ESPON

EUROPEAN SPATIAL PLANNING OBSERVATION NETWORK

# Synthesis of comments from ESPON Contact Points on ESPON first round projects

**ESPON Contact Point transnational networking activity, "Compiling1"**

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**The content of the report does not necessarily reflect the opinion of the ESPON Monitoring Committee.**

# Foreword

This report presents the results of the project "Synthesis of ECP comments on ESPON first round projects", which was conducted within the ESPON 2000-2006. The project was co-ordinated by the ECP France (UMS 2414 RIATE, University Paris7/ CNRS/ DATAR) and included the following ECPs and persons:

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# Introduction

*"The results of all projects should be assessed by all ESPON Contact Points to receive a comprehensive picture of the variety of European approaches. Commenting other projects belong to the crucial network elements of the programme."*
The ESPON 2006 Programme, p.74

*"At the present stage in the programme networking is one of the least successful elements. Greater efforts should be placed on enhancing the role and effectiveness of the ECPs, and in generating more interaction between researchers."*
MVA, Mid-Term evaluation of the ESPON 2006 Programme, p.8

This document provides the syntheses of comments from ECPs[1] on ESPON first round final reports. It has been set out in the framework of the ECP networking activities, financed by the ESPON programme.
Ten ECPs were in charge of compiling the comments on the ten first round final reports. The resulting work lies in the ten chapters of this document.
Before coming on to the results, the general context of the commenting process is first recalled in order to specify its usefulness for the different stakeholders in the ESPON programme as well as outside the programme. Then, the first lessons that can be inferred from the exercise are presented.

### *The context and role of ECP comments*

The ECP comments are addressed to different ESPON stakeholders: the MC, the CU as well as the TPG authors of the reports. Particular attention is here paid to the TPG. There is absolutely no intention from ECPs to judge the reports and to deliver good/bad records. The ECP teams are often involved as partners in TPGs, and know how challenging the task to achieve relevant results at the European level is. Therefore, the commenting task has been carried out **in a constructive spirit**, and we hope that the TPGs will see it this way. The aim of commenting is not to criticize but to gain knowledge on the reports, so as to be able to promote them, especially outside the ESPON framework.

[1] ECP : ESPON Contact Point. A list of the main abbreviations can be found at the end of this document.

The commenting activity must be understood in connection with **the ECP role in the programme**. The strength of the ECP network is, *in theory*, as a network of resource persons having access to their national scientific community. In this respect, their commenting on the reports aims at (a) pointing out if the results of the report are relevant for their national territory, (b) suggesting alternative methods which could improve the understanding of the territorial trends, (c) proposing new interesting fields of research for a follow-up of ESPON. Each ECP comment is structured along these three strands, i.e. national strategic reflection, methodological matters and programming of further research. The present document provides rich elements within each topic, which are useful to feed the debates on the structure and content of ESPON II.

Nevertheless, the document has also several shortcomings. *In practice*, the ECP network suffers from not having been correctly framed nor financed since the beginning of the programme. This leads to a worrying consequence: the geographic coverage of ECPs is not exhaustive. Actually only 15 ECPs took part in the comments, although there should be 29 ECPs in the ESPON space. This is particularly problematic for the Mediterranean countries, where Italy, Portugal and Spain are missing, and in Eastern European countries (for example no comments came from the Baltic States, nor from Bulgaria, Romania, Slovakia). The variable number of comments per report is another shortcoming: some of the final reports have been commented by only five ECPs, while others by ten. So the comments do not display a comprehensive overview of national sensitivities in the ESPON space. This can be explained by the non-financing of the commenting activity within ESPON, except by national funds and by the heterogeneity of ECPs. These elements surely are a limit to the commenting/ compiling activity but do not remove its interest, to the extent that even for the least commented projects a variety of national feedbacks is guaranteed.

It is not easy to stem a "general" conclusion from the ten syntheses, each of them being the compilation of at least five ECP comments… But some general lessons can be inferred as regards the project's content and the ESPON structure.

### *Main lessons of the commenting/ compiling exercise*

Most of the ECP commentators stress the significant work which has been achieved during this first round of ESPON projects, providing new insights and knowledge on the European territory. The numerous suggestions for improving the methodologies or going further also gives the feeling that ESPON results are nothing but a beginning. The following points are inferred from the ten compilations of comments, and give a first overview of the strengths and weaknesses of this exercise.

The first point of the comments deals with the strategic national reflection, i.e. the extent to which the trends/ options presented in the report do fit the trends/ options in the national territories. The answers are quite diverse, following the reports and the countries, some find a good concordance between the report's content and the national trends, others are far more critical. Actually it is likely a question of scale: several commentators underline that the reports are designed overall at a macro-level, and the relevant processes at this level may not be as relevant at national levels, especially in the smaller countries. This results in weakening the interest of the reports in the context of national policies. In this respect, three suggestions can be made:

- The significance of analyses at the national/ meso level. As the national scale is relevant for the collection of statistics and for the setting of policies, there is a need to focus on the ESPON outputs at this level.
- The importance of better databases. The current raw data in ESPON mainly come from Eurostat and are particularly poor at NUTS3 level, even if the ESPON database goes beyond Eurostat thanks to the efforts by the TPGs to collect data from different sources. Alternative ways to obtain the data would merit attention before ESPON II, for example through looking for data via the national statistical offices, or creating "statistical contact points" within each country.
- The importance of analyses at NUTS5 level and case studies for some projects. The suggestion of carrying local analyses came especially as regards the projects 112-urban-rural and 132-natural heritage. In several other projects it was suggested that the possible contradictions between the scales be analysed more systematically (namely for 111-polycentrism, 121-transport and 211-transport policies).

The policy recommendations are an important part of the reports as ESPON is supposed to be "policy-oriented research". The links between the results and the policy recommendations is considered as problematic in nearly all the reports. This link is not assessed in the same way by all the experts: for example in the case of a TPG deriving recommendations only from sound scientific results, some experts will approve as a sign of wisdom while other will regret that the TPG did not try to propose broader recommendations. On the contrary, a TPG proposing a broader frame of recommendations has been criticised as inferring recommendations from theoretical ideas and not from the real results of the study. A suggestion came from the ECP Sweden, while commenting on the project 112, to overcome this difficulty: instead of asking the TPG to provide "*policy recommendations*", it would be wiser only to ask for "*policy implications*", i.e. elements directly derived from the results. And afterwards it will be up to the policy level to decide what kind of recommendations can be inferred. In this way the debate between scientists and policy makers would be more constructive. Another solution could be a better link between TPGs and policy makers, i.e. a permanent interaction during the research, for example in the form of a steering committee.

As regards the connection between the reports and the ESDP, the commentators find in general no major conflict. Several stress that the absence of conflict is quite normal as the Terms of Reference of the TPGs are partly inferred from the ESDP and that the projects must follow its guidelines (cf.111). Other commentators find possible conflicts, for example in the projects related to transportation, where the "parity of access to infrastructure" may be inconsistent with the environmental goals (cf. 211). They specify that the TPG cannot be held responsible of this inconsistency, because it is due to ESDP inherent contradictions. The point is more about reforming the ESDP… Several new EU countries also insist on the need of a new ESDP taking into account their specificity.

The scientific quality of the reports in general gives rise to positive reactions. In spite of data problems, typical in all ESPON studies, most of TPGs are acknowledged finding innovative ways to get sound results. Nevertheless, the ECPs sometimes strongly disagree about the relevance of the reports. What is at stake is not the scientific quality but the way the research is presented.

Such debates can be found in the projects related to the strategic topics, namely 111-Polycentrism, 121-Transports and 213-CAP. The discussions about 121 are interesting because the project received some of the most laudatory comments delivered on the reports in terms of scientific rigour and innovative results, and at the same time other ECPs expressed severe doubts and scepticism as regards the usefulness of these results and the lack of links with related topics of European spatial planning. This raises several points:

- The TPGs have often to practice complex methods of research to compensate for the problem of data gaps. The description of these procedures is at the same time necessary for the sake of scientific transparency, and "hard to read and to grasp".
- As ESPON is a policy-oriented programme, the TPG results are supposed to be legible and usable by policy makers, and strong links between the different topics are expected.

The content of this debate is instructive concerning on the one hand the necessity to split spatial issues between partitioned topics, and on the other hand the imperative task to stick together again all the topics afterwards. In the current ESPON structure, the so-called coordinating projects like the 3.1 or the 3.2 are in charge of this "sticking" procedure. But this situation is not perfect because these TPGs have no legitimacy to impose any rule to the others. This point is of importance as regards the preparation of ESPON II.

Amongst other results from the compilations, several ECP commentators emphasize that the situation of new EU countries is insufficiently taken into account. The involvement of researchers from these countries should be a priority in ESPON II.
It has also to be noted that several commentators provided a feedback not only concerning their national territory, but also other parts of the ESPON space (see for example the French expert for 121 emphasizing that the report has some failures in taking into account a city in the Czech Republic, or the Polish expert giving insights for the situation of Romania and the Baltic countries…). Such comments prove that the comments do not reflect only a national point of view, and that there is an increasing trend looking to the different parts of the ESPON space. This is a positive side of ECP networking.

At the end, a globally positive appraisal stems from the commenting/ compiling work, namely as regards four aspects:

- The networking is efficient between the contact points. Numerous national experts gave their feedback and the cross-checking provides a thorough view of the reports' relevance in the various parts of the ESPON territory. The syntheses help facing the different trends and the ways to grasp them, and as such allow going a step further towards a common understanding of concepts.
- The syntheses are very helpful for the ECP work of diffusion/ promotion. It is difficult for a single ECP to have an opinion on such a number of reports, dealing with such a large territory. Cross-checking the opinions helps to get a more objective view on the reports (for example a report can be not really in accordance with the trends of a particular country, but his strength may be in pointing the interrelations at a more macro scale).
- The syntheses provide several proposals for new fields of research for ESPON II.
- The comments gave rise to a more general discussion about "ECPs in ESPON II".

**Texts (and maps) stemming from research projects under the ESPON programme presented in this report do not necessarily reflect the opinion of the ESPON Monitoring Committee.**

# Summary matrix of the ECP comments

| ECP | 111 polycentr. | 112 urban/rural | 121 transport | 122 telecom | 132 nat. heritage | 211 transp. pol. | 212 R&D pol. | 213 CAP | 223 SF urban | 31 Tools |
|---|---|---|---|---|---|---|---|---|---|---|
| **Belgium** | X c | c | c | c | c | c | c | c | c | c |
| **Czech Rep.** | c | c | | | c | | | | | |
| **Denmark** | | c | c | | | c | c | c | c | |
| **Finland** | | | | | | | c | X c | | |
| **France** | c | X c | c | c | c | | | c | c | |
| **Greece** | c | | | | X | c | | | | |
| **Hungary** | | | c | c | | c | c | c | X c | c |
| **Ireland** | c | | c | c | | c | X c | | | |
| **Luxembourg** | | | c | X c | | | | | | |
| **Malta** | c | c | | | | | | | | |
| **Netherlands** | c | c | c | | c | c | | c | c | c |
| **Norway** | | c | | | | | | c | | |
| **Poland** | c | c | X c | | | | | | | |
| **Slovenia** | c | | c | | c | X c | c | | c | c |
| **Sweden** | c | c | | | | | | | | c |
| **U. K.** | | c | | | | | c | | | X c |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Austria** | | | | | | | | | | |
| **Cyprus** | | | | | | | | | | |
| **Estonia** | | | | | | | | | | |
| **Germany** | | | | | | | | | | |
| **Latvia** | | | | | | | | | | |
| **Switzerland** | | | | | | | | | | |

Legend: X: compiling the comments
c: commenting

# 1. Synthesis of comments on the final report ESPON 1.1.1, "The role, specific situation and potentials of urban areas as nodes in a polycentric development"

*Author of the synthesis*: Valérie Biot, from IGEAT/ULB (ECP Belgium)

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| ECP | Experts |
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## I] Brief presentation of the report

Following the ESDP and its objectives of a more balanced territorial development of the EU space, this TPG explores the concept of polycentrism, both theoretically and empirically. It concludes on policy recommendations to improve polycentrism at micro, meso and macro level, but also point out the possible contradictions between polycentrism strategy implemented simultaneously at each level. It is a document with strategic orientation, as it assembles on the one hand elements of diagnostic, regarding the situation of the cities and of the continental urban pattern, the exchange flows and how polycentrism is taken into account by national policies, and on the other hand recommendations for implementing the polycentrism principles at the different European, national and regional scales.

The report is organised into 5 distinct documents, which include a main volume, itself structured into 9 chapters (the first of them being a summary of the whole) and 4 volumes of annexes.

The study relies on the use of four main concepts:
- *The functional urban area* (FUA) are considered as basic unit (*building block)* of polycentrism. Definition is left to national level, but a FUA generally corresponds to the aggregation of areas encompassing a centre-city and the peripheral municipalities economically integrated with it, notably in terms of labour market,
- the « FUAs of excellence », the MEGAs[2] (*Metropolitan European growth areas).*This second key concept of the analysis designates the 76 agglomerations which make the highest scores on a set of chosen indicators.
- the PUSH and the PIAS: answering the question as to where the potentials for re-balancing the European territory are located and which would be the new urban nodes apt to strengthen polycentrism, the report defines a third concept, the PUSH (*Potential Urban Strategic Horizon)* whose definition relies on a principle of proximity, as these areas correspond to the zone which can be reached from a FUA centre in less than 45 minutes. This is actually an intermediate step leading to the definition of a fourth level of territorial analysis, that of PIAs (*Potential Polycentric Integration Areas)*. These spatial entities have been identified assuming that neighbouring cities belonging to PUSHs overlapping over more than a third of their surface are prone to realise a better functional integration and to better co-operate.
PIAs are presented as genuine potential areas for strategic planning. Strengthening zones of global economic integration, as a main condition of polycentrism, indeed requires, according to the recommendations put down in the last chapter of the report, supporting the PIAs, notably those whose main node is a MEGA and those situated outside the Pentagon.

Remark: synthesis of main points are found at the beginning of chapters and subchapters, in a frame. Development from national experts follow.

[2] The two other categories are the trans-national / national FUAs and the regional / local FUAs.

## II] Strategic reflection

### a. From a national point of view

What is at stake with promoting polycentrism differs from country to country, as context, size, history, … are different

For the very small countries, (Malta, Belgium, Netherlands), it is mainly about infraregional cooperation and relations, as the proximity and functional criteria are already quite strong between urban areas (specially in the two latest).

For experts from the other, larger, countries, opinions are mixed about possible use of the report for strategic reflections in their countries:

- some welcome it, and mention that they will use the results of the reports to elaborate their spatial strategy (Czech Republic, Sweden),
- some are very interested by the results, but point out some discrepancies between information from the reports and their knowledge, which makes it more difficult to use the report fully (Poland, Slovenia, France, Ireland),
- finally, an extreme case is Greece, where it seems that the report can not be useful, and would even be misleading.

We point out here some specific comments which are repeatedly found in reports:

Two countries' experts (Slovenia and Greece) insist on the fact that the territory of EU 27+2 is understood as a too closed area. This will be echoed further by Poland in another part of the report (cf infra).

The comment about the need for less static studies (Greece) will be also underlined in further programming research by Sweden and Poland (cf infra).

Finally, several experts underline the probleme of the possible contradictions between the two objectives competitiveness and cohesion, which is also expressed in the 111 report, and which should be specifically addressed (cf infra).

<u>Development from national experts</u>

For Malta, a small island state located outside the Pentagon, the concept of intraregional cooperation with particular urban functional and economics complementarities is emphasized,
the focus is on better cooperation and improved links within the (urban) region,
integrated spatial development strategies (to implement polycentricity),
accessibility and connectivity (for success full polycentricity at pan european level).

For Belgium, a small country located in the pentagon, and completely covered by FUAs and PIAs, it is difficult to identify a territorial challenge from the information in the report.
It seems that the policies of the Belgian Regions aim at polycentrism, but in this case, as in other part in the report, the question is always: at which scale? For instance, the strategy to strengthen the Vlaamse Ruit, which is a inter-urban polycentric node, is a "monocentric" strategy at the regional level.
The challenge in Belgium is certainly more related to the "relational" aspect, which the report identifies as a key aspect for polycentrism strategy. The chapter on governance can therefore give some tools.
Finally, the proposal to transfer EU institutions away from the Pentagon would have dramatic impact on Belgium.

Netherlands experts list first the "findings relevant" for their country:
Small country situated in the pentagon, high score for the three dimension of the polycentricity index, difference in degree of polycentrism between West Netherlands (Randstad, lower degree) and the rest, large number of medium sized FUAs, almost all growing, with a high level of internal polycentricity except for transport and tourism – cf functional indicators. Following the classification of FUA based on the indicators for mass, competitiveness, connectivity and knowledge basis, Amsterdam is in group 2, Rotterdam in group 4
Polycentric development can be used for reducing disparities between urban areas, and/or to increase urban competitiveness; from the report, Netherlands are from the latter.

Netherlands experts point out then that some general finding are not correct in the case of the Netherlands and that Dutch spatial policy is underexposed.
The Netherlands have a two decades history of planning policy at FUA level (2001, introduction of the concept urban networks in the 5$^{th}$ national spatial planning.), and there are structures of governance, cooperation between municipalities being stimulated by several (legal) tools. Municipalities can cooperate to regional planning (information incorrect on p 210). Also, there are cross border strategic plans for infrastructure.
Concerning the "choice" between economic competitiveness or cohesion, solidarity and sustainability, economic development is an important goal, but the agenda is much wider than this, and include those different aspects.
Finally, there is no decreasing polycentricity in the Netherlands.

