

ET2050

Territorial Scenarios and Visions for Europe

Project 2013/1/19

Final Report | 30/06/2014

VOLUME 15

**Towards a Territorial Vision (TEVI) “Europe 2050”: the value based
process**

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This report presents a more detailed overview of the analytical approach to be applied by the ET2050 ESPON project. This Applied Research Project is conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

The approach presented in the report may not necessarily reflect the opinion of the members of the ESPON Monitoring Committee.

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The web site provides the possibility to download and examine the most recent documents produced by finalised and ongoing ESPON projects.

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Table of contents

1. Introduction: elaborating a value-based vision informed by fact-based analyses.....	4
2. Participatory Process (ParP).....	7
2.1 Who?, what?, how?: the main ParP features.....	7
2.2 ParP unfolding	9
3. Territorial Vision (TeVi) building process	16
3.1 Preparatory stage of the TeVi elaboration	16
3.2 1st draft TeVi and Brussels thematic workshop.....	16
3.3 TeVi revision process and the Vilnius workshop.....	18
3.4 Vision consensus building: towards June 2014	19
4. Annexes	20
4.1 Implemented participatory activities	21
4.2 Stakeholders (gr 2 and 3) involved in ET 2050 participatory process	26
4.3 Identity card template	30
4.4 Courtesy mail.....	31
4.5 1 st Round of consultations: IGEAT synthesis of comments and contributions received ...	32
4.6 Second round of consultations (EU bodies): synthesis	48
4.7 Dublin workshop: synthesis activity 1 (selecting and ranking).....	70
4.8 Dublin workshop: synthesis activity 2 (mapping)	80
4.9 TeVi methodology note: A Vision for Europe, issues at stake	99
4.10 TEVI draft 1: Europe in 2050: Towards a Territorial Vision”	106
4.11 TeVi draft 1 supporting document, reference list of key sources consulted and list of acronyms	117
4.12 TeVi draft 1 workshop (11/10/2013): working document.....	159
4.13 TeVi draft 1 workshop (11/10/2013: proceedings	169
4.14 VISUALIZING a territorial EUROPE 2050.....	174
4.15 Draft 3 Territorial Vision (February 2014).....	191

1. Introduction: elaborating a value-based vision informed by fact-based analyses

The policy challenges to be taken up, as well as the method to be used, by the ET 2050 project were rather clearly spelled out in the specifications ¹ of the ESPON call for project proposals:

*“Policymakers in the field of territorial development and cohesion are in need of a future oriented and integrated vision on the development of the European territory. (...) The ESPON Monitoring Committee, DG Regio and the ESPON Coordination Unit therefore **wish to start a territorial vision-building process that involves relevant stakeholders at European, national and regional level.** The vision should provide a coherent framework to formulate territorial policy actions at different policymaking levels and to assess and support policy initiatives from other sectors, all with a European perspective. The vision is expected to have a strategic character that allows giving direction to the policy debate on territorial development. **This project aims at supporting policymakers in formulating** this long-term integrated and coherent vision on the development of the European territory.”*

For this purpose, the project was expected on the one hand “to support and deliver input to the territorial vision-building process by updating, extending and refining the scenario work of ESPON”, and “to deliver expert and procedural support to the vision-building process”. On the other hand, owing to these specific features of its agenda, and in contrast to other ESPON applied research projects, the ET 2050 project was also characterised by specific methodological requirements, expressed as follows in the specifications:

*“**A vision is a dream of a future ideal situation.** In relation to supporting the **vision development** the project should make use of a proactive (roll-backwards) methodology **having a point of departure in a future situation (2050) defined by political orientations.** (...) The proactive scenario to be developed by this project will be called a Territorial Vision. (...) The **building process** of the scenarios and the Territorial Vision should be cyclical and dynamic, allowing the Monitoring Committee to take active part in the development and testing of the vision and scenarios.”*

It was therefore anticipated that the Vision elaboration process would be characterised by a strong emphasis on the participatory approach:

“In contrast to other Applied Research Projects, which follow mostly an expert-driven approach, this project will be a mix of policy-driven and expert-driven approach. This means that policy makers have an important say on the choices to be made within the project. Because the policy makers are not part of the TPG, the project should follow a participatory approach in which it is very important to involve the relevant stakeholders at the relevant moment during all ... steps of the project ...

(...)

¹ Applied Research Project 2013/1/19 “Territorial Scenarios and Visions for Europe”

Due to the policy-maker involvement, mobilisation of the stakeholders with their values, views, knowledge and ideas is of key importance for this project. Participatory tools could support the engagement of stakeholders and in turn this could support an extended reflection upon the different steps of the project resulting in shared framing of the territorial vision and pathway to it. In the end of the project the stakeholders should ideally have become the co-owners of the Territorial Vision.

Therefore the ET 2050 Vision of the future of the European territory has been developed by using a specific method characterised by two main components:

- first, modelling exercises have led to the elaboration of various scenarios providing one baseline (or 'business as usual') scenario, and three 'exploratory scenarios' with variants, providing contrasted pictures of what the Europe territory could theoretically look like in 2050; these scenarios were typically fact-based and science-informed;

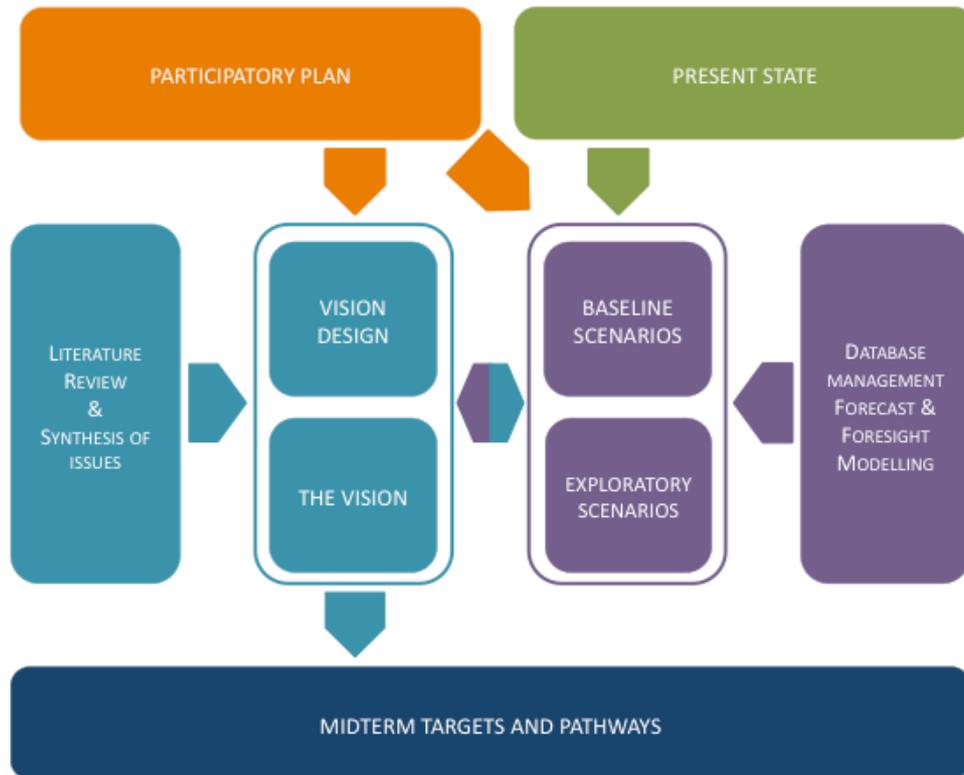
- second, a broad consultation and participatory process involving a wide range of key stakeholders was carried out in close consultation with the members of the ESPON Monitoring Committee; the purpose of this process was to produce an ideal picture of the European territory in 2050 based on policy choices; in principle, the exercise had to take into account, but without feeling constrained by, the room for manoeuvre defined by the contrasted exploratory scenarios; this ET 2050 Vision was thus clearly value-based and policy-driven.

The scenarios building and the Vision elaboration were linked by an iterative cross-fertilising process. Put otherwise, the policy driven input was kept in mind when carrying out the scientific 'expert driven work' (i.e. scenarios assumptions, modelling tasks and TIA); conversely, account was taken of the science-informed work to elaborate the successive drafts of the TeVi and to test its feasibility. This proved challenging but was necessary to secure both the scientific credibility and the political relevance of the project.

Conducting the ET 2050 project therefore involved producing a significant amount of science-informed inputs, which can be found in the various volumes of the DFR (baseline and exploratory scenarios, modelling exercises, TIA, land use development, etc.), and a no less significant amount of policy-driven inputs, generated by the participatory process.

To sum up, the Territorial Vision building process consisted in cross-fertilising

- a value-based, inductive, and policy-driven process
 - and a fact-based, deductive, and science-informed approach,
- as illustrated here under:



How to build a participative Vision informed by a scenario modelling process

This volume reports on the activities carried out in connection with the policy-driven process, i.e. the left part of the diagram above.

A selection of key documents resulting from these policy-driven inputs have been attached to this volume: even if a significant part of this material had already been included in the First and Second Interim Reports, it was deemed useful to include it in one single package to facilitate the understanding of the values and the process, and to have ‘everything at hand’ for the finalisation of the Territorial Vision (TeVi).

Compared with other ESPON 2013 projects, and also with the forerunner ESPON 2006 Project 3.2 on territorial scenarios, a specific feature of ET 2050 was unquestionably the strong emphasis placed on the policy-driven approach and the “planning-as-a-process” dimension. In a way, this approach has confirmed the pertinence of Zygmunt Baumann’s motto: “To seek Europe is to make it!”

As reflected by its two-chapter structure, the purpose of this volume is twofold:

- first, to report as exhaustively as possible on the very diverse and fruitful contributions provided in the framework of the ET 2050 participatory process;
- second, to report on the Vision building process.

2. Participatory Process (ParP)

The ET 2050 Participatory Process (ParP) was extremely stimulating and insightful. Countless participants were involved and contributed enthusiastically to the elaboration of the ET 2050 TeVi.

In this dedicated chapter, the ParP will be presented in two steps: first, a description of its main features (types of participant stakeholders involved, of activities performed and tools used); second, a step-by-step report on its unfolding.

4.1 Who?, what?, how?: the main ParP features²

Who ? - Stakeholders involved

In line with the ESPON specifications of the ET 2050 project, the stakeholders to be involved in the participatory process belong to four different target groups:

Group 1. Members of the ESPON Monitoring Committee and DG Regio officials

Group 2. Other policy makers, including European Parliament (EP/REGI), other EU DGs (Agri, Tren, Environment, Move, Research), Committee of the Regions (CoR/COTER), European Economic and Social Committee (EESC), Network of Territorial Cohesion Contact Points (NTCCP); other EU bodies (e.g. European Maritime Safety Agency, European Railway Agency, European Environment Agency, European Investment Bank, European Central Bank, INTERREG programmes, macro-regional conferences, etc.). Not every such body or organisation may be regarded, strictly speaking, as a “policy maker” but all of them contribute, in some respect, to policy implementation. The same comment applies to non-EU international bodies, which were also invited to participate, including the Organisation for Economic Co-operation and Development (OECD), the *European Conference of Ministers Responsible for Regional Planning* (CEMAT) of the Council of Europe, the World Trade Organisation (WTO), and the Intergovernmental Panel on Climate Change (IPCC). Group 2 also includes quasi-public interest groups active at the European level (e.g. Conference of Peripheral and Maritime Regions - CPMR, Eurocities, Association of the European Regions - AER, the *Council of European Municipalities and Regions* - CEMR, the Association of European Border Regions - AEBR, Eurocities etc.

Group 3. Private sector representatives : the boundaries between this category and the quasi-public interest groups referred to above are sometimes blurred, but “private sector” is understood here as specifically referring to business- and economy-oriented bodies.

Group 4. Scientific experts, i.e. experts (other than TPG experts) involved in other ESPON 2013 projects as well as scientific experts specialised in topics of relevance for territorial cohesion such as transport, environment, economy, etc.

What? - Types of participatory activities

Various types of activities were planned, in particular:

² the list of implemented activities, with the target groups addressed, the format, and the outputs can be found in annex 1. The list of stakeholders from gr 2 and 3 involved in the participatory process can be found in annex 2.

- policy workshops;
- scientific workshops;
- joint thematic workshops with a larger audience (i.e. scientific and policy makers focusing on a specific theme) organised by the ESPON CU).

Apart from these activities involving a large number of people, two other types of consultations, better suited to in-depth communication, frequently took place:

- small group consultations;
- bilateral interviews.

On top of these live communication activities, permanent on-line information and opportunities for interactive communication were offered on the ET 2050 project website.

The communication material and format adopted for the various categories of participatory activity was tailored to the type of participants and the results to be obtained.

How? - Tools used

To make the ParP as efficient as possible, resort was made to various tools which proved of considerable help to catalyse and streamline the communication between the ESPON CU, the TPG and the other bodies involved in the ET2050 project activities.

A database of stakeholders

A contact database of participants in the ParP was progressively developed and updated as and when the activities listed above took place.

Various sources of publicly accessible data were consulted and exploited to this end :

- list of participants in the public consultation procedure relating to the Green Paper on Territorial Cohesion;
- list of participants in the public consultation procedure relating to the 5th Cohesion Report;
- officials of various EU institutions;
- officials involved in the elaboration and implementation of the Baltic Sea and Danube Strategies;
- members of NTCCP delegations;
- list of experts selected by each ET 2050 TPG partner responsible for Task 2.3 sectoral and transnational reports (cf. First Interim Report), as well as proposals from the MC (cf. Krakow meeting December 1 , 2011, inception report);
- ESPON project lead partners and ESPON contact points (ECP) ;

- Authors of World Business 2050 report.

An identity card (ID) for each activity

An ‘Identity Card’ was elaborated for each activity of the ParP

An ad-hoc template was designed (cf annex 3), with various fields to fill out to describe the specific characteristics of the planned event, including:

- event place, time and duration (from very short to full day sessions);
- attendance expected (type of participants + indicative list as appropriate, and the specific role they were expected to play);
- main objectives of the event (awareness raising / dissemination / involvement / validation)
- type of contribution expected of the participants;
- topics to be presented and discussed (agenda/programme);
- expected outputs;
- type of follow-up envisaged after the event.

This tool proved extremely helpful during the entire implementation of the participatory process. In complement to the draft ParP schedule provided in the inception and interim reports, it allowed flexibility and accuracy to meet as closely as possible the needs that arose at various stages of the almost three-year project lifetime.

Material for participatory activities

Various tools were developed to meet the specific needs of different categories of activities and participants.

This included:

- *survey questionnaires* : with close-ended or (semi)open-ended questions, anonymous or non anonymous, to be answered by mail or directly on the spot ;
- *draft working maps* : maps at different geographical scales, with specific key elements, on which participants were invited to draw or add comments + accompanying brief and guidelines;
- *draft working tools*, such as diagrams on which participants were invited to add comments (e.g. key issues for the TeVi).

4.2 ParP unfolding

The ParP took place in two main steps: first, an exploratory phase dedicated to the identification and mobilisation of relevant stakeholders, including first inputs about the scenarios and the overall content of the future TeVi; second, an active contribution to the elaboration of the TeVi.

ParP Phase 1: September 2011- January 2013

The main purpose of the first phase of the ParP was to inform relevant stakeholders about the ET 2050 project while encouraging them to provide information and preliminary contributions of relevance for the elaboration of the scenarios (assumptions, territorial impact assessment, ...) and the TeVi design process (policy values and paradigms).

To initiate the ParP, a draft calendar of participatory activities was presented to the ESPON MC at **the first ET 2050 policy workshop** held in Krakow in December 2011. Participants were asked to comment on it and to propose various stakeholders who should be contacted.

As can be seen in the following quotation of the Krakow workshop minutes, participants set the scene of the ParP:

“The main objective of the Participatory Plan is to engage the ESPON MC, as well as other European policy-makers and policy- analysts, in the development of a Territorial Vision for Europe in 2050 and thereby generate a strong sense of ownership by the ESPON MC, DG Regio and other actors in the field of territorial development on this Territorial Vision.

A number of suggestions were made by ESPON MC members on the approach and methodology proposed. It was agreed that the role of the ESPON MC will not consist only on discussions of scientific outputs to be presented by ET2050, on trends and scenarios; the ESPON MC role will consist mostly on steering early discussions concerning the political goals and values of the Vision to be developed. Consistent scenarios will help to define a realistic Vision, but also early discussions on the goals and values embedded in the Vision will help to design more policy-relevant scenarios. Both processes will be interactive and will start early in the project, since the project has to be both scientifically and politically driven.

The following additional actors were mentioned to be considered in one of the stakeholders groups: European Parliament (key policy makers at EU level), EESC (important to involve the social sector), European Central Bank, EIB (currently launching an investigation on criteria for future loan), Economic Commission for Europe, Professional institutions such as spatial planners and regional town planners (European Council), urban development groups, SMEs (not only big enterprise), NGOs (environmental, international networks) and at some point of the process also civilians could be involved (cf. best practices in countries)”.

In the subsequent months, **a database** was elaborated, taking on board the MC recommendations, with a view to reaching a wide array of stakeholders (cf. section 0 above, database of stakeholders) involved in territorial development at the European level.

In a **'courtesy mail'** (cf annex 4), a letter of information about the ET 2050 project was sent. Every addressee who expressed interest in knowing more about, or being involved in, the project was then contacted and invited to take part in the participatory activities. This database was updated during the all duration of the project.

In fall 2013, the contact database included 775 records (Group 1: 51; Group 2: 389; Group 3:116; Group 4: 219.) Apart from 'planning practitioners', Group 2 also encompassed the following sub-categories: European Commission (including Sec Gen, DG CLIM, DG ECFIN and DG EMPL, as requested by the ESPON CU), Council of the EU (DG G1 Regional Policy Team), European Parliament (REGI Commission), Committee of the Regions, ECOSOC, various other EU

bodies/agencies (EEA, etc.), public interest groups (e.g. AEBR, AER, CPMR, Eurocities, Metrex), territorial groupings (e.g. Council of the Baltic Sea States, Danube Strategy, Grande Région, Plan Bleu, INTERREG programmes), non EU international organisations (Council of Europe, International Maritime Organisation, UNECE, UNEP, etc.) various national planning administrations (in particular past, current and coming presidencies of the NTCCP). Group 4 included a broad category of “scientific experts”, as well as two other specific categories: ESPON project Lead Partners, and ESPON Contact Points.

The first round of consultations took place between January and May 2012, focusing on Groups 2 and 4.

In line with the project specifications and the approved Inception Report, special care was taken to involve members of Group 4 (Experts), who took an active part in the consultations. Many Group 2 policy makers also reacted positively to the “courtesy mail”, including planning practitioners (i.e. “Group 2b” referred to in the CU’s comments on the Inception report - especially members of the international planning associations ISOCARP and ECTP-CEU) and various European interest groups and associations (i.e. “Group 2c – European lobby organisations”), including EUROMONTANA, the Union for the Mediterranean, TECNALIA, EUROCITIES, METREX and EURADA, to name but a few.

Stakeholders who expressed their interest in taking part in the consultations were first contacted by email. The ET 2050 presentation leaflet of the project was attached to the invitation message, as well as a short questionnaire, used for all the consultations, and limited to the five following questions:

Question 1 - What key EU policy issues should deserve particular attention in the ET2050 scenario building exercise?

Question 2 - Should the scenarios focus on the possible evolution of the European territorial structure and EU policy-content, or also on possible change in the area of EU governance?

Question 3 - What major trends / policy developments should be taken into account when elaborating the ET 2050 scenarios? Do you see some possible course of events that could emerge in the long run and whose importance is currently underestimated or simply ignored?

Question 4A. - Please rank the ten paradigms proposed below by priority order (each a distinct rank):

Paradigm	Rank
Competitive Europe	
Culture first: development of the cultural heritage as the main goal	
Ecumenopolis (**): Europe integrated in a world-wide city	
European spatial justice (equal opportunities between territories)	
Inclusive growth (*)	
Minimal ecological footprint: green Europe	
Smart growth (*)	
Sustainable growth (*)	

Territorial diversity: Europe as a mosaic of identities	
Territorial integration: borderless Europe	

(*) as understood in the EU2020 strategy

(**) coined in 1961 by Constantinos Doxiadis <http://www.doxiadis.org/page/default.asp?id=238>

Question 4B - Please brainstorm. Propose your own paradigms:

Question 5 - What recommendations would you like to express concerning the ET2050 scenario and Territorial Vision elaboration process?

Depending on the availability of participants, their contribution consisted in one or more of the following three activities: answering the questionnaire verbally, answering it in writing or participating in a small group meetings. Comments received during the interviews/meetings by those who did not react in writing were collected and transcribed in a questionnaire by IGEAT.

This first round of consultations was meant to provide an input to, and clarify the hypotheses underlying, the baseline and exploratory scenarios, but was also elaborated to address with various stakeholders the question of key values and paradigms on which the Territorial Vision should be based. It is indeed important to bear these values/paradigms in mind during the elaboration of the scenarios, instead of elaborating them on a relatively arbitrary basis. The issue is addressed in question 4 of the questionnaire. Special care was also taken in the other questions to consider various aspects of EU policy making, including EU governance.

To encourage free speech, it was decided to keep anonymous the various comments expressed by respondents, and therefore not to publish the various completed questionnaires. However, several participants have spontaneously transmitted reference documents or individual written contributions to nurture the ET 2050 Territorial Vision elaboration process. These reference documents and contributions have been included in the First Interim Report as Annexes ParP 4 to 11 (www.et2050.eu)

As anticipated by the CU when commenting on the Inception Report, these small group meetings proved very fruitful, particularly conducive to creative exchange of views. As recommended by the CU, an innovative way of web-based communication was successfully experimented in this framework, namely a highly efficient professional video-conferencing system (allowing a multilateral conversation to take place with up to fifteen participants, with a possibility to record the proceedings on digital support and share various documents/ presentations on line.)

The synthesis of this first round of consultations can be found in annex 5.

The second round of consultations took place between June 2012 and January 2013, as planned in the first Interim Report approved.

The activities performed in this second round were no less intense than those of the first round. This involved:

- elaborating a survey questionnaire distributed to participants in the Aalborg ESPON open seminar (June 2012, mainly groups 2 and 4); a synthesis of the outcome has been made available on the ET2050 website: <Disc Note 35 - Aalborg scientific workshop qualitative comments (version 08-01-13)>).
- elaborating a survey questionnaire for the consultation of the ESPON MC (group 1), utilised as a working document during the MC workshop held on 28 September 2012; a synthesis of the outcome has also been made available on the ET2050 website: <Disc Note 36 - Outcome of the 1st consultation of the MC about the Vision (version 12-11-12)>
- participating to a second workshop with the ESPON MC, which took place during the ESPON seminar held on 3 December 2012 in Paphos; cf. ET2050 website, <Disc Note 40>)
- further developing and updating the database of contacts, with a particular focus on group 3: for example, the contact list was supplemented with stakeholders who had been involved in consultations on the 5th Cohesion Report, or the list of authors who contributed to the 'World Business 2050' report;
- sending a "courtesy mail" to various stakeholders of group 3, inviting them to take part in the second round of consultations: respondents who expressed their interest in taking part in the consultations were first contacted by email; the presentation leaflet of the ET 2050 project (see 1st Interim rReport, Annex ParP1 on www.et2050.eu) was attached to the invitation message, as well as a short questionnaire used for all the consultations (cf. supra); unfortunately, a very small number of group 3 stakeholders responded, which prevented from elaborating a credible synthesis;
- carrying out, in the last quarter of 2012, several bilateral interviews with officials of various DGs of the European Commission (group 2): the main aim was to gather relevant information about the possible future of EU policies.

As far as these interviews are more particularly concerned, DGs consulted include DG REGIO (25th Oct.), DG MOVE (6th Nov.), Secretariat General (6th Nov.), DG RTD R&I (13th Nov.), DG ENV (16th Nov.), DG MARE (30th Nov.) and DG AGRI (14th Dec.); to encourage free speech, it was agreed with the interviewees that they would remain anonymous.

They were asked to answer two main questions:

- in an ideal world, how should the EU policy which your DG is responsible for evolve until 2050? ("the long-term policy scenario of your dreams")?
- in the real world, what is, in your view, the most likely evolution of this policy until 2050 ? ("the long-term policy scenario you realistically anticipate")?

Apart from these two questions, the interviewees were also encouraged to address other aspects of their choice, for example their comments about the ET 2050 work. The report on these consultations synthesises the outcome of the interviews, supplemented as appropriate by extra material drawn from the various strategies / documents referred to by the interviewees (see annex 6).

Furthermore, contacts were made with the European Parliament (September 2012 and February 2013), the Committee of the Regions (December 2012) and a member of the EESC was interviewed on 27 November 2012.

While raising awareness among stakeholders about the ET 2050 project, Phase 1 of the ParP gathered their preliminary inputs, which served as inspiration for the Vision design process. This phase ended in January 2013. A first synthesis was provided in the first Interim Report and a second synthesis, mainly based on the interviews with several Commission DGs, was produced in January 2013, and included in the second interim report. We reproduce them in annex to this volume (annexes 5 & 6).

ParP Phase 2: March 2013 – February 2014

Phase 2 of the ParP was based on a different approach. This time, the main objective was to gather inputs from the ESPON MC members and other EU stakeholders in the field of territorial development, in order to inform the elaboration of the TeVi. Another related objective was to build a sense of ownership of the TeVi among those stakeholders, and the MC in particular.

This involved presenting ET 2050 outcomes, mainly based on results of the second Interim Report (April 2013), but also generating a new dynamic among stakeholders. The aim was to encourage them, and the MC members in particular, to put aside for a while various constraints of the present and short term future, in order to concentrate on developing an ideal picture for the European territory in 2050. To this end, the scenarios and first elements of a territorial Vision were presented to a large audience, including EU institutions, decision makers at different levels, and scientific experts (see infra, Vision building process).

Therefore the agenda of this second phase of the ParP consisted in various tasks geared towards the long term future, in particular:

- testing the relevance of the scenarios, focusing on elements to be used for the TeVi;
- triggering contributions to the definition of various components of the TeVi, including the elaboration of an ideal picture of the EU territory in 2050
- testing successive drafts of the TeVi.

Phase 2 started with a meeting with Ms D. Hübner, (MEP, Chair of the REGI Committee, February 2013), a MC workshop on the ET 2050 baseline scenario (14 March 2013), and a presentation of the baseline and exploratory scenarios to the REGI Committee (25 June 2013).

'A territorial Vision for EU towards 2050: a Vision is a dream of an ideal EU', a crucial workshop with ESPON MC

Focusing entirely on the Territorial Vision, the **Dublin MC policy workshop on 12 June 2013** was an important and stimulating step. As was already done for previous events, an 'Identity card' was elaborated to prepare the workshop.

Its purpose was to generate contributions on elements of a Territorial Vision seen as an 'ideal future' for the EU territory". To prepare this event, a synthesis of the main results of the 2nd Interim Report was elaborated³, and sent to the MC. In a second step, an important material was elaborated by IGEAT, to stimulate the expression of new ideas and wishes for the future.

The main leitmotiv of this session was: "Do not feel constrained by current trends, imagine which European territory you would like your children and grand children to live in'.

To this end, two specific tools were produced : a semi open questionnaire, and draft working maps:

- The semi open questionnaire presented a list of key policy choices, to be taken as major features and issues for the Vision. Participants had to rank and select various policy choices, in line with priorities they would favour in the scenario "of their dreams" for the future of the European territory. They were also free to add more personal comments. The questionnaires were anonymous, which allowed a very fruitful input from the participants, and provided extremely interesting results. A synthesis is attached (annex 7).

- The semi open questionnaire was an individual exercise. After this, participants were divided into four groups (with a good geographical mix of MC delegations), and were asked to answer various questions relating to geographically differentiated policy choices, to be illustrated on a set of four working maps (neither official, nor in ESPON format). Questions asked include: "which place and links should be favoured with the rest of the world ?, with neighbouring countries ? inside the ESPON space ?", etc. Participants were always free to express any extra comments, if deemed appropriate. The synthesis and explanation of this exercise can be found in annex 8.

This workshop brought about a wealth of extremely stimulating results (see annex 7 and 8).

After the Dublin MC policy workshop, a considerable amount of relevant material was made available, including preliminary inputs from other participatory activities, results of the scientific work presented in the 2nd Interim Report 2 (April 2013), and the outcome of the Dublin workshop itself. The time was therefore ripe to start with the elaboration of a first draft TeVi.

The next section presents the TeVi building process, including the outcome of subsequent related participatory events (continuation of ParP Phase 2).

³ see http://www.espon.eu/main/Menu_Projects/Menu_AppliedResearch/ET2050.html, "Interim Report 2, Synthesis"

3. Territorial Vision (TeVi) building process

The elaboration of the TeVi turned out to be a stimulating but challenging exercise, conducted in three main steps: (1) a preparatory stage dedicated to methodological aspects and consultations; (2) the production of a first draft TeVi and its presentation at the ESPON thematic workshop held in Brussels on 11 October 2013; (3) the revision process of the TeVi, based on the outcome of the Brussels workshop and further consultations.

4.1 Preparatory stage of the TeVi elaboration

During the first phase of the project, and in parallel with the consultations referred to above, a preliminary methodology note was produced by IGEAT to prepare the TeVi elaboration process. This note was included in the 2nd Interim Report (pp. 151-157); an extra copy is attached (see annex 9).

The purpose of this note was threefold:

- building a working method for a robust Vision elaboration;
- synthesizing existing macro-regional visions in order to grasp the key territorial issues that should be discussed during the Vision building process;
- preparing the ground for a generation of the Vision out of the exploratory scenarios, the ParP and the synthesis of the aforementioned macro-regional visions.

Together with the outcome of the ParP, this note provided significant food for thought during the iterative TeVi elaboration process, which also drew on other sources such as the ET 2050 scenarios and other major strategic documents, including other existing territorial visions elaborated at a different geographic scales. A practical roadmap was then provided by IGEAT to organise the Vision building process towards the Territorial Vision.

4.2 1st draft TeVi and Brussels thematic workshop

A key-step of the TeVi elaboration process, namely the preparation and presentation of the 1st draft TeVi, took place from June to October 2013.

The 1st draft TeVi⁴ was essentially composed of two main documents: “*Europe in 2050: Towards a Territorial Vision*” (i.e. the TeVi itself, annex 10) and a “TeVi supporting document” (annex 11). A reference list of key sources consulted and a list of acronyms were also provided (annex 11).

The main text of the 1st draft TeVi was ten-page long, intentionally concise, self-standing and to the point. This was deemed essential to allow participants in the debate to grasp the essence of the document without having to read the attachments. As a matter of fact, this main text was a summary of the forty-page “supporting document”, produced beforehand.

⁴ Document elaborated by two external experts, namely Ph. Doucet (Géphyres consultancy) and J.F. Drevet, in close consultation with the IGEAT team (V. Biot, V. Calay, C. Dessouroux).

The 1st draft TeVi puts forward a deliberately optimistic and long-term policy approach, based on a small set of key-values, in particular the ideal of “spatial justice”. It provides a description of what the European territory would ideally look like in 2050, should these key-values be adhered to and pursued through the implementation of an appropriate strategy in various policy areas: relations with the rest of the world, demography, economy, transport, energy, climate and environment policies. An ideal picture of the future “territorial dynamics”, settlement pattern (system of cities and rural areas) and maritime spaces is also provided. Last but not least, the 1st draft TeVi outlines a multilevel territorial governance system of the EU in 2050, characterised by six main levels: the global, supranational/federal, macroregional levels, the federated state level, and the Euregional (or cross-border) and regional/local levels.

The 1st draft TeVi elaboration capitalised on the scenarios produced by the ET 2050 project partnership and the outcome of various consultations conducted in the framework of the ParP. However, these were not the only relevant inputs. Due attention was also paid, when elaborating the various chapters of the TeVi, to a series of reference documents, in particular those published by various DG of the European Commission (DG TREN, DG Research, DG MOVE, etc.) or other EU or international agencies (EEA, IPCC, etc.), which produced many reference policy documents (including foresight documents such as the “Energy Roadmap 2050”, “Global Europe 2050”, “Towards a Green Economy in Europe”, to name but a few.)

A thematic workshop, entitled “*Territorial Vision for Europe towards 2050*”, was organised by IGEAT and the ESPON CU to present and discuss the 1st draft TeVi. This took place in Brussels on 11 October 2013. The purpose of this event was to exchange views about the issues raised in the 1st draft TeVi with various stakeholders (including ESPON MC members, policy-makers, expert-practitioners and organisations of the civil society), many of whom had already taken part in previous consultations of the ParP.

More than 50 participants attended the workshop, which took place in two main steps:

- first, during the morning session, the territorial scenarios and “striking modelling results” were presented, followed by a presentation of the 1st draft TeVi;
- second, three parallel sessions were held in the afternoon with three sub-groups of participants, to discuss the content of the 1st draft TeVi and contribute to its revision.

A slide show with key issues was used at this conference to present the 1st draft TeVi, and three main questions were asked to structure the discussion during the workshop:

- What should be changed?
- Any territorial differentiation?
- How to achieve the Vision?

A working document based on this slide show and presenting the three questions was used to facilitate the workshop discussion (see annex 12).

All the material prepared for the workshop (1st draft TeVi, its supporting document and the working document) was sent to a larger audience after the workshop, in order to gather further input.

A major point raised during the workshop was that confusion should be avoided between the Vision itself and the strategy to achieve it (mid-term target and pathways). Some participants insisted that the TeVi should be realistic, but others also stressed the fact that it should picture an ideal long-term future, which entails setting very ambitious goals and objectives, based on clear core-values.

To avoid confusion (between the Vision itself and the related strategy) and contradiction (between realistic and idealistic approaches) it was agreed that a clear distinction between the two documents referred to in the ET2050 project specifications was essential:

- the TeVi, whose narrative should be based on the assumption: '*we are in 2050, in the ideal world of our dreams* (e.g. a sustainable, balanced, polycentric and cohesive European territory);
- the mid term targets and policy pathways, i.e. the strategy whose implementation should contribute as far as possible to the achievement of this ideal world, but taking account of the room for manoeuvre associated with various constraints and limits identified by the scenarios and various reference EU policy documents.

To feed into a second version of the TeVi, detailed minutes of the workshop were elaborated, as well as the attached workshop proceedings (see annex 13).

4.3 TeVi revision process and the Vilnius workshop

On this basis, during autumn 2013, a second comprehensive background document ('Vision supporting document' - cf. DFR, Volume 10) was elaborated by the Et 2050 project partner ISIS (C. Sessa), in consultation with IGEAT.

Also during the autumn of 2013, two discussion papers about visualisation issues were produced and circulated for comments, one by ERSYLIA/MCRIT, addressing these issues for the whole project (including scenarios, cf. DFR Vol 14), and another one by IGEAT, focusing on the Vision and entitled "Visualising territorial Europe 2050" (see annex 14).

All this material was presented to, and discussed with, the ESPON CU⁵. To prepare the ESPON MC policy workshop in Vilnius, it was decided to produce and circulate a shorter version of the 'Vision supporting document' (identified as 2nd draft TeVi), a working document addressing key issues of this 2nd draft, as well as a draft working map.

Various key issues were presented in the TeVi working document, and two main questions were asked:

- Do you think that anything should be changed, or is missing, in this Vision?
- Do you have any suggestion about potential political pathways, key milestones and/or targets that would help to implement this territorial Vision?

The draft working map used FUA as building blocks, in relation with the territorial proposal presented in the 2nd draft TeVi (territorial layers).

⁵ IGEAT/ISIS/ESPON CU meeting 15 /11/2013, Brussels

The output of the Vilnius workshop with MC, as well as further processing of all this material, supported the elaboration of a draft 3 Territorial Vision, which was delivered by IGEAT end December 2013, and used as the framework to elaborate the policy pathways (cf DFR, VOL 11).

4.4 Vision consensus building: towards June 2014

As of September 2013, the European Parliament (REGI committee) and the Committee of the Regions (COTER committee) were increasingly involved in the process. On 24 September 2013 (REGI hearing day), the ET 2050 project was presented in a plenary session of the REGI committee. On 9 October 2013, a meeting took place with the chair of the COTER committee, and a presentation to the full COTER was planned for February 2014. It took place on the 19 February 2014.

The outcomes of these various activities have fed into several components of the ET 2050 project, including the territorial scenarios and the TeVi.

The 3rd draft TeVi elaborated by IGEAT, on the basis of the two previous TeVi drafts, comments from the Vilnius MC workshop, and consultations with the ET 2050 project team, including a TPG meeting (December, Vilnius), was updated in February 2014, taking into account preliminary version of the DFR, and interaction with the VOL 11 political pathways. This updated version can be found in annex 15.

The ET 2050 DFR delivered on 28 February 2014 includes a shorter 4th draft TEVi (*Territorial Vision: Open and polycentric development*). A brainstorming session was then organised with ESPON Cu and ET 2050 partners (March 2014).

On the basis of the brainstorming session outcomes, the 4th draft TEVi, other results presented in the DFR, and further comments already expressed about these documents – from ESPON MC, ESPON contact points, ET 2050 sounding board, ESPON CU - a 5th draft TeVi was delivered in April 2014, together with related documents, including pathways and a proposal for the TeVi visualisation.

This material was used for presentation and discussion with a large array of stakeholders, during a ESPON conference which took place the 29 April 2014:

“Making the European Territory Open and Polycentric”

The outcome of this conference then helped to fine tune the Territorial Vision, generate proposals on how to implement it (midterm targets and policy pathways) and promote consensus building.

A short presentation of the project took place during the ESPON seminar in Greece (4-5 June) 2014).

A final version of ‘ *A territorial Vision for Europe 2050*’ and related mid term policy pathways and targets were then delivered for the final report of the ET 2050 project.

4. Annexes

4.1	Implemented participatory activities	21
4.2	Stakeholders (gr 2 and 3) involved in ET 2050 participatory process	26
4.3	Identity card template	30
4.4	Courtesy mail.....	31
4.5	1 st Round of consultations: IGEAT synthesis of comments and contributions received ...	32
4.6	Second round of consultations (EU bodies): synthesis	48
4.7	Dublin workshop: synthesis activity 1 (selecting and ranking).....	70
4.8	Dublin workshop: synthesis activity 2 (mapping)	80
4.9	TeVi methodology note: A Vision for Europe, issues at stake	99
4.10	TEVI draft 1: Europe in 2050: Towards a Territorial Vision”	106
4.11	TeVi draft 1 supporting document, reference list of key sources consulted and list of acronyms	117
4.12	TeVi draft 1 workshop (11/10/2013): working document.....	159
4.13	TeVi draft 1 workshop (11/10/2013: proceedings	169
4.14	VISUALIZING a territorial EUROPE 2050.....	174
4.15	Draft 3 Territorial Vision (February 2014).....	191

4.1 Implemented participatory activities

First phase: September 2011- January 2013

Date	Place	Objectives / Contribution to the project	Actors involved	Activity	Deliverables
2011 Month 1 - month 4					
30/11	Krakow	Input to adjust territorial scenarios	LP ET 2050 Participants ESPON seminar	Scientific workshop 1 Scenario session, survey	Input for scenarios assumptions
01/12	Krakow	Input and suggestions on ET 2050 project and participatory approach	ET 2050: LP and PP3 ESPON MC and CU, DG REGIO	Policy workshop 1 ESPON seminar, MC meeting Presentation, discussion	Participatory plan Inception report
2012 Month 5 - month 16					
01/01 / 30/04		Input to thematic and macroregional reports	Relevant ET 2050 PPs Scientific, policy analyst and policy makers	Personal interviews	Thematic and macroregional reports, First Interim Report (FIR)
03	Web mail	Awareness raising	Group 2 (policy makers) and Group 4 (experts)	"Courtesy mail", information on ET 2050	Database
05	Brussels	Input to / hypotheses for baseline scenarios, exploratory scenarios and Territorial Vision	ET 2050 PP3 Group 2 (policy makers) and Group 4 (experts)	Small group & individual consultations (round 1) Interactive participation: questionnaire, interviews, small group meetings, video conference	Synthesis, FIR, chapter 2
12/06	Aalborg	Baseline scenario 2030 , first presentation Input to prepare the MC workshop 28 September	ET 2050 LP, PP3 MC, DG REGIO, ESPON CU	Policy workshop 2 (dedicated session of MC meeting) presentation , discussion	Questionnaire for MC policy- aims and criteria to elaborate the Territorial Vision
14/06	Aalborg	Key findings of the 1 st Interim Report Critical questions to identify 2013-2020 trends, building blocks for the exploratory scenarios	ET 2050: LP and relevant PPs Participants in ESPON open seminar	Scientific workshop 2 ESPON Open seminar (dedicated session) Interactive sessions (quantitative survey and qualitative questionnaire)	Synthesis, disc note 35, ET 2050 website
18/09	Brussels	Awareness raising	Et 2050 LP+ PP 9	Policy maker face-to-	Minutes on ET 2050

Date	Place	Objectives / Contribution to the project	Actors involved	Activity	Deliverables
		Involving main EU institutions,	ESPON CU EU Parliament, REGI chair	face consultation 1	website
28/09	Brussels	Input on the policy- aims and criteria to elaborate the Territorial Vision, and influence elaboration of exploratory scenarios	ET 2050 LP, PP3 MC, DG REGIO, ESPON CU	Policy workshop 3 interactive session (90 minutes) based on answers to questionnaire delivered in July to MC members	Synthesis, disc note 36, ET 2050 website
10	Web mail	Awareness raising	ET 2050 PP3 Gr 3	Courtesy mail	Database
10, 11 and 12	Brussels	Input to the fine tuning of the baseline scenario 2050 storyline Input to exploratory scenarios and territorial vision	ET 2050 PP3 key EU actors: DG (MOVE, AGRI, REGIO, ENVI, ...) EESC	Small group and individual consultations (round 2) Interactive participation: questionnaire, interviews	Synthesis, Second interim report
11 and 12	Brussels	Input to exploratory scenarios and territorial vision	ET 2050 PP3 key EU and non EU actors, from GR 3 (non public)	Small group and individual consultations (round 2) Interactive participation: questionnaire, interviews, small group meetings	Questionnaires filled, website ET 2050
04/12	Cyprus (Paphos)	Input to the exploratory scenarios (consistency, likelihood, desirability, criteria for TIA). Discussion on methods and input to elaborate the Vision, and first proposal on hypothesis	ET 2050 LP, PP3 + PP 4,5,7 MC, DG REGIO, ESPON CU	Policy workshop 4 dedicated half day session of the MC meeting interactive presentation (communication and media tools: PP 13)	Synthesis, disc note 40 (draft), ET 2050 website

Second Phase : February 2013- June 2014

Date	Place	Objectives / Contribution to the project	Actors involved	Activity	Deliverables
2013 Month 17 - month 28					
26 /02	Brussels		Et 2050 LP, PP3 and PP 9	Policy maker face to face consultation 2:	Second interim report (scenarios

Date	Place	Objectives / Contribution to the project	Actors involved	Activity	Deliverables
		Involving main EU institutions	ESPON CU EU Parliament, REGI chair	Presentation of Baseline scenario and related maps development	and Vision)
14/03	Luxembourg	Dissemination of baseline scenario results discussion of hypotheses and storyline	LP ET 2050, PP5 MC, CU	Policy workshop 5 Mc meeting Presentation of Baseline scenario and related maps development	Second interim report (scenarios)
12/06	Dublin	Short Presentation of draft exploratory scenarios, focusing on element in relation with the territorial Vision. Testing first elements for territorial Vision, Gather Input to elaborate territorial vision	ET 2050 steering committee + relevant partners ESPON CU MC DG REGIO	Policy workshop 6: Towards Territorial Vision MC meeting, 90 minutes interaction on ranking and mapping	Synthesis, DFR, vol 15, annexes 8 and 9
13/06	Dublin	Testing the consistency and likelihood of exploratory scenarios (draft final), Input to Territorial Vision, in relation with scenarios	ET 2050 steering committee + relevant partners Participants in ESPON Open seminar	Scientific experts and other stakeholders survey ESPON seminar: Plenary session	
25/06	Brussels	Involving main EU institutions, awareness raising and preparation of 11 October 2013 seminar	Et 2050 LP, PP3 and PP 9 ESPON CU DG REGIO	Policy workshop 7 Presentation of scenarios and related maps development introduction to Vision Design process	Input for Territorial Vision and scenarios
25/06	Brussels	Involving main EU institutions, Awareness raising, and preparation of REGI hearings 24 September 2013	Et 2050 LP, PP3 and PP 9 ESPON CU EU Parliament/ REGI members	Policy maker face to face consultation 3: Presentation of scenarios and related maps development introduction to Vision Design process	Input for Territorial Vision and scenarios
24/09	Brussels	Involving main EU institutions in Vision design process,	Et 2050 LP, PP3 and PP 9 ESPON CU DG REGIO	Policy workshop 8 Awareness raising of TEVi building process Dissemination and discussion of territorial scenarios	

Date	Place	Objectives / Contribution to the project	Actors involved	Activity	Deliverables
24 /09	Brussels	Involving main EU institutions in scenarios results and Vision design process	ESPON CU, ET 2050 LP, PP9, PP3, other invited Hearings of EU Parliament REGI Committee	Large audience conference (1) Awareness raising of TEVi building process and Dissemination of territorial scenarios	
09/10	Brussels	Involving main EU institutions in scenarios results and Vision design process	ESPON CU, ET 2050 LP, PP9, PP3 CoR, COTER chair	Policy workshop 9 Awareness raising of TEVi building process Dissemination and discussion of territorial scenarios	
10/10	Brussels	Involving main EU institutions in scenarios results and Vision design process	ET 2050 LP DG REGIO	Individual consultation Awareness raising of TEVi building process Dissemination and discussion of territorial scenarios	
11/10	Brussels	Presentation of ET 2050 outcome: (dissemination of scenarios)) Workshops on first draft territorial Vision (involvement)	relevant PPs from ET 2050 Stakeholders group 1,2 and 3 MC, CU, DG REGIO, other Eu Commission DGS,+ Invited high level experts and policy makers	ESPON Vision policy workshop (10) Large audience conference (2): dedicated to ET 2050 territorial Vision (TEVi) 2 plenary sessions and smaller workshops	Synthesis (DFR, vol 15, annex 14) Detailed minutes used for the second draft TEVi (DFR, vol 10)
10 and 11	webmail	Consultation on Draft territorial Vision and midterm target and path ways	ET 2050 steering committee GR 2,3 and 4 Participants Sem 11/10/2013	Mail consultation pursuing on the 11 October outcomes	Further comments included in synthesis 11 October 2013
03/12	Vilnius	Discussion of draft Territorial Vision And draft midterm target and pathways	ET 2050 steering committee MC , ESPON CU, DG REGIO	Policy workshop 11 MC meeting Consensus building on the territorial Vision (draft 2)	Input for Draft 3 TEVI (draft 3 updated in DFR, vol 11, annex A)
05/12	Vilnius	Discussion on exploratory scenarios, Territorial vision, midterm target and pathways	ET 2050 relevant PPs Participants to	Scientific workshop 3 on scenarios and draft TV	Input for DFR

Date	Place	Objectives / Contribution to the project	Actors involved	Activity	Deliverables
			ESPON seminar,	ESPON seminar Internal	
2014 Month 29 -Month 34: final report					
18/02	Brussels	Involving main EU institutions in territorial scenarios and Vision	ET 2050 LP and other PPs ESPON CU EU Parliament, REGI chair	Policy workshop 12 Consensus building, Presentation of first draft FR	Input for DFR
28 February: DFR					
29/04	Brussels	Communication on the Territorial Vision Fine tuning mid-term targets and pathways Consensus building on TEVi	ET 2050 TPG ESPON CU All groups	ESPON Vision policy workshop (13) Large audience conference (3): dedicated to ET 2050 territorial Vision (TEVi) and mid term target and pathways	Towards final report and TeVi final document, Input for mid term target and pathways
05/06	Greece	Presentation of ET 2050 results, scenarios, Territorial Vision and mid-term target and pathways	ET 2050 relevant PPs and expert , Participants in ESPON Open seminar	ESPON Open seminar Scientific workshop 4	Dissemination

4.2 Stakeholders (gr 2 and 3) involved in ET 2050 participatory process

Surname	First name	Institution
ADELSBERGER	Helmut	European Commission
BONNIER	Jean	AIFM - Association Internationale Forêts Méditerranéennes
BOREL	Gildas	Brest metropole oceane
BOUCHE-FLORIN	Luc-Emile	Urban Concept
BURINSKIENE	Maria	Research Institute of Territorial Planning
BURLAKA	Vitali	Regional Development Centre "STABILITY"
BUSSADORI	Virna	ECTP-CEU
CABON	Anne-Marie	Brest métropole océane / Ville de Brest
CHAVANON	Anne-Marie	IAU
CHOTARD	Françoise	Ile-de-France Europe
CLOYE	Guillaume	EUROMONTANA - European association of mountain areas
COLARD	Alain	WBI Wallonie-Bruxelles International
COMES	Marina	Secretariat of the Union for the Mediterranean, Transport and Urban Development Division
CORREIA	Paulo	ECTP
DAMSGAARD	Ole	NORDREGIO
DAVILA DIAZ	Gregorio	European Commission
DE GROOT	Daniel	Ministry of Infrastructure and the Environment
DELORME	Hubert	European association of craft and SMEs
DE PENANROS	Tristan	Brest metropole oceane
DIJKSTRA	Lewis	European Commission
DOUCET	Philippe	Gephyres eurl
DREVET	Jean Francois	ex European Commission
DG MOVE		European Commission
DG AGRI		European Commission
DG RESEARCH		European Commission
DG MARE		European Commission
DG ENVI		European Commission
DG REGIO		European Commission
ELISEI	Pietro	URBASOFIA
ENOTIADES	Phaedon	Ministry of the Interior - Town Planning & Housing Dpt.
ERDMENGER	Katharina	Europäische Stadt- und Raumentwicklung (SW14) Bundesministerium für Verkehr, Bau und Stadtentwicklung

ERIPRET	Julia	INTERREG IVB NWE JTS
ESER	Thiemo	Ministry of Sustainable Development and Infrastructures
FELIU	Efrén	TECNALIA Unidad de Medio Ambiente / Environment Unit
FESTAS	Maria José	DGOTDU
GASC	David	AIFM - Association Internationale Forêts Méditerranéennes
GOODSTADT	Vincent	RTPI - Royal Town Planning Institute
GÖRMAR	Wilfried	CSPD (VASAB Committee)
GOUDIS	Michalis	CECODHAS Housing Europe
GRASLAND	Claude	UMS RIATE
GUILLERMO-RAMIREZ	Martin	Arbeitsgemeinschaft Europäischer Grenzregionen
HAGUE	Cliff	UK ESPON Contact Point
HANAK	Roland	BMASK Bundesministerium für Arbeit, Soziales und Konsumentenschutz
HAURY	Matthias	COST Office
HENDRICKX	Luc	European association of craft and SMEs
HUBNER	Danuta	European Parliament, MEP, REGI chair
ISLEV	Charlotte	European Environment Agency
JASINSKA-MAHLECK	Karolina	European Commission
JOUEN	Marjorie	NOTRE EUROPE
KARA	Murat	Turkey Ministry of Development
KELLENBERGER	Marco	UVEK - Federal Office for Spatial Development (ARE)
KLAERDING	Claudia	Ziel2 Sekretariat
LACONTE	Pierre	Foundation for the Urban Environment
LAMBLIN	Michel	INTERREG IVC
LANCRENON	Dominique	ECTP-CEU & Territoires, Sites et Cités
LAZAUSKAITE	Dovile	Research Institute of Territorial Planning
LEIJTEN	Jos	TNO Innovation for Life
LENNERT	Moritz	Universite Libre de Bruxelles
LE TELLIER	Julien	Plan Bleu - Marseille
LINKAITS	Talis	Baltic Sea Region Spatial Planning Initiative VASABA
LISNEY	Tim	Council of Europe, Secretariat of the Congress of Local and Regional Authorities
LOUWERS	Ruut	INTERREG IVB NWE
MARTIN	Derek	IFHP
MEHLBYE	Peter	ESPON CU
MEULEMAN	Louis	European Commission
MIRONOWICZ	Izabela	AESOP, Wroclaw University of Technology

NIELSEN	Dorthe	EUROCITIES
NOUPADJA	Nathalie	The Council of European Municipalities and Regions
OLBRICHT	Jan	European Parliament, MEP, REGI member
PAGE	Tim	METREX
PAÜL CARRIL	Valerià	Universidade de Santiago de Compostela - Departamento de Xeografía/Grupo ANTE/SIESTA Project
PEMAN	Ignacio	ECTP-CEU
PETZOLD	Wolfgang	Committee of the Regions
PEYRONY	Jean	Mission operationnelle transfrontaliere
POULTON	Chris	Department for Communities and Local Government / Planning - Development Management
PREZIOSO	Maria	Roma University Tor Vergata, Dept. of Economics and Territory (DET)
RAAD	Gunter	European Commission
READ	Roger	METREX
ROUBY	Alexia	EUROMONTANA
SALEZ	Patrick	independent expert
SAUBLENS	Christian	EURADA - European Association of Development Agencies
SCHEERS	Joris	Govt Flanders
SCHULZ	Petra	Ministerium für Wirtschaft, Energie, Industrie, Mittelstand und Handwerk des Landes Nordrhein-Westfalen
SIMEON	Marlene	The Council of European Municipalities and Regions
SINGER	Nicolas	INTERREG IVC Secretariat
SIWERIS	Erwin	INTERREG IVC Secretariat
SZLACHTA	Jacek	Warsaw School of Economics
SZOKOLAI	Zsolt	European Commission
Pereira TEIXEIRA	João Manuel	EPUL Empresa Publica de Urbanização de Lisboa
TUFFS	Richard	ERRIN
UHEL	Ronan	European Environment Agency
VAN DELDEN	Hedwig	Research Institute for Knowledge Systems
VAN DER LECQ	Rene	Department for Spatial Development
van IERSEL	Joost	EESC
VANCUTSEM	Didier	ISOCARP
VLOEBERGH	Guy	OMGEVING cvba
VOGELIJ	Jan	ECTP-CEU
VOLOZINSKIS	Liliane	European association of craft and SMEs
WOZNIAK	Marek	Committee of the Regions, chair COTER
WOBEN	Thomas	Committee of the Regions

4.3 Identity card template

ET2050 Territorial Scenarios and Visions for Europe

Identity card

(Event title)

Place/time:

Participants:

Objectives:

<input type="checkbox"/>	awareness raising	<input type="checkbox"/>	dissemination	<input type="checkbox"/>	involvement	<input type="checkbox"/>	validation
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Role played by the stakeholders involved

Preparation:

Topics presented / discussed:

Follow up:

4.4 Courtesy mail

Dear Sir or Madam,

The European Observation Network for Territorial Development and Cohesion ESPON (www.espon.eu) has entrusted a European consortium with the task of assisting policy makers in elaborating a long-term integrated and coherent Vision for the (smart, sustainable and inclusive) development of the European territory.

This European Territorial Vision is meant to provide a picture of an 'ideal Europe', as we could dream it up for the 2050 time horizon.

The project name is 'ET 2050'. The relevant information is available at the following link: www.et2050.eu. The elaboration process of this European Territorial Vision entails involving a wide array of key-players, inviting them to widen their thematic, temporal and territorial horizons, i.e. to imagine a future that deliberately transcends sector-based, short-term and domestic policy considerations.

Of a strategic nature, the Vision should guide the policy debate on territorial development. It is also expected to provide a coherent framework to formulate territorial policy steps at different decision-making levels and to assess and support policy initiatives from various sectors, all with a European perspective.

Should your institution be interested in taking part in this process (e.g. being kept informed, answering a survey, participating in a workshop), please confirm this by return of mail and provide us with the most appropriate contact details.

We remain open to any question or suggestion you may like to send us.

Valérie BIOT (vbiot@ulb.ac.be) and Philippe DOUCET (phd@gephyres.eu),

European Territorial Vision 2050 participatory process

IGEAT, University of Brussels

4.5 **1st Round of consultations: IGEAT synthesis of comments and contributions received**

A total of twenty completed questionnaires have been analysed. Some were directly received from respondents, others were elaborated by IGEAT on the basis of comments expressed verbally during individual interviews or small group meetings.

The purpose of this section is to summarise, for each of the five questions included in the questionnaire, the overall substance of key-messages delivered by the participants. The exercise is challenging, because a wealth of insightful and very diverse views were expressed in this framework. As is the case with any synthesis, a selective approach was adopted and relatively minor points made by respondents had to be sacrificed. Since a certain degree of arbitrariness generally remains unavoidable in such circumstances, those interested in having a closer insight into the contributions received are strongly advised to consult the attached compilation of replies to the questionnaire (Annex IRI ParP 3) and the various extra contributions received (Annexes Interim report 1 – IRI - ParP 4 to ParP 11).

Whereas various comments collected were strikingly convergent, a few very original views were also expressed by some 'lateral thinkers'. Both types of inputs were of course worth mentioning, especially in the framework of a foresight exercise such as ET 2050: if consensus building does matter, some ideas currently put forward by a minority may also prefigure future 'leitbilds' commonly accepted in 2050. The very notion of 'sustainable development' was unknown to the layman 25 years ago... The following sub-sections have therefore been elaborated to reflect the two types of inputs, starting with those most often referred to and ending with more original viewpoints.

The areas and levels of expertise of the various respondents were very diverse. In various contributions received, the rigorousness and reliability of some elements may appear open to criticism. As the aim of the exercise was to encourage creative thinking and free expression of personal views, special care has been taken in this report to echo as faithfully as possible the content of the written and verbal contributions received, including those lending themselves to controversy. The ET 2050 project partnership will use these contributions as stimulating food for thought during the scenario and vision elaboration exercises, which will anyway involve testing the overall reliability and consistency of the various data and information collected.

Question 1 - What key EU policy issues should deserve particular attention in the ET2050 scenario building exercise?

The notion of "EU policy issues" was very widely interpreted during the consultations. Actually, various contributions were more dedicated to "policy issues in Europe". Beside formal EU policies themselves, much attention was also paid to their necessary mutual coordination and integration (or the lack of such integration), to their impact and consequences in the domestic context and the general need for vertical integration of policies.

According to various respondents, no specific thematic issue can be singled out. Instead, some overarching policy issues or principles should be addressed, including sustainable development, territorial cohesion, etc. In an interviewee's opinion, "considering all the challenges that Europe is currently facing in economic, environmental and social terms, comprehensive responses to such multi-dimensional challenges should be given priority. In particular, all the policy issues linked to the transition to a green economy should be intensively discussed". It was also stated that "key EU policy should be more oriented towards more comprehensive/holistic policy design" and that "social, economic, environmental, cultural development as well as cohesion-related results are

needed". Sustainability was even deemed to be needed in fields such as finances and employment.

The emphasis was often placed on the need for policy integration, in particular at the EU level to overcome the fragmentation of the policy approach (e.g. "effective integration of EU policies such as CAP, energy, environment, etc. in a consistent EU spatial strategy"), but also through cooperation within cross-border and macroregions.

The same case for policy integration was made through references to relevant strategic documents such as the ESDP⁶, the Territorial Agenda, EU 2020, and to territorial approaches in the urban⁷, rural, urban-rural⁸, cross-border and transnational contexts.

A respondent stressed that "cohesion must mean a reduction in disparities between the relatively prosperous European urban core (London/Paris/Rhine/Ruhr) and the periphery", and "at the very least, it must seek greater equality of competitive opportunity". For this purpose, "the key lies with the relative futures of Europe's major urban centres", but also "the development of collective strength around the periphery", for which "connectivity is key".

It was repeatedly stressed that the EU needs to be considered in its wider context. This concerns not only the territorial analysis (the integration of the 'Euromed' space, including Russia and Southern Mediterranean countries – especially since the Arab Spring, as well as the global dimension) but also the future of the EU foreign policy, neighbourhood policy in particular, with a particular focus on its territorial dimension. The relative decline of the EU relative position in the world was also referred to. A respondent involved in a previous foresight study exercise (conducted in the nineties) stressed that the approach was too "Eurocentric" at the time, even to address the question of the relationships between the EU and the external world. "External relations" were treated more as a "diplomatic issue" instead of concentrating on new challenges of international / global relevance.

One of the contributions pointed to major differences between Eastern and Western Europe in terms of territorial planning practices, governance and policy integration mechanisms as well as management of EU funds.

The strong bias towards policy integration did not prevent various respondents from emphasizing the critical importance of some policy areas. These are listed below, starting with those most often referred to:

- Demography: ageing, in- and out-migrations, depopulation in jobless areas and "shrinking regions"⁹, residential mobility, risk of brain drain. Solutions should be provided for a "Europe in movement", i.e. im-em-in-migration questions in relation to urban changes (sprawl, shrinking cities, brownfield sites). Do not only consider the issue of making people closer to jobs, but also that of making jobs closer to people¹⁰. Ageing is not taking place at the same pace in various regions. The question was asked: "Is the EU going to act politically to reverse or slow down the ageing trend in general?"

