

# Scenarios on the territorial future of Europe

ESPON Project 3.2



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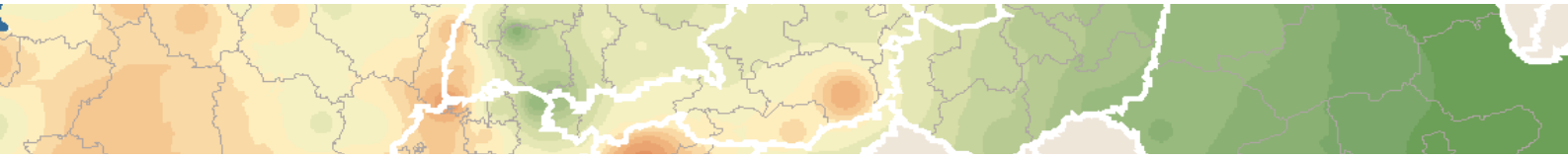
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This report was produced by the transnational project group of ESPON project 3.2, coordinated by Moritz Lennert and Jacques Robert with contributions from Hallgeir Aalbu, Minas Angelidis, Valérie Biot, Ionel Boamfă, Kai Böhme, Paola Bolchi, Joël Boulter, Roberto Camagni, Roberta Capello, Andrea Caragiu, Barbara Chizzolini, Bernard Corminboeuf, Ed Dammers, Simin Davoudi, Sophie de Ruffray, Aldert de Vries, Lidia Diappi, Alexandre Dubois, David Evers, Ugo Fratesi, Nicolas Gaubert, Jérôme Gensel, Timothée Giraud, Grzegorz Gorzelak, Claude Grasland, Octavian Groza, Marc Guerrien, Grégory Hamez, Ingo Heidbrink, Gerhard Heimpold, Jolanda Hofschreuder, Ivan Illès, Bohdan Jalowiecki, Gabriella Karka, Rupert Kawka, Marco Keiner, Marek Kozak, Katarzyna Krok, Nicolas Lambert, Dafni Manousaridi, Danielle Meddahi, Pablo Medina Lockhart, Bogdan Moisuc, Emilie Moron, Ionel Mumtele, Agnieszka Olechnicka, Catherine Patris, Didier Peeters, Lars Porsche, Martin Rosenfeld, Alexandru Rusu, Paolo Salzani, Kostas Santimbantakis, Volker Schmidt-Seiwert, Peter Schön, Martin Schuler, Christopher Smith, Florence Smits, Sylvia Sorana, Ian Strange, Chiara Traversi, George Turcanasu, Alexandru Ungureanu, Christian Vandermotten, Gilles Van Hamme, Marlene Villanova, Kerstin Wagner, and Michelle Wishardt.



# Scenarios on the territorial future of Europe

ESPON Project 3.2

# Foreword

Thinking towards the future is an essential precondition for investigating where policies are necessary and how they should be shaped. Development has its own momentum, but policies can make a difference. The future can create different conditions for the citizens in different parts of Europe, for economic development and competitiveness and for cohesion within the European territory, its regions and cities. In order to support a debate at European level and the involvement of regions, cities and larger territories the ESPON Programme under Structural Funds has carried through an applied research project with the aim of presenting contrasting spatial scenarios for the European territory.

This report presents several spatial scenarios, exploring alternative directions of possible trends and driving forces related to the future territorial development of the EU. Scenarios must be distinguished from predictions, presenting one most probable course of one or some related trends. A trend scenario is presented, followed by a cohesion-oriented and a competitiveness-oriented ones. The report concludes with a scenario likely to achieve a desirable territorial evolution in Europe.

ESPON, the European Spatial Planning Observation Network, has been set up to support policy development and to build a European scientific community in the field of European territorial development. The main aim is to increase the general body of knowledge about territorial structures, trends, perspectives and policy impacts in an enlarging European Union.

All of the applied research undertaken within the ESPON programme addresses the territory of 29 European countries including the 27 Member States of the EU as well as Norway and Switzerland. The spatial scenarios have been intensively discussed with all countries in the Monitoring Committee of the ESPON 2006 Programme which have performed as a key stakeholder group in the scenario development.

The spatial scenarios presented are however the responsibility of the researchers and consultants that carried out the project. Please note that the present report does not necessarily express the opinion of the ESPON Monitoring Committee and its members.

Results of the ESPON programme are disseminated in an open and transparent fashion in order to continually nourish the discussion and policy development related to territorial development and cohesion.

A debate on the spatial scenarios has already started and will continue involving stakeholders in territorial development, contributing to the competitiveness of Europe and its regions, and supporting territorial cohesion. This report can hopefully serve the purpose stimulating this debate. On the ESPON website at [www.espon.eu](http://www.espon.eu) you can access the extensive information and results of the ESPON programme.

*“When Princess Europa was kidnapped by Zeus in bull’s disguise, her father, Agenor, King of Tyre, sent his sons in search of his lost daughter. One of them, Cadmon, sailed to Rhodes, landed in Thrace, and set out to explore the lands destined to assume later the name of his hapless sister. In Delphi he asked the Oracle about his sister’s whereabouts. On that specific point Pythia, true to her habit, was evasive – but she obliged Cadmon with practical advice: ‘You won’t find her. Better get yourself a cow, follow it and push it forward, don’t allow it to rest; at the spot where it falls from exhaustion, build a town.’ This is, so the story goes, how Thebes was founded (and so – let us, wise after the fact, observe – a chain of events was started that served Euripides and Sophocles as the yarn out of which they wove the European idea of law, enabling Oedipus to practise what was to become the common frame for the character, torments and life dramas of the Europeans). ‘To seek Europe’, comments Denis de Rougemont on Cadmon’s lesson ‘is to make it!’ ‘Europe exists through its search for the infinite – and this is what I call adventure.”*

Zygmunt Bauman, *An Adventure called ‘Europe’*

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# Introduction

Territorial balance and harmony are basic values within European society. This is reflected by the desire to include the objective of territorial cohesion into any future European Constitution. **The European territory is however currently at the crossroads of numerous factors of change, many of which are exogenous in nature, such as accelerating globalisation, rising energy prices, stronger external immigration pressure or emerging climate change while others are more indigenous in nature, such as population ageing or the struggle faced by regional and local communities to promote competitiveness and improve the living environment.** In addition, various public policies, not primarily aimed at promoting territorial development, such as those connected to R&D, transport, trade liberalisation, EU enlargement etc., also have, albeit indirectly, a major impact on Europe's territorial evolution. As such, current developments are characterised by the emergence of strong dynamics in various fields often producing fundamental contradictions between policy objectives.

The capacity to "think about the future" is an essential pre-condition for identifying the most significant challenges likely to emerge and for making more coherent and efficient long-term policy choices. More concretely, the main function of "thinking about the future" is not to elaborate predictions, but, instead, to raise awareness. **Before long-term policies can be defined or improved, it is essential that decision makers at various levels, both in the political and administrative realms, become aware of the driving forces which will shape territorial development in the decades to come.** It is also of primary importance to anticipate the real power and the limitations of public policies in (re-)orientating territorial developments in desirable directions. Table 1 provides an overview of the three scenarios.

With regard to territorial evolution, strategies have primarily to consider the long-term. While economic and social fluctuations in the short and medium term are frequent, **the features of the territory are largely shaped by factors which change only slowly**, such as the settlement structure, the infrastructure endowment, the basic environmental characteristics and even the cultural peculiarities of regional populations.

In terms of techniques and methods, a variety of tools may contribute to "thinking about the future" of the European territory. The elaboration of various spatial visions at different levels over the past decade has been helpful in orientating policies, but has at the same time highlighted our reliance on what is an essentially deterministic approach while revealing only vague relationships between final images on the one hand and driving forces and their dynamics on the other. The elaboration of projections, even those using sophisticated models, generally remains of limited value in simulating the complexity of interrelated factors affecting territorial evolution. This problem is particularly acute for those projections which are not easily quantifiable. It is for these reasons that **a scenario approach has been adopted** albeit with specific characteristics. Firstly, it seemed essential to **identify the most significant driving forces** likely to shape the evolution of European territory in the decades to come, including those related to specific policies and to investigate which territorial evolution each, taken individually, would favour. In this respect, a series of thematic scenarios were elaborated. The second important characteristic of the scenario technique chosen was the **combination of quantitative, model-based approaches with more creative and speculative contributions**, ensuring both

tangible reference points and a high degree of openness as far as alternative evolutions are concerned. For this purpose, sophisticated models were elaborated to simulate the regional evolutions in demography, economic development and transport.

Looking at the interaction of various driving forces and at their resulting impacts on the territory is an essential exercise when anticipating spatial developments. This can be carried out through the realisation of integrated scenarios. For each, a series of precise hypotheses is necessary with their choice depending upon the general orientation given to each scenario. A wide range of possibilities exist and, in order to be politically useful, the choice has to reflect global policy options which are the subject of debates and even of controversy within society. In recent years, **a Europe-wide debate has crystallized between the promoters of stronger global competitiveness and those promoting greater equity and justice, with a particular focus on the regional and local levels.** Relevant scenario hypotheses thus emerged as, on the one hand, an internal orientation towards more economic, social and territorial cohesion at the European level and, on the other, towards greater extra-European competitiveness in a global context. **Two integrated scenarios were elaborated along these lines.** In order to facilitate their territorial interpretation, they were **compared to a reference scenario** reflecting neutrally the impacts of trends and of unchanged policies (the so-called "trend" scenario).

Comparing the outcomes of different scenarios is a pedagogic exercise. The aim of this exercise is to identify positive as well as negative trends and driving forces in order to shape a more desirable future and to prevent undesirable futures by appropriate policies. This approach also makes it possible to understand the limitations of public policies and to eliminate unrealistic or demagogic approaches. In this respect, **a final, desirable territorial scenario was then worked up** based on a combination of policies likely to best enable its realisation.

The following report begins, therefore, with a description of the territorial trend scenario for 2030, followed by that of the competitiveness-oriented and the cohesion-oriented scenarios. The respective pictures of the European territory by 2030 are described by a virtual observer living in that period who has been witness to all of the changes that have taken place since the beginning of the 2000s. This is why the past tense is used in these descriptions. In the final chapter, a desirable though not unrealistic territorial image of Europe in 2030 is presented. This is complemented by an outline of the likely policy path necessary to achieve it.



Table 1

Overview of the hypotheses of the three prospective scenarios (unless otherwise stated, the hypotheses for the baseline scenario are also valid for the two other scenarios)

<b>Baseline</b>	<b>Competitiveness-oriented</b>	<b>Cohesion-oriented</b>
<i>Enlargement</i>		
<ul style="list-style-type: none"> <li>- Combination of deepening and widening</li> <li>- Western Balkans in 2020</li> <li>- Turkey in 2030</li> </ul>	<ul style="list-style-type: none"> <li>- Priority given to enlargement</li> <li>- Western Balkan and EFTA/EEA countries in 2015</li> <li>- Turkey in 2020</li> </ul>	<ul style="list-style-type: none"> <li>- Priority given to deepening</li> <li>- Break on further enlargement</li> </ul>
<i>Demography</i>		
<ul style="list-style-type: none"> <li>- Stable total population</li> <li>- Significant population ageing</li> <li>- Increasing but controlled external migration</li> <li>- Unchanged constraints on internal migration</li> </ul>	<ul style="list-style-type: none"> <li>- Selective external in-migration; no constraints to internal migration</li> <li>- Increase in retirement age</li> <li>- Encouragement of fertility rate through fiscal incentives</li> </ul>	<ul style="list-style-type: none"> <li>- Restrictive external in-migration</li> <li>- More flexible retirement ages</li> <li>- Encouragement of fertility rates by more flexible arrangements for child care</li> </ul>
<i>Economy</i>		
<ul style="list-style-type: none"> <li>- Slowly increasing activity rate</li> <li>- Decreasing public expenditure</li> <li>- Growing R&amp;D budget</li> </ul>	<ul style="list-style-type: none"> <li>- Strong reduction of EU budget</li> <li>- Further liberalisation and privatisation of public services</li> <li>- Strongly growing R&amp;D budget</li> </ul>	<ul style="list-style-type: none"> <li>- Maintaining EU budget</li> <li>- Reinforcement of structural funds and concentration on weakest regions</li> </ul>
<i>Energy</i>		
<ul style="list-style-type: none"> <li>- Steady increase of energy prices</li> <li>- Stable energy consumption</li> <li>- Increasing use of renewables</li> </ul>	<ul style="list-style-type: none"> <li>- Increasing energy consumption</li> <li>- Realisation of TEN-E: investments in infrastructure according to market demand</li> </ul>	<ul style="list-style-type: none"> <li>- Realisation of TEN-E</li> <li>- Promotion of decentralised energy production, particularly renewables</li> </ul>
<i>Transport</i>		
<ul style="list-style-type: none"> <li>- Continued traffic growth</li> <li>- Constant investments in infrastructure, but below demand</li> <li>- Partial application of Kyoto Agreement</li> </ul>	<ul style="list-style-type: none"> <li>- Realisation of TEN-T: investment in infrastructure according to market demand</li> <li>- Priority given to links between metropolitan areas</li> </ul>	<ul style="list-style-type: none"> <li>- Development of TEN-T, priority given to peripheral regions</li> <li>- Support to transport services in rural and less developed areas</li> </ul>
<i>Rural development</i>		
<ul style="list-style-type: none"> <li>- Further liberalisation of international trade</li> <li>- Progressive reduction of CAP budget</li> <li>- Rapid industrialisation of agricultural production</li> </ul>	<ul style="list-style-type: none"> <li>- Rapid and radical liberalisation of CAP: reduction of tariffs, budget and export subsidies</li> <li>- Reduction of support to rural development</li> </ul>	<ul style="list-style-type: none"> <li>- Minor CAP reforms, shift from pillar 1 to pillar 2</li> <li>- Priority given to environment and animal health</li> <li>- Priority given to less developed areas</li> </ul>
<i>Governance</i>		
<ul style="list-style-type: none"> <li>- Increasing cooperation between cross-border regions</li> <li>- Increase in multi-level and cross-sectoral approaches, but limited to specific programmes</li> </ul>	<ul style="list-style-type: none"> <li>- Abolishment of cross-border market barriers</li> <li>- Less public intervention</li> <li>- Wider application of the Open Method of Coordination</li> </ul>	<ul style="list-style-type: none"> <li>- Active multi-level territorial governance in areas supported by structural funds</li> <li>- More public intervention</li> </ul>
<i>Climate change</i>		
<ul style="list-style-type: none"> <li>- Temperature rise of 1° and more frequent extreme events</li> <li>- Mitigation measures based on new technologies</li> <li>- Few adaptation measures</li> </ul>	<ul style="list-style-type: none"> <li>- Increasing emission levels</li> <li>- Mitigation measures based on flexible schemes</li> <li>- Adaptation measures only where cost efficient</li> </ul>	<ul style="list-style-type: none"> <li>- Constant emission levels</li> <li>- Strict mitigation measures</li> <li>- Wide range of adaptation measures</li> </ul>

# The trend perspective – European territory by 2030: facing new challenges with conventional policies

The territorial trend scenario for 2030 refers mainly to the impact of **policy continuity in a context where new challenges emerge**, adding to those already existing. It is therefore essential to highlight first and foremost what is likely to continue and what is likely to change in terms of these challenges. A picture of the prospective European territory by 2030, assuming that no major change takes place in the basic thrust of public policy can then be mapped. Consideration should however be made of the fact that some of the major elements of the current policy endowment are quite recent additions such as the Kyoto Protocol and the Lisbon Strategy.

## 2.1 Europe's territorial development: Future challenges and potentials

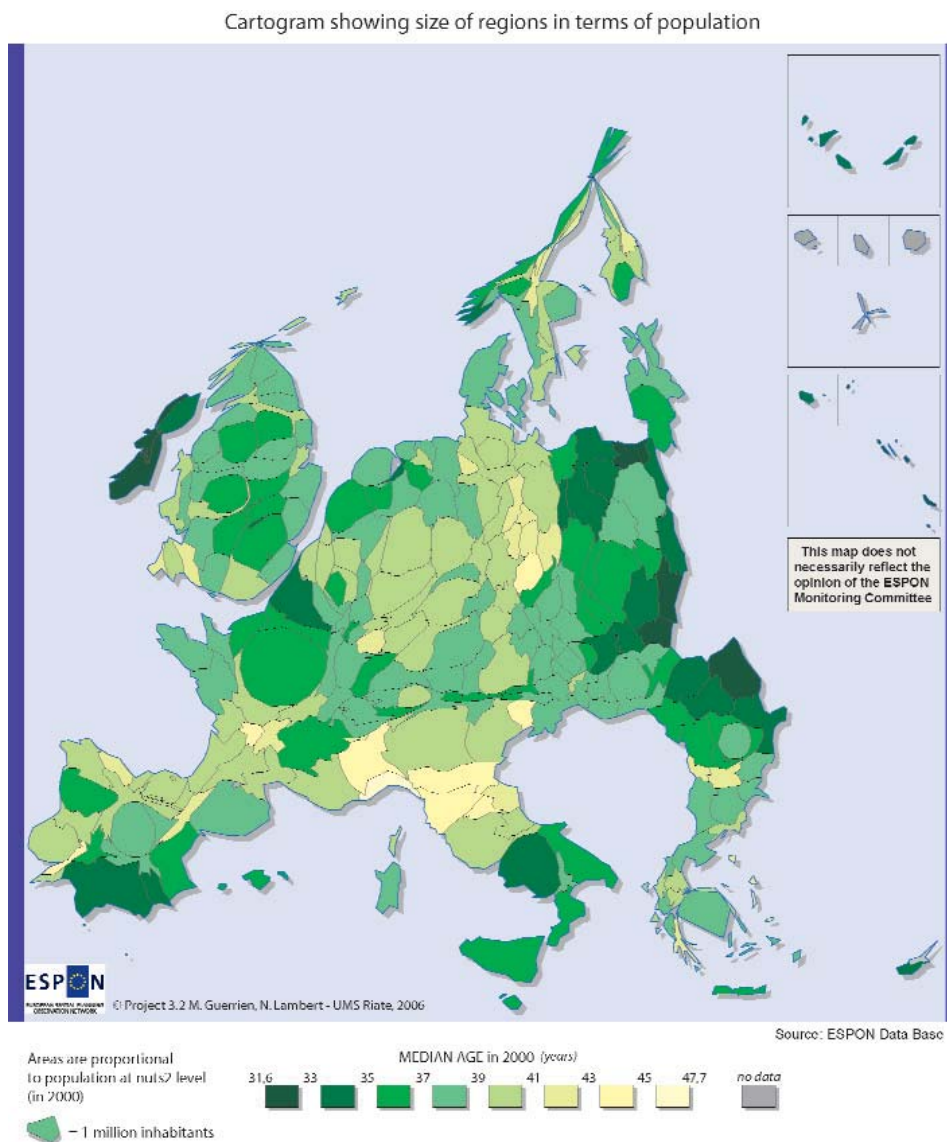
- **Europe's external context**

After the enlargements of May 2004 and January 2007, and considering the intensification of cooperation between the EU and Norway and Switzerland, the integration of Europe is now being built on an almost continental scale. These **enlargements have fundamentally changed the scale of regional disparities in Europe** as illustrated in the following cartograms. The widening of this integrated area initially suggests that Europe has become more autonomous and less subject to external influences. The reality is however somewhat different as numerous factors, relating to the external geo-political context of Europe's relations with the rest of the world, are gaining in importance, factors that will have a substantial impact on its territory.

At world scale, Europe's relative demographic potential is decreasing, especially with regard to the growing Asian, but also American demographic poles. As economic disparities at world scale remain significant, despite the rapid catching up of a number of emerging economies, **external migration pressure will continue to increase**. The primary sources of potential immigration are the countries of the southern and eastern parts of the Mediterranean basin and of Africa which have considerably higher population growth rates and much younger population structures than Europe. Migration flows to Europe increasingly come from countries farther afield originating from a broader spectrum of cultural, economic and social backgrounds. Although the more central and most developed parts of Europe (the so-called central pentagon London-Paris-Milan-Munich-Hamburg) remain the preferred destinations of external immigration, certain regions in the Southern European countries are also significantly affected as are, increasingly, the member countries of Central and Eastern Europe. The expected real immigration, both in terms of volume and structure, will however remain highly dependent on

### Map 1

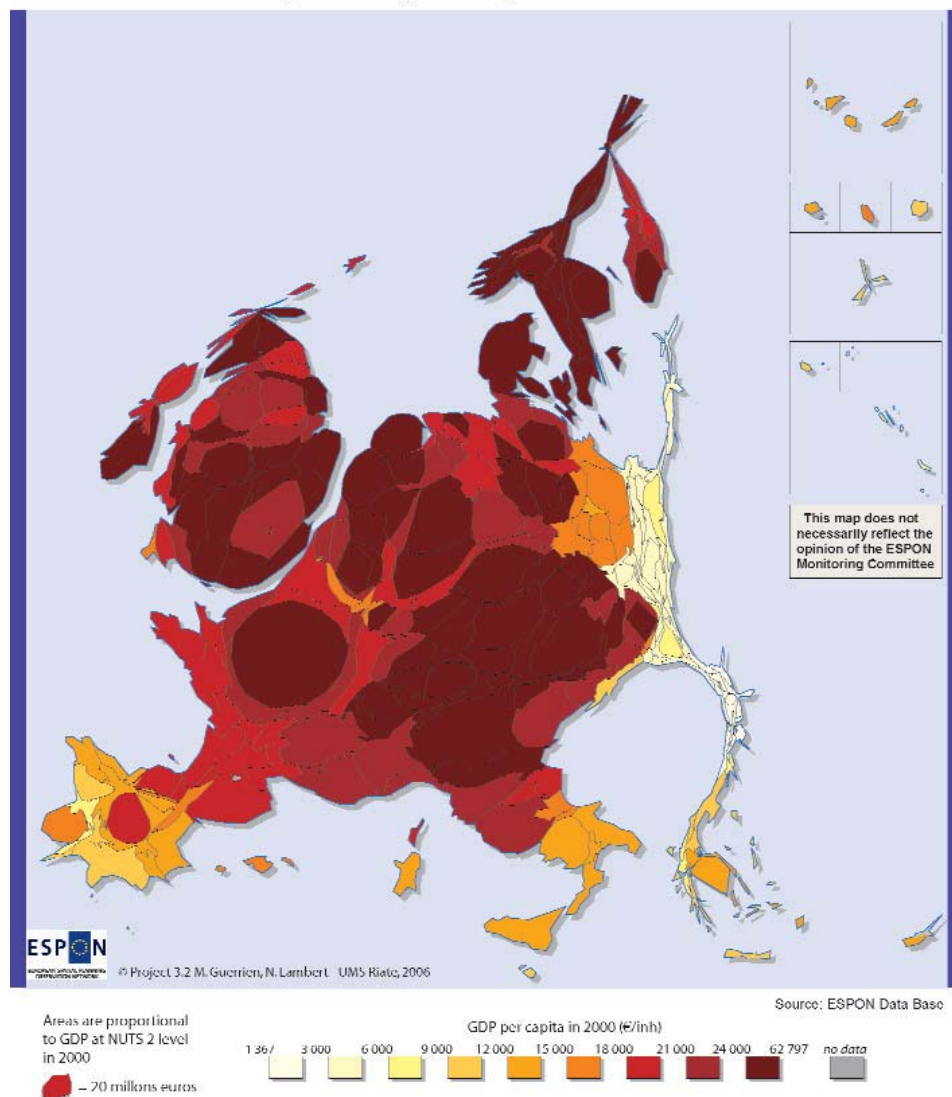
### Cartograms showing size of regions in terms of population (left) and GDP (right)



## An illustration of demographic and economic territorial disparities in the early 2000s

The following cartograms illustrate through a specific cartographic representation the demographic and economic territorial disparities existing in the year 2000. For that purpose, the size of regions (NUTS 2) does not correspond to their surface but to their population (left map) or economic strength (GDP, right map). The resulting distortions, compared with a classical surface map, highlight the existing disparities.

