

# **Which role do macro-regions play for the competitiveness of Central and Eastern Europe?**

**International Conference: Regional Development  
in Central and Eastern Europe**

**Warsaw, 20<sup>th</sup>– 22<sup>nd</sup> September**

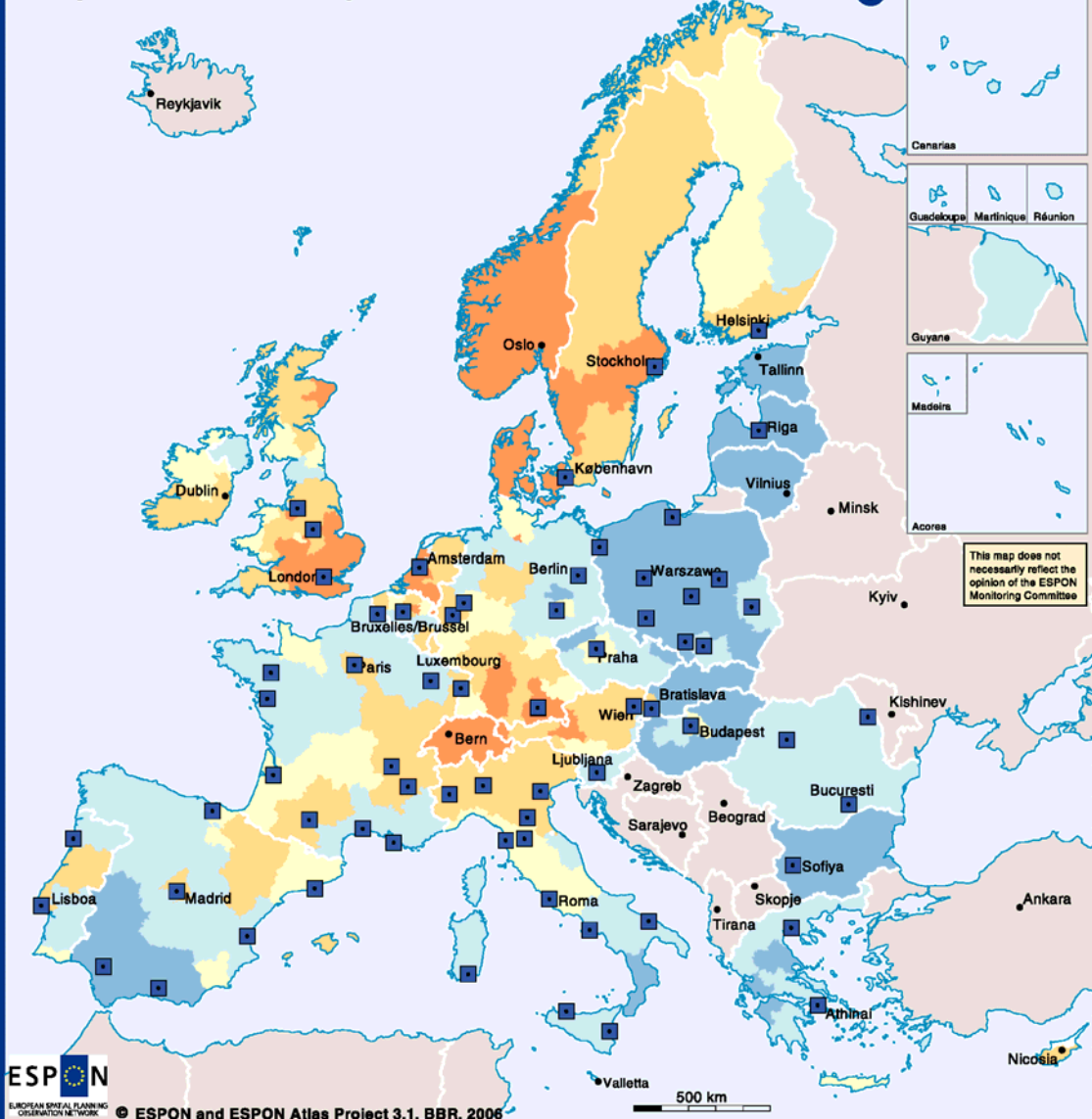


- **Introduction**
- **Macro-regions**
- **Defining regional competitiveness (?)**
- **Competitiveness of Central and Eastern European macro-regions**
- **Conclusions**