⁶ The view was also expressed that « the ESDP was a bold attempt which at its final stages faltered and fell short of the hopes many had for it. »

⁷ One comment insists on the need not to lose sight of medium-sized towns, whose role is "very important to better balance the territorial structure and the urban system. Unfortunately, medium-sized towns have more limited financial means to get EU funding → big cities get the lion's share".

⁸ Including urban-rural relationship, periurban areas, "transition zones", "urban agriculture" cf. FP6 PLUREL (Periurban Land Use Relationships) project www.plurel.net

⁹ Cf. study "Shrinking Regions: a Paradigm Shift in Demography and Territorial Development": http://www.ums-riate.fr/documents/Shrinking_Study_EN.pdf and <http://shrinking.ums-riate.fr/>

¹⁰ Reference was made to "Europe 2000+, Cooperation for European territorial development" published by the European Commission in 1994: chapter "Trends in the spatial distribution of population and employment", pp. 31-37

- Energy: production of renewable energy (Intelligent Energy Europe, etc.) in urban and rural areas¹¹; energy efficiency; energy self-sufficiency of cities/towns should be the goal; security of energy supply; regional vulnerability to an increase in the energy prices; the EU energy policy should be radically revamped;
- Climate change: the issue must be considered from both the adaptation and mitigation perspectives; eco-innovation and territorial planning, smart cities, mitigation strategies; critical issues must be faced, for example the implications of the Arctic permafrost thaw (<http://www.clubofrome.org/?p=3425>), or specificities of Mediterranean climates and ecosystems;
- Mobility, accessibility and connectivity, especially as a critical pre-requisite to economic development in less accessible areas (hence the need for integration of the transport and development policies), affordable public transports; define clear priorities in the TENs;
- Social/economic development & cohesion: job creation, social inclusion, exploitation of the endogenous territorial development potential; “R&D and innovation is the only card to play: if we fail to play it, this will be a terrible crisis, and territorial planning is key in this respect”; public space quality as a driver of economic development of cities
- Environmental sustainability
- Access to education and training
- Scarcity of natural resources (overexploitation, necessity to promote a more efficient use), loss of biodiversity
- Coastal planning, distribution of port infrastructure, Maritime Strategic Framework Directive (MSFD); European sea- and airports compete with one another, whereas they should unite to face global competition
- Land use, land management: reuse / optimise the use of urban land, urban regeneration
- Security, including environmental security (e.g. floating buildings in flood mitigation strategies).
- Well-being, happiness (suicide figures are not good)
- Cultural trends / society model: “what do people want? What makes them happy? What is a modern and mature society?”

Question 2 - Should the scenarios focus on the possible evolution of the European territorial structure and EU policy-content, or also on possible change in the area of EU governance?

Various views were expressed in the two main categories of issues raised by the question: governance aspects on the one hand, and territorial structure / EU policy content on the other. Many more comments were made on the former than the latter.

Governance aspects

The question as to whether possible change in the area of EU governance should be taken into consideration in the scenario elaboration process did not appear controversial. Many respondents warmly supported this choice, some presenting it as a major requirement. Others insisted that it would be artificial to address governance systems and policy elaboration separately, as they are two sides of the same coin. It was also said that “scenarios should take into account the conjoined evolution of territorial structure, policies and governance”.

¹¹ A respondent wrote : « Rethink the ways (even in governance terms) of producing renewable energy at the urban and rural scales... current development/implementation mechanisms are not in favour of citizens, but of usual and well-known suppliers / distributors: Europe is missing the opportunity of linking opportunities connected to new technologies with the creation of a real new way of living based on real independency from non-renewable sources and energy multinationals”

A strong case was often made for more policy coordination and vertical/cross-sector integration. For the time being, advocating this coordination is still akin to wishful thinking. For example, the following question was raised: “Why do we need an “Aalborg declaration” and a “Leipzig Charter” as reference documents concerning sustainable urban development in Europe? Is it so difficult to adopt one single EU reference document on this topic instead of having the “DG Environment friends” and “DG Regio friends” adopting each their own, because they work in isolation?”

While acknowledging the strategic importance of EU governance, a participant expressed doubts about the possibility to reform it significantly. He also pointed to inconsistencies in the set of formal EU competences: for example, the EU has very limited power in the area of education, while aspiring to promote the knowledge economy.

A functional definition (who does what?) of Territorial Cohesion was deemed more important than a “conceptual/theoretical” one.

The proposal was made to examine the feasibility of an “ESDP 2050”, some sort of new overall master plan for EU territorial policy making. This proposal may appear daring, but it shares some common ground with this opinion expressed by another respondent: “After a relatively long period of deregulation and neo-liberal thought, there is a trend towards more regulation. Economic regulation could make a dramatic come-back, but also spatial planning at the same time. At the EU level however, strategic planning is more on the agenda than regulatory planning.” In the same vein, it was stressed that “strategic planning is needed to break the stranglehold of parochialism and Nymbyism. Collaborative planning is important to counter departmental silos of government and the constraints of administrative boundaries. To avoid being just dominated by ‘fire fighting’ and driven short-termism, a strong and long term Vision is needed.”

The question was raised as to whether the scenarios should examine the possible effects of an evolution towards contrasted EU governance models (federal EU governance and government vs intergovernmental EU where every member states would recover its full sovereignty). While considering that this should not be the priority, a respondent suggested addressing another issue: the significant territorial impact of a possible harmonisation of taxation policy. However, reference was also made to A. Faludi & J. Peyrony’s article published in 2011 in the *European Journal of Spatial Development*¹². Revisiting the scenarios of ESPON 2006 Project 3.2, the authors imagine four other types of possible scenarios (‘Anglo-Saxon’, ‘Saint-Simonian’, ‘Rhineland’ and ‘European’) based on various combinations of governance types and cohesion policies. This article could be a very helpful inspiration for the elaboration of the ET2050 scenarios.

It was stressed that “integration of EU will only progress with a mix of EU policies and EU governance, as the present discussion about the crisis shows”, and that “policies and governance have to be assessed against their impact on efficiency/equity/sustainability, with territory as cross cutting dimension.” The need to propose both short term and longer term concrete policy steps was also emphasized.

In a participant’s opinion, an overall (possible) radical change in the area of EU governance could consist in a significant widening of the EU policy remit and politics. This would affect territorial policy as well as other policy domains.

It was also considered necessary to make a distinction between ‘EU governance’ and ‘governance of Europe’. Both should be addressed in the scenario building, including the possible evolution of multilevel governance, for example toward more autonomous regions with clearer responsibilities and a more effective and consistent application of the subsidiarity principle, especially in the area of territorial development. In this respect, it was also said that

¹² IR 1 Annex ParP 7 - <http://www.nordregio.se/Global/EJSD/Refereed%20articles/refereed43.pdf>

“several brilliant planners involved in ESPON activities promote a more European perspective in planning activities, but in reality, most of planning is very much done at the local level. And vice versa: those involved in planning practice at the local level sometime try to convey some key-messages to higher levels, but it takes a long while until this really happens.”

Another point was made about multilevel governance : the problem of “institutional thickness” faced in most member states, i.e. too many authorities and other decision makers of various tiers of government responsible for dealing with the same issues. In Spain, for example, every authority claims to be entitled to deal with “territorial cohesion”, including the national authorities when carrying out various sector policies. In general, reforms are needed to clarify the allocation of responsibilities and promote appropriate partnerships.

A last key governance-related issue raised was the discrepancy between the geographical remit of local or regional authorities and the size of functional areas (in the domestic, cross-border and transnational contexts). In an ideal world, this remit should be redefined, but this generally proves difficult or even virtually impossible. In many cases, decision-makers have no other choice than putting up with administrative boundaries dating back to the middle age, while exploring new governance and territorial cooperation mechanisms to guide territorial development in functional areas. This can take place in the domestic context (e.g. to run a wide metropolitan area) and at the cross-border or transnational level, for which the EGTC tool offers new opportunities. Similar tools could be used to run FUAs. It was generally acknowledged that cities need to cooperate beyond their administrative boundaries, but also that this is easier said than done.

Territorial structure / EU policy content

The following comments were made:

- A thorough analysis of various sectoral policies is a prerequisite: examine first to what extent these policies contradict or complement each other.
- Cities should be promoted as economic engines of Europe. They have a pivotal role to play, even for their surrounding rural areas (e.g. access to health care in large hospitals in the nearest big city).
- In strictly geographical terms, the EU territorial structure will keep evolving in the coming years (e.g. western-Balkans states as new EU members + still open question of Turkey...). Considering the history of Europe, this is nothing really new: the European territorial structure has often been reshaped, and this is very likely to continue in the future. As EU governance is closely linked to the evolution of its [territorial] structure...and vice-versa, the scenarios should avoid considering these two aspects separately, and instead focus on the evolution of their mutual linkages...
- ET 2050 should elaborate scenarios for several ecological areas(Mediterranean, Continental, Southern Atlantic, Northern Atlantic, Alpine, etc.)

A more technical but important point was made about the scenario elaboration method: “scenarios, as tools for policy action, are more useful whenever a simplified narrative is used in their construction. This implies the use of as few variables as possible and thus in principle we would suggest using a one-dimensional approach to scenario development.” Put otherwise, the complex discussion about policy integration and its multiple implications should not ‘contaminate’ the scenario building process.

Question 3 - What major trends / policy developments should be taken into account when elaborating the ET 2050 scenarios? Do you see some possible course of events that could emerge in the long run and whose importance is currently underestimated or simply ignored?

Not surprisingly, several priority policy areas already mentioned in reply to Question 1 (relating to key EU policy issues) were once more referred to here. In various field, reference was made to both positive and negative possible trends (or optimistic / pessimistic scenarios).

- Demography: ageing, population decline, segregation. In- and out-migrations between Europe and other parts of the world; this concerns not only people but also companies and job locations, depending on the relative competitiveness of European companies and those based outside Europe. A “shrinking nations / regions” scenario could be triggered by out-migration fluxes. Conversely, a sudden influx of massive immigration into Europe could also result from emancipation of oppressed populations. Risk of moral failure in relation to the questions of migrants and borders, farewell to the enlightenment principles, with huge political and economic consequences, as the Europe “brand” would be devaluated. Because of its weak demography, the EU risks to be marginalised at the global level. Climate refugees.
- Energy: evolution of the energy supply and price, growth of (non-renewable) energy consumption; energy management, new patterns of production and consumption. Energy transport networks are a key strategic issue (NABUCCO gas pipeline, etc.) Further reshaping of energy policies (e.g. role of nuclear power and scale of new renewable energy technologies.) Electric and hydrogen power will be the future. New hydrogen highways can be popular in a few years. New types of batteries such as nickel-metal hydride and lithium are non-toxic and recyclable. New private and public transport systems will appear. Further increase in decentralised energy generation (30% in Europe in 2010). Cities shall drive investments towards clean, renewable, self-sufficient energy systems. New urban forms generated by a new approach to urban design will contribute to overcome problems currently faced in the area of energy supply and consumption.
- Climate change: sea level rise, coastal erosion, water scarcity, climate refugees, greenhouse gas (GHG) emissions, major possible contribution of large urban areas to the development of an energy self-sufficiency model; this + electro-mobility make it possible to envisage the substantial decarbonisation of urban Europe well before 2030 (cf. EU CO₂ 80/50 project carried out by METREX: <http://www.euco2.org/>).
- Mobility, accessibility and connectivity: death of distances, social gap resulting from different patterns of mobility (internationally minded and wealthy people vs inhabitants of a suburb who never go downtown).
- Social/economic development & cohesion : development of the “alternative economy” (cooperative sector, local markets, etc.). Possible decline of the current austerity models. Slums in Europe. Financial crisis (+ related collapse of the housing market). At first sight, housing policy seems to be an issue of local or regional relevance, but various recent practices on the real estate and mortgage markets (sub-primes, oversupply in Spain and other countries, etc.) turned out to have major consequences at a macroeconomic scale; this evolution may also deeply impact territorial development.
- Environmental sustainability: risk of degradation of the environment due to pressures of human and economic activities such as coastal urbanisation, manufacturing industry, tourism and recreational activities
- Scarcity of natural resources: water, cultivable surfaces, food. However, there is also a good prospect of significant improvements in the area of natural resource protection.

- Coastal areas and maritime issues: growing importance of maritime spatial planning, to be coordinated with land spatial planning
- Land use, land management: growing demand for space, issue of compatibility between different land uses and possible resulting conflicts; regeneration and partial redesign of densely populated residential areas and connected public spaces
- Cultural trends / society model: preferences of people will evolve in various respects, in particular the choice of their place of residence (large agglomerations / less densely built environment / rural areas, depending on various factors such as land values, energy cost, job opportunities, access to education and health care services)

Other trends/policy areas / challenges were also mentioned:

- Political capacity: a possible drastic exhaustion of public funding would make Europe depend solely on economic factors and no more on policies (“no public policy” scenario).
- Wild cards such as collapse of the euro, nuclear catastrophe, wars in the EU neighbouring countries, and negative scenarios also need to be seriously considered. Cf. Jean-Pierre Dupuy (2002) *Pour un catastrophisme éclairé*.
- “Back to protectionism scenario”: the EU could end up getting completely isolated from the rest of the world. Even reinforced controls at the internal borders may be feared.
- There is some hope that traditional power structures of member states will progressively become obsolete and lose ground to a new more bottom up “democratic” social alliance of a large majority of the regions.
- The traditional national-regional-local governance structure (19th century approach) is being transformed because it no longer reflects the needs of the 21st century, e.g. in the missing links between local actions and global issues. Cf. URBACT LUMASEC project: http://urbact.eu/fileadmin/Projects/LUMASEC/outputs_media/LUMASEC_Hottopic_01.pdf , diagram under heading “2. Radical change in territorial governance and finance” . Cross-border & macroregional groupings, NUTS 3 entities and neighbourhood groups are becoming new key-players.
- Evolution of the EU geography: accession of Turkey, evolution of the neighbourhood policy in reaction to new trends (e.g. the Middle East becoming an emerging market)
- Evolution of the world economic geography: shift of the world’s economic centre of gravity, importance of getting closer to Asia and the Middle East
- Some revolutionary technologies may dramatically change the style of life while potentially reducing energy consumption and GHG emissions: example of the “3D house printing” system experimented in the Netherlands (use of a rapid-prototype or 3D printing process to fabricate large components). Cf. *The Economist* 21 April 2012, also <http://inhabitat.com/print-a-house-in-24-hours-with-robots/> and <http://phys.org/news139161727.html>
- Evolution of the agricultural production in Europe (better quality food production, combined with preservation of the natural environment and cultural landscapes)
- New technologies will carry on impacting important components of planning: life expectancy, transportation, energy, climate change, just to name a few. Recent advances in pharmacology and nanotechnology can for instance reduce the prevalence of Alzheimer’s and other dementias, and may improve regenerative medicine. Genetic manipulation will increase the duration of human organs. Life expectancy is expected to increase, accompanied by a fundamental improvement in the quality of life in old age. Nanotechnology can also introduce new construction materials that will reduce energy consumption. The development and the application of low-carbon technologies are also very important.

Question 4 - What kind of possible EU paradigms should guide the elaboration of the scenarios and the Territorial Vision? What ideal European territory would you dream of for the 2050 time horizon?

Question 4A. - Please rank the ten paradigms proposed below by priority order (each a distinct rank):

Paradigm	Rank
Competitive Europe	
Culture first: development of the cultural heritage as the main goal	
Ecumenopolis (**): Europe integrated in a world-wide city	
European spatial justice (equal opportunities between territories)	
Inclusive growth (*)	
Minimal ecological footprint: green Europe	
Smart growth (*)	
Sustainable growth (*)	
Territorial diversity: Europe as a mosaic of identities	
Territorial integration: borderless Europe	

(*) as understood in the EU2020 strategy

(**) coined in 1961 by Constantinos Doxiadis <http://www.doxiadis.org/page/default.asp?id=238>

The purpose of question 4A was twofold: first, to examine whether a certain degree of convergence was perceptible among the various persons consulted with regard to key values and policy goals; second, to stimulate creative thinking by giving respondents a flavour of the type of paradigms they were invited to propose in reply to question 4B. A mix of well known paradigms (e.g. the EU 2020 smart, sustainable and inclusive growths) and more unusual ones (especially “culture first” and “Ecumenopolis”) was deliberately proposed to take on board the current policy debate on the future of EU policy while leaving the door open to exogenous inputs.

Some participants expressed reservations about the exercise, motivated by its relative arbitrariness or the difficulty to propose a consistent ranking of the various paradigms listed. This explains why a few respondents did not abide by the rule “each a distinct rank”. One of them specified that his ranking of “culture first” actually applied to the reworded paradigm: “culture and education first”, and that “European spatial justice” should not only concern “equal opportunities between territories but also between people”. The various rankings proposed are displayed in the table below. Considering the small size and the heterogeneous composition of the group of respondents, the outcome can of course not be regarded as representative of the opinions of any group of stakeholders. Nevertheless some results are worth noting:

- some consensus between participants to rank “sustainable growth” and “inclusive growth” relatively high
- “territorial diversity”, “culture first” and “Ecumenopolis” proved clearly less popular (or less familiar??), especially “Ecumenopolis” (standard deviation = 1.5)

- fairly similar position of the other five paradigms.

Paradigm	Mean	Standard deviation
Sustainable growth (*)	3.2	2.2
Inclusive growth (*)	3.4	2.1
Territorial integration: borderless Europe	4.2	2.4
Smart growth (*)	4.3	2.4
Minimal ecological footprint: green Europe	4.6	2.6
European spatial justice (equal opportunities between territories)	4.8	3.0
Competitive Europe	4.9	2.8
Territorial diversity: Europe as a mosaic of identities	6.1	3.0
Culture first: development of the cultural heritage as the main goal	7.9	2.4
Ecumenopolis (**): Europe integrated in a world-wide city	8.8	1.5

Figure 4-1 Results to Question 4A (ParP)

Question 4B. Please brainstorm. Propose your own paradigms:

A wide variety of paradigms was put forward. Some of them actually paraphrase one or more paradigms already listed in question 4A (or comments already made in reply to questions 1 to 3). Others proposed different models, sometimes presented as alternative scenarios (an even some pessimistic ones, which may appear odd in a section about “paradigms”).

In the following presentation, the material received from respondents has been grouped on a thematic basis. As is often the case with this type of clustering exercise, a certain degree of arbitrariness was unavoidable; indeed, the multidimensional nature of various responses received could have justified to include them in more than one thematic category.

Most paradigms proposed were worded in a synthetic style. It was therefore deemed preferable to reproduce them literally below. When necessary, and provided that the substance of the views expressed was unequivocal, the text of some contributions reproduced in Annex ParP 3 was slightly reworded; in case of doubt, it was left unchanged.

The themes most frequently mentioned have been placed on top of the list. By and large, the level of attention paid to various issues does not significantly differ from that observed in the replies to Questions 1 and 3. However, the section relating to “economy and technology” is rather long. This is also the case of section “political approach”, but rather understandably for a question about paradigms. Among the various other themes, “energy” and “demography”, which generally appeared as key-issues in the previous sections, are no longer on top of the list, especially “demography”, which has been hardly touched upon in the proposed paradigms. This would suggest that demographic change is perceived as some sort of “heavy trend”, on which policy decisions cannot have much influence. Such a view may arguably be regarded as questionable, but it seems to have been implicitly adopted by the respondents. Conversely, themes such as happiness / well-being or culture / way of life are more often referred to than in the previous sections.

Economy / technology

- Economic recovery
- Secure Recovery for the Future of Europe (“Recovery” is the immediate priority, and “Security” is the longer term need).
- International competitiveness
- Go back to human scale production / local economy
- Access to essential goods and services
- In the business sector: socially responsible companies (e.g. Toshiba)
- A non-dependant Europe: Europe capable as much as possible to produce the food and energy resources it needs, raw materials in general, using fully the potential of its territory
- Europe industry of design (N.B. investment in quality is the only European specific asset)
- Education, research and innovation, qualification of human resources, “reindustrialization” of European countries
- “New Intellectual Property in Europe” : inventing things in a complete open method with the aim to improve things (in this case more sustainable lighting) instead of just making profit by protecting your Intellectual Property. Cf. Mr Frans Otten from Lemnis lighting.
- “3rd industrial revolution Europe”: transition of producing from centralised mass production to local, individualised 3D printing from local resources of new materials (composites, nanotechnology etc) as the new way of production (E.g. printing a house). Tremendous impact on the use of space: reduction of travel and transport, no more big plants. The economy goes local and individual again¹³.
- “Europe’s financial landscape is unrecognisable”: the role of money is back to where it belongs: a tool to exchange. Tax and social contribution schemes are the same all over Europe (perhaps the UK dropped out of the EU for defensive reasons) ending the tax-based competition: location of companies is based on the availability of labour and raw materials. All costs of production of goods and services are included (environment, water, public services like roads etc) in prices of products (as an example this would mean the inclusive price of an iPhone would be \$ 10,000 instead of \$ 1,000 you pay now).
- Socioeconomic convergence within [“between” is probably meant] European member States

Happiness, wellbeing

- Quality of life of EU citizens
- Quality of life and particularly public services: where is Europe going in this respect?
- Consider that each of us is a world, and then learn to listen and understand
- Stop running
- Ask ourselves questions such as: “Can I be happy if others are not?”, “What are my fears about the future?”
- Consider activity and not only jobs
- Slow society: reject the “immediacy worship”, get back to a human pace.
- Happy Europe: Europe where people can find a place to live and work that fits their aspirations, which might differ from one person to another.
- “Happiness”, place the human being at the centre of everything
- “Europe with a different concept of growth”: new indicators, looking at the growth of happiness instead of income, indicators better reflecting the wishes of the Europeans: we rather

¹³ Cf. The Economist 21 April 2012, also <http://inhabitat.com/print-a-house-in-24-hours-with-robots/> and <http://phys.org/news139161727.html>

work a bit less and have more balance between work and private. Higher income is not the main driver for people's choice of a new job. Territorial assets / quality might be an important one, certainly when raising kids.

Political approach

- A new paradigm could be Resilient Europe, capable to react positively to world changes.
- Resilient growth (against economic/political crisis and disasters)
- Shared vision, common fate/destiny
- The "European common good" (which remains to be defined)
- Strengthened rule of law and respect for fundamental rights & individual freedoms
- "The four visions of Europe as (1) a world economic power, (2) a continent with borders, (3) a normative soft power and (4) an attractive cluster of nodes in global networks seem to be complementary. But they are, in fact, contradictory, because they require different definitions of the geographical area called "Europe" and different strategic choices concerning political priorities. We assume that the contradiction can only be solved if we decide to give up the references to a mythical notion of Europe and replace it by a secular concept of the European Union. In this case, the problem is no longer a question of identity or of so-called "civilization", but a question of strategy and political choice to be debated by citizens and their political representatives." Cf. Annex ParP6 EuroBroadMap
- "Governance on the right level" : integrated policies will come on the second level: priorities will be dealt with by separate authorities on different territorial levels: i.e. a global authority on climate change, a catchment area authority for flooding management of rivers ...
- Under pressures of financial and related political crises: decline of power of nation states and growth of regionalism/localism.
- Actually, we can imagine many interesting paradigms. This is not the core issue, because trade-offs between various paradigms will always remain necessary. The search for a reasonable balance between various societal values will always remain necessary. Therefore we can start with many different paradigms, all of which could be considered as a given starting point, but the challenge is to go beyond this to provide the necessary synthesis and key policy options. Cupboards are full of good recommendations... But the real challenge of foresight exercises is to identify credible trade-offs between such recommendations.

Sustainability, environment

- Sustainable growth
- Everything sustainable (sustainable transport, sustainable city, sustainable energy production, etc.)
- "Europe restores its' Environment": creation of a complete new industry to restore the damage past and current generations have done to our own environment. (E.g. fishing all plastics from the seas and oceans and reusing it, capturing and storing CO2 through use in green houses, reclaiming the offices that are vacant, restoring nature in Pan European Ecological Network (PEEN))
- Reduce the demand and resource consumption while sustaining the current levels of quality.
- Transition from the Industrial Age to the Ecological Age (post-overconsumption era)
- Green/cultural growth
- Growth through regeneration
- A forest policy, including ecology, silviculture, employment, territory assessment, may occupy a good place in both a sustainable development policy and in a Mediterranean [missing

word : “strategy”? “policy”?] (open to no member Mediterranean countries), if it is designed as a part of a territorial approach

- Inclusive, incremental and coherent development

Energy

- Energy-rich or energy-poor paradigms? Both are possible.
- Free energy for everybody (e.g. ITER nuclear fusion, concentrated solar-thermal power of the DESERTEC project)
- Energy self-sufficient Europe
- A city with net nil energy balance (where the production of energy can be equal to its consumption)
- A decentralised renewable energy future based on the generating potential of the major urban areas.
- “European renews its Energy” : transition to an ‘internet-grid-like’ energy system, with households, buildings and other production-sites being both local producers and consumers of renewable energy and almost no central energy production anymore. Almost independent of foreign energy sources. A new way of storing energy (e.g. the Norwegian lake). Cf. Jeremy Rifkin.

Territorial development

- ‘Anglo-Saxon’, ‘Saint-Simonian’, ‘Rhineland’ and ‘European’ models (A. Faludi & J. Peyrony’s article already referred to above¹⁴).
- Territorial cohesion policy at European scale
- A better balanced and territorially cohesive Europe with greater collective economic strength around the periphery based on inter and intra polycentric cooperation and complementarity.
- A better connected Europe around the periphery and to the core.
- Territorial integration: balanced inside, strong dialogue with border macro-areas
- Europolis: Europe integrated with its cities

Land use / city planning

- Europe of social cities (German “soziale Stadt” www.quartiersmanagement.de)
- A Europe of (social) Cities
- “Europe’s cities have changed”: like the Portland 20 minutes land use concept: every citizen can satisfy his needs within a radius of 20 minutes, which allows dense building with less energy consumption (heating and transport) and can facilitate the migration towards urban areas. <http://www.portlandonline.com/portlandplan/index.cfm?a=288098&c=52256>
- Harmonisation of territorial and urban policies
- Inclusive cities

Culture, way of life

- A beautiful Europe: a territory with a varied landscape, with a lot of open spaces, of cultivated land, producing diversified local products.
- Culture as the fourth pillar of sustainable development

¹⁴ IRI Annex ParP7) and <http://www.nordregio.se/Global/EJSD/Refereed%20articles/refereed43.pdf>

- “Europe eats differently”: consumption of local food, different food (like insects), slow food, less meat more vegetables, no more big flows of nutrients from South America and Africa to Europe to feed cattle.
- “Europe without religion”: religion has always been a source for conflicts and mono-theistic religions are the cornerstone of man’s belief he is beyond his environment and not part of the environment. This artificial hierarchy (god → man → animals → plants → elements) is man created to support the concept of mono-theism. It justifies mankind’s power over nature/environment: we can do what-ever we want with what is under our command and God is far away, so he will not punish us now.... Concept for man’s feeling of superiority.

Demography

- A younger Europe

“Miscellaneous”

The following text has been provided by a respondent. Many aforementioned issues are also raised here. As it would have been a pity to dismantle this contribution, it has been reproduced exhaustively below.

“My dream in 2050

European territory is a mosaic of different regions and landscapes. The whole territory is covered with access to a high level of broadband. Technology has been improved to minimize impact of magnetic fields. Rural areas are lively, apart from a few highly protected natural parks. Big urban centres are less congested as many people have left. People there are happier. European land is farmed in a sustainable manner and produces enough food for European people, according to European standards, without harming the environment. Food is varied in form, taste, names. Names are consonant with places. People know where their food comes from. They even know how it is produced. Settlements of reasonable sizes are present everywhere. All people have access to a minimum number of square meters/person to live (not too big but not too small) at reasonable prices compared to average income. Shared community habitat has developed. Low-carbon habitat has been developed in most areas. Wind and solar energy are produced everywhere on the territory. Artists have decorated the windmill fields so that we find them beautiful (or invisible). Technology has improved, windmill fields are less noisy and so better accepted. Electric lines are in the ground. The economic structure differs from one region to another but services are well provided and developed, thanks to wide development of e-services as well. Industrial production is dynamic and clean. More products are made in Europe than in 2010. Long distance efficient transport systems are available within maximum 1h for everyone and clean local transport systems are available for the shorter distances. Car sharing is a common practice for most citizens, thanks to wide development of car sharing websites and shared cars systems. There are shared bicycles in all cities. Everyone can access an efficient hospital within 20 minutes. It is possible to easily access a theatre and a cinema. Thanks to ICT, you can follow on screens shows performed elsewhere if you live far from a big cultural centre.

Well, just a dream...”

Question 5 - What recommendations would you like to express concerning the ET2050 scenario and Territorial Vision elaboration process?

Quite a great deal of helpful pieces of advice were provided in reply to Question 5. Issues addressed can be grouped into four broad categories: policy-related aspects, technical aspects, participatory process, and communication.

Policy-related aspects

ET 2050 should take on board various policy initiatives and projects already initiated by the EU and other actors, for example:

- EU 2020 and its flagship initiatives e.g. Innovation Union¹⁵, Resource Efficient Europe¹⁶, and Smart Specialisation Platform¹⁷.
- various activities spearheaded by METREX such as PolyMETREXplus, which produced a "European Territorial Vision and Framework (ETVF)" (outcomes summarised in the METREX booklet "This is not a Plan" – Annex ParP 9). Also the EU CO2 80/50 project, whose final report was published in 2011¹⁸
- the ECTP Young Planners' Workshop on "planning and territorial cohesion"¹⁹.

As already specified in reply to Question 1, the approach cannot be limited to the EU space: it is essential to consider, in the scenario and Territorial Vision development process, the wider geographical context; this includes

- territorial development issues in foreign countries (Russia, etc.)
- possible changes in European geography: possible accession of Turkey and relations with the Middle East, Asia and North Africa.

Recommendations were made about other key-components that should appear in the ET2050 scenarios and Territorial Vision:

- European territorial cooperation (ETC), in particular ETC governance (e.g. widening the EGTC scope to the transnational context)
- EU funding-related issues: problems faced by some cities/regions as a consequence of their insufficient financial management capacities, in particular the resulting inefficiency of the EU-funded operations;
- Possible redirection of public investments to sectors and bodies which really need them (e.g. urban and community development)
- Actions to be taken to harness the territorial capital and promote a less fragmented EU space
- European and national hubs and networks (transport & energy networks but also the ecosystem framework and the green infrastructure, including forests and other woodland areas)
- European and national flagship projects

Other recommendations include:

- Avoid a "TA2007/TA2020" remake: these documents are less good (less "territorial") than the ESDP.
- Be creative, think out-of-the-box. The lack of creativity for the preparation of the new EU regulatory timeframe has been a disaster. Even structures are meticulously kept unchanged.
- Systematically underestimate the influence of politics.

¹⁵ Cf. <http://ec.europa.eu/research/innovation-union>

¹⁶ Cf. <http://ec.europa.eu/resource-efficient-europe>

¹⁷ Cf. <http://s3platform.jrc.ec.europa.eu>

¹⁸ downloadable from the METREX web site at www.eurometrex.org

¹⁹ Cf. <http://ypwectp.wordpress.com/>

- Do not avoid philosophical issues

Technical aspects

The following recommendations were made:

- Take into account, update as appropriate and propose a critical assessment/synthesis of other prospective studies, e.g. the recent “Euro-Med 2030” (2011)
- Provide as many graphic representations (graphs, curves, maps) as possible to show the main trends and the outputs of the scenario making.
- Scale: the territorial structure must be assessed at the local level, infraregional disparities must be taken into account.
- Provide decision makers with appropriate tools, e.g. TIA, SEA, and STeMA (Sustainable Territorial environmental/economic Management Approach)
- Try to propose evaluations criteria of scenario “free of GDP”.
- Especially for long-term forecasting exercises, propose smoothed/fuzzy maps of results (not in current regional limits).
- To forecast X years in the future, make sure that you also have data relating to the X past years at hand.
- Propose a reference methodology to measure the capability of local and regional authorities to be competitive in sustainability.

Participatory process:

Among the countless stakeholders and other (categories of) actors to be involved, the following ones were mentioned:

- networks of cities
- CEMAT experts
- (non EU) external observers sufficiently “distant” in various respects (geographically, politically, linguistically)
- key-players which are not yet familiar with ESPON
- ordinary non-expert people, at all the social levels
- young people
- non-planners, as much as possible.

Other recommendations and suggestions relating to the participatory process itself were made. These include:

- Consider both the EU vision (top-down) and the people views, fears and wishes (bottom-up)
- Formation of a "user group" for any Territorial Vision for Europe; this group would include the key urban, transport and energy interests from various EU institutions and networks with recognised urban interests, such as the Committee of the Regions, EESC, METREX, CEMR, Eurocities etc. The contribution of such a group could be to give a response to Scenarios and Visions on the basis of subsidiarity.
- Adopt a multi level process; ESPON often gives the impression that the truth comes from a European vision, whereas national, regional, local stakeholders are wrong, with too narrow a vision. We certainly need to build a European vision, but it should be built on the diversity of national/.../local visions, and not on “pensée unique” see what Krugman says: <http://www.nytimes.com/2012/05/07/opinion/krugman-those-revolting-europeans.html>. This is

also why cross border cooperation is so important; it can be the place where national visions have to adapt to / combine with each other.

Communication

Last but not least, various helpful comments also addressed communication-related issues.

- Avoid sticking too much to EU jargon (e.g. “smart, sustainable, inclusive”).
- Get rid of spatial planning jargon. Planners must be able to communicate in plain language, understandable to the layman, which is not always the case for the time being.
- To help bridge the gap between scientists and decision makers , develop/adopt a common language for a common understanding of common issues.
- Keep key regions/cities informed of progress on ET 2050
- Do not forget to keep those involved in different stages of the project regularly informed about progress made by ET 2050.
- The ESPON community should be much closer to policy-makers. For the time being, they do not understand the ESPON production, because it is not very user-friendly. Scientific results should be made much more readable.

4.6 Second round of consultations (EU bodies): synthesis

A report on the first round of the Participatory Process (ParP) consultations was included in Chapter 2 of the First Interim Report of the ET 2050 project. Further consultations took place in October, November and December 2012. The main aim was to gather relevant information about the possible future of EU policies. Therefore interviews were organised with officials of various European Commission Directorates-General. It was also envisaged to consult other EU bodies, including the European Parliament and the Committee of the Regions. Nevertheless, it resulted from discussions with the ESPON CU that it would be more appropriate to consult these two bodies at a later stage. Therefore only a member of the European Economic and Social Committee was interviewed.

An interview took place at the following DGs of the EC: DG REGIO (25th Oct.), DG MOVE (6th Nov.), Secretariat General (6th Nov.), DG RTD R&I (13th Nov.), DG ENV (16th Nov.), DG MARE (30th Nov.), DG AGRI (14th Dec.) The member of the EESC was interviewed on 27th November. To encourage free speech, it was agreed with the interviewees that they would remain anonymous.

They were asked to answer two main questions:

1. In an ideal world, how should the EU policy which your DG is responsible for evolve until 2050? (“the long-term policy scenario of your dreams”)
2. In the real world, what is, in your view, the most likely evolution of this policy until 2050 ? (“the long-term policy scenario you realistically anticipate”).

Apart from these two questions, the interviewees were also encouraged to address other issues of their choice, for example their comments about the ET 2050 work.

A majority of interviewees were rather reluctant to embark on long-term foresight speculation and therefore felt uncomfortable with Question 1. Most conversations revolved around the current situation and the likely evolution of the EU policy which their respective DG is responsible for, often (but not always) based on some strategies or other reference documents published by this DG.

This report synthesizes the outcome of these interviews, supplemented as appropriate by extra material drawn from these strategies / documents. It must be clear that the content of the various sections below does not necessarily address the relevant key-issues exhaustively, since the various interviewees generally placed the emphasis on issues that are particularly close to their heart. Therefore extra desk research and consultations will remain necessary to better inform the scenario/vision building process with regard to the possible evolution of EU policies.

Regional policy

N.B. As a matter of fact, the interviewee expanded on many more aspects than EU regional policy...

Likely evolution of the policy in the “real world”

Projecting in 40 years is a highly speculative exercise. There are a lot of doomsayers saying that we will lose against China and India because they are much more faster-growing... But they are probably just catching up, and their growth will slow down. Europe is not likely to become drastically less affluent in the future. We will not have rocketing growth rates but we do not need sky-high growth rates either. A moderate growth over the next 40 years seems likely.

Are we going to share more poverty? A large part of Europe is extremely affluent, and less developed regions and member states should become more affluent in the future. At what speed? The question seems impossible to answer. Is Poland going to be as affluent as Norway in 40 years? Probably not, but it might be as affluent as Belgium is today, that is an option for 40 years, and 40 years is a long time... Portugal did not perform very well over the past 40 years, but this does not mean it will not in the next 40 years. Some countries will be successfully converting to the EU-average and this average should go up, possibly not very quickly. Some countries which do not succeed in managing their transition to a more globally competitive knowledge economy will suffer.

The EU functioning has changed a lot over the past 40 years and should continue to do so for the next 40 years. There is a very wide spectrum of possible options, for example an extreme version of a multispeed Europe where everybody picks up what he wants and rejects what he dislikes. There is already an embryo of that: opt-outs left for the Euro, for Schengen, etc. It could become more extreme and even come to the extreme that some decide to move out or get kicked out of certain bits: you can already get kicked out of Schengen or the Euro if you do not respect the rules.

The most likely seems to be just 40 years of more “muddling through”, incremental reforms. If the crisis is big enough, we will try to fix something, which generally means a bit more coordination but definitively not anything like a federal power. For example, there will be better banking oversight coordination, more oversight on microeconomic instabilities, some more coordination of budgets, all this on an incremental basis.

The frontiers of Europe should not expand much over the next 40 years. It is not sure that Iceland, Norway and Switzerland will actually join the EU, but increased coordination and collaboration can be expected with them. On the eastern frontier, we said to the western Balkans: “when you are ready, we are ready”. At least half of them should join in that period, not all, depending on the progress in their institutional framework. Turkey is a wild card. Currently the political framework does not seem to be very supportive. It very much depends on a lot of different changes in political relationships. In principle, no major obstacle should prevent Turkey from joining. It really depends on how people perceive this issue. If they perceive it as an opportunity for them and for Turkey then it will happen. If they see it as a threat, it won't. Turkey has just as much capacity as the western Balkan to conform to the EU *acquis*, its current interest rate is quite good, it has a functioning democracy, it has a semblance of rule of law. If Turkey joins, it would make a big difference because it is a huge player, a country of the size of Germany, and the threat of an increased inflow of population is there.

Expanding the single market to the Maghreb is not really part of the DNA of Europe; it's not a free trade area. The whole idea behind free-trade is that we only do it because everybody accepts the

acquis, so in terms of labour rights, in terms of working conditions but also in terms of environment protection, etc. etc. So allowing a wide range of countries into the single market without making sure and controlling that they accept the entire body of the *acquis* – I think it goes against the philosophy of Europe. So clearly said... Morocco has asked for membership in the EU and has been told: “Sorry, you are not part of Europe”. We do not see that changing. Schengen and the free mobility inside Europe are very impressive accomplishments. Let us hope they do not go back. A pessimistic scenario would really be the falling apart of considerable progress made in terms of mobility of population. Imposing border controls, blocking labour mobility, etc., would have a huge detrimental effect all over Europe and probably especially on the poorer member states. Then instead of “Fortress Europe”, we would go back to “Fortress Member States”, a scenario where the biggest horse wins...

A “two-speed Europe” scenario would not accelerate the emergence of a federal state. The more you have opt-outs, the less likely is a core federal state. If a federal state happens, it would happen very slowly and really with the vast majority, the others becoming more like EFTA-countries than anything else.

With regard to demographic trends, we might have to increase retirement age considerably, to make sure that our cities and towns can accommodate more assisted living, etc. but we do not have any objective reason to say that Europe needs to maintain a population of half a billion. There is no reason for that. Population growth is often misunderstood for economic growth, the world is often and strangely seen as a competition to be the biggest. As a matter of fact, the question of “how big is Europe” is for most people’s lives relatively irrelevant...

The biggest change which is going to happen in the next 40 years is the complete shift of composition of the population. Eurostat has done a number of projections on the population of foreign born / foreign origins, of first and second generation of immigrants, and that’s going to explode over the next coming decades, with many countries ending up in situations where one third to 50 % of the population is of foreign origin (both extra- and intra-European). This will challenge the way a lot of people think about their own country. This could concern Eastern Europe²⁰ in particular. For Western Europeans, it is not a very attractive place to move to, but for a lot of people from developing countries, Eastern Europe is still a step up, a big step up. So if people from those countries, Chinese or Africans are willing to move there... The complete change of the composition of the population and their origin will really mean that we are much more going to resemble places like the U.S. where you just have to accept the fact that you are a nation of immigrants and not a nation in a cultural or ethnic sense. The challenge for us is: is that going to work or not ? For the time being, our immigrant integration policies are very poor. Will we be able to do much better? If we succeed in integrating these people into our education system, into our labour market and if some of them become flourishing entrepreneurs, this will be a huge success. If we do not, then we will end up with an extremely divided society which in some ways you can see in some cities today. The situation in Brussels is pretty ugly. If you are uneducated and of Moroccan background, and male in Brussels...

Compared with the United States, the vast majority of European regions still have a very low level of in-migration. But in the future, we can imagine a massive growth in retirement communities in Southern Europe. There is no reason why we couldn’t have multiple “Floridas”. They already exist in Spain, where the majority of the population in some areas is of German or English background, also in France you have retirement communities. With the improvement of health care and infrastructure you could also witness a similar phenomenon appearing in Greece,

²⁰ N.B. According to the Commission Communication “The demographic future of Europe – from challenge to opportunity” (COM(2006) 571 final) http://eur-lex.europa.eu/LexUriServ/site/en/com/2006/com2006_0571en01.pdf (table p.16), a sizeable in-migration increase is expected in Eastern Europe indeed, but apparently not more significant than in Western Europe.

Rumania, Bulgaria or Southern Italy, provided that a certain amount of quality of life is provided, which is currently not the case.

In terms of workforce mobility, the situation is different. Any extrapolation of current trends is very questionable, because internal mobility within Europe is highly volatile. Already now because of the crisis we witness a lot of reverse migration. Inside Europe, a very significant part of migration is not permanent. They come, they stay a while, and once they think they have enough connections or enough capital to start something back home, they often move back home and vice-versa...

We will see more entrepreneurs who want to move to high growth countries at the periphery to start up their own business, or set up some offshoot. We could expect the outflow from Eastern Europe countries to stop at a certain point. As growth rates, employment rates, and quality of life increase, as business opportunities improve, in-migration can be expected there, not just reverse migration of people who initially came from there and have cultural and linguistic ties, but also other people who want to move there and take advantage of the high growth rates that these countries are hopefully able to sustain over the coming decades.

Future of the cohesion policy

Territorial cooperation is the aspect of cohesion policy where the European dimension is uncontested. Everybody accepts that we need the Union to organise cooperation across national borders. It is also admitted that still many borders are not as invisible as they should be – there are still obstacles for a lot of aspects... Having said that, ETC is also the first area where the member states are happy to cut money... The cross border strand is better accepted, whereas attitudes toward macro-regional / transnational cooperation are still a little bit more ambivalent. But we can take for granted that ETC practice will continue for the next 50 years. This is an important part of the cohesion policy. The main difficulty with it is to demonstrate its impact (small amounts of funding for very integrated and multidimensional strategies). We just do it because we know nobody else will do it, and because we think it is a good idea, even if we cannot prove it helps! The most likely scenario is that we continue as we do now with relatively small cross-border-programmes with small budgets. Alternatively, or a more ambitious strategy would be to say: you can put all your money in cross-border cooperation if you want, especially in smaller member states, and then you coordinate your spatial development with your neighbours. This would be something that could be offered as an option. We definitely did not do that this time, and we will see next time.

Integration of policies: there is a strong push for this. It is often recommended to move to a functional geography and come up with integrated policies. That is all integrated territorial strategies are really about. However there is considerable administrative resistance to this. It has always been there, a lot of countries prefer national sector programs just because that is how they work, how their ministries are organized and they found it more efficient to do so. In DG Regio, there is a tension between the right thing to do and the easiest thing to administer and to control; and national sector programmes are much easier to administer than integrated territorial ones. A possible scenario for the next 40 years could consist in further devolution and decentralisation in the member states. In Eastern Europe, this means an emergence of a regional tier of government with legitimacy, competences, resources, that could deliver territorial integrated strategies.

Should this happen, we would see indeed less and less national sector programmes and much more programmes that are tailor-made and respond to the business and investment needs of the regions.

But the other extreme for cohesion policy would be: we only give money to the poorest member states, we no longer invest in the more developed ones, we work purely with fiscal transfers and

we do not have programs anymore, instead just a stipend for the poor countries. This would mean that we drop the regional policy budget by 50% or 80% and the rest just goes to the poorer member states. If they want to use that to reduce taxes they are free to do so.

What would be the consequences? Probably, it would not help to correct the unbalances in Europe... A policy of fiscal transfers to the poor, is not very popular. So inevitably the budget is going to shrink and be considered as inefficient and a waste of money in any case, so...cohesion policy would slowly disappear.

Thus there are two possible extreme versions of the future cohesion policy: *<promotion of integrated strategies developed and implemented by regional authorities>* versus *<progressive decline of the EU regional policy, turned into mere financial transfers>*. The tension between these two extremes is likely to remain.

One other possibility – whose embryo is also perceptible in current discussions – is a recentralisation of a number of policies. For example, instead of having national sectoral infrastructure programmes, transport infrastructure programmes, the Commission could get fed up with negotiating with the member states and the resulting delays in the implementation. The response could be to set up an executive agency, which would be responsible for building major infrastructure such as the trans-baltic highway from north to south, instead of giving the billions to the relevant countries. There are people who argue for a much more top down, Brussels-steered, sectoral approach as well...

By the way, if we consider the recent evolution of the trans-European networks, we could argue that the amount of horse-trading has gone down. National administrations progressively realise that the world does not stop at their borders and that, in a way, the European dimension also is their own. This is also a sign of the Commission taking this more seriously and having a stronger say and a stronger analytical capacity to come up with the proposals which make more sense than they did in the past, at least from a transport and economic point of view.

Urban dimension: think about cities and about urbanization. Something is changing and will continue to change in this respect, much more in Eastern than Western Europe. Especially in Eastern Europe, rural areas are very unattractive places to live. Sociologically speaking, the rural areas in Eastern Europe are very different compared to other western rural areas, maybe with the exception of some regions such as Extremadura. The patterns in East and West are diametrically opposed. Our rural regions in Western Europe are growing as fast as, if not faster than urban regions and in the east of Europe it is the opposite. You have population growth in the West, you have population decline in the East.

The question we should examine for 2050 is: “are we converging to a certain stable level of urbanization? or could urbanization be reversing?” Currently in the U.K and in Ireland, you have people moving away from the cities for different lifestyle reasons or whatever. This is a big question: what is going to happen there?

Clues for an alternative “ideal policy”

Primarily a situation where we see the disparities inside of Europe shrink, and shrink by faster improvement in less developed regions and areas in Europe, primarily Eastern Europe and parts of Southern Europe, with improvements not just in GDP, but also in education, employment and access to services.

There are interesting trends in Eastern Europe: economic growth is quite encouraging, the crisis is rather well counteracted, the education profile is good; however, the physical infrastructure is horrendous, transport infrastructure is very poor, access to services like health care is very low, as access to universities, access to decent public transport is just generally low. The ideal would be that all the Eastern Europe countries become more attractive places to live. This does not

concern economic aspects only, but also the quality of life (environment including air quality, accessibility of services, etc.) Significant progress has already been made in that direction. In the western more developed member states the ambition could be to maintain a high level of employment and innovation and manage to further reduce poverty and increase well-being in all the parts of the countries.

This includes issues such as access to broadband and access to health care. France is a success story in this respect: even people living in rural areas have very high levels of access and are very satisfied with that kind of access. This is far from being the case nowadays in Eastern Europe. Life expectancy and other related indicators are also significantly lower. The ambition should be to ensure less unequal life expectancies, infant mortalities, chances of a good quality of life in Europe in the future (not by making life more miserable for the people in the west, but by making it better for those in the east).

Cohesion policy has traditionally focused on economic social and also on some environmentally sustainable development. A new emphasis on governance has more recently emerged. The ideal Europe in 2030 or 2050 should be much more transparent, much less corrupt, much more efficient and much more trustworthy in general: levels of bribery taking and corruption, of abuse of public procurement for private gain should go down, etc. This is a big issue for the EU regional policy, but for other EU policies as well.

The EU regional policy often gets misunderstood as a policy aiming at equality, equalization of GDP per capita, of productivity, employment, rates of education,... That is both impossible and undesirable. It is definitely normal that certain people conglomerate or concentrate in certain areas and others in other areas. Even in 2050, we will continue to have a Europe where the educated and the entrepreneurs concentrate in a number of the larger cities and others in rural areas. Per se, this is not a big problem. It becomes a problem if some areas face the cumulative effect of various disparities on a number of issues. Reaching an equal level of productivity everywhere would be neither efficient, nor attractive, nor possible. But we do have disparities now which are unnecessary and arguably inefficient. Making a case for a reduction of inefficient inequalities makes perfect sense, but we also have to accept that a completely equal territory is out of reach, even in the future. Even in France today, if you live in a rural area, your access to a number of services will be lower than elsewhere. But that's compensated by the fact that you have better air quality, lower noise levels, different quality of life, and lower costs of living, etc. To the extent that people feel that every area presents a good, attractive package, those disparities are not really problematic. Differences in innovation, productivity and education levels are likely to continue in the future, but they should not be unnecessarily large.

“Europe of the regions”, i.e. high level of devolution to the regional level, with the member state having not much to say: a possible scenario for future EU governance? Combining a real shifting of powers to the European level and the regional level, this could happen... However, EU27 includes 97 NUTS 1 and 271 NUTS 2 areas (and NUTS 2 includes French Regions, Spanish Autonomous Communities, etc.). Setting up a “Europe of the regions” with such areas could prove unmanageable. Alternatively, we could imagine a Europe of smaller member states, including newly independent countries (Scotland, Catalonia, Flanders, etc.). Anyway, if they decide to go it alone, we will be in a situation where we will have to think about how we deal with more and smaller member states.

This is a legitimate question. Nowadays, we still pretend as if every member state has an equal say. As we expand the number of members, we will have to accept that this is not true. Because you cannot pretend that Malta has the same weight as Germany. So you could imagine a situation where the power of the Commission is more concentrated, becomes more like an executive than it is now, and that makes it more manageable to have more member states, and

more smaller member states, and then if countries fall apart, so what?... Flanders, Brussels and Wallonia will not each get a commissioner...

Other comments or issues raised

n.a.

Key-references

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Mobility / Transport

Likely evolution of the policy in the “real world”

Two major reference documents: “Connecting Europe Facility” for the short term (2020), and the “White Paper - Roadmap to a Single Transport Area” for the 2050 time horizon.

Based on the plan tabled by the European Commission in October 2011, the "Connecting Europe Facility", with a total amount worth €50 billion of investment, will finance projects which fill the missing links in Europe's transport, energy and digital networks. It will also make Europe's economy greener by promoting cleaner transport modes, high speed broadband connections and facilitating the use of renewable energy in line with the Europe 2020 Strategy.

However, the current fierce discussions about the EU budget 2014-2020 suggest that the availability of sufficient EU funding for the “Connecting Europe Facility” cannot be taken for granted.

Key-goals of the White Paper Transport 2050 include:

- no more conventionally-fuelled cars in cities.
- 40% use of sustainable low carbon fuels in aviation; at least 40% cut in shipping emissions.
- a 50% shift of medium distance intercity passenger and freight journeys from road to rail and waterborne transport.
- 60% cut in transport emissions.

The White Paper roadmap sets different goals for different types of journey - within cities, between cities, and long distance.

1] For intercity travel: 50% of all medium-distance passenger and freight transport should shift off the roads and onto rail and waterborne transport.

- By 2050, the majority of medium-distance passenger transport, about 300km and beyond, should go by rail.

- By 2030, 30% of road freight over 300 km should shift to other modes such as rail or waterborne transport, and more than 50% by 2050.
- Deliver a fully functional and EU-wide core network of transport corridors, ensuring facilities for efficient transfer between transport modes (TEN-T core network) by 2030, with a high-quality high-capacity network by 2050 and a corresponding set of information services.
- By 2050, connect all core network airports to the rail network, preferably high-speed; ensure that all core seaports are sufficiently connected to the rail freight and, where possible, inland waterway system.
- By 2020, establish the framework for a European multimodal transport information, management and payment system, both for passengers and freight.
- Move towards full application of “user pays” and “polluter pays” principles and private sector engagement to eliminate distortions, generate revenues and ensure financing for future transport investments.

2] For long-distance travel and intercontinental freight, air travel and ships will continue to dominate. New engines, fuels and traffic management systems will increase efficiency and reduce emissions.

- Low-carbon fuels in aviation to reach 40% by 2050; also, by 2050, reduce EU CO2 emissions from maritime bunker fuels by 40%.
- A complete modernisation of Europe's air traffic control system by 2020, delivering the Single European Sky: shorter and safer air journeys and more capacity. Completion of the European Common Aviation Area of 58 countries and 1 billion inhabitants by 2020.
- Deployment of intelligent land and waterborne transport management systems (e.g. ERTMS, ITS, RIS, SafeSeaNet and LRIT)
- Work with international partners and in international organisations such as ICAO and IMO to promote European competitiveness and climate goals at a global level.

3] For urban transport, a big shift to cleaner cars and cleaner fuels. 50% shift away from conventionally fuelled cars by 2030, phasing them out in cities by 2050.

- Halve the use of ‘conventionally fuelled’ cars in urban transport by 2030; phase them out in cities by 2050; achieve essentially CO2-free movement of goods in major urban centres by 2030.
- By 2050, move close to zero fatalities in road transport. In line with this goal, the EU aims at halving road casualties by 2020. Make sure that the EU is a world leader in safety and security of transport in aviation, rail and maritime

The EU transport policy has considerably evolved. Initially, we had the TEN-T networks and the Essen priorities agreed upon in 1994. These Essen priority projects were isolated projects in the network, actually national priorities proposed by the individual member states. The next step was the enlargement. Around 1997 the TINA (Transport Infrastructure Needs Assessment) exercise started to extend the TEN-Ts to the future member states. This was based on a concept of ten pan-European corridors, which connected Eastern and Central Europe to the TEN-Ts in the old 15 member states. These ten corridors served as a backbone for the TINA process. At the time of their accession (1st May 2004 + 1st Jan. 2007 for BU and RO), TINA became the TEN-T network of the new member states. In 2004, a process was finished (Karel Van Miert's high level group): 16 extra priority projects were added to the initial 14 projects → 30 priority projects in all.

What we have today is solid and much more “European” than nationally-minded. In a way, it has already been tested. On 19th October 2011 – talks in the Council started, and after several

meetings under PL and DK presidencies, we had an agreement in the Council in March 2012. Only minor amendments were made to the initial proposal. The MS took on board virtually everything of the content and respected the methodology. Council decision: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/trans/129202.pdf. The agreement is about all types of transport modes (including air, maritime traffic, etc.), but on infrastructure only. For example, on air traffic, the agreement concerns airports, also the traffic management system (which is also part of the hardware / infrastructure). Operating the network is a different story.

Infrastructure is one side, but various steps are also taken at the policy level. This is of course more controversial, for example the issue of internalisation of external costs. This is a key-point for an ideal EU transport system, also mentioned in the White Paper. But there might be a difference between the ideal world and the reality, and there are vested interested against the internalisation of external costs, so it has been very difficult up to now to make progress in this field.

One can wonder if the other countries will end up realising that there is a real need for a green transport system at the global level? There might be some change of minds. Anyway, before that happens, the evolution of the prices on the oil market will lead to some change. There could be some push effect towards rail and waterways, which is the core of our policy.

If we really have functional intermodal nodes (airports or rail terminals) and if we have sufficient capacities in our transport corridors, then we will create the preconditions for the modal shift. This would be the way to a partial, but significant, achievement of the 60% GHG emission reduction target. Apart from the infrastructure backbone, further policy measures (liberalization of rail, etc.) are also needed. DG MOVE Also finance quite a lot of pilot projects (energy, maritime, exchange systems, electric batteries, hydrogen, etc.). DG MOVE wants the entire network to become a green network, and take on board various messages expressed by the citizens, who want smart and green infrastructure, and no longer accept noise, congestion, pollution and other nuisance.

Clues for an alternative “ideal policy”

The White Paper Transport 2050 is the reference document for the coming years. Somehow, the “ideal policy” is nothing else than turning the White Paper into reality.

The Commission (more the Framework Research Programme than DG MOVE) also contributes to some transport-related technological foresight project. For example, on busses that are coupled and circulate electronically (“vehicle platooning” <http://www.tech-faq.com/vehicle-platooning.html>, for example in the SARTRE project: <http://www.sartre-project.eu/en/publications/Documents/ITS%20WC%20challenges%20of%20platooning%20concept%20and%20modelling%2010%20b.pdf>)

Concerning the decision-making process in the meeting of the Council (“Transport, Telecommunication and Energy” formation) the Community method applies (qualified majority + right of initiative of the Commission) but in case one infrastructure specifically relates to the national territory of a member state, this member state has some sort of veto right. The other member states cannot impose an infrastructure to one member state on its own territory. But part from that the qualified majority voting applies. The rules of the game are not the same in the domestic context: even in decentralised federal systems, for example a German Länder could not simply impose a stalemate to the others. A reform leading toward a more “federal” EU decision-making procedure for TENs is not on the agenda at this stage, but could be thought for the longer term. For the time being, the decision making process is significantly more protracted in Europe than in other parts of the world (USA, China) and this may also contribute to penalise the EU in the global competition.

Other comments or issues raised

ESPON, especially the Map of Urban Areas (ESPON Atlas, p. 29, based on MEGA & FUA classification of project 1.1.1) delivered a major contribution, very useful to DG MOVE's work, but without providing the "complete answer", because it was also necessary to find a balance for all the 27 MS. Capital cities and some other large cities were of course the main nodes, but beyond that, some border-crossing "gaps" were remaining. Therefore some other cities of more than 1 million inhab were also taken on board.

Key-references

Connecting Europe Facility: http://europa.eu/rapid/press-release_IP-11-1200_en.htm?locale=FR

Connecting Europe Facility brochure: <http://ec.europa.eu/transport/themes/infrastructure/connecting/doc/connecting/2012-10-02-cef-brochure.pdf>

White Paper "Transport 2050 Roadmap to a Single Transport Area (28 March 2011 -full text): <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52011DC0144:EN:NOT> and http://ec.europa.eu/transport/themes/strategies/2011_white_paper_en.htm

TRANSPORT 2050 (White Paper Memo) : http://europa.eu/rapid/press-release_MEMO-11-197_en.htm

Eurobarometer - Future of transport, analytical report http://ec.europa.eu/public_opinion/flash/fl_312_en.pdf

Research policy

Likely evolution of the policy in the "real world"

According to "The World in 2025" report there is a high risk that Asia catches up with Europe and the US in the area of R&D: *"If the recent trends continue, in 2025, the United States and Europe will have lost their scientific and technological supremacy for the benefit of Asia (China and India will have caught up with or even overtaken the Triad) even if they will still appear among the principal world powers as regards R&D. However, their relative weight in terms of R&D investments could strongly fall to the profit, in particular, of emerging Asia. India and China could thus account for approximately 20 % of the world's R&D, i.e. more than the double of their current share."* (p.10 of the Executive summary of "The World in 2025" – see references below).