Cartogram showing size of regions in terms of GDP



the policy mix adopted and upon its implementation efficiency. In a trend perspective and in a context where the Union's competence in immigration matters remains limited, **the evolution will be characterised by continuing, although rather contained, illegal immigration.**

Accelerating **globalisation is certainly the most important external factor with significant territorial impacts.** Globalisation has however numerous facets the impacts of which are not unidirectional. In terms of foreign trade and despite the concerns generated by rising import levels, **Europe still displays a modest level of economic openness** (roughly 14% measured as the ratio between total external trade and GDP at market prices during the period 1996-2000). This headline figure is comparable to that of the USA (13.5%) and Japan (17.5%). This then raises the question of the real intensity of globalisation through trade.

The EU's most important external trade partners are generally located some distance from Europe (USA, East Asia, Gulf States). Among the neighbouring regions, significant trade flows exist with the Russian Federation and various countries of the southern and eastern Mediterranean. In the context of progressing globalisation, it can be expected that trade flows with Latin America and a number of emerging Asian countries will intensify, while trade with Africa is not expected to grow significantly. Considering foreign trade specialisation, **Europe has a strong position in the exports of technological and industrial products, but also of agricultural products and, increasingly also of services.** In the context of the WTO, numerous trade barriers for manufactured products were removed and, in future, further trade liberalisation is expected in the sectors of services and agricultural commodities.

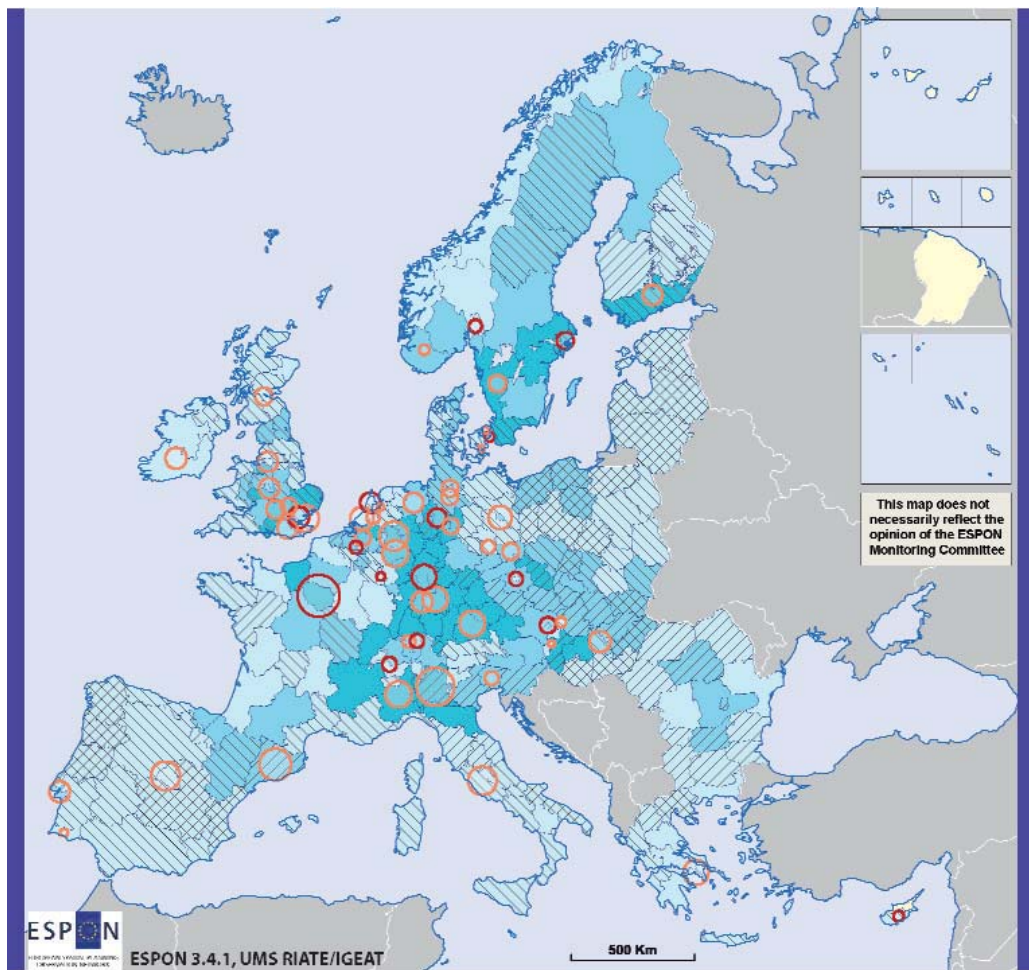
Considered under the aspect of labour markets, **globalisation has however a strong and accelerating influence on the process of the creation and destruction of jobs and therefore on the territorial distribution of employment opportunities.** This is why this aspect of the globalisation process is perceived more tangibly by the general public than others. The relocation of businesses outside Europe is the most sensitive aspect of globalisation. In future, not only manufacturing activities but also service activities such as software production and programming, telephone marketing, law and tax consultancy, accounting, and financial information analysis etc., will be affected.

There are however important additional dimensions to globalisation, such as growing intercontinental interpenetration in the ownership of businesses, favoured by the increasing number of mergers and acquisitions involving partners from various continents. Although numerous European companies expand on other continents through FDI, the risk is also growing that more and more European companies will be taken over by non-European groups, as the capital accumulation process in Europe is more heavily restrained by fiscal and social regulations than in a number of emerging economies, especially those exporting energy and other commodities. In addition, **the European economy, as far as its business structure is concerned, is more fragmented than that of its major competitors.** Companies controlled by European decision-makers are generally more inclined to maintain and develop jobs of strategic significance (management, R&D, design etc.) in Europe than companies taken over by non-European decision-makers. This aspect of globalisation is likely only to gain in importance in future.

With regard to the territorial impacts of accelerating globalisation, the regions benefiting most in terms of employment and income are the first and second-level metropolitan areas, including those of central and east-

ern Europe (see map 2). Other, mainly centrally located regions benefit from globalisation processes if a number of conditions are fulfilled: economies strongly supported by R&D, medium-sized cities with strong cultural, scientific or tourist potential, good environmental conditions. By contrast, a number of regions have been and continue to be negatively affected by the globalisation process: regions with low or intermediate technologies (heavy industries, textiles, clothing, basic manufacturing activities etc.,). Globalisation also endangers the “Marshallian” districts based on SMEs with low R&D input. Looking to the future from a trend perspective, it is likely that more and more regions will be negatively affected by the globalisation process, both urbanised and more rural ones, while the benefits of globalisation will largely remain concentrated in a limited number of regions with advanced metropolitan functions and a few others with specific characteristics. The globalisation process is therefore likely to sharpen territorial imbalances within Europe.

Map 2  
Factors of sensitivity to globalisation



**Internationalisation level**  
(NUTS2 regions with major urban areas)

- Low
- High

**Total NUTS2 population**  
(thousands of inhabitants)

- 10 000
- 2 500

**Structural strengths and weaknesses**

- High share of technological manufacturing industries
- High share of personal services

**Technological level**

- Low
- Medium
- High
- No data

Regional level: NUTS2

Source of data: Eurostat and National Statistical Offices

Year of data: 2002

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Europe's external context will also continue to be characterised by **growing external energy dependency**, especially in the field of fossil energy sources (oil, gas, coal), but also in that of nuclear energy sources (uranium). The progressive depletion of the North Sea resources and the increase of oil and gas prices at world scale with the possibility of oil peaking will make the issue of Europe's energy security a central pillar in its future foreign and security policy.

With regard to the EU itself, future enlargements will also contribute to determining the characteristics of the external context. After the enlargements of 2004 and 2007 and considering the general political situation in Europe, it is assumed in a baseline perspective that **further enlargements will not take place for some time**, with the countries of the Western Balkans *perhaps* joining by 2020 and Turkey not before 2030. This means, in such a perspective, that the EU neighbourhood policy will have to play an important role in the coming decades by helping to maintain stability along the EU's external borders.

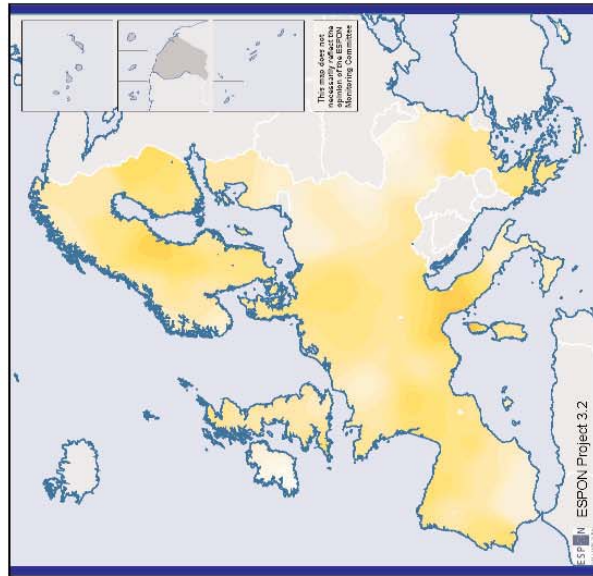
- **Ageing population, socio-economic dualisation and increasing cultural mix**

Europe remains out of line with current global population trends. The natural population evolution continues either to decline or remains at zero in the majority of European states. One structural trend that is likely to continue into the coming decades is the **increasing proportion of people of pensionable age in the general population (see map 3)**. In national terms, the countries with the highest levels of population ageing are Italy, Greece, Sweden, Belgium, Spain, Portugal, Germany, Bulgaria and France, while those with the youngest populations are Cyprus, Slovakia and Ireland. In a trend perspective, the **available indigenous labour force will shrink** as the "baby boom" generation reaches retirement age. As such, insufficient entrants will be available to replace those leaving the labour market, although a decrease in unemployment will partially compensate for this. This will make sustained economic expansion and the preservation of welfare levels difficult. To meet the challenges of an ageing society, the EU and the member states individually all attempt in various ways to enhance and better facilitate entry into the labour market by creating policies to further promote women's employment in all age brackets, but particularly in the older age categories, and to fully utilise the female employment potential among immigrants. This obviously implies the need for job creation. The challenge here is also to close the gender pay gap and to facilitate the reconciliation of work and family life. More recently, a debate over replacement immigration has begun in various European countries and at the EU level. The **population ageing process is not spatially uniform**. In addition to the differences *between countries* noted above, differences *between regions* are even more significant. While parts of the territory are and will remain congested – these are mainly metropolitan regions – many more rural regions are experiencing depopulation. This global pattern is in itself even more differentiated, as it also happens that large cities with obsolete economic bases are losing population while some competitively-orientated rural areas are increasingly able to attract retirees and the self-employed with a view to further developing their new "residential" economies.

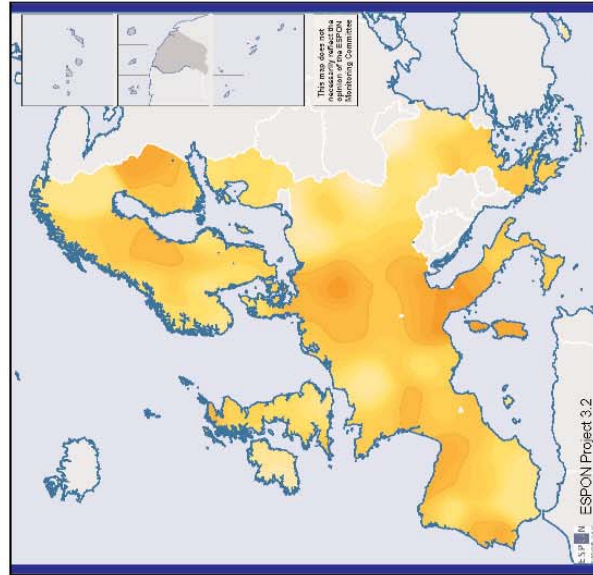
Immigration from outside Europe – both legal and illegal – is far from negligible and, for a number of countries, it is the sole means by which national population levels are being maintained. The respective shares of population originating from immigration and the annual levels of immigration however vary widely from country to country though the destination of immigrants is now more evenly spread than it once was, helped

Trend Scenario

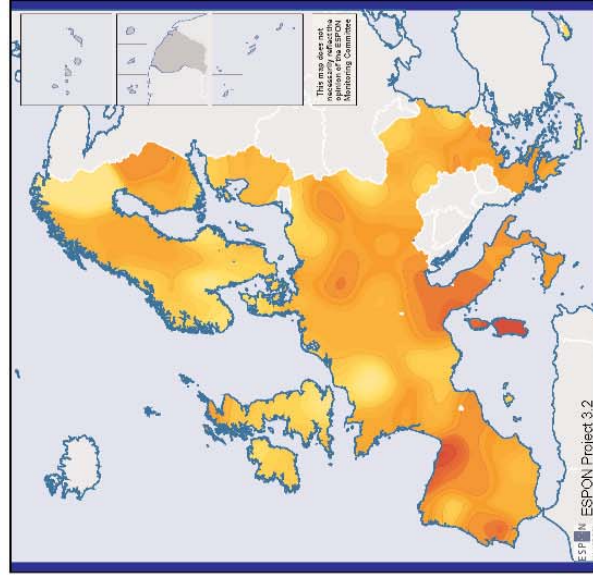
2000



2015



2030



Projections based on data from UNPP 2004; ESPON database 2005 and ULB 1991  
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Gasland C., Guerrien M., Lambert N. (2006) - UMS RIATE - ESPON project 3.2



no doubt by the EU's new approach to immigrants seeking refugee status in the context of the Dublin Convention. With regard to the location of external immigrants, the urban-rural divide is significant. **Most cities and notably most capital cities have a much higher proportion of foreign nationals, foreign-born and second and third generation immigrants than other towns or outlying rural areas.** The attraction of cities as settings for migrants and ethnic minorities can be explained by factors such as the extended supply of services available and access to housing, the possibility to remain close to family and kin and, in the case of illegal immigration, the greater ability it affords to remaining anonymous.

The levels of immigration reached thus far in most European countries inevitably raise the issue of the economic and socio-cultural integration of immigrants. **Access to employment is of key significance for social inclusion.** Immigrants from less developed countries suffer substantially lower employment and/or higher unemployment rates than those of either the EU or national averages, at least as far as official figures are concerned. It should also be noted that a significant proportion of illegal immigrants are also illegally employed with extremely low wage levels and without social security. This segment of the labour market has been growing throughout Europe in recent years. **Immigrants from non-industrialised countries are more often subject to poverty and social exclusion than the native population.** This, together with the growing size and emancipation of previously marginalised ethnic minorities increases the risks of tensions between socio-cultural communities. The debate around multiculturalism and whether assimilation is a preferable objective to maintaining separate ethnic and religious identities has consequently become increasingly intense with much of the focus on education and its potential as an effective integration tool. This is likely only to gain in importance in the years to come.

**Intra-European migration flows are also an important factor of territorial evolution.** Their nature is very diverse. They comprise retirees from northern European regions moving south to the Mediterranean regions as well as East-European workers in search of jobs moving to West-European countries. In the context of European integration and of the development of corporate enterprises, intra-European mobility in the service sector is also growing. The same is also true in the case of students. East-west migration flows related to the recent EU enlargements have largely been underestimated, causing in some cases scarcity problems for qualified manpower in the immigrants' countries of origin. The intensification of intra-European migration flows in the decades to come is highly probable in a context where national borders will become weaker while regional disparities remain significant and the number of retirees increases.

**Lifestyles are progressively changing in Europe,** in part influenced by population ageing. Clear indications of increasing mobility and changing consumption patterns now exist in older population groups. In light of economic globalisation and of the intensification of information flows, international experience is becoming an increasingly common phenomenon in the life of Europeans, affecting lifestyles, consumption patterns and basic values. At the same time, the perception of decreasing security, especially in cities, has led to the development of progressively less communitarian attitudes. **Mobility patterns are also being affected by changing values and attitudes.** Long holidays have largely been replaced by more frequent "mini-breaks" and shorter holidays. Non-work related mobility (leisure, culture, consumption, education) has increased, while home-working has developed and will continue to do so. The decreasing price of air fares has encouraged long-distance leisure mobility though rises in energy prices could significantly impact this sector in future.

- **Europe's innovation capabilities and the breakthrough of new key technologies**

Although the need for greater innovation is acknowledged in EU declaratory policy (Lisbon Strategy), the gap between Europe and other advanced economies (USA, Japan) remains significant. Based on current trends and despite "catching up" processes, it would take more than 50 years for the EU-25 to reach the US level of innovation performance. Only a small group of European countries show clear above-average performance (Switzerland, Finland, Sweden, Denmark and Germany). **The promotion of innovation is characterised by very strong territorial imbalances throughout Europe**, including a number of well-performing regions in the new member countries.

Europe's technological landscape will nevertheless be shaped in the coming decades by the **breakthrough of a number of key new technologies with possibly significant territorial impacts**. The progress of the knowledge economy is inescapable and is strongly related to technologies such as those related to **biotechnology, nanotechnology, material technologies and ICT technologies**. Further developments in ICT and its related applications should however benefit SMEs which nevertheless continue to return a below-average rate of adoption. The expansion of biotechnologies is expected to fundamentally change both agricultural livestock breeding and the production of plants ("green biotechnologies"). The debate around genetically modified species will intensify. New developments in "red biotechnologies" will be significant for medical care (new drugs and vaccines). The application areas of "grey biotechnologies", referring to industrial production processes and environmental engineering, aims, for instance, at reducing energy consumption and waste and at promoting less harmful substances. As noted previously, the energy sector is, and will remain, subject to numerous technological innovations. Some are quite ambitious with breakthroughs likely only in the medium to long term (de-carbonisation of fossil fuels, nuclear fusion etc). Numerous innovations in the transport sector in a variety of fields (car engines, electronic systems, materials, security systems, propulsion systems for ships etc.) are also in development. Each will contribute to energy savings, higher security, higher speed, a reduction in emissions, and the more efficient use of the transport infrastructure etc.

As far as the territorial impacts of technological innovations are concerned, they tend to be highly diversified and thus a distinction has to be made between the impacts related to *technology production* and those related to *applications and use*. **Technology production will largely remain concentrated in metropolitan areas. Applications, on the contrary, will show a more spatially undifferentiated pattern**, with some favouring the more central and urbanised regions and others the more rural areas. The diffusion process of new technologies is not however immediate and the less developed and more remote regions generally access innovative solutions and to modernisation only at a later stage. In a trend perspective, this time lag will remain significant, as territorial disparities within Europe are strong and the centre-periphery gradient is high. Public policy can however have an influence on this diffusion process.

- **Towards a new energy paradigm**

**Europe is relatively poor in conventional energy reserves.** The EU-25 imports around 80% of its oil with this figure perhaps rising to 90% by 2020. In the case of natural gas, the EU-25 currently imports 40% of their needs reaching almost 70% by 2020. As far as coal is concerned, the enlarged EU still has substantial reserves, but imported coal is far cheaper to harvest. As such, coal production in Europe continues to fall espe-

cially in the countries of central and Eastern Europe. Europe is also poor in nuclear resources (uranium). Conventional renewable energy sources (hydro-power) cover a modest part of Europe's energy demand (less than 5%) and are already almost fully exploited. **Europe's increasing external dependence, as noted previously, implies that energy security will be crucial** and thus that the vicissitudes of global geopolitics will continue to impact significantly on Europe's future. The significant increase in oil and gas prices in recent years reveals structural imbalances at world scale, with global demand rapidly increasing (due to new emerging economies) and supply constrained by depletion, insufficient investment, political troubles and cartel policies. Military conflicts in the Middle East (Iraq) and the risks of their further expansion add to the need to move towards a new energy paradigm, departing once and for all from to so-called "carbon economy".

While only modest energy saving policies followed the oil crisis of the 1970s, **Europe is now on the way towards a substantial change in its energy supply system**, reflecting a new awareness of the limited availability of fossil fuel resources and of the inescapable environmental impact of the global growth in energy demand. This new energy paradigm is composed of numerous facets. Improving the efficiency of energy consumption through the introduction of energy saving techniques both in buildings (houses, offices) and in economic activities (manufacturing, agriculture) is essential for further reducing the energy intensity of the European economy. High energy prices are also speeding up the structural transformation of the European economy towards a more technological and service-based model. The exploitation of renewable energy sources (solar, wind, biomass, tide and wave hydro-power) is accelerating, leading to the development of numerous new technologies and to substantial investments. While new technologies with strong energy impacts are also emerging in the transport sector (biofuels, hybrid engines, fuel cell engines), more structural energy issues around transport and mobility functions are being reconsidered (modal shift, potential mobility reduction, substitution of mobility through wider use of telecommunications). The impacts of climate change on the energy sector are also being taken into account, both in the fields of energy demand and supply. Technological development is not however limited to the renewables sector but also concerns the modernisation of more conventional energy supply techniques (coal gasification and liquefaction, new generations of nuclear power plants) as well as the emergence of new technology clusters (hydrogen technologies). **The energy challenge will be one of the most important for Europe's future and is also likely to generate both external (ensuring the security of energy imports) and internal (revival of nuclear electricity production) tensions.**

The assumptions for the trend perspective have to integrate the move towards a new energy paradigm, as it is inescapable, while a **significant number of territorial impacts at very different scales** are likely to result from it. Energy-intensive manufacturing activities in Europe with low added value will be increasingly abandoned because of insufficient profitability. This may affect the countries of central and Eastern Europe more strongly than those of Western Europe. On the other hand, Europe is likely to become a world leader in technologies relating to renewable energy sources and to new energy systems, an evolution primarily favouring the technologically advanced regions of the central pentagon. Rural areas will be significantly affected by the new energy paradigm, both in positive and negative terms. While the rapid development of biomass production (biofuels etc.,) will generate new income compensating for the decline of EU support to agriculture, it may also cause serious environmental problems relating to intensive agriculture and forestry. Further negative aspects include the impacts of higher energy prices on the declining competitiveness of various agricultural products and on the accessibility of remote rural areas. On the other hand, set-aside land, where appropriate,

can be reconverted into the production of energy crops. Southern regions are however less favoured in this respect because of the likelihood of increasing drought conditions.

