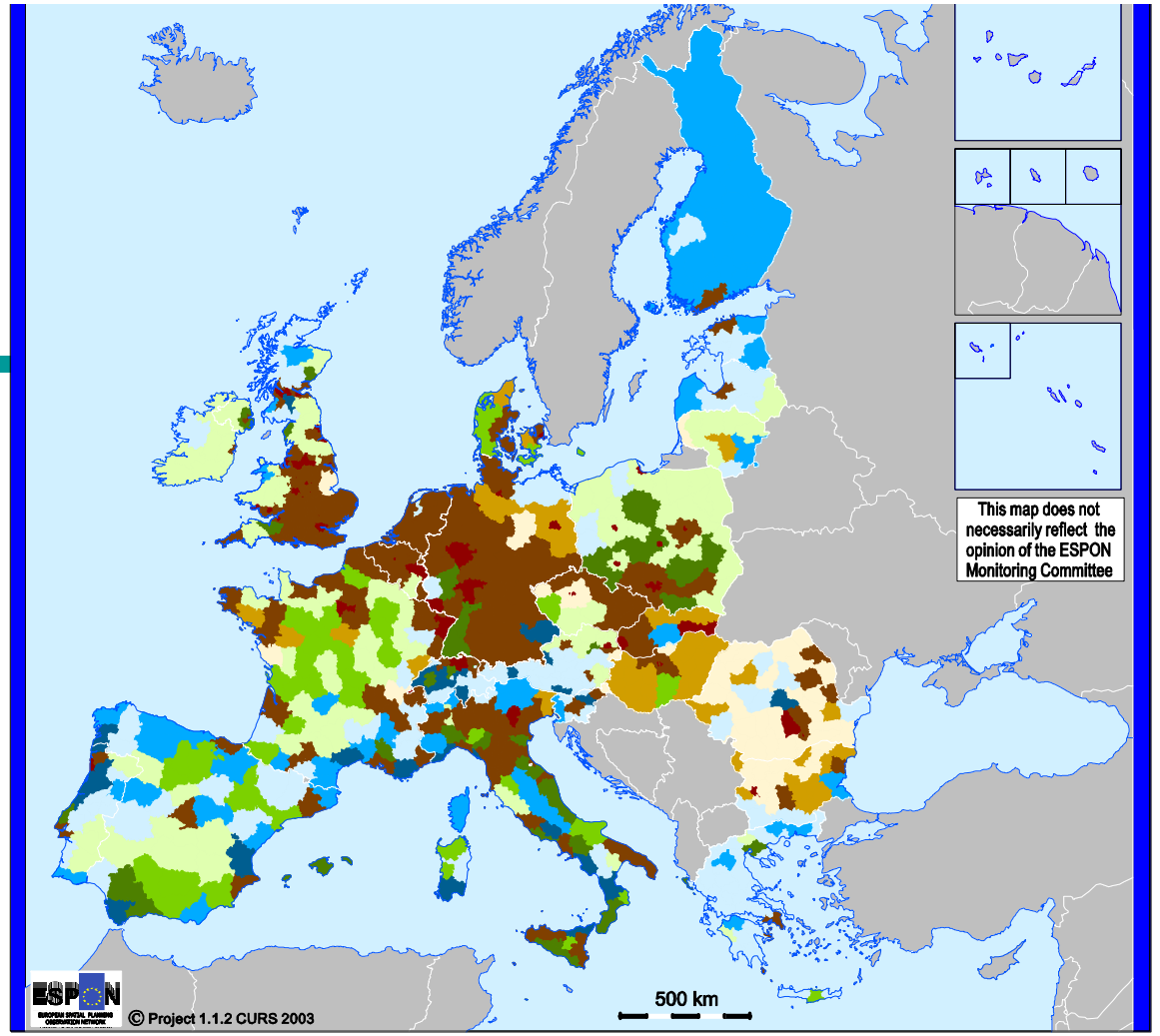
ESPON 1.1.2: Urban-rural typology (II)

- 10 categories
  - land use
  - population density
  - FUA population



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Typology of land use, population density and FUA population

