Centre for European Regional and Local Studies

University of Warsaw

Morphological-Functionally: Measuring Metropolitan Macroregions

Project ESPON FOCI
Cities and urban agglomerations:

WP3: Cities and their hinterland

Luxembourg, ESPON Workshop: Approaching Functional Areas, 5th November 2009

Plan of presentation

1. Metropolisation as a territorial outcome of globalisation and informational economy

2. Regional dimension of metropolisation processes

3. Metropolitan macroregions as a tool for analysis

4. Intraregional differences within metropolitan macroregions

5. General conclusions

Stylized facts (1.1)

1) Shift from industrial to informational (knowledge based) economy.

2) Segmentation of global economy:

- **high** segment: comparative advantage based on ability to create and adapt innovations. Concentrated in **metropolises**;
- **low** segment: comparative advantage based on price. Located in **non-metropolitan areas.**

Stylized facts (1.2)

3) Evolution of spatial linkages in informational economy

- development of non-regional linkages,

- development of ties within network of metropolises.

4) Main drivers of metropolises network development are**:**

- advanced producer services sector,

- multinational companies,

- knowledge based industries,

- IT technology,

- creative class.

Stylized facts (1.3)

5) **Shift** from territorial to network organisation of space

Tab.3. Selected differences between territorial and network organisation of space

Territorial organisation	Network organisation
Centre, periphery	Nodes, tendency to decentralise mutual linkages
Size-dependent	No dependency on size
Boundaries	Connections
Coherence, continuity	Dispersion, separation
One- directional flows	Two-directional flows
Closedness, outward impermeability	Territorial openness
Constancy, inelasticity	Short-lividness, flexibility
Proximity, location ties – transport costs	Insensitivity to distance, omnipresence – costs of information
Territorial hierarchy, vertical links, dominance of size	Horizontal links, cooperation and competition

Source: based on: B. Jałowiecki (1999).

Stylized facts (1.4)

6) **Coexistence** of different spaces depends on the externalities level

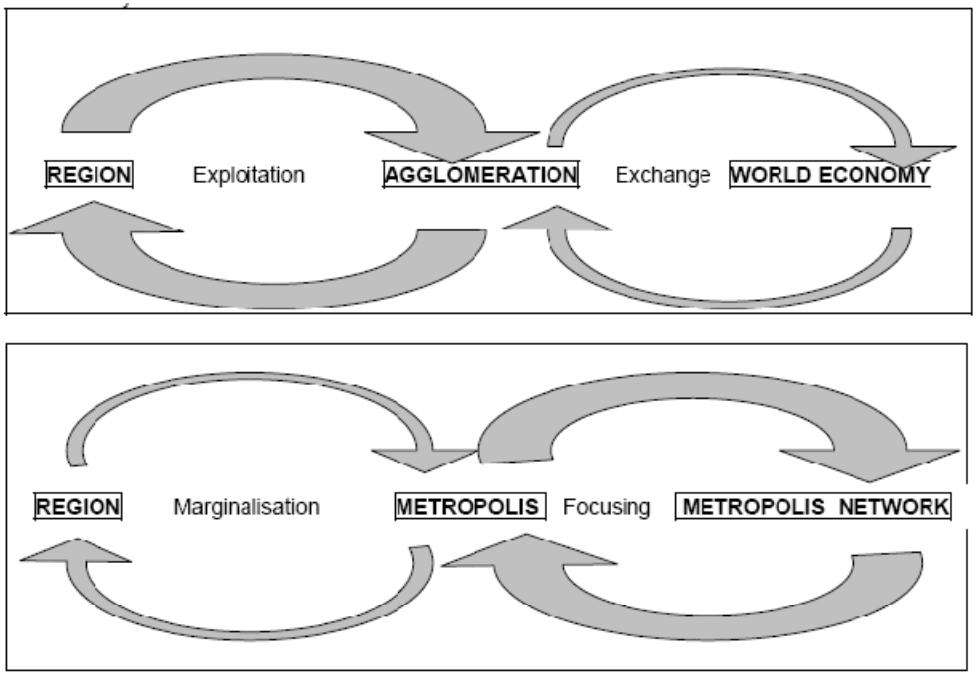
Tab.4. Distribution of business activity depending on: a) spatially dependent transactions, cost-related, and b) externalities

Spatially dependent transaction costs Externalities	Uniformly low	Heterogeneous	Uniformly high
Low	1. Spatial entropy	2. Random dispersal combined with emerging Loscherian-Weberian landscapes	3. Loscherian-Weberian landscapes
High	4. Small interconnected clusters	5. Super-clusters	6. Small disconnected clusters

Source: Scott (1998 p. 87).