In the long term, steadily increasing energy and thus transport prices will have a significant impact on settlement systems. Even if the general trend is still weak, **an evolution towards more compact cities and towards the concentration of new settlements around public transport hubs can already be observed. This trend is however more or less offset by increasing land and housing prices in large cities, which act in favour of growing suburbanisation.** In the coming decades, tensions between these two competing factors will remain high. In a trend perspective, mobility needs will be reduced by increasing home working and the wider use of telecommunications for all kinds of service-related activities. The urban environment will benefit from the breakthrough in new car engines (hybrid cars, fuel cells engines) which are much less damaging to the environment. Further environmental concerns may however result from the development of new nuclear power plants and from the proliferation of wind energy facilities in attractive landscapes and tourist areas.

- **Congestion and unequal accessibilities**

Europe's transport situation is characterised by high levels of traffic congestion in urban areas and on major inter-urban transport corridors, a strong imbalance between transport modes in favour of road and air transport, missing links in transport infrastructure, especially in the new member countries and a lack of interoperability within specific transport modes. Transport systems have not kept pace with the speed European integration and still largely reflect national patterns and characteristics. While congestion mainly affects the more central regions and the obsolete networks of Central and Eastern Europe, the European peripheries are generally characterised by poor accessibility.

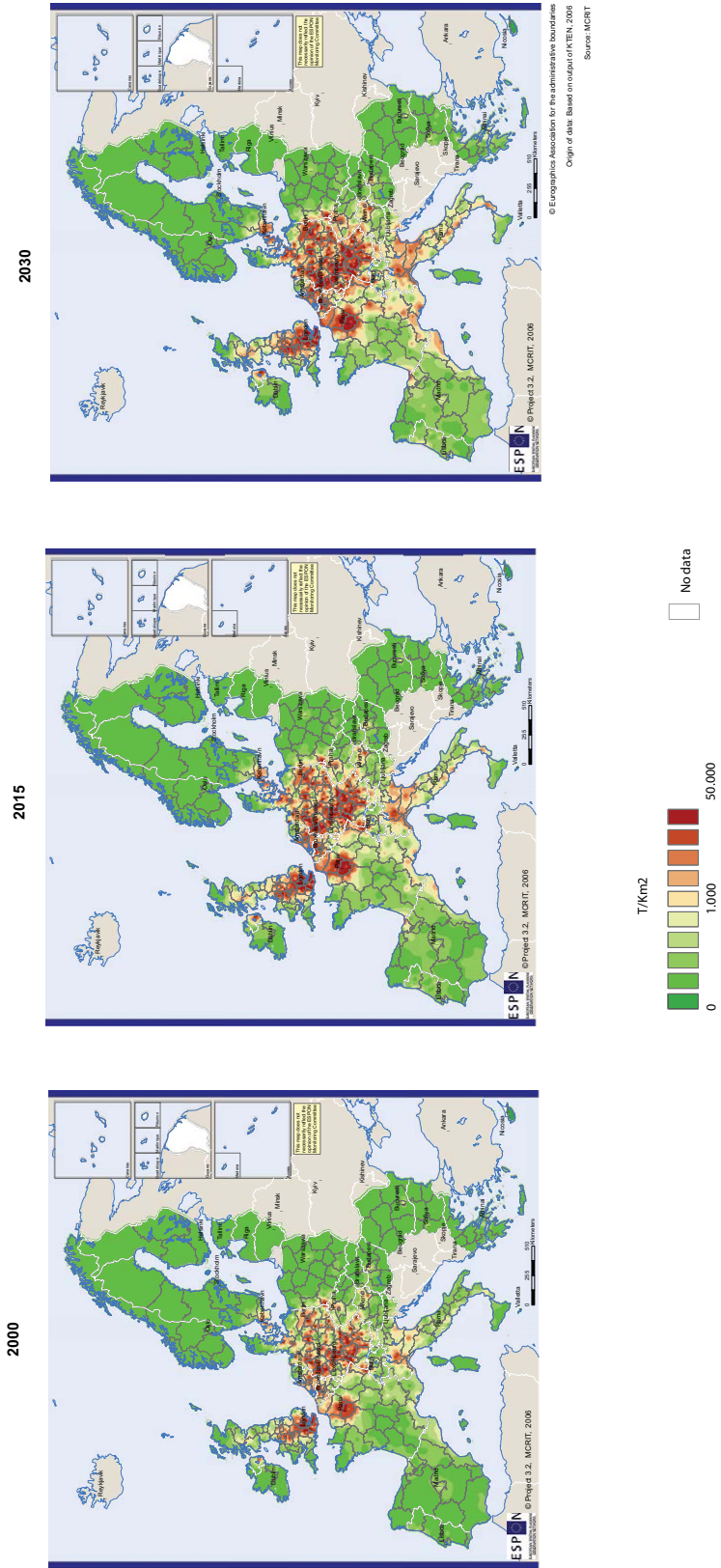
Various factors however contribute to a future change in the transport situation. As far as flows are concerned, **ongoing European integration and the recent EU enlargements in particular generate increasing transit traffic** across a number of countries, requiring a rapid recalibration of the transport infrastructure. Structural changes in the European economy favour the transport of light products with high added-value, while that of raw materials and heavy industrial products is declining. The **development of high-speed train networks strengthens the relative accessibility of the regions serviced, in particular the most central ones.** The emergence of low-cost airlines does not only increase general air traffic which becomes competitive even against railway transport over relatively short distances, but also boosts the development of regional airports. In many respects, this has been beneficial for the accessibility levels of the more peripheral and land-locked regions.

Transport policies are not free of contradictions. While a policy of sustainable transport with a lower environmental footprint and better balance in terms of modal shift was conceived and adopted at the EU level in the early 1990s, **new priorities in favour of substantial motorway developments have been approved in recent years in a number of countries.** Such policies are being justified in the countries of Central and Eastern Europe by growing motorisation and the obsolescence of the existing road networks, though similar programmes have also been implemented in Western Europe. The evolution in the energy sector should act in favour of more energy-efficient transport modes, particularly in the rail and maritime sectors. As yet however such an evolution cannot be perceived with any great certainty. **Though oil price increases may have an**

impact, it is likely that prices will have to rise to a truly phenomenal level to significantly influence this situation as the desire for the “freedom” that car ownership potentially brings is basically inelastic in economic terms. Thus CO<sub>2</sub> emission levels are likely to continue to increase (see map 4).

Map 4

CO<sub>2</sub> emissions per surface due to inter-urban road traffic. Trend scenario



Increasing oil prices will undoubtedly however have an impact on various segments of the transport sector. Technological developments are advancing, as already noted, in the field of car engines (hybrid cars, fuel cells engines) and new attitudes and practices are emerging, such as car sharing and the increased use of public transport where possible. Public policies at the local and regional levels generally take the new energy situation into consideration and favour the development of public transport networks. **It is then to be expected that the new energy paradigm will become ever more fully integrated into global transport policy at the EU and national levels in the years to come.**

- **New territorial challenges for environmental sustainability and the impacts of climate change**

The environmental situation in Europe has generally improved in recent decades thanks to political intervention leading to tighter regulations being imposed on polluters and, ultimately, to fundamental changes in the economic structure of the European economy. Nevertheless, **a number of environmental challenges persist many of which have a particularly significant territorial dimension.** As far as **water quality** is concerned, the main source of diffuse pollution is agriculture, particularly the release of nitrates as a result of fertilizer and manure utilisation. Ground water is therefore expected to become even more polluted in the coming decades, since nitrates and pesticides filtrate into groundwater very slowly. While rivers are now recovering from *severe* pollution as a result of a sharp reduction in point source pollution, *diffuse* pollution will continue for decades to come and will pose a threat to the quality of drinking water in numerous areas, both in Eastern and in Western Europe. Areas particularly affected in the coming decades are likely to be the Paris Basin, the Benelux regions, northern Italy and northern Germany. The intensive production of energy crops is moreover likely only to increase this problem.

**Water shortage** will become an increasingly serious problem in Southern Europe due to the alarming increase in the drought trend for this area, calling for a number of new strategies (desalinisation of sea water, water transfer between river basins, limitation of irrigation and of the expansion of tourist resorts, changes in agricultural production etc.). As in the case of ground water, a tighter regulatory framework has also contributed to a significant improvement in **air quality** throughout Europe (lower ozone concentration, a reduction in the emission of fine particulates and of sulphur dioxide, of nitrogen oxides and of green house gases). The continued growth of road traffic despite higher energy prices, driven by economic development and infrastructure investments, is likely however to endanger this process of air quality recovery, even if new generations of less polluting car engines emerge. Growing motorisation in the countries of Central and Eastern Europe may offset the improvement in air quality resulting from the closing down of obsolete, heavily polluting industrial plants. Forthcoming EU regulations and the further implementation of existing ones as well as other international agreements (the follow-up to the Kyoto Protocol) will also substantially influence the evolution of Europe's environment.

**The evolution of natural areas and biodiversity is subject to a number of contradictory developments.** The implementation of the *Natura 2000* programme has provided the most valuable natural areas, covering a large part of the European territory, with a sufficient level of protection. However, **connectivity between these protected areas through ecological corridors is not fully reached while a multitude of other factors continue to further threaten biodiversity,** such as the pressure of infrastructure development, tourism, holiday home developments, and the abandonment of farms in less productive and dry rural areas. In the open

fields in the polders and deltas where the practice of agriculture is becoming increasingly industrialised, many elements of the natural landscape will in the process be further removed. Many natural areas in the new Member States will be converted into farmland. Particular pressure and significant environmental damage is then to be expected in attractive coastal and mountain areas, such that, in a trend perspective, biodiversity will not significantly progress in the coming decades and will even regress in a number of areas.

Public awareness of the importance of **climate change** for territorial development and environmental protection has already reached a significant level in the early 2000s. **Significant damage has occurred over the past decade with floods, droughts, heat waves, and forest fires all becoming more frequent.** Some impacts have a stronger structural character than others which can be more rapidly treated. **Progressive drought is a factor of structural character in southern Europe** which will significantly reduce the productivity of agriculture and will threaten tourist development. The abandonment of large areas of dry land agriculture is likely to favour both the return to wilderness and forest fires. Drought also has severe impacts on the production of hydro-power and increases the need to import energy. Winter sports activities are likely to decline in a number of mountain areas of the southern half of Europe, including the Alps. **A number of regions may however benefit from progressive climate change**, such as rural areas in the northern half of Europe where new potentialities arise in terms of agricultural production and the mountain areas of northern Europe where demand for winter tourism will increase. In a trend perspective, policies related to climate change will remain rather heterogeneous. The need for the intensification of prevention measures is far from being globally recognised and significant differences remain between the European countries in this respect, with some investing significant resources into flood-prevention while others limit their interventions to post-event clean up and repair.

## 2.2 A picture of the European territory by 2030 in a trend perspective

By 2030, the configuration of the European Union has not significantly altered since 2007, when Romania and Bulgaria became member countries. In the intervening period only the countries of the Western Balkans joined, around 2020, while the much delayed negotiations with Turkey were only just completed by the end of the period in question. The continuity of the neighbourhood policy and the expansion of the free trade agreements have each helped to produce stability in the regions surrounding the EU.

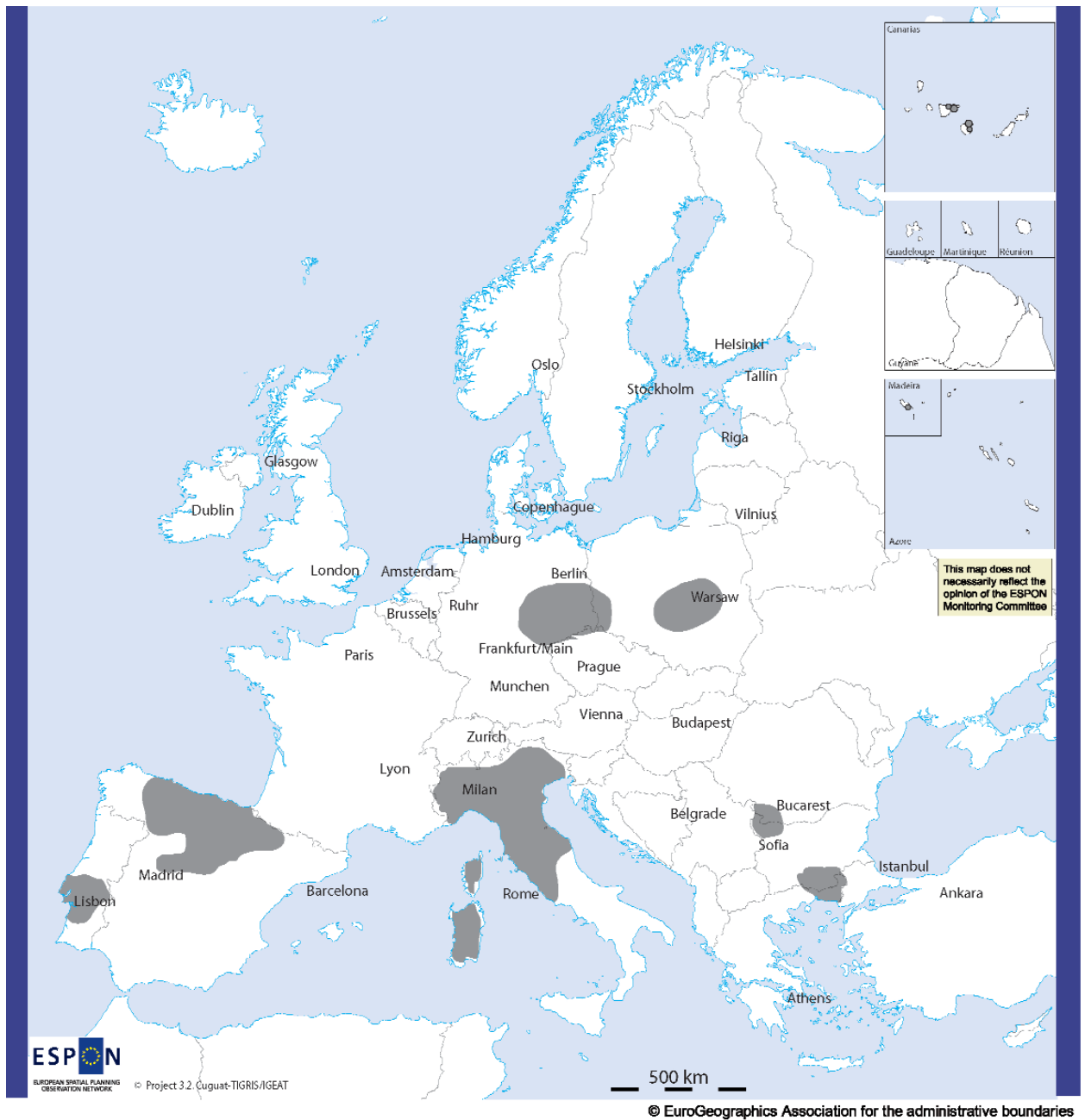
### *The territorial footprint of population ageing has not been uniform*

The population ageing process, already observable in the early 2000s, has been further amplified up to 2030 despite a revival of fertility rates in a number of countries. **By 2030, most European regions have reached a median age above 45 years, with a number of regions even above 50 years**, such as north-west Spain, northern Italy and Sardinia, Corsica, East-Germany, Scotland, and central Sweden (see map 5). The few exceptions to this rule include western and southern France, England, Ireland, southern Norway, southern Finland and a few regions along the eastern borders of the EU. **Stronger demographic potential can be observed in numerous metropolitan regions**, especially those of north-west Europe, as well as in a number of more isolated regions, such as Cyprus, Crete and north Portugal. On the other hand, **depopulation trends increasingly affect a number of more rural and remote regions** (the western, southern and eastern peripheries, east-Germany). Large cohorts of people have retired from professional life while the demand for highly skilled manpower has been growing throughout Europe, generating increasing competition between countries and

regions, sharpened by the out-migration of outstanding professionals and researchers towards North America and other highly developed economies. Moreover, the opportunities provided by the large number of retirees to put in place a more balanced labour market were not fully exploited because of inadequate integration policies and education levels. While the scarcity of highly qualified people can now be seen in numerous regions, many poorly qualified people have remained unemployed while the number of illegally employed low-skilled immigrants has also grown.

## Map 5

### Severe ageing in 2030 according to the Trend Scenario



Severely ageing areas



### *Winner and loser areas of the globalization process*

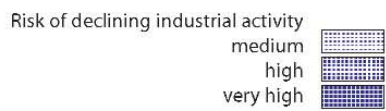
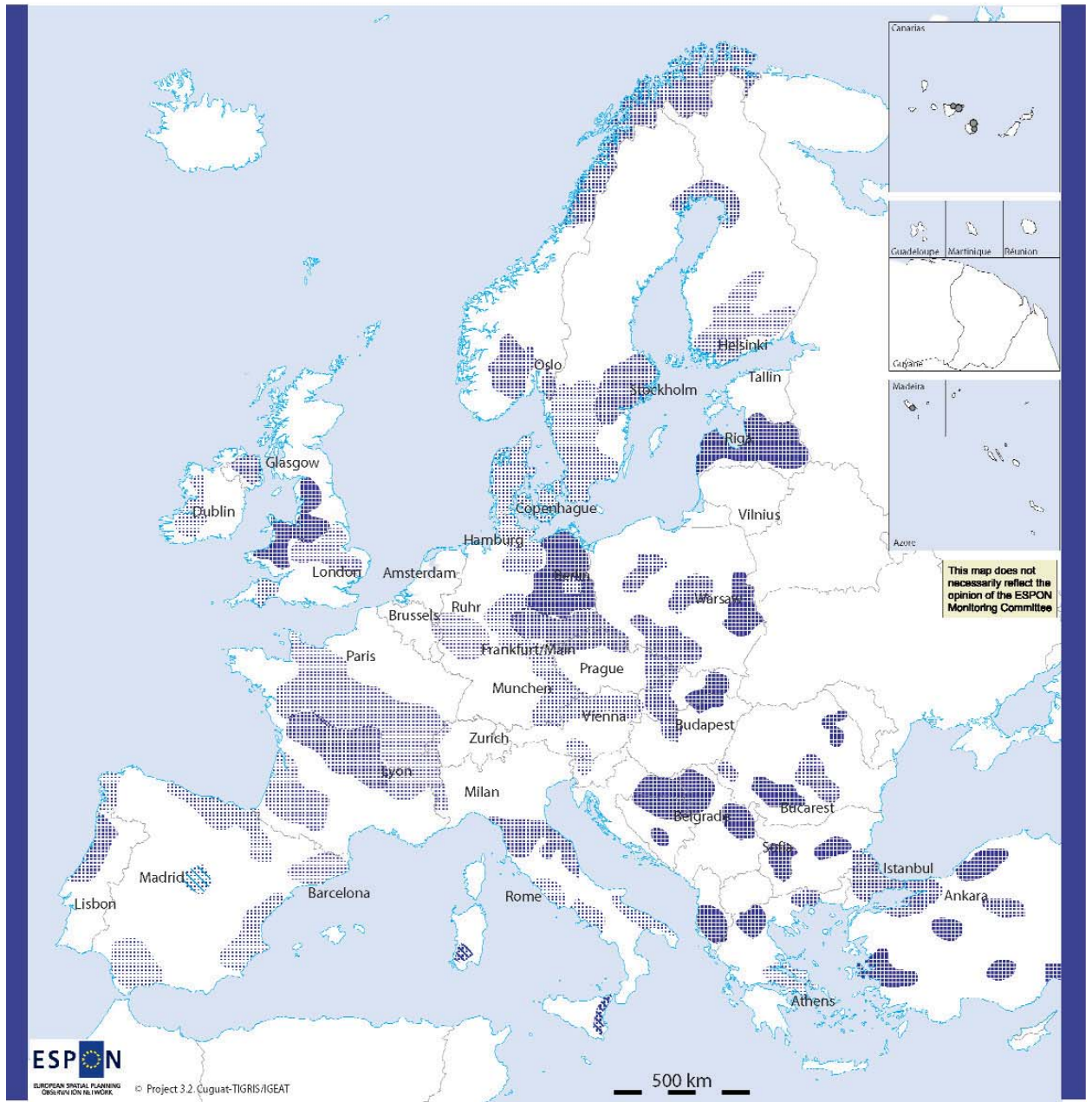
Globalisation processes have been further driven up to 2030 by declining transaction costs and growing market openness for capital, goods and services. The European economy has been significantly transformed from that of the early 2000s. A number of European enterprises have become world leaders in their specific sectors and have significantly expanded their activities into other continents. Growing parts of the European economy have however become owned and controlled by non-European corporate companies, with decision centres transferred outside Europe. **The knowledge and service economy has progressed while large segments of manufacturing activities based on low and medium technologies have been abandoned or relocated outside Europe.** These global evolutions, added to those more specific to Europe, have had strongly differentiated territorial impacts. **Generally, metropolitan regions have largely benefited from the globalisation process** and from the related restructuring of the economy. Not only those of the so-called central pentagon (London, Paris, Milan, Hamburg, Frankfurt, Düsseldorf, Stuttgart, Munich etc.), but also more peripheral ones (Dublin, central Scotland, Lisbon, Madrid, Rome, Naples, Athens, Stockholm and southern Finland) have been involved in these growth process. In addition to individual metropolitan regions, sustained growth has also taken place in some larger areas, such as the French southern belt, Denmark, and a cluster of areas with particularly strong growth along the Brenner axis, encompassing the Munich metropolitan region, western Austria and the eastern Alps in Italy. A more typically intra-European specificity has been the so-called **“catching-up” process of the East-European economies**, especially after the EU enlargements of 2004 and 2007. Up to roughly 2015, regional growth rates largely above those of west-European regions were observed in the Baltic States, Poland, and eastern Slovakia, the western regions of Romania and Bulgaria as well as Cyprus in the eastern Mediterranean. **After 2015, the pattern of growth however accentuated the contrast between metropolitan and non-metropolitan areas, both in Eastern and in Western Europe.** Not all regions however benefited from the globalisation process. Below-average growth rates have been typical for large parts of the western European peripheries (large parts of the Iberian Peninsula, of the Nordic countries, of southern Italy and Greece). A number of regions surrounding the central pentagon have also performed less favourably, such as those of central and western France and the “Third Italy” with its industrial districts of SMEs. After 2015, the more rural and remote regions of the eastern peripheries also entered into a spiral of relative and sometimes absolute decline (see map 6).