# Introduction

## European cluster of competitiveness and innovation



### Economic Lisbon indicators\*

Number of indicators in the upper quartile minus number of indicators in the lower quartile

Dark orange	> 3	Primarily high performance
Light orange	1 - 3	
Yellow	0	Medium performance
Light blue	-3 - -1	
Dark blue	< -3	Primarily low performance

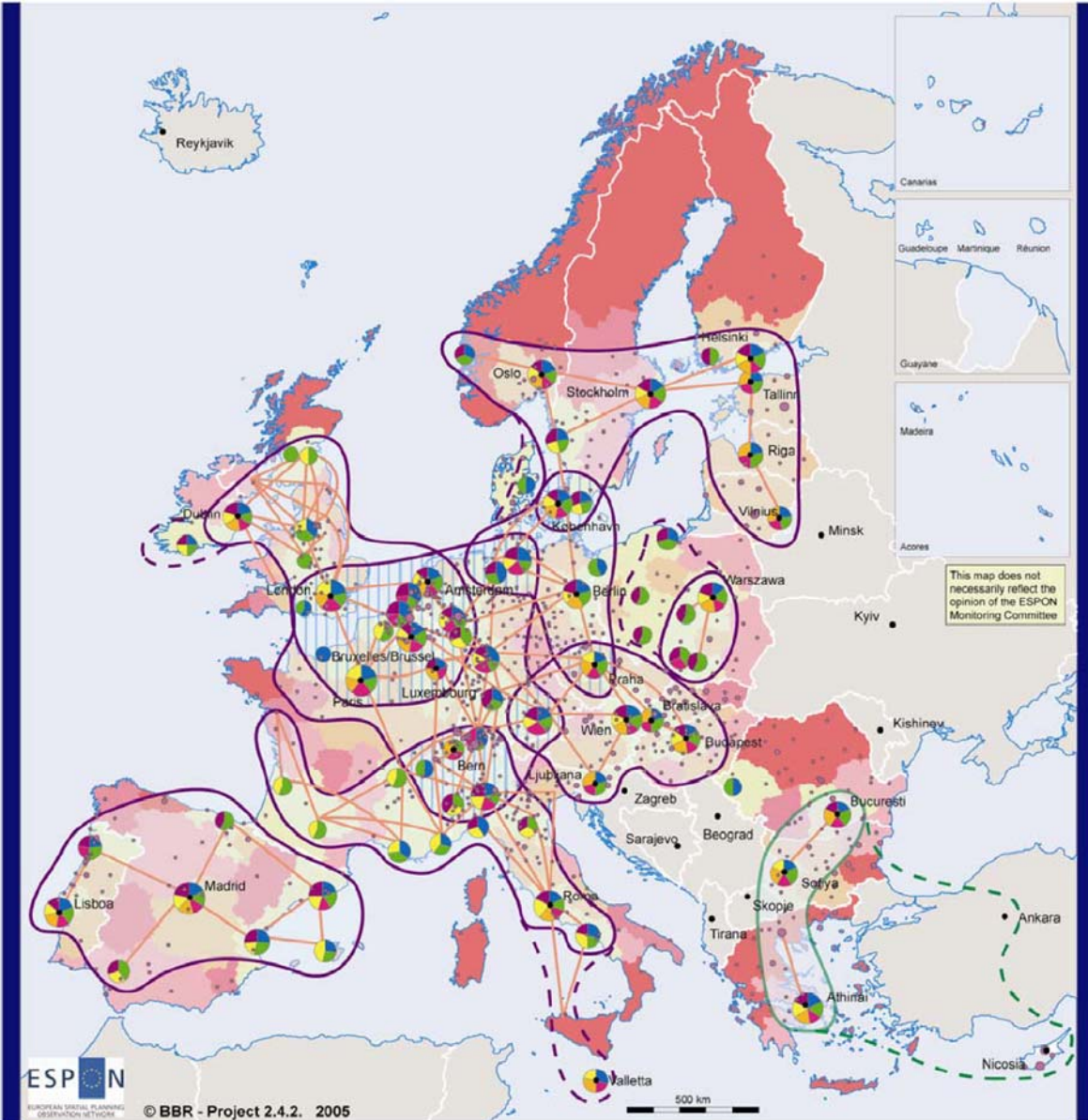
■ Knowledge node of european significance  
(50.000 - 500.000 students in FUA, 2000-2001)