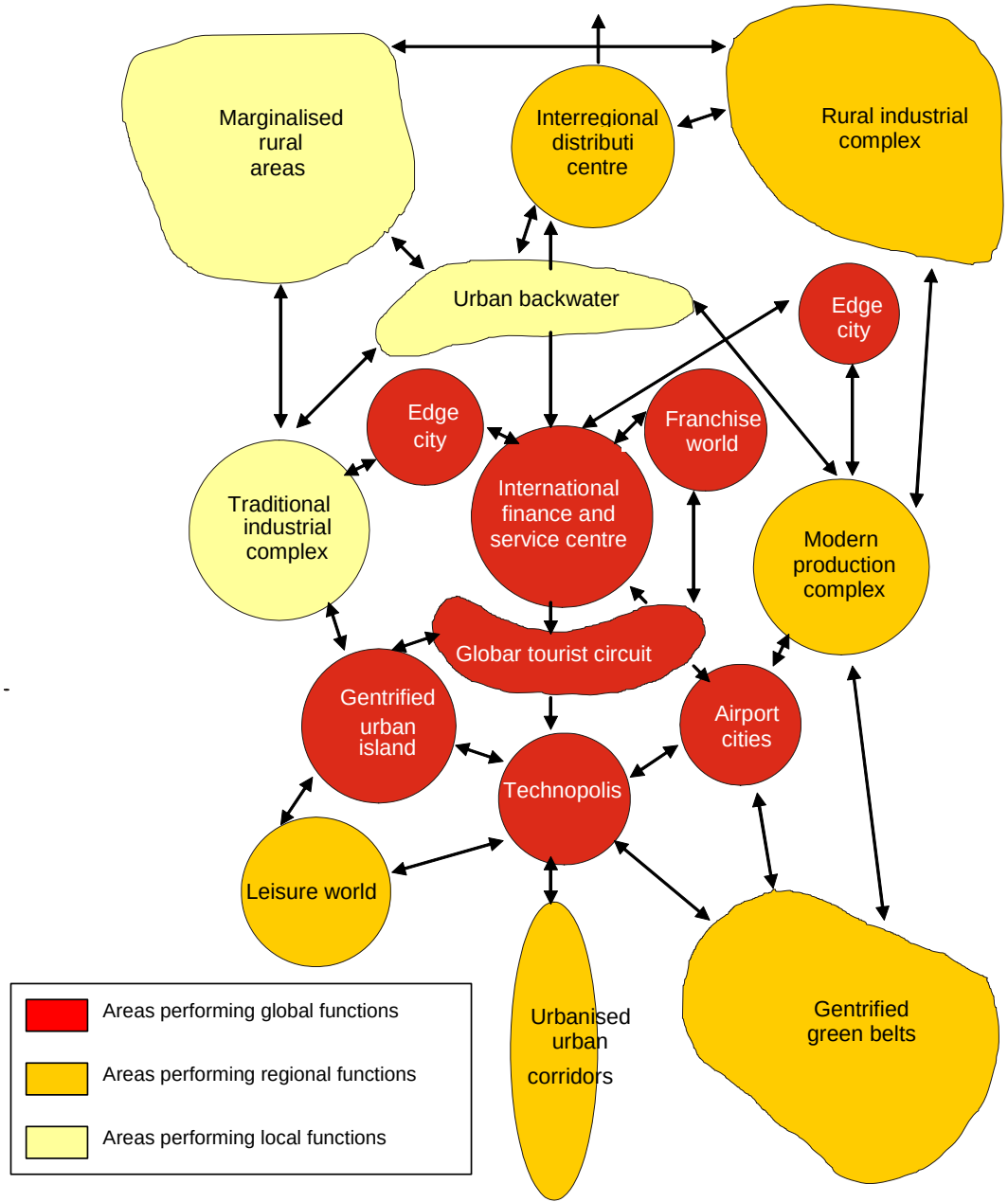
Research hypothesis (2.1)

We may observe metropolisation processes reflected in diminishing the dependence of metropolises on their regional hinterlands, replaced by their contacts within a multi-centre city network.