Netherlands experts identify two challenges from the report:
- To improve FUAs position in the European urban system, each FUA must develop a specialisation with a potential demand on the European market.
- Trying to achieve cohesion and competitivity at the same time. On this last point, the report suggests that cohesion is the same than "evenness" among regions at all spatial levels while the Netherlands look at diversity of region. Cohesion is searched at the level of metropolitan region, and each metropolitan region increases the international economic competitiveness of the country.
The question is then how to improve cohesion between regions, and developing a balanced European urban system.

For the Czech Republic, polycentrism is of high importance, as the transition to market economy has caused strong imbalanced, the deepest being between Prague and the rest of the country. New international investment (financial services, advanced technologies, …) goes mainly there, and Prague is also an extremely important centre for tourism, education and culture. In the "historic" division between Bohemia and Moravia, Moravia is more polycentric. Czech Republic is now structured with 14 self governed Regions, and basically, the Region of Central Bohemia correspond to Prague metropolitan area.
Population of small and medium cities, and of city centres, is decreasing, suburbanisation of the largest cities (Prague and Brno) is growing.
International (poor traffic connections) and cross border cooperation remains poor.
FUAs are adequately spread throughout the Czech Republic, due to the more balanced industrial development during the communist period, but some industrial areas are declining (mostly textile industry, coal mining, steel work).
A new strategic document is developed by the Ministry for Regional development, which will used result from ESPON 111, with more considerations on economic development, mostly regarding prevention of negative effect like suburbanisation, urban sprawl, brown fields, declines of periphery, differences between Prague and the rest of the country.

For Sweden the report is relevant at all level of governance. At the meso level, it is important to have a spatial or polycentric vision with a European perspective, but very few strategic plans and growth programs have any reference to ESDP or a European perspective. At micro level, the recommendations to enhance urban functional complementarity and intermunicipal cooperation can facilitate spatial strategies.
Sweden is a sparsely populated country, with only one category 2 MEGA and one category 3 MEGA, so FUAs and functional specialisation of urban nodes are very relevant at national level. The idea is that strong, successful regions across the territory are main contributors to economic growth, and the challenge is thus for regions to be able to use their unique conditions and resources.
The concept of PUSH areas could be relevant to national decisions concerning transport infrastructure investment, but there are few of these areas, so it is difficult to apply on a nation wide level.

111 results about the urban system in Poland correspond generally with studies conducted in Poland: a high overall polycentricity index, for the structure, but a low connectivity value for the functioning. This lead to strong policy recommendations concerning improvement in spatial accessibility at both transnational and interregional levels, and the promotion of cooperation between cities and of interurban networking (to enhance urban competitiveness).
The list of MEGA includes Poland's largest urbanised areas, but does not fully correspond with the set of metropolitan centres, as identified in Polish strategic spatial planning documents.

For Slovenia experts, the scope of the study is very broad, and focuses on relational and morphological aspect of polycentricity, with a strong accent on the later. The results give two pictures of Slovenian urban system:
On the one hand, it is one of the most polycentric countries in Europe. This is also the view of Slovenia expert, as polycentricity has been part of national policies since the 1970s in Slovenia, developing a very balanced urban system,

On the other hand, the results give a picture of a non integrated national urban system ( chapter 5.2), where several PUSH areas do not appear to overlap enough to form PIAs with neighbouring urban areas. This is not corresponding with what the experts observe at national level, which points out that there is a substantial amount of daily commuting existing between PUSh areas which are presented as isolated. Also, the national methodology for FUA ignores several smaller FUAs, which would bridge the gap between bigger FUAs, and reinforce their integration,
Finally, Croatian FUAs very close to the border should be included, as it would change the picture substantially

FUA concept is actually very close to that of the French category of « aire urbaine » (« urban area »). 1595 FUAs have been identified in Europe, among which 214 en France.
In the French case, it can be noticed that almost all cities which had been « elected » as « métropoles d'équilibre » are included in the list of MEGAs ; but one may question the fact that Nantes (and its agglomeration) or Strasbourg are merely classified as national FUAs, while Le Havre, on account of its industrial and harbour functions is ranked as a MEGA.
PIAs indeed constitute extensively defined urban areas which are viewed as potential spaces for co-operation and strategic planning. There would be matter to investigate what such recommendation concretely implies in matter of territorial planning in the French case, as here the territorial scale goes beyond that of the perimeters of the SCOTs[3], but does not for all that reach that of the SRADTs[4]. The report suggests that they could be voluntary co-operation spaces, but for obvious reasons does not further specifies the modalities of implementation. The question here is to know whether the aim is to tend to a better harmonisation of the existing planning documents in the PIAs or to really progress toward the definition of a new planning level ?
The proposals also indirectly question the role of the Regions in territorial planning, by favouring the urban agglomerations grouped into PIA.

Ireland experts are quite mixed on the report: on one hand, the concept of polycentric urban development has been adopted as a guiding principle for the national spatial strategy (NSS, November 2002), so the 111 report is very relevant in this perspective. On the other hand, Ireland experts are critical of some aspects of the methodology and the results, which are not corresponding at all with their knowledge of Ireland..

The urban analysis and classification through the PUSH and PIAs reflect only partly Greek urban system. For an important part of the basic interrelations or spatial trends concerning networking, it does not reflect the reality,
on one hand because the 45 minutes isochrone area seem to exclude the physical structure (mainly mountains) of Greece (as in the major part of Europe) as well as protected areas,
on the other hand because it does not take into account the large scale infrastructure planned in national spatial policies, and already partly constructed, which joined national development axes in the framework of the trans-european Corridor.
Other development projects are neither taken into account, nor for the future, nor for current identification of urban poles.

[3] SCOT: Schéma de Cohérence Territoriale (Territorial Cohesion Outline)
[4] SRADT: Schéma Régional d'Aménagement et de Développement du Territoire (Regional Territorial Planning and Development Outline)

MEGAs and FUAs classification is a more coherent and synthetic approach, but the inner evaluation of the MEGAs into certain categories is questionable, due to lack of data concerning the real economic flow in several sectors of production and service system.
Also, for Greece, the expected accession of Turkey will have strong impact, for instance for the metropolitan cooperation zone between Athens, Thessaloniki – which role will grow with the accession of Bulgaria and Romania in 2007-, Sofia, Constinople and Smyrne.
The role of Athens has already been promoted, now the polycentric structure of Greece is implemented towards the secondary urban poles (cf national Spatial plan).

**b. From a general point of view**

The most common reflection under this title is that every ESPON TPG and report is grounded in and bound to ESDP, so contradictions are not easy to find, except from the fact that some ESDP objectives are contradictory themselves.

Some specific common points or complementarities with other TPG are mentioned (Sweden, Slovenia, Belgium). Greece insists on another point of view (re evaluating PUSH and PIAs taking into account other TPGs outcomes).

The fact that ESPON TPG are so bound to ESDP sounds in some comments as an implicit critique (Slovenia, Malta, Poland, Greece), which becomes explicit when expressed by Ireland and Belgium experts, who worry about a lack of critical analysis of polycentric development.

The problem of the "relevance" of polycentrism, not scientifically proven by any "correlation" method, will be echoed further by other experts (Netherlands, Poland, Belgium, Ireland).
Some contradictions are nevertheless pointed out by Slovenia, Ireland and Belgium, mainly between cohesion and competitivity objectives, and concerning an implementation of polycentrism strategies at each level simultaneously. This concern will be echoed further by other experts.
Finally, an important point underlined by several experts (cf Greece and infra for others), and by the authors of 111 themselves, is the lack of – comparable – data.

In general, a shared proposal is that a new spatial approach is needed, a new ESDP with enlarged Europe, and in the framework of ESDP objectives, including specific spatial priorities from a strategic point of view (Greece, Sweden, Czech Republic and Malta).

***Focussing on policy recommendations by other TPG's: do you see common or contradicting points?***

Not everyone completed this subtitle. For those who did (Greece, Slovenia, Malta, Sweden, Belgium, Ireland), common reflection is that every ESPON report is quite bounded to and grounded in ESDP, so contradictions are not easy to find.

*Specific common point and /or complementarities with other TPG are quoted (Sweden, Slovenia, Belgium):*

112 (urban rural: urban functional complementarity), 211,121, 113 (enlargement: promoting second tier cities) , 221 ( Structural funds: it seems that polycentric development and other spatial policies are often reinforced through structural funds)

Sweden expert points out a general focus on city and transregional cooperation.
She also points out that as functional specialisation is an important point both in 111, 112 and 221, this tentatively says that at meso level, economic or functional specialisation is may be more important than accessibility for polycentricity.

*On another point of view,*

Greece expert points out that PUSH and PIAs framework could be used more coherently and efficiently for policy recommendations if connected and re evaluated taking into account other TPGs outcomes.
For instance the physical structure of EU territory (132) with urbanisation perspective in enlarged EU, transferring the "centroïd" in Germany and the emergence of linear urbanization corridors along the European transport corridors
Also, accessibility indicators could be used (transport TPG), or the regional classification of Europe (31).
Finally, the lack of data about specialisation and economic flows should be addressed in order to reach concrete output and further urban investigation.

Even if " teams were bound with the objectives of ESDP", some possible contradictions between TPG reports are nevertheless underlined:

By Slovenia experts: one contradicting recommendation is with the 132 suggestion of support for spatial developments in corridors (European scale), which is not supported neither with findings nor with recommendations in this project .

By Ireland experts: about transport projects (121 and 211). The recommendations may favour polycentrim at the macro level but they may also lead to a tendency towards greater monocentricity at regional and local levels.

By Belgium experts: ESPON 132 (natural heritage) points out the dramatic impact of polycentric development on natural assets, especially through the development of transport corridors between potential high level MEGA's if not concentrated in the main infrastructure corridor.
This critique on polycentrism is in contrast with the general pro-polycentrism discourse in the research of the other TPGs. Linkage should be done, e.g. with 111,112, 121 and 211.

Also, it seems that CAP (213) works against polycentrism and territorial cohesion, as it tends to favour the richer areas of EU, especially in pillar I.
Espon 211 (transport policy impact) points out the contradiction between on the one hand the economic efficiency of a EU transport strategy that promotes main national urban nodes in the East and, on the other hand, the negative cohesion impact that this kind of strategy would have at national scale.

This last point focuses on two main problematic aspects of polycentrism: the possible contradictions between cohesion and competitivity objectives, and between polycentrism strategies implemented at different level simultaneously. Those two aspects are underlined by several experts in different parts of the reports.

***Focussing on the ESDP: which policy recommendations correspond and which conflict with the ESDP's basic concepts?***

The same comment than in the precedent subtitle applies here: ESPON TPG reports are bound to ESDP.

For France, polycentrism, as it is formulated in the European Spatial Development Perspective (ESDP), aims at linking together objectives which are still too often thought of in terms of mutual exclusivity, i.e. territorial cohesion and competitiveness (cf Lisbon strategy). Some authors add to the ultimate goals of polycentrism social equity and environmental sustainability (Gothenburg strategy). This will to reconcile two seemingly contradictory objectives, cohesion and competitiveness, could be fostered, according to the perspectives opened by the ESDP, through the development of « global integration zones » (GIZ) on the continent, apt to make the best out of their own endogenous potentials. ESPON report 111 clearly fits in this strategic vision of the construction of the European space, often reminded throughout the text.

For Sweden: ESDP goal of balanced competitiveness and promoting polycentrism to this end with measures at all level can be find extensively is most of the 111 policy recommendations.
There is not so much about cohesion and natural resources and cultural heritage goals. However, linkage between competitiveness and cohesion can be found throughout the report, explicitly (meso level) or implicitly (micro level).

*This "bounding" aspect sounds, in some comments, as an implicit critique…*

For Slovenia the recommendations in the project are actually firmly rooted in ESDP, so there cannot be much conflict with the ESDP's basic concepts.

For Malta, ESDP scenarios illustrates the ideal situation: increased polycentricity at intra-urban level (micro) makes city regions stronger and therefore produces a more polycentric national or transnational urban system (meso). Stronger functional areas are then able to sustain a more balanced Europe in general, and to promote the emergence of the global integration zones (macro) in addition to the pentagon.
The concept of reinforcement of cities and regions as result of an integrated approach (…) is generally in line with ESDP's basics concepts.

For Poland, this report has taken for granted the approach of polycentricity selected in the ESDP, and uses it as a normative and descriptive concept. So the emphasis is on measuring (polycentrism), not on the evaluation of polycentricity.
To postulate that urban competitiveness can be enhanced by cooperation between cities is fully in line with ESDP, as well as the emphasis on development of linkages between cities, and on the promotion of governance practices for cluster of urban centres.
The authors of 111 can not be blamed for the fact that they failed to identify any region in the EU-27+2 periphery where integration of neighbouring cities could produce a critical mass sufficient for the emergence of a new GIZ.

Greece expert agrees with 111 that the ESDP's approach of polycentrism simultaneously at each level is rather flat. The different context, history, physical structure… should lead to differentiated policy recommendations and priorities
Structural funds should consider polycentrism a EU level as a strong target. At meso or macro level, polycentrism could be promoted by selective support of urban concentrations connected to the EU transport corridor.

A new spatial approach is needed, a new ESDP with enlarged Europe, and in the framework of ESDP objectives, including specific spatial priorities from a strategic point of view. This proposal will be echoed further by Sweden, CR and Malta.

*The "implicit " critique of a "perfect harmony" between ESDP and reports is becoming explicit when expressed by Ireland and Belgium experts:*

for them, the main critique which could be addressed to the report is the lack of critical analysis of polycentric development. The reports provides interesting insights on the measurements of polycentrism, which was certainly needed and useful, but is poor on the relevance of polycentrism for social, economical and environmental matters. Indeed, Ireland and Belgian experts would like to insist on the fact that even the positive correlations between polycentrism and economic wealth and sustainable development (environment) are extremely weak, and that the correlation for equity (which is once mentioned as "spatial" and once as "social") is negative. In each case, nothing is known about the causality.
It was not the subject of the 111 to put polycentrism in question, but as there is an attempt to find proofs of this relevance, analysis could have gone further on that point. This relevance is not proved by any scientific results, and proves even negative in relation with equity (still on non scientific result and correlation).
Ireland experts insist that one of the outcomes from the research should be a more critical assessment of the European urban system, and especially of the potential of the polycentric model as a planning tool throughout Europe.

The problem of "relevance" based on "correlations" will be echoed by other experts in different parts of the commenting reports (cf infra, Netherlands and Poland).

Still, even in strong harmony between ESDP objectives and the 111 report, some contradictions appear in the report, coming mainly from contradictions in the objectives of the ESDP

Belgium and Ireland underline
- contradictions between cohesion and competitivity,
- contradictions when promoting polycentrism at each level, with the idea to promote strong GIZs to counterbalance the Pentagon; for instance, polycentrism at EU scale involves enforcing the eastern major urban nodes, while at national scale, polycentrism would mean enforcing secondary urban nodes.

The authors of the 111 report also underline the fact that, today, the general trend is towards monocentrism.

## III] Methodological matters

### a. Do you consider the project scientifically well grounded?

Almost everybody is welcoming an impressive, in quantity and quality, amount of work, giving a strong basis and reference for further studies on European urban system and evaluation of existing and potential polycentricity at different level.

Some strong comments and critiques are nevertheless present:

- About chapter 6 (empirical studies on network), considered as important and interesting, but arbitrary and not going deep enough (France, Ireland, Netherlands),

- About difficulties to work with FUAs, data gathering methodologies, the use of functional specialisation on some chosen criteria, which lead to some problematic results (Malta, Czech Republic, Poland, Ireland)
FUA and PUSH methodologies are commented with contradictory point of view, some welcoming PUSH (Slovenia), some disagreeing (Greece, Poland). France is mixed about FUAs.

- For France, Poland and Sweden, the analysis is too static, Greece insists also on future trends (cf supra).

- Slovenia, Ireland and Netherlands would welcome a clearer "line of reasoning", the report suffers from being written by different teams.

- Belgium, Ireland and the Netherlands point out some specific mistakes which could be problematic if generalized

- Finally, Greece Poland and Slovenia regret that EU 27 + 2 is considered a too closed area.

Generally, the lack of usefull data is again underlined, and the authors of 111 remind the exploratory status of their hypothesis and methodology. Belgium experts insist that this should be

kept in mind when using the result of this report, and certainly if any maps would be used as a basis for further policy.

A general answer is yes

For France expert the 111 report represents a considerable contribution in terms of knowledge and prospective apprehension of the reality of the territorial organisation of the study area, Methodologically, the project is very well grounded (Czech Republic), both quantitatively and qualitatively (Sweden), The research presented here is of very good quality and wide scope. The results are interesting, and it is certainly an important and well grounded step in understanding and evaluating the reality and potentiality of polycentrism (Belgium).

A huge amount of information is handled in this project, and this makes the study one of the most important overview of European urban system as a whole. Most of the research is of very high quality, new concepts and typologies are introduced and well explained. Thresholds can always be a question of debate, but they are mostly well chosen, even if not always explained in details (Slovenia).

Polycentrism is a multidimensional concept, not easy to operationalize. Some structural aspects can be approached with existing theoretical concepts (central place, city rank size), difficulties appear when interrelations have to be measured, since relevant data are scarce and lacking comparability. To produce a composite index of polycentricity involves therefore a number of arbitrary decisions and simplifications.On all these aspects, the reports document an impressive effort. The comprehensive index of polycentrism is a new and consistent concept, even if some results appear in contradiction to common knowledge ( for instance Denmark), due a.o. to the fact that the hierarchy of urban centres as central places for goods and services is not considered (Poland).