© EuroGeographics Association for administrative boundaries  
Regional level: NUTS 2  
Origin of data: Economic Lisbon performance:  
ESPON Project 3.3, CURS;  
information society index: ESPON Project 1.2.3;  
patents: ESPON Project 3.1, BBR;  
knowledge function of FUAs: ESPON Project 1.1.1

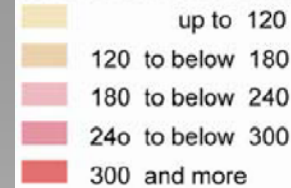
\*For further information on the indicators see table of the chapter 4

Source: ESPON database  
ESPON Atlas

# Macro-regions



Accessibility to the nearest MEGA  
by truck - travel time to reach the  
nearest MEGA in minutes



Travel times of one hour or less  
by air or rail between 71 MEGAs  
in 2003

Decision-making functions outside  
MEGA's by significance

- Global significance
- European significance
- National/transnational significance
- Regional significance
- Local significance

Metropolitan European Growth Areas  
(MEGA) by functional importance of  
global, European, national and trans-  
national significance



Size according to average value of related  
significance of functions

Potential European Global Integration  
Zones (EGIZ)\*

- Strong Potential European Integration Zone
- Potential extension with improved accessibility
- Future Potential European Integration Zone
- Potential extension with improved accessibility
- Global integration hinge region

## ▪ Assumptions about use of macro-regions

- strong links (economic, infrastructure,...) between regions of one macro-region
- each macro-region needs to cover all metropolitan functions
- division of labour within macro-region
- utilisation of spill-over effects – growth in one region enhances other regions' development

⇒ **Objective (ESDP, Lisbon): balanced territorial polycentric development**



# Regional competitiveness?

## ■ Micro-economic approach

- Competition: behaviour of independent economic actors on a market to achieve individual objectives at the cost of the competitors
- Competitiveness: an actor who achieves his objectives (maximise turn over, profit,...) is competitive
- Measurement: net income of actor, productivity with regard to different factors of production

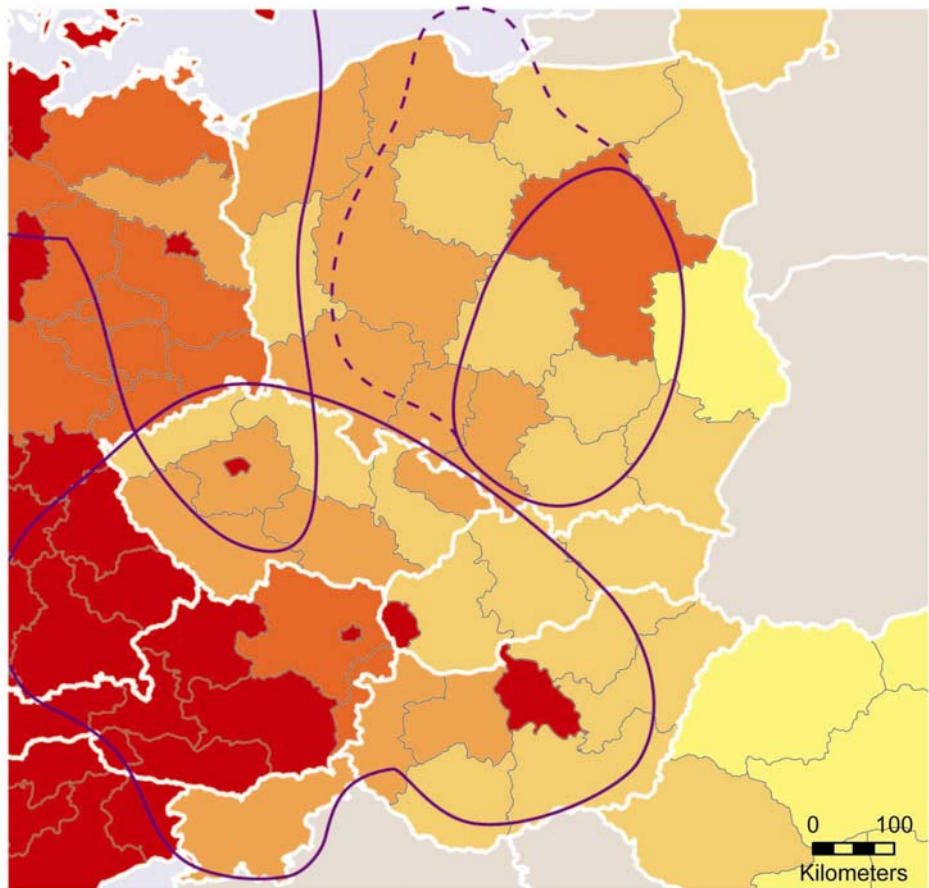
## ■ Possible implications for macro-economic considerations