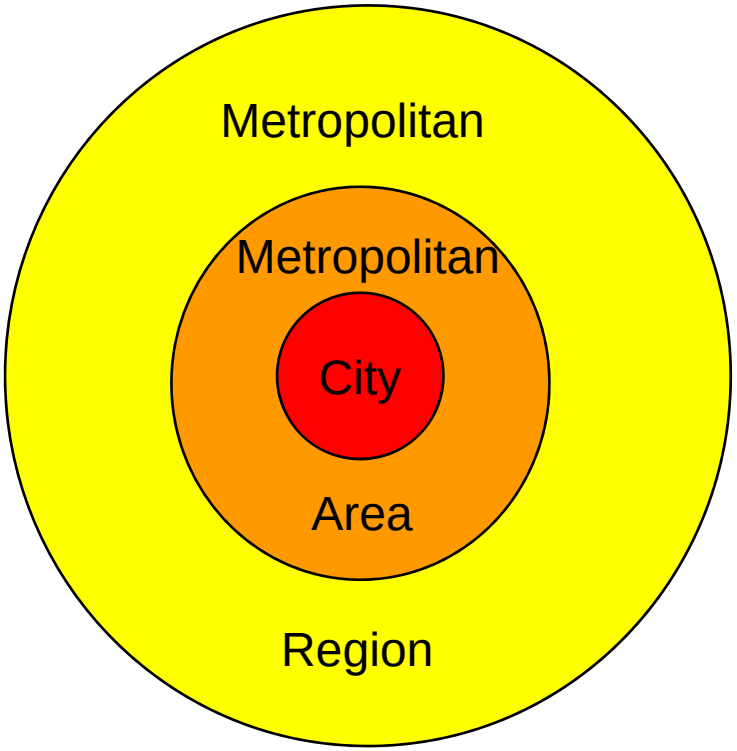
As a result the links between the metropolis and the region have become relatively weaker and the role of the hinterland which offers mainly **simple resources** has been limited at the expense of strengthening ties within the network of large cities in the form of flows of **processed resources, capital and information**.

World city region (2.1)



Source: K.R. Kunzmann (1998) (colours and legend own elaborated).

City-region relationships (2.2)



City: unit within administrative borders

Metropolitan area: zone of direct city impact
in which the relationships are strong and permanent
(functional urban area, internal hinterland zone)

Range: larger urban zone (Urban Audit)
approximated by NUTS3 regions.

Metropolitan region: zone in which the
relationships are weaker, but the area is under the
core city influence (macroregion,
external hinterland zone)

Range: combination of neighbouring NUTS3.

Hypothesis: *the difference in the level of development between metropolis (city with its metropolitan area) and its regional hinterland (macroregion) has been increasing as a result of metropolisation processes*

„Technical typology” of NUTS3 (3.1)

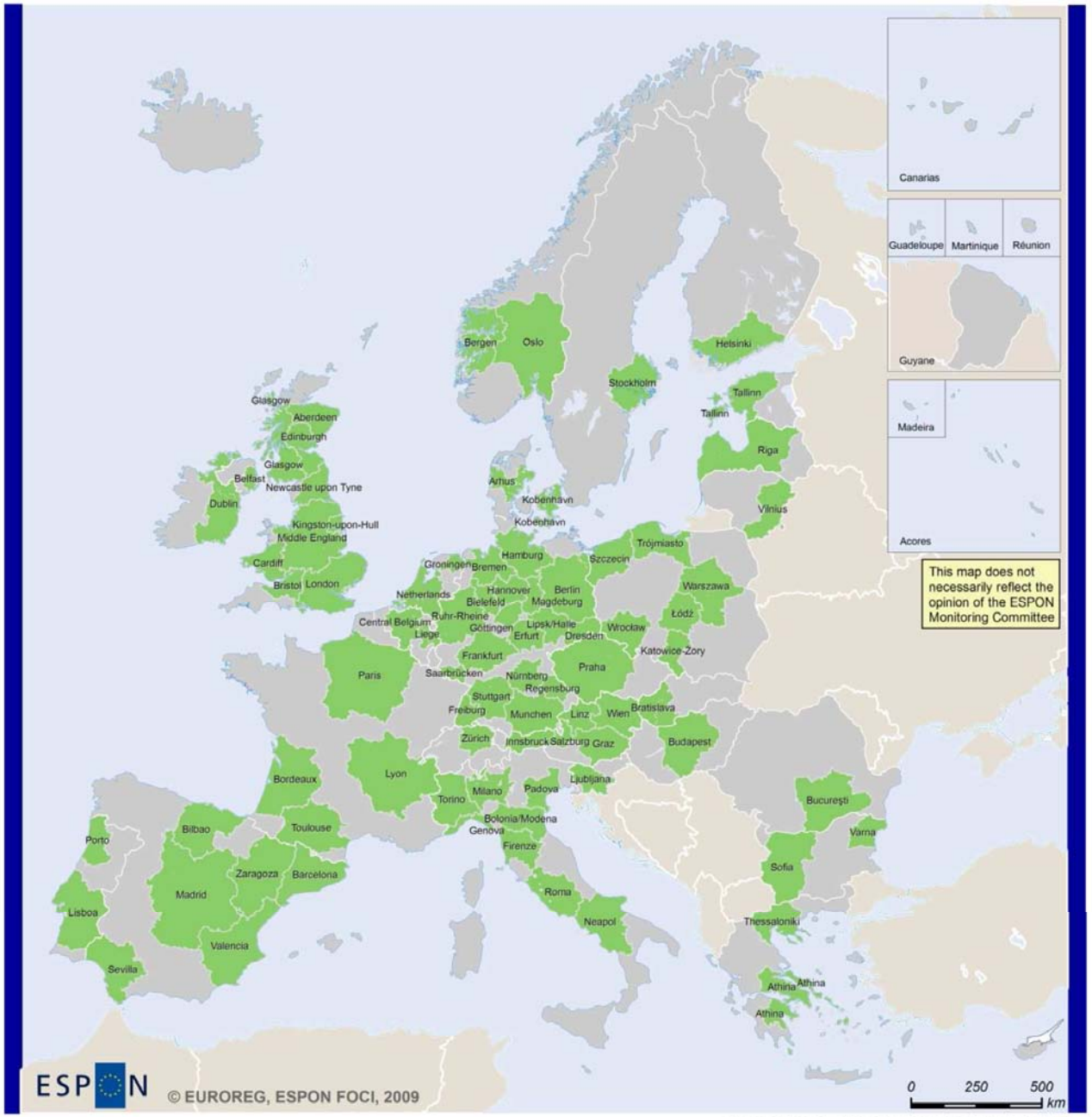
Characteristic of LUZ:

- Rule 1) Size of LUZ (250,000 inhabitants)
- Rule 2) Correspondence between LUZ and NUTS3 region (70% of the population threshold of NUTS3)
- Rule 3) Combination of metropolitan areas (distance: 60 km for larger and 30 km for smaller LUZs)

Characteristic of regional hinterlands:

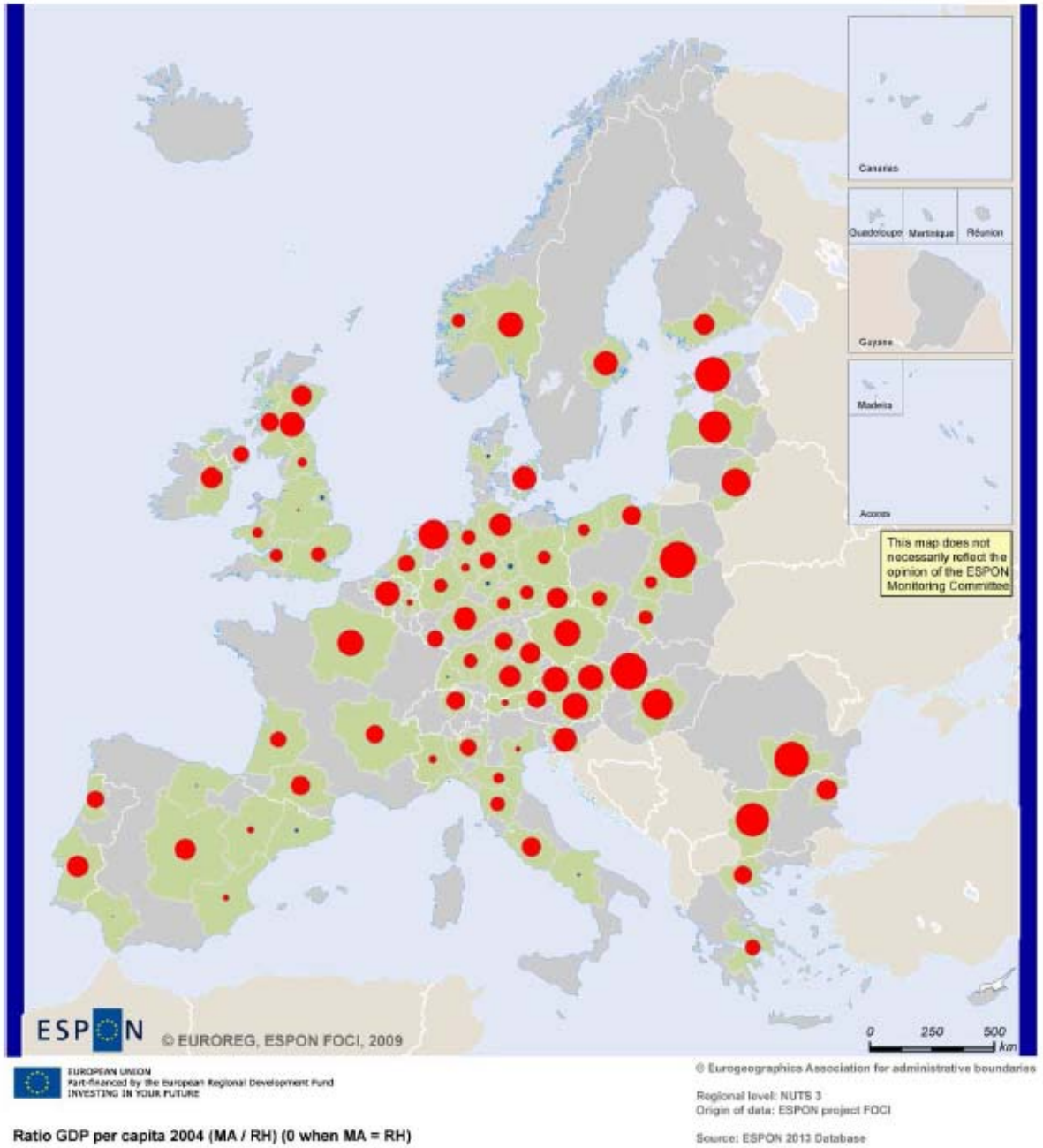
- Rule 4) Neighbouring regions (direct neighbours)
- Rule 5) Predominance of larger urban zones (ratio of population size is more that 3)
- Rule 6) Separate hinterlands (different rules reflecting: LUZ size, distance, upper-tier administrative division)