For the time being, the EU policy response virtually amounts to implementing the "Innovation Union" flagship initiative of Europe 2020. Its objectives and activities have been summarized as follows:

- 1) *In times of fiscal constraints, the EU and Member States need to continue to invest in education, R&D, innovation and ICTs. Such investments should where possible not only be protected from budget cuts, but should be stepped up.*
- 2) *This should go hand in hand with reforms to get more value for money and tackle fragmentation. EU and national research & innovation systems need to be better linked up with each other and their performance improved.*
- 3) *Our education systems at all levels need to be modernised. Excellence must even more become the guiding principle. We need more world-class universities, raise skill levels and attract top talent from abroad.*
- 4) *Researchers and innovators must be able to work and cooperate across the EU as easily as within national borders. The European Research Area must be completed within four years – putting in place the frameworks for a truly free movement of knowledge.*

- 5) *Access to EU programmes must be simplified and their leverage effect on private sector investment enhanced, with the support of the European Investment Bank. The role of the European Research Council should be reinforced. The framework programme's contribution to nurturing fast-growing SMEs must be boosted. The European Regional Development Fund should be fully exploited to develop research and innovation capacities across Europe, based on smart regional specialisation strategies.*
- 6) *We need to get more innovation out of our research. Cooperation between the worlds of science and the world of business must be enhanced, obstacles removed and incentives put in place.*
- 7) *Remaining barriers for entrepreneurs to bring "ideas to market" must be removed: better access to finance, particularly for SMEs, affordable Intellectual Property Rights, smarter and more ambitious regulation and targets, faster setting of interoperable standards and strategic use of our massive procurement budgets. As an immediate step, agreement should be reached on the EU patent before the end of the year.*
- 8) *European Innovation Partnerships should be launched to accelerate research, development and market deployment of innovations to tackle major societal challenges, pool expertise and resources and boost the competitiveness of EU industry, starting with the area of healthy ageing.*
- 9) *Our strengths in design and creativity must be better exploited. We must champion social innovation. We must develop a better understanding of public sector innovation, identify and give visibility to successful initiatives, and benchmark progress.*
- 10) *We need to work better with our international partners. That means opening access to our R&D programmes, while ensuring comparable conditions abroad. That also means adopting a common EU front where needed to protect our interests.²¹*

The Innovation Union flagship initiative includes 34 rather complex commitments, which do not involve DG RTD R&I only but also many other DGs (Internal Market, etc.) and the mobilisation of venture capital.

Perhaps could the "European Innovation Partnerships (EIP)" prove more efficient. They are designed as catalyst engines, not supported by any EU funding.

"European Innovation Partnerships (EIPs) are a new approach to EU research and innovation. EIPs are challenge-driven, focusing on societal benefits and a rapid modernisation of the associated sectors and markets.

EIPs act across the whole research and innovation chain, bringing together all relevant actors at EU, national and regional levels in order to:

- (i) step up research and development efforts;*
- (ii) coordinate investments in demonstration and pilots;*
- (iii) anticipate and fast-track any necessary regulation and standards; and*
- (iv) mobilise 'demand' in particular through better coordinated public procurement to ensure that any breakthroughs are quickly brought to market.*

Rather than taking the above steps independently, as is currently the case, the aim of the EIPs is to design and implement them in parallel to cut lead times.

²¹ "Innovation Union" Executive Summary, http://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication_en.pdf#view=fit&pagemode=none

EIPs streamline, simplify and better coordinate existing instruments and initiatives and complement them with new actions where necessary. This should make it easier for partners to co-operate and achieve better and faster results compared to what exists already. Therefore, they build upon relevant existing tools and actions and, where this makes sense, they integrate them into a single coherent policy framework. Flexibility is important; there is not a 'one-size-fits-all' framework.

EIPs are launched only in areas, and consist only of activities, in which government intervention is clearly justified and where combining EU, national and regional efforts in R&D and demand-side measures will achieve the target quicker and more efficiently.”²²

At this stage, there are five such EIPs: “Active and Healthy Aging”, “Agricultural Sustainability and Productivity”, “Smart Cities and Communities”, “Water”, and “Raw Materials”. They implement demonstration projects, and their governance structure involves various bodies, including the European Commission, member states, the European Parliament, etc.

Clues for an alternative “ideal policy”

We need a system of open innovation, with a strong involvement of the member states, very regular funding and predictability.

For the time being, this predictability cannot be taken for granted. Take for example the economic development objectives of the Barcelona process: the private funding of the growth process (2/3 of the total funding, i.e. 2% of the GDP in R&D – 2/3 of 3%) is invested by large companies, but these invest primarily outside Europe.

“Smart fiscal consolidation” is key: fiscal austerity measures which avoid spending cuts in key-areas such as education, innovation and research & development. (Barroso said: "countries which cut in the very areas they need to nurture for future growth will pay a heavy price down the line.")

We need first a dynamic sector of private companies, but this sector must also be strongly supported by the public authorities, for example through improving significantly the availability of venture capital. The EU regional policy is evolving: classic infrastructure investments, which have been strongly supported so far, tend to give way to other types of intervention. For example, , at least 80% of ERDF resources at national level will be concentrated on 4 themes (energy efficiency, energy renewables, innovation and SME support) in more developed and transition regions, and 50% on the same themes in less developed regions.)

What could be done to avoid a “two-speed Europe” when implementing the Europe 2020 strategy? For the time being, southern and eastern Europe perform less well than the other member states in terms of development of the knowledge economy. In this respect, the promotion of the place-based approach in the EU regional policy could help to assist regions whose development is lagging behind in making the right choices when investing in R&D. In rural areas, for example , an agriculture / R&D synergy relationship should be encouraged to improve crop yields. Therefore it really does matter for the MS concerned to identify the relevant promising technologies. By the way, “ex-ante conditionalities” will apply at the national level during the 2013-2020 period, and the first of them (cf. Annex IV of the draft common provisions regulation) reads: “1.1. Research and innovation: The existence of a national or regional research

²² Cf. EIP site : http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=eip

and innovation strategy for smart specialisation in line with the National Reform Program, to leverage private research and innovation expenditure, which complies with the features of well-performing national or regional research and innovation systems”.

Is it possible to challenge the “pentagon model” by developing “growth corridors” associating less competitive regions to those which perform better, and promoting “smart specialisation” in southern and eastern Europe? Maybe, but this will be very difficult, especially in the current budgetary context!

Another challenge should be taken up: the urbanisation process. More than 80% of Europeans live in an urban area. This has been overlooked for long. DG REGIO has been recently renamed “DG for Regional and Urban Policy”, which reflects, significantly enough, a recent awareness-raising process. In many countries, one or two cities concentrate the bulk of R&D budgets. If this model performs better, why shall we change it? We should invest more in metropolitan areas.

Other comments or issues raised

Forward looking activities (FLA) are used for the preparation and the formulation of EU policies. Cf. European Commission, DG RTD R&I, Unit L.2 – Research in the economic, social sciences and humanities – Prospective: see report “*European Forward Looking Activities*” in the list of references below.

Foresight and Forecasting allow to elaborate long term visions and to assess economic, social and environmental impacts of policies. Between 2007 and 2010 around twenty research FLA initiatives were launched by the Seventh Research Framework Programme under the theme “Socioeconomic Sciences and Humanities” in the following fields: Globalisation, Europe and neighbouring countries; ERA (European Research Area), science, technology and innovation; Evaluation of policies and modelling of post-carbon society; Mapping, preferences, visions and wild cards.

« Joint Programming Initiatives (JPI) » are of a different nature. They are not EU-funded. Instead, they are co-funded by participating member states and some non-member states to pool national research efforts. DG RTD R&I participates as a facilitator. To date, 10 JPI have been launched:

- **Neurodegenerative Diseases/Alzheimer's**
- **Agriculture, food security and climate change**
- **A healthy diet for a healthy life**
- **Cultural heritage & global change**
- **Urban Europe**
- **CliK'EU**
- **More years, better lives**
- **Antimicrobial resistance**
- **Water challenges**
- **Healthy & productive seas and oceans**

Further detail: http://ec.europa.eu/research/era/areas/programming/joint_programming_en.htm . The outcome of some of these JPI could prove insightful for the elaboration of ET 2050 scenarios / vision. For example “Urban Europe” (<http://www.jpi-urbaneurope.eu/>) , which involves 16 member states + Turkey (NL & AU being particularly active).

Key-references

European Commission / European Research Area – ERA (2009) “*The World in 2025*” Contributions from an expert group. January, 7th Framework Programme. Executive summary: http://ec.europa.eu/research/social-sciences/pdf/the-world-in-2025-report_en.pdf

Full report on the ET2050 website: http://www.et2050.eu/Et2050_library/docs/scenarios/world_2025.pdf

“*European Forward Looking Activities - EU Research in Foresight and Forecast (Socio-Economic Sciences and Humanities, list of activities 2007-2010)*”: http://ec.europa.eu/research/social-sciences/pdf/eu-forward-looking-activities_en.pdf

Innovation Union Flagship Initiative:

http://ec.europa.eu/research/innovation-union/pdf/innovation-union-communication-brochure_en.pdf#view=fit&pagemode=none

See also progress report 2011:

http://ec.europa.eu/research/innovation-union/pdf/state-of-the-union/2011/state_of_the_innovation_union_2011_brochure_en.pdf#view=fit&pagemode=none

Communication “Regional Policy contribution to smart growth”:

http://ec.europa.eu/regional_policy/sources/docoffic/official/communic/smart_growth/comm2010_553_en.pdf

European Innovation Partnerships (EIP)

http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=eip

Environmental policy

In contrast with the other interviewees, the DG ENV official consulted was much more inclined to express personal views and to speculate about the long-term future. Therefore the type of content of this section is not quite comparable to that of the other sections. Stimulating questions were raised, but they do not necessarily reflect the policy agenda of DG ENV.

4.1 Likely evolution of the policy in the “real world”

N.B. The interviewee has not addressed the likely evolution of the EU environmental policy as such. Instead, he concentrated on possible evolutions of the environment and the environmental/economic policies at large. About the future EU environmental policy, see heading “key-references” below.

The current sacrosanct paradigm remains a model of endless economic growth. (cf. “Growth Fetish” by Clive Hamilton²³). Yet any kind of resource, including land, is exhaustible. We got rid of slavery, but we exploit natural resources as if they were our slaves. We exploit them, but we do not pay the price. Nature is key. It is the starting point. Without it, development will be neither sustainable nor inclusive → in the “smart-sustainable-inclusive development” triangle, “sustainable” should be given precedence, not “smart” as generally believed.

²³ HAMILTON Clive (2003) *Growth Fetish*, Allen & Unwin. (Wikipedia comment: The book argues that the policies of unfettered capitalism pursued by the west for the last 50 years has largely failed, since the underlying purpose of the creation of wealth is happiness, and Hamilton contends that people in general are no happier now than 50 years ago, despite the huge increase in personal wealth. In fact, he suggests that the reverse is true. He states that the pursuit of growth has become a fetish, in that it is seen as a universal magic cure for all of society's ills. Hamilton also proposes that the pursuit of growth has been at a tremendous cost in terms of the environment, erosion of democracy, and the values of society as a whole. One result is that we, as a society, have become obsessed with materialism and consumerism. Hamilton's catchphrase “*People buy things they don't need, with money they don't have, to impress people they don't like*” neatly sums up his philosophy on consumerism.

The economic apparatus cannot repair the damage it generates. Consider for example the water-related problems: drought, floods, erosion, groundwater pollution, etc. Can we afford to repair all this with empty coffers? It will prove necessary for some people to desert the region where they live. An artificial transfer of water from regions with sufficient water resources to those prone to drought will not be the right policy response. Transferring production means and populations from poor regions (e.g. Sahel) to more prosperous ones (as currently considered by some people) will not be the solution either.

It seems virtually impossible to dethrone King GDP. We all know that this indicator is inappropriate to measure our real level of well-being, but it remains the default-option. Yet alternative indicators exist. For example, the ratio <life expectancy / per capita health expenditure> is much more relevant than health expenditure only (which is a component of the GDP), because per capita health expenditure increases considerably with some effects of our consumerist culture (you have to tackle obesity and other diseases generated by our bad style of life). In Portugal for example, the value of this ratio is higher than in the US²⁴, probably due to a healthier style of life.

Considering the brevity of electoral mandates between two successive ballots, short-term policy approaches tend to prevail. In the corporate sector, the short-termism is even more acute (quarterly reports, etc.) and this is not compatible with the long-term perspective needed to tackle nature-related issues.

Interest groups and lobbyists with a short term time horizon besiege top decision-makers. They are not to blame, they do their job and behave in line with the standards of the current system, but this is detrimental to good governance and neglects the wide potential of grassroots support that can be expected from various actors in various territories.

The “me too” principle pervades many policies, including regional policy. Everybody wants to get his “fair” share of the cake, without realising that resource availability is limited and that alternative joint approaches based on resource pooling are more efficient (cf. infra, BBS – Benefit-and-Burden Sharing, heading “clues for an alternative ideal policy”). It is also difficult to get the “Polluter Pays Principle” effectively applied (the interviewee gave various examples of infrastructure projects supported by public funding (EU ERDF or Cohesion Fund, World Bank in Sahel, etc.) without due consideration to this principle.

Europe is anonymous and coming a cropper. Xenophobia, racism, north-south conflict, etc. are gaining ground → Europe tends to fall apart.

Clues for an alternative “ideal policy”

The aim should be to make the economy work for a political project, not the other way round. Nowadays, politics is too weak and should be made much stronger.

In the fifties (i.e. not so long ago), living conditions were not bad. If we could couple 2050 with 1950 while using technologies of 2000, we would get rid of current wrong values (consumerism, etc.) while reactivating old ones and taking full advantage of existing tools (research, know-how, knowledge) to solve problems we will be facing. No “back to stone age”; instead take full advantage of what we have to solve problems. We need a “post-growth economy”, an economy of transformation / transition.

Considering that some services provided on a voluntary basis (i.e. non remunerated financially and therefore non accounted for in the GDP) deliver a significant contribution to the general welfare, we can imagine some sort of mixed economy based on two components:

- A sector of cutting-edge technology industries with high value-added

²⁴ See also <http://ucatlans.ucsc.edu/spend.php>

- Local economy, based on voluntary work (more than profit-making), akin to the co-operative associations of the 19th and early 20th century, promoting solidarity and barter economy.

Europe should unite, but EU27 being too large is not visible enough to the EU citizens. Considering the lack of EU ownership, a possible scenario could be a federation of macro-regions (instead of a federation of nation states). Not necessarily the current macro-regions, but rather of “natural macro-regions” defined on the basis of geomorphologic criteria such as the Danube river basin. Cultural considerations should also guide the definition of these macro-regions. EU27/28 is a patchwork of cultures, each of which cannot identify with “Europe”, but one can imagine a macro-regional grouping process based on some cultural considerations (e.g. common historic legacy, religious background, etc., even if cultural diversity and mutual understanding between various cultures should also be promoted). These macro-regions should unite as nation-states did formerly. Nevertheless, it will remain necessary to make decision at the EU level for some policies of critical importance (e.g. defence and foreign policy,) in a world dominated by a few super-powers (China, USA, Latin America). Other current EU policies or some aspects of these policies, for example EIA, could be devolved to the macro-regional level, because standardising these policies or aspects at the EU level is not essential. Partners of the Danube cooperation have already created a joint Danube research fund. They could also set up, for example, a “Natura 2000” Danube agency to pool resources in this area (instead of several national institutes, each with insufficient financial and technical means).

The single currency policy is a trickier issue. For the time being, the euro-zone is far from covering the entire EU territory. Is it really essential that the euro becomes the single reference currency in every part of Europe?

Governance and citizen’s participation is essential. Involve people concerned, involve various territories, avoid top-down decisions. Ideally, in each of these federated macro-regions, a culture of responsible citizenship and entrepreneurship should be promoted (akin to “Rhine Capitalism”²⁵), as well as “BBS – Benefit-and-Burden Sharing”. BBS is the opposite of the “Me too” principle. “Mee too” is the lack of any form of planning. Everybody focuses on one’s own territory and strives to maximise the level of public investment on it, for example to combat flooding. The BBS approach places the emphasis on solidarity between the various parts of the common territory. For instance, since flood damages are much more costly and disastrous in an urban area and much less in sparsely populated areas of this common territory, the latter should accept a reasonable level of damage (which can be financially compensated at a reasonable price) to maximise the level of investment to protect the former (since the ratio cost/benefit will be minimal in the urban area). A key-feature of modern nation-states is that they have been built on a progressive acceptance by their citizens of the necessity of burden sharing. At this stage, much less progress has been made on European than on national integration(for example a German will accept more easily some financial transfers between Länder than to pay for Greece). It could occur that the necessity of burdensharing is more easily accepted at the transnational than the EU level.

Other comments or issues raised

DG ENV is often consulted by several other Commission DGs about the possible impact of various policies and decisions. As these policies often pursue specific “spatially-blind” objectives, DG ENV officials have sometimes faced conflicting situations. This is the case for example about the development of new department stores on out-of-town peripheral sites: DG MARKET’s approach to this issue tends to be obsessed by some principles of the EU law, for example those

²⁵ Cf. http://en.wikipedia.org/wiki/Rhine_capitalism

of the Service Directive, without realising that other considerations such as land use regulations may also apply.

Key-references

No reference was mentioned by the interviewee. However, the following key-references cannot be ignored:

7th EAP (Environment Action Programme), renamed “General Union Environment Action Programme to 2020 -*Living well, within the limits of our planet*”, Proposal of the European Commission : http://ec.europa.eu/environment/newprg/pdf/7EAP_Proposal/en.pdf
It is stated in this document that *“It is essential that Union priority objectives for 2020 are established, in light of a long-term vision for 2050. The new programme should build on policy initiatives in the Europe 2020 strategy, including the EU climate and energy package [Regulation (EC) No 443/2009, Directive 2009/28/EC, Directive 2009/29/EC, Directive 2009/30/EC, Directive 2009/31/EC, Decision No 406/2009/EC, all in OJ L 140 of 5.6.2009], the Roadmap for moving to a low-carbon economy in 2050 [COM (2011) 112, OJ C 140 of 11.5.2011], the EU Biodiversity Strategy to 2020 [COM(2011) 244, OJ C 264 of 8.9.2011], the Roadmap to a resource-efficient Europe [COM(2011) 571, OJ C 37 of 10.2.2012] and the Innovation Union Flagship Initiative.”*

See also Annex 4 to the Impact Assessment accompanying the Commission proposal: http://ec.europa.eu/environment/newprg/pdf/ia_annexes/Annex%204%20-%20The%20outlook%20to%202020%20and%20beyond%20to%202050.pdf , actually a summary of the OECD report “Environmental Outlook to 2050” (OECD, Paris, 2012): <http://www.oecd.org/env/environmentalindicatorsmodellingandoutlooks/oecdenvironmentaloutlookto2050theconsequencesofinaction.htm>

Maritime policy

Likely evolution of the policy in the “real world”

For the time being, a key-priority is to make the EU integrated maritime policy contribute to the Europe 2020 objectives: job creation, growth, competitiveness and sustainable development of the European economy. To achieve this, DG MARE takes all the objectives of the integrated maritime policy (approved in 2007) as a reference, in particular a strengthening of the maritime governance (including the coordination between the various sector administrations at the EU, national and regional levels) to achieve more focused and synergetic objectives and impacts. Through various proposals, DG MARE strives to promote the integration of the actions undertaken by various bodies while catalysing growth and job creation.

The maritime economy is characterised by a relatively better growth rate than in other sectors. This is even the case in relatively traditional industries such as shipyards (some of them have specialised in more innovative sectors such as cruise ships, where European companies control 95% of the market), off-shore wind farms (10 to 30% growth rate), maritime tourism (the largest industry of the world economy, with a 10% growth rate in some sub-sectors such as cruises). On top of these important and already thriving sectors, the “Blue Growth” Communication COM(2012) 494 (see below) has identified five promising industries, the potential of which remains to harness: 1] Blue energy (other than off-shore wind farms), 2] Aquaculture, 3] Maritime, coastal and cruise tourism²⁶, 4] Marine mineral resources and 5] Blue biotechnology.

²⁶ In contrast with the other four industries, the maritime tourism is already firmly established, but generally regarded as in need for specific support.

Thus the EU maritime policy revolves around two main priority areas: policy instruments to promote a more integrated and coherent approach in the area of maritime development, and a “blue growth” contribution to the implementation of the Europe 2020 strategy.

Moreover, DG MARE has three so-called “enabling instruments”, meant to support the development of the maritime (especially off-shore) economy through securing framework conditions stimulating the development of these industries while securing their sustainability, safety and integration in the wider context of EU maritime policies. These “enabling instruments” are:

- Maritime spatial planning (the Commission should publish a draft Directive shortly, possibly in early February 2013, and the adoption procedure could last more than one year);
- Maritime knowledge: making mutually compatible all the data collection and management systems;
- Common Information Sharing Environment (CISE), which will integrate the maritime surveillance systems (the various existing systems are very heterogenous).

The draft directive on maritime spatial planning will of course have some connection with Integrated Coastal Zone Management (ICZM), which DG ENVI is responsible for.

Sea level rise is also an issue on DG MARE’s agenda, but much more the responsibility of DG CLIMA (Climate Action²⁷). Coastal protection/defense is a strategic environmental issue, but can also contribute to economic growth.

Major and insightful breakthroughs have been achieved in the area of EU maritime policy **governance**. This has been, and will continue being, catalysed by the work on the “enabling instruments”. There is still a strong intergovernmental component in the approach, because the maritime policy as such (*N.B. in the same way as the territorial development / planning policy*) has no legal basis in the EU treaties. However, a cross-sector integrated approach has been promoted in the Council of Ministers. Some presidencies particularly keen to make progress on integrated maritime policy have set up a “Friends of the Presidency Group”, i.e. a temporary formation of the Council. In the European Parliament, there is no ad hoc commission for maritime policy, but an intergroup (between various EP commissions) exists. Both the Council and the EP groups are ad hoc formations, set up at the (Council or EP) President’s discretion. Even though no formal decisions are made on EU maritime policy as such, many decisions relevant to this policy are made in the framework of other formal EU policies (transport, environment, regional policy, Common Fisheries Policy – CFP, etc.), following the formal procedure which applies (including qualified majority voting as appropriate).

- For some tricky issues such as the delineation of territorial waters, the EU is not involved whatsoever: this is the UNCLOS²⁸ remit.

Clues for an alternative “ideal policy”

For the time being, economic growth and employment is the key-priority of DG MARE’s network²⁹, but this could change in future

Turn the climate change threat into a sustainable economic development opportunity.

²⁷ Further detail on DG CLIMA action available on http://ec.europa.eu/clima/publications/docs/flyer_adaptation_en.pdf. See also *White paper - Adapting to climate change in the key-references below*.

²⁸ United Nations Convention on the Law of the Sea.

²⁹ Notably the bodies involved in the European Maritime Day, celebrated every year on 20 May : <http://ec.europa.eu/maritimeaffairs/maritimeday/>

Further explore the potential of the maritime economy, for example in Arctic regions. Despite the lack of EU maritime borders³⁰ in the Arctic Ocean, the EU should be involved (e.g. in the framework of the Arctic Council www.arctic-council.org) in the Arctic exploration, where huge environmental and economic issues are at stake.

Promote short-sea-shipping (SSS) and inland navigation through road pricing (internalisation of external costs similar to the London “congestion charge” or truck tolls such as the German “Lastkraftwagen Maut”): very sensitive issue!

In the area of maritime policy governance, further progress could be made to strengthen the legal basis of the policy and favour formal decision-making by EU authorities (e.g. directives or regulations relating to maritime policy proposed by the European Commission and formally adopted by the EP and the Council.)

Other comments or issues raised

n.a.

Key-references

European Commission COM(2012) 494, *Blue Growth opportunities for marine and maritime sustainable growth* [seemingly nick-named “Blue Paper / Livre bleu”] http://ec.europa.eu/maritimeaffairs/policy/blue_growth/documents/com_2012_494_en.pdf

European Commission COM(2012) 491, *Progress of the EU's Integrated Maritime Policy* http://ec.europa.eu/maritimeaffairs/documentation/publications/documents/imp-progress-report_en.pdf

European Commission COM(2006) 275, *Towards a future Maritime Policy for the Union: A European vision for the oceans and seas.*

http://eur-lex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=en&type_doc=COMfinal&an_doc=2006&nu_doc=275

European Commission COM(2009) 147, ***White paper - Adapting to climate change : towards a European framework for action*** <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52009DC0147:en:NOT>

Common Agricultural Policy (CAP)

N.B. The information material collected during the interview was not always crystal clear. CAP is a relatively intricate matter for non specialists. Therefore clues provided in the sections below need to be checked and made more accurate.

Likely evolution of the policy in the “real world”

The relative share of the First Pillar (direct payments) in the CAP budget should continue going down, but a relative “security net”, i.e. a certain level of direct payments will remain necessary. It will also be necessary to organise a more correct redistribution of these payments. Farms will need further conversion, especially toward a less resource stressing and more extensive agriculture. Factory farming will not disappear, but further regulation will remain necessary in this sector, to improve the production quality and animal welfare (especially for chickens). Organic products should increase their market share, but an “everything-organic” scenario is not realistic.

³⁰ Unless Iceland ends up joining the EU.

Non organic products will remain significantly cheaper, even though consumers will have to disburse more, owing to new regulations (e.g. on animal welfare).

There will be an increasing need for environmental and landscape services.

We can imagine a system in which farmers can receive one, two or three types of subsidies included in some sort of three-tier pyramid: 1) basic payment (modernisation of farms and the food chain - i.e. the current direct payments?); 2) payment for agriculture in less favoured areas (e.g. mountain areas, islands, etc.) 3) payment for environmental practices (nature conservation, landscape restoration, etc.)

Support to rural development will remain necessary, including in other sectors than the agriculture: development of micro-enterprises, provision of services of general interest, etc. It is not essential that these aspects are dealt with by DG AGRI. Community-led local development could definitely be in the hands of DG REGIO, provided that rural areas keep their fair share of the budget cake.

Impact of climate change and globalisation on the agriculture in Europe: the interviewee is not very familiar with these issues. Recommendation to consult other DG AGRI officials: Markus Holzer³¹ on climate change and Pierre Bascou³² for globalisation. The global demand for quality local products is set to go up, to the detriment of run-of-the-mill products, the production of which tends to become less profitable. The fact that the world population could reach 10 bn. inhabitants in 2050 is an argument to reconsider extensification policies: arable land could become a relatively scarce resource. Good resource management, including land resource, is a key issue for the future.

Biomass, bio-ethanol and other similar productions are not necessarily the right way forward. Large maize fields for this type of speculation are inappropriate. Massive burning of crops to produce energy does not make sense because it is not sustainable. In contrast, using the maize ears to produce fuel while recycling the straw for other purposes is more environmentally-friendly. Other types of renewable energy can be produced in the framework of the rural development policy. These are various new areas where considerable efforts should be made to invest in research and innovation.

Re-nationalisation of the agriculture policy cannot be entirely ruled out. Should this happen, state aid rules would apply to avoid distortions of competition. It is not demonstrated that the member states would have much to gain in this scenario.

Clues for an alternative “ideal policy”

Scenar 2020 – Scenario study on agriculture and the rural world

The Scenar 2020 study aims at identifying future trends and driving forces that will be the framework for the European agricultural and rural economy on the horizon of 2020.

Scenar 2020 provides a systematic review of the primary variables that rural and agricultural policies have to take into account. These are

- the rural demographic patterns,
- the agricultural technology,
- the agricultural markets, and
- the natural and social constraints on land use that are likely to exist in 2020.

³¹ Marcus HOLZER, Head of Unit AGRI DDG3 H4 Bio-energy, biomass, forestry and climatic changes

³² Pierre BASCOU, Head of Unit AGRI DDG2 L1 Agricultural policy analysis and perspectives

Social and economic factors, both conditioned by technology, have a bearing on these primary variables, and these factors are both endogenous and exogenous. Technology determines what is possible in every domain, and social (consumer) demand determines what is economically viable. Social demand – as it affects the agricultural sector – does not only reflect consumer preferences in terms of food, but also environmental and health concerns, including the commitment by society as a whole to the wise use of natural resources (water, soil) and biodiversity preservation. It is these environmental and health concerns that define the natural and social constraints on land use. World markets and local production costs – including compensation measures that may offset operating charges – will inevitably both determine what is economically feasible in the EU and direct agricultural production to the geographical locations worldwide that provide sustainable livelihoods for farmers, or the greatest return on investment for agro-industrial enterprises.

The method used is to build a reference scenario ('baseline') that is based on an analysis of trends from 1990 to 2005, which is projected forward to 2020; the trend analysis provides a substantiated basis for determining the long-term driving forces that is reflected in the reference scenario. It is assumed that economic, agricultural and environmental policy may cause an inflection in these trends, so these are studied as a second level set of driving forces, also to be taken into account in the scenario exercise. The relative importance between various policy frameworks is understood by comparing two alternative – or 'counterfactual' – scenarios ('liberalisation' and 'regionalisation') to the reference scenario.

This **reference scenario ('baseline')** establishes a possible and reasonable perspective of what might happen until 2020 from today's perspective. The main agricultural policy assumptions are the conclusion of the WTO negotiations on the basis of the EU proposal and the strengthening of the second pillar by obligatory modulation. For the market side, a balanced market approach had been chosen leaving public stocks at a level of 1% to 2% of domestic consumption and adjusting support prices where necessary. The enlargement process would continue by the Western Balkan countries and Turkey.

The baseline is contrasted by two alternative scenarios representing two possible but extreme policy choices:

1. The **regionalisation scenario** assumes that the WTO negotiations would not conclude and bilateral trade agreements would become more important. Agricultural policies would remain largely as they stand and rural development funding would be significantly increased. Consequently, total spending for the CAP would increase. For the market side again a balanced market approach had been chosen;
2. The **liberalisation scenario** assumes a complete dismantling of the first pillar policies, i.e. agricultural markets would be completely liberalised and rural development funding substantially reduced. Environmental legislation would be partially withdrawn in order to assure competitiveness with agriculture in third countries and other sectors of the economy.

The comparison between scenarios occurs in two steps:

- the first is a modelling exercise that analyses the likely outcome of each scenario using simulation models and other quantitative analyses. Where appropriate and necessary, these in-depth scenario analyses are complemented by qualitative analyses and expert judgement. The result is a description about how each scenario is expressed in spatial terms, across the EU-27, and in some case extended to the candidate countries for accession.
- The second step is a SWOT (**S**trengths, **W**eaknesses, **O**pportunities, **T**hreats) analysis, which is applied to each scenario in order to understand the implications in the following domains: demographic developments, dynamics of rural economies, and the future of the

agricultural economy (specifically in terms of farm structures, production systems, and farm population demography). This occurs through the definition of 'typical' regions; such 'typical' regions are characterised by similar responses to the simulated factors.

This twelve-month study was carried out by the European Centre for Nature Conservation, Landbouw-Economisch Instituut, the Leibnitz-Zentrum für Agrarlandforschung, Leibnitz Institut für Länderkunde, the Central European University and the European Landowners Organisation. The study was reviewed in-depth by six independent experts during two workshops.

Other comments or issues raised

There was some rivalry in the relationships between EU regional policy and CAP (and their respective Commission DGs). It seems that the multi-fund approach promoted by the new Common Provisions Regulation encourage a more complementary approach.

Key-references

European Commission COM(2010) 672, *The CAP towards 2020: Meeting the food, natural resources and territorial challenges of the future.*
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0672:FIN:en:PDF>

European Commission (Dec. 2006) SCENAR 2020 - Scenario study on agriculture and the rural world

http://ec.europa.eu/agriculture/agrista/2006/scenar2020/final_report/scenar2020final.pdf

Cf. summary above

www.capreform.eu CAP Reform blog. News, views and analysis relating to the EU CAP. The blog brings together the work of researchers, activists and analysts from across Europe and elsewhere.

4.7 Dublin workshop: synthesis activity 1 (selecting and ranking)³³

Activity 1: ranking and selecting **35 minutes: “A WISH LIST” for 2050**

This is an individual exercise with the purpose to collect your views on the desirability of key policy choices. Note that it is NOT about the likeliness of various possible courses of events (an issue addressed in the scenarios). As a reminder, the ET 2050 project is meant to propose a picture of an ‘ideal’ European territory in 2050 (the “Territorial Vision” - TeVi), which could enable policy makers in Europe to better prepare for the future, using this vision as ‘leitbild’.

In the following questionnaire, you are asked to identify the policy choices you would favour to promote the Europe “of your dreams”. In order to favour free speech on your idea of a future ideal Europe, this questionnaire is anonymous (no person name, no country name).

The questions are divided in two groups:

1: Ranking:

Questions 1 to 6 relate to the future of the EU or the European continent considered as a whole.

2: Selecting:

Questions 7 to 11 focus on selection between policy alternatives at different geographical and political level, with a major territorial impact.

1 Ranking

Question 1:

EU Enlargement	Yes	Rather yes	Rather no	No
Is it desirable to enlarge the EU with new Member States (MS)?	8	14	4	2
Comments: In synthesis: rather yes, but as long as it doesn't result in different status amongst MS and the ideals of EU can be guaranteed. Yes :				

³³ Dublin workshop Et 2050 /MC/CU, 12 June 2013, coordinated by IGEAT, Valérie Biot, ybiot@ulb.ac.be

needed for territorial continuity and integration, cohesion and solidarity

Rather yes:

- real challenge if we want real integration. The more MS, the less possible to reach compromise,
- European countries should be joining (Balkans, Northwest – Iceland, Ukraine),
- new MS: should agreed and be capable of implementing the EU rules and criteria.

Rather no and no:

- without fiscal union and federation of Europe, further enlargement will lead to dissolution of EU,
- EU needs a new project before expanding,
- European identity will be lost if enlargement is going to far.

Question 2:

“Two-speed Europe”	Yes	Rather yes	Rather no	No
Is it desirable to have a core of Member States taking the lead in the European integration process, leaving the others free to join (or not to join) this core at a later stage?	3	11	9	5

Comments:

In synthesis: balanced opinions between yes and no, both with strong argumentation.

Yes:

- because different expectations and needs from MS, and flexibility is needed. Rather than forcing all MS to walk at the same speed and with the same forces, spill over ‘good example’ of a core of MS (Eurozone ?, political project?) is a more relevant path,
- possibility of “ad hoc’ cooperation according to features.

No:

- because this is leading to polarisation in EU (rich poor, strong weak, well developed less developed...), driving towards zone of tensions. This is contrary to cohesion,
- 1st class and 2nd class MS situation should be avoided, even if some MS can play a role of core leading towards future,
- it will stop any process towards creating a political and economical strong Europe, which is needed if Europe want to keep being an important player in the world.

Question 3:

“Variable geometry Europe”	Yes	Rather yes	Rather no	No
Is it desirable to have various integration processes further taking place on distinct and possibly overlapping areas (e.g. EEA ³⁴ , Schengen area, Eurozone, TSCG area ³⁵ , etc.)?	6	17	6	1
<p>Comments:</p> <p>In synthesis: rather yes, but as transitional situation (see also question 2). Importance of governance structure. Do not implement new borders.</p> <p>Rather yes:</p> <ul style="list-style-type: none"> - as transitional situation, because different areas show different functionalities. Cooperation should be ad hoc based, and this should be reflected in the governance structure, - but: how to deal with overlapping areas, who will establish them, how the processes will be implemented, by whom....?, - it would help to maintain national philosophies, and stop Eu scepticism to proliferate, - in the end, it should help to allow for more Eu enlargement: those countries outside Eu should be prepared to integrate EU . <p>Rather no :</p> <ul style="list-style-type: none"> - it could lead to too many different Europe(s) everything should be integrate in a EU contiguous territory, with a common model of integration, and be a Eurozone: <p>let us get rid of borders, not establish new ones.</p>				

Question 4:

Policy efficiency	Yes	Rather yes	Rather no	No
To improve <u>policy efficiency</u> in the EU – eg for territorial development - , is it desirable to have extra responsibilities / power being recognised (or devolved) to				
- the European Union?	4	4	7	7
- macro-regions (covering several MS) ?	3	7	9	5
- the Member States ?	9	4	9	2
- the regions and other subnational authorities	9	9	2	1

³⁴ European Economic Area (EU + Iceland, Lichtenstein and Norway)

³⁵ Treaty on Stability, Coordination and Governance, signed by all the EU member states except CZ and UK.

Comments:

In synthesis: a large range of answer, and a lot of comment and arguments.

Rather yes:

- 2 answers: a big yes for all levels, but 'in an ideal world, with ideal politicians',
- for those favouring EU level and macroregion to play a more important role in 2050, the main argument is that changes of power in the world have made it necessary to join forces. Power regulation should be reinforced at EU level, power of implementation given to Macroregions (a good example is EU strategy for macroregion Baltic), but then all MS have to be in macroregions,
- most appropriate levels to take into account specificities (climate, population, economy, ...) are Eu and macroregions (global player) and local level for place governance and issue.

Rather NO (except MS):

- too much power on Eu level could cause rigidity in decision making, austerity and excess of use of power, and not taking into account diversity of European territories,
- level of MS is the more appropriate to take into account specificities (climate, population, economy, ...),
- region and subnational authorities should have more authority to participate in territorial development,
- 1 answer all 'NO' except for MS, as they are the building blocks of EU, and did not mean to disappear when they decided to join EU.

Question 5:

Multilevel governance	Yes	Rather yes	Rather no	No
To improve <u>vertical integration</u> of policies – (eg integration of policies with a territorial impact), is it desirable to	5	11	5	2
<ul style="list-style-type: none"> - combat the “institutional thickness”, i.e. reduce the number of level of government? 				
<ul style="list-style-type: none"> - better clarify the respective remits of these level of government? 	11	12	2	

Comments:

In synthesis: a massive promotion of clarification of competences between levels of government, which comes along in several cases with a demand for a possible reduction of those number of levels. Again the governance issue is underlined.

On clarification of competences: (rather) yes

- clarification of task always welcomed: who does what?,
- problem of overlapping competences and territories,
- importance of cross sectoral coordination and multilevel governance,

- governance issue:

higher levels set a frame work ('allowing, not preventing'), and local level are allowed to action inside it (no exclusionary laws);

good governance results come from good coordination between levels, and this needs a clear allocation of competences;

also, accept the need for 'devolving' competences, and for cooperation, without the fear of 'loosing'.

On reduction of levels: (rather) no

- reduction of levels might lead to quicker decision making, but also to lack of coordination,

- not reduction of levels, but clarification of who does what at each level: keeping the different levels, governance structure so that they work together, and clarify respective competences and responsibilities,

- promoting territory as unit of importance for policy making (political context and legislative framework).

Question 6:

Migration	Yes	Rather yes	Rather no	No
Is it desirable to favour (in-)migration from non-European countries	6	9	8	3
Is it desirable to favour migration inside European (ESPON) Space	12	11	3	1

Comments:

In synthesis: rather yes in general, but with limitations and specific criteria

Uncertain:

migration has positive and negative aspects. Engagement of all governance levels and civil society is needed to understand impacts.

Yes:

in best world, every human being should be free to go everywhere. We should be democratic, not restrictive.

Yes but:

- focus on what is needed because of shortage in workforce: educated people, and needs to balance ageing work population and other demographic challenges,

- if economically affordable,

- yes from non European countries, rather no for intra Eu migration as can reinforces gaps and disparities (concentration in economic 'core' Europe)

>> Yes, inside Eu: towards integration, good for cooperation and employment.

No:

- 'to favour', in the sense of 'to urge', is not an appropriate approach: what is needed is to ensure the right,
- rather no for non European: as brings too many social problems (too high expectations, difficulty of integration), and EU is already facing enough economical difficulties,
- first existing social and economic problems have to be solved.

2: selecting

In the second series of questions below, you are asked to address strategic policy choices which can be made by relevant authorities at the European, macro-regional (covering several MS) national or subnational(infra MS) levels. Each policy choice is presented as some sort of dilemma, i.e. two mutually exclusive options: A or B, representing two different and potentially antagonistic 'extreme paths'.

For each of the four geographic levels considered (each in a dedicated column), you should first consider whether action is desirable in the long term. If so, put one cross (x) in the relevant row (A or B) of the relevant column. If it is not desirable, leave both cells blank. It may occur that you want to select A for one geographic level and B for another in reply to the same question³⁶. Please feel free to do so.

Please add an extra cross (xx) in the cell representing for you a top priority of your 'wish list', and the most appropriate geographic level to pursue this top priority policy choice considered.

In the "Comments" box, do not hesitate to provide further detail, for example to justify or qualify your choice, or if you feel uneasy with the 'antagonistic' approach, and want to combine element of both policy alternatives.

Remark:

'2 top 8' means that there were two top priorities (xx) in this boxes + 8 normal crosses (x)

Question 7:

³⁶ For example, economic competitiveness, cutting-edge R&D, etc. could be favoured at the EU level whereas a different and more socially inclusive model of development could be regarded as a top priority in various regions (subnational level).

Economy and society		Eur.	nation.	subnat.	macroreg
A <u>GDP growth society</u> : GDP growth rate remains essential to reduce unemployment and promote a socially inclusive society	A	2 top 8	1 top 10	2	2
A <u>green growth society</u> : GDP growth indicator should be replaced by other indicators, taking into account quality of life, environment and climate change dangers (see a. o. roadmap low carbon society from EU Commission)	B	3 top 14	4 top 14	4 top 16	1 top 10

Comments:

In synthesis: a large amount of answers and comment favour the green growth society, understood as an holistic paradigm, with GDP still included, but amongst several other indicators, quality of life and environment becoming central paradigm .

A (GdP growth):

- GDP is still the major indicator, the only one comparable at EU level for all countries,
- Green growth could be an indicator at subnational level.

B (Green growth):

- GDP does not reflect the real situation, complex/holistic indicator have to be used, including social exclusion, employment, quality of life, 'life standard satisfaction', ...
- still use GDP, but as one amongst a lot of other indicators, taking much more quality of life and environment into account, those last 2 even becoming a central paradigm;
- the destruction of our planet calls for urgent action: no planet, no economy....,
- if we go for green growth, planning at each level of governance will be needed

Question 8:

Regional development		Eur.	nation.	subnat.	macroreg
Concentrate regional aid on " <u>economic engines</u> " (e.g metropolitan areas, secondary growth poles clusters, please specify in comments box), betting on a spill-over effect	A	8	1 top 14	4 top 6	7
Concentrate regional aid on areas whose	B	16	3 top	2 top	1 top

development is <u>lagging behind</u>			8	14	7
<p>Comments: please comment here on which economic engines should ideally be promoted towards Eu 2050</p> <p>In synthesis: a very important amount of answers favour a mix of A and B according to geographic/governance structure level.</p> <p>E.g: European level should concentrate on cohesion (helping lagging / transitional areas), national level should concentrate on economic engines and favour better connection of the rest of territory with those engines, providing also some compensation at lower scale (subnational) to help creating a balance (eg e-services) so that no territory is neglected (spill over does not happen by itself).</p> <p>A:</p> <ul style="list-style-type: none"> - as economic engines regional centres (functional areas) and SGP cluster are important. - also metropolitan areas, but the general feeling is that they will develop by themselves <p>B:</p> <ul style="list-style-type: none"> - strong welfare aspects, - aid should come with responsibilities for good use. <p>Also, both at all levels: 2 answers, as</p> <ul style="list-style-type: none"> - a mix should be ensured to avoid a two speed Europe, - lagging regions can also have economic engines (metropolitan areas), - the major issue is to take into consideration the potential of the territories. 					

Question 9:

Urban future		Eur.	nation.	subnat.	macroreg
<p><u>“Green cities”</u>: promoting compact city, contain urban sprawl, promote urban renaissance, protect the green infrastructure, search for technological solutions improving quality of urban life</p>	A	1 top 14	5 top 16	5 top 14	9
<p><u>“Mixed cities”</u>: no specific policies other than usual, Suburbanisation is going on, mixed functions in several areas (rurbanisation)</p>	B	3	1 top 1	2	4
Comments:					

In synthesis: Green cities model is quite strongly and evenly promoted. Green cities are the ideal future, they are economic engines, they should be a model of sustainable development.

For this, European and national planning is needed in close cooperation (governance again):

Europe should play a leading role (but not imposing: importance of local knowledge).

A:

- suburbanisation should be stopped
- green cities should come along with 'green ruralities'
- governance proposal:

“green regulations ‘ at European level

infrastructure and technological solutions at national level

compact city + containment sprawl at regional level

B:

- it is quite difficult to rebuild cities that exist since hundred years.

Question 10:

Land use		Eur.	nation.	subnat.	macroreg
Specific allocation of land use functions, protected areas (environment, patrimonial), promoting each type of territories main characteristics and assets (urban, rural, coastal, ..)	A	10	6 top 7	2 top 10	5
Mixed allocation of land use functions, with general public furniture of services of general interest.	B	5	1 top 8	11	4

Comments:

In synthesis: answers demonstrate a demand for a relevant use of subsidiarity principle (land use function at national/ subnational levels, EU level setting a frame/ strategic orientations), and a demand for a non 'dogmatic' approach.

A:

- when focus on A only , it is still with the request for 'intelligent allocations' meaning integrated strategies (multifunctional, synergetic, ecofunctional, innovative, ...),
- specific allocations will be needed to protect non built areas,
- within built up areas, mixed uses, where possible, should be encouraged.

B:

- those who favour B, a 'mixed' allocation of land use function, are afraid of a 'do not touch' approach ('zoo', 'museum' .. territory). They usually underline the importance of inserting quality of life as a major issue, everywhere, instead of specific protected areas.

- this means also services of general interests evenly distributed (equity of access for everyone).

Question 11:

Accessibility		Eur.	nation.	subnat.	macroreg
Inserted in a globalised world economy, the EU regards the on-going modernisation of its hub-and-spoke transport system – including maritime strategies based on major harbour - as the key priority	A	1 top 20	3 top 8	1 top 2	1 top 7
Concentrating on European territory internal mobility and accessibility, better capillarity of the transport networks is needed to bridge the development gap between more and less accessible areas, and should be the priority.	B	2 top 4	2 top 17	1 top 17	1 top 13

Comments:

In synthesis: crosses show a quite evenly distribution of top priority at all levels, for A and B. The general feeling is that all type of mobility and accessibility are a crucial issue, with different levels in charge according to objectives: EU or macroregional levels when globalised economy is at stake, and national/subnational levels when internal mobility is at stake.

The main question is what is most efficient for which purpose.

One specifies that top priority for A and B at all levels is needed as 'there is no alternative' .

A: macroregional level could have strategies for globalised world economy (eg Plan bleu).

B: public transportation is crucial, internal mobility an accessibility is vital, but to be taken care off at national level.

4.8 Dublin workshop: synthesis activity 2 (mapping)³⁷

Introduction

During the Dublin ESPON MC meeting (June 2013), 4 workshops were organized in the vicinity of the ET2050 research project. Those workshops with the MC were developed at a preliminary stage of the Vision design process in order to grasp clues from the MC members about how they envision the future of Europe on several aspects (as economy, environment, migrations) and at various scales (Europe in the World, the ESPON Space and its neighboring countries, the ESPON space itself and Regions in Europe). The scope of this exercise was to identify a set of shared issues and to clarify some points of divergence between the stakeholders actors consulted.

Four groups have been constituted in order to discuss European issues. MC members were mixed in groups of around 8 participants in order to have a broad approach to the European territory itself, to stimulate the debate between members and to try not to focus on one macro-region but to broad the perspective.

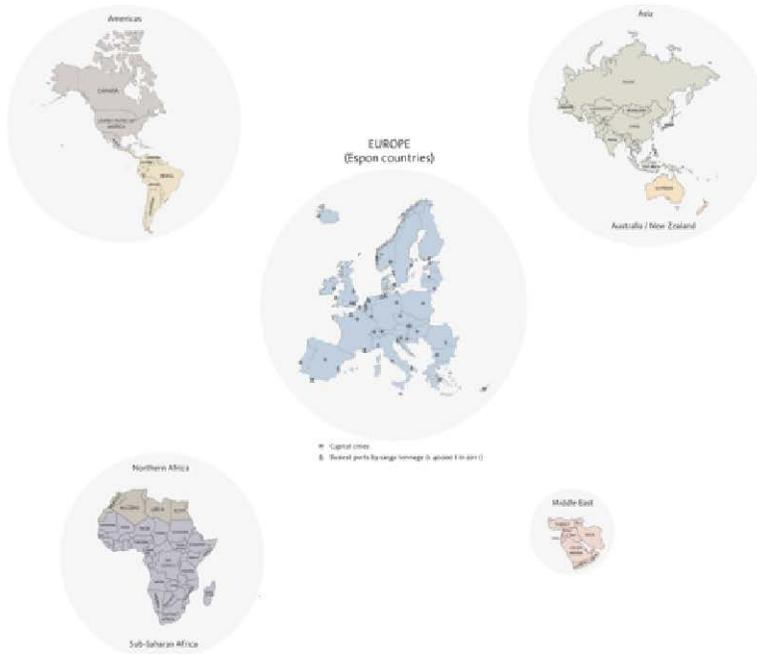
The participants were asked, on the basis of five maps, to reflect on what Europe should be in the future, underlying the aspects of flows (economy, services, sociocultural, transport, migration), cooperation zones, priority investment regions and heritage and environment prior protection areas.

The sets of maps discussed were:

- *Europe in the World & ESPON space and its neighboring countries*
- *ESPON space: socio-economic flows / environment and heritage protection zones*
- *ESPON space: privileged cooperation zones*

³⁷ Dublin Participatory Mapping Workshops with ESPON MC members, Dublin (Eurofound), 12th June 2013, IGEAT – ULB, activity coordinated by Dr. Vincent CALAY, vcalay@ulb.ac.be

Europe in the world towards 2050



VISION 2050
Which links should EUROPE favour with which places in the rest of the world ?

- Economy (production of goods, commerce)
- Services (finance, knowledge)
- Sociocultural (tourism)
- Transport
- Migration
- ALL

Where should EUROPE invest in priority in the rest of the world ? €

Espón space and neighbouring countries towards 2050



VISION 2050
Which links should ESPÓN space favour with which places in neighbouring countries ?

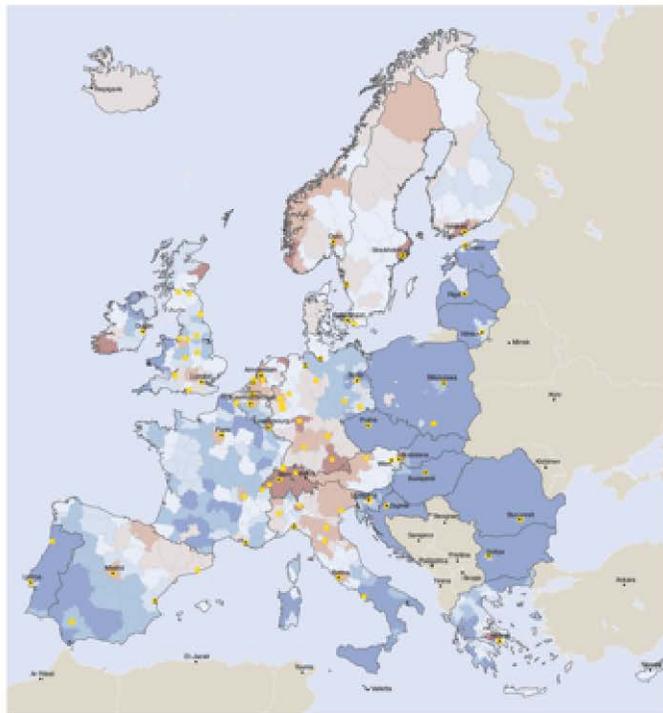
- Economy (production of goods, commerce)
- Services (finance, knowledge)
- Sociocultural (tourism)
- Transport
- Migration
- ALL

Where should ESPÓN space invest in priority in neighbouring countries ? €

Which cross-border areas with neighbouring countries should have its natural environment or patrimonial heritage protected ?

Europe in the World & ESPÓN space and its neighboring countries

Inside ESPON space towards 2050



VISION 2050

Which place and links to favour inside ESPON space ?

- Economy (production of goods, commerce)
- Services (finance, knowledge)
- Sociocultural (tourism)
- Transport
- Migration
- ALL

Where to invest in priority inside ESPON space ?

Economic activity in 2010

- 150
- 120
- 90
- 75
- No data
- Metropolitan European Growth Areas (MEGA2)*
- Capital cities
- Busiest ports by cargo tonnage (> 40000 t in 2011)



CORINE Land Cover 2000 (simplified)

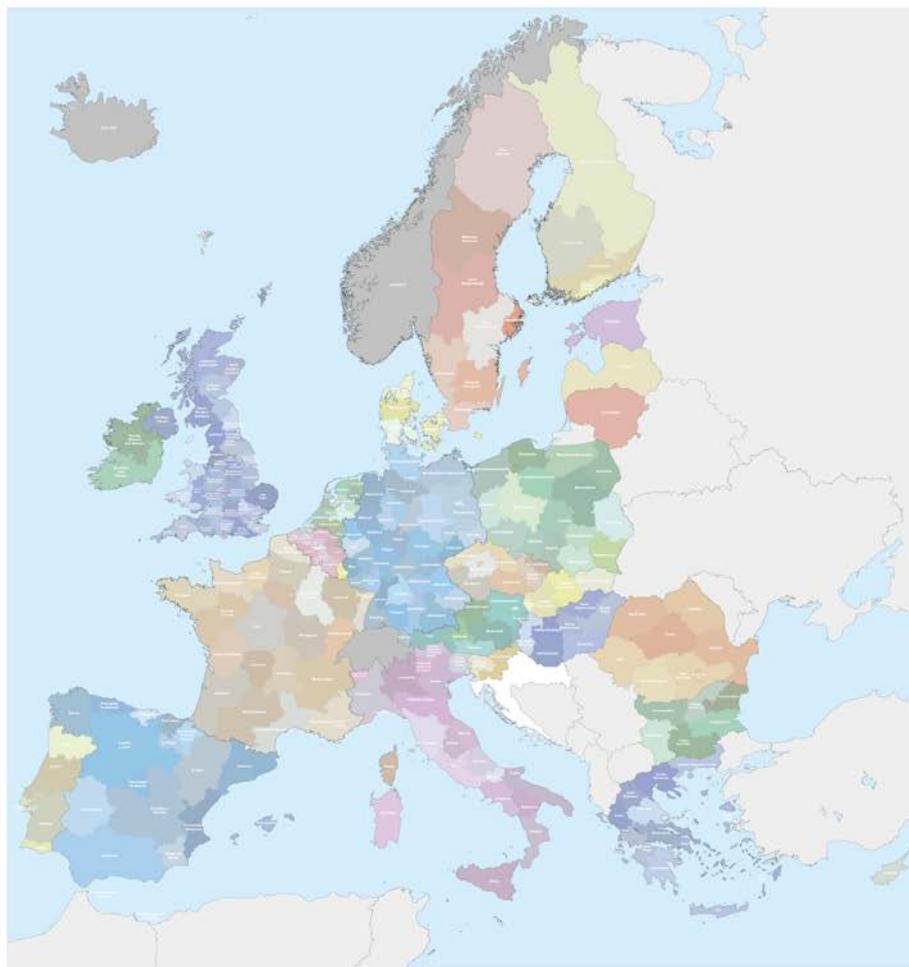
- Urban Areas
- Arable land
- Permanent crops
- Pastures
- Other agricultural areas
- Forests
- Natural areas
- Inland and marine waters
- Unclassified / No data
- Metropolitan European Growth Areas (MEGA2)*
- Transnational / National Functional Urban Areas (FUA2)*
- Major waterways

VISION 2050
Which areas inside ESPON space should have its natural environment or patrimonial heritage protected ?

*Legend of data according to the national maps
©2008 European Commission, 2008

ESPON space: socio-economic flows / environment and heritage protection zones

Regional Europe (Committee of the Regions) towards 2050



VISION 2050

Which core cooperation areas should be favoured (key reference territory) ?

- Economy (production of goods, commerce)
- Services (finance, knowledge)
- Sociocultural (tourism)
- Transport
- Migration
- ALL

Which macroregional areas should be promoted ?
(additional territories, ad hoc cooperation)



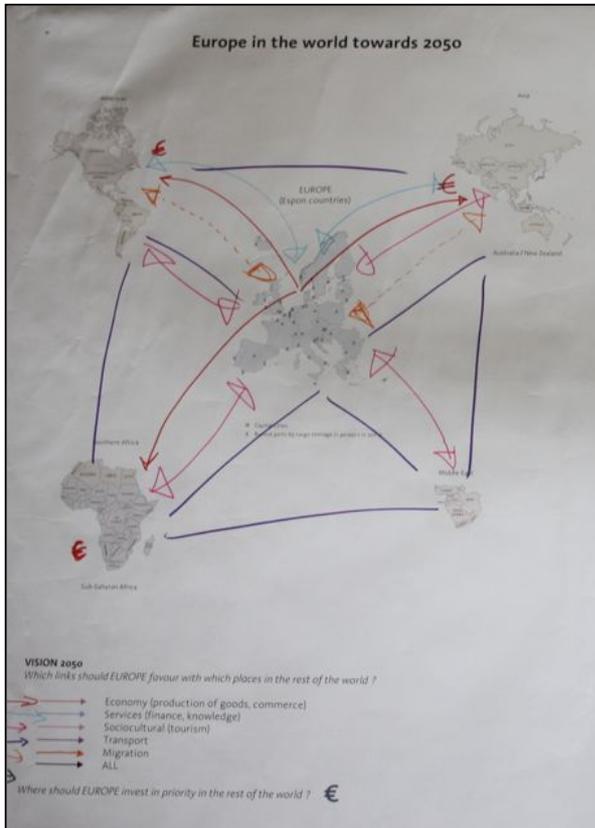
- The Regions of the European Union (Committee of the Regions)
- ESPON country outside the European Union
- Neighbouring countries of the ESPON space

ESPON space: privileged cooperation zone

The purpose of this report is, first, to present a synthesis of the discussion led in the various groups and how they developed their own mapping of the future of Europe and, second, to reflect on those inputs to propose a global synthesis of the issues shared and the points of divergence.

Group 1 (M. Wegener)

Map 1 Europe in the World towards 2050



The issue of collaboration between Europe and the rest of the world appears rather complex. Europe is identified as a nexus in a complex network of relations with the rest of the world.

This group identifies two main tendencies:

- A reinforcement of the relations with Asian countries and America at various levels: economy, services, and sociocultural flows. Migration remains a problematic issue.
- The relationship with Africa and Middle Eastern countries should be less intensive and related mainly to sociocultural issues.

Complementary to these trends, priority investment zones are Asian countries, America and Africa.

Map 2 ESPON Space and Neighboring Countries towards 2050

The relations between Europe and its neighboring countries are defined along two dimensions and two axes.

Two dimensions:

- Investment in Northern Africa;
- Development of conditional links with Russia.

Two axes:

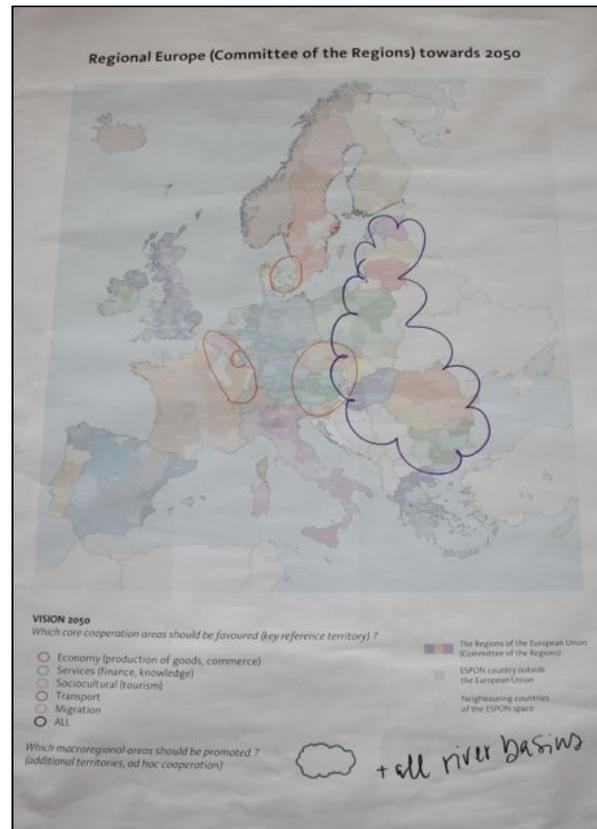
- A remaining fear for migrations trends;
- Developing investment in neighboring countries to compensate the need to migrate to Europe



Map 5 Regional Europe towards 2050

This group identifies three main issues related to this topic for Europe 2050

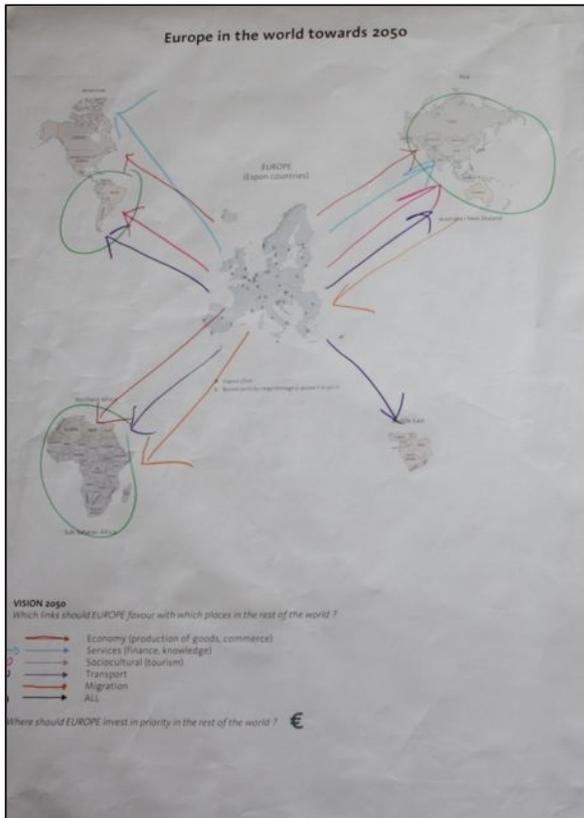
- **Three INTERREG cooperation areas should be reinforced** in North Western Europe (Belgium, Luxembourg, Northern and Eastern France), in Central Europe (Austria, Czech Republic and Slovakia) and in Northern Europe (Denmark and Southern Sweden).
- **Reinforced relations between new member states** should be fostered in order to deploy local interregional dynamics of development.
- **River basins should have been developed as specific cooperation areas** (the Rhine Valley, the Danube Valley,...)