### *Accessibility has progressed along a concentric pattern*

Up to 2030, the transport situation in Europe has been conditioned by rather modest average economic growth, but traffic flows have however continued to increase under the influence of continuing European integration, of accelerating globalisation and of catching-up processes in Eastern Europe. The nature and geographical distribution of flows has also changed thanks to structural evolutions in the economy and to EU enlargements. **The levels of traffic congestion have generally increased.** In Central and Eastern Europe, however, ambitious programmes of infrastructure development (mainly motorways) have alleviated the bottlenecks of the early 2000s. More and more public-private partnerships have developed to provide the necessary financial resources. The privatisation of networks has progressed as has the liberalisation of the railway sector. **The pattern of accessibility evolution up to 2030 has however remained a concentric one. The areas with high Europe-wide accessibility covering the central pentagon have been widening in almost all directions,** thus attenuating somewhat the accessibility handicap of peripheral regions. Nevertheless, disparities in accessibility between centre and periphery have remained significant, especially as

# Map 6

## Industrial decline in 2030 according to the Trend Scenario



far as goods transport is concerned. **At lower scales, the territorial differentiation of the demographic structure** (younger generations in metropolitan areas and more retirees in rural areas) **has been accompanied by a corresponding differentiation in mobility patterns.** Population ageing and the increasing number of retirees have generated new forms of mobility, very different from the classical home-work relations and instead linked to recreation, cultural activities, leisure travel and health care etc. Higher oil prices have influenced behaviour to a certain extent, with stronger use of public transport, increasingly widespread car sharing and the gravitation of residential locations towards areas serviced by public transport. The introduction of new transport technologies has contributed to increasing safety, to saving energy and to increasing the efficiency of both infrastructure and networks.

### *Reshaping energy systems has been spatially significant*

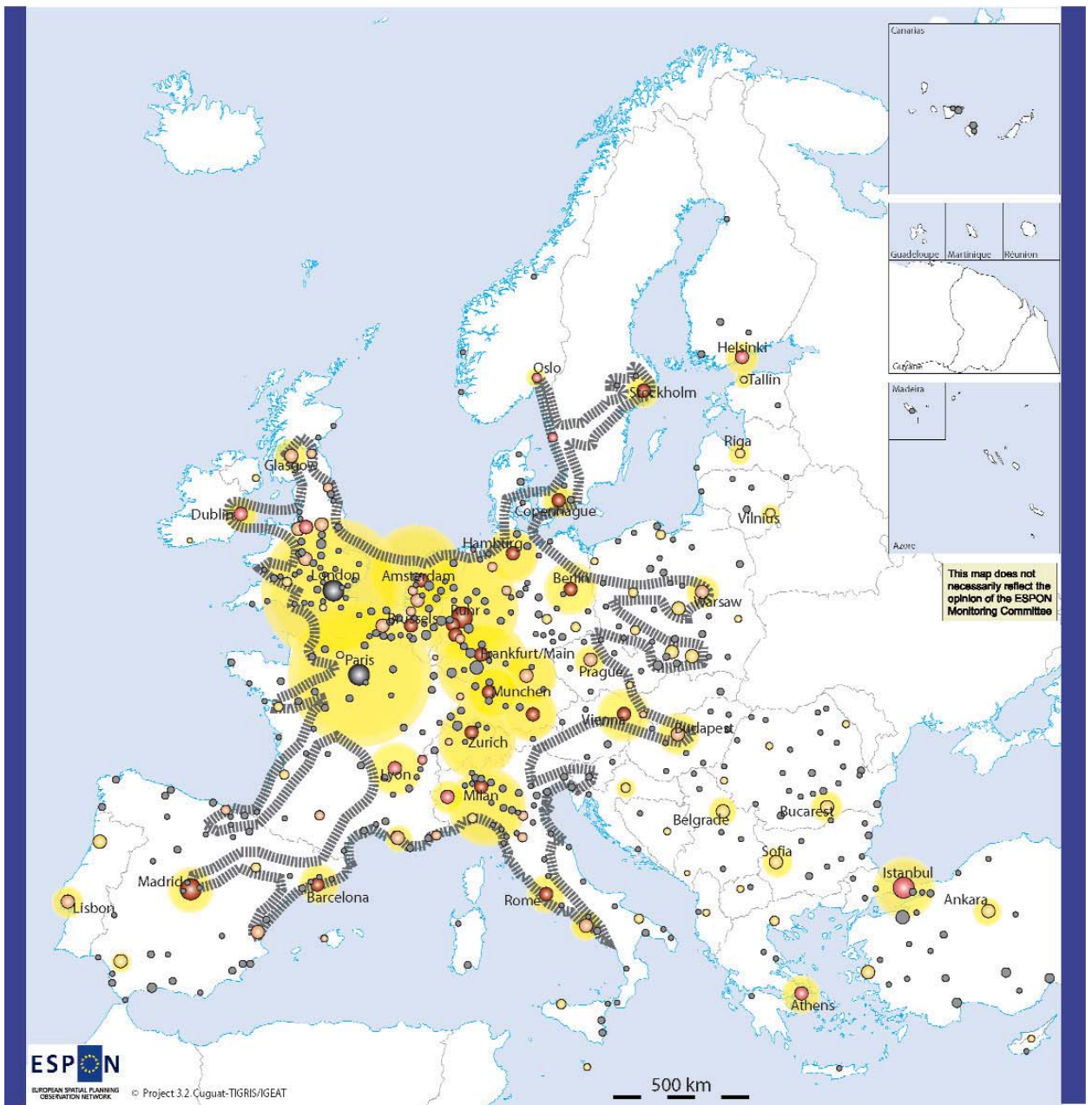
The new energy paradigm has generated a number of significant territorial impacts, both in relation to energy production and to energy consumption. On the production side, the exploitation of renewable energy sources has been characterised by significant developments, especially where investment capacities existed. **Numerous fertile rural areas have moved towards the production of energy crops,** both in Western and Eastern Europe, and processing plants have been developed in locations where large quantities of such energy crops are available, including through mass transport. In addition to large rural areas, a number of port areas have also benefited from such developments. Tidal and wave hydro-power has been developed in a number of Atlantic coastal areas, while **wind energy has benefited numerous coastal areas and regions with medium-sized mountains.** Solar energy has also widely expanded, both for heat and electricity production, benefiting numerous regions. A significant revival in nuclear electricity production has taken place in numerous European countries, making use of new generations of nuclear power plants, to supply the large urban regions where electricity demand has been growing. On the consumption side, numerous and significant investments have been carried out to save energy, both in manufacturing industries and in private houses. **Various energy-intensive industries (especially those producing aluminium or steel) have been relocated outside Europe.** Mobility and location patterns have changed. Migration flows towards regions with attractive climate conditions have continued to develop, irrespective of national borders.

### *Urban Europe has become more polarized*

From a global perspective when compared to the early 2000s, European “global” cities have modernized their economic and technological base though their collective competitive position vis-à-vis the global cities of North America and Asia has not changed. **At a Europe-wide scale, the metropolitan areas of the pentagon, together with a few others, have strengthened their leading European position. The central pentagon, as defined in the late 1990s, has been expanding along major corridors with significant metropolitan areas,** towards the British Midlands, the southern parts of the Nordic Countries, the Rhone Valley and the Danube Valley up to Budapest (see map 7). The network of high-speed trains connects most of the metropolitan areas of the wider pentagon. A number of networks of cities have been emerging inside and outside the pentagon, supported by efficient co-operation in research and technological development. The consolidation of these networks has led to the development of wider areas, especially the Baltic Sea Region and the new “Triangle” of Central and Eastern Europe, formed by Vienna, Warsaw and Budapest, including Prague, Dresden and Bratislava. **The development of polycentricity has taken place through the expansion of the pentagon rather than through the development of alternative global economic integration areas.** Remote peripheral regions, and even those with large cities, have generally not been

Map 7

Spatial structure and urban hierarchy in 2030 according to the Trend Scenario



ESPON  
EUROPEAN SPATIAL PLANNING  
OBSERVATION NETWORK  
© Project 3.2. Ciguat-TIGRIS/IGEAT

© EuroGeographics Association for the administrative boundaries

- Urban typology: ● Global City ● European Engine ● Strong MEGA ● Potential MEGA ● Weak MEGA ● Regional/Local City
- Attraction and polarisation potential of metropolitan areas ● Area of concentration of flows and activities

successful in generating or maintaining sustained development processes, so that no global economic development area emerged outside the wider pentagon. As a result, **large cities in the peripheries remained rather isolated** in their development processes and have not significantly benefited from network and synergy effects.

At an intermediate scale, **the level of polycentricity in the national urban systems of the countries of Central and Eastern Europe and of the southern peripheries has been reduced**, compared with that of the early 2000s. This is a result of territorial differentiation in the long-range economic trajectories of regions. In the countries of Central and Eastern Europe, rural-urban migrations have been significant up to 2030, precisely because of the process of territorial differentiation. Nevertheless, a substantial part of the rural population has been urbanised *in situ*, i.e. without long-distance migration. Migration flows have also developed from small to larger urban centres. In Western Europe, both urban-rural migrations (retirees, self-employed etc.) and rural-urban migrations (young employed, students) have co-existed during the three decades since the early 2000s such that the demographic structure of large cities is generally much younger than that of numerous rural areas. **A territorial division of generations has progressively taken place.** In a significant number of regions with traditional industries, both in Eastern and Western Europe, large, medium-sized and small towns have all been declining in the context of accelerating globalisation and, by 2030, now face serious difficulties in their attempts to recover and to generate new activities. In Europe as a whole, a number of regions which are attractive for residential and tourist functions have however developed. Some of this development has been quite strong even in the absence of significant cities. The emergence of ICT as a central economic sector in the new European economy has significantly contributed to such processes.

Important differences with the urban systems of the early 2000s can however be identified at the local/regional level. **A number of factors with cumulative impacts have contributed to reshaping urban settlements, the two major ones being increasing perception of insecurity in cities and increasing energy prices.** Insufficient economic, social, educational and cultural integration has strengthened social and physical segregation in cities and precipitated sporadic outbreaks of urban unrest and rioting. Poorer areas have often been abandoned by “European origin” populations and by “better-off” immigrants families, who have instead moved to more “secure” or “quiet” areas, either in other parts of the agglomerations or into smaller settlements in the surrounding rural areas. In many cities as well as in tourist resorts gated communities have emerged. Electronic security facilities are omnipresent in cities and on public transport. This type of evolution has been most obvious in the metropolitan areas of the pentagon and in the Mediterranean regions. **As socio-economic dualisation has also significantly increased in the countries of Central and Eastern Europe, urban social and physical divides have grown there also.**

High oil prices have favoured compact cities, with lower volumes of commuting movements, higher use of public transport systems and better integration of urban functions. Recreation and leisure facilities were generally developed in proximity to such agglomerations. Densification and new green-field urban developments generated by higher housing prices in cities took place in close proximity to public transport network hubs. In addition, home working has been significantly expanded thus limiting home-work mobility. **The urban pattern at regional and local level is one of increasing social/physical segregation combined with more compact approaches to new developments and redevelopment.** It is however clear that this glob-

al pattern is largely differentiated according to the type of region. It has taken different shapes in booming metropolitan areas and in declining medium-sized industrial cities.

The environmental quality of urban areas has progressed as far as air quality and noise levels are concerned, mainly through the widespread adoption of new car engines (hybrid cars, fuel cells engines). Social tensions and physical segregation have however led to the expansion of areas with a degraded environment and derelict character. **The quality of the living environment in cities is increasingly subject to a dual process** with, on the one hand, areas of improving environment and gentrification and, on the other, populous areas with poor living environments.

### *Rural Europe has accentuated its internal differentiation*

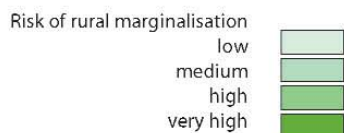
During the three decades following the year 2000, European **rural areas were subject to strong dynamics**. The **diversification process** already initiated in 1990s Western Europe continued and was also extended to Central and Eastern Europe. The new member countries benefited from CAP support, the CAP itself being subject to some subsequent reforms, including the implementation of WTO decisions. The development of the production of biomass and energy crops however gave new impetus to rural areas, including less fertile ones. Finally, the acceleration of climate change proved to be rather detrimental to rural areas in the southern half of Europe, while it was beneficial in the northern half.

By 2030, rural areas and landscapes in Europe have become much more diversified than they were in the early 2000s. **Some have substantially increased their population density because of their proximity to large towns and metropolitan areas and their attractiveness for residential and tourist functions**. These are spread throughout East and West in the environs of large cities, in coastal areas, in the attractive valleys of mountainous regions and in a number of Mediterranean regions with favourable climates. The degree of economic diversification of these rural areas is rather high. **At the other extreme, a significant number of remote rural areas have more or less been abandoned**, particularly rural areas strongly affected by out-migration and population ageing and rural areas less attractive for residential or tourist functions (see map 8). Various types of intermediate situations can however also be observed, with some rural regions taking advantage of EU support (CAP and Rural Development Policy) to stabilise their economic performance over the long-term, while others with smaller production structures and declining industrial activities are unable to avoid slipping into a downwards spiral. Numerous rural regions of Central and Eastern Europe, with the exception of those in the proximity of large towns, have lost population after their accession to the EU, despite the substantial amount of support given to agriculture.

Up to 2030, numerous changes have taken place in agricultural systems, both in Eastern and Western Europe. **A dual system of agricultural economy has been consolidated, boosted by further liberalisation of agricultural exchanges and by European integration**. In large fertile areas and/or those close to the main consumption centres (agglomerations, tourist areas), large-scale, highly mechanised agriculture has developed, employing very few people. Large farms already dominated in the early 2000s in the UK, in the Czech Republic, in Slovakia, in East-Germany, in north-west Poland and in a few regions in France. After 2010, a rapid concentration took place in Hungary, Romania and Bulgaria. These large and cheap agricultural areas attracted numerous farmers from Western Europe (Netherlands, Germany, Austria, Denmark, and Sweden) to buy or rent land and to set up large farms. These farms have successfully resisted the pressure of global com-

Map 8

Rural marginalisation in 2030 according to the Trend Scenario



petition and dominate in the production of agricultural products; a significant proportion of them have moreover developed export-oriented production processes. In such areas, powerful energy companies have bought up large agricultural estates to produce energy crops. In less fertile or less favourably located areas, especially those dominated by small farms, a more diversified evolution has taken place. The most successful of these

regions could change the profile of their activity (rural tourism, traditional handicrafts, organic farming) or strengthen some specificities ("terroir" or "local produce" products, regional brands). CAP subsidies (direct payments to farmers) as well as the production of energy crops at smaller scale, also contributed to stabilising the economic performance of such regions. In less favourable areas, numerous farms have been abandoned, being pushed out of agricultural production by competition. Many areas of this type are to be found in the European peripheries, but also in some more central regions.

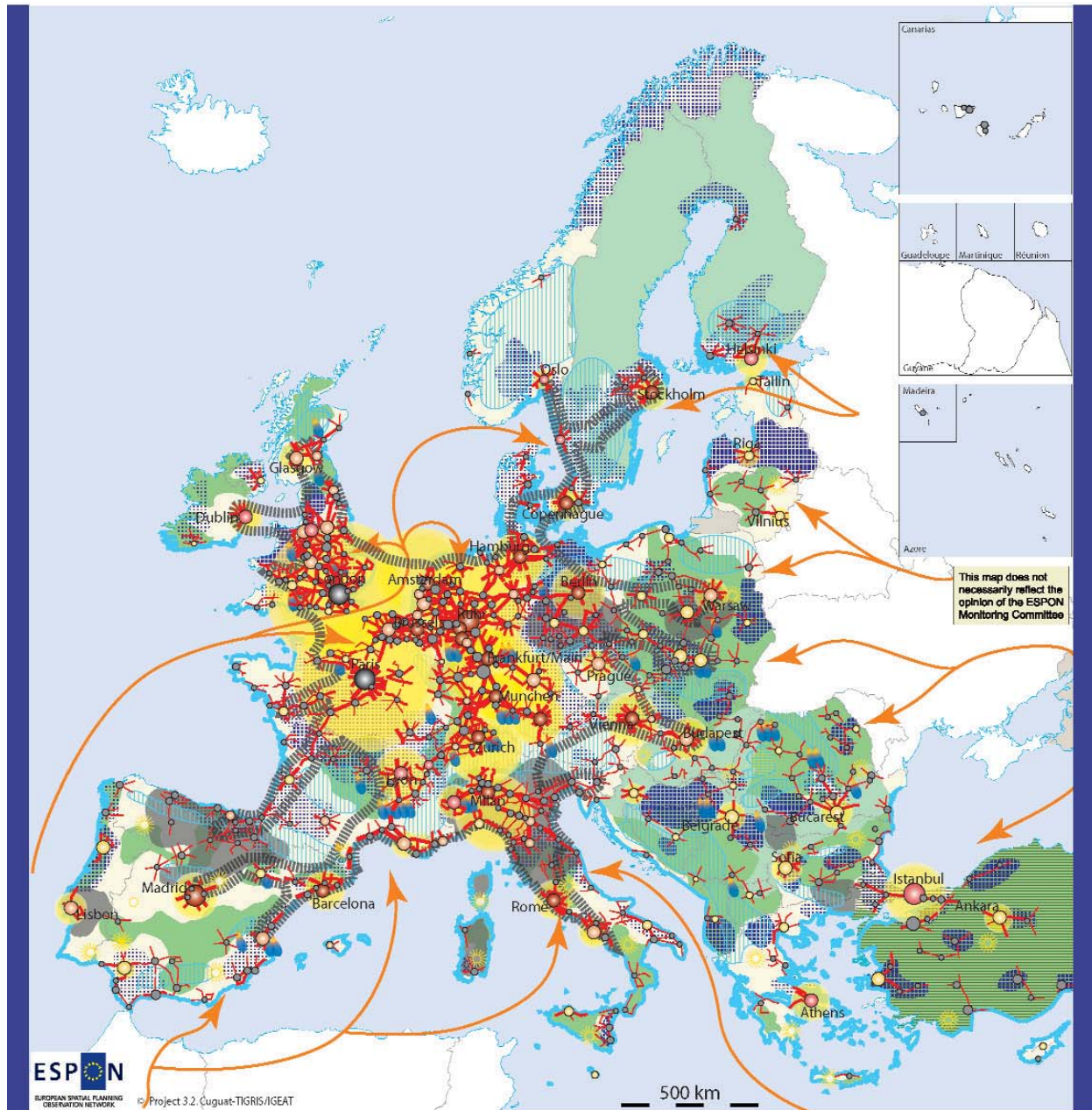
**The impacts of climate change have been detrimental to numerous rural regions in the southern half of Europe.** Drought has severely reduced agricultural production and has even led to the abandonment of agricultural activities in areas where irrigation was no longer possible and where alternative agricultural production could not be successfully envisaged. Forest fires have generalised and permanently destroyed traditional landscapes, adding to the drought problems, because of the reduction of the humidity retention capacity of the soil in mountainous areas. Indirect negative impacts have taken place on rural and coastal tourism and on hydro-power production. As a counterpart, rural areas in the northern half of Europe have benefited from this evolution. Demand for specific agricultural productions has increased, as well as for rural tourism. A new growth impetus benefited rural regions in the northern parts of Central and Eastern Europe (Poland, Baltic States, Czech Republic, Slovakia and East-Germany) in particular. The rural environment has been subject to contradictory evolutions. The generalisation of EU environmental legislation throughout Europe has brought with it positive impacts for nature protection and surface water, while the intensification of agriculture in the most fertile areas and the acceleration of climate change were detrimental to ground water quality and resources, to traditional cultural landscapes and to soil protection.

The following map illustrates the **attraction and polarisation of metropolitan areas** in 2030. From this figure, we can see a remarkable concentration of strong metropolitan areas in the former pentagon, but also in less central regions (mainly capital cities and other European engines). The former pentagon of the early 2000s, grouping the **areas of concentration of flows and activities** has expanded, mainly along the main transport corridors, in the direction of important MEGAs like Barcelona and Madrid, Rome, Glasgow, Copenhagen, Stockholm and Oslo, Berlin and Warsaw, Prague, Vienna and Budapest. The basic characteristics of settlement systems in terms of **polycentricity** have not fundamentally changed. Various types of areas have run significant risks of economic decline in relation to progressing globalisation and European integration. The trend towards the **marginalisation of various rural areas**, already observed in the early 2000s, has generally continued, but with regional variation. In some areas, the number of available jobs declined significantly. In others, population ageing and even depopulation reached a critical level. Accelerating globalisation has affected a significant number of industrial regions with low or intermediate technologies, exposing **the risk of declining activities**. The most severely affected areas lie in central and eastern Europe. **External immigration** (legal and illegal) has continued, with immigrants settling mainly in metropolitan areas, including Central and Eastern European cities. The **areas with a high potential for tourism and retirement** have specific geographical attributes (coastal, lake and mountain regions), while other **ageing areas** are mainly found in remote rural regions without specific attractiveness. Various regions are subject to the **impacts of natural hazards which can be various in nature**. The least affected regions lie in northern Europe.



Map 9

Trend Scenario - Final image 2030



ESPON  
EUROPEAN SPATIAL PLANNING  
OBSERVATION NETWORK

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500 km

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

Urban typology:

- Global City
- European Engine
- Strong MEGA
- Potential MEGA
- Weak MEGA
- Regional/Local City

Attraction and polarisation potential of metropolitan areas

Level of polycentricity

Risk of rural marginalisation

low

medium

high

very high

Severely ageing areas



Risk of declining industrial activity

medium

high

very high

Migration

High potential for tourism and retirement



© EuroGeographics Association for the administrative boundaries

Resulting impacts of natural hazards

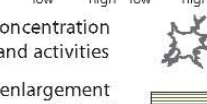
Recurrent drought and fires

Recurrent floods

low high low high

Area of concentration of flows and activities

UE enlargement by 2030 (Turkey)



### 2.3. Territorial and policy issues arising from the trend scenario for 2030

The trend scenario is based on the assumptions that public policies have not fundamentally changed up to 2030, although public expenditures have been reduced, CAP support to rural areas has diminished and the liberalization of trade has accelerated. **The scenario clearly illustrates that such policies are not tailored to the new challenges which have emerged.** A number of shortcomings can be identified. At the global level, the modernization of the European economy has been insufficient and the Lisbon Strategy launched in the early 2000s has remained “wishful thinking” as its implementation did not pay enough attention to the variety of potentials across the various European regions. Issues related to the fragmentation of the European economy have not been properly addressed by EU competition policy, leading to growing external control of the European economy. Family policies have remained weak and heterogeneous among European countries, such that fertility rates have not been sufficiently revived. The lack of a coherent and selective immigration policy has favoured further illegal immigration, while the scarcity of qualified manpower has increased, constraining the labour markets and the expansion of the economy. At a more regional/local scale, structural policies have allocated significant amounts of EU public resources to all types of infrastructures, including those with low economic profitability, generating low levels of private investments. Such policies were, moreover, not sufficiently targeted at exploiting renewable energy sources or at preventing the potential damage caused by the natural hazards which were now increasingly likely to result from climate change. The lack of efficient policies addressing the economic and socio-cultural integration of immigrants and minorities has generated a growing social divide, and as a result both widespread insecurity and segregation, with damaging impacts on the image and economy of cities.