Metropolitan macroregions - sample (3.2)



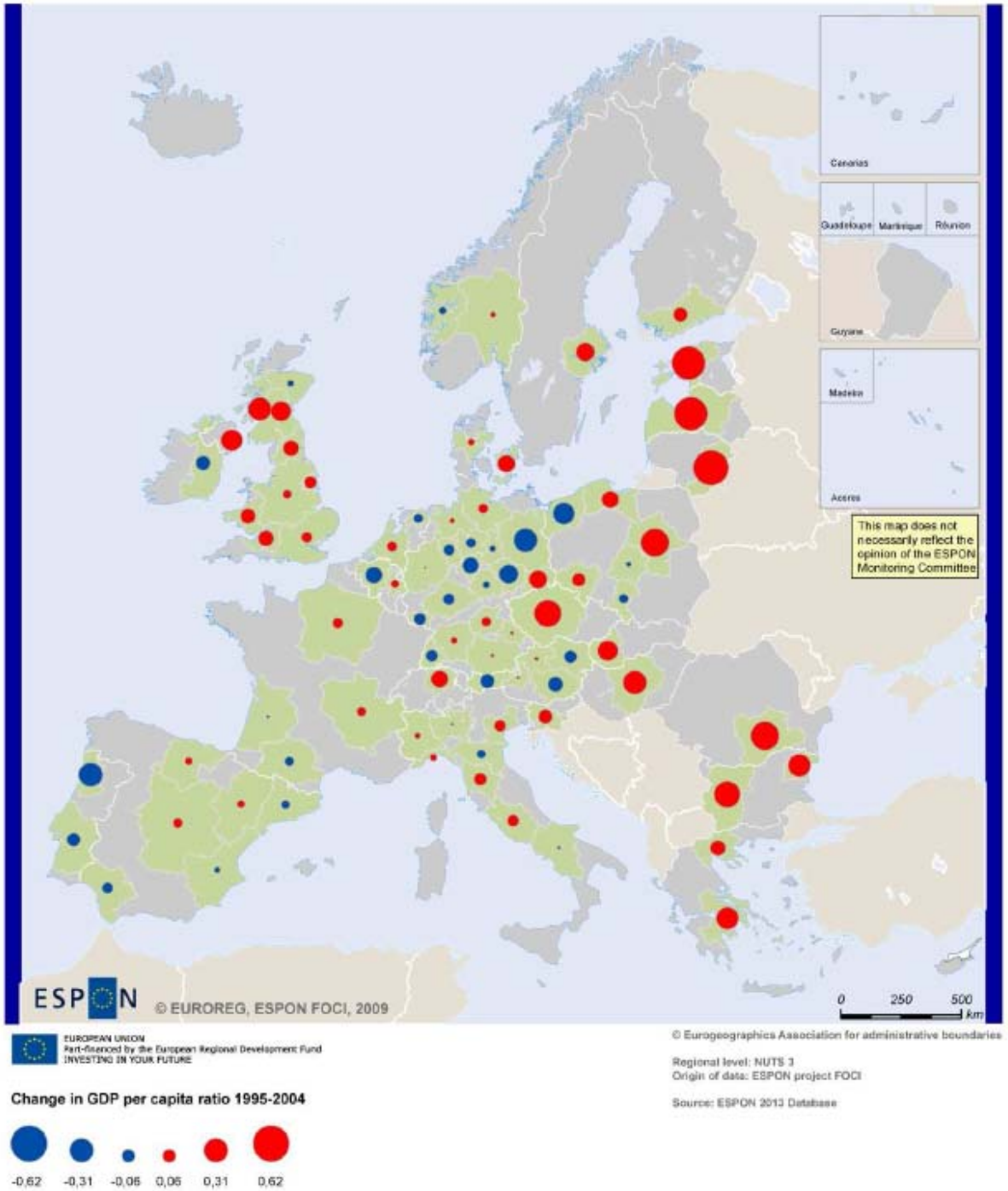
Characteristic of metropolitan macroregion:
- 25,000 sq km
- 4,1 mln inhabitants