Group 2 (J. Szlachta)

Map 1 *Europe in the World towards 2050*

To this group, the relationship between Europe and the world will be organized upon two main tendencies:

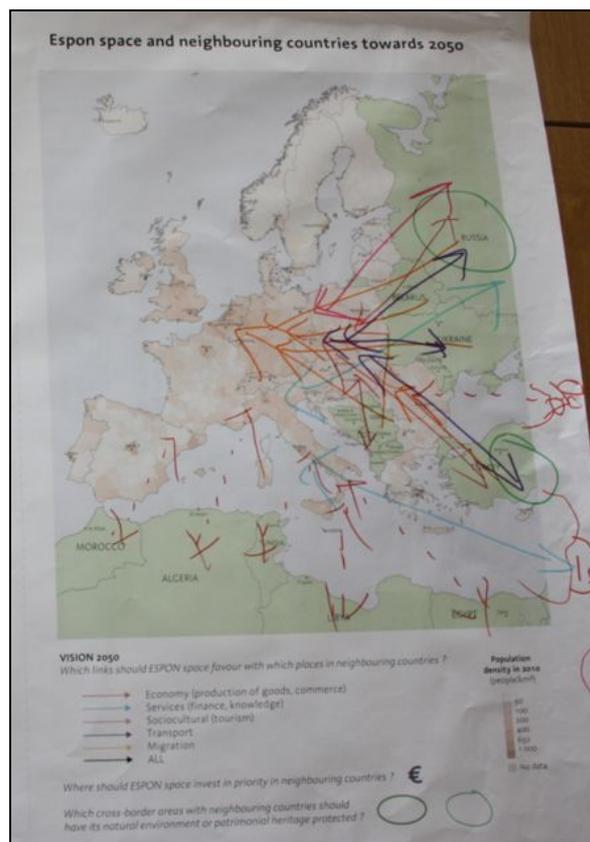


- **An intensification of the relations with growing Asian economies.** Those relations will be of four main natures: economy (production of goods and commerce), services (finance and knowledge), sociocultural and transport. Migration flows are mainly considered in an Asia to Europe perspective rather than a reversion of flows seeing migration from Europe to Asia. Such an intensification of the relations with Asian countries contrasts with rather poor links with Middle Eastern countries only identified through transport flows.
- **The reinforcement of existing relations with Southern America and Africa.** Sociocultural and transport flows are envisioned as reinforced in 2050 Europe while economical relations are reinforced with Northern America. Africa remains linked to Europe on three specific kinds of flows: economy and transport, while migrations from Africa to Europe are envisioned as still important.

Map 2 *Espon space and neighboring countries towards 2050*

This group emphasized principally the **relations between Europe and Russia**. On every aspect (economy, services, tourism, transport and migrations) the links between Russia and Europe should be developed in 2050 Europe. The development of the links with Ukraine mainly in the transport sector is also identified as a possible future.

Migrations from Central and Western Europe are also seen as of rising importance.



The **integration of Western Balkan countries** is also taken as a matter of fact, especially on an economic basis.

Turkey remains a strong tourist destination; migration and tourism links are also developed.

Israel is envisioned as a partner in services.

The **economic links with Northern African countries** along the Mediterranean Sea are envisioned to develop on a second priority basis.

Specific cross-border areas with Russia and Turkey are considered of specific environment and patrimonial heritage interest for protection.

Map 3 & 4 Inside ESPON space towards 2050

This group reacts to these maps in four main directions:

- **People flows inside Europe: migrations and tourism.** Europe 2050 is envisioned as a place where freedom of movement is achieved with easy migrations from one place to another. In Europe 2050, a global balanced pattern of migrations should also be achieved with a good repartition of migration flows throughout the European territory. In the same perspective, the repartition of tourism flows out Europe is seen as more lanced with a widespread of tourism destinations around Europe and less concentrated flows on Southern Europe.
- **Congruent with the global brium of people flows throughout Europe is a global improvement of transport links between Northern and Southern Europe as well as between Eastern and Western rope.** The Baltic/Mediterranean Sea is envisioned as a future axis of potential development.
- **A Slow Europe.** This group lines a possible future for Europe around Slow Cities and Slow ports. The idea is that Europe 2050 will be developed on a network of environment friendly cities building various cooperation strategies and knowledge sharing. This will be linked to a “slow transport” approach to Europe with no domestic air traffic.



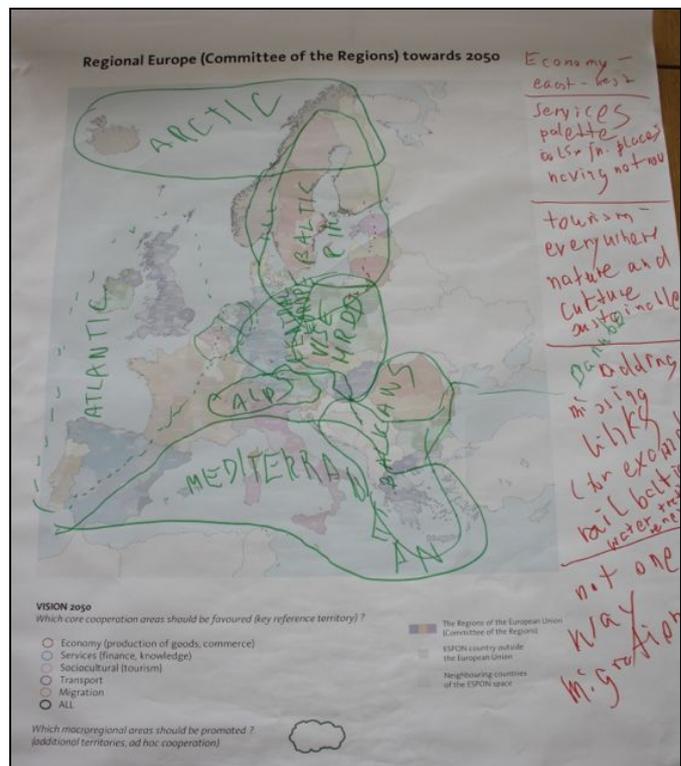


- To this group, **Europe 2050 is nature oriented with a high protection of sensitive places** (mountains, coastal areas, Mediterranean islands and Northern Spaces).

Map 5 Regional Europe towards 2050

This group envisages the **macro regions** as reinforced spatial entities in Europe 2050. A north-south axis is identified along which six main macro-regions are concentrated:

- The Arctic region (Iceland, Northern Scandinavian countries)
- The Baltic region (Norway, Finland, Estonia, Latvia, Lithuania, Denmark, Northern Germany and Northern Poland)
- Central Europe and Danube (Germany, Poland, Czech Republic, Slovakia, Hungary)
- The Alpine region (Middle-Western France, Switzerland, Liechtenstein, Austria, Northern Italy, Slovenia)
- The Balkans (Croatia, Bosnia and Herzegovina, Serbia, Montenegro, FYROM, Albania, Greece, Bulgaria, Romania)
- The Mediterranean region (Southern and Western Spain, Southern France, Italy, Greece, Cyprus)



Western Europe (Atlantic) shall present a specific status with less integrated regions, i.e. Portugal, Western France, the UK and Ireland but with a still quite integrated Benelux. Interestingly, French more peripheral regions (Midi-Pyrenees, Auvergne, Bourgogne, Alsace and Lorraine) are not included in these cooperation areas.

This group also identified a set of issues:

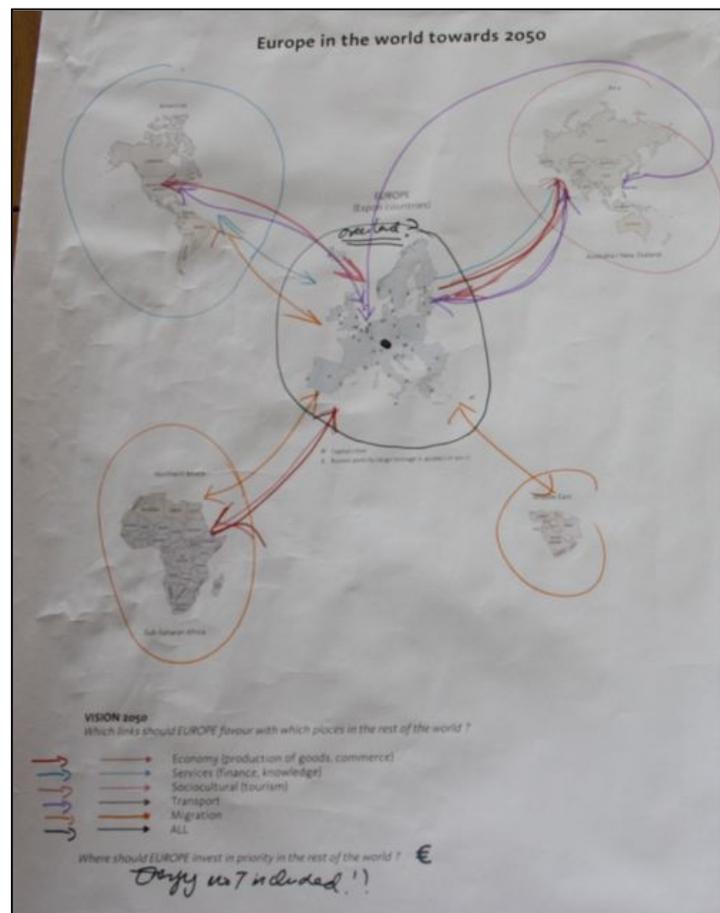
- An Eastern-Western polarization of Economy
- A better equilibrium of the range of services available in the various European territories
- A less concentrated, more dispersed tourism throughout the European territory
- The development of missing links between regions.
- Dual way migration trends (instead of the current single way trend)

Group 3 (Andreu Ullied)

Map 1 *Europe in the World towards 2050*

To this group, the relationship between Europe and the world will be organized upon four main tendencies:

- **Strong relations between Europe and Asian countries**, especially with China in transport and economy. Every flow is seen important in this relation with Asia but with a domination of commerce and the production of goods. Migrations are excluded from this relation.
- **Good relations with Northern America mainly in the services sector.**
- **Strong migrations between Southern America and Europe.**
- **Relations with Middle Eastern countries as well as with Africa dominated by migration flows** despite some economical and sociocultural relations with Africa.



Map 2 EspoN space and neighboring countries towards 2050

On this aspect, Europe 2050 for this group has been designed upon four directions:

- **A full integration of Balkan States** at all levels: economy, services, culture, social aspects, transport, migration.
- **Strong links with Russia especially in transport, economy and services**, Belarus and Ukraine remaining in a peripheral position.
- **A dominance of tourism in the relation with Northern Africa.**
- **The development of the Arctic Sea route to Russia and Eastern Asia.**

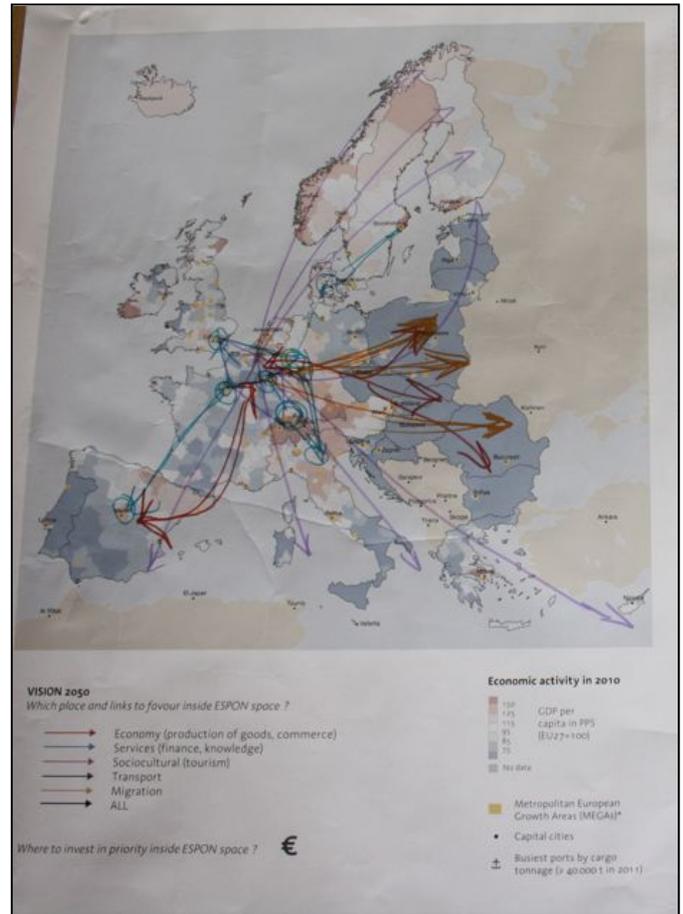
Parallel to these trends, the Ural mountains and the Mediterranean Sea should be protected as special natural environment.



Map 3 & 4 Inside ESPON space towards 2050

Europe 2050 at this scale is envisaged in five main directions:

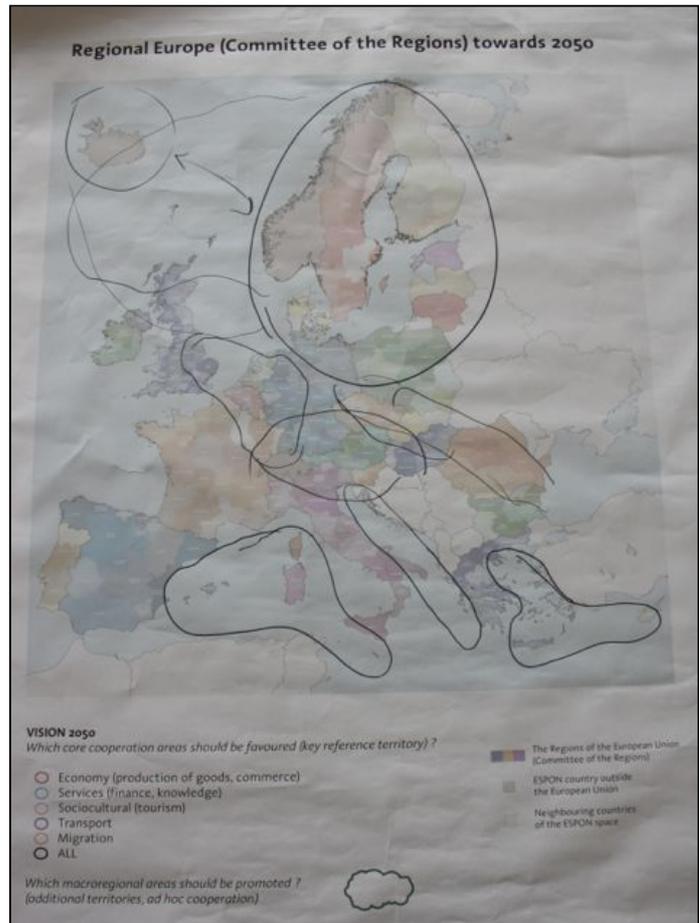
- **Migrations should reverse:** people from more dense areas shall move to former declining areas, especially in Eastern Europe (Poland, Romania)
- **A network of European financial centers** should be reinforced linking London, Brussels, Frankfurt, Luxembourg and Paris to Madrid, Zurich, Milan, Copenhagen and Stockholm.
- **Better linkages of the centers with the peripheral zones**
- **A higher protection of natural environment** in mountain areas, less populated areas, seas.
- **A widespread protection and valorization of patrimonial heritage** throughout Europe



Map 5 Regional Europe towards 2050

This group concentrates on middle size regions of cooperation:

- West Mediterranean Islands (Balearics, Corse, Sardinia and Sicilia)
- Central Mediterranean Sea / Adriatic Coast (Italy & West Balkans)
- Eastern Mediterranean Islands (Cyprus, Greece, Turkey)
- The Danube basin (Romania, Bulgaria, Hungary, Slovakia, Czech Republic, Serbia, Croatia, Austria, Southern Germany)
- The Alpine countries (Switzerland, Northern Italy, Austria)
- North Western Europe (South-Eastern England, Benelux, Western Germany)
- Baltic Region (Scandinavian Countries, Baltic States, Northern Poland, Northern Germany, Denmark) and Iceland



Group 4 (V. Calay)

Map 1 Europe in the World towards 2050

This group was especially sensitive to the energy issue. In the framework of the relation between Europe and the World, the energy importation from Northern America to Europe has been envisioned as a possible future.

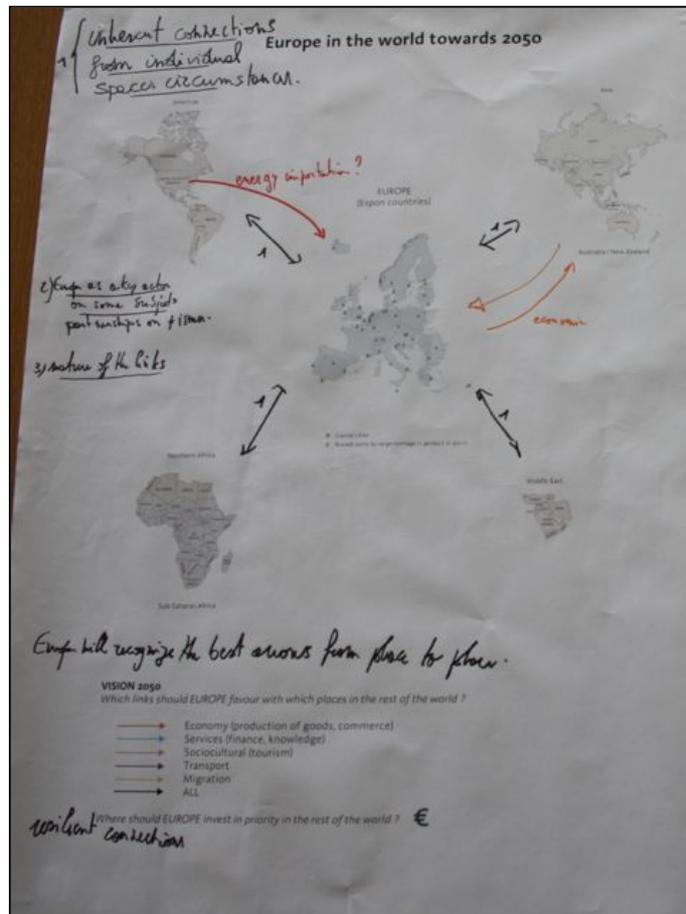
Broadly speaking, this group defines a 2050 Europe well embedded in every flows of the global economy in both directions. The position of Europe was mainly envisioned as a nexus in complex networks of flows. The development of specific economic relations with Asia was also envisaged as a wish for Europe 2050.

More specifically, this group has a specific view on how Europe will be embedded in this flow. Here, the focus on *knowledge management* emerged as a crucial issue for Europe 2050: by that time, Europe will be able to recognize what is the best way to manage many kinds of flows (economy, services, sociocultural, transport, migration, energy,...) from one place to another. To this group, the governance capacity of flows in 2050 Europe will be very much enhanced by a high level knowledge on the spatial efficiency of flows. This ability will also help to cope with “resilient connections”: selecting the best relations between places in Europe and abroad will induce a capacity to resist to changes in the global context.

This group also defines Europe 2050 as a capitalization and reinforcement of inherent connections between places: a flexible governance pattern should guarantee *ad hoc* relationships between places, individual spatial circumstances should guide the management and the definition between European places and abroad.

The position of Europe in this perspective is defined as a flexible actor: being a key actor on some issue while building partnerships on others.

The nature and the quality of the links has also been discussed: using a flexible view on European governance and spatial relations involves a certain versatility in the definition of the links themselves that should be more specific than the broad flows defined by the map (i.e. economy, services, sociocultural, transports, migration).

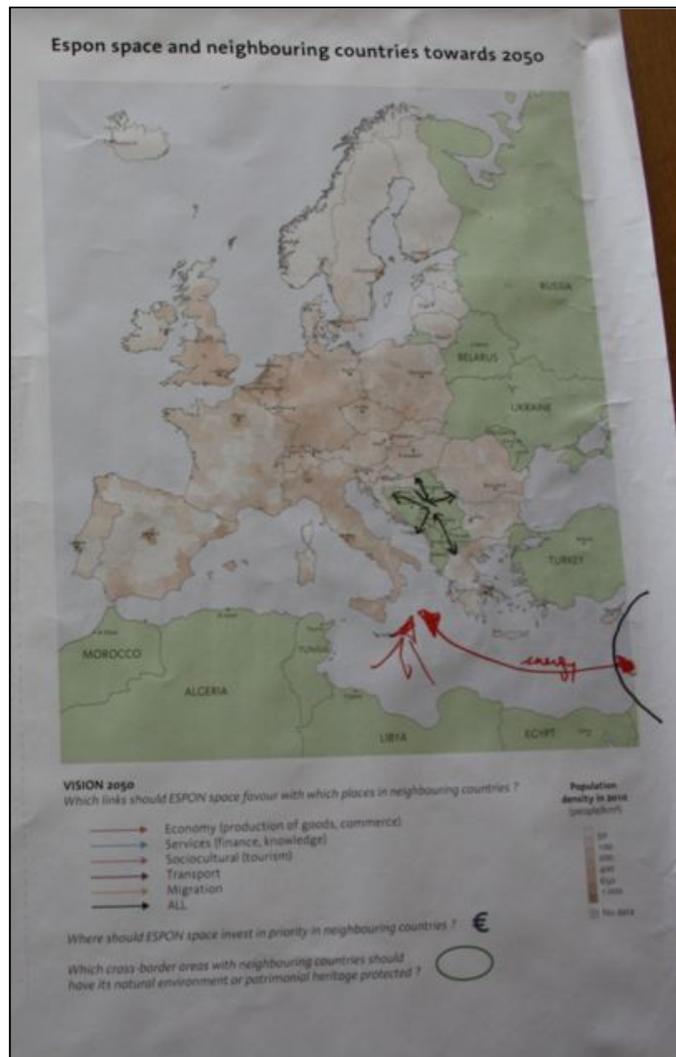


Map 2 EspoN space and neighboring countries towards 2050

Here also, the energy links with Middle Eastern countries as well as with Northern Africa were envisioned as a future reinforcement of the relations between Europe and the Mediterranean countries.

The integration of Western Balkan countries was seen as a matter of fact while the integration of Turkey remains a matter of concern.

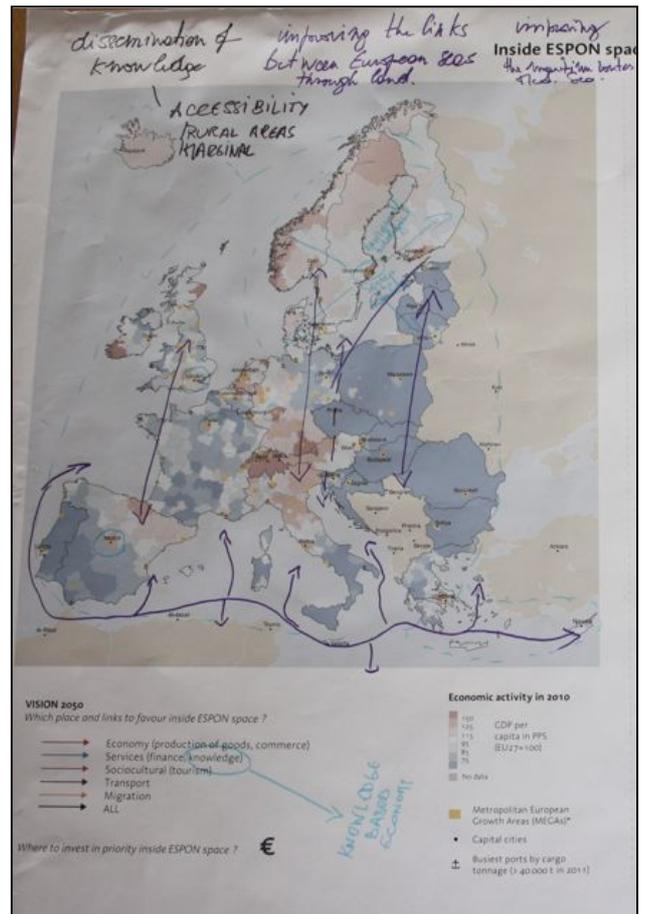
The relations with Russia remain unclear to this group: the energy supply should still be an issue in 2050 Europe but other links were not emphasized.



Map 3 & 4 Inside ESPON space towards 2050

Four specific points were identified for Europe 2050 in relations with both maps:

- A knowledge-based economy:** in 2050 Europe, the dissemination of knowledge will be at the core of Europe governance on the basis of networks of exchange of good practices, such as for example the use of green cities examples (like Stockholm) to improve other places in Europe. As well, the knowledge-based economy will help to enhance the accessibility of peripheral/marginalized areas. Each city should constitute a center of excellence in one specific knowledge area and play a specific role in the dissemination and the global improvement of knowledge in this field throughout Europe.
- Better connected seas:** in 2050 Europe, high quality land connections between northern and southern European seas will be a matter of fact, reinforcing the global coherence of the Europe territory.
- Improved maritime routes:** in 2050 Europe, the maritime routes will be consistently improved, especially along the Mediterranean seas which will play a crucial role in the reinforcement of the links between the neighboring countries, in order to diminish the impact on environment and improve the efficiency of maritime transport.
- A well managed European environment.** This group has specifically emphasized that in 2050 Europe the management of the European environment will have substantially improved: a well-balanced policy of protection of the major European ecosystems will be set up and guarantee strong environmental networks sustaining human development. This will also be developed in relation with neighboring countries in order to keep maintained continuities in the protection of ecosystems.



Map 5 Regional Europe towards 2050

This map involved two specific kinds of perspectives and one general comment:

- **The reinforcement of links between specific regions on a territorial basis:** the group identifies the reinforcement of territorial links between regions of Central and Eastern Europe. This does not mean to them that a two speeds Europe will or should emerge but that this area will be in specific needs for territorial cohesion by 2050 and will therefore develop more cohesive areas.
- **The development of places-to-places relations:** in relation with its comments on the previous map, the group emphasized that territorially-based cooperation should be in 2050 Europe complemented by network-based links between places, reinforcing the development of *ad hoc* relations between places. This will characterize mainly Western European countries.
- **Europe 2050 will see a mingling of territorially-based and network-based relationships between places:** while a certain polarization between Eastern and Western Europe could come out on the forms taken in cooperation between European Regions, it is no doubt to the group that both perspectives will mingle throughout Europe.



Conclusion

The scope of this exercise was to identify a set of shared issues and to clarify points of divergence between the various actors consulted. In this perspective, a set of key issues could be pinpointed:

- ⇒ **An Asia oriented Europe.** For a majority Europe 2050 will be strongly linked to Asia, on an economic basis. Former existing relations with Northern America will be maintained specifically in the service sector while important migration flows will develop between Europe and South America. Africa remains an important area of influence but with a rather uncertain status.
- ⇒ **An integration of Western Balkan States in a near future.** It is no doubt to the groups that Western Balkan States will be soon integrated to the ESPON space, while Turkey remains a matter of concern.
- ⇒ **A Russia oriented Europe.** To many the links with Russia will enhance importantly in the next decades with a stabilized pattern of relationships in economy and services by 2050.
- ⇒ **The status of Northern Africa remains uncertain:** still important as a tourist destination, the rise and enhancement of economic and service relations was not considered as a strong possible development. European investment in the region, however, is seen as a possible future.
- ⇒ **The 2050 ESPON space is envisioned as threefold:**
 - **A domination of a set of Western European cities** (financial places and/or knowledge centers)
 - **A better territorially integrated Eastern Europe** (with a strongest North/South transport axis) **and network integrated Western Europe** (with thematic, places to places links)
 - **Balanced migrations throughout Europe with East/West and West/East balanced flows**
- ⇒ **The heritage and environment protection is seen both as *improved in its management at the scale of the entire ESPON space while reinforced on specific areas such as coast, islands and mountains.***

4.9 TeVi methodology note: A Vision for Europe, issues at stake³⁸

Introduction

This section of the Interim report is dedicated to a preliminary work led by IGEAT to grasp a set of issues and clues from the existing literature and the participatory plan that could support the future conception of the Vision.

Therefore, this section put forwards some key issues and trends that shall be used in the future development of the Vision as a toolbox for further thought on this matter or a basis for further debates and discussions on the content of the Vision itself. This constitutes therefore mainly *food for thought*.

Another important point about this work is its main focus on the issue of embedding the future Vision for Europe in the European territory itself with its disparities in terms of governance models and strategies, territories, socio-economic issues, inequalities, planning values, etc. Such a concentration on Visions developed at a macro-regional scale has induced that we did not integrate in our synthesis issues related to the future of European governance as well as issues related to Europe in the world. These topics will be treated separately in the next steps of the work on the Vision.

Our preparation of the vision building process has been built upon a three-dimensional perspective:

Building a working method for a *grounded* Vision, i.e. a Vision that is based on how several macro-regions in Europe envision themselves in a near future;

Synthesizing existing macro-regional Visions in order to grasp the key territorial issues that should be discussed during the Vision building process³⁹;

Preparing the ground for a generation of the Vision out of the exploratory scenarios, the participatory plan and the synthesis of the visions considered in our synthesis.

A working method for a *grounded* Vision

IGEAT developed a specific working method to prepare the Vision design process as a first step to the writing of the Vision itself. It defines how the Vision interacts with the rest of the project. Based on earlier versions of working tools used in the project, it involves a set of adaptations and an improvement of the relations between the various parts of the project and, specifically, how they are supposed to feed the Vision.

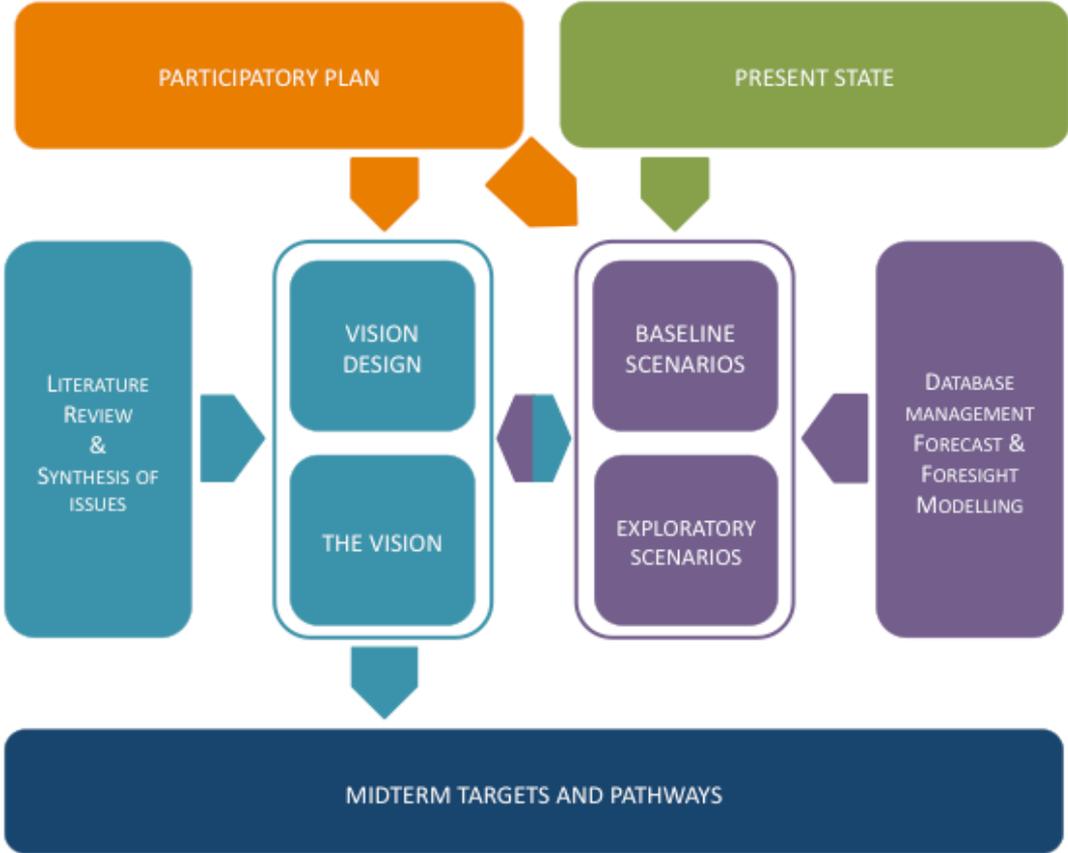
³⁸ Documet elaborated by Dr. Vincent CALAY

³⁹ Further development on the macro-regional Visions can be found out in the Second Interim Report.

We started from the project specification figuring the Vision as paramount in the broad design of the project, with a superposition of a politically-driven layer and of a scientifically-driven layer. We identified that in this version, the method leading to the conception of the Vision remains unclear, especially in its relation with the rest of the project and in the specific methods used to design it.

Therefore, we developed a reflection oriented towards the integration of the preparatory work of the Vision and, especially, on how this part interacts with both the participation plan and the exploratory scenarios, those latter being quantitatively informed.

The product of our reflection involves a concentration on a definition of the Vision as an attempt to



integrate three poles: the already existing territorial visions for Europe and its territories (literature review), the participation plan led during the first year of the project and the exploratory scenarios which are currently under development.

Such a reengineering of the working structure involves a specific consideration of both the work led to feed the content of the Vision, a process based on both a qualitative and politically-driven perspective (literature review, participatory plan) and on a quantitative perspective based on a scientifically-driven approach developed through the modeling work and the exploratory scenarios.

A synthesis of existing macro-regional Visions

A very first step of our work on the Vision was the management of how the Vision should be *grounded* in European territorial specificities. Such an ambition has been reached by focusing on how various European macro-regions already envision themselves in the future by reflecting and producing policy documents defining pathways for their future development. In Europe, many documents of that nature were produced in the last decade, in a period of economic growth where optimistic views on the future were supported. This is of importance in the context of this report as the Vision should be envisaged as an optimistic view, a dream of the future of Europe, even though it is based on scenarios that are, in a context of economic crisis, far less optimistic.

To build up this very first step, we have used a set of sources that are illustrated by the figure above. This figure helps to show how specific macro-regions of Europe define their own future. This gives an overview of many important issues that are related, at first, to *territorial* ones, which are at the core of the Vision design process.

MACRO REGIONAL VISIONS

NORTHWESTERN EUROPE

THE SPATIAL VISION

NEW TRANSNATIONAL COOPERATION ZONES

INTERNATIONAL GATEWAYS INVESTMENT ZONES

TRANSNATIONAL TRANSPORT AXES DEVELOPMENT CORRIDORS

THE NORMS/VISION

WELL INTEGRATED INTO EUROPE AND THE WORLD ECONOMY

BALANCED SPATIAL STRUCTURE

DEMOCRATIC AND CO-OPERATIVE PLANNING

NATURAL RESOURCES, ECOLOGICAL AND CULTURAL HERITAGE EQUILIBRIUM

URBAN REGIONS DEVELOPING IN AN ENVIRONMENT FRIENDLY WAY

URBAN REGIONS AS MOTORS OF ECONOMIC REGIONAL DEVELOPMENT

URBAN REGIONS WHICH PROMOTE SOCIAL INTEGRATION

URBAN REGIONS WHICH ARE ATTRACTIVE PLACES FOR THEIR POPULATIONS AND VISITORS

HUMAN ACTIVITIES WHICH ARE IN HARMONY WITH NATURE

RURAL POPULATIONS PARTICIPATE FULLY IN ECONOMIC AND SOCIAL PROGRESS

THE ATLANTIC SPATIAL DEVELOPMENT PERSPECTIVE

GREATER SOLIDARITY BETWEEN COASTAL AREA AND THE HINTERLAND

TO RESPOND TO THE NEED TO STRUCTURE DEVELOPMENT AREAS WHICH ARE LESS DEPENDANT ON THE CAPITAL CITIES

IDENTIFIES FIVE MAJOR PROJECT AND DEVELOPMENT AREAS INSIDE WHICH STRONGER – BUT NOT EXCLUSIVE – COOPERATION BETWEEN REGIONS IS REQUIRED

BALTIC SEA & NORTHERN PERIPHERIES

TERRITORIAL DEVELOPMENT PERSPECTIVE FOR 2030 (VASAB)

IN 2030 THE BALTIC SEA REGION IS A WELL-INTEGRATED AND COHERENT MACROREGION

A MODEL FOR SUCCESSFUL IMPLEMENTATION OF THE TERRITORIAL COHESION POLICY

A WELL-BALANCED SETUP OF METROPOLITAN CENTRES

FAST, RELIABLE AND ENVIRONMENTALLY EFFICIENT TECHNOLOGIES OF TRANSPORT, INFORMATION AND COMMUNICATION

INTEGRATED ENERGY PRODUCTION AND SUPPLY SYSTEM

A VERITABLE EUROPEAN SEA MACROREGION, WHICH DEMONSTRATES AN INTEGRATED LAND AND SEA-SPACE PLANNING AND MANAGEMENT

GERMANY AND ALPINE COUNTRIES

RAUMKONZEPT SCHWIZ

SUSTAINABLE DEVELOPMENT AT THE CORE

MAINTENANCE AND ENHANCEMENT OF LIVING SPACES, ECONOMIC AREAS AND LANDSCAPES

POLYCENTRIC SPATIAL DEVELOPMENT PATTERN ENHANCING COMPETITIVENESS AND TERRITORIAL COOPERATION AND PARTNERSHIPS

FOCUSED MAINLY ON METROPOLITAN REGIONS AND MEDIUM SIZED TOWNS BUT INCLUDES SOME ALPINE REGIONS

LEITBILDER DER RAUMENTWICKLUNG (GERMANY)

GROWTH AND INNOVATION: ORGANIZATION OF THE TERRITORY AROUND LARGE METROPOLITAN REGIONS

MAINTAINING ESSENTIAL SERVICES: SAFEGUARDING AN URBAN SYSTEM OF CENTRAL PLACES, IN PARTICULAR IN AREAS FACING POPULATION DECLINE

PRESERVING RESOURCES, DESIGNING CULTURAL REGIONS: OPEN SPACE AND CULTURAL LANDSCAPES

CLIMATE AND ENERGY AS WELL AS MOBILITY AND LOGISTICS TO BE INCLUDED

EASTERN EUROPE

SHRINKING POPULATIONS ET NEGATIVE MIGRATION BALANCES

IMPACT OF NEIGHBOURING COUNTRIES

GREATER INTER- & INTRAREGIONAL DISPARITIES

IMPROVEMENT OF LAND USE MANAGEMENT

REINFORCEMENT OF CAPITAL CITIES AND MAJOR URBAN CENTRES

DIFFICULTIES IN REDUCING GHG EMISSIONS AND IN INCREASING RENEWABLE ENERGIES

IMPROVEMENT OF TRANSPORT STRUCTURE AND ACCESSIBILITY

IMPROVEMENT OF GOVERNING STRUCTURES & DECENTRALISATION

DANUBIAN COUNTRIES

VISION FOR THE DANUBE REGION

AN INTEGRATION OF ALL THE COUNTRIES OF THE ZONE TO THE EUROPEAN UNION

A BALANCED ECONOMIC DEVELOPMENT AND EMPLOYMENT

A POLYCENTRIC AND DECENTRALIZED DEVELOPMENT DYNAMIC

AN IMPROVEMENT OF RELATIONS BETWEEN COUNTRIES AND REGIONS OF THE ZONE

SOUTHWESTERN EUROPE

THE MEDITERRANEAN IN 2030

A STRONGER AND RICHER ECONOMIC GROWTH

DEVELOPPING EURO-MEDITERRANEAN SYNERGIES

EXTENDING CERTAIN MEANS OF REDISTRIBUTION AND PROTECTION TO THE WHOLE OF THE MEDITERRANEAN

STRENGTHENING COMPETITIVENESS

SOUTHERN EUROPE IN 2030 (ESPON)

DEVELOPMENT OF THE CLUSTER OF THE LATIN ARCH (GENOVA, NICE, MARSEILLE, MONTPELLIER, BARCELONA AND VALENCIA) & INTEGRATION OF THE CLUSTER MADRID-SEVILLE LISBON-PORTO (HST NETWORK)

RURAL AREAS AND LANDSCAPES IN EUROPE ARE MUCH MORE DIVERSIFIED

NUMEROUS CHANGES HAVE TAKEN PLACE IN AGRICULTURAL PRODUCTION, ENERGY SYSTEMS, WATER MANAGEMENT SYSTEMS AND TOURIST DEVELOPMENT, IN ORDER TO FACE THE IMPACTS OF INCREASING DROUGHT

THE DENSIFICATION PROCESS OF COASTAL AREAS HAS CONTINUED BUT FURTHER SPRAWL COULD BE AVOIDED AND NATURAL AREAS WERE EFFICIENTLY PROTECTED

SOUTH MEDITERRANEAN COUNTRIES

TERRITORIAL FRAGMENTATION AT THE SCALE OF THE MACROREGION

A CONTRASTED URBANIZATION: DENSE BUT POLYCENTRIC IN ITALY AND SLOVENIA WHILE DENSE AND CONCENTRIC IN EGYPT AND LYBIA

A WORSENING GOVERNANCE CAPACITY AND AN UNCERTAIN FUTURE AFTER THE ARAB SPRING

CONTRASTING DEMOGRAPHICAL CHALLENGES: POPULATION AGEING IN SLOVENIA AND ITALY WHILE YOUNG POPULATION IN LYBIA AND EGYPT WITH VARIOUS IMPACTS ON SOCIO-ECONOMIC AND SOCIO-CULTURAL FACTORS

THREAT OF DESERTIFICATION THAT SHOULD BE (PARTLY) TACKLED BY THE DEVELOPMENT OF GREEN ECONOMIES; TURN TO RENEWABLE ENERGIES; LYBIA AND EGYPT AS SOLAR POWERS

SOUTH EASTERN EUROPE

THE BLUE PLAN

LOCAL GOVERNANCE / PARTICIPATORY APPROACH / LONG TERM VISION

AN ACCENTUATED URBAN DIMENSION IN PAN-MEDITERRANEAN COOPERATION

DIVERSIFICATION OF THE RURAL ECONOMY

HIGH QUALITY FOOD PRODUCTION

SMALL AND MEDIUM SCALE AGRICULTURE

WATER AND ENERGY-FRIENDLY PRODUCTION AND TECHNOLOGY

REPAIRING AND RESTORING COASTAL ECOSYSTEMS

BIODIVERSITY CONSERVATION

DEVELOPMENT OF RENEWABLE ENERGIES

IMPROVING TRANSPORT SYSTEMS

SUSTAINABLE TOURISM

HINTERLAND ECONOMIC AND SOCIAL DEVELOPMENT

For some parts of Europe where that kinds of documents could not be found out, we specify a set of strengths, weaknesses, opportunities and threats that are largely admitted as crucial issues for the future of the region considered. Sectoral issues such as the future transformation of the economy as well as the environmental and demographic challenges have also been taken into account and integrated in the definition of the key issues for the development of the Vision. The results of this review, figured below, are of three different natures:

The Vision should be based on a set of common values for the future development of Europe: such as cooperation between European regions; a polycentric territorial development aiming at the equilibrium of the broad European territory; a strongly interconnected territory; economic growth; a sustainable development; the reinforcement of local democracy, the development of a European governance that takes into account local specificities.

The Vision should integrate various kinds of territorial entities (e.g. urban Europe, rural Europe and coastal Europe) facing specific common issues in their future development, as well as their interactions and interconnections in order to define territorial entities reflecting the European future economic, social and ecological dynamics;

The Vision should integrate a governance perspective that manages the constant evolution and transformation of the European territories. The impact of climate change, energy scarcity, ageing population and economic transformations should be integrated in the instruments and tools that will be further developed to manage the development of European territories. Transformations in the maritime and coastal equilibrium, ecological, social and economic disequilibrium between Northern and Southern Europe and between Western and Eastern Europe should be taken into account as well.

Combined to the Participatory Plan, this work has also contributed to pinpoint common and new issues and trends that should feed the Vision building process. Indeed, the participatory plan has provided important perspectives on how the future of Europe is envisaged and imagined by stakeholders involved in the European policies. The elements gathered include both shared values, most of all being common with the once identified in the literature review. Free-minded and innovative perspectives also emerged that could feed suggestions for the development of innovative perspectives and directions in the Vision. The participatory plan gives perspectives on the future of Europe that are of territorial, political, ecological, economic and societal natures:

At a territorial level, the Vision should integrate various kinds of governance structures set up to manage territories of different natures; enhance the importance of territorial cohesion and of a balanced development of the European territories; cities should be envisaged as a central place for the future of European development based on inclusive policies; a model of Europolis could be promoted in this perspective.

At a political level, the Vision should integrate various dimensions: its shared character remains crucial for its ability to master future policies and directions in economic development; therefore, an efficient and multilevel governance should be correctly mastered and organized as well; in this perspective, strengthening the rule of law on the European territory appears of a crucial importance for the correct implementation of European policies; politics should be organized at an urban scale; contrasts between a “Rurban” Western Europe and an Urban Eastern Europe might reinforce over the next decades and should be managed.

At an ecological level, the Vision should integrate the concept of a “resilient” Europe, i.e. a Europe that masters its ecological footprint; sustainable growth emerges as a key for tackling the future development of Europe but the directions to follow are not consensual; many topics appear central such as “Europe restores its Environment”, the reduction of the demand and resource consumption while sustaining the current levels of life quality or the plebiscite of a transition from an Industrial Age to an Ecological Age by the mean of an inclusive, incremental and coherent

development. Energy appears, therefore, at the forefront of many policy project with no consensus on the way to follow: energy efficiency, free energy for everybody, energy self-sufficient Europe, cities with net nil energy balance, decentralised renewable energy production, new ways of storing energy are key topics emphasized as central issues for the future development of Europe.

At an economic level, the Vision should entails various directions for economic development linked to the political, territorial and ecological trends identified: economic recovery and international competitiveness are pointed out for the future European economic development; in the current crisis context, many insist on the importance of a human scale production, of socially responsible companies, of a non-dependent Europe, of the re-development of local production by, for example, 3D printing; some emphasize also a new conception of economy especially of the inclusion of all costs of production of goods and services in the fixation of prices.

At a societal level, the Vision should include in its conception three main dimensions: demographical trends coupling an aging and culturally diversified population; a rising search for an improved quality of life entailing a redefinition of key concepts around slow society or another perspective on growth; culturally, emerge topics such as a search for improved aesthetics of the European landscapes, a new food culture as well as a non religious society.



A prepared ground for generating the Vision from the participation plan and the exploratory scenarios

On account of this, our suggestion for the elaboration of the Vision is threefold:

A choice should be made on the status of the Vision itself: envisioning Europe involves that a choice should be made on the combination of values and priorities orienting the pathway that should be followed. Defining a target within the room of maneuver defined in the Terms of

Reference will be at the core of the Vision conception process. Following the method that we have developed, this means that how the results of the exploratory scenarios, the literature review and the participation plan will be combined to conceive a specific Vision for the territorial future of Europe should be clarified. Our suggestion is that, following the consensus on the necessity of a sustainable development for Europe, a Vision that makes possible such a perspective should be promoted and developed. Envisioning Europe therefore supposes that a specific language to talk about the future of Europe needs to be elaborated with clear definitions of the core concepts. As indicated, the management and the organization of specific territorial entities sustaining such a development perspective should be expanded and improved.

The future of the European territory should be clearly defined bearing in mind two configurations: envisioning the future of Europe is a matter of territories and of spatial entities. The diversity of territorial configurations throughout Europe should be tackled and future disparities in the organization of regions and macro-regions should be anticipated and managed. Envisioning Europe through a specific territorial model should be done by taking into account national and subnational governance cultures while promoting a possible European model of territorial development.

The future dynamics of the newly defined European territoriality should be modeled in order to set up relevant governance structures: encouraging and supporting a model of territorial development supposes a clear vision of the kinds of governance structures that could be developed to manage the various issues identified as structuring patterns of development as well as the various risks involves by the development model chosen.

4.10 TEVI draft 1: Europe in 2050: Towards a Territorial Vision”

“Crisis management based on short-run measures will only be successful if European leaders simultaneously provide a long term vision for the European Union.” (Global Europe 2050)

Foreword

The ambition of this document is not to predict what Europe will be, or even could be, in 2050. Instead, its purpose is to fuel the debate about the long-term future of territorial policies, EU cohesion in particular. The resulting Europe 2050 Territorial Vision should prepare for the subsequent drafting of mid-term targets, derived from a consensus building process to be achieved soon.

To this end, a tentative picture of what the European territory may look like in 2050 has been outlined. Although this document includes a part of imagination, it assumes that a significant number of objectives already set at EU level for the years 2030 or 2040 will be attained by 2050 at the latest⁴⁰. We expect the actors involved to have demonstrated their ability to implement successfully the common policies established by the EU as from the 2010s, including efficient territorial policies.

In 2050, Europe is:

- at peace: no clash of civilisations, elimination of terrorism, improved relations between neighbouring countries formerly in conflict; this has greatly improved territorial development at the EU periphery, especially in the Mediterranean, ensuring better relations between the EU and all neighbouring countries;
- democratic and promoting multilevel governance : predominance of the rule of law, compliance with the Charter of Fundamental Rights, the rights of minorities, etc., and consolidation of the “acquis” of the courts (Court of Human Rights in Strasbourg and European Court of Justice (ECJ) in Luxembourg); the EU is a federation, which practises multilevel governance based on the subsidiarity principle;
- prosperous but environmentally friendly: Europe has a smart, sustainable and inclusive economy, which has secured its competitiveness vis-à-vis emerging countries; sustainability is a priority, in particular to preserve natural and cultural heritage;
- improving economic, social and territorial cohesion: many lagging regions are catching up, although still in need of a dedicated policy; social solidarity and the preservation of welfare remain an area of concern despite the convergence of national policies and progress achieved at EU level; territorial cohesion is fully adhered to, not only for designing spatial policies, but also through a careful ex-ante evaluation of the territorial impact of other policies.

In 2050, **spatial justice is the key-value** on which territorial policies are based, aiming at :

- offering equivalent living conditions throughout the EU territory (thanks to policies geared towards efficient solidarity and fair access to services of general interest);
- providing effective welfare measured with appropriate monitoring instruments, including external costs and non-market services;
- preserving natural resources and the cultural heritage for future generations;

⁴⁰ Further detail about the policy objectives is provided in the attached Territorial Vision supporting document

- developing a competitive and inclusive knowledge-based economy throughout the EU territory.

A formally approved **European Territorial Cohesion Strategy (EUTeCOS)**⁴¹ is implemented to make all the relevant policies contribute to spatial justice.

Europe and the world

Since 1939, Europe is no longer in a position to determine the future of the world. Instead, the evolution of the world reshapes Europe.

In 2050 however, the globalisation process has evolved towards a more balanced pattern. Uninterrupted technological progress has taken place while favouring sustainability. The largest part of the world population is affected by ageing, in particular the Asian region. This has considerably changed the conditions of international competition. The former gaps between the EU and the emerging countries have narrowed considerably as a result of demographic changes in these countries, and also because of significantly higher social and environmental expenditure, which has led to a much heavier tax burden.

As production costs are converging in a large part of the world, globalisation and international trade have kept their momentum. Industrial production has decentralised, there are no longer real “workshop countries”. Intra-branch trade has strongly developed and EU external trade is more than ever an important component of European growth.

The EU-globe relationship is shaped by heavy trends, which converge at the global scale in the areas of trade, mobility and energy markets. These trends impact the European territory and other continents alike. Competitiveness gaps have been reduced. Saving energy is a world objective, to which compulsory environmental standards to combat global warming also contribute. Tensions on the energy market have been reduced, thanks to technological progress (abundance of renewable energy) and improvements in energy efficiency.

The announced “death of distance” did not occur. Geography still plays a crucial role. Since everybody lives in a digitised world, traditional location factors such as climate or availability of infrastructure have come back to the fore. This favours large cities, turned into “smart cities”, but new communications technologies have further increased the mobility of people.

A global governance has emerged. Various climate-related tensions have raised public awareness about the fragility of the planet and resource depletion while prompting a world-wide mobilisation of people. Most vulnerable countries fiercely and successfully advocated the adoption of world-wide mandatory environmental standards. The United Nations’ World Environment Organisation (WEO) has extensive powers and financial resources to implement a comprehensive policy. A World Court of Justice has been established to enforce obligations on recalcitrant states. Financial resources have been made available to help poorer countries. This policy has important implications for land-use and territorial planning departments, which have to comply with mandatory standards (minimum rate of afforestation, energy-efficient land-use patterns, rationalisation of water storage and consumption).

Following the EU example, regional integration processes have gathered pace in South-East Asia, Latin America and Africa, and steadily greater account of territorial issues is taken in this framework.

In the EUROMED⁴² area, very close relations have been established between the various participating countries, grouped into a set of concentric circles, whose core is the EU. Outside this

⁴¹ For further detail about the EUTeCoS, see heading G below

core, some countries have decided to join the EU, others signed *ad hoc* agreements, on a variable geometry basis. Other countries (e.g. Turkey, Russia, the Middle East) are associated with the EU but without real perspective of full adhesion.

The EU federation manages the “EU acquis” and a couple of extra policies, in particular the Single⁴³ Foreign and Security Policy (SFSC). Territorial cohesion has become a major policy aim of the EU (rather than an EU policy as such), and the formally approved *EUTeCoS* is regularly updated.

The EUROMED periphery, whose income disparities have decreased but remain rather high, in particular between the EU and the least developed countries, has adopted a significant part of the “EU acquis”. Peripheral EUROMED countries are involved in European territorial cohesion-related activities, including the updating and implementation of the *EUTeCos* and Joint Territorial Integration Strategy (JTIS) in various EU macroregions and Euregios, many of which are crossed by the EU external border.

Enhanced cooperation on transport policy (including transportation of energy) has taken place for instance through the construction of new Mediterranean links and the construction of major infrastructure connecting the EU with Eastern Europe, Russia and the Middle East. Full implementation of free trade agreements have strongly developed Trans-Mediterranean trade, both with the EU and between SEMCs. A fast growing freight and passenger demand between the two shores of the Mediterranean has allowed major new infrastructure to be completed, in particular the fixed link across the strait of Gibraltar.

Almost all the neighbouring countries implement the directives of the EU environmental policy (e.g. on water quality preservation) and exploit natural resources in full compliance with standards defined by the newly established World Environment Organisation (WEO).

Europe in 2050: main features

Demography

During the first half of the 21st century, the EU demography was characterised by a slow population growth resulting from both slightly rising fertility rates and positive net migration. Demographic policies have been a contentious issue, be it about boosting the birth rate, allocating the added value between generations or managing immigration.

The average fertility rate has reached nearly 1.8%. This results from the spread of a new social model (working women want more children) and the resulting reforms of family policies. Public policies addressing child care have significantly improved.

Following the ageing trend experienced since the 1950s, the population over 65 has increased by 40 % compared to 2005, from 19 to 32 % of the total population. Ageing has become a common feature of the whole continent. Given their political weight, the elderly benefit from continued attention by public authorities and have secured their favourable treatment in the welfare system.

⁴² In 2013, EUROMED includes: EU28, EFTA countries (Norway, Iceland and Switzerland), candidates (West Balkans and Turkey), the 16 countries eligible to the ENP (European neighbourhood policy) and the European part of Russia.

⁴³ As opposed to the current Common Foreign and Security Policy (CFSP).

Many regions need to address the decline of their working age population. 35-40 % of regions are affected by a reduction of their labour force, which they have to offset through a policy mix aimed at increasing both the activity rate of the resident population and net in-migration.

In virtually every region, immigration has become a reality, but also a need, to compensate the decrease of the working population. An overall migration policy framework is functioning which associates the EU and the members of the Schengen area, in consultation with some other non-EU countries. A common EU migration policy has organised the reception of selected migrants, focusing on qualified immigration of varied geographical origins and diversified inside Europe.

The labour organisation is characterised by a high level of flexibility. For example, when attaining the age of 50, employees progressively reduce their activity until the retirement age, around 70. There is a convergence of social protection schemes: European rules apply to determine the minimum wage, sickness insurance and retirement pensions, which contributes to reducing regional disparities.

A better fit between working time and leisure has increased residential mobility (more frequent changes of permanent residence as well as better use of secondary residences).

Economy

The European economy has entered a phase of more qualitative than quantitative growth (1.4 % yearly growth rate, sizeably below the world average). However, Europe has restored its competitiveness through an industrial rebirth of high productivity activities derived from technological innovation.

Development strategies for research and innovation have borne fruit, especially in initially lagging areas. The map of “success stories” demonstrates a fairly wide dispersion of the most efficient regions, despite the initial concentration of R&D. Through ICT dissemination of knowledge, some regions previously lagging behind have been highly successful in developing industrial clusters of excellence.

To reach this outcome, a maturation process proved necessary. The implementation of the Lisbon and Europe 2020 strategies was hampered by a lack of geographic differentiation of their policy objectives. Later on, awareness grew about the need to embed innovation policies in the local context and in local assets while promoting their “connectedness”, i.e. their inclusion in a dense fabric of linkages with the external world. Overspecialisation of the knowledge economy in the regions was also criticised. This led to the successful implementation of “smart innovation strategies” tailored to each single territorial innovation pattern.

In 2050, Europe exports worldwide a wide range of high level manufacturing goods and services. The increase of production costs in emerging economies has rebalanced the terms of world trade. Europe is clearly among the globalisation winners and benefits from ever increasing opportunities. The decentralisation of industrial production (favoured by 3D printing) gives an edge to the consumption centres, in particular major cities. The map of disparities has become more complex and looks like a “leopard skin”, with less-favoured regions sometimes located very close to the most prosperous areas.

Behaviour change and social innovation, in particular a quest for constantly greater sustainability, have deeply modified the business environment, avoided repeating mistakes of the past and stimulated environment-friendly growth.

Policy steps and programmes to strengthen economic, social and territorial cohesion remain necessary, to stimulate development in some lagging regions of the EU but also in deprived areas of non-EU EUROMED countries.

Transport, energy, climate and environmental policies

Other policies than regional policy help to achieve constant progress towards EU territorial cohesion, especially transport, energy and environment/climate policies. All the relevant policy steps have been included in the *EUTeCoS*.

Considerable progress has been achieved in the area of transport/mobility policy, which led to a 60% reduction of GHG emission in four decades. New and sustainable fuels and propulsion systems have been developed in virtually every transport mode. Green freight corridors have marginalised long-distance road freight. An EU-wide multimodal TEN-T and the HST networks have been completed (in particular through closing missing links in border regions), all core network airports and seaports have been connected to the rail network and, where possible, the inland waterway system. The efficiency of transport and of infrastructure use has been increased, thanks to information systems and market-based incentives (including the full application of the “user pays” and “polluter pays” principles).

Thanks to the increasing use of smart technologies, less roads and rail infrastructure has become necessary and is equipped with automatic braking systems. Intermodality has considerably increased in freight and passenger transport alike, and electric mobility has significantly developed. Progress in the area of intermodality owes much to various innovative technologies such as Public Containerised Transport (PCT) and “podvehicles”, i.e. cars and trucks, self-powered on roads, and designed in such a way that they can be loaded onto a rail-based carrier, a “pod”. Magnetic levitation (maglev) and vacuum tube train (vacetrain) are used for the very long-haul supersonic transport. In wide parts of the European and urban networks, most individual vehicles and trains are automatically operated.

With regard to energy policy, a transition took place from a system characterized by high fuel and operational costs to a model based on higher capital expenditure and lower fuel costs. In 2050, the share of renewable energy sources (RES) exceeds 55% of the gross final energy consumption (compared with 10% in 2010).

The share of electricity in the final energy demand has doubled. Structural change took place in the power generation system, whose decarbonisation level exceeds 95% in 2050. Impressive energy savings have been achieved during the first half of the century.

Smart grids have revolutionised electricity production and distribution but the amount of energy so produced has turned out to be insufficient to meet all the needs. Centralised large-scale systems of energy generation remain essential. Concentrated solar power stations in Africa and southern Europe deliver a very significant contribution. Decentralised and centralised power generation systems complement each other, for example, if local resources are not sufficient or varying in time, or in case of strategic threat on major power plants and transmission lines.