# Policy choices and their impacts

## 3.1 Territorial impacts of public policies: The drawbacks of non-coordination and alternative policy systems

A large number of public policies have territorial impacts, even if they are not aimed at modifying the spatial characteristics of the region or of the country where they are applied. The nature of such territorial impacts is as diverse as the ways in which public policies influence the behaviour of economic actors and of households or invest resources in all types of infrastructures. This is why it has remained a long-held view that **the achievement of spatial development strategies was not realistic without the coordination of a large number of public policies**. In various European countries, specific procedures or bodies have been established at national and/or regional level such as inter-ministerial committees for spatial development policies or anticipatory analyses of the territorial impacts of public decisions and projects. At the EU level, such procedures and bodies do not exist yet, although the need to better coordinate the various EU policies and to make them compatible with the objective of territorial balance and cohesion has often been expressed. The European Spatial Development Perspective (ESDP) adopted by the EU member states in 1999 contained the following recommendation: *"It is proposed that the European Commission examines periodically and systematically the spatial effects of policies, such as Common Agricultural Policy, Transport Policy and Trans-European Networks, Structural Policy, Environmental Policy, Competition Policy and Research and Technology Policy at the European level"* (Section 4.2. is dedicated to the application of the ESDP at Community level). Numerous studies were carried out in recent years on the territorial impacts of EU policies. The ESPON Programme has also devoted significant resources to this type of investigation while an initial approach to undertaking the Territorial Impact Assessment (T.I.A.) of EU policies has been elaborated (see vol. 5 of ESPON 3.2 Final Report).

The non-coordination of public policies with territorial impacts bears various types of risks: the non-achievement of territorial development strategies, the emergence of counteracting effects when various policies have contradictory impacts and the impossibility of achieving synergy effects and of increasing the added value generated by policies. The inconsistencies resulting from insufficiently coordinated policies decided at EU or national level are mainly felt at the regional or local level and are generally considered as counterproductive by regional and local public and private decision-makers and stakeholders who devote significant efforts to the development and promotion of their own territory.

The objectives of the scenario project are not only to investigate *which* major changes can be expected in the global driving forces which shape the European territory, but also to anticipate *how* different policy systems would themselves impact on the territory. The integrated scenarios comprise a full set of assumptions related to various public policies, especially those at the EU level. In this respect, the issue of the territorial impacts of policies and of the coordination of public policies are particularly relevant. This is why various sophisticated **simulation models** were used to investigate such impacts.

As a tool, scenarios are particularly well suited to the investigation of the impacts of alternative policy systems. Their usefulness and relevance however very much depends upon the choices made in terms of policy systems,

i.e. of general policy objectives and related implementation measures. The more the alternative policy systems chosen correspond to political debates within the European society, the greater the likely impact such scenarios will have on decision-makers and on public opinion more generally. For this reason, **two different policy systems were selected over which intense debate has occurred in recent years** across wide swathes of European society: in political parties, in trade unions, in national governments, in local and regional authorities and within the institutions responsible for EU policies. **The first corresponds to the general objective of stronger global European competitiveness at world scale.** It is largely influenced by the need to strengthen Europe's position in the context of accelerating globalisation and the rising global free trade system. It therefore advocates stronger liberalisation of the economy, export-oriented economic development, the reduction of public expenditures and the re-orientation of public support to the sectors and regions which contribute most to Europe's competitiveness. **The second aims at maintaining a high level of economic, social and territorial cohesion in Europe in order to counterbalance the shocks and disruptions generated by the globalisation process and other main factors of change.** It advocates greater equity, more endogenous economic development including more economic protection, long-term prevention measures etc. Two scenarios have been elaborated along these lines: a "**competitiveness-oriented**" one and a "**cohesion-oriented**" one. They are described hereafter, together with their respective territorial implications.

## 3.2 Competitiveness-oriented territorial scenario for 2030

### 3.2.1 The policy system of the competitiveness-oriented territorial scenario

The policy system of the competitiveness-oriented scenario differs quite significantly from that of the trend scenario which assumed a high degree of stability and continuity in the objectives and measures of public policies, especially those at the EU level. In the competitiveness-oriented scenario, the fundamental changes in the policy system are motivated by the disappointing results of the implementation of the Lisbon Strategy in the early 2000s. **The EU budget is reduced and EU expenditures are targeted towards R&D, education, ICT and strategic external accessibility.** This shift is reflected in the application of EU structural policies. The CAP is subject to rapid and radical liberalisation, with a significant reduction in support, in external tariffs and of export subsidies. **The structural policies budget is also reduced,** with a portion of former EU interventions being re-nationalised and **EU support being concentrated on the most competitive areas of less developed regions.** As a counterpart, public services are further liberalised and privatised, labour markets are regulated in a more flexible way and the third pillar of EU policies (foreign policy, justice, security etc.) is strengthened. Widening of the market through further EU enlargements is part of the strategy of increased competitiveness. After Romania and Bulgaria join the EU in 2007, the Western Balkans joins in 2015 with Turkey and the Ukraine following suite in 2020. The neighbourhood policy is strengthened with the Maghreb countries becoming ever further integrated into the European Economic Area.

Generous pension schemes are abandoned as life expectancy in many occupational groups continues to rise. **Maintaining a dynamic labour market is uppermost in the policy considerations** of both national governments and the EU. The restrictions on the free circulation of workers following the accession of new member countries to the EU are abolished. In addition, specific measures are taken to increase fertility rates (family policy) and to increase the retirement age. A significant difference between this scenario and the trend scenario is the **opening of external EU borders** to (selected) immigration. To plug the gap caused by the

expanding support ratio a vigorous “labour replacement” immigration policy is co-ordinated across the EU, targeting young and/or highly skilled labour from across the world. The policy is strictly regulated as political and economic immigration are separated. As such, the granting of European citizenship is not an inevitable side-effect of coming to work in Europe. This does not exclude the fact that illegal immigration continues. Social frictions as they arise are met with a strong reaction while perceptible increases in surveillance and security occur, which have become major businesses in their own right.

A majority position, if not a consensus, is progressively reached in the European Council to concentrate efforts, as well as European and national resources, on the **objective of increasing global competitiveness**. **Technological development is the cornerstone of the new policies**, the objective being to reduce the gap between Europe and other advanced economies (in particular the USA and Japan) and to maintain sufficient distance in technological development from emerging economies such as China, India, and Brazil among others. **Europe is ready to give up large segments of its economic structure with dwindling productivity, provided growth can be achieved in high-tech segments of manufacturing industries and services with strong knowledge and capital intensity**. Transport is also meant to contribute to European competitiveness globally and transport policies are shaped accordingly. Significant EU resources (much more than in the trend scenario) are injected in the TEN-T and into research and technological development, in order to counteract progressive oil depletion and the related price increase of fuel. A large variety of applications in the sphere of Intelligent Transport Systems are developed and implemented to increase transport efficiency and reliability, transport security, to optimise the use of infrastructure and satisfy mobility needs. Transport flows are systematically accompanied by information flows, for the transport of both goods and persons. Road and motorway investments are higher than in the trend scenario in numerous regions. The energy policy apportions considerable resources to the development of technologies which are likely to facilitate the provision of energy to metropolitan areas, such as new generations of nuclear power plants, but also coal gasification and liquefaction and hydrogen technologies. New generations of nuclear power plants are developed and widespread. Energy supply diversification is promoted, but not only through renewable energy sources. A breakthrough occurs in the field of hydrogen technology after 2010 with a large number of applications in transport, heating and electricity generation for a number of engines and electronic devices. The TEN-E are developed so as to provide energy to metropolitan areas, which is prioritised. EU credits for technological development and energy transport infrastructure are allocated to developed regions rather than to backward ones. In the competitiveness-oriented scenario, environmental policy is not intended to slow economic growth significantly, but must be achieved only in compatibility with economic development. Climate change is recognized as a major problem, but measures to adapt to its consequences are principally taken at the global/international level. Preventive measures to limit the territorial impacts of climate change are generally considered as too costly and not sufficiently profitable in the short term. Some countries opt voluntarily to impose tougher standards where their constituencies demand it. Generally this occurs in the wake of a natural disaster, and the measures taken often have a short-term or issue-based (e.g. anti-flooding) character.

### 3.2.2 A picture of the European territory by 2030 resulting from a competitiveness-oriented policy system

The elements of the picture resulting from this competitiveness-oriented policy system are presented in comparison to the respective elements resulting from the trend scenario. The purpose of such a

comparison is to highlight the differences which may be generated by the application of alternative policy systems and also to identify which factors are most subject to the influence of public policies and which are more autonomous.

### ***Stronger population growth and greater demographic imbalances than in the trend scenario***

In the competitiveness-oriented scenario by 2030 the global European population exceeds that of the trend scenario thanks to significant immigration flows and, secondarily, to a certain revival of fertility rates. The European population has become more cosmopolitan and multi-racial. **The median age of the European population is lower** and the demographic potential higher than in the trend scenario. At the regional level, the differences with the trend scenario are particularly strong in Western Europe, with **stronger population growth or lower population decline in a number of regions belonging to the central pentagon**: north-west France, including Paris, the Randstad, Rhein-Ruhr, Rhein-Main and the metropolitan regions of South-Germany and northern Italy. The same tendency can be observed in the peripheries, especially in the regions of southern France, various central and southern Italian regions, Spanish regions of the Mediterranean coast, the metropolitan regions of Portugal, southern Ireland, central Scotland, southern Sweden and southern Finland. **Regions with metropolitan areas and large cities are clearly favoured**, both in the central pentagon and beyond. In Central and Eastern Europe however, the differences with the trend scenario are less significant. The metropolitan regions of Prague, Bratislava, Budapest, Bucharest and Sofia are also favoured as are, but to a lesser extent, the Baltic States and numerous Polish regions. Compared with the trend scenario, **the least favoured regions are rural areas**, both in the centre and in the peripheries. Population ageing is stronger than in the trend scenario in a number of peripheral regions. The median age of the population is higher than in the trend scenario in Central and Eastern Europe, especially in northern Romania and Poland, as well as in western Spain and southern Portugal, southern Italy and southern Ireland. Population ageing is lower in France, the UK, and in the Nordic and the Baltic countries. The demographic potential however displays a rather divergent picture, with higher values than in the trend scenario in most regions of France, the UK and the Nordic countries, but also, to a lesser extent, in the Iberian Peninsula, Greece, Cyprus, the Benelux countries and Germany. At the opposite extreme, the demographic potential is significantly lower than in the trend scenario in most regions of Central and Eastern Europe and in southern Italy. By 2030, the regions of the central pentagon are generally more favoured, in terms of demographic potential, than in the trend scenario.

### ***More expansive but spatially concentrated economic growth than in the trend scenario***

The competitiveness-oriented scenario registers a **more expansive aggregate growth rate for Europe as a whole** with respect to the trend scenario, **at least for the medium range** (until 2015). In the context of the globalisation process, economic inter-penetration at the intercontinental scale is strongly developed in the competitive scenario, but less to the disadvantage of Europe than in the trend scenario, with a larger number of European companies expanding into other continents and fewer strategic economic activities in Europe controlled by non-European companies. The sectors in which Europe performs with the greatest competitiveness include biotechnologies, energy and transport, while North-American and Asian competitors still maintain a positive gap in relation to Europe in terms of information technologies. However this is smaller than in the trend scenario. **The efficiency-oriented policies have reinforced tendencies towards spatial concentration in Europe**. Among the regions **most benefiting are those which already had a good endowment of knowledge society-related resources** at the beginning of the 2000s. Compared with the trend

scenario, regions with large metropolitan areas retain a higher GDP per capita, at least until 2015. A number of the most developed regions in the pentagon belong to this privileged category, as do a number of competitive regions outside it, such as those in southern France, the Spanish metropolitan regions, and the metropolitan regions of southern Scandinavia and Finland. In the countries of Central and Eastern Europe, a majority of regions have exhibited better performance levels than in the trend scenario, especially in the regions with metropolitan areas. Generally speaking, the “second-rank” metropolitan areas, both in Eastern and Western Europe, have also been involved in the growth process. **The regions which display a weaker performance than in the trend scenario are almost all located in the European peripheries:** northern regions of the Nordic countries, northern Scotland and northern Ireland, western France, north-west Spain, and Sardinia and Calabria in Italy, as well as most of the eastern external border regions. With significantly weaker cohesion-oriented structural support, reduced CAP support, and the continuing pressures of globalisation, the less developed regions undergo turbulent restructuring with reduced employment in the agriculture sector and in rural areas more generally. Unemployment (both open and hidden) increases. This results in the precipitous depopulation of those areas and in lower investments in strategic infrastructure, human resource development and entrepreneurship.

**Technological and infrastructure development have largely contributed to this territorial evolution pattern.** In the field of green biotechnologies, the development of gene-modified crops becomes widely diffused. Large agricultural and food companies increasingly benefit from the outputs of research and have become more capable of meeting the requirements of consumer protection. Regions with intensive and productive agriculture, especially the most central ones, are the main beneficiaries. As far as red biotechnologies are concerned, peripheral regions have been neglected to the advantage of more developed regions, enabling, in the latter, support to be channelled towards the establishment of research excellence at certain “top” universities thus strengthening them in the international competition to avoid the “brain drain” phenomenon. ICTs have also progressed in numerous sectors and have strongly impacted on the organisation of society and on production systems, especially in the most developed regions where more investments were made and where the penetration of new applications has been more rapid.

By 2030, this evolution results in increasing **disparities in terms of economic development and employment opportunities**, both within the member states and across the EU as a whole. The impact of selective immigration and internal migrations on labour markets, especially on those of metropolitan areas, has been significant, such that shortages in the labour force have been less perceived as a constraint to economic development than in the trend scenario. In some of the countries of Central and Eastern Europe, however, cities and agglomerations have problems with the absorption of a poorly qualified workforce made redundant in the less developed rural regions. As such the polarisation of the European territory has significantly increased. **A clear tendency can thus be observed in respect of a more concentrated development in the strong areas of each country, reflecting the “champions” growth assumptions.** Territorial integration and cooperation is significantly different from that of the trend scenario. The networking of metropolitan areas has significantly progressed, driven by the private economy and especially by large companies. A number of the major cities of Central and Eastern Europe have also been included in this process, favoured by the strengthening of the Trans-European corridors and of broadband networks. Border regions are no longer able to rely on European assistance schemes which, until 2013, provided specific support for overcoming border specific

hindrances. In addition, the overall absence of a strong cohesion policy has led to a situation where the majority of the economically weak border regions have remained in a state of backwardness, particularly in terms of low employment opportunities and correspondingly high unemployment rates.

### *Increasing flows on north-south axes (Rhine-Rhône Europe)*

Stronger growth occurs in metropolitan regions than in the trend scenario, especially in the central pentagon, generating **more intense traffic flows on north-south axes and corridors**. However, in the wider integrated Europe, long-distance transport flows by 2030 are much more significant than they were in the early 2000s in a more limited European space, and more and more countries are affected by transit flows. Compared with the trend scenario, Europe-wide multi-modal accessibility, as measured by mean travel cost, is higher in numerous European regions, especially in the Iberian Peninsula, France, Italy, southern Norway, Eastern-Germany, the Czech Republic, Austria and Slovenia. This results from larger investments in roads and motorways. The positive difference is less significant in Ireland, the UK, the Benelux countries, Western-Germany and Poland. **Accessibility to GDP is less favourable in all non-metropolitan regions**, including the pentagon. It is more favourable than the trend scenario in most regions of the new member countries of Eastern and Central Europe, except south-west Poland, the Czech Republic, Slovenia and northern Romania. **Emissions** related to inter-urban traffic in 2030 are **globally higher than in the trend scenario**. This results, again, from stronger investments in the road and motorway networks.

### *The new energy paradigm benefits metropolitan regions more*

As in the trend scenario, energy prices have regularly and significantly increased, while the impact of growing energy prices on the global European economy has been less negative because the **European economy has been moving inexorably towards a more intangible and high-tech economy base**, and has largely abandoned productive activities using low or intermediate technologies. **Global energy consumption has not been reduced**, at least in the medium term because stronger growth implies, despite further reductions in the energy intensity of the economy, stronger energy consumption. Energy consumption in relation to transport has also not significantly diminished despite technological progress in car engines, because of more powerful metropolitan expansion and growing motorisation, especially in the new member countries of Central and Eastern Europe. The diversification process has favoured the large energy companies, mainly those of the pentagon. A limited number of energy oligopolies have emerged, progressively absorbing existing regional energy companies. Some are controlled by non-European corporations. Large energy companies also buy, or control, wide areas in fertile agricultural regions for the production of energy crops or in areas well suited to wind energy production.

**The diversification of energy supply systems**, boosted by technological development, **has mainly benefited the regions of the pentagon** plus a limited number of metropolitan areas beyond it. The development and application of innovative solutions in less developed regions has been much more problematic because of insufficient financial resources. The weakness of structural and rural development policies did not render the full exploitation of the renewable energy potential of these regions possible. Consequently, they remained more dependent on the use of traditional fossil energy sources (oil, gas and coal), which has reduced their competitiveness in a context of growing prices and increasingly problematic supply. A significant number of more peripheral regions, especially in the new member countries, but also in the Western European peripheries, continue to have obsolete or insufficiently developed energy transport systems. **The new energy sup-**



ply strategies have had both positive and negative impacts on the environment and on citizens' security. A number of new technologies, such as hydrogen production and coal gasification, have generated positive environmental impacts, at least in some areas. The same is true for the use of hybrid cars. By contrast though, the rapid revival of nuclear electricity production has brought with it issues of security and of the treating of nuclear waste. In fertile rural regions, agriculture has been significantly developed, in particular in areas where energy crops are produced. The creation of large wind energy parks by powerful energy companies has had a detrimental effect on the quality of natural and cultural landscapes in a number of regions.

### ***A less polycentric settlement system***

The competitiveness-oriented scenario clearly favours the demographic and economic development of metropolitan areas and large agglomerations, especially in the central European pentagon and in other metropolitan regions situated along the corridors originating from the pentagon, especially in the Central and Eastern European countries and in the southern parts of the Nordic countries. In general, **the upper level of the settlement systems has developed more than medium-sized or small cities**. There are however some exceptions to this less polycentric pattern. In the new member states and other peripheral areas, where investment motivations and location factors continued (at least in the medium range) to include cheap labour, transnational enterprises continued to look for more peripheral and smaller places where this type of labour force was still available. This resulted in a highly decentralised, but unstructured pattern. Various agglomerations and cities are negatively affected by the competitive growth process, especially those with old industries and low productivity activities which are no longer competitive in a globalised world. Even in growing metropolitan regions, new high-tech jobs are located not only in the core cities but also in the surrounding areas where the most important resources and production factors, namely, the professional and highly skilled labour forces, are most readily available.

**Networks and co-operation between European metropolitan areas have intensified, driven by the private sector**, mainly by large companies, but also supported by EU R&D programmes, transport and communication policies. This contributed to increasing territorial integration, especially in the central pentagon. In more peripheral regions, inter-metropolitan networking only benefited a few privileged areas with a long tradition of co-operation, such as the Baltic Sea Region, as they did not benefit from Structural Funds support after 2013. Small and medium-sized urban centres were only exceptionally integrated into such networks if they were not part of a metropolitan region.

**The population of immigrant origin (both born in Europe and outside) is less integrated into European society than in the trend scenario** because of continuing illegal immigration and the perceived lack of a need for integration policies – as the right to work and the right of citizenship are separated. **Increasing xenophobia, self-protective attitudes and social unrests** are more developed than in the trend scenario. As a reaction, gated communities have emerged in and around a significant number of cities, as well as in attractive less urbanised areas (especially coastal regions). **Suburbanisation is significant** (more than in the trend scenario), not only because of metropolitan population growth, but also because of segregation and insecurity in cities. Despite the development of new types of car engines (hybrid and hydrogen driven cars), the environment of metropolitan areas is further endangered by growing traffic and stronger pressure on natural areas.