- the larger the population the higher GDP, effect on GDP/capita? ⇒ raise attractiveness of regions
- competition for GDP/capita, labour productivity, innovativeness?





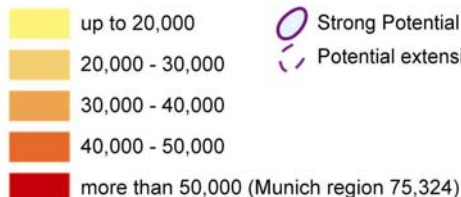
# Competitiveness in Central and Eastern Europe I – Labour productivity



GDP in PPS per person  
employed 2004

Potential European Global Integration  
Zones

Regional level: NUTS2  
Source of data: Eurostat



— Strong Potential European Integration Zone  
- - - Potential extension with improved accessibility

Sabine Zillmer

## ■ Western Central European zone

Considerable differences, though at high levels of productivity

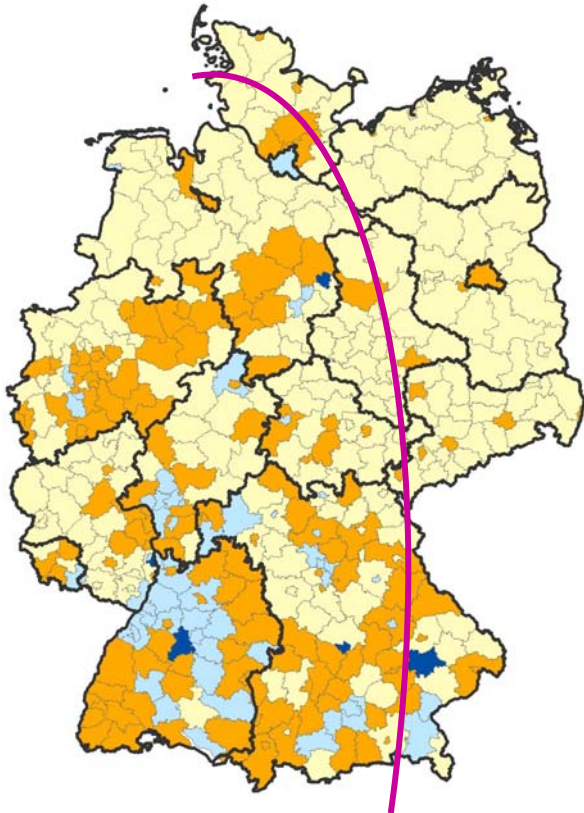
## ■ Central & Eastern Europe

Low level as compared to Western Europe

Highly heterogeneous productivity levels within either integration zone

# Innovative economic activity in Pentagon area – knowledge economy in Germany

Knowledge Economy 2006  
(Basis: employees subject to social insurance, 30. June)

