Conference on Transnational Cooperation and Research
12 March 2012 in Reykjavik, Iceland

Part 2:
European Territorial Dynamics
Policy, Trends, Opportunities and Challenges
Why a European Perspective in Policy Development?

Challenges for creating Growth and Cohesion:

- Economic downturn and Crisis: Asymmetric impact, recovery and unemployment, young generation, regional diversity, innovation towards green, low carbon economy
- Connecting and changing World: New emerging markets, era of new strong world economies (China, India, Brasil, etc.), a larger territorial context for Europe, connecting gateway regions and cities
- Climate change: Mitigation and adaptation, CO2 reduction, new hazard patterns and new territorial opportunities
- Demographic changes: Ageing of the population, internal migration flows and external migration pressures
- Connectivity and accessibility: Infrastructure deficits, transport increase, saturation of EU-corridors, environmentally friendly solutions
- Energy challenge: Security of supply, alternative energy sources, fluctuation of energy prices, diversity of regional vulnerability
- EU Enlargement: Geographic integration, Territorial imbalances, Integration of new territories, their regions and cities
Ambitions for Economic, Social And Territorial Cohesion

- Supporting intelligent, sustainable and inclusive growth
- Place-based, integrated development of regions and cities (promoting a functional area approach)
- Harvesting territorial potentials and converging challenges into opportunities (double track policy)
- Using regional diversity as a strength (tailor made policy mixes unlocking potentials)
- Integration with sector policies (ensuring synergies)
- Cooperation (joining forces exploring comparative advantages and increasing joint critical mass)
- Governance (condition for optimal delivery)
- Evidence-based and result-oriented activities (based on improved strategies, benchmarking and indicators)
Territory and Places: What does Europe want?

Territorial Cohesion a new aim in the EU Treaty

- Harmonious and balanced territory
- Urban drivers of economic growth
- Provision of Services of General Interest
- Connectivity and accessibility improvement (for individuals, communities and enterprises)
- Use of ecological and cultural assets for development
- Attention to challenges of specific types of regions
- Cross-border and transnational functional regions (such as Macro Regions)
- Networking of cities and rural-urban partnerships (neighbours and long distance)
What policy priorities does Europe express?

Territorial Agenda 2020 for the EU:

- Polycentric and Balanced Territorial Development
- Integrated development of cities, rural and specific regions
- Territorial integration in cross-border and transnational functional regions
- Global competitiveness of regions based on strong local economies
- Territorial connectivity for individuals, communities and enterprises
- Managing and connecting ecological, landscape and cultural values of regions
An enlarging territorial context

- World City Network, 2008

City's integration into the world city network in 2008
- London and New York, clearly more integrated than all other cities
- Other highly integrated cities
- Very important world cities that link major economic regions and states into the world economy
- Important world cities that are instrumental in linking their region or state into the world economy
- World cities linking smaller regions or states into the world economy, or important world cities whose major global capacity is not in advanced producer services
- Cities that have sufficient services so as not to be overly dependent on world cities (smaller capital cities, and traditional centres of manufacturing regions)
- Other cities

Classification of cities based upon their level of advanced producer services. Global service centres are identified and graded for accountancy, advertising, banking/finance and law

Population of Urban Areas (million of inhabitants in 2000)

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

World cities classification - Taylor et al., 2005.
Measuring the World City Network: New Results and Developments
© UMS RIATE, for administrative boundaries.
Internet Users in the world, 1999-2009

Average annual growth rate

Average annual growth rate
1999 - 2009

96.9
78.0
57.8
37.7 (world average)
17.5
7.2

Missing values

This map does not necessarily reflect the opinion of the ESPON Monitoring Committee

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European Cohesion Challenge (imbalances 2000)
Territorial Challenges, Structures, Dynamics and Potentials:

Smart Connected Places
(Economic Drivers, Agglomeration Economies, Rural Diversity, Territorial Cooperation, R&D Expenditure, Technology, Connectivity and Accessibility)
Places driving the European Economy

- Urban places are main drivers of economy
- Functionality the key for success
- Concentration (Pentagon)
- Signs of de-concentration

Functional Urban Areas (FUAs)

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

Highways of European level
European Metropolitan Urban Regions

- Europe’s core area: Pentagon
  London, Paris, Milano, München, Hamburg
  14% territory
  32% population
  46% GDP

- Dynamic fringes
  Barcelona / Atlantic Arc
  Vienna-Bratislava
  Copenhagen-Malmoe
  Manchester

- Challenges for many peripheries
Growth in cities and surrounding regions 1995-2004

Change in GDP per capita ratio 1995-2004

-0.62  -0.31  -0.06  0.06  0.31  0.62
Potentials for Territorial Cooperation

Areas in 45 minutes reach of large urban centres

- **Red**: Area in 45 minutes reach from an urban centre (FUA): Potential Urban Strategic Horizons (PUSH)
- **Blue**: Areas more than 45 minutes from the nearest urban centre (FUA)
R&D expenditure of GDP

• The way towards a smart growth, outlined in the EU 2020 Strategy, calls for 3% of the EU’s GDP to be invested on R&D.