### *Stronger dichotomy between rural areas than in the trend scenario*

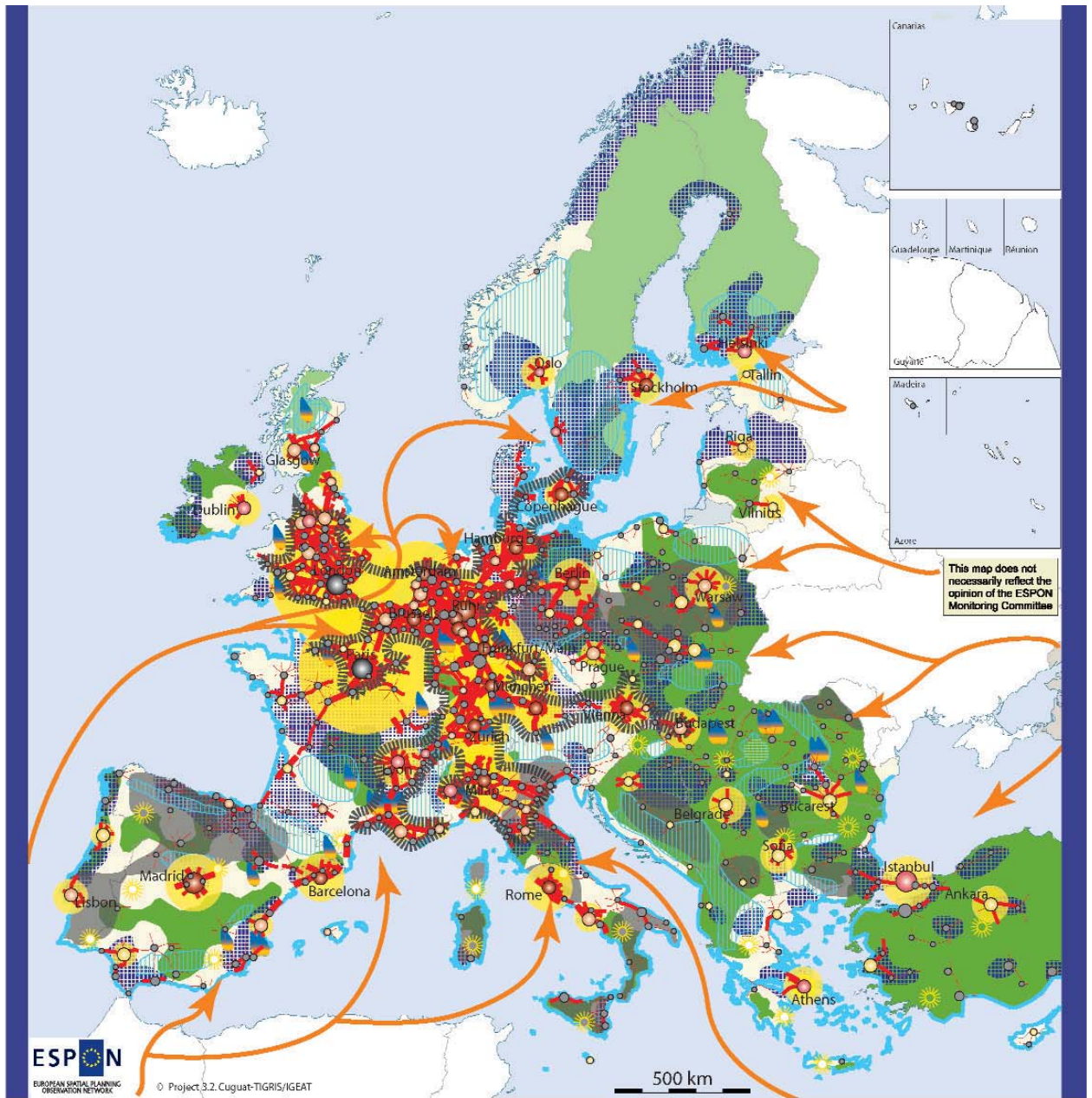
In the competitiveness-oriented scenario rural areas continued to be subject to the **growing dichotomy between well-off and less developed rural regions**. This was more marked than in the trend scenario because **in this scenario market forces were more important drivers of change**. On the one hand, intensive cattle farming, the production of crops and cereals, and horticulture all increased in fertile regions. In these areas food production competed, to some extent, with the production of energy crops. In many other rural areas surrounding large cities in Eastern and Southern Europe, economic activities became more diversified than in the trend scenario because of the greater economic dynamism of the economy. Such regions then become privileged areas for intense urban-rural relationships. Many people moved out of urban areas because they preferred the more stable, secure and natural living conditions afforded by rural life, though they continue to work, shop and spend their leisure time in urban areas. A number of attractive rural areas also became increasingly characterised by a significant diversification of their economic base through the emergence to maturity of the residential and tourist economy. This is particularly true for coastal areas along the North Sea, the Baltic and the Mediterranean, as well as for the lake districts in the UK and in the southern parts of the Nordic countries and mountain areas such as the Alps, the Pyrenees and the Carpathians. These areas were however less numerous than in the trend scenario, because **the development of rural infrastructure and services was supported to a much lesser extent by the Structural Funds**. On the other hand, however, **an increasing number of rural areas in Western and Eastern Europe have been confronted with further marginalisation and abandonment**. The significant reduction in CAP support, in regional policy budgets and in the orientation of EU support towards the most prosperous parts of less-developed regions proved to be highly detrimental to these regions, especially for the most remote and peripheral ones. This negative evolution has also been much stronger than in the trend scenario. This was particularly the case in rural areas with **unfavourable demographic situations** (high levels of population ageing), unfavourable production conditions (such as low levels of soil fertility, increasing drought) or **low attractiveness**.

Subsistence farming has been maintained and has even increased in the peripheral areas of the countries of Eastern Europe and in both Southern Europe and Eastern Turkey. Because of the changes in consumer preferences and the reduction of subsidies for rural development policy, experience-farming and nature and landscape management have only survived on a small scale in urbanized regions or rural areas with small-scale landscapes. **The environment of rural areas has been subject to greater pressure than in the trend scenario**. Intensive agriculture, accelerating urban sprawl, the abandonment of less-favoured rural areas and a more serious level of environmental damage due to the increasing frequency of natural hazards, have all contributed to significantly reducing the attractiveness of rural areas and by the same token, increased the social and environmental costs of economic development. Rural regions along national borders were particularly disfavoured, especially in the case of Central and Eastern Europe and of the new external borders following the various EU-enlargements. **Territorial fragmentation, the low level and obsolete character of infrastructure as well as continuing emigration have counteracted the efforts of territorial integration** which benefited only from a very modest level of support compared to the trend scenario.

The following map highlights the fact that the *attraction and polarisation potential of metropolitan areas* is particularly strong and concentrated in the traditional Pentagon. Only very few metropolitan areas beyond it are able to generate significant attraction and polarisation effects. The *area of concentration for flows and activities* is much more limited than in the trend scenario. It covers only parts of the traditional Pentagon, although it also extends out along a few major corridors, to reach Vienna and Copenhagen. The *risk of rural marginalisation* is much more intense than in the trend scenario. The *areas at risk of declining industrial activity* are more extended than those in the trend scenario and the intensity of risk is also higher. *External migration flows* are particularly intense. The *areas with high potential for tourism and retirement* are similar to the trend scenario, but the *areas with severe population ageing*, generally in remote rural regions, are more extended. The *resulting impacts of natural hazards* (drought, fires, and floods) are more intense than under trend assumptions.

Map 10

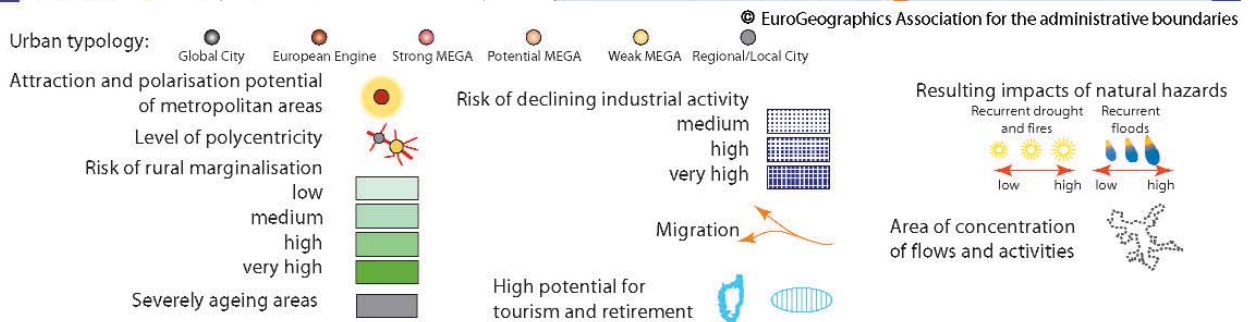
Competitiveness-Oriented Scenario - Final image 2030



ESPON  
EUROPEAN SPATIAL TRAINING  
OBSERVATION NETWORK

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500 km



### 3.2.3 Territorial and policy issues arising from the competitiveness-oriented scenario for 2030

The policy system of the competitiveness-oriented scenario generates both immediate higher global economic wealth and higher social costs likely to result in the long term economic and financial drawbacks. A number of benefits realised are offset by the costs of negative evolutions. This is particularly obvious in the case of metropolitan areas which, on the one hand, produce higher added value and, on the other, see their image deteriorate in light of growing social segregation and unrest. The same applies to peripheral rural regions where the deterioration of infrastructure and services will significantly handicap any attempt at economic or demographic revival. Environmental improvements resulting from technological progress are also partly offset by increasing pollution resulting from increases in private-vehicle traffic and in the move to ever-more intensive agriculture.

Despite stronger economic growth at the global European level, territorial disparities in the competitiveness-oriented scenario are much stronger, by 2030, than in the trend scenario. The divide between Western Europe and Central and Eastern Europe has increased, because growth has tended to concentrate in the central pentagon and in only a few metropolitan areas beyond it. The further EU enlargements have added to this divide. **New global integration zones have not emerged and the domination of the pentagon has increased.** The divide in Europe-wide multi-modal accessibility between the pentagon and more peripheral regions has not been reduced, on the contrary, as transport policies have favoured the development of corridors between large metropolitan areas. Territorial integration has progressed in the form of long-distance networks and co-operation between metropolitan areas, but has been much weaker in rural and border regions than in the trend scenario. **The competitiveness-oriented scenario has generated more territorial fragmentation.** Numerous rural regions have come to face an abrupt spiral of decline (depopulation, negative impacts of drought, low competitiveness levels, and poor public support provision). Although the global competitiveness of metropolitan areas is stronger than in the trend scenario, the internal differentiation of cities (gentrification and gated communities on the one hand; slums, housing shortages, insecure areas, insufficient socio-cultural integration of minorities and people of immigrant origin on the other) has also been stronger than in the trend scenario. Suburbanisation has significantly advanced around metropolitan areas. In rural areas, numerous small and medium-sized urban centres have lost their vitality and, by 2030, are no longer in a position to supply the surrounding countryside with services and jobs. **As environmental damages, social tensions and violence are each time higher and unaccepted by the populations, it can be questioned whether a strict, sustained competitiveness policy is realistic for the long term.**

## 3.3 Cohesion-oriented territorial scenario for 2030

### 3.3.1 The policy system of the cohesion-oriented territorial scenario

In this scenario, the main public policy priorities at the EU level, in the context of ongoing globalisation, are **focused on economic, social and territorial cohesion and not on global competitiveness.** This does not mean that improvements in competitiveness are excluded, but rather, that in case of incompatibilities between cohesion and competitiveness priority will be given to cohesion. This is, for instance, the case if growing competitiveness is likely to increase territorial disparities. It is however important to indicate that **measures related to competitiveness in the context of structural policies are fully integrated into the scenario, even**

if they are likely to generate intra-regional disparities in less developed regions. Up to 2030, **the deepening of EU policies is preferred to further enlargement**, so that no new countries join the EU after the enlargement of early 2007.

**A cornerstone of the cohesion-oriented scenario is the complex of policies in favour of families (aiming at increasing the fertility rates), of education, employment, immigration, and integration etc.** More flexibility is introduced in a number of public policies. Flexibility in child-care arrangements and pension ages becomes the norm. Confronting institutional forms of ageism and removing compulsory retirement ages is part of this process, although it is less popular among certain occupational groups, particularly those involving physically demanding work. Flexibility is also extended to other aspects of life, such as education; making family commitments more manageable, including for the so-called third and fourth generations. Projects specialising in life-long learning are also becoming increasingly popular, opening up a wide variety of services and new forms of employment. The “democratisation” of remote forms of mass communication (ICT etc.) is policy-led and plays a part in re-establishing the viability of rural, semi-rural and some remote areas. Migration policies within the EU are better coordinated and adapted to fulfil the goals of “replacement”. They are strictly controlled by “donor” country, area and region of destination and occupational group. Specific controls are also introduced with socio-cultural integration in mind. Even though illegal immigration continues to supplement the population, the figures are declining substantially following the introduction of EU ID cards. Citizenship and language classes become a residency requirement and interventions to circumvent the segregation of minority groups are carried out with, for example, quotas set for the children of ethnic and religious minorities and the facilitation of inter-cultural interaction from an early age through educational exchanges etc.

Another major difference with the trend scenario is to be found in public policies addressing balanced regional development and territorial cohesion. Maintaining and even strengthening EU cohesion policy is the result of both the EU enlargements and of a reaction to the territorial imbalances generated by accelerating globalisation in the early 2000s. **Enhancing the vitality of less favoured regions appears as a fundamental long-term objective**, because the economic and social cost of de-vitalised regions is perceived in the long-range as extremely high. The new cohesion policies include numerous **measures aimed at increasing the competitiveness of the less favoured regions and avoiding their marginalisation with regard to globalisation trends**. As a renewed and strengthened cohesion policy is also more expensive, **EU budgets have to be correspondingly adapted and various resources diverted towards the cohesion policy**. The CAP, the transport and the RDT policies are consequently being adapted to give prioritised support to less favoured regions. **Further liberalisation of public services is not envisaged**, because it would be harmful for less developed areas where such services are not profitable. It is also considered that the closing down of such services would be damaging for the demographic and economic evolution of these areas. Considerable spending is undertaken for cohesion purposes. Furthermore, the deepening of European integration brings up a great number of new regulations at the EU level, e.g. in terms of environmental and consumer protection, which lead in turn to growing costs both for public budgets and for businesses. Support for technological development is concentrated on less-favoured regions. In terms of ICT infrastructure development, progress is made with the dispersion of broadband infrastructure into less densely populated regions.

Transport policies in this scenario are more oriented towards cohesion and sustainable development than in

the trend scenario and market demand is less of an unavoidable criterion. Significant financial resources from the Regional and Cohesion Funds are allocated to the **development of transport infrastructure in the cohesion countries and in the less developed regions**. One of the main priorities here is the development of an efficient transport infrastructure along major corridors in the new member countries as well as between the new member countries and the EU15. A significant difference with the trend scenario here is that, in addition to major corridors, **support is also given to a number of strategic regional transport axes** in the context of rural development plans, so as to connect as many medium-sized and small towns as possible to the trunk networks. The cohesion-oriented scenario also pays greater attention to a better balance of transport modes and promotes efficient railway and waterway systems. In the countries of Central and Eastern Europe, obsolete railway systems are modernised, in order to limit the growth of road and motorway traffic, a policy which also takes into account the constraints imposed by the oil price and oil supply.

In the cohesion-oriented scenario, structural policies pay a greater deal of attention to energy issues and allocate a higher amount of resources in eligible regions to support energy saving measures and the diversification of energy supply sources. The TEN-E are further developed, but mainly to the benefit of less developed countries and regions (Central and Eastern Europe, European peripheries). The Rural Development Policy also allocates substantial resources to the production of energy in rural areas. **Energy systems are modernised in less developed regions**, benefiting more from structural support than richer regions with metropolitan areas. In this respect, the “catching up” process of the new member countries in the energy supply and energy transport sectors is significant. Obsolete energy systems are rapidly replaced by more modern ones, including renewable energy sources. **Decentralised systems of energy production and distribution are developed**, encompassing rural areas together with their small and medium-sized towns.

The environment is viewed as one of the main pillars of European solidarity. Environmental targets are set at a higher level than in the trend scenario and a significant amount of resources from the Structural Funds and Rural Development Policy are allocated to environmental improvement and protection in less favoured areas. Stronger attention is given to environmentally-friendly transport modes and related investments, especially in the railways sector. Kyoto implementation is also taken very seriously by the EU, which translates into **more rigorous source-based controls** for industry and transport and the promotion (subsidization) of environmentally friendly practices. More attention is paid to the **protection and enhancement of the natural and cultural heritage** than in the trend scenario. In less favoured areas, significant resources from structural fund monies are allocated to the enhancement and protection of natural areas and to the implementation of Natura 2000. Important efforts are made in Southern Europe to prevent forest fires through better forest management. Stronger rural development in European peripheral regions favours the maintenance of cultural and natural landscapes as a resource for rural tourism.

### 3.3.2 A picture of the European territory by 2030 resulting from a cohesion-oriented policy system

#### *Birth rate revival and stronger integration*

By 2030 there are signs of a **more regionally balanced population structure** and of population growth in many areas, even those which had previously been threatened by serious de-population. This is caused by the new up-turn in birth rates, but also by strongly interventionist regional policies favouring the economy of peripheral regions and strictly regulated and targeted migration strategies. Europe's structural demographic

difficulties, however, have not been totally alleviated by these new trends and actions. **Population ageing has continued to affect various parts of the continent.** Compared with the trend scenario, population ageing by 2030 is less strong in western Spain, Portugal, East Germany, southern and north-eastern Italy, Slovenia, Ireland, south-eastern Poland and north-western Romania, but somewhat stronger in central Sweden and Finland, southern France, Hungary and central Scotland. The demographic potential has been somewhat stronger in southern and north-western Spain, southern Italy, southern France, Ireland, numerous Romanian and Polish regions, but it was weaker in central Sweden, southern Finland, southern Hungary, Estonia and Latvia. Falling total population has also continued to impact many eastern, and some southern areas of Europe. The integration of 2<sup>nd</sup> and 3<sup>rd</sup> generation immigrants from Asia, Africa, the Middle East and Latin America into the host communities has improved, especially with young people. A slight rise in inter-racial marriage appears to be a positive side effect of this policy. The emergent nationalism prevalent in some areas has however continued to be a source of concern and a policy of a “Europe of Regions” has been actively promoted to try to contain it.

#### ***A less expansive and more diffuse territorial pattern of economic growth***

In global economic terms, the cohesion-oriented scenario has been less expansive than the trend scenario. **A lower GDP growth rate has been registered for the EU as a whole, at least up to 2015.** As in the trend scenario, growth rates have been stronger in the new member countries than in western Europe, **but the epicentre of growth has moved towards South-Eastern Europe,** a tendency witnessed by greater performance in Eastern Germany, Austria, Hungary, Greece, and parts of central and southern Italy. In general, the cohesion-oriented scenario has provided for **more diffuse development,** especially in rural regions, peripheral regions, and regions with a medium-low income levels. The peripheries of Europe have grown more than in the trend scenario, especially Greece, Sardinia and Corsica, various regions of Spain, Northern Ireland, the northern part of the Irish Republic and all of the Nordic countries. However, not all disadvantaged regions have experienced an economic upswing. In terms of the change in relative positions, **the winning regions have generally been non-metropolitan regions** in the periphery or located within, or at the proximity of, the central pentagon. Compared with the trend scenario, **metropolitan areas have been less favoured,** both in Eastern and Western Europe. This does not mean, however, that they did not progress in absolute terms. In the cohesion countries metropolitan areas and other large agglomerations were significantly supported, both in terms of infrastructure and of technological endowment. A major difference with the trend scenario is, however, that small and medium-sized towns in less developed regions were more strongly supported, especially as far as services of general interest are concerned. In addition, border regions within Western Europe, especially the wealthiest ones, received much less support from EU border-specific support schemes, while support has been more focused on the weakest border regions, thus on those of the periphery. However, the results by 2030 remain ambiguous, because of the lack of businesses, low population density and therefore weak potential for cooperation in such areas.

#### ***Widening the benefits of accessibility***

Stronger support for the new member countries and the emergence of a cohesion-oriented Europe have generated more intense traffic flows between East and West. The cohesion-oriented scenario has devoted more resources to the development and modernisation of railways than the trend scenario. The main beneficiaries here have been the Iberian Peninsula, France, northern Italy and Slovenia, the Czech Republic, Slovakia, southern Norway and the adjacent Swedish regions, northern Poland, Lithuania and Latvia, although noticeable



investments have also been made in southern Italy, northern Greece and in various regions of the Benelux countries and Germany. This does not exclude the fact that important investments have also been made in the road and motorway networks, but with a rather different territorial pattern. They have been very significant in Central and Eastern Europe, especially in the Czech Republic, Slovakia, Hungary, Romania, Bulgaria, the Baltic States, southern Poland and in a number of peripheral regions of Western Europe, such as Ireland, northern Scotland, southern Sweden, southern Finland, Corsica, Sardinia, Sicily, Greece and Cyprus and, to a lesser extent, in the Iberian Peninsula and southern France. In terms of Europe-wide accessibility, the regions more favoured than in the trend scenario have mainly been, in addition to regions in the pentagon, a number of more peripheral regions such as western France, the western regions of the Iberian Peninsula, most regions of the UK and Ireland, Corsica and Sardinia, most Polish regions and, to a lesser extent, the southern regions of the Nordic area Bulgaria, Greece, Lithuania and Latvia. A more economy-related measurement of accessibility in 2030 reveals a somewhat different pattern, with regions benefiting most from accessibility improvement being those of the Iberian Peninsula, southern France, Hungary, Slovakia, Bulgaria, northern Greece, northern Sweden and northern Finland.

### *Diverging territorial impacts of the new energy paradigm*

In the context of the cohesion-oriented scenario, EU structural and rural development policies have played a major role in **making the new energy paradigm favourable for less developed rural regions**, especially in the new member countries and in other peripheral regions. The enthusiastic promotion of renewable energy sources has created wealth in rural areas and has helped to counterbalance the decline of a number of traditional weakly competitive agricultural activities. Solar and wind energy as well as the production of energy crops have enabled the **creation of decentralised energy supply systems which also benefited small and medium-sized towns**, making them less dependent on external energy supply. **Europe has become increasingly competitive in sectors related to renewable energy technologies**. A number of regions, not necessarily in the pentagon, have taken advantage of this evolution and have developed significant export potentials in respect of other European regions and other non-European markets. However, **the negative impact of higher energy prices has been felt more strongly than in the trend scenario, because it could less be compensated for by other factors of growth**. The move towards a more intangible economy has been less rapid and more investments were made in intermediate technology sectors, especially in less developed regions. As technological research was not sufficiently supported by EU policies, new breakthroughs in energy technologies have not taken place. The hydrogen technology and its applications progressed only slowly, as the mass production of hydrogen remained prohibitively expensive. Solutions were sought in terms of energy saving and in the revival of traditional energy sources such as coal, with the application of new technologies such as gasification. Settlements became more energy efficient and urban policies favoured a better integration of urban functions generating less mobility.

### *The dynamics of medium-sized towns counter-balance metropolitan growth*

Compared to the trend scenario, **the competitiveness of European metropolitan areas has progressed less significantly**, both in Western and in Eastern Europe. The gap between European metropolitan areas and the global cities of North-America and Asia has increased. The development of networks of cities supporting wider integration areas has been more modest. In western rural and peripheral areas, towns have benefited more from out-migration flows generated by large cities (retirees, self-employed) and from tourist and other activities. The level of polycentricity in the national urban systems of the countries of Central and Eastern

Europe has declined less significantly than in the trend scenario and **in some cases the revival of medium-sized cities has made it possible to efficiently counteract the attraction of national capitals and other large cities**, especially as far as rural-urban migration and the location of SMEs are concerned. A substantial difference with the trend scenario emerges in the evolution of urban systems at the local scale under the effect of social cohesion and integration policies. Efforts developed in respect of the economic, social, educational and cultural integration of ethnic minorities and other less privileged groups have contributed to limiting social and physical segregation in cities and have resulted in a reduction in feelings of insecurity. The “better offs” were less inclined to move out of the cities and to contribute to strengthening suburbanisation. Gated communities have not emerged and the originally less-favoured population groups have become better integrated into the labour market. The impact of increasing energy prices on the evolution of settlements has been similar to that in the trend scenario. Generally, it has tended to favour the evolution towards compact cities and was much less counteracted by suburbanisation trends resulting from insecurity and from high real estate prices in cities, **as the growth of metropolitan areas was less significant than in the trend scenario.**

#### *More prosperous and balanced rural areas*

Up to 2030, **the evolution of rural areas has been more positive than in the trend scenario.** Strengthened structural funds and rural development policies have contributed to accelerating the process of **economic diversification** in numerous rural areas. The dichotomy between strongly performing rural zones located around metropolitan areas and the more remote and declining rural areas has been more modest, since metropolitan areas were not growing as fast and remote rural regions were more strongly supported. This does not however exclude the continuing existence of a variety of situations and dynamics. Despite significant support from the public policy realm **a number of remote rural regions thus continue to face decline and depopulation.**

The strong dichotomy between areas with intensive agriculture and areas with low productivity agriculture, highlighted in the trend scenario, has been attenuated in the cohesive scenario by **stronger control of the environmental impacts of agriculture and by stronger rural development policies in peripheral and remote rural areas.** The increasing impacts of market forces in agriculture and the development of the production of energy crops have however favoured highly productive agriculture in fertile areas, especially in North-West Europe, Poland, and northern Italy etc. The negative impact of climate change on rural regions in Southern Europe has been much less strong than in the trend scenario, because support was allocated to **adaptation measures** in respect of agricultural production (water-saving irrigation techniques, changes in types of productions etc.), forestation, and the preservation and development of cultural landscapes. Less agricultural areas were abandoned because of drought and pressure on agricultural and rural areas in the central and northern European regions increased less dramatically. Generally, **the natural and cultural heritage of European rural regions was better protected and enhanced** than in the trend scenario.