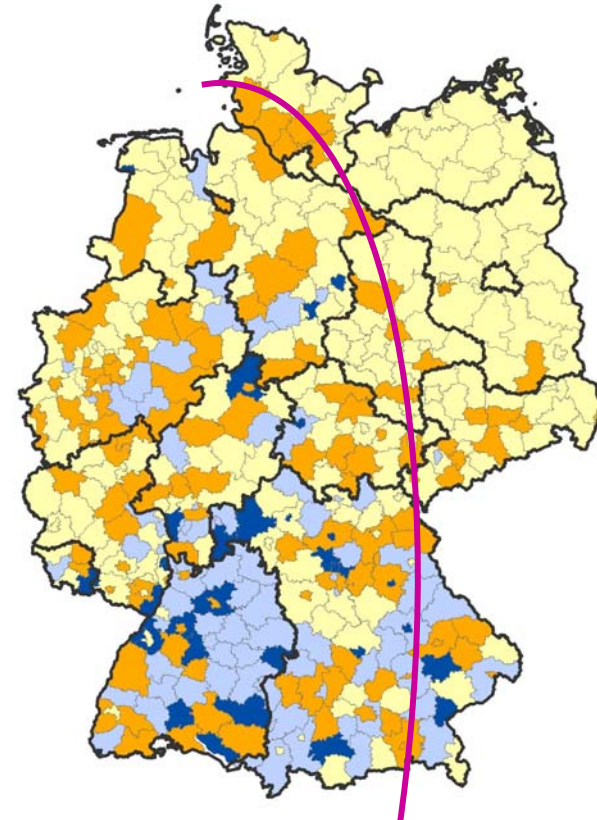


Location Quotient  
0,23 - 0,80  
0,81 - 1,20  
1,21 - 2,00  
2,01 - 2,64

Design: IRS

Source: Bundesagentur für Arbeit, own calculations

High-technology industries  
(Basis: employees subject to social insurance; 30. June)