The scientific quality is really high and comprehensive. It has offered crucial tissue to all TPGs, although the city level is rather difficult, due to lack of data at NUTS 5 (Greece).

Analysis is of good quality, concepts are made operational in a understandable way, outcomes are summarized in understandable typologies. Generally, the report covers a huge amount of information about urban regions in Europe, and is useful book reference. Some comments must nevertheless be made (Netherlands).

Comments and critiques:

*Methodology difficulties*
France expert underlines that the study of some inter-urban networks (Chapter 6) is necessary, but that the work here does obviously not exhaust the topic of inter-urban networks; he points out also a too allusive approach of themes such as for example that of transport networks as material bases for the flows necessarily implied by any project of polycentric organisation of the European space ; but this theme is the topic of another ESPON project (1.2.1 report.

About the questionnaire on partnerships (intermunicipal cooperation), Malta points out that FUA are often a relevant socioeconomic level of analysis, but that they are few policies being implemented at that level. There is no formal structure of governance.
Problems also appear due to different data gathering methodologies, leading to problems when establishing trends on a regional and pan-european level.

For the Czech Republic, some further analysis could be done, especially concerning new EU member states in Central Europe.
Also, Czech Republic is a bit surprised by the large number of FUA in Hungary, compared to Czech Republic, Slovakia and Poland, and by the only one MEGA in Czech Republic, compared to the 8 in Poland, when it seems that mass and competitiveness of several Czech cities can be compared to those of the Polish cities

For Poland functional specialization, an important dimension of polycentricity, is thoroughly analysed, and a list of diagnostic indicators is identified. But the use of it for typology and classification is sometimes problematic, leading to inscript in a same category cities which should not. There are also some minor errors.
The general findings, however are relevant (very few top category MEGAs in the periphery).

Slovenia, Ireland and Netherlands *underline a lack of homogeneity*, of "line of reasoning", due to the fact that chapters were written by different team, making the structure of the whole document not very clear.

*Several experts comment on PUSH and FUA methodologies, with some contradictory point of view.*

- Some welcome the "PUSH method, would like to promote it further, and disagree with FUA method:
Slovenia experts disagree with FUA method, since the selection of FUA is left to national level. This gives rise to many difference, and a wrong picture, as inputs from different countries are difficult to compare. To overcome this difficulty, as FUA and PUSH concepts overlap strongly, it might possible to get a better (comparable, more unified) picture of the morphology of the European urban system through the outstanding analysis that was done assigning the PUSH areas. PUSH centres should then be all urban centres (e.g. over
15 000 inhabitants)

- For others, the concept of PUSH is quite misleading, and can be counterproductive, as PUSH method, even if based on a functional centre, does not say a lot about relation:

Greece expert has objections to PUSH and PIA method (cf strategic reflections), but agrees that the 45 minutes isochrone is more concrete compared with the different definitions per country.
Further investigation on economic flows and specialization between cities and city network is necessary.

For Poland, PUSH and PIA are less useful analytical constructs (than FUAs). The zone of influence never approach the 45 minutes isochrone. PUSH and PIA reflect mainly variations in density of urban settlement, their typology again produce a number of paradoxical outcomes.

For Ireland there are inconsistencies between the PUSH and PIA outputs and the polycentricity index. The reliability of some of the outputs is challenged because of inaccuracies in the data used.

For France, the FUA typology has some advantages and disadvantages:
It avoids to limit the approach to a size criterion, but it could have been conceived to complement the list of criteria with other equally important criteria for an assessment approach of territorial influence of an agglomeration (with for example indicators of local governance, such as the degree of inter-municipal co-operation inside agglomerations, or in another domain, of the richness in cultural heritage, etc.). But the combinations of variables that are already taken into account still provide an important basis for the analysis of the European urban reality.

*The proposed typological analysis however remains too static (cf also Poland and Sweden infra) to* allow identifying all evolution potentials and local dynamics which should be taken into account in a prospective and long-term approach of the construction of polycentrism in Europe.

On another point, Greece, Poland and Slovenia regret *that EU 27 + 2 is excessively considered to be a closed territorial system* ( they point out different focus: the analysis of settlement structure - main focus on geographical proximity and accessibility - , cross border metropolitan areas, future development, … cf also infra).

Netherlands experts propose a quite detailed list of comment:

- They wonder about a lack of literature basis,

- they propose a reorganisation of the chapters for *a more clear "line of reasoning*" (cf also Slovenia) : how can morphological characteristics enable functional specialisation and formation of networks? And what role can administrative cooperation play to enhance this effect?

- They point out *the problem of the "relevance" methodology*:
the three indicators for polycentrism are clear, but the analysis about relevance of polycentricity is less adequate. Correlation between level of polycentricity and GDP per capita or with energy consumption is quite weak, and causal link cannot be deduced: it cannot be demonstrated statistically that more polycentrism leads to economic growth.There are too many other factors which can be responsible for economic competitiveness, social equity and environmental sustainability. Statistical correlations are not convincing.
This topic is strongly underlined also by Belgium; Ireland and Poland experts, cf supra and infra.

- Chapter 5 spatial analysis builds well on chapter 3, and is done carefully and meticulously; it is then inconvenient that the map of the MEGA typology does not match with the list of cities on pp 116-117 (also 11-13)
Also, this "potential for polycentricity" seems to overlap strongly the already acquired polycentricity measured in chapter 3, due a.o. to the methodology to identify them. It is no coincidence that map 5.15 looks similar to map 3.5.

- Chapter *6 empirical studies on network* is an important addition, but it is difficult to find useful data on flow or contacts between urban areas . Also, the case studies are somewhat arbitrary. As this part is extremely important, it is a pity that the cases are explored more in depth (fortunately, annex A gives a good complement).
The conclusion from the aviation case study does not follow on the analysis.
More comments in the same line from other experts on that chapter are found infra.

Finally, experts from Belgium; Ireland and the Netherlands mention specific mistakes and incorrect information, which give rise to concerns about the reliability of the outputs: some results based on those information are obviously wrong and experts wonder how the TPG gathered such incorrect facts.

For instance, the FUA of Brussels has a population superior to one million. It seems quite contradictory with the FUA methodology to use the amount of population of the Région de Bruxelles-Capitale, which is a political, institutional and administrative boundary, but not a functional delimitation. Also, there are not 7 regional capitals (there are only three Regions). In Ireland, statement about higher education is wrong – there are more than four centres, and they all have less than 50 000 students. The report says the contrary…Other examples are given.

In general, Ireland experts are very critical of some aspects of 111 report, they are clearly disappointed by the outcomes, and worried by the methodologies and the information used in the report.

To conclude, as Belgium experts said, the authors themselves point out the lack of some (comparable) data, and the fact that some approximation at large level proved to be misleading when tested with the reality at the local level. They underline the exploratory status of their hypothesis and methodology.
The maps are made at a very broad scale, and based on data and indicators which are themselves sometimes delivered from approximate results from other research.

**This should be kept in mind when using the result of this report, and certainly if any maps would be used as a basis for further policy.**

**b. Do you consider the relation between scientific results and policy recommendations strong enough?**

About relations between scientific result and policy recommendations, comments are quite mixed:

- Some experts agree on a strong relation (Malta, Belgium, France, Greece, Poland), but criticize some of the recommendations themselves, mainly for not taking into account differentiated national situations and point of view. Poland insists on the risk linked to a functional specialisation of GIZ.

- Other experts are quite more tedious about a strong relation, at least for some part of the report, mainly on thematic and functional specialised urban networks, where data are missing (Belgium, France, Netherlands, Greece, Poland). Finally, Sweden, Ireland and Netherlands are quite doubtful about any relation between scientific result and policy recommendations.

Common critics about recommendations concern the question of the relevance of polycentrism, the methodology used to try to establish it (Poland, Netherlands, Belgium, Ireland), and the contradiction linked to the decision to foster polycentrism at different level at the same time (Belgium, Poland, Greece, Sweden).

A common recommendation proposed by most of the experts, and the authors of 111 themselves, is that more research is needed, as well as more data which can be used fruitfully. Another common recommendation is to elaborate a new common strategy for the enlarged EU.

Finally, Belgium experts ask a more general question about the "relevance" of policy recommendations in a scientific report.

Comments are quite mixed on this subject.

*Some experts agree on a strong relation, but criticize the recommendations themselves:*

Experts from Malta consider the relation between scientific results and policy recommendations strong, scientific results (data and interpretations) are used to formulate policy recommendations, which are addressed to cities, regions national authorities and the EU (To enhance economic integration, urban policies should focus on linkages between cities).
More concrete examples of advantage and bottleneck of intercity cooperation should be studied
The EU can contribute to more polycentric structure by agenda setting (for instance, encouraging national authorities and regional agencies to elaborate spatial development strategies, including transregional and transnational horizons).

For Belgium also, in general there is a (strong) relation, but sometimes only partly, for instance an interesting point raised by the research is the importance of the relational and functional aspects, but they recommend a geographic zoning based on PUSH and PIAs (functional and proximity criteria), were nothing is known about relations. The governance aspect would be very important here. Another interesting conclusion from the scientific study is that the periphery cannot grow enough on a population base alone to counterbalance the pentagon. In consequence, functional relations and specialisation should be the building block for polycentrism at EU level.

But for Belgium experts, the critic goes to another point: one question is missing here. Do member states want to promote polycentrism at national level, when this could generally weaken them?
The same can be said concerning the recommendations to invest on "linkage" between, and not on development of cities: this may be coherent with scientific result, but not adapted to the national wishes, which would want first to have strong cities. The question of implementation in national strategy should be addressed.

As France expert underlines it, the discussion should also concern the role which the report intends to confer to the MEGAs in building polycentrism, as main « counterweights » of the Pentagon (for those which are not already located inside it). Conversely, the potential role that intermediate cities, all classified in the second category, i.e. transnational/ national FUAs, could play seems underestimated and would in any case require to be better assessed.

Globally, the recommendations of the report can be summarised in considering that the principle is to view the ESDP as the « guideline » of the regional and territorial policies of the EU. But while the ESDP presented the Zones of Global Economic Integration as the main level for strategic thinking, ESPON report 111 invites us to consider the PIAs as spaces for reflection, but also for action, in order to re-balance the European urban system, and through it the whole continental territory. These recommendations are consistent with the analyses – and the analysis tools – proposed for the diagnostic. But their translation into operational terms at national scale poses a number of questions.

Greece insists on some recommendations:
Spatial priorities should be set out at national level (urban connectivity, synergies perspective).
PIAs classification could be considered as a framework, but more criteria should be used, for instance proximity to transport corridors, specialisation advantages, cultural and natural heritage potentials, physical structures restrains, the promotion of innovative activities, knowledge economy….The concept of urban specialisation should be taken into account as necessary at each level.

Poland expert points out two conclusions of the report:
Preconditions for gaining additional potential through integration are more likely found in the core (Pentagon) than in the periphery.
Polycentrism in EU should be built upon functional specialisation of urban cluster: here, Poland's expert disagrees, as each existing GIZ performs a wide, if not complete, spectrum of function, and as specialisation involve the risk of strong instability in the long term.

*Other comments are more tedious about a "strong" relation:*

For Belgium experts, the network chapter gives an interesting illustration of some thematic networks but it is not very well integrated in the report, and it is not really convincing about a polycentricity without proximity. The authors themselves stress that further research is needed on that point.

Netherlands, Greece, Poland and France experts underline that aspect too:
For Greece, due to lack of data concerning functional specialisation of urban networks, the report suffers from some discontinuities between scientific results and policy recommendations. Example of specialized or thematic networks are insufficient to ground a scientific conclusion or a policy recommendation. Netherlands was also expressing critics on that point (cf supra), as well as Poland, Ireland and France (cf infra).

A very logic recommendations proposed by most of the experts, and the authors of 111 themselves, is that more research is needed, as well as more data which can be used fruitfully,

more knowledge, especially concerning the new member states, and the links between functional and morphological polycentrism (Belgium). This is also quoted by most of the expert in the need for further research. But Ireland underlines that a lack of data should not be used as an excuse to use meaningless data.

For Slovenia, policy recommendations are in fact hidden in chapters 2 and 8 – blurring the borders among analysis, conclusions and recommendations - and they are well grounded in scientific analysis. In chapter 9, the strength of relations between scientific results and recommendations is not equal on different spatial level, as information, quantitative or / qualitative are not always sufficient on each level. Meso level is the most well grounded, on micro level, qualitative information help to ground recommendations.

For Sweden the link between the findings and recommendations could have been clearer.
The policy recommendations are very general and only implicitly related to the scientific findings. It would have been good to also make more directed recommendations also based on the typologies of actual or potential FUAs and MEGAs and more specific interventions to potential PUSH areas.
There is a huge amount of relevant and useful descriptive material (mainly in appendices) which was not used to a large extent.

Finally, for Ireland the Netherlands, the answer is no.
The report fails to prove that more polycentricity on European level leads to achieving the Lisbon/Goteborg goals (relevance of polycentrism). So there is no clear reason for promoting polycentricity on that level, a conclusion that the report confirms implicitly, as most policy recommendations aimed at stimulating cooperation on a regional scale. Implicitly also appears the question of the contradiction: how to create the benefit of concentration in a polycentric situation? (Netherlands).
For Ireland, conclusions are contradictory, and not enough attention is given to alternatives to polycentrism.

<u>Some common comments and critiques can be underline about the recommendations of 111 report:</u>

*The question of the "relevance" of polycentricity, and the methodology used in the report on this* subject, is criticized by several experts, in different part of the reports.

Poland points out that confrontation between polycentricity index and policy objectives may reveal a positive association in some case, but is negative in other. In any case, there is no theoretical proof that such a relation is valid (there are number of variables other than polycentrism which can be responsible), and those results can not be the base for recommendations regarding spatial policy at a national level.
Belgium expressed the same critic, as well as Netherlands (cf supra)

*Another common comment is the contradiction appearing when policies would try to foster polycentrism at different level at the same time:*

For Poland, as a policy concept, polycentricity can refer to various levels on spatial scales, but it is generally not feasible to foster polycentricity at more than one level at a time, as promoting polycentrism at one level tends to bring a decrease of polycentrism at other levels. For instance, polycentrism at EU level would in fact reinforce capital cities outside the core area, hence having a concentrating effect at national level. Therefore, possible consequence and impacts of policies promoting polycentrism should be considered and monitored.

Belgium experts point out the same contradiction, (cf supra). For them therefore, one conclusion should have been more clear: strategies for polycentrism simultaneously at each level are not relevant, and even contradictory. EU should decide which level it wants to promote in priority.

*Finally, a common recommendation from several experts ask a special but common strategy for the new EU countries to be defined* (Czech Republic, Sweden, Malta).

Even if difficult, the elaboration of those vision, including regional level spatial vision, are extremely important for EU level, the formation of strategic policy document is in itself a key instrument of intercity governance and cooperation. National governments and EU should promote regional spatial strategies, explicitly focusing on enhancing urban functional complementarity. A set of guidelines for the understanding of polycentricity at the regional level would be necessary.

On a more general basis, Belgium experts put into question the relevance of "policy recommendations" in a scientific report: the idea of "policy recommendations" is maybe not suitable for a scientific report focusing on "potentials". Certainly conclusions should be drawn, but is it then up to scientist to propose policies, or is it up to the political authorities to use reports and conclusions of the reports to elaborate proposals of policies? The latter appear more efficient and adequate. It would also allow scientific studies to be more critical about concepts and strategies, which is a common concern expressed implicitly by several experts when speaking about the "ESDP bounding" (cf infra).

**c. Are the chosen core indicators and the measurements simple enough to be covered by other research teams in different areas (Nuts 2, or Nuts 3)?**

Core indicators and measurements are considered simple enough (even too simple worries Ireland) to be used by other research teams, but with some restrains (Greece being the more negative) and carefulness.

In general, the answer is yes, with some restrains:

For Malta, Czech Republic, Slovenia the answer is yes, the core indicators seem to be very good, and indicators and typology from 111 are already used in almost all other projects.

For Poland polycentricity indices developed here are of general value, and can be used by others. However, their applicability at different spatial levels is limited and need to be carefully analysed. FUAs and MEGAs concepts should be further refined. Nevertheless, the idea to develop a European common definition of FUA has already a long and unsuccessful history
For Sweden: yes, except the 45 minutes isochrones for delimitation of PUSH areas, which seems difficult for team not dealing with transport indicators.
Belgium: yes, generally, but in some case, the methodology uses different level of hypothesis and exploratory measurements which should not be taken for granted.
For Ireland, the problem is that the core indicators may be too simple for the task too be addressed.

Greece expert is more negative:

According to the 31 evaluation it is not simple, mainly because of differences in national definition and data access. Indicators were produced through a combination of different European and national data sets, and in a pragmatic way for this report, as several data were lacking, or not comparable. But used at European level, results are robust enough.
The major difficulty was to find comparative data on flows or cooperation for any level. A number of qualitative data were used.

**d. Focussing on the scale of analysis: did the scale of some data and indicators show to be misleading?**

The same comments than in point c. apply for the scale of datas and indicators: the general answer is that they are good and/or interesting, but that they can be quite misleading and/or incorrect , and should be used carefully.

Once again, comments follow different degree of agreement and disagreement:

For the Czech Republic and Sweden the scale of analysis seems to be very good, the level of analysis is clearly defined for each chapter.