A fair and geographically balanced access to energy at a moderate price has been secured everywhere. An ambitious action plan has been successfully implemented to reduce the vulnerability of regions facing energy poverty (especially in Eastern and Southern Europe) and promote energy solidarity between regions,

To cope with climate change, in particular to mitigate the effects of global warming, strict norms have been prescribed and enforced by the WEO, in close consultation with the relevant authorities in the various continents, among which Europe is not facing the worst situation.

Nevertheless, the physical, social, economic and environmental assets of several categories of European regions are variously impacted by the effects of climate change (sea level rise, more frequent river floods, heat, etc.) Southern Europe but also the Benelux coasts and, to a lesser

extent, France, the British Isles and Norway have been seriously affected. Until recently however, southern regions were more vulnerable because of their lower adaptive capacity.

In response, an EU climate strategy, whose content was integrated in the *EUTeCoS*, has been approved to tackle climate change, in particular its territorial impact. This strategy involves a considerable reduction of greenhouse gas emissions, a significant improvement of the energy efficiency and the promotion of clean electricity generation. Much emphasis is also placed on the need for appropriate policy steps at the regional and local levels, with particular regard to land-use planning, in rural and urban areas alike. As far as urban development is concerned, the sustainable city paradigm is widely promoted and guides the elaboration of integrated strategies tailored to specific circumstances.

EU subsidies supplemented by national/regional matching funding are provided to support the implementation of adequate policy responses in the areas particularly affected by floods, drought and other consequences of the climate change. Priority is of course given to areas expected to be hit severely while having a low capacity to adapt to climate change.

Sustainable management of resources (such as raw materials and minerals, energy, water, air, land and soil) together with the necessary protection, valuation and substantial restoration of biodiversity and the ecosystem services it underpins remain key priorities of the EU environmental policy. Indeed, boosting resource efficiency remains indispensable to make progress towards sustainability, but maintaining ecosystem resilience is no less essential. Three policy areas of particular relevance for territorial development can deliver a major contribution in this respect, namely waste, water resources and biodiversity.

Concerning the waste policy the “managing waste as a resource” principle is applied all over the EU. Put otherwise, landfills and illegal shipments have been eliminated, whereas waste prevention, reuse and recycling have been maximised. Appropriate policy responses have been defined to accelerate progress towards the achievement of the “near zero waste” objective, and to better control cross-border waste flows. For this purpose, a reference binding strategy has been adopted, and reflected in the *EUTeCoS*, mobilising various authorities and other key-players of the waste policy, including those involved in EU territorial cooperation.

With regard to water resources, the first attempts made to achieve good water status (an objective set out in the EU Water Framework Directive - WFD) proved rather disappointing. An ambitious integrated strategy was therefore elaborated in the following years (and included in the *EUTeCoS*) to secure an acceptable level of availability and quality of water resources in the EU. An important chapter of this strategy was dedicated to the necessary cross-border and macroregional cooperation between all the authorities and relevant stakeholders. The integrated management of water resources thus became a key-component of territorial cooperation strategies applied by the Euregional and macroregional authorities to transboundary river basins.

As for biodiversity, the situation in the first decades of the century was also alarming. Limited progress was achieved toward the establishment of Natura 2000, the world’s largest network of protected areas. Later on, a new strategy “Natura 2050” was approved and successfully implemented to protect, value and appropriately restore the EU biodiversity and the ecosystem services it provides. All the specific targets defined in the strategy were met, and properly reflected in the *EUTeCoS*, in very diverse fields: evolution of the status of species and habitats, ecosystems and their services, agriculture and forestry, fisheries, Invasive Alien Species (IAS), and the EU contribution to averting global biodiversity loss. All the stakeholders involved in territorial and land-use planning were strongly encouraged to intensify their contribution to the implementation of biodiversity strategies at all levels. This was the case in the domestic context, but Euregional and macroregional authorities also deepened their involvement in the Biodiversity Strategy implementation, and adapted their respective joint territorial integration strategies (JTIS) accordingly.

Territorial dynamics

Europe's territory is less adaptable than the US's to economic transformation. In 2050, the weight of history continues to play an important role in territorial policies, whereas high standards apply to environmental protection and the conservation of natural resources.

European territorial dynamics are also influenced by a traditionally low level of residential mobility, especially of the labour force. However, two categories of workers are relatively more mobile: the very low-skilled (often non-EU migrants), and the very high-skilled hired by multinational companies. For almost all the other jobs, familiarity with the national language is essential, and this impedes migration beyond the language area of origin. To reverse this trend, new policies more finely tuned to different age groups have been carried out. Regional authorities strive to draw new residents by offering them amenities particularly attractive to the age category they belong to. Growing attention is paid to the needs of people not engaged in active employment, who are a source of financial transfers and consequently an opportunity for job creation in many regions.

Besides, the spatial distribution of jobs no longer mirrors the geography of production. Due to the importance of welfare transfers in Europe, a significant part of the added value is not spent in its region of production, but in areas inhabited by specific groups of population (commuters, pensioners, students, some unemployed people). This is the basis of a "residential economy" fed by considerable financial transfers associated with the redistribution of taxes and welfare contributions. This process impacts much more on the reduction of disparities than do regional policies. Moreover, jobs so created are more evenly distributed on the territory and more stable than those created by manufacturing industries.

Except in the most recent accession countries, the EU borders have lost their former filtering role. The fluidity of cross-border movement remains sizeably lower in Europe than in the US, due to the persistence of administrative hurdles and linguistic obstacles. However, borders have become highly permeable thanks to the construction of new infrastructure and simplification of controls. The intensification of trade has favoured new activities in border regions and reduced the income gaps, as a result of various mechanisms catalysing territorial integration, in particular cross-border and transnational territorial cooperation supported by the EU at its internal and external borders.

Cities and rural areas

Globalisation still favours metropolitan areas in 2050, but their economic and demographic growth capacity is limited by various hindering factors. Development prospects are better in secondary growth poles offering attractive living conditions and good connections to the metropolitan areas. In countries with no such areas (e.g. Switzerland), larger cities have been boosted and they attract international functions of good level despite their relatively smaller size. Small towns and rural areas are not necessarily penalised by these developments. Furthermore, some peripheral regions have capitalised on significant opportunities (e.g. intensification of trade with neighbourhood countries) generated by higher growth and better living conditions.

The globalisation process turned out to be a positive sum game between cities. Worldwide cooperation between private and public bodies from various cities considerably intensified, whereas a small number of "global cities" emerged in each continent as main gateways to the global economy.

In Europe, these cities are concentrated in the "Pentagon" and represent a strategic interface network for the communication with the key-players of the globalised economy. Moreover, the polycentric paradigm of European territorial development has been consistently implemented,

especially in less central areas, where capital-cities and other cities have been voluntarily supported to rebalance the territorial structure of the continent. The completion of some missing cross-border links in the TENs has considerably improved physical connectivity between cities.

Cooperation in cross-border, transnational and global networks of cities has considerably intensified. Tangible cooperation projects focusing on specific issues of relevance for territorial integration are particularly successful. Permanent thematic networks contribute to harnessing synergies between projects addressing similar issues, whereas macroregions and Euregios (cf. Heading G), concentrate on long-term cross-sector territorial integration strategies.

Virtually every European city has completed the « urbanisation / suburbanisation / counter-urbanisation / re-urbanisation » cycle. A European smart, sustainable and inclusive eco-city model is widely implemented, whose key-principles are as follows:

- make cities of tomorrow places of high social progress with a high degree of social cohesion; platforms for democracy, cultural dialogue and diversity; places of green, ecological or environmental regeneration; places of attraction and engines of economic growth;
- promote a compact settlement structure and combat urban sprawl;
- transform profoundly the metabolism of cities : forego the old linear metabolism (high quantities of inputs and outputs) and promote an efficient circular metabolism through minimised waste and emissions and maximised recycling;
- promote social mix in neighbourhoods and at school through all appropriate means (e.g. small public housing operations in the urban fabric or appropriate mix of more and less profitable operations in planning permissions delivered to private developers)
- favour high density urban development in strategic nodes and along public transport lines; forego further development elsewhere, and promote progressive ecological restoration of low density residential areas inherited from 20th century urban sprawl;
- strictly protect the blue-green infrastructure; be more flexible in zones dedicated to economic activities and residence
- irrigate residential areas with public transport and slow traffic (pedestrians/cyclists) infrastructure while reducing car traffic speed and land take
- adopt a holistic model of sustainable urban development; integrate policies vertically (between decision-making levels), horizontally (between sector policies) and geographically (transcending administrative boundaries, e.g. those of municipalities) while deeply involving citizens

Many so-called “rural areas” no longer invest in traditional crop-farming and stock-rearing industries, but instead in the “New Rural Economy (NRE)”, i.e. other industries associated with the rural economy (e.g. tourism, local trade and products) but also some manufacturing and service industries. However, various less accessible remote areas of eastern and southern Europe remained more “agrarian” and experienced little diversification of their economy. Especially in these remote areas, a proactive support to “Services of General Interest (SGI)” contributed to economic recovery, but also, and more importantly, a proactive rebalancing of the (often too monocentric) urban system, combined with an improvement of the accessibility and a diversification of the rural economy.

Targeted policy steps were also taken to tackle issues specifically faced by areas affected by a geographic handicap, in particular the Arctic and mountain areas, and islands.

Maritime issues

In 2050, Europe is widely open to the sea, to which its development owes much. Over the past few decades, EU policy has paid growing attention to coastal areas and maritime issues.

To avoid the reoccurrence of disasters (floods, oil spills) and tackle sea-level rise in low-lying coastal areas, steadily greater emphasis has been placed by policy makers on coastal protection. The international convention on ICZM (integrated coastal zone management) has been signed and is implemented in compliance with the WEO guidelines.

In all the maritime basins (Baltic, Mediterranean, Black Sea, North Sea and Atlantic) coordinated policy steps have been taken to tackle critical issues such as the decline of fishing and environmental resources. In the Arctic Ocean, the melting of polar ice has provided new opportunities (navigation, drilling, fisheries), but their exploitation is tightly regulated by the WEO to protect the natural environment; navigation is carefully monitored, and the riparian countries have signed a treaty to put their territorial claims on hold (as in the Antarctic).

Maritime governance has been dramatically improved. Common actions carried out by the UN (via the WEO) and the EU have been reinforced. Long negotiations have consolidated the law of the Sea, the WEO has established a legally binding legal framework which is included in all sea governance arrangements.

The EU has established common policies to improve environmental protection while exploiting natural resources in complete safety. Moreover, considerable progress has been achieved in integrating the EU maritime policy. A joint strategy of harmonious and sustainable development of the land-sea continuum has been approved and incorporated in the *EUTeCoS*, and its implementation is monitored on an on-going basis. While promoting trans-boundary cooperation on maritime issues, this strategy organises a close collaboration between sector-based (e.g. Transport, Energy, Fisheries) and horizontal policies (such as Integrated Maritime, Environment and Regional policies). Major progress has been made in coordinating structured maritime cooperation and land-use planning of coastal regions, and Maritime Spatial Planning (MSP) has been integrated into the existing planning systems. Similar but more detailed strategies have also been established for each sea basin, and are regularly updated. A permanent secretariat has been entrusted with the monitoring and follow up activities. Coordination is secured between sea and river basins, e.g. between the Black Sea and Danube macro-regions as de-pollution of the sea is closely linked to that of river catchments.

More than ever, the sea is a key development resource in the seven Outermost Regions (ORs) and Overseas Countries and Territories (OCTs), belonging to 4 member states, but not to the EU itself). ORs represent a modest part of the EU territory but 2.5 million km² of its Economic Exclusive Zone (EEZ). Although still affected by territorial handicaps, they took much advantage of the EU structural assistance while harnessing the potential of their immense maritime space (e.g. modernisation of fisheries and exploitation of sub-marine resources). Technological change has contributed to improving their accessibility. More intensive cooperation with the neighbours (the Caribbean, other archipelagos in the Indian Ocean, West Africa) has catalysed trade.

The size of the EEZ of the OCTs is not commensurate with that of their terrestrial part⁴⁴. This huge maritime domain, often full of resources, hosts a very small human population. Considerable technical and financial means need to be invested to ensure its control and its development. Some OCTs have opted for independence, which sometimes endowed them with tremendous riches, out of proportion of their tiny population (Greenland). Elsewhere, the OCTs decided to

⁴⁴ An island of 1 km² may generate an EEZ of 107,500 km².

weave closer ties with their respective member state and the EU, which ended up giving much more consideration to these territories.

Multilevel territorial governance

« A more interdependent and complex world generates challenges, which demand a coordinated response. » (Global Europe 2050)

In 2050, the digital age has considerably intensified world-wide interrelationships and communication flows. This has sizeably impacted the evolution of the global governance system and contributed to a peaceful world. Governance arrangements have constantly evolved toward further complexity. Six main governance levels have emerged: the global, supranational, macroregional, national, cross-border and regional/local levels. However, the supranational and national levels have been respectively turned into “federal” and “state” levels in various federations. Macroregional and cross-border authorities are not entitled to produce legal or regulatory norms such as treaties, laws and regulations, a prerogative of the other governance levels.

At global level, a world-wide efficient governance system on environmental issues has been set up, thanks to the action of the World Environment Organisation (WEO). A very intense interregional cooperation also takes place on a variable-geometry basis, involving countless public and private bodies.

At supranational/federal level, various regional integration processes have taken place in the world, with variable degrees of integration. Subsidiarity is regarded as a golden rule of the EU federation and its practical implications have been clarified. An “EU Territorial Cohesion Strategy (*EUTeCoS*)” formally approved by the EU authorities provides a coordination framework for all the EU policies with a territorial impact. The purpose is to make all these policies contribute to a consistent, balanced and sustainable territorial development strategy of the EU. Since territorial cohesion is not a sectoral policy, the elaboration of the *EUTeCoS* and the supervision of its implementation are the collective responsibility of the Commission. The implementation of the *EUTeCoS* is mainly up to other bodies at the state, macroregional, cross-border, regional and local levels.

All the macroregions have acquired the EGTC status and engaged in the elaboration and implementation of a Joint Territorial Integration Strategy (JTIS) dealing with a wide variety of territorially-relevant issues. As many macroregions are crossed by an EU external border, the cooperation also strengthens the EU neighbourhood policy. Neither the assembly nor the executive authority of a macroregion produces any new legal or regulatory norm. The implementation of the JTIS entails a deep involvement in the territorial integration process of many private, semi-public and public key-players. The bulk of the macroregional budget expenditure is affected to cooperation project subsidies. Projects must contribute to territorial integration.

“Abroad” in the everyday language has become synonymous with “outside the EU”. States are no longer “national” and their responsibilities and organisation have significantly evolved. Considerable efforts have been invested in clarifying the exact remits of the federal and state authorities. The states have been entrusted with the implementation of many federal policies, or even the supervision of this implementation by their regional authorities.

Proximity territorial cooperation in cross-border “Euregios” has become commonplace at every internal and external border of the EU federation. Arrangements similar to those used by macroregions apply, mutatis mutandis, to territorial cooperation in most Euregios, which do not produce any legal or regulatory norm, but engage in other joint activities contributing to the objectives set out in their respective JTIS.

Reforms have taken place to reshape and improve multilevel territorial governance arrangements at the regional/local level. Special efforts have been made to reduce the number of formal levels of decision-making, especially in states with a large territory. Drawing on the experience of cross-border governance, a territorial integration process takes place in metropolitan areas.

4.11 **TeV draft 1 supporting document, reference list of key sources consulted and list of acronyms** ⁴⁵

Table of content

Introduction	119
1. Europe and the world	120
1.1. Balanced globalisation	120
1.2. Territorial dimension of the EU-globe relationship	121
1.3. Emergence of a global governance	122
1.4. EUROMED and its concentric circles	123
2. Europe in 2050: main features	125
2.1. Demography	125
2.2. Economy	127
2.3. Transport, energy, climate and environmental policies	129
2.3.1. Transport	129
2.3.2. Energy	131
2.3.3. Climate and environment	132
2.4. Territorial dynamics	136
2.4.1. Low residential mobility	137
2.4.2. The so-called residential economy	138
2.4.3. Permeability and mobility of borders	138
3. Cities and rural areas	139
3.1. Metropolitan, urban and rural areas: interdependence between human settlements in Europe	139
3.2. Cities	140
3.3. Rural areas	141
4. Maritime issues	142
4.1. Coastal areas	142
4.2. Integrated maritime policy and maritime spatial planning	143
4.3. Outermost Regions (ORs)	145

⁴⁵ Document prepared by Philippe DOUCET (Géphyres consultancy) & Jean-François DREVET, this version is the revised 1st draft released on 2nd October 2013

4.4.	Overseas countries and territories (OCTs)	146
5.	Multilevel Territorial Governance and Policy Implications	146
5.1.	Global governance and interregional cooperation on territorial issues	147
5.2.	Supranational / federal territorial governance	148
5.3.	Macroregional territorial governance	150
5.4.	State territorial governance	150
5.5.	Cross-border territorial governance	151
5.6.	Regional/local territorial governance	152

Introduction

“Crisis management based on short-run measures will only be successful if European leaders simultaneously provide a long term vision for the European Union.” (Global Europe 2050)

The ambition of this document is not to predict what Europe will be, or even could be, in 2050. This “Vision” has been elaborated by taking into account the trends described in the various scenarios (not reproduced here as they were included in the second Interim Report) and contributions from various stakeholders, assuming that the actors involved will have demonstrated a significant ability to implement the objectives already defined at the European Union (EU) level.

From this point of view, this document might be considered as too optimistic or pessimistic, if not unrealistic: its main aim is to fuel the debate and further reflection about territorial policies and the future of EU cohesion, while informing the subsequent drafting of mid-term targets, derived from a consensus which remains to be established.

It is understood hereunder that European integration has been strengthened and deepened in three main respects. We expect a rather successful rate of implementation of the common goals and policies established at European level along the 2010s and later on. That is the reason why we have taken for granted the achievement of various plans already set up, for instance the 2030 Transeuropean network⁴⁶

In 2050, Europe is:

- Pacific: no clash of civilisations, elimination of terrorism, improved relations between neighbouring countries formerly in conflict. The application field of the EU’s implicit motto (i.e. “do not settle disputes outside the comfortable rooms of the European Council”) has been gradually extended to the periphery, where international law is complied with. This has made possible a reduction of military expenditure and improved territorial development at the EU periphery, especially in the Mediterranean;
- Democratic: compliance with the rule of law, the Charter of Fundamental Rights, the rights of minorities, etc., and consolidation of the “acquis” of the courts (Court of Human Rights in Strasbourg and European Court of Justice (ECJ) in Luxembourg); administrative practices have improved, and the basic freedoms are no longer at risk. Unlimited sovereignty of states has become a distant memory, owing to the considerable increase in, and extension of, international cooperation fields. The states have voluntarily delegated extra powers, which are jointly exercised in the framework of new Treaties on integration or cooperation. Governance has improved thanks to enhanced subsidiarity and greater control over executive and administrative powers, whereas corruption is declining.
- Prosperous but environmentally friendly: Europe boasts a smart, sustainable and inclusive economy, which has secured its competitiveness⁴⁷ vis-à-vis emerging countries and takes into account the requirements of solidarity and spatial justice. Furthermore, the EU has reduced its debt and is still able to finance its social model. Many lagging regions are catching up.

In 2050, European territorial policies ensure compliance with the basic values of spatial justice:

- equivalent living conditions are provided throughout the EU territory (thanks to policies geared towards efficient solidarity and fair access to services of general interest);

⁴⁶ Based on the 83 MEGA cities identified in the ESPON study.

⁴⁷ Competitiveness here is taken in the broadest sense: it includes externality costs and the requirements of a low carbon economy, practising sustainable mobility.

- effective welfare is better measured thanks to appropriate monitoring instruments: external costs and non-market services are accounted for, and social indicators are used to assess and select public policy interventions;
- natural resources and the cultural heritage are preserved and developed for future generations;
- a competitive and inclusive knowledge-based economy has been developed throughout the EU territory.

To provide a Vision, i.e. an overall ideal picture of what the EU looks like in 2050, the following issues will be successively addressed in this document:

Europe and the world – globalisation still impacts the European territory:

- significant reduction of the competitiveness gap observed between Europe and the emerging countries in the early 2000s
- impact of new technologies and energy savings on the location of residence and productive activities, and consequences for territorial development
- emergence of a global network of international institutions with increased powers (e.g. to fight climate change), which is turning world governance into a tangible reality
- intensified relations between Europe and its EUROMED periphery, organised in concentric circles and developing solidarity.
- Main features of the EU in 2050:
 - low demographic growth
 - balanced economy
 - sustainable mobility and energy resource management, adequate adaptation to climate change and other environmental issues
 - new territorial dynamics.

Cities and rural areas

- Maritime issues: coastline, integrated maritime policy, outermost regions (ORs) and overseas countries and territories (OCTs)
- New territorial governance (at the various levels of government)

1. Europe and the world

Europe is no longer in a position to determine the future of the world: this situation ended in 1939, even if this went unnoticed until much later. In 2050 as in 2013, it is the evolution of the world that reshapes Europe, not the other way round. The “external constraint” (i.e. globalisation) remains the dominant factor.

1.1. Balanced globalisation

Throughout the world, uninterrupted technological progress has taken place, geared towards better use of natural resources, including energy savings, creation of new modes of transport, and better environmental protection. Productivity per head has not increased as quickly as in the past, due to the growing importance of low productivity services (especially services to individuals) and

the ageing of the working population, which now includes a higher proportion of people over 60 years old.

In 2050, according to UN projections⁴⁸, the largest part of the world population is affected by ageing, in particular the Asian region. This has considerably changed the conditions of international competition. True, Europe has made significant efforts to improve its competitiveness, notably by developing research and innovation, but the gaps observed in the early 2000s between the EU and the emerging countries have narrowed considerably as a result of demographic changes in these countries.

In China, the working age population has decreased from 72 % of the total population in the first decade of the century to 56-58 % in 2050. Baby boomers are now retired and they ask for decent pensions and healthcare, although they have not given birth to enough children to foot the bill. After two generations of “one-child” policy, the active population is now declining at a rate of 1 % per year, which has significantly reduced the GDP growth rate and increased social costs. Nowadays, China uses its foreign exchange reserves to provide a minimum level of social benefits to its ageing population. To a lesser extent, other Asian countries are moving in the same direction: in 2050, the continuous decline of their fertility rates has squeezed their working age population.

Accession to democracy of some of these countries has enhanced this evolution. This has resulted in significant increases in the hourly cost of labour, through either direct wage increase (establishment of a minimum wage in several Asian countries), or improved social benefits (medical care, unemployment benefits, retirement schemes, paid holidays). The share of social⁴⁹ and environmental⁵⁰ expenditure is now approaching 15 % of GDP, which has made the tax burden much heavier. Trends in healthcare expenditure provide a good example: in 2050, according to OECD projections, health and long term care expenditure in emerging countries are close to 10 % of the GDP⁵¹.

As production costs are converging in a large part of the world, with the exception of some late catching-up countries in sub-Saharan Africa, world trade and globalisation have kept their momentum. Industrial production has decentralised, there are no longer real “workshop countries”. Intra-branch trade has strongly developed and EU external trade is more than ever an important component of European growth.

1.2. Territorial dimension of the EU-globe relationship

In 2050, there is a global convergence of heavy trends in the areas of trade, mobility and energy markets. These trends impact the European territory and other continents alike. Competitiveness gaps have been reduced. Recycling techniques are widely used.

Saving energy is a world objective, to which compulsory environmental standards to combat global warming also contribute. Tensions on the energy market which developed over the period

⁴⁸ According to the UN medium fertility projection (United Nations, Department of Economic et Social Affairs, Population division, World population prospects, 2012 Revision, New York, June 2013).

⁴⁹ In 2009, according to a study by the Asian Development Bank (*the Social Protection index, Assessing Results for India and the Pacific, Manila, 2013, 150p.*), social protection expenditure, as a percentage of GDP, was at 19.2 % in Japan, 7.9 % in South Korea, 5.4 % in China and 1.7 % in India (OECD countries average: 22.1 %).

⁵⁰ In 2011 EU, 1.2 % of GDP (Turkey 0.22 %).

⁵¹ Christine de Maisonrouve and Joaquim Oliveira Martins: *Public spending on health and long-term care: A new set of projections, OECD Economic Department, preliminary version, 62p.* From 2010 to 2060, under conservative assumptions (healthy ageing and low dependency ratio), BRICs expenditures (Brazil, China, India, Indonesia, Russia and South Africa) are expected to rise from 2.5 % to 5.3 % (cost-containment scenario) or 9.8 % (cost pressure scenario) of GDP. Average expenditures in the OECD countries rise from 6.2 % of GDP (expenditure 2010), to 9.5% (cost containment) and 13.9 % (cost pressure) in 2060.

2020-2030 have been reduced, thanks to technological progress (abundance of renewable energy) and improvements in energy efficiency.

With new technologies, production conditions have rationalised. Instead of producing first and trying to sell afterwards, the trend is to produce only what is already sold out: virtual goods are bought online, then production starts. This reduces energy consumption per GDP unit, together with storage fees and use of raw materials.

“Just in time” production and 3D printing⁵² bring production sites closer to consumption centres. This may result in a new allocation of activities in favour of countries offering better accessibility throughout their territory. Although globalisation was supposed to create growth poles better connected to the rest of the world than to their hinterland, various new factors have led to a significant shift in business location criteria, since new infrastructure strengthens the move towards “glocalisation”, i.e. a world simultaneously more local and global⁵³.

During the 1990s, it was believed that location criteria would be abolished by the “*death of distance*”, which would outweigh the concentration trends⁵⁴. The availability of telecommunications was expected to allow to work anywhere and teleworking to avoid commuting. A cyberspace freed of geographical and political constraints was anticipated.

In 2050 however, geography still plays a crucial role: “*the physical environment still shapes the digital environment*”. Since everybody owns a highly sophisticated smartphone⁵⁵ and lives in a digitised world, traditional location factors such as climate, availability of infrastructure and tax systems have come back to the fore. Once more, large cities, turned into smart cities⁵⁶, have a decisive edge over their competitors, despite the decentralisation factors mentioned above.

In parallel, although new communications technologies (widespread access to the Internet and worldwide availability of individual devices) provide better virtual contact opportunities, mobility of people has further increased: some categories of the population previously characterised by a relatively low level of mobility (such as retired people), make greater use of transport services. Despite a considerably more energy-efficient transport sector, the overall consumption is increasing.

1.3. Emergence of a global governance

In 2050, the world population still remembers the previous decades of climate tensions: because of the global warming, growing water scarcity in the traditional mountain reservoirs of Ethiopia and Upper Asia gave rise to conflicts. In parallel, the sea level rise resulted in a growing number of climate refugees in Oceania and Asia. Egypt, the Indian subcontinent and China⁵⁷ were seriously disrupted by these changes, which affected the existence of tens of millions of people. In Europe, steadily larger areas were affected by drought or floods, which increased the size of populations at risk.

⁵² The 3D production technique is reducing storage, handling and distribution costs for a growing number of consumption products.

⁵³ See the Economist's Special report on “*Technology and Geography, a sense of place*”, October 27th 2012 19p.

⁵⁴ According to Frances Cairncross, from The Economist: “*The death of distance: how the communications revolution is changing our lives*” (1997).

⁵⁵ In 2017, according to a 2011 Ericsson forecast, half of the world population will have a smartphone.

⁵⁶ A city can be defined as ‘smart’ when investments in human and social capital and traditional (transport) and modern communication infrastructure fuel sustainable economic development and a high quality of life, with a wise management of natural resources, through participatory action and engagement, that implies a new kind of governance, genuine citizen involvement in public policy. Smart cities can be identified (and ranked) along several main axes or dimensions, which apply to economy, mobility, environment, conditions of living and governance.

⁵⁷ « In absolute terms, more people live at sea level in China, and so are threatened by rising oceans, than in any other country. » The Economist, August 10, 2013 page 8.

These tensions raised public awareness about the fragility of the planet and the depletion of its natural resources. The growing awareness of the risks associated with crossing the threshold of 2°C increase in average world temperature prompted a world-wide mobilisation of people. Countries most vulnerable to climate change (e.g. Netherlands, Oceanic archipelagos, Maldives) and overcrowded areas (e.g. Egypt, Indian sub-continent, China) fiercely advocated the adoption of world-wide mandatory environmental standards. Those at lower risk because of their moderate population density (USA, Brazil) or their lower vulnerability to climate change failed to delay the process, since the EU's lasting fervent pleas in favour of a strong world-wide environmental governance turned out to be convincing.

Now in 2050 the World Environment Organisation (WEO) has extensive powers and financial resources to implement a comprehensive policy. A World Court of Justice has been established to enforce obligations on recalcitrant states. Financial resources have been made available to help poorer countries. This policy has important implications for land-use and territorial planning departments, which have to comply with mandatory standards (minimum rate of afforestation, energy-efficient land-use patterns, rationalisation of water storage and consumption).

In maritime spaces (71 % of the planet area, a common heritage of mankind), international agreements based on the Antarctic Treaty model⁵⁸ have been enforced. Beyond the Exclusive Economic Zones (EEZ) delineated according to the Law of the Sea⁵⁹, the high seas are now subject to environmental restrictions, in particular in the Arctic. The new treaties offer an adequate framework for an exploitation of maritime resources compatible with the protection of the marine environment (limitations apply to fishing and off shore extraction of hydrocarbons).

Following the EU example, regional integration processes have gathered pace in South-East Asia, Latin America and Africa, and steadily greater account of territorial issues is taken in this framework.

As stated by the World Bank, “*geography matters*” to establish effective development strategies⁶⁰. From the design stage onwards, the spatial dimension is now taken on board in all policies with a territorial impact⁶¹. TIAs⁶² are commonly practised. It is now possible to anticipate the spatial effects of sector-based policies, instead of asking regional policies to remedy distortions arising from the blind application of poorly designed policies.

1.4. EUROMED and its concentric circles

In 2050, very close relations have been established between the various members of the EUROMED⁶³ area. To a large extent, this results from the EU initiative, but also from efforts made by the peripheral countries. Despite persistent centrifugal forces, the EU has managed to avoid fragmentation, while making clear that the construction of a “super nation state” was not on the

⁵⁸ The Antarctic Treaty and related agreements, collectively called the Antarctic Treaty System or ATS, regulate [international relations](#) with respect to [Antarctica](#), Earth's only continent without a native human population. For the purposes of the treaty system, Antarctica is defined as all of the land and [ice shelves](#) south of [60 °S latitude](#). The treaty, which entered into force in 1961 and currently has 50 signatory nations, sets aside Antarctica as a scientific preserve, establishes freedom of scientific investigation and bans [military activity on that continent](#).

⁵⁹ The United Nations Convention on the Law of the Sea (UNCLOS), also called “the Law of the Sea Convention” or “the Law of the Sea Treaty”, is the international agreement that resulted from the third United Nations Conference on the Law of the Sea (UNCLOS III), which took place between 1973 and 1982. The Law of the Sea Convention defines the rights and responsibilities of nations in their use of the world's oceans, establishing guidelines for businesses, the environment, and the management of marine [natural resources](#). UNCLOS came into force in 1994. As of October 2012, 164 countries and the [European Union](#) have joined in the Convention.

⁶⁰ World Bank (2008), *Reshaping Economic Geography*, World Development Report, Washington, November.

⁶¹ “Looking at the map [before](#) implementing policies.”

⁶² TIA = Territorial Impact Assessment

⁶³ In 2013, EUROMED includes: EU28, EFTA countries (Norway, Iceland and Switzerland), candidates (West Balkans and Turkey), the 16 countries eligible to the ENP (European neighbourhood policy) and the European part of Russia.

agenda. The participating countries are grouped into a set of concentric circles, whose core is the EU.

In the Union, the risk of dissociation of the euro zone and the EU, which would have led to two distinct entities, i.e. a political union and a single market area, was avoided. In 2050, every member state participates in all the common policies, including single currency and Schengen area, as well as further policies initiated in the first half of the 21st century. After starting with a single market and a single currency, followed by a banking and fiscal Union, the EU has become a federation responsible for the “EU acquis” and a couple of extra policies, in particular a Single⁶⁴ Foreign and Security Policy - SFSC).

Territorial cohesion has become a major policy aim of the EU (rather than an EU policy as such), and an integrated EU Territorial Cohesion Strategy (*EUTeCoS*) has been formally approved and is regularly updated.

The EU federation membership includes, with a few exceptions, most states which had already joined the EU at the turn of the century, together with some new member states of the European continent.

The EUROMED periphery⁶⁵ (cf. Map 1, p. 41) is a large “intermediate area” associated with the EU, its main trade partner (which was already the case at the turn of the century). EUROMED has adopted a significant part of the “EU acquis” (in line with the ENP⁶⁶ model designed in 2003).

In 2051, the EUROMED periphery has a population of the same size range than the EU's: 592 million inhabitants, with a marked imbalance between the South (from Morocco to Turkey, 411 m.) and the East (Russia and the Eastern Partnership countries⁶⁷, 180 m.) Income disparities have decreased, but remain rather high, in particular between the EU and the least developed countries, which maintained a high population growth (in 2051, Egypt has 123 million inhabitants, which means an average density for the Nile Valley of almost 4,000 inhabitants per km²).

Some countries have decided to join the EU, others signed *ad hoc* agreements, depending on their needs and geopolitical environment. Several of these countries benefit from an EEA-type⁶⁸ status of associate partner, which differs from country to country (Switzerland is a member of the euro zone, but still reluctant to join the EU).

An “EEA+ status” has been created for less developed countries, which implement a large number of single market directives while being granted, in return, increased financial assistance to catch up in economic terms.

Other countries (e.g. Turkey, Russia, the Middle East) are influenced by other polarities, as they have some reasons to look in other directions, Asia in particular. They are also associated with the EU but without real perspective of full adhesion.

Countries of the “greater periphery” (Sahelian Africa, Middle East and the “Greater Neighbourhood” around the outermost regions) are too far away to influence significantly the territorial development of the EU. However, these countries are increasingly important partners,

⁶⁴ As opposed to the current Common Foreign and Security Policy (CFSP).

⁶⁵ En 2013 : candidates, ENP countries and the European part of Russia.

⁶⁶ ENP = European Neighbourhood Policy

⁶⁷ Belarus, Ukraine, Moldova, Georgia, Armenia and Azerbaijan.

⁶⁸ The [Agreement on the European Economic Area](#) (EEA), which entered into force on 1 January 1994, brings together the EU Member States and the three EEA EFTA States — Iceland, Liechtenstein and Norway — in a single market, referred to as the “Internal Market”. The EEA Agreement provides for the inclusion of EU legislation covering the [four freedoms](#), the free movement of goods, services, persons and capital. In addition, the Agreement covers cooperation in other important areas such as research and development, education, social policy, environment, consumer protection, tourism and culture, collectively known as “[flanking and horizontal](#)” policies. The Agreement guarantees equal rights and obligations within the Internal Market for citizens and economic operators in the EEA.

owing to their population growth and their natural resources: in 2050, the population of sub-Saharan Africa has reached 2,074 m. inhabitants (compared with 830 m. in 2010). Some countries have become eligible for ENP status (Senegal) or have applied for EU membership (the Republic of Cape Verde).

In terms of territorial policy, increasing solidarity in the EUROMED region takes the form of many tangible actions, including the involvement of peripheral countries in European territorial cohesion-related activities. For example, the EUROMED countries are associated to the updating and implementation of the *EUTeCos*. They also take an active part in the elaboration, updating and implementation of the Joint Territorial Integration Strategy (JTIS) in various EU macroregions and Euregios⁶⁹, many of which are crossed by the EU external border. In this framework, the EUROMED countries are also represented in the macroregional and Euregional assemblies and executive authorities.

Enhanced cooperation on transport policy (including transportation of energy) has taken place for instance through the construction of new Mediterranean links and the construction of major infrastructure connecting the EU with Eastern Europe, Russia and the Middle East. Full implementation of free trade agreements have strongly developed Trans-Mediterranean trade, both with the EU and between SEMCs. A fast growing freight and passenger demand between the two shores of the Mediterranean has allowed major new infrastructure to be completed, in particular the fixed link across the strait of Gibraltar.

In 2050, almost all the neighbouring countries implement the directives of the EU environmental policy. After accepting EU standards, all Mediterranean countries apply a joint programme of water quality preservation. The exploitation of natural resources (especially the gas fields discovered in the eastern basin in the 2010s) is conducted in full compliance with WEO standards. Agreements on issues such as the implementation of earthquake safety standards and the monitoring of fish stocks are included in transnational inter-mediterranean cooperation programmes, established for the entire Mediterranean basin and its annexes (including the Black Sea).

2. Europe in 2050: main features

2.1. Demography

With 526 million inhabitants in 2051, the EU experienced a slow population growth, estimated at 0.12 %/year (2011-2051)⁷⁰, below the 1981-2011 annual rate (0.39 %). This growth results from both increasing fertility rates and positive net migration. The assumption of an overall decrease in the population of 40 million in 2050 (from 515 to 475 million) affecting 60 % of the Regions did not materialise⁷¹.

Demographic problems are a major concern for all levels of governments, confronted with difficulties resulting from low fertility rates, ageing, the decline of working age population and the integration of migrants. Demographic policies have been a contentious issue, be it about boosting the birth rate, allocating the added value between generations or managing immigration.

Recently, Europe experienced an increase in the birth rate, which pushed the fertility rates to nearly 1.8%, following the spread of a new social model (working women want more children) and the resulting reforms of family policies. Although “pro-natalist” policies have generated uneven

⁶⁹ See below, Headings “5.3. Macroregional territorial governance” and “5.5. Cross-border territorial governance”.

⁷⁰ According to the SASI model

⁷¹ According to the DEMIFER scenario

results, from the “kitchen stove bonus”⁷² in Germany to the “*quotient familial*”⁷³ in France, public policies addressing child care have significantly improved.

In 2050, following the ageing trend which affects Europe since the middle of the 20th century, the population over 65 has increased by 40 % compared to 2005. As a consequence of the increase in life expectancy (85 years for men and 90 for women), this population grew from 19 to 32 % of the total. Ageing has become a common feature of the whole continent. Given their political weight (they are increasingly numerous and do not neglect to exercise their right to vote), the elderly benefit from continued attention by public authorities. In exchange of higher social contributions and/or taxes and despite some intergenerational conflicts, retired people have secured their favourable treatment in the welfare system (maintaining the purchasing power of their pensions and a significant rate of reimbursement of their health expenditure and long term care).

Many regions need to address the decline of their working age population. In 2050 in the ESPON area⁷⁴ this population counts for 55-56 % of the total (compared with 67% in 2005) and has increased only in one regions out of four. This population is also ageing: compared to 2000, the group below 39 years accounts for only half of the total. 35-40 % of regions are affected by a reduction of their labour force, which they have to offset through a policy mix aimed at increasing both the activity rate of the resident population (increase in female employment, late retirement) and net in-migration (through accepting newcomers, especially qualified innovative migrants from non-EU countries).

In 2050, immigration has become a reality in virtually every region. Arrivals represent a net yearly inflow of about one million people⁷⁵, due to on-going emigration pressure in non-EU low income countries. Most European regions need the labour force of migrants as well as their taxpaying potential, in particular those where the birth rate recovery process is slow and late.

Despite efforts to communicate about the need for immigrants, these are not easily accepted by the native population of the EU, often hostile to massive arrivals. Awareness has however been raised about the fact that in-migration is essential to foster economic dynamism and maintain living standards at an acceptable level.

Changes in migration policies have led to endless controversies⁷⁶. In 2050 however, an overall migration policy framework is functioning (neither “*Fortress Europe*”, nor “*Europe passoire*”⁷⁷), which associates the EU and the members of the Schengen area, in consultation with some other non-EU countries.

In that respect, the establishment of a common EU migration policy, managed by the European institutions, has created a new framework of implementation, focusing on qualified immigration to compensate the decrease of the working population inside Europe.

The EU has defined general conditions of entry and residence, implemented through a Canadian-type selection system, which gives priority to economic immigration and secures a diversification of origins by the globalisation of migratory flows. The neighbourhood is no longer the main geographical origin of immigrants, among which a much larger share now comes from Asia and Latin America.

⁷² In German « herdrämie »

⁷³ Tax rebate for households with children

⁷⁴ According to DEMIFER

⁷⁵ According to Global Europe 2050.

⁷⁶ Global Europe 2050 foresees that 80% of the migrants will come from the Mediterranean and 20% from Sub-saharian Africa: “by 2050, one in five Europeans will probably be Muslim.” (page 22)

⁷⁷ In English : Europe colander.

Considering their own needs, the regional authorities have developed immigration policies tailored to their specific circumstances, notably in regions where certain categories of migrants need to be attracted from outside Europe. These regional policies of selection and integration, eligible to EU structural funding, are carried out by the regions in demographic decline, with a view to rebalancing the migration flows, i.e. supporting population growth in less well-off regions rather than contributing to demographic expansion in large metropolitan areas.

With rising life expectancy, technological progress and extension of the period of activity, the labour organisation has changed substantially⁷⁸. Employees work between 1,800 and 2,000 hours per year until the age of 50, then progressively reduce their activity to 1300-1500 hours per year at around 60, and 500 to 1000 hours per year when nearing 70. The length of the working week as well as the retirement age have become variable. Employees are entitled to maternity and paternity leave, and sabbaticals for vocational training. The holiday duration increases with age to allow older people to work longer. There is a convergence of social protection schemes: European rules apply to determine the minimum wage (defined as an EU single reference percentage of the national average income per head), sickness insurance and retirement pensions, which contributes to reducing regional disparities.

A better fit between working time and leisure has increased residential mobility (more frequent changes of permanent residence as well as a better use of secondary residences) and provided new resources to peripheral regions, which are increasingly attractive for footloose activities, on a temporary or permanent basis. Advanced teleworking opportunities have become conducive to some decentralisation of activities, but not enough to offset the dynamics which still favour large cities (concentration and quality of services, jobs for spouses, professional re-orientation opportunities, availability of higher education for children, cultural life). Growing labour force mobility benefits less populated regions, where the cost of accommodation is lower and quality of life more attractive. An increasingly large part of the population has two residences: a small flat in a major city and a single house with a large garden in a different region, more attractive for its climate and leisure time opportunities.

2.2. Economy

In 2050, the European economy has entered a phase of qualitative, rather than quantitative, growth: its average yearly growth rate of 1.4 % is sizeably below the world average⁷⁹. This stems from three main factors:

- the European demographic structure, which includes a high percentage of inactive population (below 25 years and over 70 years, for an average life expectancy of 85 years, which gives 40 years of inactivity for a working period of 45 years);
- environmental constraints, which regulate growth while improving its quality and sustainability;
- a larger share of low-productivity services (including personal services to ageing population).

However, Europe has restored its competitiveness through an industrial rebirth of high productivity activities derived from technological innovation. Development strategies for research and innovation have borne fruit, although slightly more slowly than expected, especially in initially lagging areas. The map of “success stories” demonstrates a fairly wide dispersion of the most

⁷⁸ See Kemal Dervis, *The next social contract*, Project syndicate 2013 www.project-syndicate.org (in Le Monde 25 July 2013, page 8).

⁷⁹ 2.9% from 2010 to 2050, according to Global Europe 2050.

efficient regions, despite the initial concentration of R & D. Through ICT dissemination of knowledge, some regions previously lagging behind have been highly successful in developing industrial clusters of excellence.

To reach this outcome, a maturation process proved necessary. The implementation of the Lisbon and Europe 2020 strategies was hampered by a lack of geographic differentiation of their policy objectives. As early as 2010 however, the European Commission made a case for supporting “smart specialisation strategies” on a more regionally-differentiated basis⁸⁰. It was also generally admitted that two main principles had to be adhered to for innovation policies to be successful: “embeddedness” (i.e. being embedded in the local context and in local assets) and “connectedness” (i.e. guaranteeing the achievement of external knowledge through strong and virtuous linkages with the external world). Later on, these specialisation strategies were criticised for favouring the unrealistic situation of having one policy action for each European region. A different policy line was therefore advocated and successfully implemented, namely “Smart innovation strategies” promoting ad-hoc interventions – tailored to each single territorial innovation pattern - with the aim to reinforce regional innovation process, to enhance the virtuous aspects that characterize each pattern, and to reinforce each pattern’s efficiency⁸¹.

In 2050, Europe exports worldwide a wide range of high level manufacturing goods and services. Increased trade with the rest of the world⁸², which has a higher demographic and economic growth, is a key element of its prosperity.

As mentioned above, the increase of production costs in emerging economies ensure a rebalancing of trade. With a few exceptions of some workshop countries, the developed world (which now includes Asia and Latin America) is now wide enough to absorb their exports, without excessive downward pressure on labour costs. Europe is clearly among the globalisation winners and benefits from ever increasing opportunities. Accession to the developed world of its trading partners enlarges its commercial positions.

The decentralisation of industrial production (impact of 3D production) advantages the consumption centres, in particular major cities. It is also fuelling a dynamic of re-industrialisation of more densely populated areas in Southern and Eastern Europe, where more consumers can be reached. Accordingly, the 2050 map of disparities has become more complex. The old North-South and East-West gaps, which divided Europe in the early 21st century, have been replaced by a map having a “leopard skin” looking, where the less-favoured regions are sometimes located very close to the most prosperous areas.

Finally, the high-productivity manufacturing sector consumes fewer raw materials, energy and space. This allows for reallocation of land in industrialised zones, which favours the continuation of the conversion of industrial cities to smart cities, thanks to the opportunities offered by communications technologies.

Behaviour change and social innovation are proving as crucial as better economic solutions and technological innovation. Incorporating the cost of externalities, shifting to low-carbon energy systems, improving sustainable water management, halting deforestation, have deeply modified the business environment and avoided repeating mistakes of the past. According to the WBCSD 2050 vision⁸³, the implementation of these new policies is contributing to 1.4 to 4.5 % of 2050 GDP.

⁸⁰ European Commission (2010) *Regional Policy contributing to smart growth in Europe 2020* COM(2010) 553 final.

⁸¹ ESPON 2013 project “KIT - Knowledge, Innovation, Territory” (2012), Final Report, Executive Summary, p. 13

⁸² Global Europe 2050 foresees a rate of growth of world trade of 5.2% per year from 2010 to 2050.

⁸³ Vision 2050, The new agenda for business, World Business Council for Sustainable Development (WBCSD), February 2010, 80p. The study involved 29 global companies representing 14 industries.

In 2050, EU policy steps and programmes to strengthen economic, social and territorial cohesion remain necessary. In fact, for a long time during the slow recovery from the 2008-13 crisis and thereafter, inter-regional disparities inside the EU have increased, mainly due to macroeconomic adjustment reasons. These reasons have mainly to be found in the difficulties faced by some southern European countries to keep up with the pace of productivity increases of other countries, and in the relevant reduction of public expenditure, tax increases and wage controls that were imposed by the difficult conditions of public finance in these same countries. Beyond that, the negative effects of the world crisis have strongly impacted on many regions in the new Eastern member states, mainly due to the sudden reduction of foreign direct investments.

Subsequently though, mainly after 2030, thanks to some long-term positive results of restrictive economic policies on the fundamentals of problem countries and thanks to a renewed economic solidarity reached among member states - allowing the utilisation of more efficient international financing tools - it was possible to re-launch the economy of less prosperous and dynamic areas and to address the EU along a long term path of (slowly) decreasing disparities. During the past decades, interventions of other EU policy instruments were also necessary in accession countries, whose GDP per capita was often far below the EU average. Furthermore, it was deemed necessary to strengthen policies geared toward a further reduction of disparities in some non EU countries of the periphery, in particular those having adopted the single market rules. The question has recently been raised as to whether an extension of the cohesion policy should not apply to the deprived areas of the entire EUROMED area, including in countries which do not belong to the EU.

2.3. Transport, energy, climate and environmental policies

As explained in the above sections, demographic and economic change has significantly reshaped the European territory, whereas various policies carried out by the EU, the states and the regions to influence migratory flows, economic growth and employment have achieved non negligible results. Especially regional policy, whose territorial dimension is more explicit than the others, has significantly contributed to alleviate geographic disparities and carries on doing so in 2050.

Other policies help to achieve constant progress towards EU territorial cohesion, especially transport, energy and environment/climate policies. All the relevant policy steps are of course included in the *EUTeCoS*.

2.3.1. Transport

In 2011, the European Commission published its White Paper entitled a “*Roadmap to a Single European Transport Area*”⁸⁴. Implementing the ambitious strategy set out in this document proved difficult in the following years. There was a lack of political will among European leaders to authorise the significant increase in transport infrastructure investment needed. As of 2020 however, things turned out differently. The lack of safety and environmental sustainability of the EU transport system as well as an unprecedented level of traffic congestion raised awareness about the need for radical steps. Thanks to an ambitious action plan and a series of EU public loans issued since the 2020s, the ten main goals of the White Paper agenda (an update of which was included in the *EUTeCoS*) have been achieved by 2050, GHG emission has been reduced by 60% and the other 2050 targets have been fully met, in three main areas:

1. New and sustainable fuels and propulsion systems have been developed and deployed:

⁸⁴ EC WHITE PAPER [COM(2011) 144 final] *Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system*

- “conventionally-fuelled” cars have disappeared in urban transport and essentially CO₂-free city logistics has been achieved;
 - the share of low-carbon sustainable fuels in aviation has reached 40% and EU CO₂ emissions from maritime bunker fuels have been reduced by 50%.
2. The performance of multimodal logistic chains has been optimised, including by making greater use of more energy-efficient modes:
 - more than 50% of road freight over 300 km has shifted to other modes such as rail or waterborne transport, facilitated by efficient and green freight corridors;
 - the European HST network has been completed, appropriate steps have been taken to maintain a dense railway network in all member states and the majority of medium-distance passengers travel by rail;
 - a fully functional and EU-wide multimodal TEN-T network has been completed, with a high quality and capacity and a corresponding set of information services;
 - all core network airports have been connected to the rail network, preferably high-speed, whereas all core seaports have been sufficiently connected to the rail freight and, where possible, the inland waterway system.
 3. The efficiency of transport and of infrastructure use has been increased, thanks to information systems and market-based incentives:
 - the European Common Aviation Area has been completed, land and waterborne transport management systems have been deployed, as well as the European Global Navigation Satellite System (Galileo);
 - the framework for a European multimodal transport information, management and payment system has been established;
 - the objective of zero fatalities has been virtually reached in road transport;
 - the “user pays” and “polluter pays” principles fully apply.

Moreover, thanks to the increasing use of smart technologies, there is no need to further expand the transport grids. Instead, less roads and rail infrastructure have become necessary with higher precision transport and automatic braking systems. Infrastructure is accompanied by pay-as-you-use facilities. Local transport infrastructure has been upgraded as well as urban transport systems. The prevailing approach to finance infrastructure needs still consists in devolving to the business sector the provision of public services and infrastructures. However, this remains a controversial issue, and a growing demand is expressed for the socialisation of, and state control on, public goods, services and infrastructures⁸⁵.

Be that as it may, various evolutions (climate change, regulations about CO₂ emissions, growing scarcity of fossil fuel and clean air, major progress in location-based services, information processing and satellite technology such as ‘Galileo’) have deeply impacted the mobility patterns of people and goods. People have changed their mobility style and habits. Intermodality has considerably increased in freight and passenger transport alike, and electric mobility has significantly developed.

Huge progress in the area of intermodality has indeed been made possible thanks to various innovative technologies. For example, Public Containerised Transport (PCT) has become widespread thanks to the development of so-called “podvehicles”, i.e. cars and trucks, self-powered on roads, and designed in such a way that they can be loaded onto a rail-based carrier, a “pod”⁸⁶. Podcars cannot compete with mass transportation systems in major cities, but PCT is more efficient than highways on the intercity network, where intervals between stations remain relatively short. As far as the long-haul traffic is concerned, similar intermodality solutions are applied at the nodes of the high-speed network. For the very long-haul, including the intercontinental traffic (e.g. the trans-Atlantic connection) cutting-edge technologies have been successfully implemented, including magnetic levitation (maglev) and

⁸⁵ EC DG Research (2012) - *Global Europe 2050*, Scenario “EU Renaissance : further European integration”, pp. 33-34

⁸⁶ Cf. <http://www.eubase.net/reports/PCT.pdf> Nordic Communications Corporation Helsinki, Finland.

vacuum tube train (vactrain), the combination of which permits safe and environmentally friendly supersonic transportation (2 km/s, i.e. 7,200 km/h.) On virtually every network, vehicles and trains are automatically operated, as robotic solutions have become far safer than human drivers. What is more, in wide parts of the European network, the transport system has been fully integrated in such a way that individual vehicles can be mutually connected in densely used sections to form a train with the resulting chain: when leaving their home for a remote destination, travellers have just to sit in their car (or a taxi rented on the web), order a destination to their robot driver, and quietly go about their daily business. They do not need even to worry excessively about their ecological footprint, since fossil fuels are no longer needed to operate cars. In 2050, sharing driver-less cars (utility cars) instead of driving is the prevalent mode of travelling, account taken of the growing number of aged travellers. Public transport has also evolved: mostly automatic metro and tram lines continue to serve high demand connections, but scheduled bus services have been substituted by seamless door-to-door transport.

2.3.2. Energy

In parallel with this transport and mobility policy, a similar evolution took place in the area of energy policy, which became an EU federal policy⁸⁷ in the full sense of the word. The objectives and related targets presented in the “*Energy Roadmap 2050*”⁸⁸ (and in the *EUTeCoS*) were met, including the overall aims of EU’s decarbonisation, security of energy supply and competitiveness. A transition took place from a system characterized by high fuel and operational costs to a model based on higher capital expenditure and lower fuel costs. In 2050, the share of renewable energy sources (RES) exceeds 55% of the gross final energy consumption (compared with 10% in 2010)⁸⁹.

The share of electricity in the final energy demand has doubled (from 20% in 2005 to 40% in 2050), which has significantly contributed to the decarbonisation of transport and heating/cooling. For this purpose, structural change took place in the power generation system, whose decarbonisation level exceeds 95% in 2050.

Thanks to relevant policy choices and the availability of new technologies, considerable energy savings (a critical aspect of any sustainable energy policy) have been achieved, bringing the gross EU energy consumption from 1,800 Mtoe in 2015 down to 1,200 Mtoe in 2050⁹⁰.

Moreover, renewable energy generation technologies have achieved huge progress.

Smart grids have revolutionised electricity production and distribution. As anticipated by Jeremy Rifkin⁹¹, homes, factories and offices are both users and suppliers of renewable energy on an intercontinental power grid, in the same way as information and knowledge was already exchanged on the Internet at the start of the century. Contrary to Rifkin’s expectations however, the amount of energy produced by this highly decentralised system has turned out insufficient to meet the steadily growing needs. Centralised large-scale systems of energy generation remain essential to supplement the locally-produced supply on smart grids, and a new configuration combining decentralised and centralised power generation has emerged. These systems depend on each other, for example, if local resources are not sufficient or varying in time. Considerable investments in concentrated solar power stations took place in the first decades of the 21st

⁸⁷ After the entry into force of the Lisbon Treaty, unanimity still applied to a significant number of decisions made by the Council concerning energy policy, by virtue of articles 192 2(c) and 194 of the TFEU.

⁸⁸ *Energy Roadmap 2050*, Communication [COM(2011) 885 final] from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions

⁸⁹ *Energy Roadmap 2050*, Graph 1. See also EC DG Research (2012) - *Global Europe 2050*, pp. 105-106

⁹⁰ *Energy Roadmap 2050*, Graph 3

⁹¹ RIFKIN, Jeremy (2011), *The Third Industrial Revolution: How Lateral Power is Transforming Energy, the Economy, and the World*. New York: Palgrave Macmillan.

century. As predicted by Ray Kurzweil⁹², exponential progress in the solar energy industry made possible to secure a sufficient level of energy supply at a significantly smarter pace than initially expected. Strategic initiatives such as the Desertec Concept⁹³ and Desert Power 2050 (DP2050) promoted by the EUMENA⁹⁴ partnership were successfully implemented (cf. Map 2, p. 43)

The EU also took particular care to secure a fair and geographically balanced access to energy at a moderate price. At the turn of the century, there was still considerable room for improvement in this respect, some regions facing a risk of energy poverty⁹⁵. In the following decades, the EU, the states and the regions embarked on the implementation of an ambitious action plan, whose objectives were included in the first versions of the *EUTeCoS*. This plan aimed at reducing the vulnerability of regions facing energy poverty and promoting energy solidarity between regions, while extending and modernising local and regional energy networks, increasing energy efficiency (e.g. through the emission of “white certificates”⁹⁶) and the share of renewables in the energy mix. All these objectives were met. In 2010, problems were particularly acute in regions of the member states which had recently joined the EU, but also in Spain, Portugal and a couple of areas in the Italian Mezzogiorno. Among these regions, many had a real potential to develop renewable energy systems, but most of them were lacking the resources to do so. Therefore EU subsidies, including ESIF, supplemented by state and/or regional aids, were granted to assist these regions in overcoming their energy poverty, which they did. Nordic countries and Ireland were also facing specific (windy and/or cool) climatic conditions, but their level of economic welfare enabled them to take up the climate challenge more easily, especially through harnessing their wind energy potential.

2.3.3. Climate and environment

As indicated above, the earth’s average temperature rise above 2°C raised world-wide awareness about the urgent need for a global environmental governance. Strict norms were prescribed and enforced by the WEO, in close consultation with the relevant authorities in the various continents.

Compared with other parts of the world, Europe was not facing the worst situation during the first half of the century. Various European regions were more affected than others, in various respects. The sensitivity of their physical assets, human populations, economic activities (including tourism, agriculture and forestry), environment and cultural heritage was carefully analysed⁹⁷. It became clear that climate change was impacting various categories of regions in a differentiated way. For example, physical assets were particularly threatened, or even damaged, in the north-western coastal regions and in the Po river valley in Italy, as a result of both sea level rise and more frequent river floods. This had of course serious repercussions for populations in these regions, but the social impact of heat was even more significant in southern regions, especially coastal agglomerations in the Mediterranean. A similar comment applies to the economic impact of climate change, which seriously affected southern Europe, especially its touristic potential (but the Alpine regions were also affected in this respect, owing to the decrease in snow cover), and also agriculture in the south-eastern regions. Needless to say, climate change seriously impacted the environmental resources as well. Southern regions, again, were

⁹² Cf. <http://bigthink.com/think-tank/ray-kurzweil-solar-will-power-the-world-in-16-years>

⁹³ <http://www.desertec.org/concept/>

⁹⁴ Dii GmbH (2012) *2050 Desert Power – EUMENA 2050 Powered by renewable energy*. “EUMENA” stands for “Europe – Middle East and North Africa”. Observing that “supply and demand for renewable energy are complementary in the south and north in all seasons”, the DP2050 approach ambitions to harness synergies between European and MENA regions.

⁹⁵ Cf. ESPON 2013 project “ReRisk - Regions at risk of energy poverty”

⁹⁶ Emission of “white certificates” : a system requiring energy companies to either invest in energy efficiency or buy “certificates”. Such a system has been successfully implemented in Italy (cf. Lorenzoni, A. (2008), “*The Italian Experience. White certificates in electricity and gas. A regulatory review*”. <http://www.catedrabbp.upcomillas.es/Documentos/Actividades/Foro/2008/Lorenzoni.pdf>)

⁹⁷ Cf. ESPON 2013 project “CLIMATE - Climate Change and Territorial Effects on Regions and Local Economies”

seriously affected, especially soils in river deltas and along coasts, as well as mountain areas, where steep slopes facilitate soil erosion. The cultural heritage, which is less affected by creeping changes in temperature and precipitation, was more threatened in a few regions (in particular some Italian and Dutch coastal areas and at the Slovakia-Hungary border) hosting a large number of heritage sites and prone to floods and other environmental hazards.

In the aggregated picture of the potential impact of climate change in the various European regions, three main categories emerged: highly threatened areas (mainly southern Europe but also the Belgian and Dutch Low Countries), areas characterised by a marginal (negative or positive) impact (mainly in DE-CZ-PL-DK-SE-FI-EE-LV-LT), and areas in an intermediate position (France, the remainder of Benelux, the British Isles and Norway). In terms of regional vulnerability⁹⁸ however, southern regions were more negatively affected, owing to a lower adaptive capacity.

The European territory was increasingly characterised by a north-south divide between regions respectively less and more vulnerable to climate change, similar to the other divide already observed concerning a “risk of energy poverty”. A policy response was obviously needed. An EU strategy was elaborated and approved to tackle the issue of climate change, and in particular its territorial impact. This EU climate strategy, whose content was integrated in the *EUTeCoS*, was of course in line with the global strategy developed by the WEO, but concentrated on the specific implications of climate change for the European continent.