### **3.3.3 Territorial and policy issues arising from the cohesion-oriented scenario for 2030**

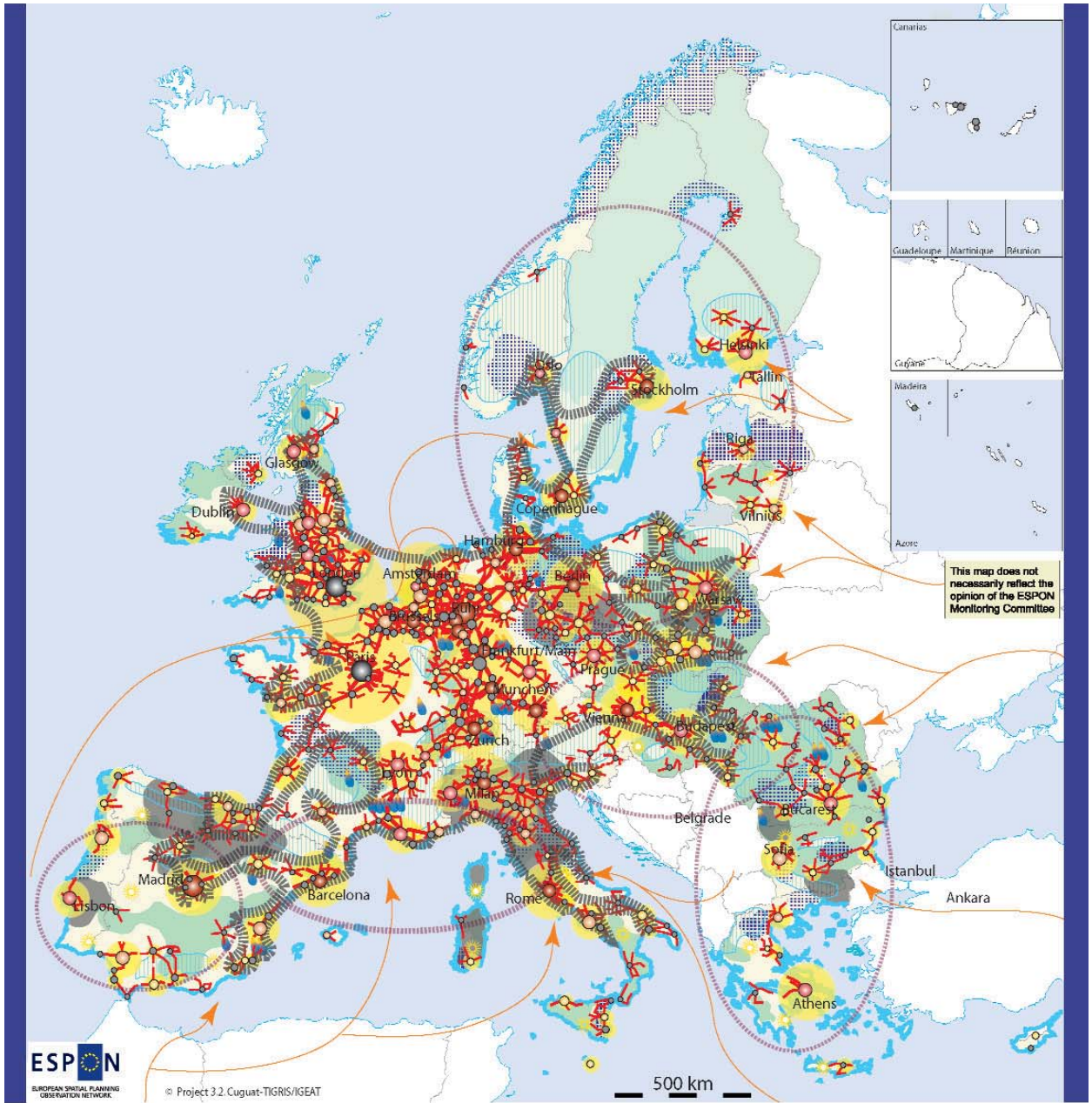
Compared with the trend and the competitiveness-oriented scenarios, the cohesion-oriented scenario generates a significant amount of added value, especially in terms of **territorial cohesion and balance, demographic revival, the limitation of long-term social costs, socio-cultural integration, environmental sustainability**, and lower damage levels related to natural hazards etc. It is however less favourable than the

other scenarios in terms of global economic growth, the competitiveness of metropolitan areas, and technological evolution etc. In the short to medium-term, it is more expensive for public budgets and therefore for taxpayers than the other scenarios. The long-term continuation of a **strong cohesion policy** very much depends upon the resources that are to be allocated to it. As the global growth rate generated by the cohesion-oriented scenario is rather modest, it can thus be questioned whether a sustained cohesion policy is realistic for the long-term.

The following map reveals a less concentrated, but more widespread pattern in respect of the **attraction and polarization potentials of metropolitan areas in 2030**. Urban settlements are characterized by greater **polycentricity**, stretching over much larger swathes of the European territory than in the trend scenario. The number of areas **at risk of marginalization** and of **declining activities** is comparable to that prevailing in the trend scenario, but their size is reduced and intensity lower. The **areas with high potential for tourism and retirement** as well as those with **severe population ageing** remain similar to the trend scenario. The resulting **impacts of natural hazards** (drought, fires, and floods) are much lower than in the trend scenario. Another basic difference with the trend scenario is the emergence of **several peripheral integrated zones**. The **area of concentration for flows and activities**, the successor of the former pentagon of the early 2000s, has a wider reach than in the trend scenario and includes a larger number of cities in the inner periphery.

Map 11

Cohesion-Oriented Scenario - Final image 2030

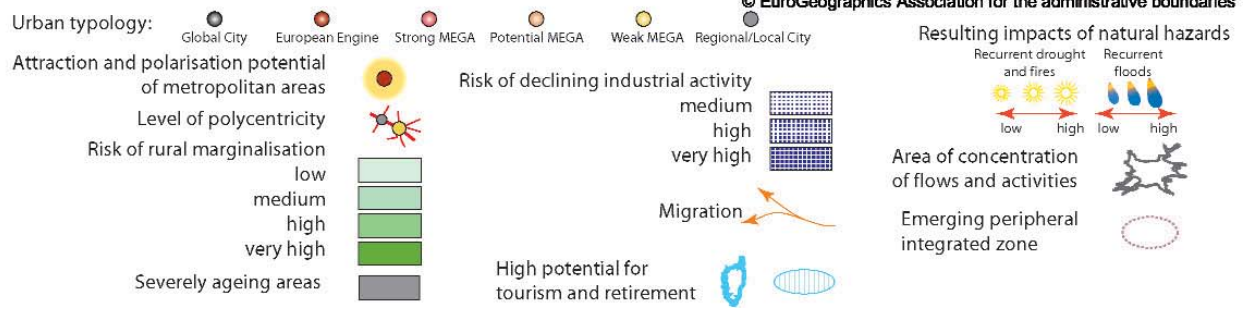


ESPON  
EUROPEAN SPATIAL PLANNING  
OBSERVATION NETWORK

© Project 3.2. Cuguat-TIGRIS/GEAT

500 km

© EuroGeographics Association for the administrative boundaries



### 3.4 Comparing scenarios

The value of scenarios becomes particularly clear when comparing them (see maps 12-14):

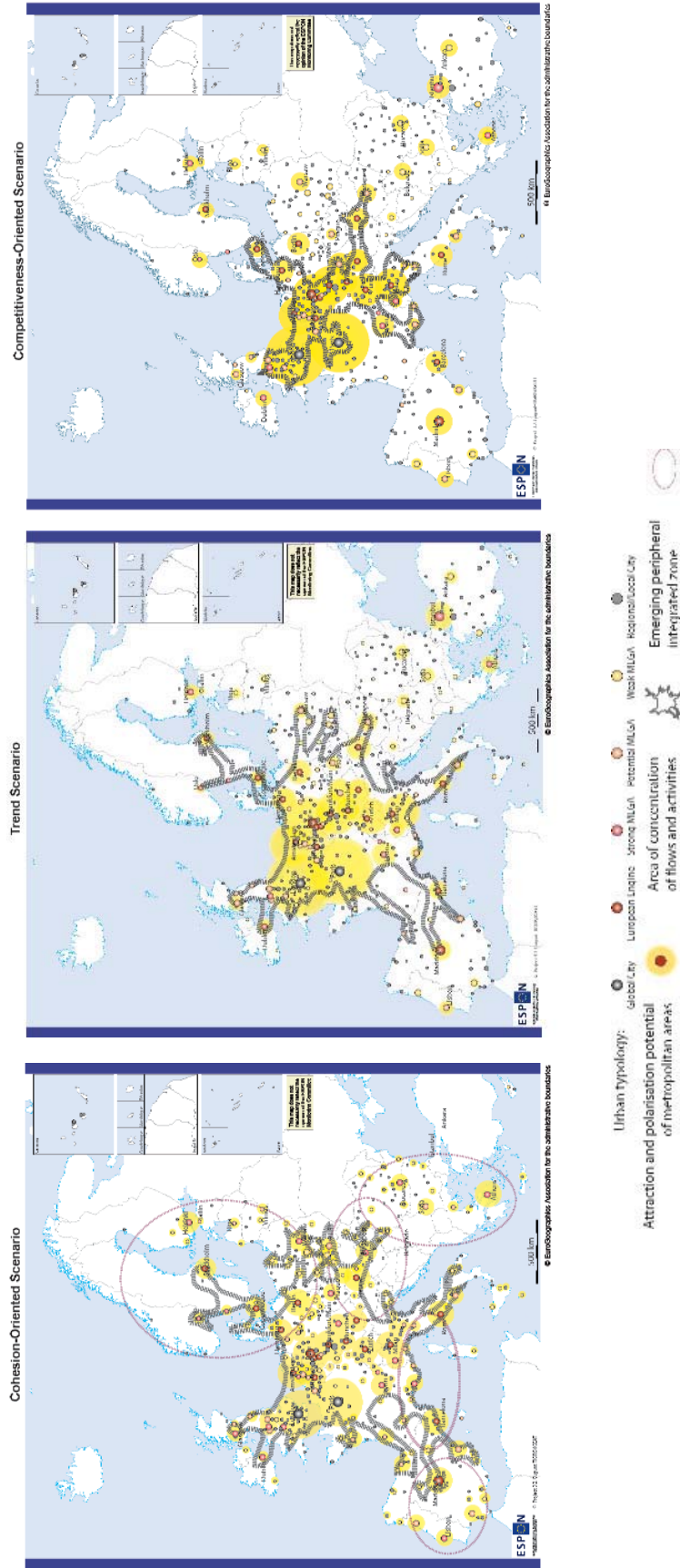
The trend scenario has shown that basically unchanged policies will not be a sufficient response to the new challenges which are emerging. A number of shortcomings can be identified, which will require additional policy action, such as a more efficient Lisbon Strategy, strengthened and more homogeneous family and integration policies, responses to the fragmentation of the European economy, a more targeted support to all types of infrastructures, avoiding investments into those with low profitability and those less appropriate with regard to the new energy paradigm.

The competitiveness-oriented scenario is likely to generate stronger economic growth and higher competitiveness, with a more substantial emergence of new technologies. It will also produce higher environmental and social costs related to growing disparities at various scales, likely to result in the long range in economic and social drawbacks as well as in territorial imbalances with enhanced differences in living conditions and polarisation between areas. Economic activities and dynamic population development will be concentrated in central areas (see map 12). On the macro, pan-European scale, this means the continued dominance of the area between the British Midlands and the north of Italy with some extension corridors. On a meso scale, capital cities will reinforce their polarisation.

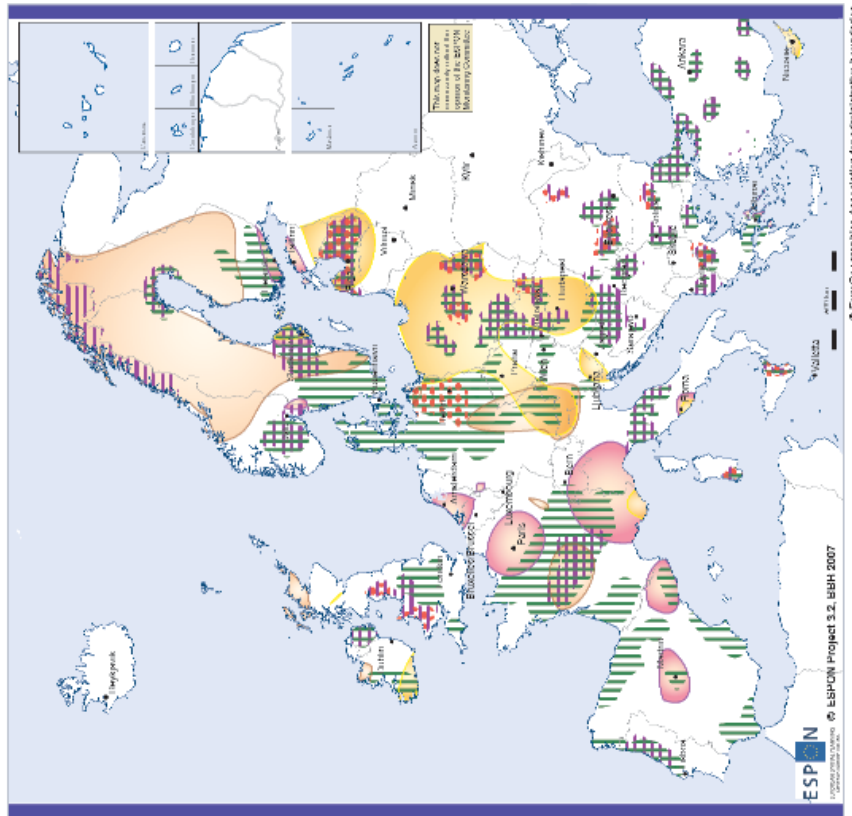
The cohesion-oriented scenario is likely to produce a significant amount of added value in terms of territorial cohesion and balance, of demographic revival, of socio-cultural integration, of lower damages related to natural hazards, of less negative impacts on rural regions, but its economic and technological performance will probably be lower than that of the two other scenarios. The pentagon will extent significantly in all directions (see map 12). In addition, several new areas of economic integration with significant critical mass will emerge in the periphery. Some of their major metropolitan areas will rise in the European urban hierarchy. On the meso-scale, polarisation potentials are distributed among a greater number of urban areas with mid-sized cities playing an important role.

Maps 13 and 14 provide a comparative image of some of the territorial impacts of the scenarios. Map 13 indicates that in comparison to the trend scenario, the winning regions in each of the prospective policy scenarios are diametrically opposed: the central areas of western Europe in the competitiveness-oriented scenario, the peripheral areas, mostly of northern Europe, in the cohesion-oriented scenario. More regions are at risk of industrial decline in the competitiveness-oriented scenario. As map 14 shows, the main cores of intensive ageing are the same across all scenarios, but the competitiveness-oriented scenario leads to more regions being affected. The risk of regional marginalisation hits almost all peripheral rural areas in the competitiveness-oriented scenario, while it is much reduced in the cohesion-oriented scenario, due to the focus of policies precisely on these regions.

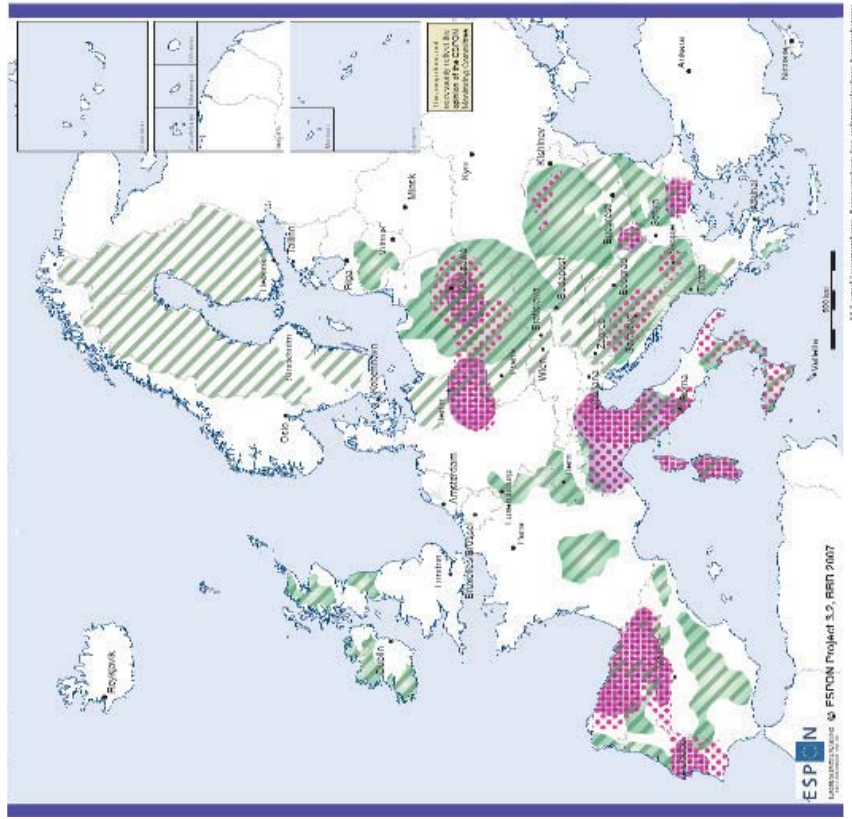
Comparing scenarios: Spatial structure and urban hierarchy in 2030



### Comparing Scenarios - Potential paths of economic development



### Comparing Scenarios - Potential challenges of rural areas



# Putting territorial objectives on the political agenda

## 4.1 Defining Europe's territorial goals

On the basis of the existing European policy documents concerning general and territorial policy orientations (ESDP, the Lisbon and Gothenburg strategies, Community Strategic Guidelines on Cohesion, etc.), a series of **overarching goals that define the current vision of Europe's desirable territorial state** can be identified:

- Prosperous, competitive and diversified economies
- Innovative knowledge society
- Sustainable transport
- Balanced distribution of population, wealth, cities, etc
- Socially inclusive society and space
- Sustainable settlement structure
- Sustainable use of energy
- Healthy environment and hazard prevention
- Diversified cultural heritage and identities
- Territorially-oriented governance

As the previous chapters show, Europe is confronted with a series of **fundamental challenges which themselves remain outside and apart from the often dichotomous classical policy debates between competitiveness and cohesion**. Climate change, the new energy paradigm, population ageing and globalisation can significantly influence the path different regions will take. In order to reach the listed policy goals it is thus indispensable that these challenges be taken into account. The objectives also have to be refined, notably spatially, so as to allow **differentiated responses according to regional realities**.

## 4.2 Prosperous, competitive and diversified regional economies in an innovative knowledge society

The Lisbon strategy defines ambitious economic objectives for the European Union as a whole, based on the general idea that Europe has to compete on world markets and that Europe's competitiveness on these markets has to be founded on cutting-edge knowledge and innovation. When the Union is seen as a whole, this vision is corroborated by the fact that Europe obviously cannot compete in terms of labour costs or low environmental and/or social standards. At the same time however it is obvious that **different regions face very different realities and that many regions cannot compete at the innovative high-end of world markets**. The challenge for Europe in trying to allow all regions to grow reasonably well (putting aside arguments in favour of an actual slow-down in economic growth for sustainability reasons) is, therefore, to **find appropriate, differentiated responses to each region's particular challenges and potentials**.

There is, however, a **common factor which is *the* fundamental indicator for economic development: productivity**. Thus, within the context of increasing economic growth, in each region the means to raise pro-



ductivity in a sustainable way needs to be found. The two main elements that contribute to such a rise across all regions are *innovation* and *education*. However, the exact form and content of each can vary significantly in accordance with local realities.

**Europe's largest metropolitan areas are part of a global network of highly competitive cities.** Europe's main research and development activities are based in these areas, each of which has a large pool of qualified labour. The main objectives should be to **support their position** within the previously identified global networks and to allow them to stay "ahead of the game" in the race to innovate. This choice also entails support for their main asset, i.e. **agglomeration economies**. **Smaller city and town regions often simply cannot compete with these agglomeration economies.** They either have to **position themselves in relation to a nearby metropolitan area** (for example as residential economies) or to **specialise in very specific fields** where the agglomeration effects are less important or where the critical mass needed is lower. In the pentagon and the other richer areas of Western Europe, these regions are often already part of functioning systems and it is important to ensure that their place in such environments is sustainable over time.

**Rural areas in close proximity to metropolitan areas will have to support their suburban status** by developing their residential economies, through the provision of services to the metropolitan areas (including organic and local foods), and with sustainable forms of transport for commuting and leisure movements. **Many of the most central fertile agricultural areas will then have to find ways to balance their increasing dependence on industrialised and globally competitive agriculture with environmental concerns** and the maintenance of the "quality of life" factors that initially attracted people to the "urbanised" way of life. Conflicts will also arise between the production of food and the production of energy crops, especially if the later are genetically modified. **In more remote areas methods of intelligent shrinking will have to accompany the processes of depopulation,** but other forms of activities will have to be found to counter this decline while particular measures are further elaborated to respond to the challenge of rising energy and thus transport costs. Again, it seems illusory to apply the general ideas of the knowledge economy to some of these areas, especially in Eastern Europe where basic infrastructures remain in a fairly bad state. Some remote areas in more advanced regions, such as mountains or islands, are in a different situation again. Such areas can often have a relatively well-run economy based on tourism, but accessibility still needs to be improved, while adaptation measures in respect of the local economy's impact on climate change need also to be taken.

#### **4.3 Balanced distribution of population, wealth, cities, etc. in a socially inclusive society and space**

The general idea of cohesion implies a certain notion of balance, i.e. a **reasonably "fair" distribution of wealth and development across Europe's regions.** This is also linked to the notion of the **"European social model"** with its negotiated organisation of work and distribution of productivity gains, as well as a transfer of some wealth from the richest to the poorest regions. But at the same time, **"balanced" in this case, does not mean totally equal,** but rather adapted to local realities, as long as minimum standards are met. It is obvious that a global metropolitan area, with its high innovation capacities and agglomeration economies will produce higher levels of GDP than a remote and sparsely populated rural area. And at the same time, some people are ready to trade off monetary revenues against less stressful and more fulfilling

lives. What this objective essentially means, therefore, is that these minimum standards are met and that from there on **each person in each region of the EU should have comparable opportunities and choices**, including access to services, or, from the regions' perspective, that each region should be given the means to provide these minimum standards and access to services, as well as to develop its potentials to the fullest.