For France, for what concerns the data, the study suffers from difficulties inherent to the heterogeneity of national sources and to the lack of a genuine pan-European statistical system. In particular the use of data collected at NUTS 3 level concerning some indicators used to establish the typology of cities certainly constitutes an unavoidable way of doing, but at the same time a cause of approximation, as far as NUTS 3 aggregate urban but also rural spaces. Despite this factor of uncertainty, the considerable set of data processed for the whole study area, as well as the numerous cartographic representations which derive from them, nonetheless form beyond doubt one of the essential contributions of the report, whose richness also comes from an effort to renew the concepts.

*The more general answer (Poland, Slovenia Greece, Belgium, Netherlands and Malta), is that some indicators are very good and/or interesting, but some others are quite misleading and/ or incorrect:*

National urban system represent the most appropriate spatial level at which polycentricity is measured, Assembling database for 1595 FUA for EU 27+2 is an impressive achievement, even with problems of comparability.
Data on flows and networks were difficult to gather (cf 111 authors) and are partial and not quite representative. This indicated directions for future studies. (Poland)

From the huge amount of data handled in this project, there can certainly be some objections to particular points. An example given is in chapter 4.2, where some typologies are defined in relation to national total. Because of the very different sizes of countries, these data are in fact not comparable to each other, and the results shown on the map can be misleading (Slovenia).

Controversy exists about the 45 minutes isochrone for the selection of PUSH areas. The areas' classification has to be enriched with further dynamic criteria from cities typology (potential specialisation, cooperation network, regional position if any, …) (Greece, cf also infra)

Sometimes it is a bit difficult to follow at which scale which part of the report is dealing. Also for Belgium, and for other small countries, some indicators are not relevant, or not showing anything (everything is covered with one symbol).
About indicators used for the FUA typology: the transport criteria ?is based on airport and harbour. This is not relevant to measure polycentrism at national (or infranational) level. Belgium)

*Malta, Ireland and the Netherlands point out negative aspects:*

the scale of data and indicators is misleading with particular reference to NUTS 4 and 5 level (Malta).
The scale of the analysis and the choice of indicators led to some questionable results, some meaningless data were used, numbers have been used were ratios would have been more useful (Ireland)
The conclusive paragraph 4.3 is inaccurate, you can't total the scores for polycentricity in different sectors (example: Italy) as it is possible that the structure of a country is monocentric for each sector, while the central location differs for each sector. In that case, it is a matter of specialisation (complementarity), and it could still be polycentrism (Netherlands).

## IV] Programming of further research

Points to be amplified further, Challenges for a future spatial development of (central) Europe:

Economic structures:

Geographical concentration of important economic activities (Malta)
Changes in economic structures: higher mobility, housing market evolution, new developments of settlements(Czech Republic)
Increasing disparities and segregation as a EU wide concern about cities and their potential to increase economic dynamics (Malta)

Relational aspect:
Cooperation or competition between member states and their regions (Czech Republic)
The actual relations between urban nodes on different scales (relational aspect is crucial for polycentricity) (Slovenia)
From morphological aspects, "Potential integration areas" exist at different scale (from intra urban to global level), and at each scale, relations matter. This project was focusing on polycentric integration at regional and interregional scale, so the bigger and smaller scales still remains to be investigated, may be separately. (Slovenia)

Demographic and migrations aspects
Demographic decline and immigration to Central Europe, include demographic parameter and their change, as well as international migration patterns (Czech Republic , Poland)
Depopulation of poor areas (Czech Republic)

Environment, natural and cultural heritage
Environmental concerns and the development of urban qualities as an asset in a sustainable development (Malta)
More is needed for linking polycentric development with cohesion and conservation of natural and cultural heritage (Sweden),Preservation of cultural heritage, taking into account settlement patterns, historical structures of settlements, cultural landscape and local tradition (Czech Republic)

To go on with a non static analysis of polycentrism
The results here are mainly based on static analysis, examination and evaluation of past trends and designing future projection would be needed (Poland), a temporal dimension is missing. Trends are a vital aspects when analyzing polycentrism, especially in new accessing countries in transition from a communist organisation (Sweden).
Some aspect of back casting and forecasting polycentricity are addressed in other ESPON projects (211, 113), but more is needed, for instance to use the building blocks of the 111 MEGAs analysis to examine changes in mass criterion, connectivity, competitivity, and knowledge basis over some years to discern trends in the functional composition of the typology of MEGAs (Sweden). Greece also insists on that point (include strategic planning, future infrastructure, etc…), as well as France and Ireland (temporal and spatial dynamics of urban systems in Europe).

To include outside Eu+27 in the strategic reflection;
Attempts should be made to consider the EU 27+2 as an open system, i.e. including its major interactions on the global scale (Poland, Slovenia, Greece)

The need for more - comparable – data:

This is the most common comment, including the authors of 111 report. Belgium, Netherlands, Malta (cf supra),
Slovenia; one more challenge is the possibility to get comparable data, Poland; develop possibilities to collect comparable and relevant data on inter-urban flows and the networking activities,
Greece; The analysis of urban areas is based on intraregional scales data. There is an intense need of systematic gathering of data with adequate metadata, indicating differences from country to country. There is also a need for data on flows at intraurban level in order to promote the network dimension in European polycentric development.
The major necessity for further research should be covered in the field of economic flows and functional specialization between cities and city networks at a GIZ level.
Ireland insist on further work on the functional specialisation of different centres.

The contradictions of polycentrism at different level simultaneously:

For Sweden: A follow up project should deal with the problematic of achieving a multilevel polycentrism, to avoid that promoting polycentrism at one level would contradict it at another level. Belgium and Greece insist also on that point.

Belgium and Netherlands point out also the problematic of the objectives of competitivity and cohesion.

Those two points lead to the more general question of the relevance of polycentrism, and a more critical approach to it, a subject already dealt with supra:

For the Netherlands for instance, the study of intermunicipal cooperation is useful (chapter 7), it shows that factors of success or failure are not primarily in the area of spatial proximity. More research should be made on that point, linking for example with chapter 5, trying to identify if cooperation is more successful in region with a high "potential for polycentricity" or a high amount of (realised) polycentrism than, in other regions.
This means in fact not taking for granted polycentrism as the ideal solution for more cohesion and competitivity. The question of the "relevance" of polycentrism is addressed in different part of this report.

However, to go on that aspect, it was necessary first to have the possibility to measure polycentricity, at different levels, which this report provided.

Thus, the main questions which remain unanswered are (for Belgium, but also for Ireland, as expressed under strategic reflections) :

is polycentric development a real opportunity for developing the EU in a sustainable way?
is a polycentrism strategy relevant, for which objectives, and at which level?
is decentralization automatically linked with more well being? Or more competitivity?
what is the possibility for politics to influence polycentrism?
and which level should be chosen in priority?

If the political aim is to promote global integration zones as an alternative to the pentagon, i.e. a polycentric development at EU level, then it seems that monocentrism at national level should not be denied, to have the possibility to reach a "critical mass". This is already the

trend in each country, the report says. If the aim is to reach more cohesion, polycentrism at national level could be an advantage, but the report points on the negative correlation between equity and polycentricity… This should be further explored.

In general, Belgium experts suggest to further develop a strong scientific background on the advantage and drawback of polycentricity at each scale, on which EU strategies could be based.

Different experts are also asking a new spatial approach, a new ESDP, with enlarged EU (Greece, Sweden, Czech Republic, Malta ….)

All these issues should be incorporated in the next ESPON programme.

Belgium experts would also like to insist here on the fact that, in future, there should the possibility for research to go deeper. It is a general problem for all ESPON projects: they have to cover a huge area (EU 29) in a short time and with a small budget.

# 2. Synthesis of comments on the final report ESPON 1.1.2, "Urban-rural relations in Europe"

*Author of the synthesis*: Grégory Hamez, from UMS RIATE (ECP France)

*Authors of the comments*:

| ECP | Experts |
|---|---|
| Belgium | Pierre Cornut, IGEAT – Université Libre de Bruxelles, and Sarah Luyten, Katholieke Universiteit Leuven |
| Czech Republic | Lubor Fridrich and Josef Markvart, Institute for spatial development, Brno |
| Denmark | Lise Herslund, Danish Centre for Forest, Landscape and Planning |
| France | Nathalie Bertrand and Vincent Briquel, CEMAGREF, Grenoble |
| Malta | Saviour Formosa, Malta Environment & Planning Authority |
| The Netherlands | Susanne Vleeshouwers and Tom Maas, Ministry of Housing, Spatial Planning and the Environment (VROM) |
| Norway | Olaf Foss and Dag Juvkam, NIBR |
| Poland | Andrzej Stasiak, Institute of geography and spatial organization, Polish Academy of Sciences |
| Sweden | Mats Johansson, ITPS, Swedish Institute for Growth Policy Studies |
| United Kingdom | Cliff Hague, Heriot-Watt University |

## I] Report summary

The report is subdivided into three parts: a condensed summary in part 1, the method and results in part 2 and the annexes in part3.

The TPG aims at defining and featuring urban-rural relations in Europe, in order to infer policy recommendations at the European level.

- In the heart of the report is the definition between what is rural and what is urban. This is a challenge as the difference between the two is increasingly blurred, at various paces across Europe. The authors characterise then the urban-rural relations following two strands: their structural properties (established land use patterns, settlement structure and the distribution of population) and their functional properties (factual use of the physical environment such as various forms of production, consumption and communication).
- This distinction leads to the so-called "harmonised typology" crossing the degree of human intervention (in terms of land cover) with the degree of urban influence (in terms of density and belonging to a functional urban area), which provides an unusual picture of Europe. This typology also presents the interest to be adaptable at NUTS 5 (see the examples of Belgium and Austria).
- Furthermore, through diverse case studies, urban-rural relations are expressed in more qualitative terms: conflicts between "urban" and "rural", for example with the pressure from the urban areas to locate resource facilities such as water treatment plants in the rural areas; complementary practices, for example when both rural and urban actors stand to gain by a more effective use of rural resources, like the biomass.
- The policies affecting urban-rural relationships are taken into account at the EU level and at the national level (for the latter, a questionnaire survey was undertaken). As a result, the ambitions of the ESDP to promote urban-rural linkages in order to foster sustainable development, face several obstacles: there is only little support from the sectoral policies at the EU level, while in the national policies urban-rural cooperation often looks like a subsidiary in relation to the main aims of the policies.
- The management of urban-rural relations also questions the connexions between the property markets and planning regulation. The magnitude of unearned profits in the development of rural land to urban areas is a major concern; and the national practices are very different to this respect. The "laissez-faire" often leads to urban sprawl; urban containment (i.e densification of urban areas) is an alternative to this. This question deserves further political discussions, at different geographical scales.
- The policy recommendations are expressed in relation to these results, and concern the structural as well as sectoral policies of the EU. These recommendations take into account the different sides and scales of the urban-rural question and consist in a coherent hole: quality of life in cities of different size; public transportation; village regeneration; promotion of indigenous activities; securing the significance of agriculture; bottom-up approach; promoting tendering and competition in all the phases of the land development process so as to avoid land speculation.

The experts from ECPs generally expressed positive feedbacks on the quality of the report, from a national point of view (the way the national territories are represented) and from a scientific point of view (relevance of the methodology). These positive comments came with several suggestions for improving the quality of territorial coverage, or precisions as regards the methodology. In the following pages ECP comments are further detailed.

## II] Strategic reflection

### a. From a national point of view

Following the majority of ECPs who commented on the report, the global trends described in the report do fit the trends in their national territories (ECP Belgium, Denmark, France, Netherlands, Norway, Sweden, United Kingdom). The Danish expert resumes each of the trends which take place in Denmark too, namely the blur of urban and rural, past urban sprawl and suburbanisation, rurbanisation along transport corridors, the challenge of increased use of private cars in larger labour catchment areas. The Belgian expert considers that the results of the case study on Belgium, following which Belgium is "depressing", is quite in accordance with the actual widespread typical suburbanisation of the country. The expert from United Kingdom adds some nuances: the report notes "the potency of the 'rural idyll' in Britain", but this is more the image of England than of the rest of Britain (see rural Wales and rural Scotland, with problems of remote rural areas). He also underlines that the authors used the substantial literature on rural restructuring and the deconstruction of rural texts, existing in the UK.

And as regards the policy recommendations, the French, Dutch and Danish experts find numerous connections with the situation in their respective countries: importance of transport and mobility with regard to urban sprawl (DK, NL), bottom-up approach and implication of the citizens in the procedures (F, NL)… but each of the recommendations is of course not always relevant: for example, in France the public intervention ways on the land market already exist through the "Etablissements Publics Fonciers"; other recommendations are far more crucial like helping urban regeneration, still little developed in France, or improving public-private cooperation.

Besides these general positive impressions, the experts also express some reservations as regards the Scandinavian countries, the Eastern European countries and the micro-countries:

- The Norwegian experts regret that Norway is absent from the most interesting maps and analyses, due to data limitations. This is a pity all the most because the general reasoning of the project is clearly relevant in the Norwegian case. Further projects on the topic should give the priority to fill this gap.
  The Swedish expert insists on the specificity of the urban-rural structure in Sweden, Finland and Norway, sparsely populated countries and thus rather different to the continental and English ones. The report mentions it very well, but the expert wishes the report looked at a more local scale, within the communities (NUTS5), because the delimitation between built-up centres and surrounding areas is often very hard to draw at this local scale.
  The expert mentions a last feature of the Swedish territory which would deserve further

discussions: whereas a high share of artificial surfaces is in general correlated positively with a high population density, Sweden is an example of the reverse case. Some explanations would have been welcome.

- The Polish and Czech experts express other concerns. Several of the trends described in the report can be found in Poland: for example the urban sprawl around medium and big cities (an "Act of Spatial Development" delivered in March 2003 advocates the creation of spatial plans, but has not been put into practice to date); chaotic development of local entities with high environmental values; transformation of Polish villages into multifunctional villages, at different paces following the regions of Poland. Nevertheless, the Polish expert feels difficult to infer from the analyses some concrete elements to the Polish case. Following him one of the problems is linked to the choice of thresholds, like the average European density in the harmonised typology. The French expert shares this view, noting that the choices result in similar uniform patterns for example in Danube countries and France, whereas the Italian territory looks more contrasted. The way of working the Corine Land Cover data looks also questionable as regards the significant artificial surfaces in Hungary, Romania and Bulgaria.
  The Czech expert also points out different trends from the report occurring in his country, like the high commuting rates from villages to towns, or suburbanisation around middle sized and large cities. But he underlines the singularity of the Czech rural areas, where almost all agricultural land underwent the process of collectivisation. The restitution programme brought many difficulties, and many farmers are forced to close their farms.

- Following the ECP Malta, the situation of insular small states is insufficiently taken into consideration. Furthermore, all the data required in the report exist at the Central Office of Statistics from Malta and are available on the MEPA website (see www.mepa.org.mt and www.nso.org.mt). The ECP Malta provides a description of Malta realities (urbanisation rhythm during the second half of the XXth Century, coalescence of numerous villages and global growth of urban areas, arising pressures on the land and an exacerbation of transport problems). Actually this is a matter of scale, the European level does not allow to grasp the Maltese specificity.

Other points of discrepancy between the report and the national situations are expressed, more at the margin:

- The Netherlands expert has some doubts on the recommendations regarding municipal land banks and an undisturbed municipal building site release: "although the aim of preventing speculation is beyond dispute, it doesn't take in consideration sufficiently what the role of the free-market is, at least in the Netherlands"
- The French experts appreciate the review of national policies across Europe and share the conclusion as regards the weakness of an explicit account of urban-rural relations within the policies, but regret that France is not mentioned (questionnaire survey, p.133 and following). On one hand, this is surprising because the French experts were contacted and answered to the questionnaire; on the other hand, it is a pity because new national laws approved for the ten last years seem better answering the question of urban-rural relations, and should have been taken into account (e.g. the law "SRU", Solidarité et Renouvellement Urbain). The British expert expresses a similar comment, noting that

"the questionnaire failed to achieve full coverage of all countries within ESPON space, and in the UK has focused on English policies only".

- The Danish expert does not share the finding in the report that Denmark would be very affected by urban sprawl, because of many artificial surfaces per capita. Actually, following the expert there is in Denmark a "somewhat effective planning regulation for the open land, so that the physical expression of "rurbanisation" is not so pronounced as maybe in other countries". So this kind of result would need further consideration.
- The UK expert underlines several UK specificities absent from the report. For example, in Scotland the lobby tensions between urban and rural result in " 'areas in between' urban areas consisting of a rather polycentric pattern of small towns", and the report did not get to grips such dilemmas. Besides, the question of the interrelation between property markets and housing markets is at the top of the policy and research agenda in the UK, especially since the so-called Barker Report (2004). This point would have deserved more attention.

**b. From a general point of view**

The following two questions have been answered by only a few ECPs. Answering them supposes a thorough knowledge of the other ESPON reports and on the ESDP, which proves over-ambitious… Actually it is not so frequent to find national experts having in mind the European perspective and able to react on ESPON reports. Only answer attempts are provided here.

*Focussing on policy recommendations by other TPG's: do you see common or contradicting points?*

Four ECPs tried to answer this question, and see no contradiction with the recommendations from the other TPGs (the Netherlands, Norway, Sweden, United Kingdom). The Netherlands expert compares the 1.1.2 policy recommendations with those from 1.1.1, 1.2.1, 2.1.1 and 2.2.3, which does not show any contradiction. The Swedish expert finds also that the recommendations are not contradictory nor complementary of the other TPGs, and explains it because they are really specific to 112.
The UK expert finds no contradictions between urban-rural recommendations and those from 111, 132 and 213, but underlines that "the strong endorsement given by the Urban-rural relations report for the idea of protecting agricultural land understates the extent to which agricultural intensification has been environmentally harmful (a key theme in 132) and the issues about agricultural protectionism in relation to the development in poorer countries in other continents (cf. 132 and 342)". More emphasis could also have been put on the IT urban-rural divide (cf. 122).

