Making the European Territory Open and Polycentric

ESPON Conference
Brussels, 29th April 2014
ESPON ET2050 Consortium: 13 partners from 11 countries
Methodology: Scenarios, Vision & Political pathways
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ESPON Monitoring Committee Workshops

Kraków, 29-30 November 2011
Aalborg, 13-14 June 2012
Brussels, 28 September 2012
Dublin, 12-14 June 2013
Paphos, 4-6 December 2012
European Commission, Parliament and Committee of Regions

22 Nov 2012 in Warsaw

Mrs. Hubner, 26 February 2013

European Parliament, 25 June 2013

DGREGIO EC, 25 June 2013

COTER 9th October 2013

Stakeholders, 11 October 2013
Scenarios > Vision > Pathways
Present Situation: Europe in the crisis aftermath

- Before the 2008 crisis:
  - The progress towards the Single Market and Cohesion Policy were considered an overall successful history
  - Concerns on the “Steady Decline” of most developed European economies

- After the crisis:
  - Growing social and regional unbalances
  - Gaps with neighbouring countries as cause of social and political instability
  - Stronger claims for deep reforms in European policies
Growing regional disparities. Average moderate growth towards 2030.

**GDP Growth 2010 - 2030 (Baseline)**

Measured as annual average GDP growth rate along the period

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**GDP Growth annual average rate (Units: %)**

Results obtained by MASST3 forecast model

- < 0%
- 0% - 0.5%
- 0.5% - 1%
- 1% - 1.5%
- 1.5% - 2%
- > 2%

**GDP a.a.: 1,89 %**

45 regions below 1,00 %
GDP/inh. divergence for selected economies towards 2030

**GDP/CAP**

- **European Union (27 countries)**
- **Denmark**
- **Germany**
- **Spain**
- **Poland**

**GDP/CAP EU27=100**

- **Denmark**
- **Germany**
- **Spain**
- **Poland**
Different demographic patterns. Stable total population towards 2030.

**Total Population 2010 - 2030 (Baseline)**

Measured as annual population change

**Population**: from 514 to 530 inh.

**Annual population change (Units: %)**

Results obtained by MULTIPOLES forecast model

- **< -0.5%**
- **-0.5% - 0%**
- **0% - 0.5%**
- **0.5% - 1%**
- **> 1%**

No data (ESPON space)

No data (No ESPON space)

European population growth will tend towards stabilisation. Total population (ESPON Space) will grow from 514 million in 2010 to 530 million in 2030.

MULTIPOLES is a cohort-component population dynamics model. It is used for the simulations of complex hierarchical multi-regional multi-country population systems, for analysing impact of various scenarios concerning migration, fertility, and mortality.
Similar ageing patterns 2010-2030

Ageing 2010 - 2030 (Baseline)
Measured as annual ageing increase rate

Old-Age Dependency Rate 2010 - 2030 increase (Units: %)
Results obtained by MULTIPOLES forecast model

- < 1%
- 1% - 2%
- 2% - 2.5%
- 2.5 - 3%
- > 3%
- No data (ESPON space)
- No data (No ESPON space)

Ageing grows fast across Europe. Percentage of population older than 65 years increases in Europe from 25% to 40% (210M of elderly). MULTIPOLES a cohort-component population dynamics model that considers population age groups in 5 years, also for migrants. The Old-Age Dependency Rate is measured:

\[ OOR = \frac{\text{Population} > 64}{\text{population} 16 - 64} \]
Land-take faces different challenges 2010-2030 (residential tourism not explicitly modelled)
Global Accessibility 2010-2030 (Baseline)
Measured as potential intercontinental airplane seats and containers in relation to EU average

European Accessibility 2010-2030 (Baseline)
Measured as change in accessible population weighed by shortest access time

Passengers and Freight Global Accessibility
- Green: Passengers and Freight accessibility are expected to increase below EU average
- Light green: Passengers accessibility is expected to increase over EU average
- Dark green: Freight accessibility is expected to increase over EU average
- Purple: Passengers and Freight accessibility are expected to increase over EU average
- Grey: No data (ESPOIN space)
- Black: No data (No ESPON space)