• Only 11% of the EU territory have reached 3% of R&D expenditures on GDP.

• Successful high-tech clusters in India and China have benefitted of spatial concentration

• A few specialised European research areas?
Technologically Advanced Regions

- High-tech plays a key role in the knowledge economy (France, Germany, UK and Scandinavia).
- Scientific institutions (research activities), Innovation (creation of new markets, use of green technologies, reduced labour costs) and Knowledge networking (knowledge diffusion) can boost the knowledge economy.
High-speed Internet connection

• Europe 2020 sets a digital agenda aiming at high-speed Internet connections to all European households by 2013.

• By 2020 all households should have access to Internet speed of at least 30 Mbps, and 50% of them should have Internet speed above 100 Mbps.

Households using a high speed Internet connection
Average percentage over the years 2006 to 2009

- low (9.00 - 29.50)
- moderate (29.50 - 45.25)
- high (45.25 - 61.00)
- very high (61.00 - 84.00)
- no data
Multi-Modal Potential Accessibility, 2006

Index (EU27=100)
Relative change (in %)
EU27 = 8.7%
Territorial Challenges, Structures, Dynamics and Potentials:

Diverse Europe: A Cohesion Challenge
(Unemployment, Demographic Challenges and Migration Flows)
Unemployment in European Regions, March 2010

- The economic downturn hit European countries and regions asymmetrically

- Best investment options:
  - Innovation, R&D and training
  - Nano-, Bio-, Info-tech and Cognitive Sciences
  - Green growth and low carbon economy
Unemployment rate by Urban Regions (LUZ) in 2007
Demographic scenario: Population Ageing 2030
Change in Working Age Population, 2000-2007

Annual Average Change in Population Aged 20-64 (%)
Many urban regions face a negative internal migration balance as a result of suburbanization. These urban areas usually attract international migrants (cheap housing, jobs and the presence of a resident migrant population) and young populations, and expulse older active ones. A clear example is Inner London.
Population in Europe and its neighbourhood 2030
Scenario: Impact of migration on population in 2050

Impact of migration on population in 2050*
Difference in population in %

*Impact of migration on population in 2050. Calculated as the difference in population in the Status Quo and No Migration scenarios in % of the population in the No Migration scenario
Territorial Challenges, Structures, Dynamics and Potentials:

Sustainable Europe
(Climate Change, Energy Dependency and Green Potentials)
Forecast: Climate Impact on Temperature

- Increasing annual temperatures expected between 2 and over 4.5 degrees.
- The north-west exhibits the lowest temperature change.
- Regions in south-west and Alpine regions may have temperature changes of nearly 4 degrees.
Northern parts of Europe may experience increases in summer precipitation of up to 40%.

Regions in France, Portugal, Spain, Italy and Greece are projected to experience the strongest relative decreases in annual summer precipitation.
Aggregate potential impact of climate change

Legend
- highest negative impact (0.5 - 1.0)
- medium negative impact (0.3 - <0.5)
- low negative impact (0.1 - <0.3)
- no/marginal impact (>-0.1 - <0.1)
- low positive impact (-0.1 - >-0.27)
- no data*
- reduced data*
Overall capacity to adapt to climate change

Legend
- highest capacity
- high capacity
- medium capacity
- low capacity
- lowest capacity
- no data
Potential vulnerability to climate change

Legend
- **highest negative impact (0.5 - 1.0)**
- **medium negative impact (0.3 - <0.5)**
- **low negative impact (0.1 - <0.3)**
- **no/marginal impact (>0.1 - <0.1)**
- **low positive impact (-0.1 - >-0.27)**
- **no data***
- **reduced data***
Energy Dependency in Industrial Sector

• The percentage of employment in industries with high energy purchases indicates the regional dependence on industries with high energy spending.
• Values above 10% of employment in industries with high energy purchases were determined to be outliers.
• These are mostly located in Northern Italy and the Czech Republic.
Solar Energy Potential

Solar energy output

- 1506.2
- 1291.4
- 1113.2
- 951.1
- 845.1
- 676.1
- No data

Due to the reliability and quality of the datasets behind this map, the Lead Partner of the ReRisk Project decided not to include data collected from other sources than JRC.
The production potential of wind power stations, taking into account environmental and other restraints, is concentrated in Northern Europe. Finland, Sweden, Estonia, Latvia, Lithuania and Ireland have a significant advantage in this field.
More information

Thank you for your attention on Part 2

Any questions or comments?

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