*Focussing on the ESDP: which policy recommendations correspond and which conflict with the ESDP's basic concepts?*

The ECPs found no major conflict between the policy recommendations and the ESDP objectives. In the ESDP, besides the aim of polycentricity, a focus is put on the functional interrelationships of urban areas with their surrounding countryside. The ESDP emphasises also

the high diversity of rural-urban links, resulting in different potentials of development. The policy recommendations and the report are really in line with these objectives and principles, above all the ones related to the development in the rural areas (ECP Denmark, Netherlands, Norway, Sweden). Nevertheless, two from these four ECPs point out potential inconsistencies with the ESDP aims of promoting a polycentric urban system: this promotion is likely to generate more rural-urban relations and this can have "unsustainable effects" (ECP Denmark), and "result in an unbalanced spatial development" (ECP Sweden). Thus, the Swedish expert suggests a better connection with polycentricity in order to avoid any misunderstanding. The UK expert is more sceptical, and does not feel that "the report has really taken us very far through the implications of the ESDP aims and the tensions within them and between them at different scales".

Two ECPs ask for more precisions between the purpose of the project and the ESDP: the Belgian experts would have appreciated more in-depth discussions on it in the Executive Summary; the French experts suggest that the authors could have taken the opportunity in the report to define more explicitly some terms coming from the ESDP, like the notion of sustainability (what does mean an "improvement of urban-rural relation sustainability"?).

Last, the Maltese expert notes that the ESDP itself does not take sufficiently into consideration particular issues of the small insular states, where the blur between urban and rural is quite original (cf. significance of the coast: the urban-rural issue must be complexified with the urban-coastal / rural-coastal sides).

The general idea emerging from these comments is that the potential conflicts between the report and the ESDP are due to internal inconsistencies within the ESDP, between its objectives.

## III] Methodological matters

### a. Do you consider the project scientifically well grounded?

From the ten ECPs who commented on the report, eight expressed very positive impressions on the scientific quality of the report. One ECP chose not to answer this question (ECP Netherlands: the expert did not feel like giving feedback on the complex research methods because he is a policy-maker and not a scientist). And one ECP has more mixed reactions (ECP UK: the expert notes that in this project as in most of ESPON projects, different intellectual traditions are put together, e.g. traditional geography, spatial analysis, political economy, etc.; as a result, "the report as a whole is not really consistent in the way it approaches and interprets urban-rural relations").

It has to be noted that the TPG 112 adopted a particular theoretical standpoint: it chose the urban perspective (ECPs Denmark and France). Following the French experts, the rural dimension is not considered in its particulars but from the point of view of urban expectations; moreover, "to some extent, the empirical analyses are too one-sided towards large urban areas" (ECP Denmark). This standpoint does not raise any problem. The only point is that it could have been

more explicitly expressed. The Polish expert shares this point of view, underlining that the authors are more successful in defining urban areas than rural areas.

Several comments were provided, and must be considered as possible alternatives and not as challenging the report's framework. These comments are hereafter summed up following the three strands of the research framework: the statistical measures and indicators (including the typology); the case studies; the analysis of policies (questionnaire survey).

The comments on the statistical analyses highlight the following points:

- *The terminology*. The Polish expert wonders how it is possible to bring together the results of the report with the existing definitions of urban and rural areas in the national statistical offices, because these definitions are so different between the countries. This raises important questions on the possibility to compare basic data, so the expert asks for going further in the terminological attempt. Besides, the French experts would have appreciated more detailed information on the definition of indicators, namely the "market accessible from each NUTS3" or the "index of population centrality".

- The *statistical analysis* is considered well-grounded, although it raises some questions. The Belgian experts stress that the authors could have tried other methods than the national or European average to show the main spatial differences: "methods such as natural breaks, combination of mean and standard deviation, or multivariate analysis should be privileged". The Swedish expert adds a methodological note: "in some cases standard deviations are used in comparing different categories. Here, it would perhaps be better to use the coefficient of variance as the level of the included regions or countries then is neutralized (see e.g. chapter 3.3.4 and graph 3.3)".

- The *time-span*. Following the Swedish expert, the report could perhaps have been even better with a longer time span "in order to describe and analyse the processes behind the changing urban-rural relations in EU29 today". He is joined by the Polish expert, who specifies that the rhythms of evolution of the urban-rural relations are highly diverse between the 29 countries. But the two experts minor these critics and say that they highly appreciate the part describing the historical developments.

- The *basic ideas behind the typology and the statistical analyses.* In fact, the harmonised typology expresses structure elements (morphology of urban and rural areas) and not functional elements (the data on the flows and relations were withdrawn) (ECP France). Moreover, it would perhaps have been possible "to show more than the traditional differences between urban versus peripheral areas", although the work is well documented and argued (ECP Denmark).

- There is a last comment on the usefulness of the typology. The French experts are positively impressed by the typology, because it raises many original related questions: "Can the "urban influences" be put into different categories? Do they create some dynamics in favour of integrating the rural areas in functional urban regions, to the benefit of towns and countryside, and which are the main drivers of integration?". Nevertheless, in the report there is no clear link between the typology and such questions, and the text

does not take advantage enough from the typology. A reason for this is probably that the typology expresses above all "structure" matters, and these questions (addressed in the chapters 4 to 6) are related to flows. The French experts add that the typological work in the final report of TPG 111 looks more fruitful as the latter more concretely uses the results of the typology in the text.

- The *geographical scale*. The possibility to adapt the typology to a more local scale is considered as a strength (see the examples at NUTS5 in the cases of Belgium and Austria), and several ECPs would have welcome further analyses at this local level: the Maltese expert says that only at this local level the insularity issues would have been properly identified; the French experts expect that "précising the typology at NUTS5 level would help answering several questions, like what is the spatial extent of towns (...)?" Following the Norwegian expert, more explicit considerations of scale and coverage should be inserted in the typology, in the perspective of a follow-up.

The comments on the case studies are rather limited. The Danish and British experts only express a reservation on the selection of case studies: "there is an overrepresentation of case studies around metropolitan and large urban areas" (ECP Denmark); "the case studies vary in length, depth and focus (…) [they are not] really providing the kind of depth analysis that would be desirable" (ECP UK) – the expert concedes that it can be understood as regards the very limited resources available for the project.
This comment can be joined to the previous one on the geographical scale: many ECPs feel difficult to bridge the results at the European level with the national level. Actually, they are aware of a higher diversity of rural areas and urban-rural relations in their country, at the local level, than what is described in the report, and a way to better understand this typology and its usefulness at the national level would perhaps be through further studies at NUTS5 (ECPs Belgium, Denmark, France, Malta, Norway, Poland, United Kingdom).

The analysis of policies is made by a questionnaire survey. This analysis is generally considered as convincing: it avoids "to get lost in an exhaustiveness attempt encompassing the policies with direct or indirect spatial impacts" (ECP France); and the active involvement of the MC and ECP is a sign of a constructive networking, that could be "encouraged within ESPON programme" (ECP Belgium).

Nevertheless, there are also some methodological limits. According to the French experts, the questionnaire is not structured enough: the respondents were asked to provide examples of policies which seemed particularly relevant to them. And of course the answer to such a question differs following the background of the persons, their institution, their position in the organisation…This results in a huge diversity, and the outputs lack of frame. Besides, according to the UK expert, the quantification attempts are not appropriate to this kind of policy analysis (e.g. this sentence from the report: "sixteen per cent of the policies emphasized prevention of urban sprawl", section 2.2.1).
Moreover and always following the French experts, the term "policy" is not well defined: "it is used in a rather fuzzy way, as a mixture of laws, programmes or plans". The French experts suggest that the questionnaire could have been framed after an idea emerging from the report:

"the significance of land management and of planning in the urban-rural relations". At the border between the case studies and policy analyses, the British expert suggests the need for "case studies to explore issues of power, the limits of intervention, the responses of the markets, and the tensions between competing policies".
The Danish expert has another suggestion: "some case studies of the actual administration of policies could have added another dimension".

**b. Do you consider the relation between scientific results and policy recommendations strong enough?**

The ECP experts have different opinions on the relation between scientific results and policy recommendations.

First, the Norwegian expert underlines that the mere possibility to infer, from a research work, any normative elements which can be used in the policy arena is not obvious: "the scientific results never/seldom have unambiguous policy implications" and there are always relevant alternative recommendations.
Second, the French experts remind that the exercise of drawing the policy recommendations is usually tricky, as regards "the risk of spreading the idea that there are some recipes which can be implemented anywhere". But the authors succeed in avoiding this shortcoming.

In this context, the link between research results and policy recommendations is not presented as a problem, and most of the time the policy recommendations look scientifically grounded (ECP Czech Republic, Norway and Sweden). Nevertheless, the following points are raised:

- the recommendations related to the mechanisms of the free market seem not based on the research done (ECP Netherlands);
- some of the policy recommendations seem to be based more on theoretical ideas than on empirical findings (ECP Denmark); most of them are reasonable observations, but remain generalised and vague (ECP UK). The British expert is particularly sceptical as regards the policy recommendations on functional urban-rural relations (6.4.3): "the report has not really been able to produce concrete proposals backed by evidence and theory on this matter", probably due to the "stress on data and indicators".
- some of them are more of "wishful thinking" than scientifically based (ECP Sweden, United Kingdom);
- they could be better developed with "indication of their potential implications, feasibility and degree of urgency" (ECP Belgium).

In order to overcome these problems, the Swedish expert suggests that between the scientific results and the policy recommendations, there is room for something like the "policy implications". On one hand, these *implications* would be scientifically based, on the other hand the *recommendations* could include other theoretical elements not directly inferred from the results. This suggestion looks very interesting in the perspective of ESPON2.

**c. Are the chosen core indicators and the measurements simple enough to be covered by other research teams in different areas (Nuts 2, or Nuts 3)?**

Following the ECP Norway and Sweden, these indicators and measurements look simple enough. They are perhaps even too simple, as the Danish expert says: for instance, the model would be stronger if it took into account more regional types than the only metropolitan / peripheral areas. And the British expert adds that the problem of data remains crucial: "the indicators can be considered by other teams, but the same problems will be encountered until data becomes more harmonised, and even then convincing time series data will be at a premium".

**d. Focussing on the scale of analysis: did the scale of some data and indicators show to be misleading?**

The scale proved to be misleading in the case of artificial surfaces in the Scandinavian countries: the Danish and the Swedish ECPs observe that the artificial surfaces are over-represented in their countries, giving the wrong impression of an urban sprawl. But it is all the contrary: for instance in Denmark, an analysis at a lower level "would probably show more clearly that it is because Denmark has many roads also to more peripheral areas. It is not houses or strip malls spread around in the open land".

The Belgian experts take this question as an opportunity to stress a basic problem: the non-comparability of NUTS3 across Europe, and so the need for a combination of NUTS2/3 to have a better image of Europe (see the case of Germany where the NUTS3 correspond as entities urban or rural, and the case of France where the most of NUTS3 contain both rural and urban areas). The Swedish expert shares this critic of the current NUTS3, "that can give a skewed picture of the urban-rural dimension in Europe". The Belgian experts suggest that this failing could be prevented by analyses at NUTS5 level, harmonised through smoothing methods.

Actually the large majority of ECPs converge to ask for analyses at a more local level, the NUTS 5 (Belgium, Denmark, France, Malta, Netherlands, Norway, Poland, Sweden, United Kingdom). As the British expert points out, "the nature of conflicts over land development is that it is rarely if ever conducted at a NUTS2 or NUTS3 level".

## IV] Programming of further research

As the report is generally considered as coherent and well-grounded, the "programming of further research" is focused more on specifying the implications of the report on the different national contexts or on particular questions already addressed in the report, than on proposing radically new fields of research. Moreover, several experts stress that the fields of research proposed in the report for further studies seem well funded (ECP France, Norway).

The following issues could be considered in a follow-up of this project:

- There is a strong need to carry out research at a very local level (NUTS5), shared by all the ECPs who commented on this report.

- The ECPs from the new EU member states often express some difficulties to apply the results in their national context; they remind all the differences in the definition of "urban" and "rural" between the countries (ECP Poland), the specificity of the de-collectivization process in the ex-communist countries (ECP Czech Republic), or the peculiar features of small island states (ECP Malta). Researchers from these countries should be better integrated in the next phases of ESPON.
  Besides, even in the countries where researchers are well inserted in ESPON like the Scandinavian countries, further studies are needed to better represent these territories (ECP Sweden). These countries are at different stages of development in the urban-rural relations, so a longer time span should also be considered.

- As the report focuses above all on the case of rural areas around large urban areas, the role of small and medium-sized towns would deserve further analyses, especially "as they are in critical situation in many parts of Europe" (ECP Denmark, Sweden, United Kingdom); the new project on small and medium sized cities "may pick up some of the issues about sustaining services in remoter rural areas" (ECP United Kingdom). The question of agricultural land close to urban areas is also very interesting (ECP Belgium, Denmark). The British and Danish experts share the idea that remoter regions, explored by some Interreg projects, would deserve particular attention. The British expert adds a point about changing labour markets in rural areas, with the use of migrants, while the Danish expert stresses other topics like transport corridors and urban sprawl, mobility of people in rural areas, rural areas as consumption spaces, etc. (ECP Denmark)

- The question of land market and public regulation is considered as very interesting for further developments (ECP France), although it should take into account more precisely the reality of the free market (ECP Netherlands). The question of public-private partnerships deserves also further studies, namely to the extent that such partnerships can induce corruption, as the report points out (ECP Denmark). Last, "ESPON should be looking much more at the spatiality of housing markets and labour markets and at the way that national and regional policies and their implementation (or non-implementation) share space that is significant for the wider European development trajectory" (ECP United Kingdom)

- In connection to this point, more attention should be paid to "housing markets and equity aspects of access to housing finance and to affordable housing", as they are important to wider cohesion (ECP UK).

- Some connections are requested with the topics addressed by other TPGs: for instance with the 213 on the Common Agricultural Policy (ECP Belgium and Czech Republic), with the 111 on Polycentrism (ECP France), with the 114 on Demography because "the analysis of expanding and dynamic rural areas is of utmost importance" (ECP Sweden).
  Amongst the other ideas, the ECP Belgium asks to take into account that the sustainable development is not only economic and ecological but also social – this can be measured via a kind of composite index of sustainable development

## 3. Synthesis of comments on the final report ESPON 1.2.1, "Transport services and networks: territorial trends and basic supply of infrastructure for territorial cohesion "

*Authors of the synthesis*: Gregory Hamez (ECP France), Magdalena Zagrzejewska – Fiedorowicz, from The Ministry of Economy and Labour (ECP Poland)

*Authors of the comments:*

| ECP | Experts |
|---|---|
| Belgium | Pierre Arnold, Centre inter-universitaire d'Etudes de la Mobilité, Pierre Cornut, IGEAT-ULB, Sarah Luyten KULeuven. |
| Denmark | Thomas S. Nielsen, Aalborg University, Department of Development and Planning |
| France | Vaclav Stransky, University Paris 12, LVMT (ENPC, INRETS, UMLV)[5] |
| Hungary | Erzebet Vajdovich Visy, VATI, Budapest |
| Ireland | Jim Walsh, NIRSA NUI Maynooth |
| Luxembourg | Nadine Essel and Michaela Gensheimer, Taurus Institute, University of Trier |
| Netherlands | Leo van 't Hof, Ministry of Transport, Public Works and Water Management, Directorate for Corporate Management and Strategy |
| Poland | Tomasz Komornicki, The Institute of Geography and Spatial Organisation, Polish Academy of Sciences |
| Slovenia | Marko Peterlin, Ministry of the Environment and Spatial Planning, Office for Spatial Development |

[5] The selection of the French expert by the ECP France has been made in order to avoid any conflict of interest, as the Lead Partner from 1.2.1 is French also: the French expert does not belong to the same institution as the LP, he has no institutional ties with the LP and during his education he was not trained in the school of the LP.

## I Brief presentation of the report

Communication and exchange between cities and territories take place via infrastructure networks where resources, goods, humans and information are exchanged. Access to those networks is increasingly becoming a crucial factor for territorial development. The project is foreseen to deliver more clearly definitions and to make further investigations on the major ESDP concept of "parity of access to infrastructure and knowledge", understood as a guideline promoting a better territorial equity or balance.

The fundamental object of the project was focused on three following questions: how can the transport network constitute a key factor for a more balanced, more polycentric, more sustainable spatial development? How to develop the accessibility to basic services and to knowledge in order to increase the territorial cohesion? What will be the consequences of enlargement on the preceding objectives?

The TPG answers these questions through a very broad range of indicators. Actually the state of data on transports available at NUTS2/3 is so poor that the main part of data had to be computed by models. As a result, the indicators gave the following results:

- Transport endowment indicators: gap in motorway provision between central and peripheral countries; hierarchy of airports, between the main one sin the centre of Europe and the “regional” hubs in the periphery.
- General accessibility indicators, including potential accessibility indicators; the centre-periphery pattern is usually displayed.
- Indicators of Accessibility to transport infrastructures, stressing the role of adequate connections to the main communication network. Here also the classical centre-periphery scheme is obvious, but other features must be mentioned, for example a rather good accessibility in some peripheral nodes, or the “remote” situation of parts of the centre of Europe.
- Indicators of the traffic volumes and flows, giving several pictures of the main corridors. The significance of Eastern Europe is enhanced giving a new structure of transport network.
- Indictors related to the transport externalities linked to transport.
- Network vulnerability indicators, in the hypotheses of the suppression of the edges, and of natural or anthropogenic hazards.