of which metropolitan area constitutes:
- 22% of area,
- 53% of population,
- 63% of GDP



Intraregional income disparities 2004

(4.1)

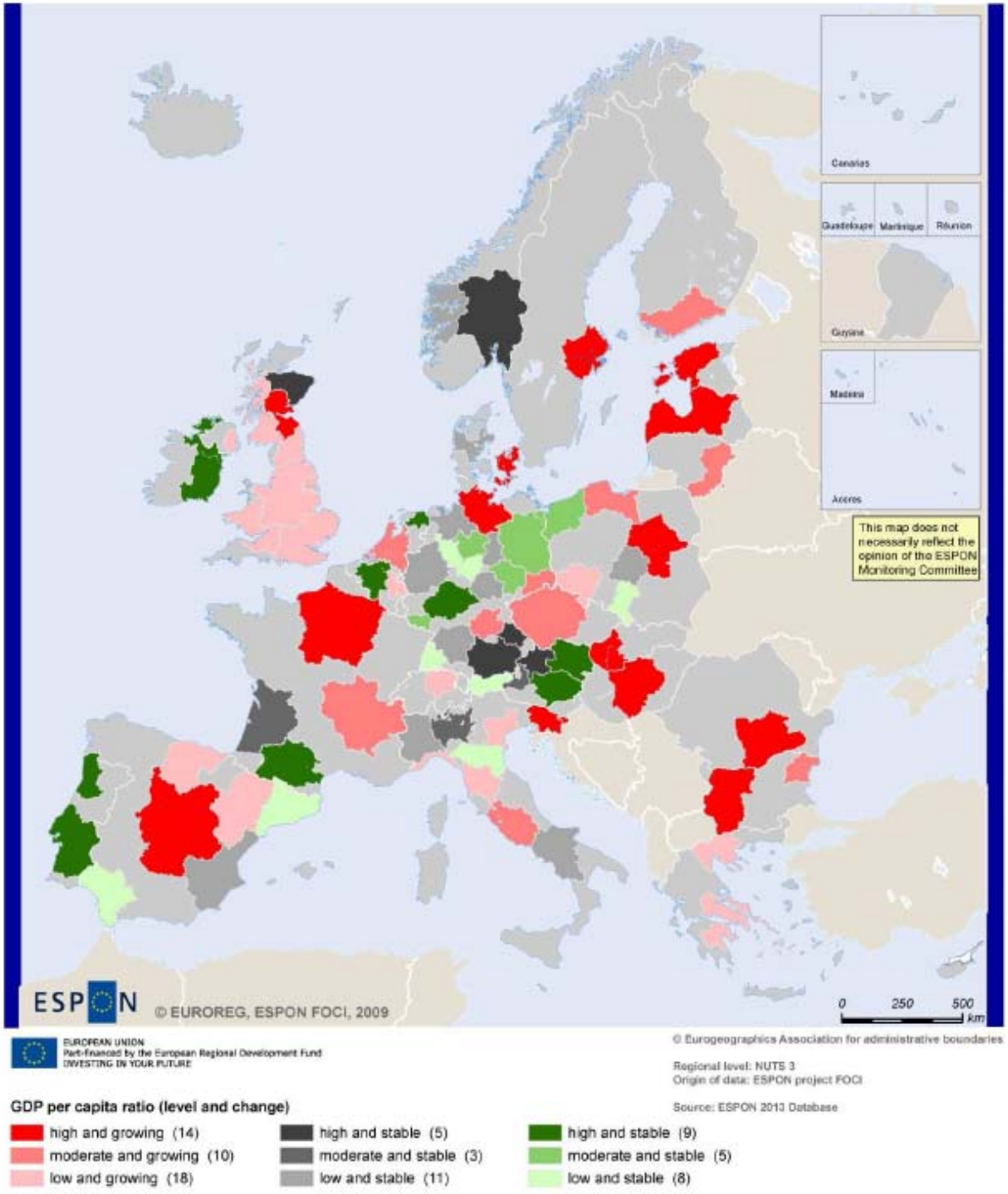