Absolute variation in accessibility 2010-2030 (Units: Millions Equivalent population)
- Light green: < -5
- Light blue: 1 - 5
- Light purple: 5 - 25
- Dark purple: 25 - 50
- Dark red: > 50
- Grey: No data (ESPOIN space)
- Black: No data (No ESPON space)

Accessibility changes are very much influenced by population changes, because of the relative homogeneous transport endowment across Europe, and despite the relatively higher investments on infrastructure planned in Eastern European regions. The accessibility of each NUTS3 is measured as the sum of the population of all other NUTS3 weighted by the shortest multimodal access time. NUTS3 population is obtained from the Eurostat city. Population in 2030 by MULTIPLE-MASSIST models and shortest multimodal access by MOSAIK model.
60% of intercontinental Revenue Passenger-kilometres (RPK) throught 4 European Hubs: Heathrow, Paris CDG, Frankfurt and Schiphol

50% of the container traffic in Europe handled in 4 major hubs: Antwerp, Rotterdam, Hamburg, Bremerhaven
European airport hubs and maritime gateways

A redistribution of intercontinental air transport involving 25% of existing traffics in four hubs towards more favourable airport locations: **savings between € 1.05 billion and € 10.45 during the next thirty years** (EU Parliament 2014)

A gradual decentralisation of entry and exit ports until 2041 in terms of container traffic: **savings between € 8.3 billion and € 43.7 billion during the next thirty years** (EU Parliament 2014)
MARITIME GLOBAL TRADE: FROM THE ATLANTIC TO THE PACIFIC

MAIN CONTAINER SHIPPING ROUTES 2008

20 million TEU

4.4 million TEU

18.4 million TEU

5,000,000 TEUs (units based on volume of 20ft container)

SOURCE: Containerisation International and MDS Transmodal
Exports to the rest of the world from Germany (M€)

EUROSTAT

- Export to extraEU27
- Export to intraEU27
- Import to extraEU27
- Import to intraEU27

Chart showing trends from 1999 to 2012.
Energy networks (solar, oil, gas, LNR, HV electricity)
Aggregate potential impact of Climate Change in Europe
Baseline macro-trends for Europe towards 2030

- Moderate average growth with high risks of increasing national and regional economic disparities

- Risk of increasing social disparities

- Stable population, universal ageing and increasing internal and external migration

- Diminishing economic global share of European countries

- Trade with the rest of the world higher than trade in the Single/Internal market.

- Diverging trade patterns across European countries and firms.

- Possible rebalancing of European hubs and gateways

- Interdependency with Eastern & South Mediterranean regions

- Increasing stress on resources: land and ecosystems, energy.
Scenarios > Vision > Pathways

Baseline 2030
Exploratory Scenarios 2050

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Scenarios & Visions for the European Territory: from 1968 to 2014

- European Outline Convention (1968)
- European Spatial Planning Charter (1983)
- Europe 2000+, Cooperation for European territorial development (1994)
- ESDP: European Spatial Development Prospective (1999)
- SPSP: Study Program on Spatial Planning (2000)
- ESPON: European Observation Network for Territorial Development (3.2, 2006)
- Territorial Agenda 2020 (2011)
Existing Territorial Visions at National and Transnational Scale
Europe towards 2050: Territorial Scenarios

- **Promotion and networking of European Metropoles**

  Development of capital and global metropolis, as well as existing global gateways. Based on “Europe 2020” strategy.

- **Promotion and networking of Second Tier Cities**


- **Promotion of cities in less developed regions**

  Responds to the challenges of energy scarcity and climate change expressed in the Territorial Agenda 2020.
Territorial Scenario A: Promotion of Metropolis
Territorial Scenario B: Promotion of Second Tier Cities
Territorial Scenario C: Promotion of Cities in Peripheral Regions
## Exploratory Scenarios towards 2050

### Spatial Scenarios

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<td>Promotion of cities in less developed Regions</td>
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Policies promoting regional redistribution do not reduce Growth

GDP 1981-2051 (1981=100)
Policies promoting regional redistribution improve Cohesion

Cohesion: Reduction of disparities in CoV of GDP/capita 1981-2051

2008 Crisis
Absolute development gaps are not likely to diminish.
Europe towards 2030 and 2050


- Framework: Technologic progress *(Variation type 2)*
  - Increasing productivity
  - Smart Cities and Territories
  - Further decentralised, highly interconnected networks

- Successful transition towards a low carbon economy, with energy costs maintained
- Efficient land and resource management systems
Towards an Open and Polycentric European Territory...