Global short term transport policy recommendations, already in application in numerous agglomerations: regulation of traffics to increase the capacities, diminish the pollutants, the casualties, pricing policies, development of intermodality to facilitate a modal shift and the limitation of speeds on roads. Towards a sustainable transport: a reduction of the fuel consummation, so of the emission, of casualties, etc. Global *medium term* transport policy recommendations: support the modal shift with maritime transport, presently, in conditions of concurrency really less favourable, rail transport is only competitive from 500 to 700 km, transformation of classical railways into freight-dedicated lines: to support the need of modern logistics, proposal for high speed and high frequencies rail freight transport (150 km/h: 1000 km in 8 hours). Global *long term* transport policy recommendations: creation of new infrastructures, in order to diminish the vulnerability of network by a minimum of modal redundancy when it is possible and a multimodal redundancy when it is not.The targets are proposed to be achieved by: introduction of payment for using the transport infrastructure; speed – limits for trucks and

passenger cars; the improvement of intersection at the European, national, regional and local scale; transformation of the classical railways into fast freight-dedicated lines (strong related with preferences for multimodal transport); creation of a system of fast transport with trains limited in number of wagons and reduced number of stops.

# II Strategic reflection

## a. From a national point of view

The way the national territories are reflected in the report vary in many aspects. Although a majority of ECPs notice large points of convergence between the statements of the report on their country and the actual trends (ECP Denmark, France, Hungary, Ireland, Luxembourg, Poland), three of them do not think that the actual trends occurring in their country are correctly represented (Belgium, the Netherlands, Slovenia).

### *i) Positive feedbacks*

The majority of ECPs are positive on the way their national territory is reflected. The Hungarian expert appreciates that the report underlines the significance of accessibility and demonstrates the isolation of Hungary; strong arguments can be inferred for the development of transport and communication in this country and also in all Eastern European countries. The Polish case is somehow similar, with a huge divergence between individual regions of Poland as regards accessibility, and thus a need of investments to foster the east-west links. Moreover, the Polish expert stresses that airports and seaports are not the only gateways to the external world: "large border crossing points and neighbouring logistic centres on the east border of EU fulfil spatial role".

The Luxembourg is the opposite example, i.e. one of the most accessible regions of Europe; and the elements from the report are coherent with the recent national document on transport (Integrative Verkehrs- und Entwicklungskonzept, IVL, 2004) (ECP Luxembourg).

In a similar way, the Irish expert stresses the coherence between the findings of the report and the Irish "National Spatial Strategy": weak infrastructural endowment, need for strengthening the main interurban linkages, problems of congestion around Dublin… which are about to be tackled by a high priority investment programme. The Danish expert also identifies several trends in the Danish case: "Denmark "marginal position" in Europe is likely to pose an increasing challenge"; on one hand high quality infrastructure are currently provided in various parts of the country and result in a good connection with the core of Europe, on the other "it is unlikely that the friction of distance can be removed by these efforts".

### *ii) Reservations*

The Belgium, Dutch and Slovenian experts explain their scepticism on the report's relevance for their country by several reasons:

- The report does not take into account the transport sector in the national economy, particularly important in Belgium and the Netherlands. The Dutch expert reminds that the

Dutch economy does profit from the extensive transit flows, and the Belgian expert that the share of the transport sector in the GDP of Belgium is 5.7% ("which is the largest in Europe"). Moreover, both experts expected that the specific situation of the large ports like Antwerp, Rotterdam or Amsterdam in the middle of the Pentagon would be more acknowledged.

- The results do not provide a correct picture of the Dutch situation as regards some of the trends, challenges and options. As regards the trends, several are relevant for the Netherlands (well developed infrastructure network, intensive use of the infrastructure, and external effects), but more attention should have been paid "to the extent of congestion problems (…) and to the extent of traffic unsafety" because the Dutch transportation system in one of the safest in Europe. As regards the challenges, the report is right while stressing the necessary balance between accessibility and livability, or the importance of west-east links, but should have taken into account the importance of the Dutch transport sector for the EU as a whole, and "the policy of Dutch government concerning the solution of the congestion problems in the Netherlands". As regards the options, they are not elaborated enough and insufficiently consider the Dutch situation (ECP NL).
- The Slovenian expert is far more critical: "the general picture one might get about Slovenia in the report is essentially wrong (…) the results for Slovenia don't depict the actual trends at all". Contrary to the results of the report presenting Slovenia as peripheral, this is a strongly transit country, according to the expert. As a possible cause of the discrepancy the expert points to the graphs used for modelling road flows, which "have only a very limited set of links towards western Balkan countries or none at all, and … are rather inaccurate regarding the quality of road links". The expert also wonders about the absence of all three international airports in Slovenia and has also some doubts on daily accessibility by air, wondering why the Ljubljana airport does not appear, because daily return trips are possible to at least 6 destinations[6].

The French expert also notes several points which would deserve further consideration. First, the report relies for some indicators on the list of MEGAs coming from the 1.1.1 report, and this list is debatable; some particular lacks even "shock as regards the territorial vacuums they generate (Nantes in France, Balboa in Spain or Venice in Italy, to quote nothing but three examples)". The 1.2.1 authors took sometimes the initiative to adapt this list, but such attempts should be made more rigorously. Secondly, the inland waterway transport system is not really taken into account –the Belgian experts also regret this lack.

Last, the report has a particular theoretical standpoint with significant consequences on the national territory: the authors presuppose that transportation has "structuring effects" (ECP Belgium, Denmark, France, Ireland). The Danish and Irish experts specify that this particular standpoint is paradoxical as regards their countries: Denmark and Ireland are characterised by a good level of economic development (which is growing in the case of Ireland) in spite of a

[6] The ECP Ireland also notices that two Irish airports have been forgotten: Cork and Shannon in the MidWest region. This point deals more with a methodological concern than a "strategic reflection" one: the TPG121 very strictly computed the daily return trips in a comparable way all across Europe. The methodology can surely be improved, taking into account these remarks.

peripheral position and a low accessibility – and the Danish expert underlines that it is the same for the other Scandinavian countries. The French expert does not criticize the idea of "the structuring effects of transports", but regrets that the authors do not precise that other points of view exist; "references to works defending the opposite thesis would have been welcome". He is joined by the Belgian expert who suggests a bibliographic reference[7].

### b. From a general point of view

*Focussing on policy recommendations by other TPG's: do you see common or contradicting points?*

In general, no major conflict has been noticed between the policy recommendations of 121 and those from other projects, but with nuances between the projects.

There is a clear common ground between the policy recommendations from the 1.2.1 and from the 2.1.1, i.e. between the project addressing the issue of the trends in the field of transport infrastructures and services, and the one forecasting the spatial impacts of TEN-T developments (ECP Denmark, Ireland, Luxembourg). In both projects, "transport infrastructure endowment indicators and the concept of accessibility play key roles and thus constitute common features" (ECP Luxembourg). This concordance also appears for instance in the Scandinavian countries: "the links between capital cities that project 1.2.1 suggests should be promoted to support a polycentric development. Project 211 includes many of these links as priority projects that may be completed between 2001 and 2021" (ECP Denmark). The ECP Ireland insists on another side of the need of concordance between 121 and 211: the report correctly "notes the unequal legacy of transport infrastructures, and also the discordance between the short and medium term policies responding to political objectives on the one hand and the longer timeframes required for major infrastructural development. Moreover the specific recommendations in the report provide practical proposals that are appropriate to high-level pan European spatial planning. As such the projects that are identified merit specific EU level co-funding. The expert claims that "the proposals will contribute to the goal of strengthening the possibilities for strong polycentric networks beyond the Pentagon and facilitating more interaction with that core mega region".

Accordance is also noted with the policy recommendations of the 111 (ECP Hungary, Luxembourg). The expert from Luxembourg takes as an example the operational definition of the concept of polycentrism in the 111 "in which territorial indicators on transport infrastructure and services such as accessibility play a role". Nevertheless, the Slovenian expert has some reservations on the 1.2.1 policy recommendations across macroregions on the one hand, and the recommendations at macro level from 1.1.1 regarding the development of a European polycentric urban system on the other: "Transport flows are the most important means of structural relations among urban areas and this connection with urban system is generally underestimated in policy recommendations". But as the Irish expert reminds, the interest of these policy recommendations is to provide proposals at the high level pan European spatial planning, and theses recommendations are "appropriate" at this level.

Two ECPs suggest that additional links would have been welcome with the projects dealing with the natural heritage, namely the 132 as regards the management of natural heritage along the

[7] Jean-Marc Offner, 1993, "Les 'Effets structurants' du Transport: mythe politique, mystification scientifique", *L'Espace Géographique*, 3, pp.233-242

transport corridors (ECP Belgium, Ireland), and the 213 as regards the need to enhance "the accessibility of rural areas, especially the most remote areas, in order to strengthen urban-rural linkages and to avoid further marginalisation of large tracts of the European rural landscape and its residents" (see the challenges identified in the 213) (ECP Ireland).

Last, the Polish expert regrets that networking with the TPG113 apparently did not occur. Cooperation with the 113 (and also with some points of TPG111) could have helped better taking into account the specificity of Eastern countries, and "could enrich considerably recommendation applying to development of infrastructure in accession countries" (ECP Poland).

*Focussing on the ESDP: which policy recommendations correspond and which conflict with the ESDP's basic concepts?*

There is a general agreement on the correspondence between the policy recommendation and the ESDP's basic concepts (ECP Denmark, Hungary, Ireland, Luxembourg, Poland):

- *polycentricity*: the improvement of connectivity between large centres helps to strengthen polycentric urban networks (ECP Ireland); the project also clearly proposes "a polycentric development in the Scandinavian countries, focussing on the capitals and with connections to the Baltic countries" (ECP Denmark). The Luxembourg ECP notices that the recommendations for the macro-regions are more precise than at the European level, and refer to the objective "balanced development and polycentrism", "e.g. the recommendation to delete the weak links which exist in the main transport corridors of the current transport network of the Mediterranean area". Nevertheless, the Slovenian ECP has an opposite opinion: "the policy recommendations divided across macroregions may at some points conflict the recommendations on macro-level from project 1.1.1 regarding the development of European polycentric urban system"
- *efficient and sustainable use of infrastructure*: the general policy recommendations refer to this basic ESDP aim (ECP Poland). The Danish and Irish experts add that proposals such as the sea routes (to avoid road congestion), the speed limit on motorways or the shift towards high speed freight trains are clearly bound to the "sustainable use".
- *parity of access to infrastructure*: several ECPs assess the policy recommendations as correctly bound to this ESDP aim (ECP Denmark, Luxembourg, Poland). In this respect, the Danish expert points out among the policy recommendations "the provision additional transport links – especially in marginal areas – to reduce the vulnerability of the transportation network". The expert from Luxembourg underlines that the proposed intermodal connection between coastal transport nodes and inland transport nodes as intermodal centres also fulfils this aim. But the Irish expert warns that "more attention to regional and local transport infrastructure will be required to ensure that improvements to international infrastructures will be supportive to the ESDP goal in relation to parity of access".

## III Methodological matters

### a. Do you consider the project scientifically well grounded?

At first glance, the experts' opinions on the scientific quality are highly divergent:

- The majority emphasize the robust scientific quality of the report, in spite of some local criticisms: the project "was emerged on rich essential ground" (ECP Poland); it provides a "very broad range of indicators and approaches (…) and is as such well grounded" (ECP Denmark); "it draws from earlier research experience and develops it a long way further" (ECP Hungary); the study has "high and indisputable qualities in terms of usefulness, innovation and contribution to the knowledge of European transports (ECP France); "an extensive array of measurement techniques are rigorously applied resulting in many significant insights into the structure of the networks and the associated levels of accessibility. The researchers have overcome some quite formidable difficulties in relation to the acquisition of datasets over the entire ESPON territory and undertaken some very challenging geocomputational analyses. The outcomes in terms of pan European mapping are unprecedented (…)" (ECP Ireland). Of course these experts have also many questions and suggestions, but their main opinion is quite positive.
- Three other ECPs assess the project well grounded as well, but are more critical as regards its usefulness. The Dutch expert acknowledges the scientific quality of the report, but notices many mistakes as regards the Dutch situation and points out that "the translation of indicators to the considered macro-regions is very questionable". The experts from Luxembourg find the report "very complex": the information is so dense that it causes problems of legibility. Last, the Belgian experts underline that the report is not understandable by a large audience "by its incomprehensible language and the load of information", so it "*enlarges* the gap between scientists and decision makers[8]", in contradiction with one of the main objectives of the ESPON programme...
- The expert from Slovenia is more critical: in his opinion "the main problem of the project is its heterogeneity". According to the expert, this can be partly explained by the fact that different teams using different tools produced the report, so "the whole structure of the report is hard to grasp due to this heterogeneity"[9]. Besides, the models and algorithms are accumulated without "explanation of the strengths and weaknesses of particular models used and the report makes no effort explaining the contradicting results from different models used. Instead, the results are presented in a very straightforward way as facts missing the proper interpretation". Last, many inaccurate data were used.

How can we understand such divergent opinions on the report?
The French expert provides a key to explain this. He underlines the importance of explaining the methodological options. Actually any modelisation results from an arbitrary simplification, and "the point of the sometimes important biases, potentially generated by these simplifications should have given place, in the report, to more substantial explanations namely emphasising the

[8] Note of the compiler: underlined in the original comment.
[9] The Polish expert also notes "a certain incoherence of the report". The French expert does not share this point of view. Following him, "the structuring of the different parts, chapters and sections follows a quite logical progress (justification – state of the art – theoretical background – calculation – interpretation – recommendation). This cannot be criticized except for the missing link between policy recommendations and the rest of the report".

most caricatural cases. In the actual state of the report, some maps display a drastic discrepancy with the modelised reality, indeed with the simple common sense. Such a discrepancy, all the most when it is not indicated nor explained, can lead to lessen the credibility not only of the concerned map, but also of the concerned indicator, and consequently of the whole report… as it is true that the visual impact of a map is a double-edged weapon".
Following this opinion, the scientific quality of the report is not at stake – this is confirmed by the words of the majority of ECPs. But some lacks of explanation in the models and some mistakes on the maps harm the report, and can give the impression of a large complexity which is "out of touch" from the reality.

To go further in understanding the strengths and weaknesses of the report, an analysis can be provided following the different strands of the research methodology:

*i) presuppositions.*

The report seems driven by several presuppositions, which may not be correctly explained or presented as such:

- The virtue of *accessibility*. The Danish expert notes that the project supposes the importance of accessibility. This is debatable, because "accessibility clearly varies among the European countries – but is the "marginal utility" from an increase in accessibility to be considered as a constant value?". The Belgian expert shares this view, to the extent that the report gives the idea that a high accessibility would always be "good"; the reader has to wait for the policy recommendations before finding some nuances. Last, the expert from Luxembourg also questions this concept: "Where are the limits of an increasing accessibility?"
- The *structuring effects* of transportation (ECP Belgium, Denmark, France, Ireland), quoted above in the section Ia. "Strategic reflection from a national point of view".
- The virtues of *homogeneity.* Following the French expert, this point is ambiguous: "on the one hand, some allusions, indeed some whole paragraphs across the text give the feeling that one of the work objectives is to highlight the territorial heterogeneities and to locate them through maps, in order to know where intervening to smooth them away. On the other hand, a few sentences claim the opposite, for example in the general conclusion: '(…) this heterogeneity (…) is also a wealth and must be considered as such'"[10]. The French expert adds that a more thorough definition of some terms like "more balanced spatial development" would help going further.

These different points do not raise particular problems. The only point is that the experts would have appreciated the TPG explicitly to acknowledge the presuppositions.

[10] Note of the compiler: it seems that this point is not specific to the TPG121. The majority of ESPON projects look bound to this implicit aim of looking for homogeneity.

*ii) Used data*

The French and Irish experts underline that the TPG made a relevant work as regards data gathering, and that this was a real challenge as data often do not exist, are not comparable…

The French and Slovenian experts add that the authors had to estimate and calculate a lot of data (for instance as regards road congestion, or real transeuropean flows): "as a consequence, some of the most interesting indicators in the report are inferred not from real and observed data, but from mathematical outputs" (ECP France).
This can explain why several experts have some doubts on the data. For example, the Dutch expert notices that data concerning the situation of the Netherlands looks questionable; the traffic flows on the main links across the country are namely underestimated. The Polish expert has the same doubts on freight traffic data, and the Slovenian expert stresses the more general problem of inappropriate data (cf. airports database). The Slovenian expert acknowledges that the data concern is not a fault of the team. But as a result, there are many little mistakes across the report which give a wrong feeling.

*iii) Methodology*

Following the experts from Slovenia and Luxembourg, the report combines some well-known techniques and newly developed methodologies. Nevertheless, both experts stress that the methods look "very complex" and that the report is "very hard to read" – and they are joined by the Belgian experts on this purpose.
The other experts stress the significant progress provided by the TPG as regards the methodology, namely the use of models, the innovative map-making representations, etc. (ECP France, Hungary, Ireland).