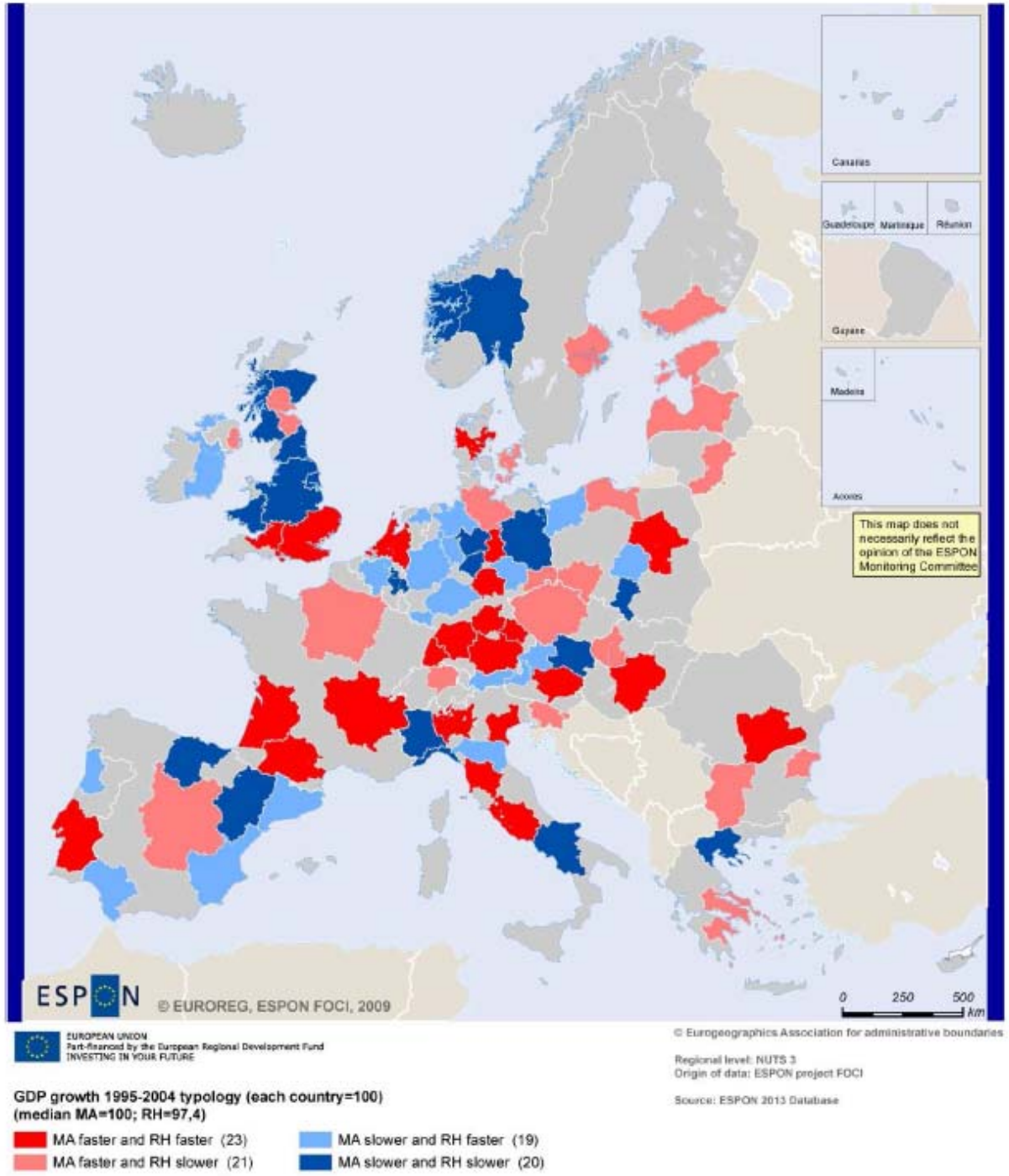
Change of intraregional income disparities 1995-2004

(4.2)

Typology of macroregions

(4.3)