TERRITORIAL VISION 2030

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

Regional level: NUTS 3
Source: MCRT, 2013
Origin of data: ET25000, 2013
© EuroGeographics Association for administrative boundaries

EUROPEAN UNION
Part-financed by the European Regional Development Fund
INVESTING IN YOUR FUTURE

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Scenarios  >  Vision  >  Pathways

Making the European Territory Open and Polycentric

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“Three-Horizons Model”

1st Horizon: Space of Imminent Future

2nd Horizon: Space of Willingness and Change

3rd Horizon: Space of Possible Futures and Compelling Visions

“Pockets of future Embedded in present”
Lasting values and paradigms

- Treaty of Rome (1956):
  
  “An open Community of equals with common strong institutions”

- Treaty of Lisbon (2007):
  
  “The Union shall promote economic, social and territorial cohesion, and solidarity among Member States. It shall respect shall ensure that Europe's cultural heritage is safeguarded and enhanced”.

- Europe 2020 (2010):
  
  “In a changing world, we want the EU to become a smart, sustainable and inclusive economy”
Lasting values and paradigms (the “European model”)

- **Deep Governance and good government**: predominance of the rule of law, compliance with the Charter of Fundamental Rights, and the rights of minorities. Transparent and accountable institutions, and public service oriented to empower citizens.

- **Sustainable development, well being and quality of life**: universally accessible human development, encompassing three dimensions: economic, environmental.

- **Territorial efficiency and cohesion**: overall harmonious development reducing disparities between regions.

- **Internal solidarity**: space of stability in terms of finances, migration, energy, adaptation to Climate Change.

- **External solidarity**: with Neighboring countries and the world. Promotion of the values of the “European model” – democracy, open and inclusive societies and...
**European Roadmaps and Visions towards 2050**

- Roadmap for moving to a competitive low carbon economy in 2050
- Roadmap to Resource Efficient Europe 2050
- Roadmap to a Single European Transport Area 2050
- Energy Roadmap 2050
- Roadmap for maritime spatial planning in the EU
- “Global Europe 2050” (Polycentric Europe, Sustainable and Smart Cities)
Vision: Making Europe Open and Polycentric

The efficiency and quality of the European territory lies in:

- Networking cities of all sizes, from local to global level
- Empowering people and local activities to valorise their own assets at European and global scale.
First Policy-aim: **Openness**

The long-term sustained development of the European territory requires:

- Removing internal borders
- Reinforcing co-development strategies with the Neighbourhood
- Further integrating European markets with the rest of the world.
**Second Policy-aim: Polycentricity**

The long-term sustained development of the European territory requires:

- Promoting endogenous sustainable development
- Diminishing regional disparities.
- Renewing and networking cities at both regional and global scale
Main Territorial Strategies:

- Connecting Europe Globally
- Smart Regeneration of European Cities
- Enhancing Natural and Cultural assets
- Making Europe regionally balanced
Territorial Strategy: Connecting Europe Globally

- Opening up European markets and promoting global sustainable development
- Enhancing the efficiency of European network industries
- Decentralising European transport global gateways
- Enhancing cooperation with Neighbouring regions
- Reinforcing the global centrality of European Metropolises
Territorial Strategy: **Smart Regeneration of European Cities**

- Promoting Second Tier Cities as engines of growth
- Renewal of European cities
- Developing more compact settlement structures
Territorial Strategy: Enhancing Natural and Cultural assets

- Limiting land-take, specially on high pressure vulnerable areas
- Valorisation of cultural landscapes
- Mitigation and adaptation of territories to Climate Change
Territorial Strategy: Making Europe regionally balanced