location quotient  
0,07 - 0,80  
0,81 - 1,20  
1,21 - 2,00  
2,01 - 5,10

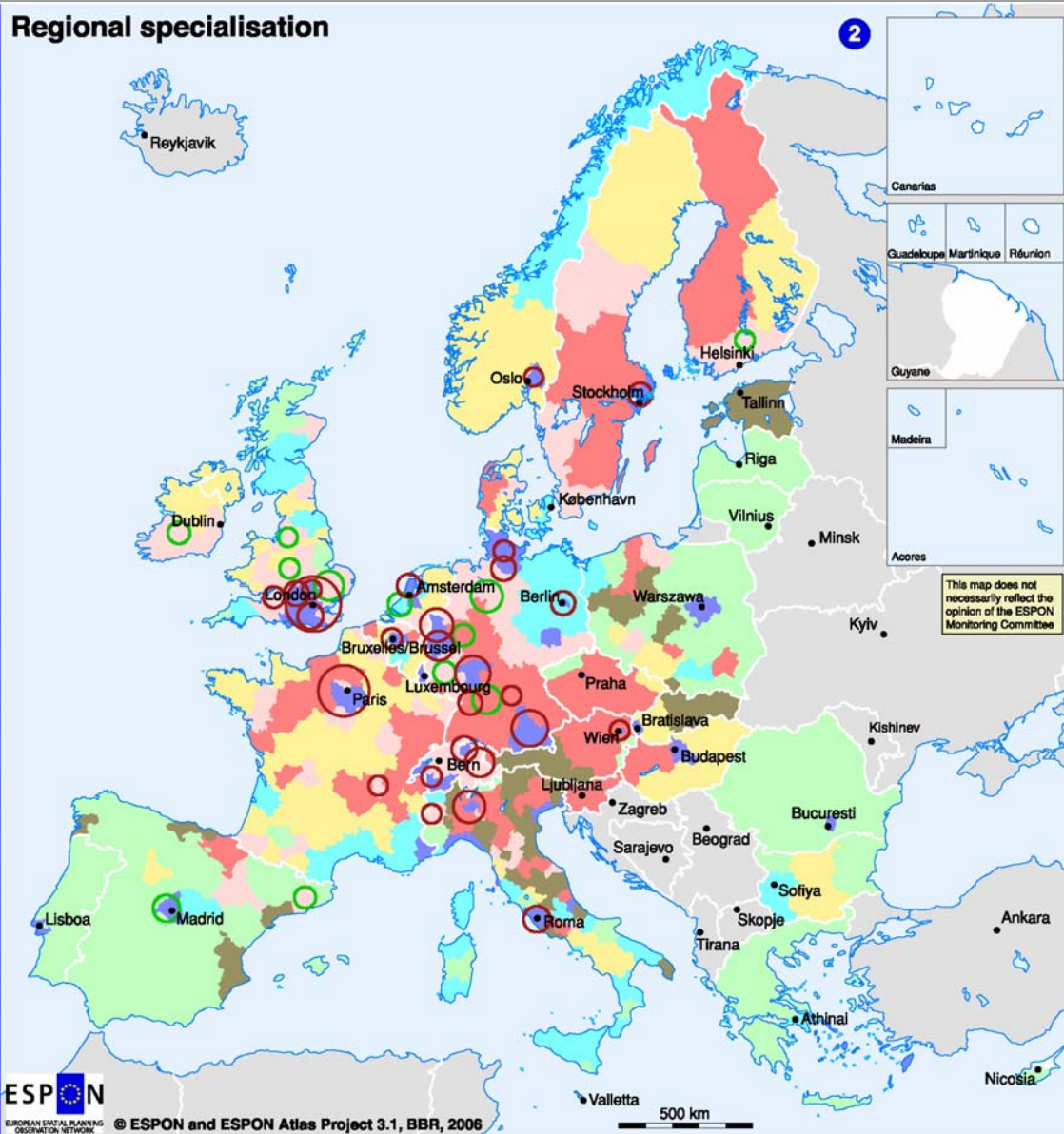
Design: IRS

Source: Bundesagentur für Arbeit, own calculations



# Competitiveness in Central and Eastern Europe II – regional specialisation

## Regional specialisation



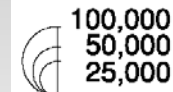
## Economic typology

- non market services, agriculture & light industry
- MEGAs advanced services: finances & business
- high and medium technological industry
- textile, personal market services
- agriculture, non-market services, trade, hotels & restaurants, industry (light & construction)
- market & non-market personal services, weak in industry
- neutral central without big cities

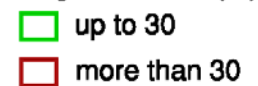
## Financial and business services

Only NUTS 2 regions above 15 billions euro of added value

## Added value (M euro)

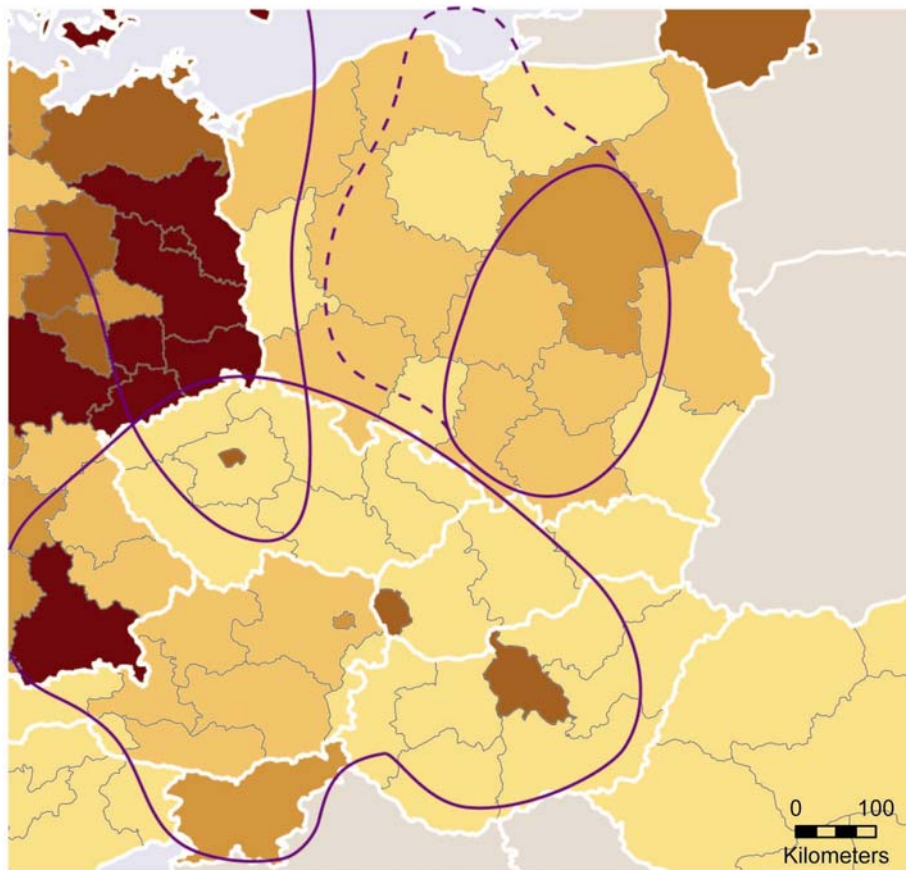


## Regional share (%)



- In Central & Eastern Europe domination of
  - non-market & personal market services
  - agriculture
  - light industries
  - textile
  - trade