Some more detailed explanations would probably have been welcome, to help the reader grasping the added value of the models. The experts stress the following points:

- *Accessibility* indicators. The Belgian experts would have appreciated that these indicators would have been further explained or discussed, for two reasons: 1) "These kind of indicators are very dependent upon the node density. In other words, an area with a high node density will be characterized by a good general accessibility even if its transport infrastructure is not performing well". 2) "Since the ESPON space is finite, the method used by the TPG will always characterize a peripheral node as less accessible than a central node. In other words, the geographical position of nodes has an influence on the measure of their accessibility and the mapped accessibility always shows a centre-periphery pattern". The Belgian experts suggest some methods which may overcome such drawbacks.
- The *potential accessibility indicators* using distance impedance function. The Belgian experts have two questions: 1) "Close destinations are weighted more than further ones (p.251), which means that the marginal cost for transport increases when transport distance increases. Is this hypothesis reasonable given the current evolution of transports, especially freight transport for which the marginal cost in fact decreases with distance?" 2) "The calibration of the factor remains unclear. The report seems to evade the question although it is crucial for the calculation of the variance of the accessibility indicator

shown on maps 7 and following". Let's note than on the contrary, the Polish expert is more positive about the analyses of potential accessibility than the other analyses: "analysis of potential accessibility seems to be well fixed in the original material. However they are based on different model than other analysis".

- Indicator *Potential freight from European maritime gateways*. Following the French expert, the authors adopted as a simplifying hypothesis "the 80%/20% principle (i.e. 80% of the containers arrived by sea are carried by land transportation modes, 20% are transhiped, thus carried again by sea). it would have been perhaps more realistic to draw a typology of ports (for instance, a very simple one would be: mainly transhipment seaports, mixed seaports, and ports mainly oriented towards their hinterland), including for each type of ports a more realistic ratio".
- Indicators related to *medium-sized cities*: "accessibility to medium-sized cities", "proximity polycentricity" and "network density of cities". The French expert criticizes the choice of the threshold of 100 000 inhabitants for these indicators, because it lead to eliminate the city of Ceske Budejovice in the Czech Republic, "although it is THE regional metropolis of Southern Bohemia (…) The large "vacuum" resulting from this simplification is as unconvincing as this town is part of a proximity cross-border network of Austrian and German medium-sized towns".

These different points must be understood as constructive proposals towards an eventual follow-up of this project, and never question the interest of the TPG study or the quality of the scientific work.

*iv) Theory*

The French expert notes that "the basis on which most of the indicators (namely the accessibility) are built is the graph theory". And no expert criticizes the use of this theory: "investigative methods (including complied models) are without reservations" (ECP Poland); "transport networks are appropriately described by means of graph theory" (ECP Hungary).

The fractal geometry is also used for calculating a few other indicators. And two critics came regarding the use of this theory, by the Belgian and French experts. These experts are sceptical about the interest and the added value of this theory as compared with other ones, as the "relation degree of graph (R)" according to the Belgian experts.

*v) Concepts*

We have previously noted that questions came on the concept of *accessibility*, in the "presuppositions" section.

Other concepts were questioned. According to the French expert, "most of the concepts are well defined, but the presentation of some of them is not clear enough". He takes the example of the ICON indicators as particularly symptomatic of this lack of precision: "The reader has to cross-check the text and the maps with scrutiny before getting aware that the calculation of these indicators takes into account the notion of "utility" (level of services) of transport terminals". So

then and only then, one can understand why some airports are in blue and other in red on the map *Connectivity to transport terminals*. The French expert concludes: "this lack of clearness in the text may, to some extent, bring into disrepute the ICON indicators, although they are of great interest as they enrich and complement the notion of accessibility as compared with its usual meaning, and this is part of the report's originality".

The Belgian experts quote several references absent from the bibliography, and which seem to them important to be inserted.

As regards the concepts, several ECPs regret that the report goes too deeper into the details of transport indicators and notions, and in consequence fails to draw all the consequences in terms of spatial planning. For example, following the Slovenian expert "what is missing is a view of the European territory in terms of the interdependence between transport infrastructure and polycentric urban system". See also the remarks from the Luxembourg expert as regards the complexity of the report, and the remarks from the Belgian experts about the "incomprehensible language". Nevertheless, a majority of other experts express the opposite opinion, i.e. the authors were right in focussing on transport indicators and concepts as they did, and helped significantly improving the knowledge on European transport trends (ECP France, Ireland, Hungary…).

*vi) Results*

Two points can be underlined as regards the results:

- first, several experts are impressed by the variety and richness of the results, in terms of indicators and maps
- secondly, other experts (and sometimes the same ones like the French or the Dutch experts) regret that the numerous indicators which are calculated are under-used and not fully interpreted.

In fact, there is likely an interest in calculating numerous indicators: "it provides a good database of available indicators and their applicability within the EU" (ECP Netherlands); it is a "state of the art in the field of transport territorial indicators in 2003", which can be used "as a toolbox (indeed a "suggestion box")" (ECP France).

In a more detailed way, some experts notice mistakes on the maps as regards the representation of their country; these errors should be taken into account in the models in order to make them more in accordance with the reality. We already quoted some, for example the oversight of all three Slovenian international airports or of the city of Ceske Budejovice in the Czech Republic; the Dutch and Slovenian experts also have the feeling that the report got it all wrong as regards their country.
The Polish expert gives the list of the errors for his country: contrary to the map displaying a high density of motorways in North-East Poland (chapter1, part3, map2 p.146) there is no motorway nor express way in this area; the connections between Ukraine and Poland lack on the map of railroad networks (map6 p.162); "consideration in relation to role of inland shipping trade in accession countries are broken off from actual technical condition and capacity route. Assumption concerning thick and stable railroad network in accession countries seems incorrect.

Contractly to affirmation included in Report, railroad network in Poland undergoes fast short circuit".

Actually nearly each expert finds some mistakes. As the Irish expert says, "while there may be some local criticisms regarding the quality of data and some interpretations the overall results nevertheless provide significant baseline information which can be improved upon in future studies".

As a conclusion on methodological matters, the report looks scientifically very well grounded, and the majority of experts were quite impressed. But other experts were discouraged by its complexity, and could hardly perceive the interest of such a dense theoretical and methodological work in terms of European spatial planning. So it may be good in a follow-up of such a project on transportation to keep the methodological and theoretical work as a really necessary step, and to add a step providing the key to understand the results in terms of European spatial planning.

**b. Do you consider the relation between scientific results and policy recommendations strong enough?**

The answers to this question show the same split as observed in the previous question.

Some experts consider that the connection between results and recommendations is quite correct. Taking into account the different trends mentioned in the report and the recommendations, the expert from Luxembourg assesses the connection as "strong enough". The expert from Hungary appreciates the adequacy of these recommendations for the new EU countries, namely to the extent that the need for improving the accessibility is acknowledged in these countries. The Danish expert is positive when the TPG infers from the results the suggestion to improve polycentricity, for instance in the Scandinavian and Baltic countries – "given the analysis presented this is a sound suggestion". And the Irish expert stresses the authors' wisdom while writing the policy recommendations: "the connections are strong [between scientific results and policy recommendations] and the researchers have correctly refrained from going beyond the empirically grounded evidence".

Other experts actually regret that the researchers did not go further in the recommendations… and that the recommendations are not bound to the results. According to the Dutch expert, the recommendations are too simplistic and lack of a more integral approach – this can be caused by the weak basis given by the results, especially at the macro-regional scale; moreover, there are "no leads for regions on a meso and mirco-level", and consequently they are of little use for the Netherlands. The Polish expert thinks that the results are so wide that they can lead to many recommendations; and "correct final conclusions" would have been very important as "many detailed analyses seem contradictory" – let's note that the Slovenian expert also saw some contradictions in the results. This last one considers that some of the recommendations to some of the macro-regions are well linked to the results. On the other hand the expert considers that "some of the recommendations in the general part do not stem directly from the results of this study but from a broader knowledge on the subject", which is a common critical remark also regarding other ESPON projects.

Other comments address the relevance of the policy recommendations. The French expert considers them as "in general interesting", but not really innovative "as compared with the existing priorities in the European transport policies (sea motorways for example)". The Polish expert shares this point of view. But both experts agree that there is one proposal which looks really innovative: the proposal to reduce speed limits on motorways. However, "this recommendation would not be realistic without some strong accompanying measures", like a progress in rail transportation, the rapid achievement of interoperability, the increase of capacities, etc. (ECP France). The Polish expert adds that this recommendation seems not relevant for the accession countries, where "comparable infrastructures do not exist".

The Polish expert goes further, saying that these recommendations are "formulated from west European point of view (or even "atlantic" and partly "Mediterranean"). Recommendations regarding accession countries (Eastern Area) are poor or even banal". The French expert also regrets that in the Eastern Area "there is no incentive to keep the rail network", which has been given up in favour of road. The French expert wonders: "Shouldn't the Eastern Area countries become a "laboratory in real conditions" to experience an improved version of the American model of freight rail transport, through a network dedicated to freight, not expensive because it was elaborated for low speed traffic, through an intensive and continuous use?". The Polish expert is in line with this proposal to the extent that it is "strongly related with preferences for multimodal transport".

Two ECPs have other comments on the recommendations. The Danish expert finds problematic that "as mentioned in the project, the actual network capacity is not taken into account": if it was the case, the conclusions would probably be different. The Belgium experts are more critical. They enumerate a range of critics:

- There is a lack of environmental concerns in the policy recommendations (the environmental externalities of road transport are developed, but "one can hardly see comments on how to diminish them through a modal shift towards more sustainable types of transports").
- The Belgian experts worry about the recommendation p.392 on the third paragraph: he understands it as promoting the liberalization of rail transport, and reminds that the example of UK railways proves that this policy is anti-cohesion.
- They remind that the vulnerability of the road network (congestion) may encourage users to change their mode of transport, so they "wouldn't suggest creating any road network redundancy where it is vulnerable". The French expert does not share this opinion, and did not have the impression that the TPG suggested to create additional roads: "in spite of lacks displayed on the maps in some places of the *Central Area* (in terms of transport service supply), the authors were wise enough not to propose the creation of additional infrastructures in an already well-furnished region".
- It seems that the inland waterways ports were not examined enough, although they manage an important part of maritime transport, like Liège, Gent or Duisburg: "apparently there is today a strong evolution towards the displacement of more and more maritime activities from sea ports of the northern range towards these kind of 'inland sea ports'".

**c. Are the chosen core indicators and the measurements simple enough to be covered by other research teams in different areas (Nuts 2, or Nuts 3)?**

Two ECPs answer positively to this question: the Hungarian expert finds that most indicators are "simple and straight forward enough to be used in other research". The Irish expert approves, but expresses the need for better databases. He adds that it would be very interesting to apply the indicators in the macro-regions, for example in North-West Europe.

The expert from Luxembourg agrees that the indicators look "generally useful", but thinks that they should be better explained in order to be applied by other teams in other contexts. The Belgian experts share this view, saying that the report is surely extensive and complete, but it would have been better to point out one or maximum two indicators per transport issue. The Slovenian expert is in the same line when he says that there are too many indicators; according to him, if one had to be chosen the multimodal potential accessibility looks interesting. The Polish expert expresses the same idea saying that the degree of complexity of indicators is various**.** This point illustrates the same split between the two groups of experts: while a group asks for a kind of toolkit with one indicator per transport issue, the other group highly appreciates that the TPG did not choose and provides the variety of existing approaches.

Several experts point also the problem of data. The experts from Luxembourg and Poland remind that the data often exist only at the country level. And the indicators "derived from modelling work have already been or can easily be calculated for the desired NUTS3 level for links or nodes" (ECP Luxembourg).

Besides, the Polish expert would have welcome more information on the data sources, as it can be useful to understand the results and some mistakes present in the results.

Last, the experts from Denmark and Luxembourg stress the difficulty to apply the indicators at scales lower than NUTS3. The Danish expert explains it because of the lack of GDP-data at this level.

**d. Focussing on the scale of analysis: did the scale of some data and indicators show to be misleading?**

The Irish expert notes that as in any ESPON project, the scale of indicators becomes misleading when data are available only at NUTS2. This problem obviously is not specific to the TPG121.

The Danish expert stresses that the analyses look adequate at the European scale, but are more difficult to grasp at lower levels. For example, it becomes problematic when looking at the smaller facilities (airports, sea-ports…). And the poor accessibility at the margins that the report shows is a consequence of it. This makes the interpretation difficult. The Danish expert adds that "some indicators like distance to seaports could be analysed in more details in Denmark". The French expert also points out a shortcoming of this indicator: "the map entitled *Costs to commercial seaports by truck* (part3, section 2.5) shows that from any point of the Bretagne French Region, it is possible to get to a maritime seaport in less than 30 minutes; and the same from any point of the Northern parts of Sweden or Norway (this is due of course of the unequal NUTS surfaces). Using NUTS partitioning is all the more surprising since the authors get computer tools strong enough to calculate accessibility indicators on very detailed partitioning (a grid of only a few kilometres side squares), as we can see on many other maps".

The experts from Slovenia and Luxembourg also regret that the analysis is too macro-oriented. According to the Slovenian expert, the separate handling of macro-regions raises a problem, because it leads to simplified conclusions.

Last, the Polish expert notes that there is a problem with the representation of NUTS in accession countries: "maps with NUTS3 division in Poland sometimes have NUTS2 division, and maps with NUTS2 division have non-existing division into three regions (map17 p.193), and other countries of Central Europe are treated as a whole" (this raises the question of availability of any data at NUTS3)[11]. Moreover, the maps do not ontain nodes and edges in former USSR and in the Balkans: as a consequence for Romania and Bulgaria, the role of transit routes to greece is overestimated.

## IV. Programming of further research

Before proposing some tracks for further research, the expert from Luxembourg reminds the three questions which the TPG contributes to answer: "How may the transport network constitute a key factor of a more balanced, more polycentric, more sustainable spatial development? How to develop the accessibility to basic services and to knowledge in order to increase the territorial cohesion? What will be the consequences of the enlargement?"

The ECPs' suggestions for a follow-up on this topic can be divided in two groups: some are focused on the transport issue, other aim at establishing links between transport trends and other fields of planning.

*i) Further research on transport issues*

Several experts agree with the suggestion present in the report about the data, i.e. the models must be strengthened thanks to better quality data in order to be more in accordance with reality. The Irish expert stresses the need for a "more sustainable approach to funding basic and applied research supported by better quality data"; according to the Danish expert the data must include actual roadway and transit capacity in order "to picture the short term threats to accessibility and territorial cohesion"; the Polish expert follows the TPG about the need for data for "car traffic and freight transport" to consolidate the models. So the shortcoming noted by the French expert could be avoided, that is to say that the indicators would be inferred not from mathematical models outputs as it is the case for the moment, but from real and observed data.

The French and Irish experts add that they would welcome further consideration about the recommendation of reducing speed limits, via a "further examination of implications of reducing travel speeds in relation to daily accessibility and also the impacts on externalities" (ECP Ireland). The Irish expert particularly stresses the "feasibility of achieving a significant modal shift in freight transport".

The Dutch expert expresses the need to have recommendations really inferred from the results; he is joined by the expert from Luxembourg who asks for more precise recommendations at the European level. The Dutch expert goes on with other wishes for further research: the policies of the member states as regards transportation should be taken into account; more attention should be paid at the meso and micro levels; relations between regions should be examined, "for

[11] Note of the compiler

instance by examining bottlenecks in TEN's as a whole and comparing the results with the investment plans of the various member states". This need for deriving ESPON results to the national level is not specific to the 121, and the experts express it in almost all ESPON first round projects[12].

The Polish expert underlines similar questions of scale. Taking the ESPON space as isolated does not make a lot of sense: it should be considered in its relations to a broader territory, the Euroasian or even the global one. This raises the question of the EU Eastern border. Moreover, at a lower level, the current focus on NUTS2/NUTS3 does not seem relevant: any indicator must comply to this level, and this brings serious limitation to the research work. The French expert strongly agrees: "the use of NUTS in the calculation of some indicators obviously looks not relevant. In this field, a larger freedom should be devoted in the future to the authors of eventual further studies in the line of ESPON121".

The French expert also reminds the question of thresholds: they must be correctly chosen, as any methodological option (e.g. the threshold of 100 000 inhabitants for the medium cities lead to eliminate the cities of Ceske Budejovice in the Czech Republic, and probably numerous other towns of importance in the peripheral areas of the EU). Besides, the French expert underlines that new kinds of indicators can now be calculated thanks to the progress in computers, like the Marchand index or "accessibility in speed": it could allow "to free from 'edge effects' and would deserve special analysis".

Last, the experts from Hungary and Luxembourg say that the setting up of a "European Spatial Transport Prospective" model, suggested in the project, would be interesting in the future.

*ii) Further research linking transport and other spatial planning issues*

Two kinds of further linkages are suggested: between transport and the urban network, and between transport and environment.

- Three ECPs feel the need **to improve the links between the analysis of transports/flows and the analysis of urban system**. First, the French expert reminds that the list of MEGAs is questionable, and that the 1.2.1 authors had to adapt it several times to fit their purposes; so "a new definition of MEGAs should be desirable (with the national administrations as partners, in order to take the national particulars into account).
  The Danish expert emphasises appreciates the report's words about "the reality of the urban networks/polycentricity as suggested for fx Scandinavia and the Baltic states. Is such a development likely to be able to counterbalance the 'gravity towards the center?'"
  The Slovenian expert stresses the interconnectedness between transport infrastructure/ flows and the urban system. Challenging open questions are for example "how do transport flows affect the development of urban system and vice-versa, how does this interconnectedness show in different scales (micro, mezo, macro) and what kind of transport infrastructure and flows are important on different scales?"
- Two ECPs stress the necessary link to environmental issues: "transport and sustainable development" for the Belgian experts; question of the growing volume of transport versus the preservation of natural assets (like in the Alps or Mediterranean) for the Slovenian expert.

[12] Note of the compiler.