- Unleashing the regional diversity of endogenous development
- Sufficient access to networks to open up all cities and regions
- Provision of universal level of services of general interest
- Planning integration of functional (cross-border) urban regions
A New Cohesion Policy Approach is needed

EU Cohesion Policy Reform after 2020

Place-based approach? (FUAs/Rural Areas)
- Multi-level governance of cohesion funds, enabling territorial diversity and ensuring social inclusion

Sectoral approach? (Networks)
- Optimal government of structural funds for energy, transport, ICT and environment, matching decision and problem spaces

Solidarity approach? (Member States)
- Distribution of equalization funds to compensate for extra-costs of implementing EU common priorities
From Convergence 2000-2010 to Growing Regional Disparities 2010-2030

Relative change in GDP per capita from 2000-2010
Measured in percentage (%) to the EU27 average GDP growth

Relative change in GDP per capita from 2010-2030 (Baseline)
Measured in percentage (%) to the EU27 average GDP growth

Relative change in GDP per capita growth in relation to EU27 average
Results obtained by MASST (Economy) and MULTIPOLES (Demography) forecast models

- <15%
- -15% - -5%
- -5% - 5%
- 5% - 15%
- > 15%
Main Territorial Strategies:

- Connecting Europe Globally
- Smart Regeneration of European Cities
- Enhancing Natural and Cultural assets
- Making Europe regionally balanced
Pathways towards **Connecting Europe Globally:**

- The Single Market for network industries completed
- International agreements to open up markets
- Environmental costs in transport internalised
- Trans-European Networks extended to Neighbouring countries
- Intelligent electric grid covering Europe and neighbouring countries
Pathways towards **Smart Regeneration of European Cities**:

- Implementation of intelligent urban management systems
- Enhancement of public spaces and social inclusive neighborhoods
- Avoiding dispersed and discontinuous urbanisation
- Deconcentration of public investments from capitals to networks of cities
- Networking Second Tier Cities and Capitals
Pathways to enhance Natural and Cultural assets:

- Integrated rural development promoting complementary agricultural activities
- Productive agricultural soils and high quality nature protected from urban development
- Landscape management
- Public acquisition of land, and/or other zoning or planning regulatory measures to protect strategic land from urbanisation
- Development if a green infrastructure throughout Europe, stimulating biodiversity and ecosystem services
- Mitigation and adaption to Climate Change included in urban and regional plans
Pathways to make Europe regionally balanced

- Cost-effective infrastructure investments linked to territorial development plans
- Innovative management to make financially sustainable universal access to services of general interest
- Territorial strategies promoting synergies between endogenous activities and foreign investments
- Cooperation mechanisms for territorial integration
EU Short-term reforms: Cohesion and Agricultural (Pillar II) funds (1)

Dealing with the new challenges ahead: gradual opening of European markets to global competition

- Sensitivity to macro-economic cycles
- Stronger place-based approach: integrated urban and regional development plans
- Empowering local and regional government and business-friendly environments
- Promotion of transnational cross-border zones
- Co-development with Neighbouring countries
EU Mid-term: Framework coordination of sectorial policies (2)

- Impose a set of territorial conditions on Community aid allocated to sectoral policies, incorporating territorial considerations into every stage of planning.

- Better coordinating sectorial policies with European funds with explicit territorial dimension (Structural and Cohesion funds, Pillar II CAP).

- Managing policy interventions through functional territories (e.g. transport corridors, river and coastal areas, mountains, islands...).
EU Long-term: Establishment of a EU Spatial Development Policy (3)

- Shared strategic planning of the European territory
  - Infrastructure and regulatory policies in transport (e.g. TENs)
  - Energy (e.g. Electric Grid)
  - Environmentally protected areas (e.g. Green infrastructure).

- Coordinated transnational planning areas:
  - Baltic
  - Danube
  - Adriatic - Ionian
  - ....

- New European multi-level Governance Framework dealing with the mismatch between administrative borders and territorial dynamics
“Too seek Europe, is to make it!
Europe exists through its search for the infinit
-and this is what I call adventure”

Zygmunt Bauman, “An Adventure called Europe”
Further information:

www.espon.eu

www.et2050.eu (working documents)