Drawing on the “EU plan for a competitive low-carbon economy by 2050”⁹⁹, the climate strategy recalled some key-objectives put forward in this plan, including

- 80% cuts to the EU's greenhouse gas emissions by 2050 (compared with 1990 levels) entirely through measures taken within Europe;
- significant improvement of the energy efficiency, for instance by investing in energy-efficient buildings and transport, (probably the most decisive contribution to reducing emissions);
- promotion of clean electricity, produced almost exclusively without greenhouse gas emissions to replace as much as possible fossil fuels for heating and transport.

Much emphasis was also placed in the EU climate strategy on the need for appropriate policy steps at the regional and local levels, with particular regard to land-use planning, in rural and urban areas alike. Action was particularly needed in the primary sector (agriculture, forestry), tourism (winter and summer) and the energy sector (supply and demand), not only to mitigate the negative effects of climate change in the most affected areas, but also to exploit some opportunities brought about by the positive impact of climate change in some regions¹⁰⁰.

As far as urban planning was concerned, it became evident that climatic considerations were key to contribute to an efficient sustainable city development paradigm. As successfully demonstrated in 2020 by the pioneering Masdar¹⁰¹ carbon neutral eco-city experience (Abu-Dhabi), it was possible to achieve impressive results in sunny regions, not only through exploiting the solar

⁹⁸ The International Panel on Climate Change (IPCC) defines vulnerability as “the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity”. IPCC (2007), *Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge.

⁹⁹ European Commission (2011), *A Roadmap for moving to a competitive low carbon economy in 2050*, COM(2011) 112 final.

¹⁰⁰ As estimated by the CLIMATE ESPON project, the aggregate potential impact of climate change in Berlin and a small number of areas in Poland, Estonia, Finland and Sweden is slightly positive.

¹⁰¹ At the time of writing, the Masdar ecocity project start has proved significantly slower than initially expected. The hypothesis is made that difficulties initially faced by this ambitious project were finally overcome.

energy but also by rediscovering some basic principles already applied long ago in Mediterranean and Middle-East cities: narrow streets to avoid excessive sunshine, adequate orientation, cooling-tower effect of the Moroccan riads, etc. Results obtained in existing cities through a revision of the urban design policy principles were of course less impressive than those achieved in new towns such as Masdar, but their contribution to increased sustainability in urban areas proved all but negligible.

To support the implementation of adequate policy responses in the areas particularly affected by floods, drought and other consequences of the climate change, EU subsidies, especially ESIF in various eligible areas, supplemented by extra national and regional funding, enhanced the reactive capacity of various regions. Priority was of course given to areas expected to be hit severely while having a low capacity to adapt to climate change and mitigate its negative effects.

Even though climate change and its various impacts were fully taken into account in the economic, transport/mobility, and energy policies while remaining the core concern of the EU environmental policy, action was also clearly needed in various other policy areas presenting partial, indirect or no connection with the climate issue, such as water resources, biodiversity, sustainable consumption / production, chemicals, etc.

The “Roadmap to a Resource Efficient Europe”¹⁰², which included a Vision for the EU’s economy in 2050, placed much emphasis on the need for sustainable management of resources (such as raw materials and minerals, energy, water, air, land and soil) and on the necessary protection, valuation and substantial restoration of biodiversity and the ecosystem services it underpins. Boosting resource efficiency was indeed key to make progress towards sustainability, but maintaining ecosystem resilience was no less essential. This was rightly pointed out, as early as 2013, by the European Environment Agency (EEA). In its report, the EEA indicated that Europe, at the time, had made “more progress in improving resource efficiency than preserving ecosystem resilience”¹⁰³.

By and large, the trends anticipated in the EEA report were confirmed in 2020, including in three policy areas of particular relevance for territorial development, namely waste, water resources and biodiversity.

Concerning the waste policy, the amount of municipal solid waste (MSW) generated per capita was still slightly above the 500kg/capita target but, worryingly enough, the anticipated decline of MSW landfill was clearly below expectations (still 115kg/capita in 2020, down from 179kg/capita in 2011, which means that the “near zero waste” 2020 target was clearly missed.) Put otherwise, there was still a long way to go to attain an EU-wide application of the “managing waste as a resource” principle, which implied, among others, eliminating landfills and eradicating illegal shipments while maximising waste prevention, reuse and recycling.

Moreover, waste was increasingly traded across borders, much of it for recycling, or material and energy recovery. This development was driven by EU policies requiring minimum recycling rates for selected waste streams as well as by economic forces: for more than a decade the prices of raw materials had been high or increasing, making waste materials an increasingly valuable resource. At the same time, export of used goods (for example, used cars) and their subsequent unsuitable waste treatment (for example, land-filling) in the receiving countries could contribute to a considerable loss of resources¹⁰⁴.

¹⁰² European Commission (2011), *Roadmap to a Resource Efficient Europe*, COM(2011) 571 final, cf. Heading 2 “Making Europe resource efficient”, “Designing the roadmap”

¹⁰³ Cf. European Environment Agency - EEA (2013) *Towards a green economy in Europe – EU environmental policy targets and objectives 2010-2050*, page 6. EEA Report No 8/2013, Copenhagen

¹⁰⁴ Cf. European Environment Agency - EEA (2010) *The European Environment, State and Outlook 2010*, synthesis, p. 75.

An appropriate policy response was clearly needed to accelerate progress towards the achievement of the “near zero waste” objective, and to better control cross-border waste flows. For this purpose, a reference binding strategy was adopted in 2020 and reflected in the *EUTeCoS*, mobilising various authorities and other key-players of the waste policy, including those involved in EU territorial cooperation (Euregios and macroregions – cf. Chapter 5).

With regard to water resources, the 'Roadmap to a Resource Efficient Europe' specified various objectives to be achieved by 2020, in particular:

- full implementation of all the River Basin Management Plans (RBMPs) of the Water Framework Directive (WFD);
- attainment of a “good status” (quality, quantity and use) of waters in all EU river basins;
- minimisation of the impacts of droughts and floods, with adapted crops, increased water retention in soils and efficient irrigation;
- reliance on alternative water supply options only when all cheaper savings opportunities have been taken;
- water abstraction kept below 20% of available renewable water resources.

In 2012, the European Commission published its “Blueprint to Safeguard Europe's Water Resources”. While recalling the objective set out in the EU Water Framework Directive (WFD)¹⁰⁵, namely to achieve good water status by 2015, the Blueprint stated that “The EEA State of Water report and the Commission assessment of the Member States’ River Basin Management Plans (RBMPs) developed under the WFD concur that this objective is likely to be achieved in slightly over half (53%) of EU waters.”¹⁰⁶ Therefore considerable progress was still needed to secure an acceptable level of availability and quality of water resources in the EU. This objective was not met in 2015, but an ambitious integrated strategy was elaborated in the following years and included in the *EUTeCoS*. An important chapter of this strategy was dedicated to the necessary macroregional cooperation between all the authorities and relevant stakeholders. The integrated management of water resources thus became a key-component of territorial cooperation strategies applied to transboundary river basins, and succeeded in developing a sense of solidarity between upstream and downstream areas of these basins. This was of course properly reflected in the Joint Territorial Integration Strategies (JTIS) defined and implemented by the macroregional and Euregional authorities (cf. Chapter 5).

As for biodiversity, the situation in the first decades of the century was also alarming. After deciding, in June 2001, that “biodiversity decline should be halted with the aim of reaching this objective by 2010”, EU leaders recognised, in March 2010, that this 2010 biodiversity target would not be met. True, the EU could boast some significant successes, such as the establishment of Natura 2000, the world's largest network of protected areas, but only 17% of habitats and species and 11% of key ecosystems protected under EU legislation were in a favourable state, whereas significant further biodiversity loss was still observed elsewhere. In response, the “EU Biodiversity Strategy to 2020”¹⁰⁷ proposed by the European Commission was endorsed by the Council in June 2011. This strategy included a “2050 Vision” and a “2020 headline target” respectively worded as follows:

- 2050 Vision: “By 2050, European Union biodiversity and the ecosystem services it provides — its natural capital — are protected, valued and appropriately restored for

¹⁰⁵ Directive 2000/60/EC of the European Parliament and of the Council establishing a framework for Community action in the field of water policy. OJ L327, 22.12.2000.

¹⁰⁶ European Commission (2012), *A Blueprint to Safeguard Europe's Water Resources*, COM(2012) 673 final, page 3.

¹⁰⁷ European Commission (2011), *Our life insurance, our natural capital: an EU biodiversity strategy to 2020*, COM (2011) 244 final

biodiversity's intrinsic value and for their essential contribution to human wellbeing and economic prosperity, and so that catastrophic changes caused by the loss of biodiversity are avoided.

- 2020 headline target: “Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss.”

More specific targets were also defined in the Biodiversity Strategy, concerning the evolution of the status of species and habitats, ecosystems and their services (to be maintained and enhanced by establishing green infrastructure and restoring at least 15% of degraded ecosystems), agriculture (biodiversity-related measures of the CAP, provision of ecosystem services, etc.) and forestry (sustainable forest management plans, etc.), fisheries, Invasive Alien Species (IAS) and the EU contribution to averting global biodiversity loss.

Noteworthy is the fact that stakeholders involved in territorial and land-use planning were strongly encouraged to intensify their contribution to the implementation of biodiversity strategies at all levels, “ensuring coherence with relevant recommendations set out in the European Territorial Agenda”¹⁰⁸.

In 2020 however, the results achieved under the Biodiversity Strategy proved rather mixed. Significant progress had been made to meet some targets, but the degraded ecosystems remained a major cause for concern, especially in border areas. To implement the strategy, action was indeed mainly taken in the domestic context by national, regional and local authorities, but its cross-border dimension, in particular missing links of the green infrastructure in border areas, was clearly overlooked. In response, the objectives of the Biodiversity Strategy were properly reflected in the *EUTeCoS*. More importantly, Euregional and macroregional authorities were requested to deepen their involvement in the Biodiversity Strategy implementation, and to adapt their respective joint territorial integration strategies (JTIS) accordingly. Thanks to this move, it proved possible to make up for lost time, and the EU 2050 Vision of the Biodiversity Strategy was successfully implemented in due course.

2.4. Territorial dynamics

In 2050, the changes brought about by globalisation have profoundly affected the EU, but not to the extent observed in other continents, because the growth rate of the economy and the population was much lower in Europe.

Unlike the US's, Europe's territory is also less adaptable to economic transformation¹⁰⁹. The weight of history and the desire to protect monuments and landscapes continue to play an important role in territorial policies. Furthermore, high standards apply to environmental protection and the conservation of natural resources, whereas new infrastructure has to blend in with the surrounding landscape. All this has also limited the extent of the transformations.

In addition, European territorial dynamics in 2050 are also influenced by two factors, which play a more significant role than on other continents, namely a low residential mobility and an extensive reallocation system of taxes and welfare contributions. This significantly affects the territorial structure through generating a “residential economy” mainly based on public transfers.

¹⁰⁸ European Commission (2011), *Ibid*, p. 8

¹⁰⁹ In the early 2000s, 2.3% of the US labour force was moving from one state to another. In Europe, these migrations were limited to 0.2% (between two member states) and 1.0% (between two regions within the same member state).

2.4.1. Low residential mobility

In 2050, the geography of Europe has not been modified so deeply as in the US. This is because of a persistent lower level of residential mobility, especially of the labour force¹¹⁰. Whereas some 4 % of the European working population are tempted to migrate, only 1% decide to do so, roughly the same proportion as in the 2000s (compared with more than 2 % in the United States).

In principle, provisions of the TEU¹¹¹, which date back to 1957, allow for a completely free movement of people. In addition, the provisions adopted in the context of the single market have constantly improved the EU legislative framework. In practice, despite persistent unemployment rates and major income gaps between regions, mobility between Member States remains hampered by many obstacles, which have not been substantially reduced.

In reality, the most mobile segments of the population are at the opposing ends of the qualification spectrum:

- the very low-skilled workforce (usually migrants from non member countries), because knowledge of the national language is not required for many execution tasks;
- the very high-skilled workforce, because knowledge of a vehicular language (English) allows them to occupy many high level positions in multinational companies.

For almost all the other jobs, a good working knowledge of the national language is essential: this is a major obstacle to migration beyond the language area of origin. Progress achieved in mobility policies at the EU level (coordination of the social protection systems, portability of pension rights, incentives to learn foreign languages) and at national level (more flexible labour and housing markets), proved insufficient to remove this obstacle.

In 2050, policies more finely tuned to different age groups are carried out:

- Group 1 (less than 20 years old): the availability of specialised school infrastructure is of critical importance; creation of bilingual schools, provision of education in foreign languages; this attracts inward investors, who can more easily convince their workforce to expatriate themselves;
- Group 2 (20 to 30 years old): the high mobility of students has increased with the generalisation of Erasmus-type cooperation programmes; when starting their working life or looking for their first permanent job, young workers and graduate students are a major target for regional policies, which attempt to get them settled in their hosting country to find a first job, to start a business or to find a flat; many regions facing depopulation may seize these opportunities to correct demographic imbalances and develop business;
- Group 3 (30 to 50 years old): the family life (employment of spouses, children's education) generates strong location constraints; this needs to be taken into account by local authorities, for example by attracting a sufficient number of general practitioners and other doctors in rural areas;
- Group 4 (50 to 75 years old): back to a significant level of professional and/or non professional - mobility, with a possible change of residence when retiring; this generates new opportunities for regional authorities seeking to attract people with a view to providing a market to the residential economy and the tourism industry.

¹¹⁰ See Geographic mobility in the European Union, Optimising its economy and social benefits, Final report, DG EMP, April 2008, 150p.

¹¹¹ TEU = Treaty on European Union. According to Article 3, "free movement of persons is ensured".

- Group 5 (more than 75 years old): the return to urban centres is often necessary, due to growing dependence on health infrastructure; investments for the elderly with reduced mobility (e.g. construction of homes) may generate economic activity and jobs in peri-urban or rural areas.

In 2050, policy makers have achieved considerable progress in the area of mobility management. Growing attention is paid to the needs of non-active people, who are a source of financial transfers and consequently an opportunity for job creation in many regions.

2.4.2. The so-called residential economy

As suggested above, the spatial distribution of jobs no longer mirrors the geography of production. Due to the importance of welfare transfers in Europe, a significant part of the added value is not spent in its region of production, but according to the geographical location of specific groups of population (commuters, pensioners, students, some unemployed people). This is the basis of a “residential economy” fed by transfers and offering a wide range of services to the person, including tourism. The large size of financial transfers, which stem from the redistribution of taxes and welfare contributions (around 40 % of GDP in 2010 in the EU 27), is conducive to another geography, that of the residential economy¹¹², which overlaps the geography of production. In European countries with a high level of welfare, such transfers having a greater corrective effect on disparities than regional policies.

Although some rather painful corrections have been made to restore its competitiveness, Europe 2050 has kept its welfare system. The whole population continues to enjoy its health coverage, pension systems are balanced, and unemployment insurance, although less generous than in the past, continues to support jobless people. The social economy and other non-market services have been maintained and further developed.

As in the past, these expenditures mirror the geographical distribution of population rather than production. Jobs so created are more evenly distributed on the territory and more stable than those created by manufacturing industries (in particular when these are affected by reconversion problems). More and more pensioners consume their income outside the region where it has been generated. Commuters¹¹³, owners of a secondary residence and tourists finance a residential economy, which allays the disruptive nature of economic change while making an essential contribution to growth in previously disadvantaged areas. However, these transfers may also turn out to benefit large cities, if people, in particular the elderly, prefer to live in a more urban environment.

2.4.3. Permeability and mobility of borders

In 2050, the EU borders are no longer barriers. Except in the most recent accession countries, they have lost their former filtering role. However, the fluidity of movement in Europe remains sizeably lower than in the US, due to the persistence of administrative hurdles (e.g. no harmonisation of welfare benefits) and linguistic obstacles (even if these have been significantly mitigated by computerised translation and interpretation facilities). With peripheral third countries, despite the intensifying relationship, restrictions remain on free movement of people, with particular regard to the establishment of migrants.

Border crossing, however, has become very easy, thanks to the construction of new infrastructure and simplification of controls. The intensification of trade has favoured new activities in border

¹¹² This analysis is based on a statistical analysis of the French territory conducted by Laurent Davezies. Cf. DAVEZIES, L. (2008) *La République et ses territoires, la circulation invisible des richesses*, collection La République des idées, éditions du Seuil, Paris, 110p.

¹¹³ In German “pendlers”, in French “navetteurs”: in 1999, a quarter of the active population living in rural areas was working in towns.

regions and reduced the income gaps, as a result of various mechanisms catalysing territorial integration, in particular cross-border and transnational territorial cooperation supported by the EU at its internal and external borders.

3. Cities and rural areas

3.1. Metropolitan, urban and rural areas: interdependence between human settlements in Europe

In 2050, complementarity between the productive economy, which feeds the growth, and the residential economy, which allocates the product of taxes and welfare contributions, has reduced territorial disparities.

Globalisation still favours metropolitan areas, which generate more added value and jobs. Businesses benefit from economies of scale, a range of high-quality services and various facilities. They find highly-qualified specialists and a suitable socio-economic environment. However, the growth capacity of European metropolitan areas is limited. In many rather densely populated areas of the continent, development is hindered by the lack of space and diseconomies of scales such as higher social and housing costs resulting from concentration and real estate speculation. If governments decide to charge the real cost of infrastructure and services to the private sector, companies may be tempted to resettle in less expensive areas.

Therefore, job creation opportunities move to secondary growth poles, offering attractive living conditions and good connections to the metropolitan areas. In cooperative networks of cities and towns, many companies favour decentralisation, which enable them to retrieve a range of high level services without the additional costs of metropolitan areas. This development is most visible in countries with no large metropolitan area, where the authorities have boosted their larger cities, which have attracted international functions of good level despite their relatively smaller size¹¹⁴. As demonstrated since the beginning of the 21st century, these cities have experienced significant growth, sometimes higher than their capital city, despite the preferential treatment granted in most cases to the latter by national governments. These cities also benefit from devolution processes, allowing them to set up their own development strategies, which enable a majority of them to generate a potential for additional growth.

Small towns and rural areas are not necessarily penalised by these developments. They have retained productive activities (agriculture, small industries), whereas peri-urban areas attract activities which cannot easily find a site to settle within cities. Towns and rural areas are also the main beneficiaries of the residential economy.

Furthermore, peripheral regions have capitalised on significant opportunities generated by higher growth and better living conditions in the Eastern partnership and SEMC¹¹⁵ countries. They benefit from the intensification of trade with their neighbourhood countries. For example, the two sides of the Strait of Gibraltar have become very active production centres, with major spin-offs on both sides of the strait, from Tangier to the Spanish seaboard. In the Aegean, Malta, Sicily and Cyprus, the development of trade also creates many jobs. Growth in Kaliningrad, where Russia makes huge investments, stimulates neighbouring regions in Lithuania and Poland.

¹¹⁴ For instance in Switzerland, Geneva, Lausanne, Basel have attracted many international activities although there are rather small compared to Zürich or Frankfurt. Cf. ESPON project "Secondary Growth Poles and Territorial Development (SGPTD) in Europe: Performances, Policies and Prospects", Final report, June 2012, 63p. 124 second tier cities in 31 countries have been analysed by this project.

¹¹⁵ Southern and Eastern Mediterranean countries (SEMC): a group of Mediterranean associated countries stretching from Morocco to Syria.

3.2. Cities

In the first half of the 21st century, the rise of the information society triggered a dramatic reshaping of the world system of cities. The traditional national trees of central places were progressively superseded by a world-wide lattice of polarising cities

At the time, fears were expressed about this evolution, which might have resulted in a zero-sum game between winning and losing cities. In reality, globalisation turned out to be a positive sum game between cities. As rightly stressed by prominent analysts (such as John Allen¹¹⁶), “the power to...” (i.e. the capacity to play a decisive role in the functioning of the network of cities) matters more than “the power over” (i.e. domination over the others).

Therefore worldwide cooperation between private and public bodies from various cities considerably intensified. However, relatively closer ties were still woven between cities of a same continent, for evident reasons of geographic and cultural proximity, whereas a small number of “global cities” emerged in each continent as main gateways to the global economy.

In 2050, the main global cities on the European continent remain concentrated in the “Pentagon”. In no way does this mean that economic wealth is concentrated in these hubs; instead, they represent a strategic interface network for the communication between European key-players of the globalised economy and those based in other parts of the world. These key-players themselves have established their headquarters and production units in a geographically balanced network of cities. The polycentric paradigm of European territorial development was consistently implemented during the past decades. In particular, EU ESIFs and investments of the EIB have contributed to the economic and cultural development of various cities, including capital-cities but also other cities insufficiently developed at the turn of the century, particularly in the members states which joined the Union at the time. This contributed to rebalancing the systems of cities in Eastern Europe. Physical connectivity between European cities was also considerably improved, thanks to the completion of some missing links in the TEN, in particular cross-border HST links.

Cooperation in cross-border, macroregional and global networks of cities has considerably intensified. The future of most cities no longer depends on decisions made in the framework of domestic policy, but steadily more on linkages and joint activities generated by these networks. Cooperation activities include in particular the promotion of “triple helix” (Industry/University/Government) development, but also many other joint undertakings. Tangible cooperation projects focusing on specific issues of relevance for territorial integration are particularly successful. Permanent thematic networks contribute to harnessing synergies between projects addressing similar issues. The transboundary geographical remit of these networks covers various and often overlapping areas, on a variable geometry basis. This type of flexible thematic cross-border or transnational cooperation is distinct from that of the macroregions and Euregios (cf. Chapter 5), which concentrates on long-term cross-sector territorial integration strategies, but needless to say participants in either type of cooperation work in close consultation with one another.

Noteworthy is also the fact that virtually every European city, and in any case every EU city, has completed the « urbanisation / suburbanisation / counter-urbanisation / re-urbanisation » cycle, as some western cities did already in the first decades of the century. This, but also many other factors and pro-active policies, was conducive to the development and widespread implementation of a European smart, sustainable and inclusive eco-city model. Like any model, this one is characterised by some general key-principles, whose application unavoidably leads to manifold original solutions, depending on local circumstances.

¹¹⁶ ALLEN John (2008), *Powerful City Networks: More than Connections, Less than Domination and Control*. Urban Studies, Sage publications

These key-principles, regularly updated, commented and disseminated on the Reference Framework for European Sustainable Cities website¹¹⁷, are as follows:

- make cities of tomorrow places of high social progress with a high degree of social cohesion; platforms for democracy, cultural dialogue and diversity; places of green, ecological or environmental regeneration; places of attraction and engines of economic growth;
- promote a compact settlement structure and combat urban sprawl;
- transform profoundly the metabolism of cities : forego the old linear metabolism (high quantities of inputs and outputs) and promote an efficient circular metabolism through minimised waste and emissions and maximised recycling;
- promote social mix in neighbourhoods and at school through all appropriate means (e.g. small public housing operations in the urban fabric or appropriate mix of more and less profitable operations in planning permissions delivered to private developers)
- favour high density urban development in strategic nodes and along public transport lines; forego further development elsewhere, and promote progressive ecological restoration of low density residential areas inherited from 20th century urban sprawl;
- strictly protect the blue-green infrastructure; be more flexible in zones dedicated to economic activities and residence
- irrigate residential areas with public transport and slow traffic (pedestrians/cyclists) infrastructure while reducing car traffic speed and land take
- adopt a holistic model of sustainable urban development; integrate policies vertically (between decision-making levels) and horizontally (between sector policies) and geographically (transcending administrative boundaries, e.g. those of municipalities) while deeply involving citizens

3.3. Rural areas¹¹⁸

In the first two decades of the 21st century, the European territory was characterised by profound changes in the socio-economic profile of so-called “rural areas”. Far from being essentially dedicated to their traditional crop-farming and stock-rearing industries, a large majority of these areas took different pathways. Demographic drivers such as depopulation and “counter-urbanisation” trends played a major and differentiating role, depending on the geographic position of the areas considered: the economic outlook sizably improved in some areas, but worsened in others, where the provision of “Services of General Interest (SGI)” was a major cause for concern. Many areas faced a vicious circle, in which demographic / economic decline and SGI degradation feed each other, but in other areas the opposite process took place, i.e. a proactive support to SGI contributed to economic recovery. By and large, less accessible remote areas of eastern and southern Europe remained more “agrarian” and experienced little diversification of their economy, whereas other areas successfully invested in the “New Rural Economy”, i.e. other industries than food and fibre production, not only those often associated with the rural economy (e.g. tourism) but also some manufacturing and service industries. Closely associated with the

¹¹⁷ Cf. RFSC site : <http://www.rfsc-community.eu/about-rfsc/rfsc-at-a-glance>

¹¹⁸ This section is mainly based on the conclusions of the ESPON 2013 EDORA project.

counter-urbanisation process, the NRE was more developed in accessible rural areas. Moreover, many rural areas, regardless of their degree of accessibility, were able to capitalise upon¹¹⁹ various public goods available on their territory, such as quality landscape, bio-diversity or traditional cultures.

Climate change also severely impacted various rural areas, especially in southern and eastern regions, where options for agriculture were narrowed, the risk of environmental degradation increased, and tourism and leisure activities in particular were affected.

The crisis faced by remote agrarian regions was particularly acute in eastern Europe, where it was exacerbated by a high level of out-migration and a clear weakness of the urban settlement pattern: apart from one dominant capital city in each member state, the rest of the national territory was characterised by a real lack of other medium-sized cities and poor accessibility, which resulted in very poor prospects of diversification of the rural economy.

This excessive “monocentricity” of the urban system in the remote rural areas was a real challenge for the EU, national and regional authorities. In the twenty-twenties and -thirties, the EU Territorial Cohesion Strategy and relevant sector policies were adapted to provide appropriate policy responses. Among these policies, particular attention was paid, not surprisingly, to the CAP. Despite the partial re-nationalisation of its first pillar, strategic decision-making about some key-issues of federal interest were kept in the EU remit. Some support to farm competitiveness and agri-environmental measures was still provided, but their relative budget share was reduced, whereas extra funding was allocated to the diversification of the rural economy, rural quality of life and institutional capacity. However, it remained clear that the EU cohesion policy had still a crucial role to play to rebalance the territorial development, with a particular emphasis on the promotion of a better balanced urban system and improved accessibility of remote rural areas. Targeted policy steps were also taken to tackle issues specifically faced by areas affected by a geographic handicap, in particular the Arctic and mountain areas, and islands.

4. Maritime issues

Europe is widely open to the sea, to which its development owes much. The new challenges of the climate change strongly affect coastal regions. In 2050, the maritime dimension of EU policy has gained even more importance. The population living on the coastline has constantly increased during the 20th century and continues doing so in the 21st century. More than ever, the sea is a key development resource in outermost regions (ORs) and Overseas Countries and Territories (OCTs).

Accommodating the maritime dimension in territorial development policy has proved to be a complex challenge, given the large number of stakeholders and the preponderance of vertical (sector based) responsibilities in the distribution of competences. However, population and economic growth in coastal zones, together with adequate policies addressing their development and environmental safety, have resulted in substantial progress.

4.1. Coastal areas

Defined by ESPON on the basis of an accessibility criterion¹²⁰, the coastal areas accounted in 2010 for 21.6 % of the EU-27 area and 36.0 % of its population¹²¹, including the islands (except

¹¹⁹ or « to commodify » in the specialised jargon, i.e. to use public goods as a basis for economic activities (cf. EDORA glossary)

¹²⁰ Areas within commuting distance (45 minutes by road) of the coastline.

¹²¹ GEOSPECS, *European Perspective on Specific Types of Territories*, Final report, ESPON project, 20 December 2012, 121p.

the British Isles and their hinterland), which counted for 3.5 % of the area of the EU and 4 % of its population in 2010. They have been regularly growing since that date.

Disasters (floods, oil spills) that have occurred during the first half of the 21st century led governments to place more emphasis on coastal protection. This trend has been constantly increasing, due to rising sea levels, a growing threat in low-lying coastal areas, especially in the Netherlands, the only member state with a quarter of its territory and 60 % of its population below sea level.

Regulatory remedies (protection of natural areas, prohibition or limitation of new constructions, sustainable development, engineering works to protect fragile areas) have become sufficiently popular to influence governments.

In 2050, the international convention signed on coastal development (integrated coastal zone management ICZM) takes full account of the complexity of ecosystems and ensures consistency between maritime policy and territorial development. Coastline management is now carried out in compliance with the guidelines elaborated by the WEO, possibly at the expense of certain economic activities, with a view to securing sustainable development.

4.2. Integrated maritime policy and maritime spatial planning

Europe and its dependencies control quite a large part of the world maritime spaces, which represent 71 % of the planet area. In 2013, the EU28 exclusive economic zone (EEZ) was estimated at 6,932 million km². With the shares of other EEA countries (Norway and Iceland, 3 million km²) and OCTs (17.8 million km²), the total is close to 28 million km², well ahead of the EEZ size of the US (11.4 million km²), Australia (8.5 million) and Russia (7.6 million).

In 2050, protection policy and development of maritime areas in Europe has adapted to four main issues:

- Closed or virtually closed seas: almost all the Baltic, the Mediterranean and their annexes play a very important role in the European geography and economy. During the 20th century, natural and man-made disasters gave rise to a decline of fishing and environmental resources. In addition, vulnerability to climate change placed them in a very critical situation, until appropriate policy responses were adopted and implemented in the first half of the 21st century;
- Border seas (Atlantic, North Sea), have experienced comparable problems, but to a lesser extent; these problems have been remedied thanks to the intensification of international cooperation since the creation of the WEO;
- The Arctic Ocean (14 m. km²) is also a virtually closed sea but characterised by specific risks and opportunities associated with the melting of polar ice¹²², which paves the way for economic exploitation: navigation, drilling and development of fisheries. At the request of bordering countries, in particular Denmark (Greenland) and Norway, the WEO has established a very stringent framework for the protection of the natural environment and the control of economic activities. Navigation along the Siberian coast (Northeast Passage) and via the Canadian archipelagos (Northwest Passage) is very carefully monitored. As in the Antarctic, a Treaty was signed between the riparian countries to put the territorial claims on hold.

¹²² Over the period 1960-2010, the polar ice has lost 40% of its thickness.

In 2050, the political and economic challenges of maritime spaces have become very serious, as the exploitation of very remote submarine resources has been made possible by technological progress. Considering the increasing fragility of maritime and coastal spaces, some speculative projects proved illusory. It was therefore decided not to implement them to avoid damaging the environment and accelerating the climate change.

To face the growing pressure of these challenges, the maritime governance has undergone radical transformations. According to a study for the European Parliament¹²³, this governance was considered very weak at the beginning of the 21st century, not only at the national but also (and more importantly) at the international level. Taking into account the impact of climate change, and bearing in mind that wide maritime spaces are shared by several countries, it was deemed essential to reinforce common actions carried out by the UN (via the WEO) and the EU.

Although Europe is largely open to the sea, European integration has long maintained a more continental dimension. With the exception of the Common Fisheries Policy¹²⁴, at the turn of the century the EU has not yet very much promoted a joint sustainable management of its maritime spaces. In 2007, the EU launched an “integrated maritime policy¹²⁵” and set about taking into account its impact on spatial development, through including the sea areas in the priorities and strategies set out in the EU Territorial Agenda: “*maritime activities are essential for territorial cohesion in Europe... there is a need to solve user’s conflicts and balance various interests by cooperation in maritime spatial planning. Coordinated actions from Member States should be integrated into the existing planning system to enable harmonious and sustainable development of a land-sea continuum*¹²⁶.”

Despite the vulnerability of the coastline (to oil spills in particular) and the fact that a large share of trade is carried by sea¹²⁷, it took several years to replace work in isolation by structured maritime cooperation, which logically became a part of spatial development as recommended by the EU Territorial Agenda as early as 2011. In 2020, these questions were extensively addressed in the EUTeCoS.

Long negotiations have consolidated the law of the Sea, in particular with countries who did not sign the UNCLOS agreement demarcating territorial waters (either 12 or 24 nautical miles) and the Exclusive Economic Zones (EEZ, up to 200 nautical miles). In line with WEO requirements, the EU has established common policies to improve environmental protection while exploiting natural resources in complete safety.

As maritime activities are essential for territorial cohesion in Europe, Maritime Spatial Planning (MSP) has been integrated into the existing planning systems, to enable harmonious and sustainable development of a land-sea continuum, avoiding unnecessary competition for maritime space, with the potential of fostering the so-called “blue economy” and create synergies between different maritime activities.

At European scale, greater recognition of the importance of marine space has been achieved within EU activities, through a closer collaboration between sector-based (Transport, Energy,

¹²³ *The maritime dimension of the Common Security and Defence Policy (CSDP) : Geostrategic Maritime challenges and their implications for the European Union*, (European Parliament, SEDE, 2013, 110p.)

¹²⁴ The Treaty gives exclusive competence to the EU for conservation, exploitation and management of maritime fishing resources.

¹²⁵ EU’s maritime policy was launched to « enhance the optimal development of all-sea related activities in a sustainable manner. » (Commission communication, 2008).

¹²⁶ Informal Ministerial Meeting of Ministers responsible for Spatial Planning and Territorial Development (2011), *Territorial Agenda 2020*, § 5.

¹²⁷ 90% of EU’s external trade and 40% of its internal trade is carried out through maritime transport.

Fisheries) and horizontal policies (such as Integrated Maritime, Environment and Regional policies). This has allowed better efficiency in addressing trans-boundary maritime planning issues at different spatial scales, as well as more effective transnational governance arrangements tailored to particular maritime contexts.

Taking account of the strength of land-sea interactions, the relevant public authorities have developed integrated maritime planning arrangements that ensure consistent planning across the land sea continuum in national and transnational spaces alike.

In terms of territorial development, adequate instruments have been created to manage complex and fragile environments which belong to several member states, taking into account the complex distribution of competences between different levels of government. The EU has developed a common framework for the collection of maritime data to facilitate harmonisation across maritime regions. A legislation has been established to create a common framework for MSP and integrated coastal management. Particular emphasis has been placed on mapping coastal and marine activities to make more efficient use of seas and on developing coastal management strategies integrating the various relevant policy areas. This legislation is characterised by a strong focus on cross-border cooperation and coordination between administrations at all levels of responsibility.

The EU implements its policies through strategies established for each sea basin, drawing on the Baltic experience. Taking a range of different initiatives as starting point, a framework of reference has been elaborated to coordinate the activities geared towards the protection and management of the sea and coastal areas. Strategies have been approved and regularly updated, programmes have been implemented, and a permanent secretariat has been entrusted with the monitoring and follow up activities. Coordination is even secured between basins, e.g. between the Black Sea and Danube macro-regions as de-pollution of the sea is closely linked to that of river catchments.

In parallel, at the EU level, the framing of the integrated maritime policy as well as its international dimension have been reinforced. In this respect, the WEO plays a decisive role, through ensuring better consideration of maritime issues at the global level. Based on the existing conventions (Ramsar, MARPOL), with the assistance of the other UN agencies, including the IMO (International Maritime Organisation), the WEO has established a legally binding legal framework which is included in all sea governance arrangements.

4.3. Outermost Regions (ORs)

The seven Outermost Regions (Azores, Madeira, Canary Islands and the five French DOM following the inclusion of Mayotte on 1 January 2014), are explicitly mentioned in Article 349 of the TFUE¹²⁸. Even though they represent a modest part of the territory of the EU-27 (2.3 %) and of its population (0.8 %), they are all but negligible in terms of EEZs, with 2.5 million km², of which 1.4 million km² for the Azores and Madeira, 456,000 km² for the Canary Islands¹²⁹ and 656,000 km² for the French DOMs.

In 2050, benefiting from a high level of priority in the structural policies, the ORs pursue the diversification process of their economies, develop their services of general interest (with partial compensation, through the EU budget, of the extra costs resulting from distance and isolation) and improve the quality of their environment. Their level of income has increased and technological change has contributed to improving their accessibility. Territorial handicaps remain (double insularity, frequent mountain areas), but development gaps have been reduced.

¹²⁸ All islands, except the French Guiana.

¹²⁹ Estimation only: there is no sharing agreement between Morocco (de facto in control of Western Sahara) and Spain.

The ORs take also advantage of their immense maritime spaces. Since the early 2000s, this potential has been properly harnessed. Modernisation of fisheries and exploitation of sub-marine resources, taking into account the long term, have provided new economic opportunities and generated additional financial resources. More intensive cooperation with the neighbours (the Caribbeans, other archipelagos in the Indian Ocean, West Africa) has catalysed trade. Lastly, the ORs retain their climate asset, as they are the only EU regions benefitting from an all-year-round tourist activity.

4.4. Overseas countries and territories (OCTs)

The OCTs do not belong to the EU, but they cannot be ignored. As a matter of fact, their maritime space has acquired considerable importance since the beginning of the 21st century. The exploitation of their marine resources represent a key challenge, because this involves the EU in a wider maritime space than its immediate surroundings, with a huge potential.

In the seas bordering the overseas territories of 4 Member States (OCTs), the size of the EEZ is not commensurate with that of territories concerned¹³⁰. With technological developments and the rise of environmental problems, their protection and sustainable exploitation have become an unprecedented challenge for the EU. This huge maritime domain, full of problems and opportunities, hosts a very small population (1.25 million inhabitants in 2010). Considerable technical and financial means need to be invested to ensure its control and its development.

Increasing competition to control these immense spaces led some OCTs to opt for independence, which sometimes endowed them with financial resources of an incredible dimension in view of their tiny population (Greenland¹³¹). Elsewhere, as the OCTs could not control their EEZ nor conduct themselves the exploitation of their resources, they decided to weave closer ties with their respective member state and the EU, of which OCT inhabitants are citizen. Faced with the rising power of continent-states (Brazil, Australia etc.), the EU ended up giving much more consideration to these territories, which were still nicknamed “*colonial empires confetti*” at the turn of the century.

5. Multilevel Territorial Governance and Policy Implications

« *a more interdependent and complex world generate challenges, which demand a coordinated response.* » (Global Europe 2050)

Humans live in two types of space: the static “space of places” made of relatively self-contained elements (e.g. country, city, region, village) delineated by borders, and the dynamic “space of flows”, which develop the transboundary¹³² exchange of goods, services, information, knowledge, etc. between interconnected nodes. Until the nineteen seventies, the space of places was relatively dominant, but from the nineteen eighties onward it constantly lost ground to the space of flows. The decisive groundbreaking factor of this change was the emergence of the digital age, which made the interrelationships in the space of flows continuous and in real time¹³³. Constant progress was made in this direction during the first half of the 21st century, including cutting-edge

¹³⁰ An island of 1 km² may generate an EEZ of 107,500 km².

¹³¹ [U.S. Geological Survey](#) found in 2001 that the waters off north-eastern Greenland (north and south of the Arctic circle) could contain up to 110 billion barrels of oil (around 40% of Saudi Arabia’s reserves).

¹³² As recommended by Dühr, Colomb and Nadin, “transboundary” is used here as a generic term, referring to the three types of cooperation (cross-border, transnational, interregional) popularized by the EU territorial cooperation. Cf. DÜHR, S., COLOMB, C., NADIN, V. (2010) *European Spatial Planning and Territorial Cooperation*, Routledge, London & New York, p.30

¹³³ Castells, Manuel (1996). *The Rise of the Network Society, The Information Age: Economy, Society and Culture*, Vol. I. Cambridge, MA; Oxford, UK, Blackwell

technologies facilitating cross-cultural communication such as automatic real time interpretation services.

These new trends have considerably impacted the evolution of the world governance system. Thanks to the action of the United Nations, very significant progress has been made towards the establishment of Kant's perpetual peace¹³⁴ on the globe. Some visionary thinkers have recently argued that it is probably time for humanity to set up a world federation turning the former nation-states into federated entities. However, time is not yet ripe in 2050 for this decisive quantum leap, even though it has already been achieved in some parts of the globe, including the EU in Europe.

As a matter of fact, the evolution of governance arrangements in the world has been characterised by a constant trend toward further complexity, but broadly speaking six main levels have emerged: the global, supranational (or "federal"), macroregional, national (or "state"), cross-border and regional/local levels.

At each of these levels, territorial governance is characterised by a complex mix of initiatives by, and cooperation between, private, semi-public and public bodies. However, the power to produce legal or regulatory norms such as treaties, laws and regulations remains the privilege of the global, supranational/federal, national/state and regional/local levels. Authorities of the macroregional and cross-border levels, whose cooperation area generally overlaps the geographic remit of national and supranational entities, are not entitled to produce such norms, which could clash with those adopted at other levels. This does not prevent territorial cooperation from catalysing the border vanishing process.

5.1. Global governance and interregional cooperation on territorial issues

Over the past few decades, world-wide cooperation on various issues relevant to territorial development considerably intensified. Countless key-players of the public and private sectors, including NGOs and the corporate sector were involved in this process.

After the disappointing outcome of the Rio+20 Conference, it became clear that the objectives set by the United Nations Environment Programme (UNEP) would never be achieved unless a profound reform of the UN governance on climate and other environmental issues could take place. After protracted negotiations, an agreement was reached in the UNEP proceedings about the creation of the World Environment Organisation (WEO). Considerable progress has been made ever since towards a world-wide efficient governance on environmental issues, thanks to the WEO catalysing action.

Close cooperation ties have been established between the WEO and the International Maritime Organization (IMO), to secure a good coordination between the environmental agendas of these two UN organisations. The IMO action in the areas of maritime security and safety has also sizeably intensified. The highest practicable standards in these matters have been adopted and successfully enforced. This way, significant progress has been made towards safe, secure, environmentally sound, efficient and sustainable shipping.

Over the last decades, the conservation and exploitation of natural and energy resources located outside the Exclusive Economic Zones (EEZ) of the various nations, a highly sensitive issue, gave rise to passionate polemics. Finally, the issue was fixed after tough negotiations under the aegis of the UN. The resulting rules approved between the nations concerned have been enshrined in various ad-hoc international treaties.

Whereas these major breakthroughs were achieved in the field of global governance, interregional cooperation considerably intensified as well, on a variable-geometry and less formal basis.

¹³⁴ KANT, Immanuel (1917) *Perpetual Peace: A Philosophical Essay [Zum ewigen Frieden. Ein philosophischer Entwurf (1795)]*, translated with Introduction and Notes by M. Campbell Smith, with a Preface by L. Latta, London: George Allen and Unwin.

Countless public and private bodies involved in territorial policy issues (e.g. cities and other local and regional authorities, NGOs, research centres, environmental agencies) take part in this cooperation, which revolves around a large number of topics: city networking, urban and rural development, “triple helix”¹³⁵ networking, transport, environmental protection, cultural heritage development and conservation, etc.

5.2. Supranational / federal territorial governance

One century has elapsed since the visionary Schuman Declaration (9 May 1950). Like Rome, the EU Federation was not built in a day, but after a long-lasting, step-by-step, and rather hectic process. Drawing on this pioneering experience, other regional integration processes have taken place in other continents. The depth of integration achieved in this framework is uneven: some organisations are still cooperating on the basis of a quasi-intergovernmental model; others have succeeded in improving their efficiency through the introduction of a qualified majority decision system for a relatively large number of common policies; and the most daring ones have adopted the federal approach, with an institutional framework very similar to that of the European Federation: a bicameral law-making system (with the former Council replaced by a federal senate) and a federal government exercising executive power within the limits of a clearly defined remit. All these organisations include the territorial dimension in their overall policy approach.

After the accession of Croatia, the EU had 28 member states. Nowadays the EU brings together a sizeably higher number of federated states. The evolution of the membership has resulted from three different factors:

- some former member states, opposed to the federal approach, decided to opt out while keeping cooperating with the federal EU as an associate partner country;
- following the exacerbation of internal conflicts triggered by separatist movements, other member states lost one or more of their former regions; recognised as new nation-states, a majority of these entities asked for, and obtained, their accession to EU membership, subject to full compliance with the “EU acquis”;
- several countries of the European continent, mainly but not exclusively in Eastern Europe (including some former USSR members) also joined the EU.

This significant reshaping of the EU geography was accompanied by a no less significant transformation of the EU functioning.

The difficult negotiations which led to the adoption of the “Sixpack”¹³⁶ brought into sharp focus the heaviness and complexity of the EU decision-making procedures. The EU was facing a double risk of paralysis and democratic deficit, as its leaders were increasingly mired down in a sea of intricate procedures to make decisions that hardly any EU citizen could understand. This rose awareness about the need to move towards an efficient and democratic federal model.

Not surprisingly for such a model, subsidiarity was regarded as a golden rule. After its inclusion in the Maastricht Treaty in the nineteen-nineties (during the so-called “Delors era”), subsidiarity became a consensual buzzword. Unfortunately, there was no consensus about the practical implications of this principle. Especially for EU policies with a territorial impact, such as transport,

¹³⁵ Government-university-industry cooperation, typical of the knowledge economy.

¹³⁶ “Sixpack”: to save the Euro, it proved necessary to reform the Stability and Growth Pact and to introduce new macroeconomic surveillance within the EU. For this purpose, a set of six EU regulations was adopted in 2011, relating to the following topics: [1] strengthening of budgetary surveillance and coordination of economic policies; [2] speeding up and clarifying the implementation of the excessive deficit procedure; [3] effective enforcement of budgetary surveillance in the euro area; [4] requirements for the fiscal framework of the Member States; [5] prevention and correction of macroeconomic imbalances; [6] enforcement action to correct excessive macroeconomic imbalances in the euro area.

environment, regional policy, CAP and many others, and even more for the coordination of these policies, there was much controversy about the exact EU remit. True, the notion of “EU territorial cohesion” had been introduced in the Treaty on European Union (TEU), but it remained rather mysterious, as nobody, not even the European Commission, ever managed to provide a clear reference definition of it.

In more recent times however, it proved possible to generate consensus about what subsidiarity really entails. The allocation of competences between the EU federation and its federated states was clarified and streamlined. Surprisingly (at least for those accustomed to the centralist tradition of their former unitary nation state), the exercise did not so much result in the delegation of competencies to the EU federation in extra policy fields. The list of federal policies was virtually the same as the list of community policies already included in the TFEU¹³⁷. What really changed was the decision making procedure, especially in the area of foreign policy: the former loose coordination of 28 policies made way for a genuinely unified EU diplomacy. Also in policy fields to which the “community method” (to use the old terminology) did not fully apply, such as economy or energy, procedures in line with a genuinely federal approach are now implemented, in particular law-making by a bicameral federal parliament. The disappointing outcome of the Lisbon and Europe 2020 strategies led to the conclusion that the celebrated “Open Coordination Method” was not the right approach when important decisions need to be made to put the EU economy back on the right track.

Territorial cohesion still ranks among the key EU policy aims, but there is no such thing as “territorial cohesion policy”. Instead, an “EU Territorial Cohesion Strategy (*EUTeCoS*)” has been elaborated and formally approved by the EU authorities. The *EUTeCoS*, whose first version dates back to 2020 and has been periodically updated ever since, provides a coordination framework for all the EU policies with a territorial impact. The purpose is to make all these policies contribute to a consistent, balanced and sustainable territorial development strategy of the EU. Since territorial cohesion is not a sectoral policy, no Commissioner in particular is responsible for it ; instead, the elaboration of the *EUTeCoS* and the supervision of its implementation are the collective responsibility of the federal Commission, and related activities are coordinated by its President. As far as the implementation of this strategy is concerned, a considerable number of tasks and competences have been devolved to other bodies, including state, regional and local administrations and agencies responsible for territorial development in the member states, but also to authorities of the macroregional and cross-border levels; in this case, of course, the action to be taken does not entail any alteration of the existing legal order in the macroregional or cross-border area concerned.

The EU neighbourhood policy has considerably intensified over the past decades, with significant consequences for territorial governance in large areas surrounding the EU territory. Close cooperation takes place between the EU and the countries located in proximity of its territory. The diversity of their status (former EU member, European Economic Area - EEA member, European part of Russia, EU candidate or pre-accession country, Euro-Mediterranean Partnership – EUROMED member) does not preclude these partner countries from weaving steadily closer ties with the EU and intensifying their cooperation, which proves to be a remarkable positive-sum game and an efficient territorial integration catalyst. Some less advanced countries have obtained an “EEA+” status: they accepted to implement the single market legislation and equip themselves with the machinery needed for its application; in return, they are granted extra financial help to catch up in economic terms.

¹³⁷ TFEU = Treaty on the Functioning of the European Union.

5.3. Macroregional territorial governance

Building on the early successful cooperation experiments in the Baltic and Danube areas, several other territorial cooperation groupings have emerged in wide macroregions and engaged in the elaboration and implementation of a Joint Territorial Integration Strategy (JTIS). There are several overlaps between their respective cooperation areas, most of which are crossed by the external (maritime or land) border of the EU. Therefore macroregional territorial cooperation activities also contribute, to a very large extent, to the implementation of the EU neighbourhood policy.

A sophisticated territorial cooperation governance has been progressively developed in these macroregions. The formal cooperation procedures adopted are very diverse and reflect the specific circumstances of each macroregion. Nevertheless, some key common features apply everywhere. For example, every macroregion has acquired legal personality through adopting the EGTC status. In general, the cooperation is guided by the JTIS, approved and regularly updated by the macroregional assembly with the assistance of a large number of consultative bodies (e.g. a macroregional social and economic committee, associations of cities, expert bodies such as the European Environment Agency or the ESPON Agency, etc.) The assembly is composed of delegates formally appointed by the state- and regional public bodies involved in the cooperation.

The assembly appoints and revokes the members of a macroregional executive authority, sometimes dubbed “macroregional government”. This authority takes all appropriate steps to implement the JTIS. Neither the assembly nor the executive authority produces any new legal or regulatory norm. However, they may invite (but in a strictly advisory capacity) the EU, state- or regional authorities to do so with a view to facilitating cooperation in all or part of the macroregion.

More importantly, the executive authority devotes much more of its time to other tasks, most of which of an operational nature. Probably the most important of these tasks consists in liaising with an impressive number of key-players of the private, semi-public and public sectors, including NGOs and other members of the civil society, to involve them in the territorial integration process, and to promote synergy between the various cooperation initiatives taken by these bodies. This is a two-way process: the executive authority raises awareness about the JTIS and its application, whereas the experience of field practitioners contributes to updating and strengthening the JTIS. This experience is extremely diversified, geographically and thematically. An impressive array of issues (sea water and ground/surface water management, natural resource conservation, mobility and transport, city networks, R&D networks, renewable energy generation and distribution, smart grid projects, territorial planning, etc.) are all addressed on a transboundary and variable geometry basis in ad-hoc cooperation areas whose size considerably varies from one cooperation scheme to another.

The macroregional budget is voted by the assembly, generally on a multiannual basis. Receipts typically include state- and regional contributions as well as EU subsidies (with a large share of ESIF). A small amount of the expenditures is dedicated to the functioning of the macroregional administration, the remainder being affected to cooperation project subsidies. To maximise the yield of public expenditure, these subsidies are negotiated on a case-by-case basis: project partnerships with limited own resources are of course entitled to higher grant rates. However projects whose action plan does not contribute to territorial integration are not eligible for financial support. Furthermore, the territorial integration process is far from being exclusively supported by the macroregional budget. Various strategic investments, especially those needed by major infrastructure projects such as the Strait of Gibraltar fixed link, are funded by loans and resources raised through financial engineering operations involving the private and public sectors alike.

5.4. State territorial governance

The European continent has become fully post-Westphalian. Even though EU citizens remain attached to their formerly “national” and regional culture, they also feel steadily more European,

and “abroad” in the everyday language has become synonymous with “outside the EU”. One and the same citizenship, “European”, is mentioned on an EU passport. In the daily newspapers, EU politics are front page news, whereas state and regional news is relegated to the following pages.

Compared with the situation in the pre-federal phase of the EU, the responsibilities and organisation of the member states have considerably evolved. As was formerly the case, the internal procedures, allocation of responsibilities and governance arrangements still vary considerably from one state to the other. As a consequence of the EU federalisation process, a limited number of former national and EU prerogatives have been transferred to the upper (federal) or lower (state) level, in terms of both law-making and policy implementation. Considerable efforts have been invested in clarifying the exact remit of the federal and state authorities. As indicated above, the reallocation of various policy fields was much less significant than the reform of the decision making procedure (i.e. former consensus in the Council replaced by majority voting in the bicameral EU parliament for law-making on several federal policies).

As far as policy implementation is concerned, the states have kept most of their former responsibilities. Moreover, they have also been entrusted with the implementation of many federal policies, or even the supervision of this implementation by their regional authorities. This applies, for example, to several policies with a significant territorial impact such as the CAP and the regional policy. The framing of some policies such as land-use planning still ranks among the state prerogatives, even though land-use planning itself may be affected by rules and procedures defined by the EU law (as has already been the case since 1985 in the area of EU environmental impact assessment).

5.5. Cross-border territorial governance

In Europe, cross-border cooperation between border regional and/or local authorities is a well established tradition, dating back to the 1960s, when it emerged at the Dutch-German border. Nine decades later, this type of proximity territorial cooperation has become commonplace at every internal and external border of the EU federation, and considerable progress has been made towards its further deepening and institutionalisation. Like historic battlefields (Hastings, Slavkov u Brna / Austerlitz, Marne, etc.), former national borders have been turned into symbolic sites of the friendship between former European nations. Visitors can hardly believe that war and hatred was still possible in the 20th century between these nations, whose potential for cooperation based on fruitful positive sum games was so immense.

Nowadays, there is much grass-root support for such cooperation, especially in the “Euregios”. Arrangements similar to those used by macroregions apply, *mutatis mutandis*, to territorial cooperation in a considerable number of cross-border Euregios, which were created several decades ago. Like the transnational macroregions, these Euregios have acquired the EGTC legal personality. Their assembly, which is generally composed of representatives of the regional and local authorities of the Euregio, supervises the action of the cross-border executive authority. This action is based on a reference JTIS adopted and periodically updated by the assembly. The Euregio is not entitled to produce any legal or regulatory norm, but it disposes of a considerable autonomy to engage in other joint activities contributing to the objectives set out in the JTIS.

To catalyse the territorial integration process in the Euregio, the executive authority mobilises a considerable number of people, associations, NGOs, public or semi-public bodies and the corporate sector to involve them in the JTIS implementation. Many policies conducive to sustainable territorial development are addressed in this framework. These policies are relatively similar in nature to those addressed by the macroregional cooperation: water and other natural resource conservation, mobility/transport, etc. However, the specific topics addressed and issues tackled by cooperation projects reflect a desire for meeting local needs. In the area of mobility for example, a better cross-border connection of regional public transports to a major node of the TENs in a city of a metropolitan Euregio is a typical project objective. In contrast, a rural Euregio

will often concentrate on the provision of alternative types of services of general interest, for example cross-border on-demand transport services.

The budgetary arrangements of a Euregio are similar to those applying in macroregions. The Euregional multiannual budget is voted by the assembly. Receipts include contributions by the regional and local member authorities, as well as state and EU subsidies (ESIF subsidies in particular). Cooperation project subsidies account for the bulk of expenditures, and the grant rates are negotiated on a case-by-case basis.

5.6. Regional/local territorial governance

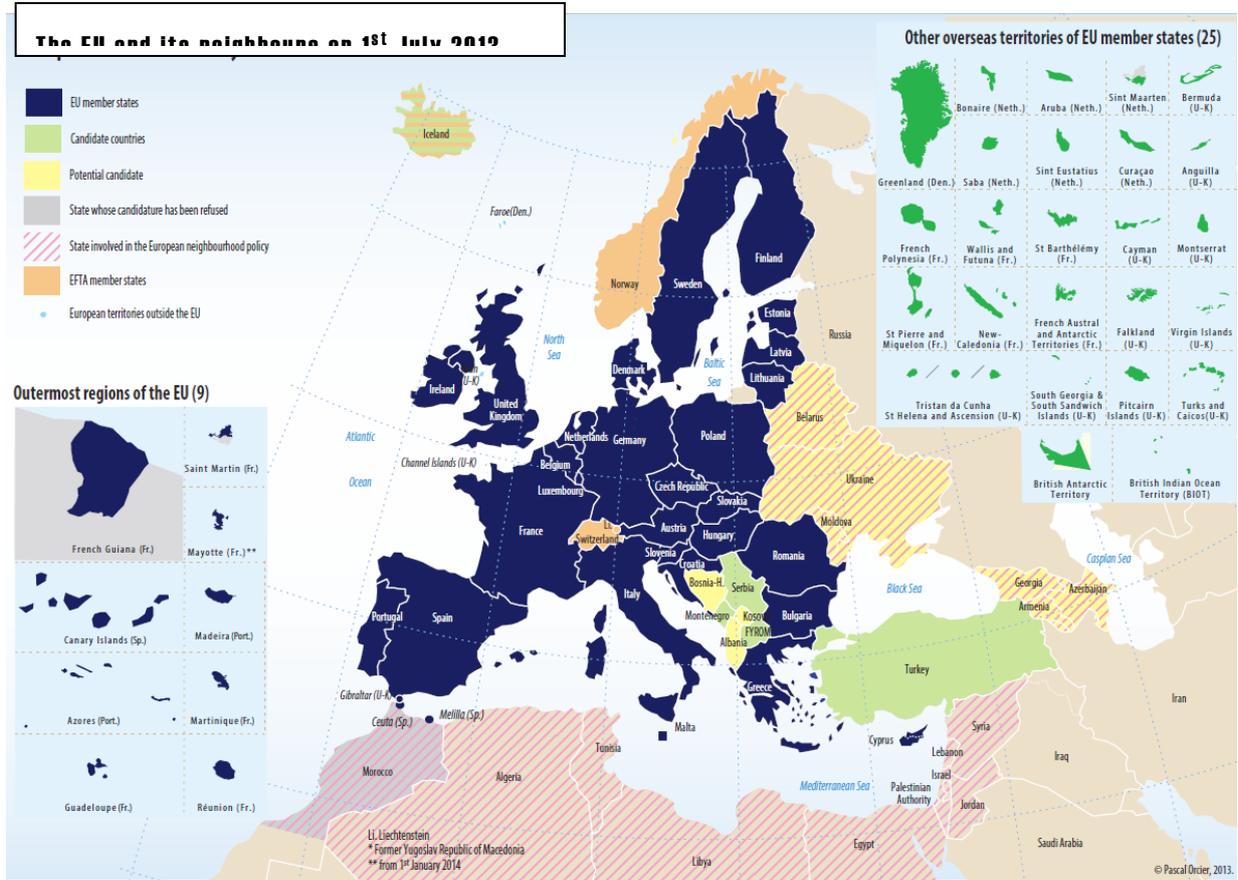
Over the period 2010-2050, the evolution of the governance of regional and local entities has been characterised by a less dramatic change than that experienced by the other four governance levels, possibly because of a more moderate impact of globalisation and European integration on regional and local policy making. This impact was nonetheless not negligible.

Apart from the deep involvement of local and regional authorities in cross-border and macroregional cooperation (cf. supra), other reforms have taken place to reshape and improve multilevel territorial governance arrangements. Not surprisingly, very diverse reforms have been attempted, with a variable degree of success.

In several states, especially those with a large territory, special efforts have been made to reduce the number of formal levels of decision-making. An objective frequently pursued consists in reducing this number to two, for example one “regional” and one “local” level. The process usually proves very protracted, but also leads to a fruitful outcome. For example, in some countries where the size of municipalities was particularly small, their merging into larger and consistent local entities has facilitated cooperation within metropolitan areas to a very large extent. Drawing on the experience of cross-border governance, a territorial integration process takes place in metropolitan areas and is greatly facilitated by the significant reduction of the number of cooperating local authorities. Paradoxically, this also favours the development of the “institutional thickness”, i.e. a rich and complex fabric of mutually connected cooperating partners such as chambers of commerce, social networks and many other bodies of the public, semi-public and private sectors alike.

At the same time, various ad hoc bodies are set up on a casual basis to implement specific local or regional policy agendas, in consultation with, or through a delegation from, formal authorities. These agendas may address many different issues relevant to various sector policies with a territorial impact.