1. Urban, densely populated and high urban integration
2. Urban-rural, densely populated and high urban integration
3. Urban-rural, not densely populated but high urban integration
4. Urban-peripheral, not densely populated and low urban integration
5. Rural-urban, densely populated and high urban integration
6. Rural-urban, not densely populated but high urban integration
7. Rural-peripheral, not densely populated and low urban integration
8. Peripheral-urban, densely populated and high urban integration
9. Peripheral-rural, not densely populated but high urban integration
10. Peripheral, not densely populated and low urban integration

Origin of data: EU15 and CC's: Eurostat
Norways and Switzerland: National Statistical Offices

Source: ESPON Data Base

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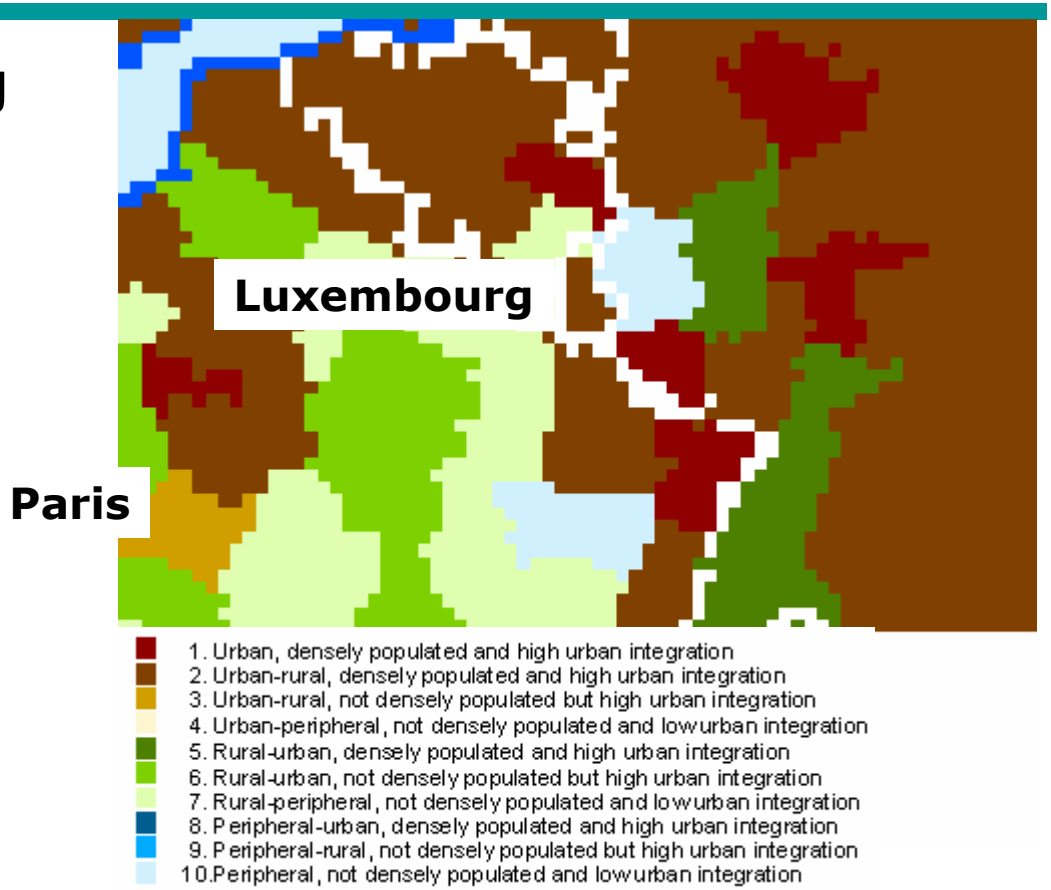
ESPON 1.1.2: Urban-rural typology (III)