# Competitiveness in Central and Eastern Europe III – Sources of innovativeness: highly educated population



Highly educated population  
as share of total population  
25 - 64 years in percent 2005



Potential European Global Integration  
Zones

- Strong Potential European Integration Zone
- Potential extension with improved accessibility

Regional level: NUTS2  
Source of data: Eurostat

## ▪ Western Central European zone

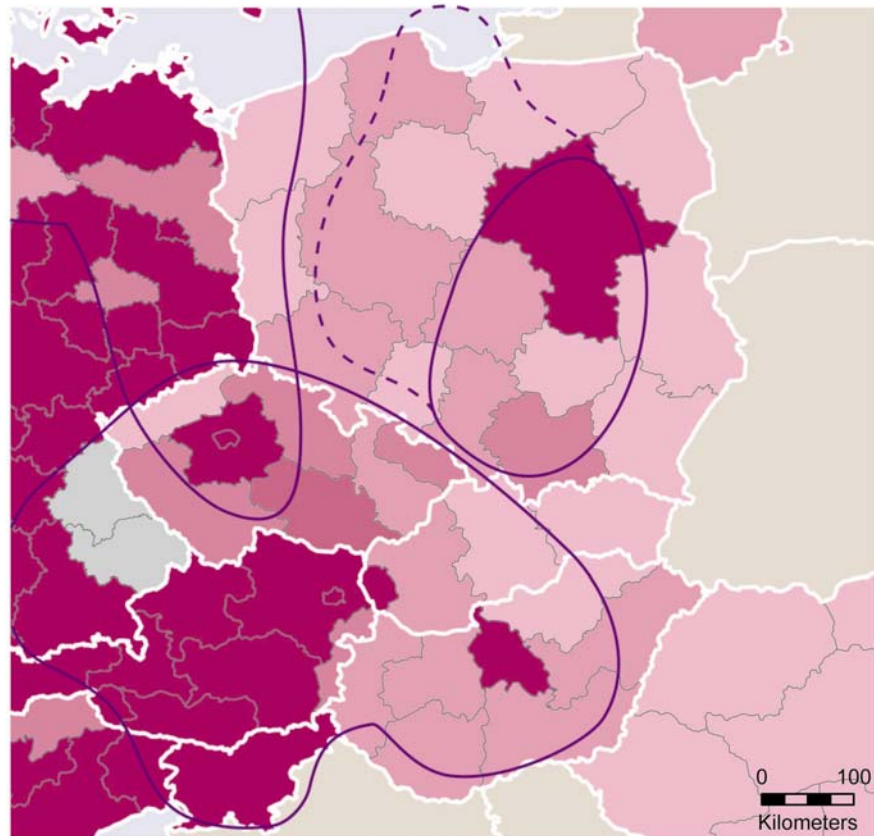
Mostly medium to high  
shares of highly educated  
population

## ▪ Central & Eastern Europe

Highly educated population  
strongly concentrates in  
metropolitan regions

Strong potential disparities  
within Danube zone

# Competitiveness in Central and Eastern Europe IV – Sources of innovativeness: relative R&D expenditures



Expenditures on R&D in PPS per person employed 2003/2004



Potential European Global Integration Zones

- Strong Potential European Integration Zone
- Potential extension with improved accessibility

## ■ Western Central European zone

Heterogeneity, but on relatively high level in majority of regions

In core of the zone even relatively homogeneous role of R&D

## ■ Central & Eastern Europe

Again: concentration on capital regions only

Few linkages with other regions expected



- **Limits of the analysis**

- Data availability restricts analysis to NUTS 2 level rather than smaller units
- Important flow indicators are missing for measuring regional links

- **Macro-regions & competitiveness in Central and Eastern Europe**

- Economic structure hampers integrative development
- Accessibility not sufficient for actual integration zone development
- Existence of all metropolitan functions does not automatically imply integration of macro-region
- Instead: domination of metropolitan (especially capital) regions
  - ⇒ macro-region concept as such can not contribute to Central and East European growth and competitiveness in the sense of a balanced territorial polycentric development
  - ⇒ Integrated actions for the macro-regional development are needed to give the concept a more active role