Map 1



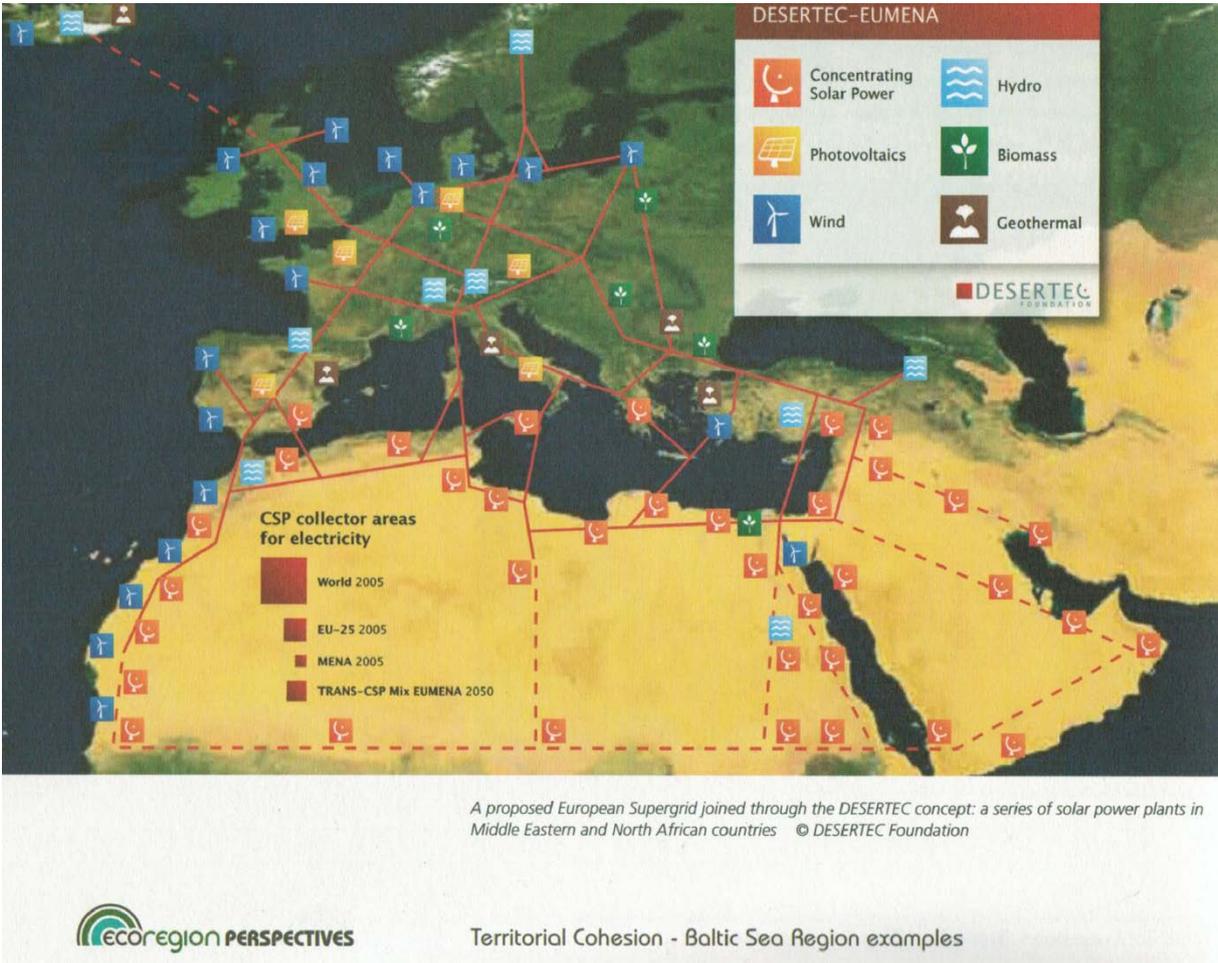
Source: Pascal Orcier

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Map 2



From Ecoregion Perspectives No 2/2011, January 2011, p. 74.

Draft Territorial Vision (TeVi)

(version dated October 2, 2013)

List of Acronyms

3D	Three-dimensional
BRICS	Brazil, Russia, India, China and South Africa
CAP	Common Agricultural Policy
CDSP	Common Security and Defence Policy
CO ₂	Carbon Dioxide
CFSP	Common Foreign and Security Policy
DEMIFER	Demographic and Migratory Flows affecting European Regions and Cities (ESPON 2013 project)
DG EMPL	DG Employment, Social Affairs and Inclusion (of the European Commission)
DOMs	« Départements d'outre-mer » French overseas departments
EC (DG)	European Commission (Directorate General)
ECHR	European Court of Human Rights
ECJ	European Court of Justice
EDORA	European Development Opportunities for Rural Areas (ESPON 2013 project)
EEA	European Economic Area
EEA	European Environment Agency
EEZ	Exclusive Economic Zone
EFTA	European Free Trade Association
EGTC	European Grouping of Territorial Cooperation
EIB	European Investment Bank
ENP	European Neighbourhood Policy
ESIF	European (EU) Structural and Investment Funds
ESPON	European Observation Network for Territorial Development (formerly European Spatial Planning Observation Network)
EUMENA	Europe – Middle East and North Africa
EUROMED (FTA)	Euro-Mediterranean (Free Trade Area)
EU	European Union
EUTeCoS	EU Territorial Cohesion Strategy
FUA	Functional Urban Area
GDP	Gross Domestic Product
GHG	Greenhouse Gas
HST	High Speed Train
IAS	Invasive Alien Species
ICT	Information & Communication Technologies
ICZM	Integrated Coastal Zone Management
IMO	International Maritime Organisation
IPCC	International Panel on Climate Change
JTIS	Joint Territorial Integration Strategy
KIT	Knowledge, Innovation, Territory (ESPON 2013 project)
Maglev	Magnetic levitation
MARPOL	Marine Pollution (International Convention for the Prevention of Pollution From Ships)
MEGA	Metropolitan European Growth Area
MSP	Maritime Spatial Planning

Draft Territorial Vision (TeVi) (version dated October 21, 2013)

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FOCI, 2010, *Future Orientation for Cities*

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TANGO, 2013, *Territorial Approaches for New Governance*



ESPON

Towards a European Territorial Vision in 2050

A Vision is a dream of an ideal future for
European territory

Which Europe do you want for your children
and grandchildren?

ULB IGEAT

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The first elements towards a Territorial Vision (TeVi) were elaborated by P Doucet and JF Drevet. It has been based on large European and international documentation, elements of ET2050 scenarios, and stakeholders input coming from participatory activities during 2012/2013.

By filling in this template working paper you will help us in the Vision building process, towards a second draft Territorial Vision. Please note that comments received before 25 October 2013 will be considered for the second draft, comments received later will also be considered, but for later versions.

1st Draft TeVi: Europe in 2050 – Seven chapters

A. FOREWORD

B. EUROPE & THE WORLD

C. EUROPE: MAIN FEATURES

D. TERRITORIAL DYNAMICS

E. CITIES AND RURAL AREAS

F. MARITIME ISSUES

G. MULTILEVEL TERRITORIAL GOVERNANCE

From B to E and within G: zooming from the global to the local levels

Three questions per chapter/slide:

1: *What should be changed?*

What should be added/deleted/nuance?

2: *Any territorial differentiation?*

Are the features presented in the 1st Vision Draft valid for all territories of Europe?

If not, may you suggest the main differences you see for the different macro-regions (e.g. northern eastern, central-western, Mediterranean ...), and /or main types of territories (urban first/second rank cities, small or medium cities, rural,...) which need to be considered somehow in the 2nd Vision Draft

3: *How to achieve the vision?*

May you suggest key steps/pathways to achieve the vision presented in the draft and possibly midterm pathways?

A. FOREWORD

TeVi \neq prediction

TeVi purpose: **fuel a debate** about the long term future through presenting an ideal picture of Europe in 2050

Main assumptions :

- peace
- democracy & multilevel governance,
- prosperity (competitive knowledge economy)
- environmental friendliness
- improved economic, social and territorial cohesion

Key-value underpinning the TeVi: **spatial justice**

European Territorial Cohesion Strategy (**EUTeCoS**) approved, implemented and periodically updated.

B. EUROPE & THE WORLD

Globalisation process → former gaps have narrowed, more balanced pattern

Saving energy = world objective

Geography still matters, no “death of distance”

Global governance: UN **WEO** (World Environment Organisation) + World Court of Justice

EUROMED area: EU federation surrounded by concentric circles; ad hoc agreements on a variable geometry basis

EU federation: a few extra policies, Territorial Cohesion = major policy aim

EUROMED periphery: disparities remain (but less acute), enhanced cooperation with the EU on many policy areas

C. EUROPE in 2050: demography / economy

- **Slow population growth** (slightly rising fertility rate [1.8%] + positive net migration)
- **Ageing**: population over 65 = 32% (compared with 19% in 2005)
- **Immigration**: needed, and diversified
- **Senior activity level**: progressive reduction in the period 50 → 70 years old
- Convergence of **social protection** schemes
- **Growth**: 1.4%, more qualitative than quantitative; industrial rebirth → competitiveness restored
- **World trade**: terms rebalanced
- **Decentralisation** of production (3D printing)
- **Map of disparities**: “leopard skin”

C. EUROPE in 2050: transport / energy

- **Sustainable transport/mobility:** dramatic reduction of GHG emissions, green freight corridors, long distance road freight marginalised
- **Efficiency** of the transport system: smart technologies, less infrastructure needed, automatic braking system, driverless vehicle, “pod vehicles”, supersonic maglev, vactrain intercontinental transport, etc.
- **Renewable energy sources (RES):** 55% of gross final energy consumption (from 10% in 2010)
- Impressive **energy savings**
- **Power generation : decarbonisation** (55% of gross final energy consumption, from 10% in 2010). Revolution of smart grids, but centralised generation remains necessary. (cf. Desertec – EUMENA project)

C. EUROPE in 2050: climate / environment

- **Climate change:** strict norms enforced by the WEO. Some European (especially southern) regions more affected. EU climate strategy adopted
- **EU environmental policy:** boosting resource efficiency + maintaining ecosystem resilience
- **Waste:** “near zero waste”, better control of cross-border waste flows
- **Water:** disappointing results of the WFD. Revised integrated strategy, with strong emphasis on cross-border / macroregional cooperation, successfully implemented
- **Biodiversity:** “Natura 2050” more successful than “Natura 2000”
- All the above strategies are integrated in the EUTeCoS

D. Territorial dynamics

- Europe’s territory **less adaptable** than the US’s to economic transformation.
- **Residential mobility:** traditionally low, but new policies tailored to different age groups have been carried out. More amenities offered to attract new residents, especially retired people.
- → “**Residential economy**”, fed by considerable financial transfers associated with the redistribution of taxes and welfare contributions.
- **Borders** have become very permeable (cross-border infrastructure, simplification of controls, intensification of trade) → reduction of income gaps and territorial integration in border regions.

E. Cities and rural areas (1)

- In 2050, globalisation still favours metropolises, but **development prospects are often better** in other large cities.
- **Globalisation** = positive sum game between cities
- The “**Pentagon**” remains a strategic interface network, but also some more peripheral MEGAs (e.g. Madrid, Stockholm).
- **Polycentric paradigm** consistently implemented. In less central areas, capital- and other cities are voluntarily supported + completion of missing cross-border TEN links.
- **Territorial cooperation** considerably intensified → macroregions & Euregios contribute to territorial integration

E. Cities and rural areas (2)

- Completion of the urbanisation / suburbanisation / counter-urbanisation /re-urbanisation cycle in virtually every city
- **Eco-city holistic model** and principles applied everywhere: social cohesion, compact settlement structure, transformation of the city metabolism, social mix, high density development in strategic nodes, strict protection of the blue-green infrastructure, residential areas irrigated with public transport and slow traffic infrastructure
- Development of a diversified **New Rural Economy**
Proactive support to Services of General Interest (SGI), accessibility and diversification in less accessible areas
- Targeted policy steps in areas facing a **geographic handicap** (e.g. Arctic, mountain areas and islands)

F. Maritime issues

- **Coastal areas:** ICZM international convention implemented in compliance with WEO guidelines
- **Maritime basins:** tight regulation of the fishing and environmental resource exploitation. Dramatic improvement of the maritime governance. Joint integrated strategy of harmonious and sustainable development of the land-sea continuum approved.
- Maritime spatial planning integrated into the existing planning systems. **Sea basin strategies** implemented and regularly updated.
- Outermost Regions (**OR**) and Overseas Countries and Territories (**OCT**): sustainable harnessing of their immense potential, accessibility improved

G. Multilevel territorial governance (1)

- The digital age has made governance more complex. **Six main governance levels:** global, supranational (or federal), macroregional, national, cross-border, and regional/local.
- **Global level:** many public and private actors. Efficient environmental policy thanks to the WEO. Critical role of other international organisations (e.g. IMO). Intense interregional cooperation.
- **Supranational / federal level:** regional integration processes draw on the successful EU federation experience. Multi-level governance. Subsidiarity = golden rule. Few extra competencies delegated to the federation, but bicameral law-making system and federal government exercising power within the limits of a clearly defined remit.

G. Multilevel territorial governance (2)

- **Macroregions:** elaboration and implementation of Joint Territorial Integration Strategies (JTIS). Macroregions = EGTC, do not produce any legal or regulatory norm, but catalyse cooperation through any other appropriate step.
- **State level:** EU states or no longer “national”. They are entrusted with the implementation of many federal policies, or the supervision of this implementation by regional authorities. States frame the land-use planning system.
- **Cross-border “Euregio” level:** arrangements similar to those used by macroregions apply, *mutatis mutandis*
- **Regional/local level:** reshaping / streamlining of the multilevel governance system. Fewer formal levels of decision making. This facilitates territorial integration of metropolitan areas.

Introduction

This document summarizes the results and messages of the workshop “Territorial Vision for Europe towards 2050” held in Brussels on 11 October 2013. During this workshop three panels of European stakeholders (Policy-makers, practitioners and organisations) discussed in both plenary and parallel sessions the elements developed and presented by the ET2050 project. This synthesis will feed into a second version of a Territorial Vision for Europe towards 2050.

The document is divided in two parts:

- Part B summarizes the key issues resulting from the workshop and gives a first indication on how they will feed into a second draft of the Territorial Vision;
- Part C lists the key points resulting from the debates of the various sessions held during the workshop.

Key issues towards a second draft Territorial Vision

What do we mean by a territorial Vision (TeVi)? And what by midterm targets and pathways (strategy)?:

Several comments came from the fact that participants were confused between Vision and strategy (mid term target and pathways) towards the Vision. Even if some insisted that the TeVi should be realistic, several insisted also on the fact that the TeVi is a dream of a long term future which should settle very high goals and values.

The solution to the confusion (Vision/strategy towards), and to the contradiction (dare to dream/be realistic) could be to have on the one hand a TeVi speaking as if ‘we are in 2050, and we describe our best ideal future’ (e.g. “Vision should be a description of a sustainable, balanced, polycentric and cohesive European territory in 2050”), and then another document which is the strategy with potential actions leading towards this best future - namely the mid targets and pathways - realistic and based on input from scenarios as well as current agreed (EU) policy documents.

The vision should stay politically in the middle and not present extremes values and views; it should present a balanced view on growth, sustainability and social (i.e. economy, environment, people).

The Vision would be presented with its supporting pathways. It should also be clarified at the beginning of each document what is the role of the documents, to avoid confusion.

The TeVi could integrate a synthesis of what EU documents already agreed that they want for 2050: this is already included in the first draft TeVi, (see bibliography with supporting documents), but in the second draft the narrative should be different, and separate clearly what are current trends (integrating modelling results from the scenarios), realistic expectations, agreed targets and pathways, and the Vision.

Therefore several elements from the first draft can be used for the second draft, but reorganised between Vision and strategy (pathways).

A Territorial Vision: how to territorialize it ?

¹³⁸ Synthesis elaborated by the three rapporteurs V. Biot (vbiot@ulb.ac.be, IGEAT, Université Libre de Bruxelles), V. Calay (vcalay@ulb.ac.be, IGEAT, Université Libre de Bruxelles) and M. van Herwijnen (ESPON CU).

As already underlined in the presentation, the main missing issue in the first draft TeVi is the territorialisation of the Vision. Territorial differentiation and diversity of territories is considered as a crucial issue, for the Vision and for the strategy towards the Vision.

Several proposals were coming from the workshop, mainly asking to use FUAs as a key concept. Additional 'bricks to play' would be macroregional areas, specific types of territories (see ESPON typology), ... with a clear identification of identification criteria. Territorial categories like metropolitan, second tier cities, accessibility, etc. that are used in ESPON projects, should be used intensively to give the Vision a territorial dimension.

Many participants insisted on the fact that territorial differentiation is a major issue and the key for the future of Europe, but should be appraised through positive conceptions rather than by the means of more pessimistic concepts taken from the centre-periphery glossary. Therefore concepts such as assets, abilities, capacities, etc. should be used to design a conception of territorial differentiation as a basis for an empowerment of European territories, in order for them to develop using their local resources and cooperation opportunities.

Visualisation of the vision

Another missing point at this stage is visualisation. We need to show maps and/or figures during our next presentation, to the ESPON MC, on the 3rd December in Vilnius.

The following is being discussed: A first step would be to draft diagrams and innovative illustrations of the European territory rather than a map of the existing territory to support the Vision. These diagrams should visualise a model of the envisioned territorial organisation amongst FUAs (medium cities), MEGAs, the set of relations that linked both cities together (including hinterland and redistributive relations) and both cities to other territories (Neighbouring countries and the rest of the World). These diagrams should be different in style to normal ESPON maps and illustrations and try new innovative ways of illustrating a territorial vision. A key point to consider is that if the Vision is conceived as a possible future, a dream; a too much realistic map could induce a misunderstanding and confusion with the scenarios.

Who will be the users of the TeVi?

ESPON Monitoring Committee members are the key stakeholders and main users of the Territorial Vision, as they launched the process and delineate the framework of the process:

- One Territorial Vision,
- No negative Vision (scenarios can be used in this respect),
- A Vision realistic in relation to mid term target and pathways,
- But also visionary, 'an ideal future', in relation to EU territory in 2050.

In addition, the demand was to build the strongest possible co-ownership during the Vision building process. A participatory approach involving different types of stakeholders (public, private, scientific) active at EU level was specified since the beginning of the project.

Governance and terminology

The issue of governance was underlined in different sessions as being a core issue. Not so much through its institutional presentation (see chapter G in first draft TeVi), but in relation with providing capacity for territories to organize themselves, and in relation with an efficient European framework providing a common toolbox, which could then be used according to needs and context.

In this respect also, some key concepts used in the first draft should be kept, but clarified and developed: territorial governance, territorial cohesion, spatial justice. In particular, the introduction of a new concept "spatial justice", which risk to confuse recipients even more than territorial cohesion. As the Treaty already includes territorial cohesion, it is probably wisest to make use of this concept.

(Additional) focus

Focus was highlighted on several issues, which should be more taken into account, or were taken into account already, but are considered crucial:

- diversity and richness of all territories, cultural identities and local specificities, resilience of territories, risk management, private economic actors interests, agricultural and nature aspects,
- small and medium sized cities, maritime dimension.

Synthesis of key points coming from the debate

From plenary session morning:

- Vision should be Value inspired
- But : ideal future: for whom? For European citizens. Is a set a various different options for the Vision possible?
- Low growth could be the best for sustainability
- Link with scenarios (through the pathways ?)
- Add diversity of territories (and cultural identities), resilience of territories, risk management
- Mapping should come next

From parallel sessions

Policy makers (EU COM and national government)

Synthesis:

- use existing agreed policies and strategies/documents, such as TA2020 and EC Cohesion Policy documents
- closer links with scenarios, underlined trade off (but scenarios are taking only a specific set of information into account, even less at 2050 horizon....also, assumptions are quite subjectives in some cases....quid scenarios values ...?)
- keep abstract goals, high limits, but try to mix with current policies (see 1, and/or use alternative ways to implement, to arrive somewhere)
- insist on diversity: richness. Diversity of regions should be part of the Vision
- adaptability of the Vision (resilience to wild cards)
- territorialisation: key idea: FUA (allow rural + urban), + bricks (macroregions, type of regions, NUTS, ..
- governance issue is crucial
- define: territorial cohesion, territorial governance, spatial justice
- add private economic actors interest (*less left/green, more right/economic growth: but not everybody agreed on this*)

Practitioners (regional groupings)

Synthesis:

- We need a vision to be visionary and we need visualization:
- Get rid of administrative borders and old barriers obstructing functional relations and cohesion
- Visualisations (graphics, identification of every region' in Europe possible) in order to invest in co-ownership/ appropriated by people

- Provide at the start more possibilities
- Involve creative spatial planners
 - Territorial cohesion
- Every territory should invest on its own potential and local assets
- The most important spatial entities are functional regions cooperating in wider areas
- Through networking, small and medium cities play a mayor role;
- Differences matter positively, they imply distinct potentials
- Europe will be consisting of 47 countries
 - Co-ownership through involvement
- Private actors are essential as co-producers in the process
- Planning practitioners on regional and local levels must be intensively involved
 - Use positive concepts: stop speaking about disparities, use positive terms and speak about abilities, uniqueness, strengths, opportunities (idem for colors on maps).
 - Missing issues: cultural identities, agricultural aspects, nature assets will gain importance, also the maritime dimension will become very important.

Organisations (active in territorial issues, working at EU level)

Synthesis:

- Need to clarify who is the audience (Member State, MC ESPON),
- Need to clarify what can be consensual (avoid terminology with strong opposition)
- Avoid a 'West Center' Vision
- Governance is a crucial issue
- National Vision should be combined in a European Vision
- Avoid mix Vision visionary and current realistic trends
- Present a negative Vision (baseline extreme)
- Vision should be adaptive, use wildcards
- Use as background for the Vision; what is a sustainable society and development?: the TeVi should be a description of sustainable Europe in 2050
- Dare to dream:

o need to distinguish Vision (dream 2050) , detached from current debate and trends,

o and realistic strategy towards (mid term target and pathways)

Plenary session (afternoon)

Facilitators' synthesis

Policy makers:

- continuity with EU policy statement (consensus building anchored in existing policies)
- link Vision and scenarios (but they are not the same)
- keep fundamental values and abstract goal, but be careful of different interpretation: should be discussed further with policy makers

- avoid too low common agreed basis
- territorial diversity is crucial, allow flexibility (cf Territorial agenda), use bricks (macroregion, type of territory, FUA)
- governance is at the core

Practitioners:

- Visualisation is needed
- Be visionary, not stuck to present reality (will change)
- Need options, and scenarios help to select: will contribute to co-ownership from decision makers
- Key word: territorial cohesion, key level: FUA
- Local opportunities are the best to invest in diversity in the framework of a global European Vision
- Governance levels: EU /(National state)/FUA/local
- EU is 47 (core), and circles around
- Avoid jargon and be careful with terminology (no negative wording)
- Get rid of administrative barriers
- Missing: cultural identities, agriculture, nature, small and medium cities: matters a lot
- Change paradigms towards cultural identities and local specificities

Organisations:

- Process ,product and audience should be clarified
- If the aim is a consensus, be based on current agreed policies
- Do not focus on controversial word (federation)
- Check coherence of the documents
- Scenarios; a lot on economy, is it realistic: 2% growth per year means 200 % growth by 2050
- Vision: how the society should be to be sustainable
- Include a negative Vision (baseline)
- Include more the unpredictable (resilience of scenarios)

Last additional comments:

- What if business as usual, sustainable future: not possible with current growth, we need LESS
- Member States are still major actors: check with national Visions
- The “co-ownership” of the Vision should be an objective of the project
- The status of the final documents (TeVi) should be clarified with the ESPON MC
- Pathways should also clarify who should be doing what (governance level)

4.14 VISUALIZING a territorial EUROPE 2050¹³⁹

Introduction

This document aims at discussing the main issues related to the visualization of the future Europe 2050 Territorial Vision designed in the framework of the ET 2050 ESPON project.

To do so, we have chosen to look back at the visualization work developed so far and to address several key issues in the visualization work.

To achieve this, the paper is divided in five sections:

Section 1 looks back at how the whole issue of visualization has been addressed in the project. It looks especially at how early works on macro-regional visions have already put forward some central aspects of vision visualization methods.

Section 2 describes the visualization produced for the First Draft of the Territorial Vision (TeVi1) conceived by experts P. Doucet and J-F. Drevet, with IGEAT's mapping support. In addition to proposals on contents, the issue of abstract visualisation (modelled spaces) vs. real visualisation (maps) has already been discussed in this project and some crucial issues have been pinpointed.

Section 3 aims at developing some key aspects of the visualisation work that could be developed in relation to the Second Draft of the Territorial Vision (TeVi2). Here again, issues on content as well as issue abstract visualisation vs. real visualisation are addressed.

Section 4 proposes some directions in the visual support of the Midterm Targets and Pathways. It presents some main aspects that this visual support could take.

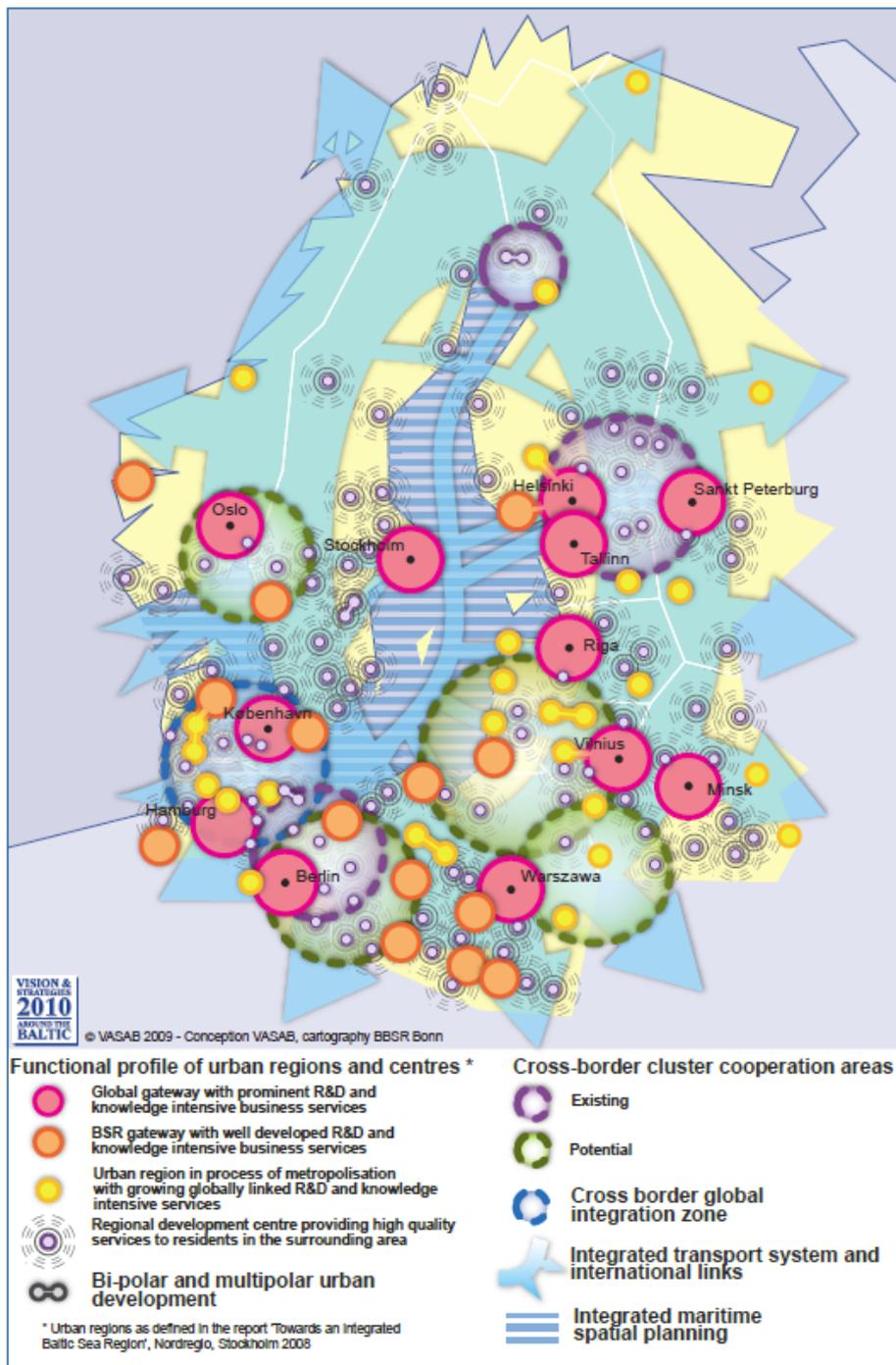
As a conclusion, Section 5 comes to a series of discussion points involved in the process of the design of relevant visualisations method for the vision. What kind of representations do we privilege: bi-dimensional or three-dimensional? Innovative or traditional? Abstract or real? This section aims at discussing some pro/contra arguments for each issue.

Section 1 – How to visualise a Vision: the know-how of macro-regions

In our early work in the Vision design process, we were already confronted to this very issue of visualisation. Indeed, while screening the existing macro-regional visions, we were appealed by the various methods developed to represent the vision in an efficient yet realistic form. Three approaches to visualisation have been grasped out of those visions: *place-based*, *network-based* and *dynamic-based*.

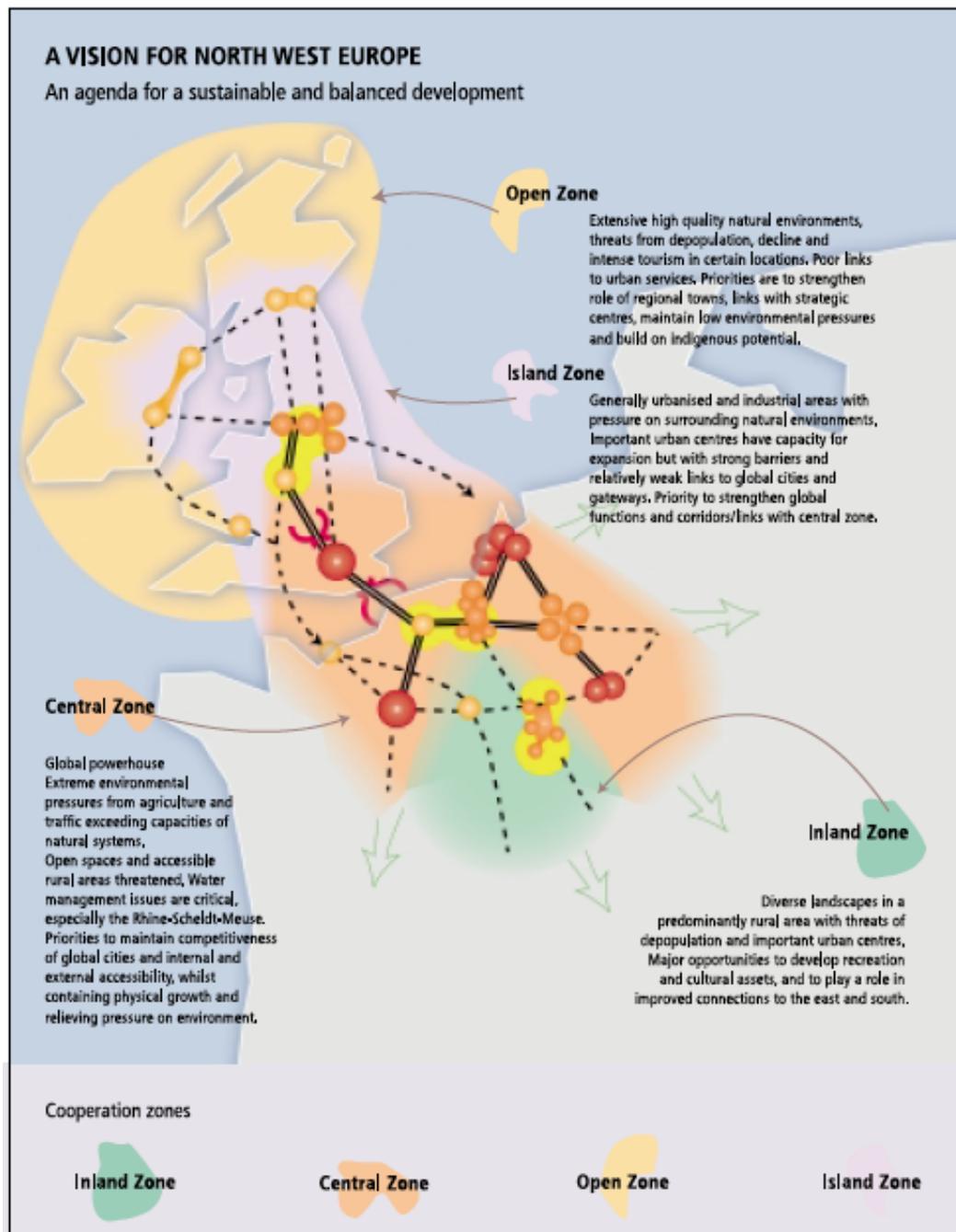
¹³⁹ Discussion paper elaborated by Dr. Vincent CALAY (ULB-IGEAT)

The Place-Based Approach

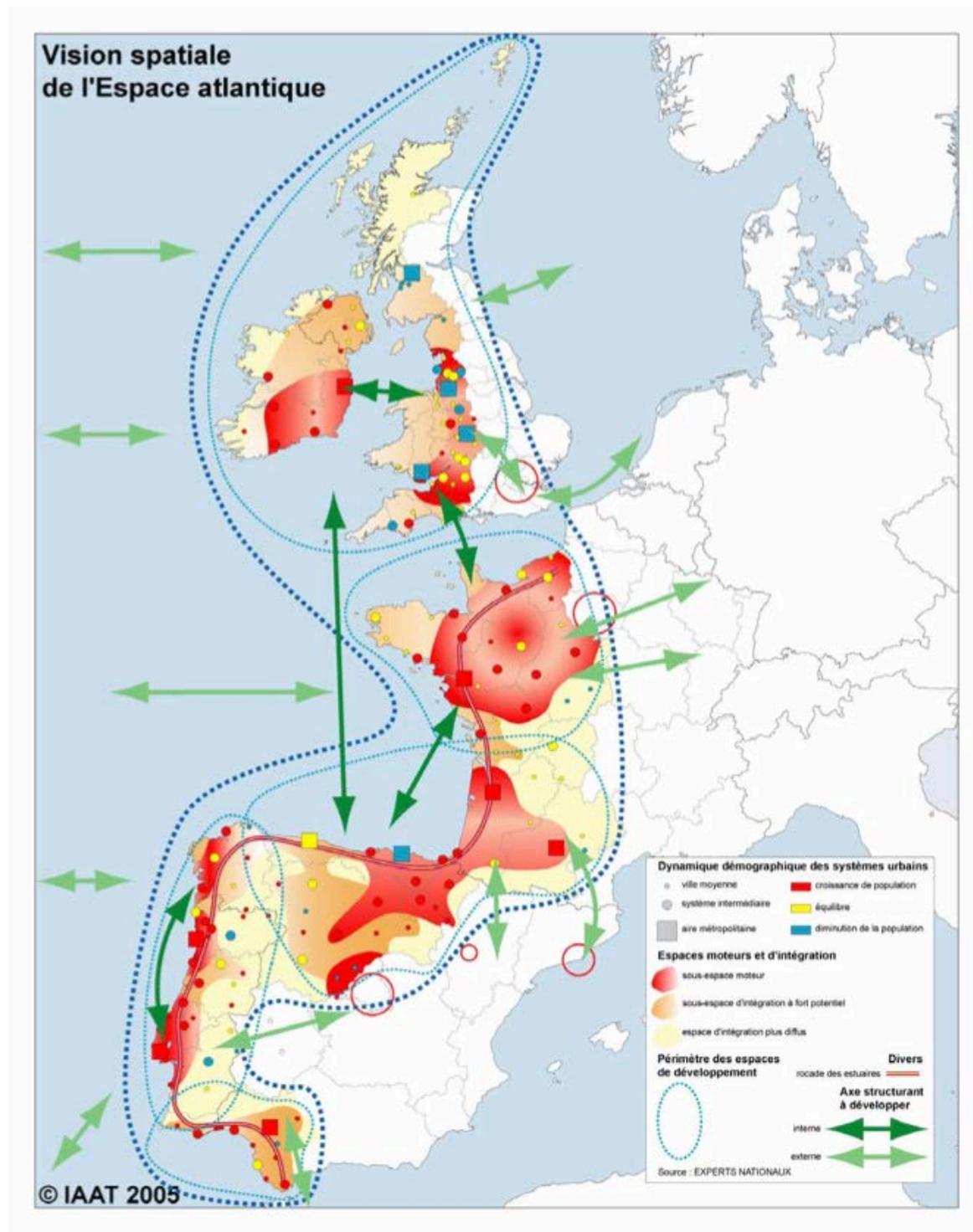


This first approach to visualisation of a territorial vision finds a good example in the work designed by the VASAB in 2009 about the Baltic Sea macro-region. In fact, the visualisation produced entails places, networks and territorial dynamics as many visualisations of vision found out. However, this kind of visualisation insists on places by putting forward the envisioned status of existing cities rather than the links or the dynamics. It is the future status of the places that is put forward, i.e. “Global gateway”, “Baltic Sea Region gateway” and “Regional development centre”. Such kind of visualisation therefore mainly insists on the individual position of places and how they relate to other places in a hierarchy. The background of such a visualisation work is anchored in a socioeconomic pattern of development.

The Network-Based Approach



The network-based approach contrasts with this focus on places by putting forward in the visualisation how places relates to each other, namely in the Vision for North West Europe (2000) presented here through Euro-Corridors. This kind of visualisation is also concerned with the subsequent development of more connected and less connected zones, the central zone being strongly connected. This kind of visualisation is related to physical links between cities, mainly by the means of terrestrial infrastructures (motorways & train tracks).



The dynamic based approach overemphasises how specific areas evolve in relation with specific variables. In the case of the *Vision spatiale de l'Espace Atlantique*, the key indicator used is change in population densities and how it will generate specific areas of integration and involves the emergence of new dynamics linking territories. Such an approach insists mainly on how territories will evolve following transformations in population densities rather than by focusing on specific places. Overall, this gives the opportunity to see emerging spaces that are not predefined as, for example, “rural” or “urban” and therefore, gives the opportunity to conceive new kinds of spaces.

As this approach is developed on demographic indicators, it could be easily related to the FUAs that we study further ahead.

Synthesis: share/unshared patterns

Those visualisations share a common *territorial* pattern by using a realistic background: a geographic macro-region that is clearly identified on a map.

These visualisations differentiate on what they represent: the place-based insists on existing territorial entities and how they will evolve, the network-based envisions future relations based on existing places, the dynamic-based gives the opportunity to see emerging new spaces of human density that could attract and polarize future development dynamics.

Section 2 – Visualisations produced in relation with TeVi 1

This section presents some of the main visualisations developed during the preparation of the First Draft of the Territorial Vision.

Two directions have been followed in this preparation work:

A visualisation of key trends based on realistic territorial patterns (ESPON Space, Europe and Neighbouring Countries, Europe and the World)

A visualisation of future European spatial entities based on imagined/non-existing/projected spaces, namely the possible territorial structure of an *Ecopolis* and an abstract *Macro-Region*

Those visualisations have supported the work led in both the TeVi1 and the Supporting Document 1.

Realistic ways of presenting Europe 2050

A first kind of representation that we have developed in supporting TeVi1 is a realistic approach to the ESPON space considering six main spatial objects that will be at the core of Europe's 2050 territory:

Cities with highest participation in networks of leading activities

Other metropolitan high growth areas

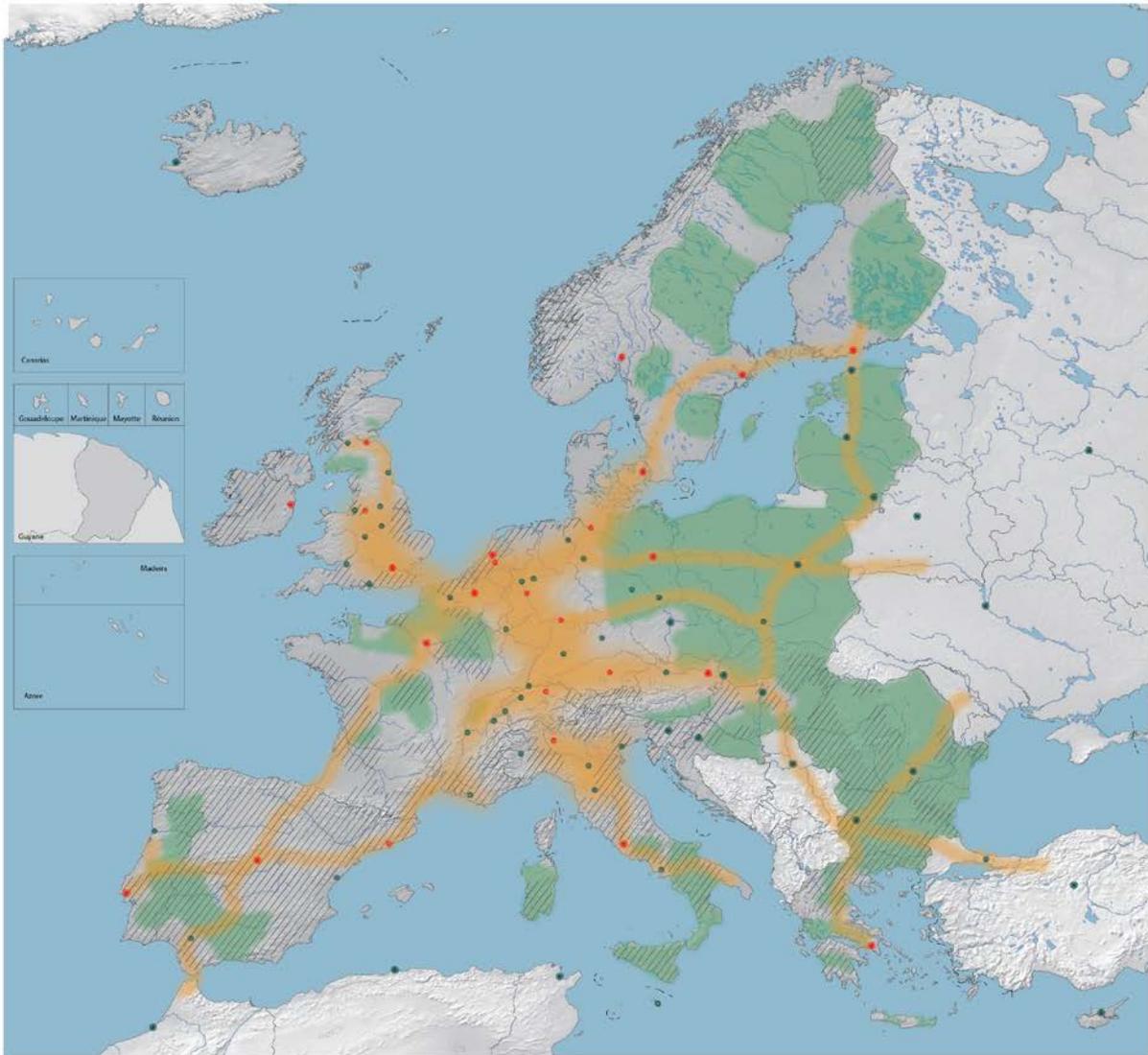
Areas of concentration of flows and activities

Transnational corridors

Rehabilitated rural areas

Regions particularly impacted by climate change

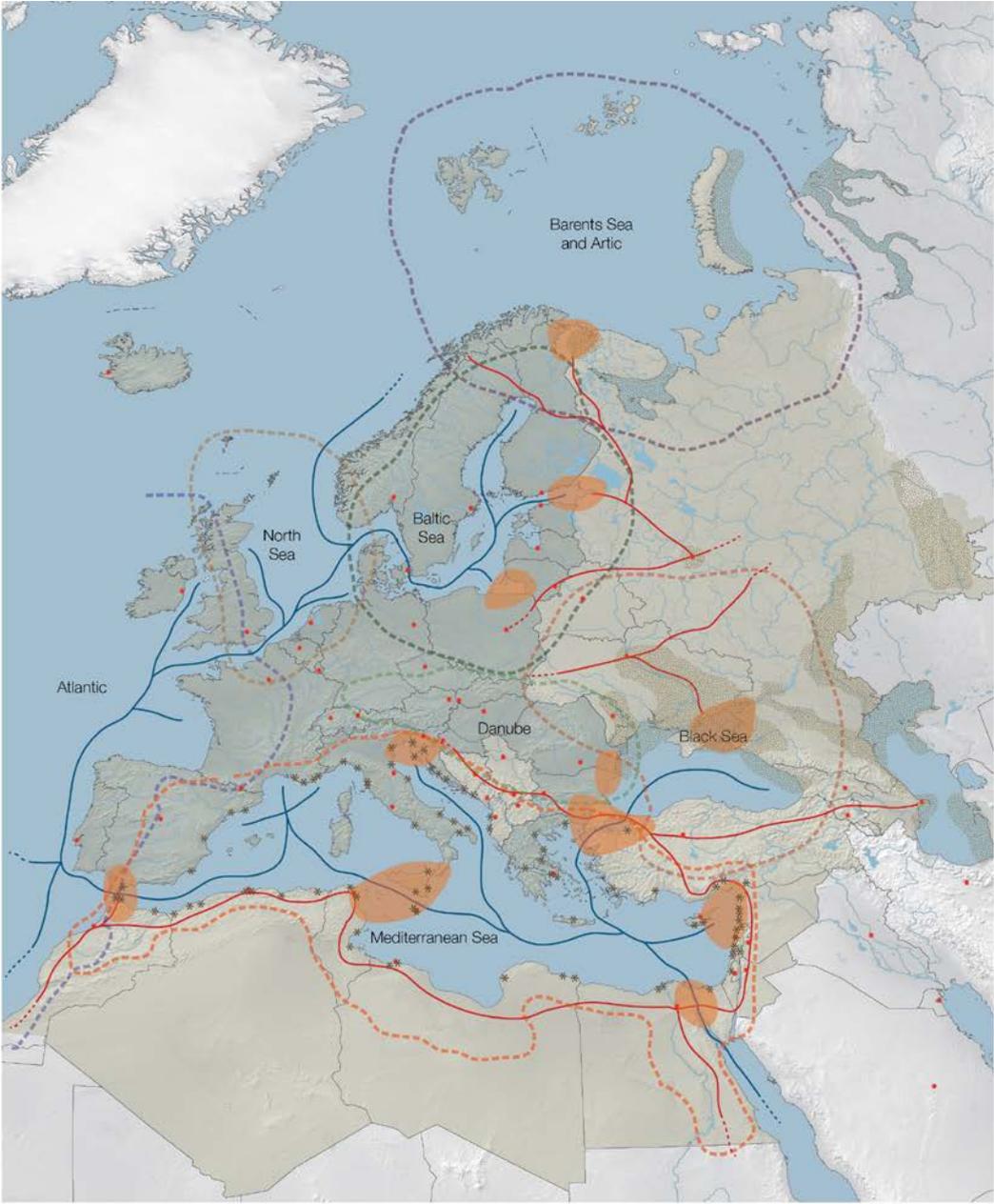
The rationale behind this map was to emphasise the future logic of the European territory by focusing on places, networks and dynamics. This was a first proposition that should evolve, especially by introducing FUAs and the local dynamics of development behind them.



ESPON 2050

- ESPON space
- Cities with highest participation in networks of leading activities*
 - Capital city ● Other city
- Other Metropolitan Growth Area (MEGA)*
 - Capital city ● Other city
- Area of concentration of flows and activities
- Transnational corridor
- Rehabilitated rural areas
- Regions particularly impacted by climate change

The second option in this representation of the future development of Europe was to consider an other spatial entity, namely the links with the neighbouring countries of the ESPON zone by identifying future critical area of integrated territorial development. The rationale behind this was to have a view of Europe's future extensions and how it will affect future European dynamics.



EUROMED 2050

- EUROMED space
- Capital city
- Area of integrated territorial development
- Strategic interface area
- Multimodal transport axis
- Motorway of the sea
- * Rehabilitated critical polluted points



Imagined European 2050 spaces

Throughout the supportive mapping work on TeVi1, we have developed two figurations of European ideal-type spaces as suggested by P. Doucet: a European *ecopolis* and a European macro-region. Both are imagined spaces, inspired from existing ones. They present a modelled vision of two basic spatial unities that should help to reflect on the future of the European territory as well as on how we could conceive visualisations of 2050 European territory.

These ideal spaces are not yet deeply developed. The idea behind this visualisation work is to give clues to a better definition of local dynamics of development, especially at the scale of the city and at the one of the macro-region.

The Ecopolis

The rationale of the Ecopolis idea is a re-design of the relation between two cities separated by a national frontier on an eco-friendly basis. The content of this re-design is not that much important to understand in this paper: what is of interest here is how we have conceived the idea of an abstract, yet realistic, representation of the future of European cities and of their relations, building new kinds of local and polycentric contexts of living, such as those of the FUAs.

This kind of representation is inspired by real cities but draws a specific view on future urban contexts. The idea is therefore to give an urban concept for the future that is not territorialized in Europe itself but that could serve as a basis for future development and work on the European urban context and maps.

The idea of the Ecopolis is also to recreate links between cities on new basis, especially the green economy. The figure below shows the transition between 2010 and 2050.

In 2010 both cities have few relations and are economically separated by a national border. In 2050, following the deletion of the border, a new urban area specialized in green tech is developed through a pooling of both cities' local waste management, energy production and technological innovation. Further urban development is organized on the basis of a densification of the city and its periphery and the protection intermediate territories. The following numbered list corresponds to the numbers present on the 2050 chart:

Redevelopment of river banks to make them attractive, development of local animation, development of soft mobility in the area to boost closer relations between both populations and promote derelict urban areas

Development projects on former industrial areas

Transformation of old rail infrastructure to improve urban logistics and traffic management of goods by rail

Densification of the old villages nodes to limit urban sprawl

Protection of interstitial areas between the old villages nodes in order to foster the redevelopment of local agriculture

Development of border area dedicated to the green economy (pooled management of the collection and treatment of waste, development of local recycling of waste, development of technological transfer knowledge from universities to industry)

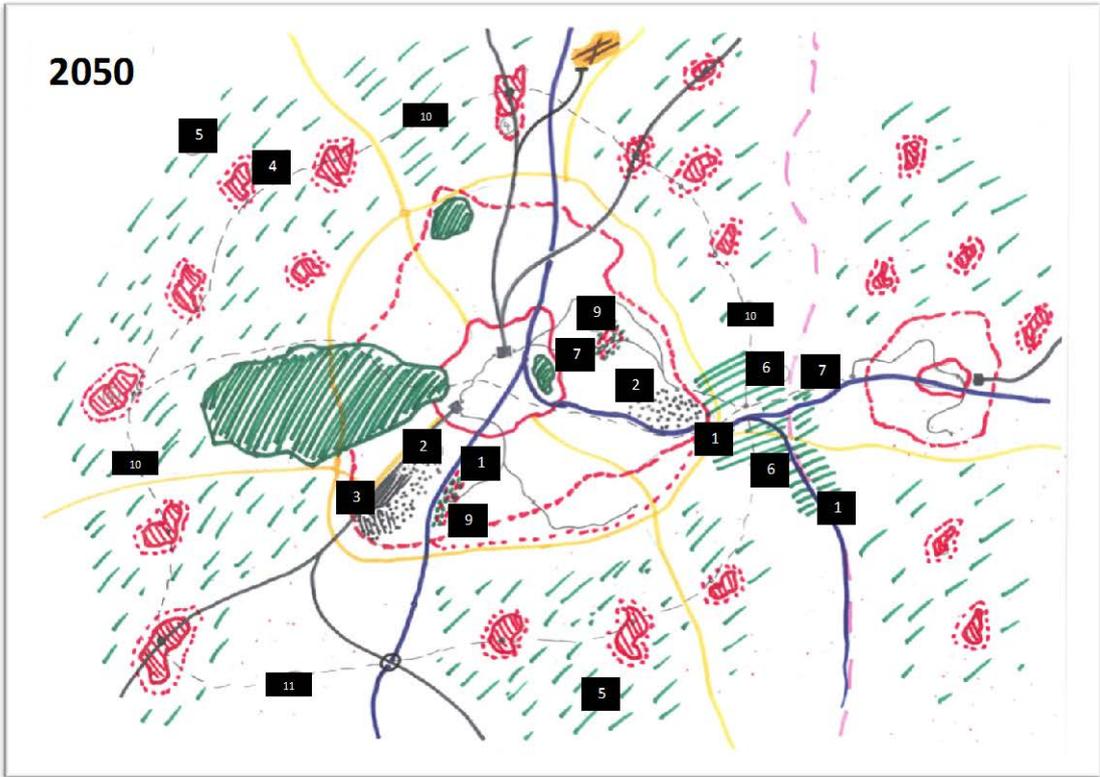
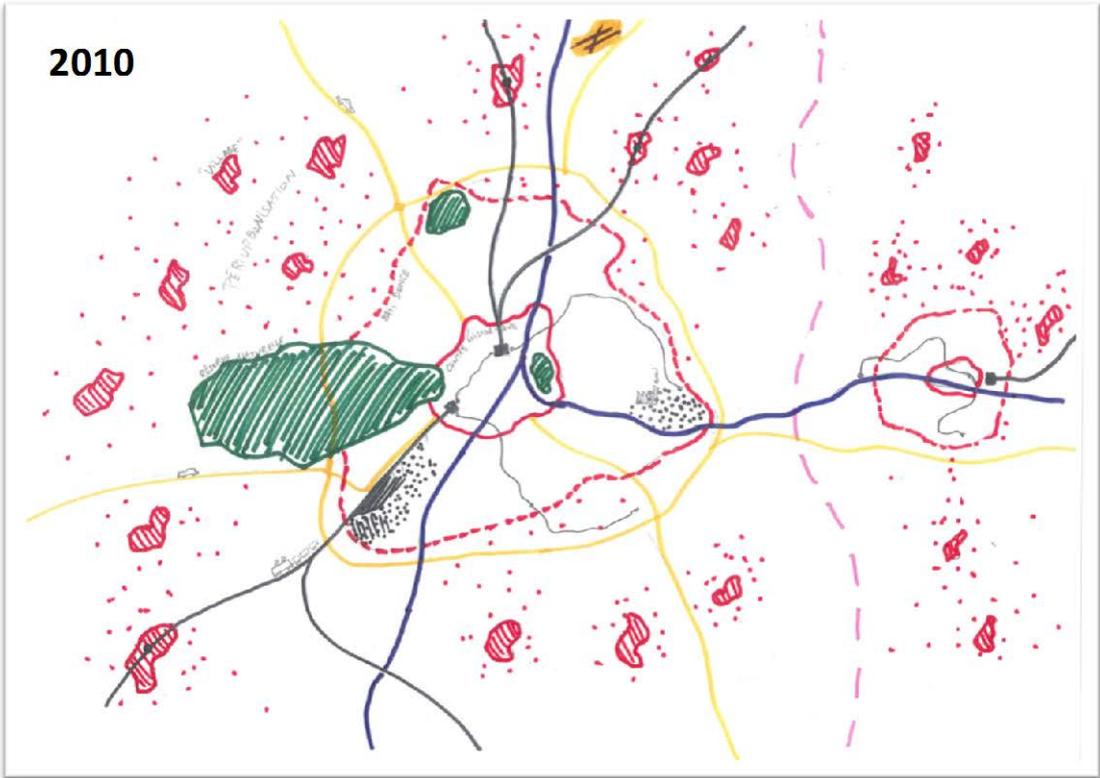
Development of traffic routes between the two cities based on soft and river mobility

(absent in the diagram)

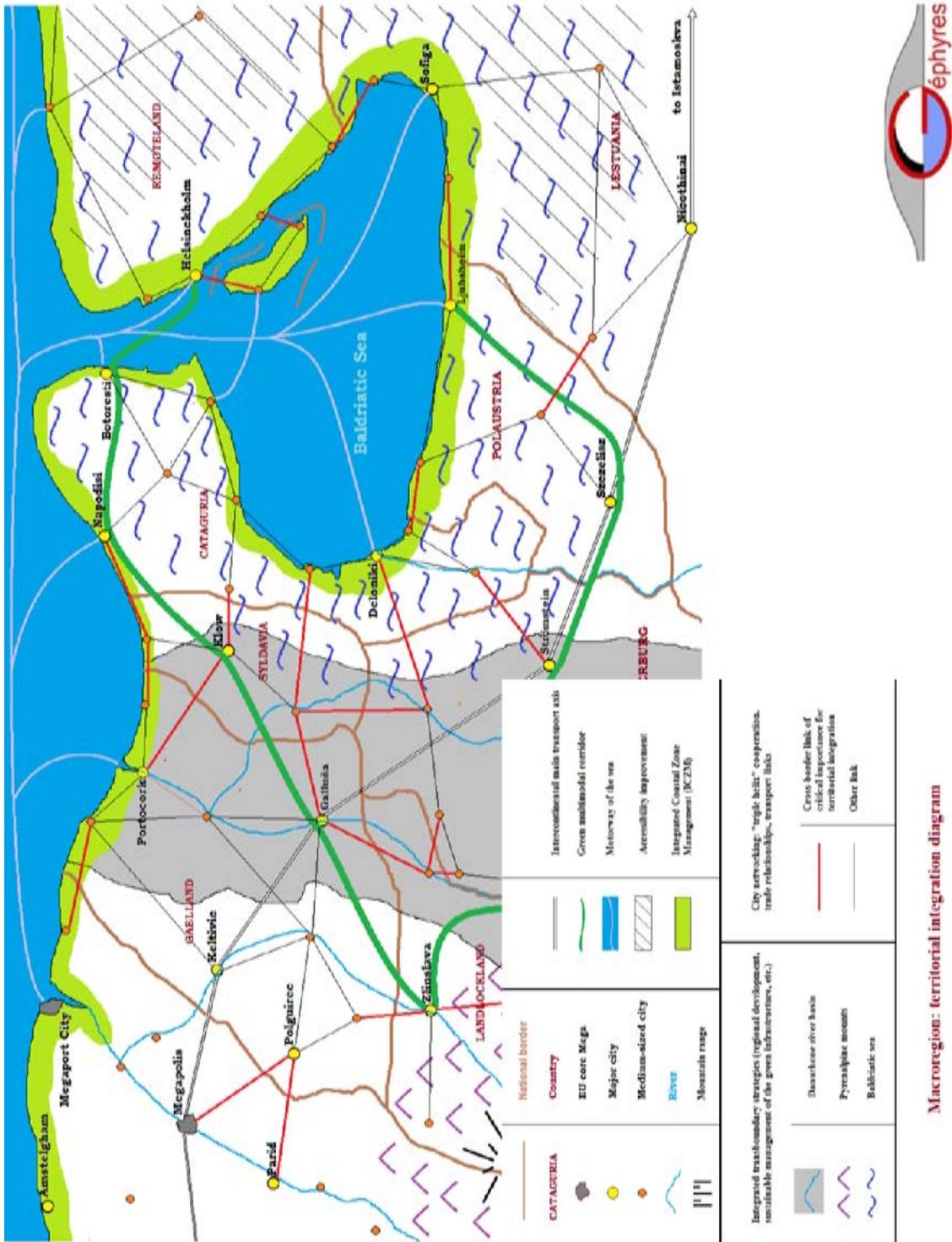
Eco-neighborhood development on brownfield sites and dismantlement of 1960's-1980's office and housing buildings.

Development of a circular light rail line connecting the main hubs of the new centre

Protected Natural Area



The fictitious macro-region



Macroregion: territorial integration diagram



Section 3 – What kinds of visualisation for TeVi 2?

As TeVi 2 is still at an early stage – especially in the territorial framework that it will involve – this section proposes some clues to think about both territorial issues and possible orientations for future visualisations.

One of the main point about visualization is drawn from the workshops led in Brussels in early October about the First Draft of the Vision: the necessity to imagine the Vision through abstract representation of space, some kind of a modelled European space for 2050 that helps to represent and understand the future dynamics, types of places and types of relations that should occur by 2050. This modelled European Space should be combined to a realistic Vision about Europe's 2050 territory; as such the use of the Functional Urban Areas (FUA's) emerged as a possible relevant pattern.

A modelled European Space for 2050

Taking into account the discussion held about the first draft of the vision, we have proposed a first draft of what could be a modelled European Space. We have proposed to call this modelled European Space "Modular Europe". The main idea behind this is to propose a broad schema of relations, places and territorial dynamics that should be managed to fit a differentiated European territory.

This first proposal of a modelled European territory helps to understand the kinds of territorial basic elements that should be taken into account once considering the design of a visualisation for Europe's 2050 territory. Our proposal is to keep a rather elementary conception of space as a juxtaposition of spatial entities with various kinds of relations.