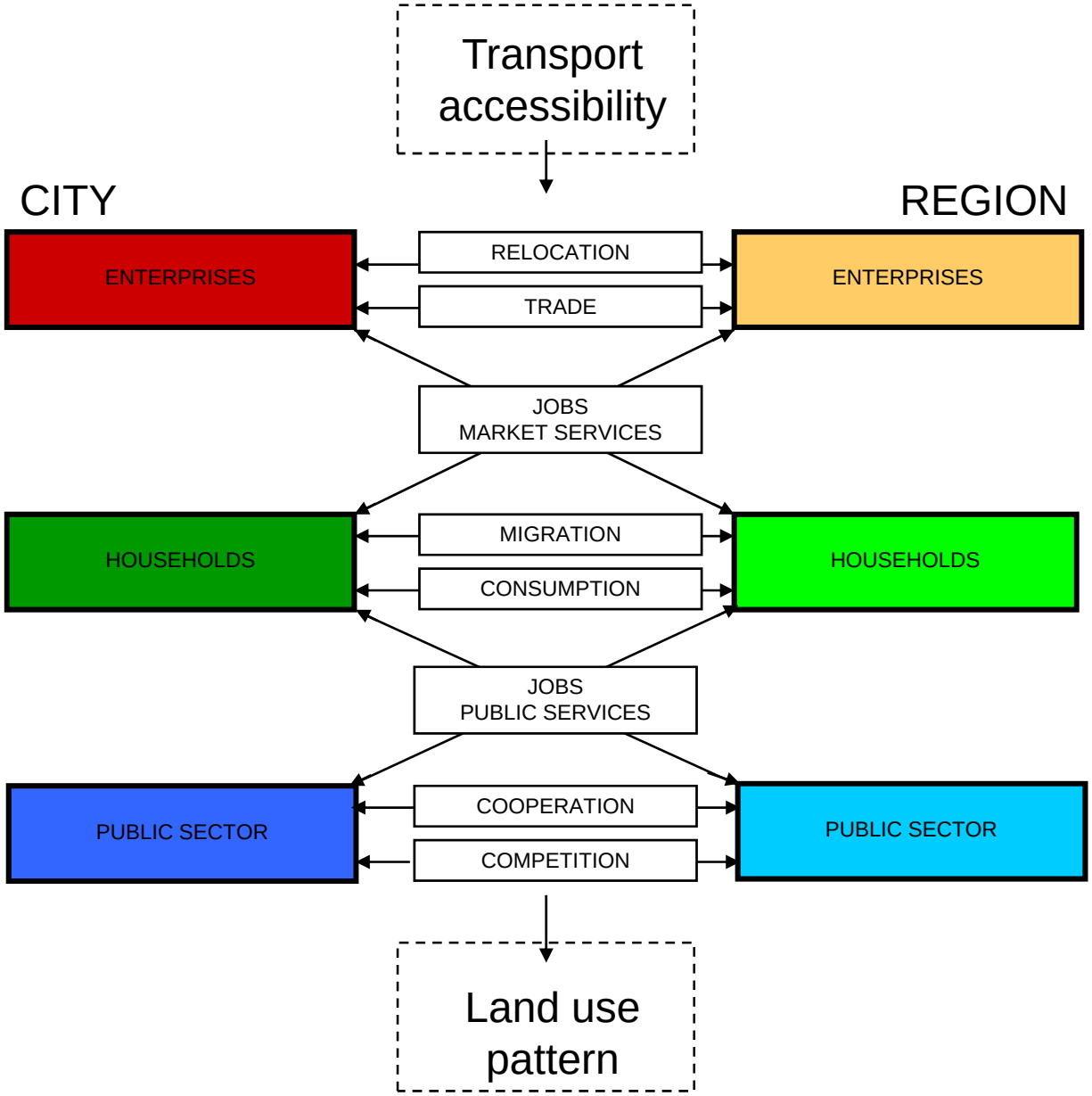
GDP growth 1995-2004

(each country=100)

in comparison to other macroregions

(4.4)

City-region relationships



GENERAL CONLCUSIONS

- metropolitan macroregions are important units of analysis, because combine network (functional) approach with territorial (morphological) approach,

- intraregional income disparities within metropolitan macroregions in many cases are larger than interregional disparities within countries,

- growth of disparities prevails, but in many macroregions rapid growth of the metropolitan area was accompanied by a significant development of its surroundings,

- significant differences between European countries – the general picture is quite blurred, but with visible East-West dimension,

- possible impact of the current crisis on this pattern especially in case of UK, Ireland and Spain or selected CEECs (esp. Baltic States and Hungary)