- Focus Luxembourg
  - land use
  - population density
  - FUA population



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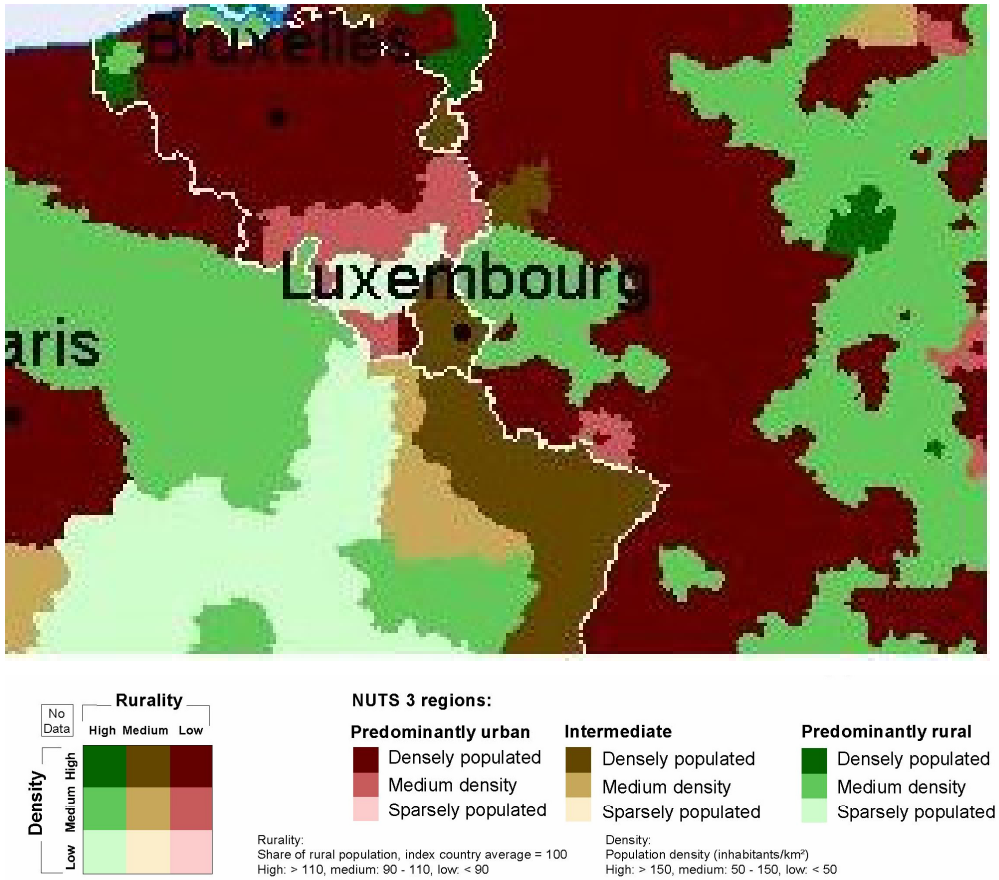
ESPON 1.1.2: Urban-rural typology (III)

Focus Luxembourg

Proposed first urban-rural typology by TPG 1.1.2



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ESPON 1.1.2: Policy implications

- some key ESDP objectives correspond to tendencies that are already in full swing;
  - the ”over-representation” of medium-sized cities vs. policy option 14 and 20
  - enlarging commuter catchment areas vs. policy options 22 and 23
- important exceptions to this rule from several corners of Europe must be noted
- what is not supported, are the policy options related to qualitative aspects of environment (53, 54, 56)

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ESPON 1.1.2: Policy recommendations

- evaluation of EU-policies that impact urban-rural relations: any sensitivity in sight?
- national policies addressing u-r? => growing recognition of interdependencies, although promotion often a subsidiary aim
- regional/local initiatives: some good practise examples identified

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ESPON Conclusions for the day

- The ESPON programme is working on a vast number of highly interesting and demanding spatial problems.
- ESPON can be seen as a pioneer on the field of an all-over EU spatial planning.
- The first experiences show, that is is very challenging and sometimes even full of suspense to work in these transnational project groups, since it is obvious that different understandings, different backgrounds and cultures have to find a way for the spatial problems.
- All interested researchers are invited to discuss the (interim) results

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Christian Muschwitz

Thank you for your attention....