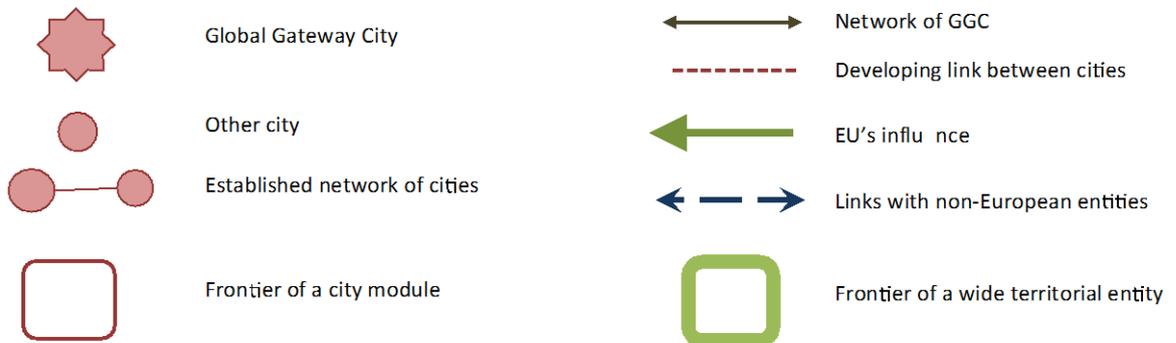
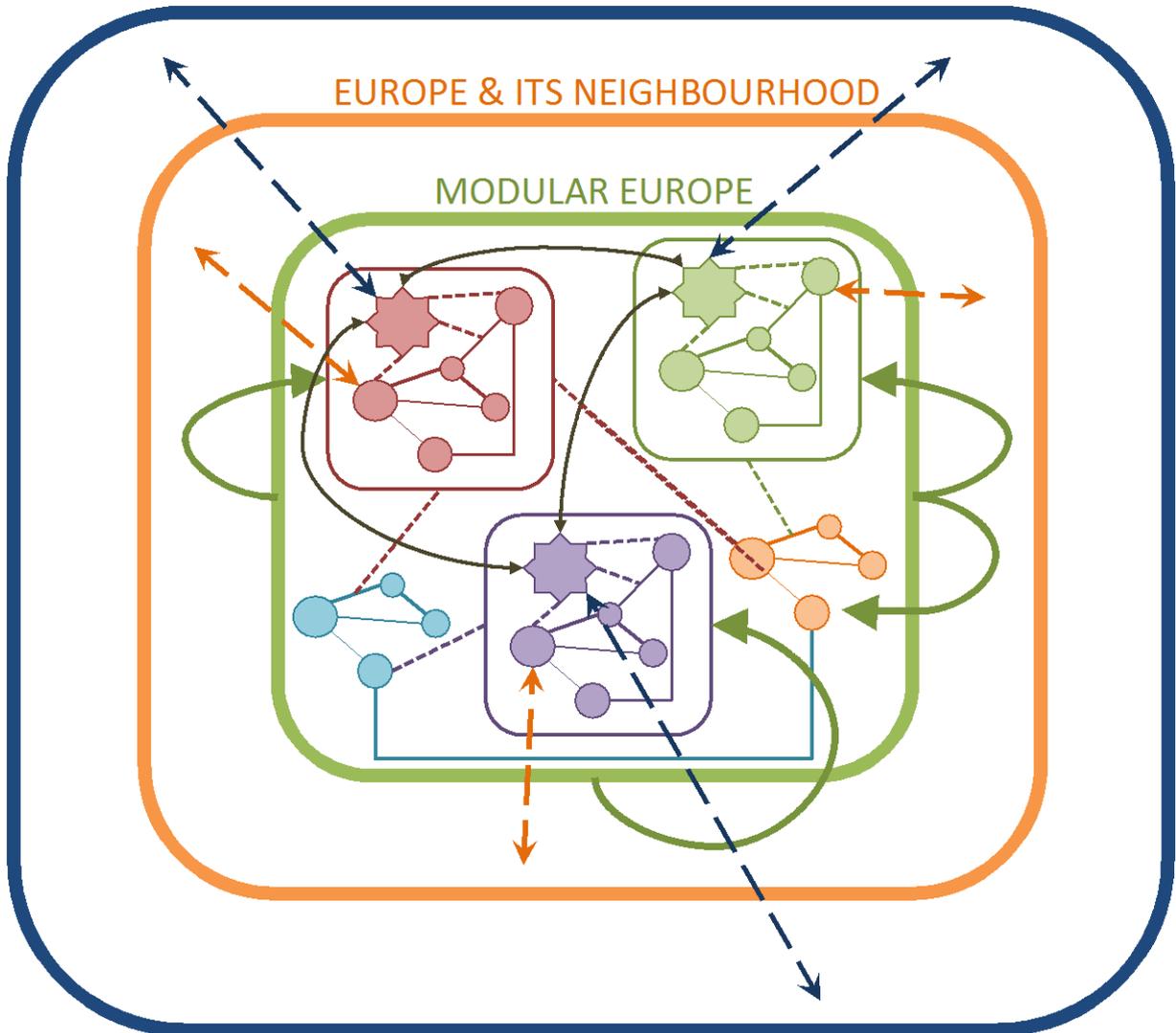
The basic module linking a set of cities to a "global gateway" (the star inside the module) should help to structure, at a first glance, a view on the 2050 map of Europe. Thereafter, this first view could be completed with additional elements helping to grasp the future spatial complexity.

In the scheme, the basic territorial element remains the city. It is the city that fosters territorial dynamics at all scales, including local scale, and that links Europe to its neighbourhood and to the rest of the World (links figured, in the scheme, by orange and blue arrows).

Another element of this schema is how Europe, as a political institution, helps those modules to emerge and/or develop. This is figure by the green arrows. This has to do with governance and cohesion policy: what will be the means of Europe by 2050 to implement its territorial policy? Our point of view is that, parallel to cohesion funds, Europe will perform a new political culture of local governance by educating European local stakeholders to a shared knowledge about local policies and development. This will help to build different kinds of local territories developed upon their own resources, a point widely shared in the workshop on TeVi1.

EUROPE 2050

EUROPE & THE WORLD



A realistic 2050 European Territory

Another issue is how this Vision will be represented on a map of Europe. This leads to the use of current maps of Europe to help understanding the future territorial image of Europe. The main issue here is to choose a spatial entity both relevant by now and by 2050 or, at least, by 2030, in the framework of the midterm targets and pathways. The Functional Urban Areas (FUA's) have been widely put forward as a relevant territorial basis to envision the future of Europe. It is, indeed, broadly conceived as a relevant basic territorial entity to appraise the future of Europe.

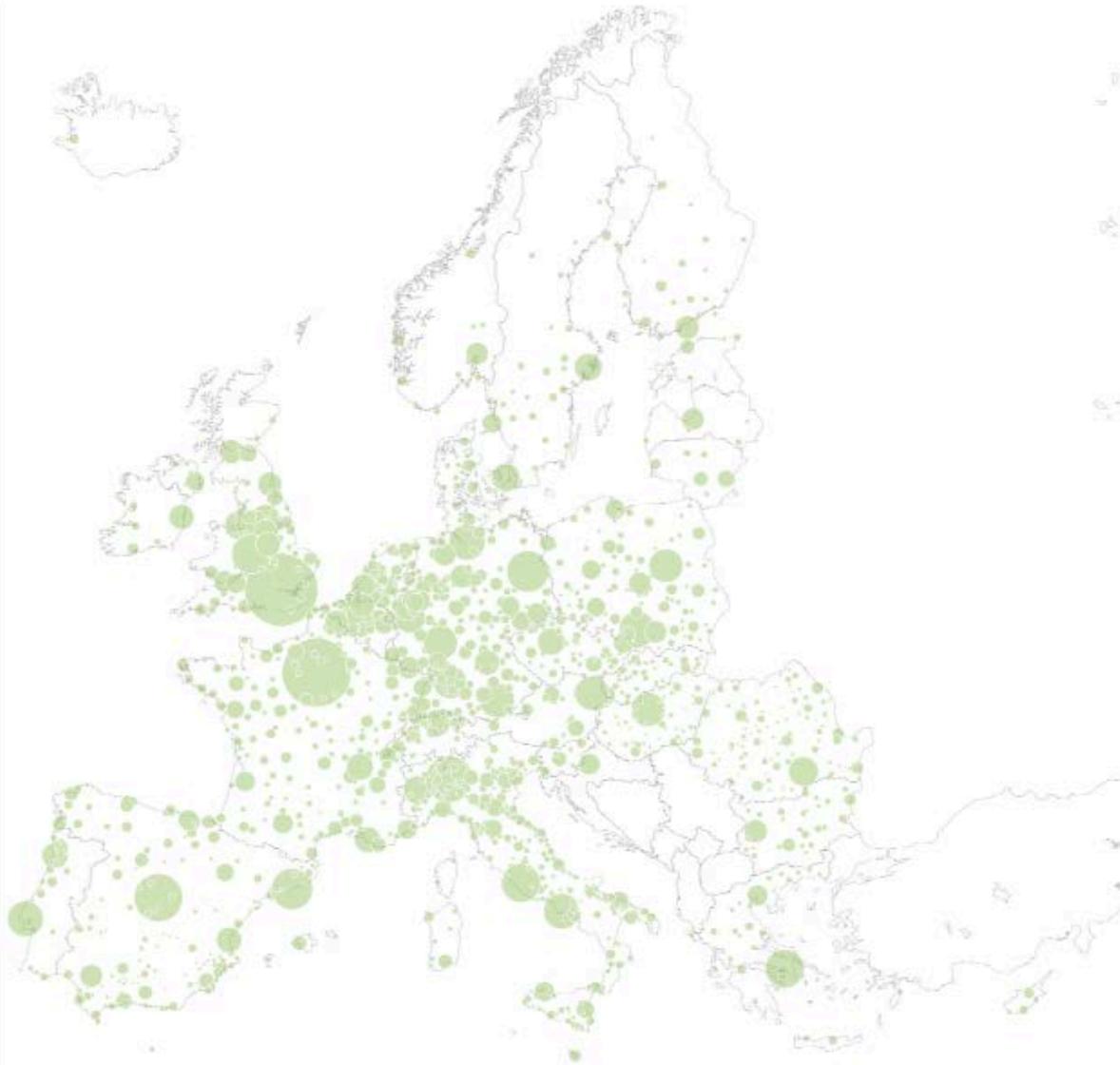
Using the FUA's as a basic spatial entity to envision the future of Europe has two advantages: first, as it includes every cities in Europe of +50000 inhabitants it gives a realistic view on the European urban structure, at the core of its future development. The second advantage of the FUA is that it gives a very realistic view on the impact of cities on the structure of the local environment: local infrastructures of transport, local economies, local residential dynamics... Developing a territorial vision for Europe should be based on this territorial definition shown in the map below.

Another point, which reinforces, the relevancy of the use of FUA's in the design of the visualization of the Vision is that it has been also studied as parts of networks of cities throughout Europe. The FUAs can therefore be situated in the broad network of cities in Europe as well as regarding their current economic situation and how they should evolve by 2050. Here below you will find a draft map elaborated by IGEAT (D Peeters) on the basis of output of 11 October 2013 workshop: FUA should be the basis for a territorial Vision 2050.

The following DATAR maps below shows the current state of the relation between FUAs in Europe both in an economic hierarchy and in the networks of transport.

Still, misses the idea of territorial dynamics at a broader scale. Here, some ideas should match the conception of the future of European space proposed in TeVi1 but TeVi2 should precise the kinds of territorial dynamics that will emerge by 2050.

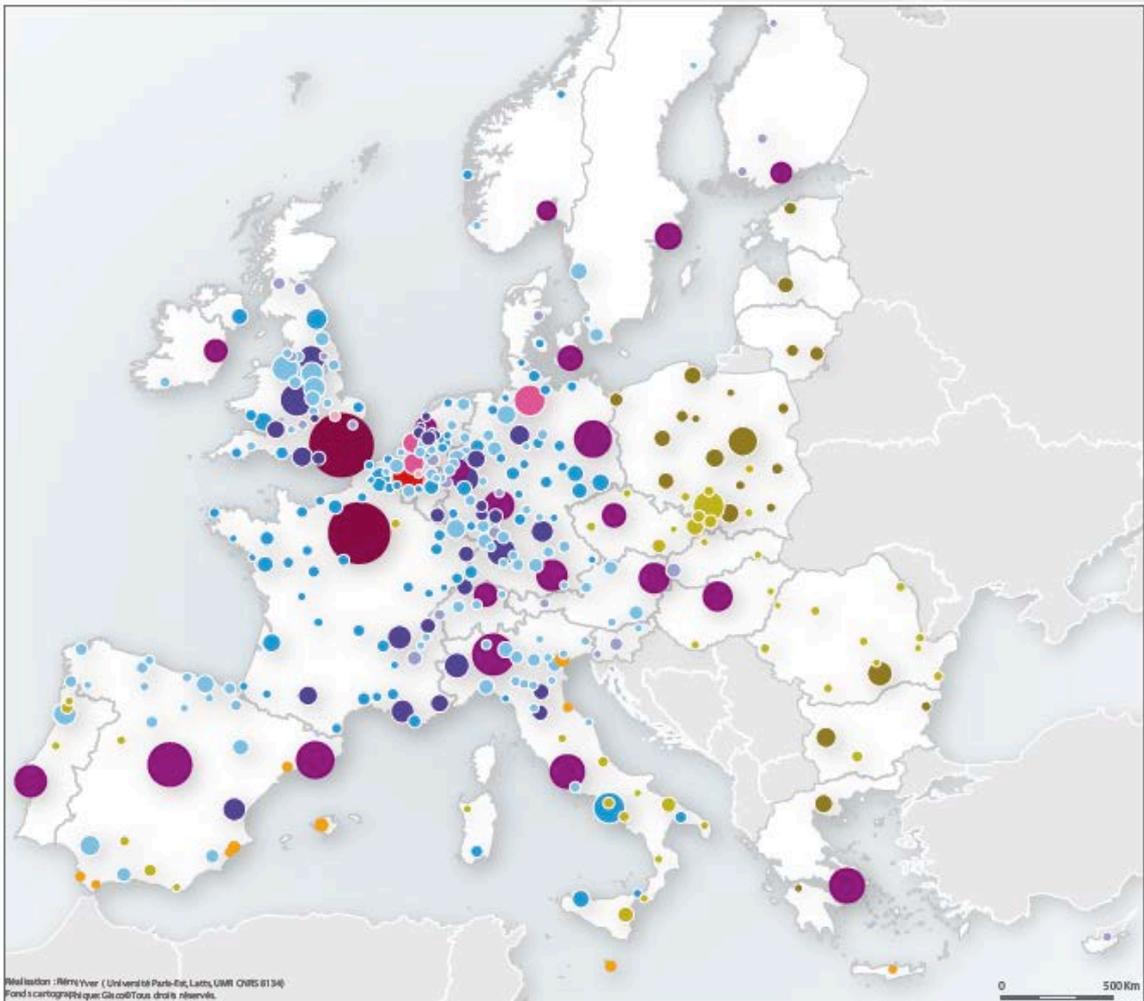
Functional Urban Areas in Europe, 2006



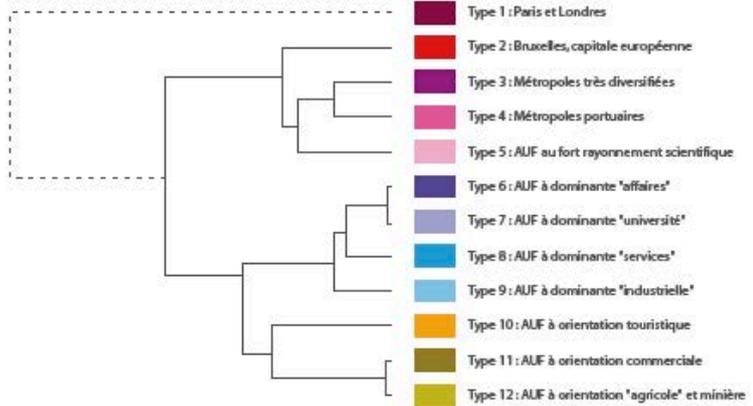
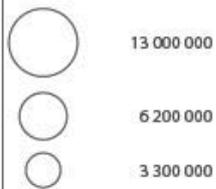
Circles are proportionate to the population

Size range : 50 000 to 12.6 millions





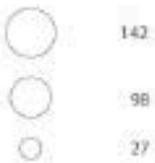
Nombre d'habitants dans l'AUF en 2006



L'accèsibilité en une journée



Nombre de Villes accessibles en une journée
(aller - retour par voie ferroviaire et aéroportuaire)



Section 4 – Visual support for the Midterm Targets and Pathways (MTP): some directions to follow

Considering the visualization work that will be held in relation and in support to TeVi2, the work developed on the MTP will be rooted in territorial dynamics. Our aim will be to manage realistic territorial policy objectives related to the definition of the European territorial Vision that will be chosen for Europe 2050.

A mapping based on the FUAs is a hypothesis that will be reflected on as well as a mapping of non urban areas (mainly natural areas such as mountains, seas and others) envisaged as future parts of the entire economy (by the means, for example, of the economy of ecosystem services).

This section remains open to further feed, as decision should be made upward in the design of the TeVi2.

The visual support for MTP could detail the global visual made for the TEVi

Section 5 – How to visualize the Vision: issues to further discuss

As pinpointed, many issues remain opened at this stage of the project; issues that should be further discussed to get some agreement on how the territorial vision should and will be visualized.

What will be the spatiality of the visualization?

What kind of supports will be used to visualize the vision? At this stage of the project, we have used a lot of bi-dimensional mapping with a flat shape of Europe. This kind of representation is a necessity when talking about quantitative scenario. However telling a story about Europe 2050 necessitates other kinds of visuals. We have already experimented the limits of bi-dimensional and flat mapping: in order to be readable by a large audience, the maps should present a reduced set of concepts and symbols. Moreover, the audience should appropriate those concepts and symbols. This step could lead to misunderstandings.

This leads to consider other ways to represent the Vision. A possible alternative/complement is to mobilize a three-dimensional representation of space and territories. The films developed last year to communicate on the ET2050 project, could be a part of this broader reflection.

Abstract Europe and/or Realistic Europe?

This issue seems to be difficult to manage, especially looking at the nature of the Vision, defined as a narrative, a story about the future of Europe. Should we use realistic map to show this (i.e. maps using the ESPON shape for example)? Or, should we use modelled, utopian representation of space? We should probably use both but the purpose of each one is rather different. As argued upward, it seems that a film could relevantly help to visualize the vision together with rather schematic maps.

Innovative visualization vs traditional visualization

This last point has a lot to do with the previous ones, using non traditional representations of the European territory, especially a film, is a challenge for current and usual ways of presenting the European territory in ESPON projects. How far should we go in innovation? How should we balance innovative effects and traditional mapping? This remains a point of discussion, that will probably be resolved in an iterative way of working.

Europe in 2050: a Territorial Vision

“Crisis management based on short-run measures will only be successful if European leaders simultaneously provide a long term vision for the European Union.” (Global Europe 2050)

“A Vision is a dream of an ideal future” (ET2050 specifications)

1. Foreword: Vision building process and aims

The ambition of this Territorial Vision for Europe 2050 is not to predict what Europe will be, or even could be, in 2050. Instead, its purpose is to fuel the debate about the long-term future of territorial policies, EU cohesion in particular. To this end, a tentative – ideal - picture of what the European territory may look like in 2050 has been outlined, thanks to an intensive participatory process with a large array of stakeholders active at European level, and with the support of ET2050 exploratory scenarios exercise.

The philosophy of this document is not of a prospective nature, even less of forecast or foresight. The essence of this Territorial Vision is to imagine which Europe stakeholders from today would like for their children or grandchildren to live in in 2050. Realistic mid term target and strategic pathways will then be proposed towards the implementation of this Territorial Vision 2050. Therefore, although this document includes a part of imagination, it assumes that a significant number of objectives already set at EU level for the years 2030 or 2040 will be attained by 2050 at the latest¹⁴¹. We expect the actors involved to have demonstrated their ability to implement successfully the common policies established by the EU as from the 2010s, including efficient territorial policies. However, the document intentionally adds radically new elements – either “utopian” prospects or real technological and social opportunities of which we can see the seeds and signals already in the current situation - which contribute to enrich our vision of the future.

In the following pages, we are in 2050.

We present first what are the values and policy paradigms which are the pillars of this Territorial Vision, then we introduce Europe in the world and with its closer neighbours. After a short

¹⁴⁰ This 3rd draft of the Et 2050 territorial Vision (TeVi draft 3) has been elaborated by IGEAT, building on : the first draft TeVi , Doucet & Drevet, and supporting document 1; the second draft TeVi, Sessa, and supporting document 2; inputs from MC workshops, Dublin (June 2013) and Vilnius (December 2013); inputs from stakeholders workshop , Brussels, (11 October 2013); ET 2050 tpg meeting Vilnius, 3 December 2013. It has been updated in February 2014 using preliminary version of DFR and VOL 11 policy pathways

¹⁴¹ Further detail about policy objectives is provided in Territorial Vision supporting documents 1 &2, as well as in mid term target and pathways volumes.

panorama of 'current features of Europe in 2050', we introduce the territorial structure of Europe which would best help to fulfil objectives related to our values and paradigms, a choice made on the basis of discussions with stakeholders, and supported by the results of the ET 2050 exploratory scenarios. Eventually, we develop elements of governance which should allow this territorial structure and related objectives to be implemented successfully.

An additional document will use key elements of the Territorial Vision to propose mid term targets and strategic pathways for the implementation of the Territorial Vision, taking into account the diversity of the European territory.

2. Values and policy paradigms

In 2050, the following **values and policy paradigms** are deeply rooted in the policy discourse and the economic and social fabric of Europe:

- **Deep and sustainable democracy:** predominance of the rule of law, compliance with the Charter of Fundamental Rights, the rights of minorities. Transparent and accountable institutions, public service oriented to empower citizens.
- **Advancement of the 'European project':** Europe is a unique political entity at world level. Although not a new constitutional entity, the EU functions virtually as a federation, thanks to (i) full policy integration achieved in most common priority matters, (ii) new policy, fiscal and cohesion principles set out in a new Treaty, (iii) practice of multilevel governance based on the subsidiarity principle. Peace has been fostered, and the relations between neighbourhood countries formerly in conflict (e.g. Israel and Palestine) greatly improved; deep and sustainable democracy is achieved also in East and South neighbourhood countries.
- **Sustainable development, well-being and quality of life:** since the issuing of the EU2020 Strategy, the spirit guiding the EU was that of sustainable development of the Union territory, and beyond. Sustainable development refers to universally accessible human and harmonious development, encompassing three dimensions: economic, environmental and social¹⁴². In particular, the EU was opting for a low carbon pathways, a political decision which had tremendous territorial impact.
- **Solidarity:** this concept is embedded in the development of the nation state – the nation, which members are united by a social bond, is considered a community (Geimenschaft) – but the notion has been established also at the European level. Solidarity is achieved on common matters, e.g. financial stability, energy interdependence, migration and EU border management, adaptation to climate change, combating poverty and unemployment. The aim was to create and/or sustain a common European space of stability, through shared work and/or di-

¹⁴² In this respect, it is recognized that the GDP measure of growth is obsolete. The goal of a socio-economic order is to sustainably improve human well being and quality of life, whereby material consumption and GDP are merely means to that end, not ends in themselves. A new frame is set up to account features of well-being "beyond GDP" (adding new terms to the accounting equations, e.g. measures of the natural, human and social capital, and a better measurement of intangibles assets, as well as the integration of externalities cost). This is also taken into account in indicators for cohesion policies: territorial quality became a main indicator.

verified financial supports. Solidarity is not a one-way approach, but includes commitments of responsibility by the country receiving financial aid¹⁴³.

- **Territorial efficiency and cohesion:** The overall task assigned by the EU Treaty to cohesion policy (namely the Structural Funds and the Cohesion Fund) “to promote overall harmonious development” – and the goal of reducing disparities between regions – has been definitively interpreted and applied. This was achieved through considering both the efficiency and equity dimensions of development, and establishing two interdependent although different policy objectives: (i) all regions must be given the opportunity to achieve their full potential, using their specific territorial capital (territorial efficiency), and (ii) all citizens must enjoy an equivalent quality of life, although the components of this quality can vary according to context (e.g. urban or rural) (territorial cohesion).

3. Europe in the world, and the world in Europe

Since mid XX century, Europe is no longer in a position to determine the future of the world. Instead, the evolution of the world reshapes Europe. In 2050, the globalization process has evolved towards a more balanced pattern.

- Cities play an increasing important social, economic and political role at global scale: The globally connected cities are particularly important in terms of trade of services, and they will continue to be important places, continuing to attract human capital and international companies. However, Europe, while hosting some global cities, has a balanced and more even distribution of small and medium-sized cities than USA and China, and many of these have been growing in global connectivity too. Considering the challenges that global cities have in terms of overconcentration, which can hamper growth, this characteristic of Europe has been a plus as compared to other parts of the globe. A relief was found for European global cities from small and medium sized cities in the vicinity, based on joint global promotion and networking activities.
- The EU-globe relationship is shaped by heavy trends, which converge at the global scale in the areas of trade, mobility and energy markets. These trends impact the European territory and other continents alike. Competitiveness gaps have been reduced. Saving energy is a world objective, to which compulsory environmental standards to combat global warming also contribute. Tensions on the energy market have been reduced, thanks to technological progress (abundance of renewable energy) and improvements in energy efficiency. EU keeps being a world actor, although on different grounds than in the past: in 2050, countless key-players of the public and private sectors - including NGOs and the corporate sector - are involved in global governance. In this context, the EU was increasingly becoming a world actor/model/ leader on the global stage, increasing the power of Europe in defining global rules and being actively engaged in dealing with global challenges. A less formal but very intense interregional cooperation takes place on a variable-geometry basis, involving countless public and private bodies on topics such as city networking, urban and rural development, transport, environmental protection, cultural heritage, etc.

¹⁴³ In addition, a clear distinction was made between cohesion policy and other financial solidarity mechanisms put in place in the EU to tackle with common financial, energy, climate change, migration and social challenges. While the latter are mostly new means of financial redistribution among Member States and Regions, the former is targeted not primarily to redistribution (although some places may receive more from interventions than they contribute through taxation) but to trigger institutional change and to break inefficiencies and social exclusion traps through the provision of public goods and services.

- A global governance has emerged. The movement towards a multi-polar world was characterized therefore by a much broader consultative process, extending to a large number of jurisdictions and addressing global economic and environmental challenges. In 2050, greater coordination amongst major economies on financial sector regulation is a reality. Various climate-related tensions have raised public awareness about the fragility of the planet and resource depletion while prompting a world-wide mobilisation of people. Most vulnerable countries fiercely and successfully advocated the adoption of world-wide mandatory environmental standards. The United Nations' World Environment Organisation (WEO), created in the 30's, has extensive powers and financial resources to implement a comprehensive policy, and due to its action a world-wide efficient governance system on environmental issues has been set up. The WEO works in close consultation with the International Maritime Organization (IMO) to promote safe, secure, environmentally sound, efficient and sustainable shipping. The issues of conservation/ exploitation of natural and energy resources are settled, not only in the Exclusive Economic Zones (EEZ) of the various nations but also in the high seas.

The other Europes: Eu enlargement and neighbours. In 2050, the EU has been enlarged, including countries beyond the 28 members achieved in 2013. However, a balance has been maintained so as to avoid weakening EU ability to be a valid global partner, as well as its ability to achieve more integrated policies and strategies.

- In the EUROMED¹⁴⁴ area, very close relations have been established between the various participating countries, grouped into a set of concentric circles, whose core is the EU. Outside this core, some countries have decided to join the EU, others signed ad hoc agreements, or are 'associated' on some common issues, on a variable geometry basis.
- Therefore in 2050, the Eastern border of EU includes what at the beginning of the century were the Eastern neighbourhoods. Since that time, the challenge of fostering more deep and sustainable democracies in the Eastern countries, with the "more to more" approach shaping the neighbourhood policy, was successfully tackled.
- On the South borders of the EU, the very unstable situation in the Southern and Eastern Mediterranean Countries (SEMCs) following the so-called Arab Spring, was eventually faded away. Initially, there was very little the EU could do to influence events directly. However, relatively soon – before 2020 - important demographic trends in the South neighbourhood (and beyond) regions pushed for increasing EU-MED and EU-Africa cooperation, to contrast threats and exploit instead potential opportunities of co-development for regions in different stages of demographic transition. The Mediterranean area has offered also an important opportunity to address the EU's energy transition challenge in a wider and more favourable territorial context.
- Enhanced cooperation on transport policy (including transportation of energy) has taken place for instance through the construction of new Mediterranean links and the construction of major infrastructure connecting the EU with Eastern Europe, Russia and the Middle East. Full implementation of free trade agreements have strongly developed Trans-Mediterranean trade, both with the EU and between SEMCs. A fast growing freight and passenger demand between

¹⁴⁴ In 2013, EUROMED includes: EU28, EFTA countries (Norway, Iceland and Switzerland), candidates (West Balkans and Turkey), the 16 countries eligible to the ENP (European neighbourhood policy) and the European part of Russia.

the two shores of the Mediterranean has allowed major new infrastructure to be completed, in particular the fixed link across the strait of Gibraltar.

- In the North, a global territorial change, affecting in particular trade links between the Europe and Far East Asia, has been the opening of a new route in the Arctic Sea, due to climate change. However, although the melting of polar ice has provided new opportunities (navigation, drilling, fisheries), new environmental risks had to be taken into account, and the access to Arctic sea opportunities is tightly regulated by the WEO to protect the natural environment; navigation is carefully monitored, and the riparian countries have signed a treaty to put their territorial claims on hold (as in the Antarctic).

The main territorial implication for the EU of those developments has been the increasing relevance of strategic interface gateways to and from Europe in the North, East and South borders. Co development strategies are implemented with neighbouring countries. Several integrated crossborder zones were emerging, which became strategic areas for territorial cooperation and planning.

4. Europe in 2050: main features:

4.1. Demographic and social changes

During the first half of the 21st century, the **EU demography** was characterised by a slow population growth resulting from both slightly rising fertility rates and positive net migration. Demographic policies have been a contentious issue, be it about boosting the birth rate, allocating the added value between generations or managing immigration. This population was also affected by several **social changes**, a.o due to technology evolution.

- EU mature demography and consequences for growth: in 2050, following the ageing trend experienced since the 1950s, the population over 65 has increased by 40 % compared to 2005, from 19 to 32 % of the total population. Ageing has become a common feature of the whole continent. 35-40 % of regions are affected by a reduction of their labour force, a “demographic burden” which is typical for mature economies at the end of long-term demographic transition periods. Ageing baby boomers are more active and healthy: already by 2020, several countries in Europe have substantially revised their pension system by allowing their citizens to adopt flexible retirement schemes in which, after a certain age, they could progressively decrease the number of working hours.
- A key driver of growth – human capital development: the potential for economic growth depends not only, not even mainly, on the number of workers in the labour force, but on their quality, i.e. their level of education. Until 2050, accumulation of human capital has continued in advanced and also emergent economies (namely China), with a marked convergence towards the levels of the United States. The average level of education in the world is increased dramatically in 2050, which is good news in terms of functioning of the institutions, in terms of innovation, or simply in terms of well being of our societies.
- A more educated workforce and diversified jobs: Possessing adequate cognitive skills has proved increasingly necessary for the capacity to enjoy life, for self-esteem, for increasing income and for finding jobs. A relative higher level of cognitive skills is required also in the less knowledge intensive services. In 2050, a wide range of diversified jobs have been created

mostly in the creative workforce, in eco-industries and in personal service sectors across Europe. However, a relative reindustrialisation occurred also in traditional industrial areas in the centre of Europe, recentralising high-quality and technologically advanced production, as well as in Southern regions where salaries remained relatively low, making already existing industrial investments profitable enough to remain there longer.

- A more fluid transnational labor market in Europe: in 2050 substantial progress is achieved in mobility policies at the EU level – including a better coordination of the social protection systems, portability of pension rights and incentives to learn foreign languages – as well as at national level, with more flexible labour and housing markets (finding decent houses at affordable rents is almost as important as finding decent jobs). Moreover, labour market insertions and job transitions are now effectively managed and secure.
- A changed migration to and within Europe: migration and border management solidarity. In virtually every region, immigration is a reality, but also a need, to compensate the decrease of the working population. An overall migration policy framework is functioning which associates the EU and the members of the Schengen area, in consultation with some other non-EU countries. A common EU migration policy has organised the reception of selected migrants, focusing on qualified immigration of varied geographical origins and diversified inside Europe.

Technology induced changes: the evolution of technology – a.o linked to everywhere connectivity - had tremendous effect in all our life landscape: social and societal, learning and work, manufacturing, energy, daily habits & mobility. New mobile software and apps offer a wide range of capabilities, effectively placing the capabilities of an array of gadgets (including PCs) in a mobile package that provides voice calling, Internet access, navigation, gaming, health monitoring, payment processing, and cloud access. Cloud technology allows the delivery of potentially all computer applications and services through networks or the Internet. Equipped with Internet-enabled mobile computing devices and apps for almost any task, people increasingly go about their daily routines using new ways to understand, perceive, and interact with the world. In 2050 **this has contributed to social changes in:**

- our daily habits and mobility landscape: people are increasingly disconnected from a single place for their production and consumption activities, due to the increasing flexibility and ubiquity of work, education, leisure and other personal activities enabled by the mobile Internet and cloud technology. An increased share of workers - especially older workers in a wealthy ageing society - see their labour input disconnected from the need to stay all the time at the same workplace;
- our ways of social interaction : fueled by innovations in the field of electronic media and Information and Communication Technologies (ICT) people in different contexts are more active in communities. Some citizens/customers contribute more actively to certain forms of issue-based discourse and campaigning activities, based on shared interest or the identification with a certain group of people or certain attitudes/values. The increasing openness, availability of and access to information contribute to increasing public awareness and sensibility against any type of unfairness and injustice around the globe;
- smartphone more than car-centric lifestyle: the members of the digital generation are not rushing to get driver's licenses the way baby boomers did. The virtualization of life and work

and the increasing importance of teleworking, e-shopping, electronic communication and social media has definitively established new lifestyles, habits and mobility behaviours. Lifestyles are more versatile, leisure activities are more widespread, and the everyday life is more irregular and quickly changing. A better fit between working time and leisure has increased residential mobility (more frequent changes of permanent residence as well as better use of secondary residences).

4.2. Economy

By 2050, the European economy has entered a phase of more **qualitative than quantitative growth** (1.4 % yearly growth rate, sizeably below the world average). However, Europe has restored its **competitiveness** through an industrial rebirth of high productivity activities derived from technological innovation. Europe exports worldwide a wide range of high level manufacturing goods and services. Behaviour change and social innovation, in particular a quest for constantly greater sustainability, have deeply modified the business environment, avoided repeating mistakes of the past and stimulated environment-friendly growth. In **globalization and competitiveness issues**, two unfolding globalization trends manifest themselves in 2050: the increasing **globalization of services** and knowledge, and a turn towards **regional clusters**, i.e. a new model of clustered globalization driven by higher transport costs.

- A successful socio-ecological transition to a creative and green economy within Europe: the European domestic economy has entered a phase of qualitative, rather than quantitative, growth. This stems from three main factors: i) the European demographic structure, which includes a high percentage of inactive population (below 25 years and over 70 years, for an average life expectancy of 85 years, which gives 40 years of inactivity for a working period of 45 years); ii) environmental constraints, which regulate growth while improving its quality and sustainability; iii) a larger share of low-productivity services (including personal services to ageing population). However, Europe has restored its competitiveness through an industrial rebirth of high productivity activities derived from technological innovation.
- In this respect, technology induced changes had an impact in our economic landscape, allowing e.g decentralised industrial production, but also more agile workflows, and learning opportunities. In addition to humans mediated interactions on the web, the “Internet of Things”, with the spread of sensors (motion and temperature detectors, level indicators, smart meters, etc) enables the gathering of huge amounts of data about the real world and the sharing of this data through the cloud. Big data are widely used to improve the efficiency of infrastructures in the context of smart cities and wider geographical scopes.
- Another key component of the new business paradigms in operation in 2050 is ecological sustainability, and the shift this requires towards eco-design “waste equals food” principles in the industrial system. The widespread diffusion of the eco-design industry paradigm delivers a dramatic increase in productivity and product quality improvement, while at the same time creating jobs and reducing pollution.
- The EU social economy matters: besides the ecological dimension, also the social dimension of the transition proved to be particularly relevant to preserve prosperity and well-being in Europe. In 2050, the whole economy increasingly operates with the contribution of the social sector, including organizations funded from private, public or hybrid sources, geared to the needs of people and ecosystems, while not driven by market forces or the exclusive profit

motive. Behavioural change and social innovation are proving as crucial as better economic solutions and technological innovation.

- As for the globalization of services, until 2050, trade in services has increased faster than trade in goods, thanks to the liberalisation of the sector and the fact that services make up an ever-increasing part of GDP. Most of these services exported on the global markets are knowledge-based, the productivity of knowledge assets and knowledge-based activities are a key factor of global competitiveness.
- In 2050, a new model of regionally clustered globalization prevails. The conventional globalization model based on import-export of goods exploiting country level comparative advantages (e.g. low labour costs, availability of land or natural resources, etc.) and cheap transport costs has evolved into a new form of globalization based on the internationalization of value chains within regional clusters of countries, and in particular in three main “vertical” regions on the globe: the North and South America, Europe-Middle East-Africa (joined in a “triangle of growth” originated by a strong cooperation in the energy sector and a common transition to a low carbon economy), and the Far East Asia and Australia.

4.3. Transport, energy, climate and environmental policies

Other policies than regional policy have a direct territorial implication and help to achieve progress towards EU territorial cohesion, especially transport, energy and environment/climate policies.

- Technology induced changes: smart investment in global and local infrastructure for energy and transport. The nature of transport and energy infrastructure changed with the increasing use of smart technologies. For instance, instead of an increasing grid for transport, less roads and rail infrastructure became necessary with higher precision transport systems and automatic breaking systems. In 2050, transport infrastructure is accompanied by pay-as-you-use systems, and pressure on government for new transport infrastructure building is decreased. Smart grids reduce the need to build new centralized power plants.
- In 2050, a radical progress has been achieved in the transport sector, which led to a 60% reduction of GHG emission in four decades. New and sustainable fuels and propulsion systems have been developed in virtually every transport mode. Green freight (rail, sea and inland waterways) corridors have marginalised long-distance road freight. A EU-wide multimodal TEN-T and the HST networks have been completed (in particular through closing missing links in border regions), all core network airports and seaports have been connected to the rail network and, where possible, the inland waterway system. The efficiency of transport and of infrastructure use has been increased, thanks to information systems and market-based incentives (including the full application of the “user pays” and “polluter pays” principles). Due to the increasing use of smart technologies to operate infrastructures and services, less roads and rail infrastructure has become necessary.
- In 2050, Europe has successfully tackled the challenge of decoupling resource use from economic growth by essentially using less and yet continuing to allow economies to grow and completed a socio-ecological transition towards a low carbon economy. Energy intensity (energy consumption elasticity in relation to GDP) has decreased due to more service oriented economies and increased resource and energy efficiency in production and consumption.

Carbon intensity (GHG emissions elasticity in relation to energy consumption) is also decreased thanks to improved technology. The goals set out in the Energy Roadmap to 2050 have been achieved, and a transition took place from a system characterized by high fuel and operational costs to a model based on higher capital expenditure and lower fuel costs. Impressive energy savings have been achieved during the first half of the century.

- EU energy solidarity and interdependence: an Energy Solidarity Pact has been negotiated between European countries to ensure the complementarity of energy sources and the cohesive development of the infrastructures needed to ensure the interconnection of electricity and gas grids. Thanks to the new Pact, each country continued to choose its own energy sources, while complying with few common principles: renewable energy that share the cost of intermittency and transport; gas and (increasingly less) coal with carbon capture and storage, nuclear power with high safety standards and a joint control structure, etc.. Supply networks have been connected to a more optimised European generation system, designed to integrate peripheral countries.
- To cope with climate change, in particular to mitigate the effects of global warming, strict norms have been prescribed and enforced by the WEO, in close consultation with the relevant authorities in the various continents, among which Europe is not facing the worst situation. Nevertheless, the physical, social, economic and environmental assets of several categories of European regions are variously impacted by the effects of climate change (sea level rise, more frequent river floods, heat, etc.) Southern Europe but also the Benelux coasts and, to a lesser extent, France, the British Isles and Norway have been seriously affected. Until recently however, southern regions were more vulnerable because of their lower adaptive capacity.
- The impact of land use planning: in response, an EU climate strategy has been approved to tackle climate change, in particular its territorial impact. This strategy involves a considerable reduction of greenhouse gas emissions, a significant improvement of the energy efficiency and the promotion of clean electricity generation. Much emphasis is also placed on the need for appropriate policy steps at the regional and local levels, with particular regard to land-use planning, in rural and urban areas alike.
- As far as urban development is concerned, the sustainable city paradigm is widely promoted and guides the elaboration of integrated strategies tailored to specific circumstances. In 2050 the trend towards more urban and less rural land is halted and actually reversed, with more green areas that are refurbished and cultivated also within the urban boundaries when possible, helping to increase also urban biodiversity. This was mostly a result of combating urban sprawl policies in the urban regions, and after 2030 there was almost no more net land take for new urban areas in most of the large metropolitan areas, where the population remained stable and the available space was saturated.

In general, the paradigm of **“living within the limits of the planet”** is predominant in Europe in 2050, making us able to cope with a whole ensemble of environmental challenges (besides climate change, which actually affects all the other environmental challenges). As a global player, the contribution of Europe in 2050 to the Earth sustainability is important. The right to have an **environment of quality** has become a basic right for all European citizens, and it is included in the EU Chart of Fundamental Rights. Sustainable management of resources (such as raw

materials and minerals, energy, water, air, land and soil) together with the necessary protection, valuation and substantial restoration of biodiversity and the ecosystem services it underpins are key priorities of the EU environmental policy.

Boosting resource efficiency remains indispensable to make progress towards sustainability, but maintaining ecosystem resilience is no less essential. Three policy areas of particular relevance for territorial development deliver a major contribution in this respect, namely waste, water resources and biodiversity:

- Concerning the waste policy, the “managing waste as a resource” principle is applied all over the EU. Put otherwise, landfills and illegal shipments have been eliminated, whereas waste prevention, reuse and recycling have been maximized.
- With regard to water resources, the objective set out by the European Commission in its “Blueprint to Safeguard Europe's Water Resources” was not met in 2015, but an ambitious integrated strategy was elaborated in the following years (and included in the New EU Cohesion Strategy) to secure an acceptable level of availability and quality of water resources in the EU. The integrated management of water resources became a key-component of territorial cooperation strategies applied by Euregional and macroregional authorities to transboundary river basins, and succeeded in developing a sense of solidarity between upstream and downstream areas of these basins.
- As for biodiversity, the situation in the first decades of the century was also alarming. Limited progress was achieved toward the establishment of Natura 2000, the world's largest network of protected areas. Later on, a new strategy “Natura 2050” was approved and successfully implemented to protect, value and appropriately restore the EU biodiversity and the ecosystem services it provides.

5. Territorial structure and dynamics

The European territory presents an outstanding long term urbanistic characteristic pattern, with a **territorial structure based on a large covering of the territory by small, medium and large cities**, presenting a large array of diversity as far as territorial capital¹⁴⁵ is concerned. In 2050, the weight of history and geography continues to play an important role in territorial policies, whereas high standards apply to environmental protection and the conservation of natural resources. There is a **better quality of urban and rural life**, with the implementation of the **polycentric paradigm** at large, medium and small size cities functional area levels. **Rural areas are acknowledged as crucial asset** for European agricultural policies and bio production development, and the **ecocity model predominates** at all urban levels. Another important territorial characteristic is that borders have become highly permeable thanks to the construction of new infrastructure and simplification of controls. The intensification of trade has favoured new activities in border regions and reduced the income gaps, as a result of various mechanisms catalysing **territorial integration, in particular cross-border and transnational territorial cooperation** supported by the EU at its internal and external borders.

¹⁴⁵ Territorial capital is made of social, economical, environmental and human resources present on a territory.

A Territorial Vision for Europe: Open polycentric development

In 2050, the share of Europe's urban population in the global total has shrunk considerably, but the same trends toward more urbanisation is present: around 85% of the European population live in an urban area. The urban-rural picture in Europe remains partially different from the rest of the World. While the global mega-city remains an obvious manifestation of the metropolisation process in all the continents, networks of interlinked small and medium size cities have also emerged, notably in some regions of Europe. Such networks of interlinked cities, with efficient transport systems operating between them, represent highly effective polycentric metropolitan regions in several parts of Europe.

To achieve this Vision of an open polycentric development, and at the same time keeping Europe in a strong position at world level, polycentricity at different scales was achieved: instead of letting large metropolis becoming bigger megalopolis, European policies were oriented towards the promotion of cities of national importance, as well as second tier cities, of regional importance. The network of those second tier cities in particular was supported, to develop them as places of attraction and engines of growth with a high degree of social cohesion, platform for democracy, cultural dialogue and diversity; places of green, ecological or environmental regeneration. The concept of Ecocity was implemented, placing Europe at the first place in term of new technology related to energy alternatives and mitigating climate changes, as well as new relation between rural and urban areas (eg local food production).

Territorial structure

In 2050, the European Territory pattern is therefore organised in different levels of functional areas:

- **Level A - global cities and large metropolitan areas.**

Affected to a variable extent by the “urban sprawl” disease, these European metropolises are tightly connected to one another - with air or high speed train connections within a 3 hours threshold. Some of these cities are truly “global”, with strong economic, cultural and transport connections with other cities of the world (including global air or seaports or hubs). Therefore, level A cities cover to a large extent MEGAs. However, the structure of the city itself or of the urban area wherein such cities are embedded rely on a differentiated pattern inherited from national urbanization history. A bipolar urban armature is reinforced throughout Europe based on a monocentric and polynuclear pattern. In many cases, capital cities urbanization pattern remains monocentric throughout Europe with some notable exceptions such as the Vienna/Bratislava or the Copenhagen/Malmö areas recording a reinforcement of their relation and the development of a transnational urban area. However, non capital cities of a global scale (mainly the Pentagon area) are strongly embedded in polynuclear urbanization armature with a high density of local networks of transport and supply such as the Rhine and the Ruhr basin, the Benelux, Northern Italy, Southern Germany. This area, while still active as the economic core of Europe, is better integrated with a green transport networks and a complete switch to decarbonized economy both in transport and energy. Southern and Eastern capital cities such as Athen and Warsaw while still relying on a monocentric armature have developed decentralization processes and to some extent a dedensification of economic activities in the core areas with a progressive switch towards

polynuclear armatures based on the reinforcement and the development of public transport and the decarbonisation of the economy.

- **Level B – cities of national and European importance**

Apart from capital cities and cities with a global influence, many cities in Europe keep a strong influence at the European and national level. The large majority of those cities are strongly linked with their hinterland and other urban nodes with both European/national and local influences. The population and the urban functions are distributed among several cities, with no markedly predominant centre. The cities are well connected between them (within 1 hour of travel time) and there is at least one regional hub infrastructure (airport or train station) to connect them within a 3 hours threshold to a level A city.

This designs polynuclear clusters of cities in various European areas: throughout the Iberian Peninsula in Andalusia, the Basque Country, on the Porto-Vigo axis, on the Murcia-Valencia axis; in France: the French Riviera and the North; in the UK, the Midlands; the Luxembourg-Trier axis; Northern Denmark; in Germany, the Leipzig-Dresden axis and the Stuttgart region; in Italy, the North-East on the Bologna-Venezia axis; in Poland around Krakow.

This development of polynuclear clusters of cities throughout Europe is the consequence of active policies led in Europe to reinforced local development in patterns and local networking in densely populated areas: new dynamics emerge at the scale of this polynuclear clusters reinforcing the integration of the economy at local scale with better logistics and food supply as well as a better distribution of economic functions throughout the area. Governance structures supporting such integration dynamics are set up. This new development is based of inherited and dense urban armature. In more remote areas in Western and South Western Europe still marked by the monocentric development few polynuclear clusters appears, local development is supported and maintain in relation to the capital cities development. However, specific decentralisation policies are progressively set up in order to counter strong migration trends towards the capital city or abroad.

Remain few monocentric urban areas with national and European importance in France (Lyon) and Germany (Nürnberg).

- **Level C- second tier cities:**

Compact cities: these are areas where, due to historical and/or morphological circumstances, the urban population is concentrated in one small to medium size city, where urban functions are concentrated. Those second tier cities can also be part of a polycentric network, including low density areas with sparse agglomerations, which do not encourage sprawl, but instead organised themselves in a polycentric way to be well equipped with low to middle urban functions within the area.

Those second tier cities are connected within a 2 hours threshold to a level B regional hub or city (and occasionally to a Level A city).

- **Level D- rural regions:**

With a predominance of rural land, an asset which Europe values enormously now that food production pattern has changed due to climate change impact, as well as behavioural change towards more local food production.

This “European Territory settlement pattern” has no administrative (let alone normative) value. The current NUTS and LAU classification of administrative entities is left unchanged. However,

this pattern provides a strategic picture of an EU polycentric and balanced model, based on morphological and functional criteria (density thresholds, commuting travel time thresholds, connectivity with other urban hubs, complementarity of services of general interest available). The different levels are defined for policy coordination purposes, as well as to inform decisions to be made on (European) investment priorities associated with various Eu policies with a territorial impact (e.g cohesion and agricultural policies)

This settlement pattern is organised through urban polycentric structure, energy and transport infrastructure grid, and open regions (green infrastructure); Also, it takes into account new interaction between land and sea, and intense crossborder cooperation, as well as strategic cooperation with neighbouring countries (EUROMED and Northern neighbour).

Territorial dynamic:

- **A better quality of urban and rural life**

Globalization still favors metropolitan areas in 2050, but their economic and demographic growth capacity is limited by various hindering factors. Development and urban quality of life prospects are better in secondary growth poles offering attractive living conditions and good connections to the metropolitan areas. Small towns and rural areas are however not penalized by these developments. Moreover, the polycentric paradigm of European territorial development has been consistently implemented, especially in less central areas, where capital-cities and other cities have been voluntarily supported to rebalance the territorial structure of the continent. The completion of some missing cross-border links in the TENs has considerably improved physical connectivity between cities. Cooperation in cross-border, transnational and global networks of cities has considerably intensified. Tangible cooperation projects focusing on specific issues of relevance for territorial integration are particularly successful. Permanent thematic networks contribute to harnessing synergies between projects addressing similar issues, whereas **macroregions and Euregios**, concentrate on long-term cross-sector territorial integration strategies.

A European smart, sustainable and inclusive **eco-city model** is widely implemented, whose key-principles are as follows:

- make cities of tomorrow places of high social progress with a high degree of social cohesion; platforms for democracy, cultural dialogue and diversity; places of green, ecological or environmental regeneration; places of attraction and engines of economic growth;
- promote a compact settlement structure and combat urban sprawl;
- transform profoundly the metabolism of cities : forego the old linear metabolism (high quantities of inputs and outputs) and promote an efficient circular metabolism through minimised waste and emissions and maximised recycling;
- promote social mix in neighbourhoods and at school through all appropriate means (e.g. small public housing operations in the urban fabric or appropriate mix of more and less profitable operations in planning permissions delivered to private developers)
- favour high density urban development in strategic nodes and along public transport lines; forego further development elsewhere, and promote progressive ecological restoration of low density residential areas inherited from 20th century urban sprawl;
- strictly protect the blue-green infrastructure; be more flexible in zones dedicated to economic activities and residence
- irrigate residential areas with public transport and slow traffic (pedestrians/cyclists) infrastructure while reducing car traffic speed and land take

- adopt a holistic model of sustainable urban development; integrate policies vertically (between decision-making levels), horizontally (between sector policies) and geographically (transcending administrative boundaries, e.g. those of municipalities) while deeply involving citizens.
- Interaction with rural environment for local food production

The **energy challenge** has been tackled especially in cities, with important progress in energy saving, through **renovation of the urban fabric** and the **renewal of transport** system.

In 2050, most of the urban population lives therefore in healthy, vital cities, but the rural regions are not lagging behind, thanks to a regeneration of the rural landscapes – with more bio-productions in some areas and/or valuable natural assets protected in other areas – and the permanent repopulation of some rural/attractive towns in the countryside, in some coastal areas, islands or mountain areas. The widespread availability of fast Internet connections in these areas, new e-health care and other e-services make easy – especially for older workers and the elderly – organise the daily life in these rural regions.

However, various less accessible remote areas of eastern and southern Europe remained more “agrarian” and experienced little diversification of their economy. Especially in these remote areas, a proactive support to “Services of General Interest (SGI)” contributed to economic recovery, but also, and more importantly, a proactive rebalancing of the (often too monocentric) urban system, combined with an improvement of the accessibility and a diversification of the rural economy.

In addition, two drivers contributed to revitalize the more accessible rural regions in Europe. The first driver was the opportunity created by climate change, that in 2050 has decreased the productive capacity of agricultural land in other regions of the globe, while is increased in the North of Europe. In these circumstances, the **productive capacity of Europe’s rural areas** has become a yet more valuable resource, where food production has increased. The second driver was the fact that many so-called “rural areas” no longer invest in traditional crop-farming and stock-rearing industries, but instead in the “**New Rural Economy (NRE)**”, i.e. other industries associated with the rural economy (e.g. tourism, local trade and products) but also some manufacturing and service industries more directly associated to bio-resources and organic agriculture.

Moreover, growing attention is paid to the needs of people not engaged in active employment, who are a source of financial transfers and consequently an opportunity for job creation in many regions.

Targeted policy steps were also taken to tackle issues specifically faced by areas with geographic specificities, in particular the Arctic, mountain areas, and islands, but also, more broadly, to adapt the focus of Eu funding support according to the different needs and potentials of the diverse territory of Europe, using as paradigm the ‘place based approach’.

- **A Blue Growth : interaction land and sea**

In 2013, 35% of the European population lives in coastal areas and 3% on islands. In 2050, Europe is widely open to the sea, to which its development owes much. Over the past few decades, EU policy has paid growing attention to coastal areas and maritime issues. The sea is a valuable source of economic development, constituting a key pillar for trade, growth and employment. These valuable marine potentials are explained by the richness of the European

seas in energetic, mineral and food resources as well as by their transport possibilities. There are six seas in Europe, the Atlantic Ocean, the Arctic Sea, the Baltic Sea, the Black Sea, the Mediterranean Sea and the North Sea. In 2050, the maritime potentials from the European seas are exploited, and the related challenges tackled, thanks a.o to the EU maritime policy, mainly the *Blue Growth strategy (2012)*. Together with other instruments of the EU policy – Integrated Coastal Zone Management, the Integrated Maritime Policy (mostly focused on maritime transport), and Maritime Spatial Planning, to name a few - the strategy contributed to dramatically improve maritime governance. In 2050, also the international governance environment is greatly improved. Common actions carried out by the UN (via the WEO) and the EU have been reinforced. Long negotiations have consolidated the law of the Sea, and the WEO has established a legally binding legal framework which is included in all sea governance arrangements.

As it concerns the environmental protection, in 2050 the EU has established common policies to improve environmental protection while exploiting natural resources in complete safety, and considerable progress has been achieved in integrating the EU maritime policy. A joint strategy of harmonious and sustainable development of the land-sea continuum has been approved and incorporated in the New EU Cohesion Strategy, and its implementation is monitored on an on-going basis. While promoting trans-boundary cooperation on maritime issues, this strategy organises a close collaboration between sector-based (e.g. Transport, Energy, Fisheries) and horizontal policies (such as Integrated Maritime, Environment and Regional policies). Major progress has been made in coordinating structured maritime cooperation and land-use planning of coastal regions, and Maritime Spatial Planning (MSP) has been integrated into the existing planning systems. The MSP contributes, amongst other things, to avoid the depletion of fish stocks and other biodiversity losses by disruption of coastal ecosystems.

Finally, a greater attention is given at the opportunities present in the seven Outermost Regions (ORs) and Overseas Countries and Territories (OCTs, belonging to 4 member states, but not to the EU itself). ORs represent a modest part of the EU territory but 2.5 million km² of its Economic Exclusive Zone (EEZ). Although still affected by territorial handicaps, they took much advantage of the EU structural assistance while harnessing the potential of their immense maritime space (e.g. modernisation of fisheries and exploitation of sub-marine resources). Technological change has contributed to improving their accessibility.

6. Multilevel territorial governance

« A more interdependent and complex world generates challenges, which demand a coordinated response. » (Global Europe 2050)

In 2050, the digital age has considerably intensified world-wide interrelationships and communication flows. Governance arrangements have constantly evolved toward further complexity. **Six main governance levels** have emerged: the global, supranational, macroregional, national, cross-border and regional/local levels. Macroregional and cross-border authorities are not entitled to produce legal or regulatory norms such as treaties, laws and regulations, a prerogative of the other governance levels. As it concerns more specifically the **EU territorial governance** dimensions, given the quest for variety and flexibility, it was increasingly clear in the EU, since the early 2000s, that different levels of fixed government structures alone are not well suited to addressing the future challenges in a sustainable way. Moreover, new formal governance institution tailored to functional urban or rural areas were considered not relevant to solve operational problems, given the time required to put new administrative systems into

practice, but also due to the need for ad hoc cooperation according to different issues and time scale (spatial, temporal and thematic flexibility). **Coordinated approaches in a multi-level governance framework** have been therefore preferred to effectively tackle future challenges.

- In the framework of the EU neighbourhood policy, steadily closer cross-border cooperation takes place between the EU and the countries located in proximity of its territory. In several macroregions, territorial cooperation groupings have engaged in the elaboration and implementation of a Joint Territorial Integration Strategy (JTIS), which deals with a wide variety of issues: water resource management, nature conservation, mobility / transport, city networks, R&D networks, etc. These issues are tackled on a transboundary and variable geometry basis in ad-hoc cooperation areas. The bulk of the macroregional budget expenditure is affected to cooperation project subsidies, contributing to territorial integration. The territorial integration process is even more supported by various strategic investments, especially those needed by major infrastructure projects funded by loans and resources raised through financial engineering operations. As many macroregions are crossed by an EU external border, the cooperation also strengthens the EU neighbourhood policy.
- Within the EU territory, national borders are only administrative boundaries – as it was for the regions within nation states – but no more legal borders for the citizens. The European citizens, as well as the immigrants after legally crossing the EU external borders, are free to move through the whole EU territory without passing any border control. The whole EU is a wide Schengen area. Proximity cross-border territorial cooperation in “Euregios” has become commonplace at every internal and external border of the EU. Arrangements similar to those used by macroregions apply, *mutatis mutandis*, to territorial cooperation in most Euregios, whose territorial integration process is catalysed by the mobilization of a considerable number of people, associations, NGOs, public or semi-public bodies and the corporate sector.
- At the same time, and again within the EU territory, it is well recognized that different territorial and governance levels have more or less relevance depending on the specific challenges and objectives they have to address. Therefore, subsidiarity is regarded as a golden rule and its practical implications have been clarified, in particular the allocation of competences between the different level of authorities.
- An “EU Territorial Cohesion Strategy (EUTeCoS)” formally approved by the EU authorities provides a coordination framework for all the EU policies with a territorial impact. The implementation of the EUTeCoS is mainly up to other bodies at the state, macroregional, cross-border, regional and local levels.
- A new paradigm of regional policy has been applied to reduce persistent inefficiency (underutilization of resources resulting in income below potential in both the short and long-run) and persistent social exclusion (primarily, an excessive number of people below a given standard of incomes and other features of well being) in specific places. In this new paradigm, the convergence of Member States or regions GDP is no more the “totem” indicator of cohesion policies. This is substituted on one side by the pervasive and deep assimilation of the concept of “territorial diversity” – i.e. the diversity of endowments and potential opportunities for creating wealth the different regions of Europe have – and on the other side by a battery of territorial cohesion indicators and targets, the latter providing minimum thresholds of income and, more importantly, access to other functional capabilities and

features of well being (e.g. access to health care, education, etc.) that are to be ensured to all European citizens wherever they live. The low carbon society objective has also been implemented through different indicators.

- Geometric/arithmetic means
- Relative convergence
- Absolute convergence

Currently cohesion indicators are calculated for accessibility and GDP per capita. With little additional programming effort, cohesion indicators for other output variables of the model can be calculated. The model documentation (Wegener, 2008, Page 28) contains a list of the about 35 population, economic and attractiveness indicators produced by the model. These include part of the indicators of the ESPON INTERCO project (ESPON INTERCO, 2011) as far as they are suitable for assessing territorial cohesion between (and not within) regions, such as demographic indicators, employment indicators, accessibility indicators and migration indicators.

Polycentricity indicators

Polycentricity indicators are macro indicators measuring the degree of polycentricity of the urban system in a territory. In SASI the polycentricity index developed in ESPON 1.1.1 (ESPON 1.1.1, pp. 60-84) is calculated. The polycentricity index of ESPON 1.1.1 is a weighted combination of three sub-indices:

- The Size index measures the slope and primacy of the rank-size distributions of population and GDP of cities.
- The Location index measures the Gini coefficient of the size of the service areas of cities.
- The Connectivity index measures the correlation of population and accessibility by the slope of the regression line and the Gini coefficient of accessibility of cities.

Currently the polycentricity index is calculated based on 1,588 Functional Urban Areas (FUAs) identified in ESPON 1.1.1 for the EU member states. With little additional effort the polycentricity index can also be calculated based on the 76 Metropolitan European Growth Areas (MEGAs) identified in ESPON 1.1.1 for the European Union as a whole.

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The ESPON 2013 Programme is part-financed by the European Regional Development Fund, the EU Member States and the Partner States Iceland, Liechtenstein, Norway and Switzerland. It shall support policy development in relation to the aim of territorial cohesion and a harmonious development of the European territory.