One of the main issues in such a notion of balance is that of scale, and the **objectives and policies can differ at different scales**. The art here will be to find coherence between them. One of the main aims at continental scale already defined in the ESDP is the **emergence of areas outside the pentagon** with sufficient levels of investments, innovation and agglomeration effects in order to create additional growth areas. The Baltic Sea Region, the new "Eastern Square" of Central and Eastern Europe, formed by Vienna, Berlin, Warsaw and Budapest and the south of France and Catalonia seem to have the potential for such a development.

A major challenge in the poorer areas, most notably in Eastern Europe but also in the old industrial regions of Western Europe, is to **complement and address the prevalent processes of depopulation and decline with policies of intelligent shrinking**, while at the same time countering them through the development of new potentials which cannot always be based on highly-innovative knowledge economy sectors.

At the national scale (at least in the larger countries), **a major objective is to avoid monocentrism** with one major metropolitan area having all growth and investment centred to it. In some of the Eastern member states this is a particular challenge which in some ways contradicts the previous idea of new transnational economic integration zones. Within cities, the idea of spatially balanced development implies **less segregation and more social integration**, especially in terms of housing.

#### **4.4 Environmental sustainability in transport, settlement structures, energy, adaptation to climate change and general environmental protection**

Better environmental quality is recognized in terms of the **protection of human health**, the **enhancement of regional attractiveness** and the **protection of biodiversity**. A conflict is however often perceived between economic development and environmental goals.

On a European scale, **the search for environmental sustainability can be seen as an innovation and growth factor** which could allow Europe to become a **world leader in sustainable technologies** in transport, energy production and use, and water management, etc, provided that sufficient investments are made in research and development in these fields.

**At a macro-regional scale, one has to differentiate between different regional realities**. In the regions of the pentagon the objective has to be to maintain their economic productivity while reducing negative agglomeration economies such as air pollution and CO<sub>2</sub> emissions through transport and land fragmentation. Innovative and efficient collective transport systems have to be developed and land use managed in a controlled way. In the Southern European regions, but also in mountainous areas, the main challenge will be adaptation to the effects of climate change, but also the limitation of uncontrolled land use and construction. Remote areas, including many of the Eastern member states' more peripheral regions, need innovative solu-

tions to provide for the necessary levels of accessibility without falling into the trap of measures with rapid short-term advantages, but negative long-term effects.

#### 4.5 Diversified cultural heritage and identities

It is clear that Europe has to **maintain its treasure of cultural diversity and heritage which remains an important asset**, both in terms of tourism, but also in terms of attractiveness for the knowledge economy and in terms of inter-cultural skills useful in a globalised economy. However, cultural heritage alone does not create economic development in a region (except for some regions with a very high density of outstanding tourist attractions), but instead has to be embedded in a more holistic vision which also includes basic infrastructures and human capital. In those areas well endowed with such basic elements, though, additional elements such as cultural attractiveness can play a significant role.

**A balance also has to be found between the protection of cultural heritage and identities on the one hand**, which implies the conservation of certain habits and structures, **and policies for cohesion and competitiveness on the other**, which in turn might lead to the breaking up of traditional structures and a cultural homogenisation across Europe.

#### 4.6 Territorially-oriented governance

The idea of territorially-oriented governance should not be seen as the primacy of the regions in terms of decision-making. For a number of fields, more centralised approaches will continue to be more efficient, as is already well established in the context of the “subsidiarity principle”. However, even in centralised policy making processes, **the differentiated territorial impacts of policies have to be taken into account**. At the same time, **regional policy makers have to take into account the fact that their region is not an isolated, autonomous island**, but is rather part of a continuous territory and of multi-scalar networks. Policies in regions should, therefore, also be analysed for their impacts on other regions.

The main idea, therefore, behind the notion of territorially-oriented governance is that **regions show very different reactions to stimuli** (be they policies or other driving forces) and that **policies at all levels should take these differences into account**.

Somewhere over the rainbow?  
A roll-back scenario

*The following are excerpts of the scenario story and final image of the roll-back scenario which was developed taking the above objectives into account. It represents one possible path towards the fulfilment of these objectives.*

After the rejection of the Constitutional Treaty in public referenda in some countries and the ensuing crisis in European institutional politics, a broad public debate was opened to engage the population about how best to tackle the current problems facing Europe. Three values emerged as indispensable and non-negotiable: a high standard of living for all areas in the EU, safety, and the opportunity to contribute to society.

Translating these values into policy measures required a coordinated effort to enhance competitiveness, cohesion and sustainability *simultaneously*. Taking a territorial approach allowed these three dimensions to be addressed not as trade-offs but as complementarities. Most notably, spatial strategy was geared to meet the challenges of demographic evolution, globalisation, high energy prices and climate change. Moreover, it was finally accepted that this strategy would require substantial public spending, and a "Scandinavian model" was advocated where high levels of public intervention went hand-in-hand with economic growth. This could only be achieved through significant increases in productivity.

Two elements proved indispensable for raising productivity in a sustainable way: education and innovation. In 2011 a pan-European treaty was signed which integrated new criteria into the old Maastricht budgetary criteria: R&D, education and public services such as health and child care. In order to allow for regional specificities, the criteria could be nuanced and prioritised according to regional realities, leaving a certain degree of autonomy to each region on how to achieve these goals. This aspect was bolstered by a requirement for *ex ante* territorial impact assessments for all kinds of policies.

By 2015 increases in R&D and educational spending had made themselves apparent with the growth of science parks and the expansion of university departments. The strategy of focusing on those sectors in which Europe already had a strong position (e.g. environmental technology, new energy sources, transport, and biotechnology) had proved advantageous. The high energy prices had raised the profitability of industries based on renewable resources. Despite these positive signs, there was insufficient spill-over of innovation to industry, so new measures were designed to address this issue. This was not done generically, but applied in a differential manner: policy applied to each region had to be tailor-made in a bottom-up process, requiring a territorial governance approach that interlinks and coordinates all policies affecting a particular region. In addition, precautionary measures were implemented in places most likely to suffer from climate change, allowing them to pre-emptively diversify their economies.

By 2030, the achievements of increased productivity have allowed a solid cohesion policy to be maintained, which itself contributes to producing more competitiveness. All areas of Europe have participated in these economic developments. Much of the top-level innovative economic activity continues to take place in the larger metropolitan areas of Europe, mainly the central areas in and around the pentagon, but also in other clusters of metropolitan areas. Many of the old industrial areas now have lower populations, and most have slowed down and become residential economies with commuting facilities to other areas. Some have strongly diversified their economies, connecting to close-by metropolitan areas and some have succeeded in upgrading their industrial heritage into modern high-tech, capital-intensive industries by moving up the value-chain away from low-level, labour-intensive industries to higher-level, capital intensive industries against which the comparative advantages of low-cost countries are not as determinant. Mountain areas are very busy adapting to the impacts of climate change by providing alternative tourist attractions and harbouring more diversified economies. In the very remote low-density areas, innovative systems of flexible and mobile service provision allow the local populations to profit from modern services, while retaining their more remote lifestyles.

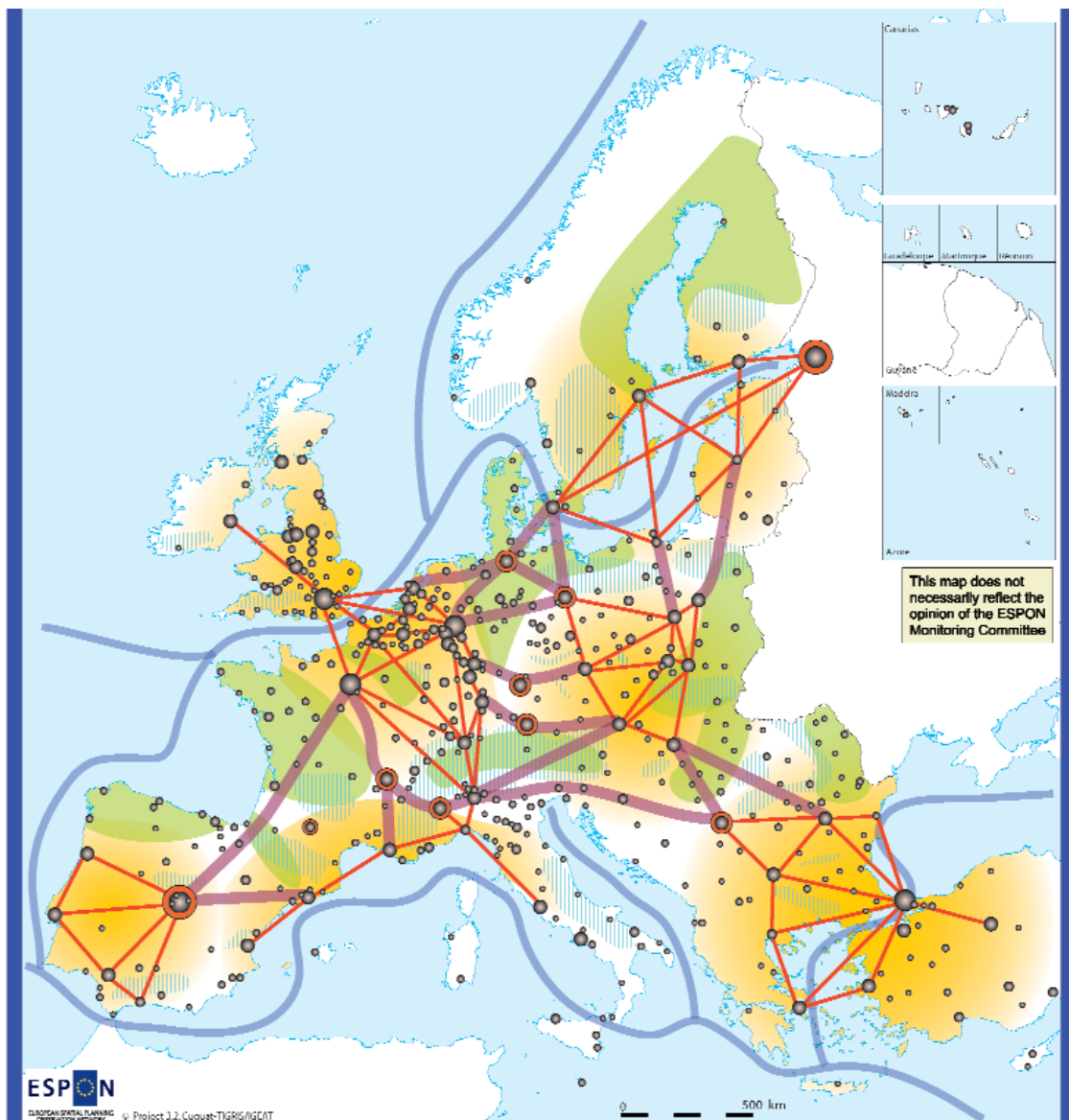
Europe in 2030 is well-connected by a clean and efficient multimodal system, the envy of the world. Even though the transport system is dominated by the main links between metropolitan areas, strong secondary networks link the intermediate spaces. Energy is produced in large quantities from renewable sources. Much of this production is decentralised to individual homes or small settlement areas, although some large-scale installations also exist.

Europe has strongly incorporated its neighbourhood into its functional area through cooperation and assistance, such as large education and infrastructure programmes, but also through the abolition of international trade barriers, notably in agriculture.

The map illustrates the **emergence of economic integration areas** outside the pentagon, based on major urban networks. Within these major networks **regional and local networks** interlink neighbouring cities and towns. The various economic integration areas are interconnected by **major communication links**. A number of metropolitan areas act as **linking cities** along these communication links. Outside metropolitan regions, a number of **rural areas fulfil significant new functions**, for example the production of **biomass** or the development of a dynamic **residential economy**. The map also illustrates the need to promote **maritime freight routes** in order to increase the sustainability of transport.

Map 15

Roll Back Proactive Scenario - Image 2030



- Area of economic integration
  - Major urban network
  - Link between areas of economic integration
  - Linking city
- Major maritime freight route
  - Biomass production area
  - Area with dynamic residential economy

#### 4.7 A need for future-oriented territorial policies

**Territorial goals cannot be reached through the implementation of territorial policies alone.** Many of the most fundamental challenges have to be tackled at other levels and by using sectoral policies, such as education, research and development, and immigration policies, etc. In the following, however, focus is placed on **a brief selection of examples of the territorial policies** that remain a necessary addition to these general policies if such expansive policy goals as enumerated above are to be reached. Many of them have to be implemented at different spatial levels. Vertical coordination is thus vital for their success.

**In support of the emergence of new economic zones of concentration** capable of competing on world markets, policies should promote the infrastructures and human capital necessary by implementing a global and environmentally sustainable approach for each of these zones, which includes linking them with the networks of their respective metropolitan areas. Examples of such relevant areas include the Baltic Sea Region, the new “Eastern Square” of Central and Eastern Europe, formed by Vienna, Berlin, Warsaw and Budapest and the south of France and Catalonia. In addition, this approach should include particular support for certain technology clusters in specific locations (implying a more active European-level governance of technology/industry policies) without locking European development into certain technologies and without creating a zero-sum game of instigating growth in one region to the detriment of another.

There should also be a **precise evaluation of the risk of local and regional climate hazards and investment in adaptation measures**, including, in Southern Europe, water-saving irrigation techniques in agriculture and desalination plants in coastal areas, and, mostly in Northern Europe, prevention measures against floods, such as shaping of river beds, designation of emergency water retention areas, etc, but also, if necessary, the relocation of settlements.

Concerning the need to adapt to the new energy paradigm, policies should **promote the production of renewables**, which should themselves be decentralised as much as possible to local combined heating/electricity production facilities on the neighbourhood and/or individual household level. The choice of location for large-scale projects such as wind or tide parks should be carefully made with respect to sustainability criteria and, where necessary, coordinated transnationally. In terms of energy use, **land use policies for settlement areas should favour energy saving** through the better integration of functions in urban areas, coordination of the development of urbanisations with that of transport infrastructures and the limitation of urban sprawl. Both use and production should be supported by **high levels of research and development in the field of energy production and usage**, as well as by strict and active land use regulations and policies.

Policy should provide more support for, and investments in, **public transport** mainly in cities and metropolitan areas, including their respective surrounding areas, to create sustainable opportunities for commuting as well as for weekend tourism. In dispersed settlement areas and in areas undergoing significant population decline and ageing **“intelligent” solutions to providing transport services** should be encouraged.

More generally, **infrastructure and service provision should be adapted to depopulation** either by concentrating the respective facilities in medium-size cities and towns which might serve as service provision cen-

tres of general interest (communications, health, education etc, with emphasis on child care facilities and specific services for the elderly) or by practising innovative forms of infrastructural provision, e. g. mobile health care services, distance learning etc. Support should also be given to strategic regional transport axes and to the interlinking of these secondary networks with the primary, long-distance network.

Within cities **socio-economic segregation should be moderated** by the targeted **intervention of public actors in housing markets** and by the provision of sufficient social housing as housing prices are generally the major factor in such segregation. In addition, programmes for the economic, social and cultural integration of marginal groups through education, employment, or other measures adapted to local realities should be promoted.

# Conclusions: Reshaping policy for a more promising territorial future

Territorial issues are significant in Europe and various new challenges are emerging. The scenarios elaborated above have demonstrated that **classical spatial policies alone will not succeed in promoting harmonious, competitive and balanced territorial development** if they are not part of a more comprehensive policy system following the same objectives. A desirable territorial perspective is a **real choice of society to which a variety of public, sectoral policies have to contribute**: education, innovation, transport, and agriculture etc. It is also clear that EU policies, even though they demonstrate global objectives and provide strategic impulses, cannot in themselves achieve the realisation of the territorial perspective desired if they are not backed by efficient national and regional policies. The purpose of this final section is then **to sketch out a possible approach to reshaping policies**, considering however that more paths are imaginable and that more than one is scientifically defensible. The intention here is not to provide a detailed description of the policy measures to be implemented, but rather **to propose a series of more general principles along which such policies could be organised**.

## 5.1 Taking future challenges into account

An initial prerequisite for successful and coherent territorial development in Europe is that the challenges identified as important for the coming decades are explicitly taken into account by the policy system that is to be established. These are, in particular, the territorial impacts of **population ageing, immigration, socio-cultural integration, the various facets of the globalisation process, the new energy paradigm and climate change**. These new challenges add to the issues already existing and those strengthened by recent EU enlargements, such as the existence of **strong disparities among European regions**, in terms of economic wealth, development opportunities, accessibility, and environmental quality etc.

In relation to the above-mentioned challenges, a number of **specific priorities and objectives** have to be considered. The first is the importance of human resources in relation to population ageing, immigration, integration, and productivity etc. This is likely to become a critical variable for more and more regions in Europe in the years to come and calls for innovative approaches in a number of fields. **The objective should be to reach high levels of productivity, to create sufficient jobs, to ensure that there is a basic correspondence between the labour force and the available jobs and thus to ensure the integration of less favoured population groups both into the labour market and into society**, to favour synergies between generations, so as to draw more benefits from the knowledge and experience of the aged and to facilitate the integration of the young. In addition to the issues of competitiveness addressed by the Lisbon Strategy, various other facets of the globalisation process will have to be taken into account, such as increasing inter-continental competition in services and agricultural production and the need to favour the emergence of more European “majors” or “champions”, so as to protect the European economy against increasing external economic control through mergers and acquisitions. The emergence of the new energy paradigm, in addition to constraints likely to handicap the European economy, represents an important opportunity for the development of numerous European regions, especially rural and technology regions. Such opportunities should be



systematically promoted and supported by the respective policies concerned, because they are likely to reduce Europe's external energy dependence, to generate new regional income sources and to strengthen European leadership in technologies related to the exploitation of renewable energy sources

## 5.2 Towards a new system of European territorial governance

European policies should obviously **focus on those aspects where a common European approach provides significant added value**. In relation to the above-mentioned emerging challenges, this is clearly the case for transnational issues such as climate change, water management, migration (internal and external), energy production and transport, and the strengthening of the European business structure with a view to overcoming the fragmentation of the European economy etc. In many of these fields, some form of EU policy already exists, although not always at the scale and with the targets needed. Such policies are not however always free of contradictions either with other policies or in terms of the need to coordinate with national policies. In all such areas improvements could certainly be made.

In many respects the new challenges call for a strengthening and an adaptation of various EU policies though this could only be achieved within the context of a **strongly reshaped governance system**. In the context of the application of the subsidiarity principle, the **territorial dimension should gain in importance**, so that regionally defined objectives and strategies are more seriously considered by a wide range of EU and national policies with important territorial impacts. For that purpose, **tools and procedures such as territorial impact assessments should be more systematically applied** in the definition and application of such policies, including the involvement of local actors. By defining the territory as a unit for policy making, different interests related to this territory become evident as does the need to reconcile conflicting interests and to find potentials for synergy between them.

A particular challenge here will be to find a balance between the respect of, and support for, regional strategies individually defined by the respective regional authorities and the need to counteract the increases in regional disparities through territorially differentiated support measures considering that not all regions have similar potentials and development opportunities. The necessary **arbitration will have to be made and implemented in a coordinated manner by the various policies involved in the policy system adopted and not only at the level of classical "regional policies"**, in order to ensure coherence, to avoid counteractive policy impacts and to favour synergies. This is probably the most important innovation to be developed in the future governance system.

## 5.3 Redefining priorities in resource allocation

The definition of a new policy system likely to successfully face up to these emerging challenges and to favour the realisation of the territorial goals chosen inevitably raises the question of the level of resources to be allocated to it. It must first be stated that the most important task in this respect is certainly the **re-organisation of the present resource allocation system**, in order to make it more rational and productive. This may involve changes in resource allocation among the respective policy levels and sectors and, above all, a better coordination of the allocation of resources. It must also be considered that the achievement of these territorial goals requires that important public investments be made and that **additional resources**, in addition to

those currently committed, **will probably be necessary**. These can best be viewed as necessary **short to medium term investments needed to reduce the price of the long-term social costs** which would inevitably result from less ambitious policy goals and from sub-optimal resource allocation.

#### 5.4 Fostering coherence of policies

A further task to be fulfilled in reshaping the policy system is the **consideration of possible contradictions in spatial development issues**, requiring policy choices to be made at appropriate levels and according to a variety of possible territorial contexts. Contradictions obviously exist between the objectives of global competitiveness relying on the strengthening of already advanced regions and that of a more balanced territorial development, enabling more or less homogeneous standards of living, including access to services and to jobs across all European regions. Further potential contradictions can be found in the need to reduce the environmental footprint of transport and to promote the accessibility of more peripheral regions, which in turn, will generate increases in transport flows. Additional examples of the contradictions between territorial policy objectives could easily be found. Solving such contradictions will require **in-depth territorial analyses and the search for differentiated answers** utilising **complementary** measures rather than **exclusive** ones likely only to neglect the development of various types of territories.

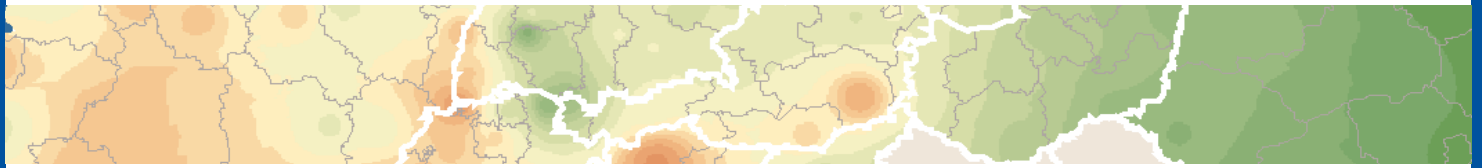
#### 5.5 Harnessing market forces for wider goals

Finally, reshaping the policy system in the direction of more desirable territorial developments for the long-term should not suggest that, by 2030, regional inequalities in Europe will have disappeared. Each of the scenarios presented above has shown that **natural evolutions and market forces play a considerable and indeed often growing role** in the wider processes of territorial change, development or evolution. **The aim here however is to draw out the benefits offered by such evolutions, while efficiently limiting their possible negative impacts**. In a rapidly changing context, this requires a substantial re-consideration of the policy system in order to provide appropriate policy responses.

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Thinking towards the future is an essential precondition for investigating where policies are necessary and how they should be shaped. Development has its own momentum, but policies can make a difference. The future can create different conditions for the citizens in different parts of Europe, for economic development and competitiveness and for cohesion within the European territory, its regions and cities. In order to support a debate at European level and the involvement of regions, cities and larger territories the ESPON Programme under Structural Funds has carried through an applied research project with the aim of presenting contrasting spatial scenarios for the European territory.

ESPON (European Spatial Planning Observation Network) is set up to support policy development and to build a European scientific community in the field of territorial development. The main aim is to increase the general body of knowledge about territorial structures, trends and policy impacts in an enlarged European Union.

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