# 4. Synthesis of comments on the final report ESPON 1.2.2, "Telecommunication Services and Networks: Territorial Trends and Basic Supply of Infrastructure for Territorial Cohesion"

*Author of the synthesis*: Michaela Gensheimer, from TAURUS – Institute (ECP Luxembourg

*Authors of the comments:*

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| Luxembourg | Thomas Braun, TAURUS - Institute |

## I] Brief presentation of the report

Within the context of EU enlargement, liberalised telecommunications markets, rapid technological change and the anticipated roll-out of next-generation digital mobile and broadband networks, there is a need to review the evidence concerning the extent to which the EU's diverse territories are sharing in the benefits of ICT uptake and usage. From a territorial perspective, such developments offer enormous opportunities for reducing the 'friction of distance' and/or the problems of remoteness from which many peripheral regions and rural areas have suffered. However, in this period of rapid change, it is not clear whether the 'digital divide' between favoured and less-favoured regions, or between cities and rural areas, is widening or narrowing. The answers to these questions have considerable importance from a territorial development perspective.

In its final report, the TPG brings together and presents the evidence which it has gathered over the past two years in respect of territorial trends in telecommunications networks and services. The focus of the study was on the ICT-infrastructure, namely fixed telephony networks, mobile telephony, the Internet, broadband and the underlying backbone network technologies to which all other networks are ultimately connected. Project findings were analysed at the macro-, meso- and micro-scales.

As was revealed by the study, each technology exhibits a different territorial pattern. Furthermore, national specificities remain crucial in understanding the territoriality of telecoms. In the field of telecommunications the EU core-periphery distinction does not generally hold true. At the macro-level, a "North-South divide" could be perceived in EU 15 + 2, with the strength of the Nordic countries representing a key component of this. In addition, there is a "West-East divide" in the EU 15 + 2 + N 12, though some individual N 12 countries outpace individual EU 15 countries. Of all technologies, mobile telephony shows the most even territorial spread and to some extend exhibits a "reverse core-periphery" pattern. Most meso-level analysis had to be confined to EU 15 since data was extremely limited for the accession countries. The continuing importance of national specificities is reflected in the narrow "category spread" between regions within countries. Factors explaining such regional differences beyond the national effect are complex and vary between technologies, e.g. high PC and internet take up is associated with development status, with non-Objective 1 regions and those with higher GDP. At the micro-level there is a metro-urban-rural divide both, in the supply of as well as in the demand/uptake for telecommunications.

Based on the analysis a series of policy options is set out. According to the TPG the "aspatiality" of regulatory policy could be on the agenda, i.e. European and national telecommunications regulations should be adjusted in a way so that they could be used as a tool for regional development. Other suggestions refer to the aggregation of public (and private) sector telecommunications procurement, as well as to the subsidy or construction of telecommunications networks. In addition, greater symmetry of information should be established between public authorities and providers of telecommunications. Common indicators should be developed and their collection needs to be improved and standardised. Finally, a regional observatory is recommended for each Member State.

## II] Strategic reflection

### a. From a national point of view

As ECP Hungary underlines, the world of ICT is subject to constant development and change, therefore the validity of the project's results need to be considered as temporary. Nevertheless, 3 (Hungary, Ireland, France) out of 5 ECPs think that important conclusions are drawn in relation to the territorial impact of ICT infrastructure. These 3 ECPs all confirm the centre-periphery pattern of supply and use of ICT in their respective country. The pattern seems to be most distinguished in France with the "primacy" of the Paris metropolitan area. In the context of this observed spatial discrepancy ECP Ireland refers to national initiatives that have been conceived to promote broadband infrastructure beyond the larger urban centres, some of them involving public-private-partnerships. Belgium, as well, takes account of telecommunications in regional spatial plans.

Although the French expert is largely in favour of the report, he also expresses his surprise about some observations made by the TPG on France and criticises the lack of explanations on these issues.

ECP Luxembourg repeats the main results of the study that are relevant for the country. Apart from that, the ECP notices some data problems concerning Luxembourgs presentation in the report.

### b. From a general point of view

*Focussing on policy recommendations by other TPG's: do you see common or contradicting points?*

With the exception of ECP Luxembourg most ECPs do not see contradicting points. As ECP Luxembourg pointed out the typical core-periphery territorial distinction for the ESPON space does not hold true in telecommunications uptake.

ECP Hungary suggests that the TPG's recommendations are different from those of other TPGs but not contradictory to them. ECP Ireland agrees that conclusions are in accordance with those of other projects. In addition, it draws parallels between conclusions on different spatial scales and findings of other projects.

ECP Belgium suggests, that a link between the 1.2.2 project and transport projects might have been interesting.

*Focussing on the ESDP: which policy recommendations correspond and which conflict with the ESDP's basic concepts?*

Comments on this question are rather short or even missing out altogether. ECP Hungary simply confirms the correspondance of the project's policy recommendations with the ESDP. The Irish ECP offers a broader statement, considering policy proposals as "a basis for a coherent approach to achieving the goals of the ESDP" that need to be implemented in full to achieve the results wished for. In the Irish view, relevant developments in line with ESDP objectives have to be preceeded by significant changes in the roles of governments, private sector companies and regulatory frameworks.

ECP Luxembourg indicates that rather than proposing substantial policy recommendations only "options" are discussed by the TPG.

No comment was given on that question neither by the Belgian ECP nor the French expert.

## III] Methodological matters

### a. Do you consider the project scientifically well grounded?

Despite the difficulties finding appropriate data the report is acknowledged as being "remarkable" (French expert), "of good quality" (ECP Belgium) and/or "scientifically sound/well grounded" (ECP Ireland/Hungary).
ECP Belgium, however, would have appreciated more indepth explanations of the described process, particularly the economic development of ICT. Specific examples of the executive summary are listed where the ECP lacks additional information.
In spite of the general positive assessment of the project by the French expert, a major criticism concerns the data on which the project relies. Data is either not homogenous for all countries covered by the study or it is dated. ECP Luxembourg also adresses the data problem, arguing more or less along the same line as the French expert. In addition, ECP Luxembourg also misses a description of the process of technology diffusion.

### b. Do you consider the relation between scientific results and policy recommendations strong enough?

The opinion on this issue is rather divided among the 5 ECPs that commented on the project. While ECPs Ireland and Hungary make out a clear relation between scientific results and policy recommendations, ECP Belgium considers the latter to be "not well enough substantiated". Examples for that criticism concern the lack of explanation why ICT penetration is higher in Nordic countries and why broadband dominates policy recommendations while other technologies are neglected.
The French expert points out that the report "stays at a rather large scale", which can be attributed to the lack of more detailed data. Given this circumstance, the project's conclusions are considered well-founded.
ECP Luxembourg repeats at this stage, that no substantial recommendations were made by the TPG.

### c. Are the chosen core indicators and the measurements simple enough to be covered by other research teams in different areas (Nuts 2, or Nuts 3)?

Again, there is a rather heterogenous picture of the ECP's assessment of this question. Hungary and Ireland consider the chosen core indicators and the measurements as appropriate and comprehensible, recommending an extension of the analysis to NUTS 3 as soon as possible. ECP Luxembourg, as well, thinks that indicators and measurements are simple enough to be used in

the future. Moreover, ECP Hungary regrets that the main data source excluded the new member states.

ECP Belgium refers to specific extracts of the executive summary where shortcomings regarding indicators and/or measurements were perceived. The absolute number of users is seen as highly important in view of the North-South divide made out by the TPG. This indicator is missing, though. Furthermore the Belgian ECP is not convinced by the use of "(non-) Objective 1 region" as socio-economic indicator, since its limits are regarded as arbitrary. Therefore a "continuous index of socio-economic development" is suggested.

#### d. Focussing on the scale of analysis: did the scale of some data and indicators show to be misleading?

ECPs Belgium and Ireland did not comment on this question. ECP Hungary does not feel the scale of data and indicators to be misleading.
As for Luxembourg, the ECP made out a lack of data for the country. Nonetheless, Luxembourg is categorised in maps or conclusions are drawn, that do not comply with other passages of the report.
In the view of the French expert, at intra-national scale the TPG does not have the relevant "elements" that would be necessary "for a detailed interpretation of the observed disparities". He recommends a systematic analysis of scientific literature that goes beyond the "rather limited" bibliography of the report.

## IV] Programming of further research

Suggestions by ECPs on further research are quite diverse.
ECP Hungary would be interested in a comparison of the role and impact of telecommunication and transport on territorial cohesion. Other issues, brought up by ECP Ireland, are modeling to explain territorial patterns and additional evidence regarding decision making.
The Belgian ECP proposes a further investigation of economy and policy incentives of new telecom technologies. Another option is seen in linking project results with commuting.
ECP Luxembourg is interested in finding out, "What kinds of interventions are possible for a balanced polycentric development and what are the institutional/ political/ economic limitations".
The French expert adds a question as regards the logics of actors, either telecommunication operators or public authorities, which remains rather superficial in the report.

# 5. Synthesis of comments on the final report ESPON 1.3.2, "Territorial trends of the Management of the Natural Heritage"

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| Slovenia | Blanka Bartol, Ministry of the Environment and Spatial Planning, Office for Spatial Development |

## I] Brief presentation of the report (in the framework of the Executive Summary)

**Aims and objectives**: The project seeks for a diagnosis of the principal territorial trends of natural heritage at the EU scale, including a cartographic picture of the spatial and historic trends. Based on this diagnosis and further analyses, a number of territorial indicators and typologies are given that should support the process of prioritizing for a balanced and polycentric enlarged European territory. The "influence of the management of natural heritage on spatial development" was considered as the central question by the TPG.

**Main findings**: In terms of **Driving forces and Pressures**, agricultural protection policy results at EU level in large land take due to intensive agriculture and decreased semi-natural area and biodiversity. The pillar 2 of CAP can perhaps stop or turn the negative process of the natural heritage. The international policy influences the national policy, as well as the regional and local ones. Concerning socio-economic and territorial development at EU level, no other European spatial planning exists, except ESDP. A few coherent national spatial plans exist and at regional/local level development is concentrated in local and regional initiatives. Concerning infrastructure at EU level the widespread accessibility results in an ongoing fragmentation of the natural heritage. At national level it facilitates mobility by following the urbanization and enhancing further sub-urbanization and at regional/local level it facilitates local accessibility regardless of natural values. In terms of **States** the main finding is that the natural heritage consists of remains of nature. In terms of **Impacts** the main findings show that during ages a decrease of species is taking place and the natural heritage is also very fragmented. In terms of **Policy Responses**, the main EU policies are: environmental legislation safeguarding quality, Birds, Habitat directive, Natura 2000, ESDP, aiming all at harmonization and territorial coherence. Integration with spatial planning is too new to show results of these policies. Moreover a few integral national plans exist and at regional/local level there is a growing attention for integrated regional development strategies. Proactive planning instead of ad hoc decisions is necessary.

**Policy recommendations**: **Balanced development in corridors** (polycentric urban development into the main infrastructure Corridors - development axes to distribute the development pressure away from the Pentagon and concentrate development as nodes in linear zones), **polycentric development in nodes** (near the highway accesses and high speed railway stations to avoid the landscape's fragmentation due to sub urbanization, as well unnecessary mobility), **selective accessibility** (balance between improving, through access roads, the accessibility and competitiveness of existing towns and the strategic value for the ecological network of natural areas), **priority to old industrial areas** (to reconstruct and sanitize polluted industrial areas in order to minimize unnecessary land take for new developments), **elaboration of ESDP** (spatial policies at the European level should be integrated, addressing the ecological (and hydrological) network as well the urban (and infrastructure) network), **international coordination** (territorial cohesion strongly supported by the elaboration and implementation of ecologic and urban cross border networks), **vertical integration** (the decisions about areas to be included within the ecologic or urban networks must be taken at the regional level, balancing all relevant interests, after the Commission's indication where the strategic connections are desired), **regional development vision** (concerning regional development visions or plans), **regional variety as an asset** (spatial development visions or plans with regard to regional cultural and natural

characteristics), **natural values as an asset** (to be increasingly appreciated), **community support** (regional spatial development visions should be financially supported by the Community).

## II] Strategic reflection

### a. From a national point of view

The report has been considered as rather **too general** (NL, SL, Czech Rep), including interesting general information but with gaps (NL), lack of varieties and differentiations, risks, impacts, etc. at a national level. It focuses mainly on a **European level analysis** with **emphasis** in the **urbanization** and **infrastructure** (NL, FR), factors that certainly influence the spatial planning relevant policies, without being enough to identify the natural heritage itself and its dimensions in relation to its definition addressee, taking into account that Natural Heritage should be the main topic (NL, SL, FR).

The main framework of the research should be devoted to natural heritage and the influence of its management on territorial utilization and to the spatial concurrences with other territorial management's complementarities (FR).

A more precise definition of natural heritage is necessary, taking into account that the whole of nature could not be considered as natural heritage (e.g. all the forest cover, or artificial nature as green inside cities, etc). The Natura 2000 European programme is indeed solely devoted to, although it was underestimated throughout the research (FR).

The high urbanization degree / natural heritage fragmentation in Belgian regions, although the research focuses on the European scale, poses a serious challenge and a threat (BEL).

Certain important parameters related directly or indirectly to natural heritage itself (according to definition) were neglected (such as: the natural heritage's precise definition, specialized typologies (e.g. landscape diversity, semi-natural landscapes, combined forests, agricultural land and human settlements areas that should be protected as a whole, etc.), the relevant management instruments, existing European policies (e.g. NATURA 2000 that was quite insufficiently analyzed / SL, FR), as well as the forms of their application per country and the determination guidelines addressed to the implementation procedures, the specialized state of pressures – policy responses, etc. (SL, NL).
Moreover, the impacts concerning the natural heritage due to the structural changes (positive or negative) which took place in the new member states the last decade have not been taken into account sufficiently (Czech Rep).
The intrusion of the three level scales (according to the European guidelines) into each other was also neglected, causing the deriving cross conflicts to remain unsolved in relevance to policies (e.g. urbanization and natural heritage networks overlap). Urbanization and nature networks overlap and a cross conflict as well, does not depend only on economics or territorial attractiveness, since natural ecosystems functioning induces the cheapest management costs (for example concerning the preservation of ecological corridors) (FR).

Concerning the policy recommendations they were considered as rather good (NL), but too general and possibly wrong in some cases (SL), due to the universal approach, the lack of varieties and differentiations and the negligence to incorporate important factors related to the natural heritage's specialized typologies and state, which derived from the emphasis to the urbanization and infrastructure issues (NL, SL). The priorities to the related dimensions but not the natural heritage itself addressed a rather imbalanced approach of the main topic of the research (SL, NL, and FR).

In particular the policy recommendations concerning the NATURA 2000 implementation policies in the new member states were questioned (Czech Rep) from the economic development point of view, taking into account that the necessary dense transportation corridors, aiming at the accessibility achievement will create new development axes and an urbanization increase that will threaten in some areas the natural environment. So, a combined strategy for sustainable development should be assigned, taking into account the target for spatial cohesion and proceeding to certain compromises in specific fields (e.g. tourism economic activities development).

The above approach to be achieved might require on one hand a more precise definition of the natural heritage (NL, SL, FR), as well as the intrusion of the "three level" approach into each other (FR), aiming at solutions in case of cross conflicts (e.g. urbanization, natural heritage networks, agriculture).

**b. From a general point of view**

*Focusing on policy recommendations by other TPG's: do you see common or contradicting points?*

The "limit to polycentricism" concerning the policy recommendation suggestions, through the "balanced spatial development in infrastructure corridors" approach, which in the frame work of the named project is a desirable spatial strategy that avoids the natural heritage's fragmentation by addressing the priority of urban concentration along the corridors, is in contrast with other TPG's proposed policies (Espon 1.1.1, 1.1.2, 1.2.1, 2.1.1), concerning the general aspect for the polycentric development of the urban centers (BEL, SL).

Moreover it was stressed out that the "corridors urban development" does not coincide completely with the TEN /TINA and the relevant spatial analysis inputs, as well as the appropriate justifications have not been provided in detail (SL).

The ECPs from FR and Czech Rep have not commented the report concerning the above point and the NL ECP did not found any common or contradicting points.

*Focusing on the ESDP: which policy recommendations correspond and which conflict with the ESDP's basic concepts?*

In the framework of the ECP's reflection the "balanced development in corridors" was considered to be in conflict with the ESDP's concept for a balanced and polycentric urban system and a new urban – rural development and partnerships (SL, BEL).

The rest of the ECPs have not commented the report concerning the above point.

## III] Methodological matters

### a. Do you consider the project scientifically well grounded?

Although a lot of research has obviously been carried out by the TPG for the project (NL), as it was admitted through the commenting procedure the mere ecological information was too general and there is a general lack of more detailed specification of the EU regions (e.g. Natura 2000) from both economic and natural heritage's points of view (NL, SL, Czech Rep, Fr). The territorial trends should be understood in the context of natural areas management (SL).
Nevertheless, the quality of the final report was assessed as good (BEL), given the understanding of the limits of the lack of data which prevents a more in-depth research.

The neglected or not covered in detail aspects, addressed by the ECPs, mainly focus on the following issues, related to a more precise approach of the "nature" of the natural heritage:

- The specific problems, as well as the existing policy responses per country are missing and there is a lack of discernment between the different sorts of semi – natural land, as well between semi-natural and natural areas (NL).
- Pressures on nature have been mainly addressed in relation to urban development and infrastructure (NL, FR) and not in the context of nature and the relevant territorial trends (SL), neglecting other important and more threatening the semi-natural areas factors, such as agricultural intensification, which creates major risks with severe impacts in biodiversity loss as well, even stronger that the existing risks threatening the semi-natural forests (NL).
- Cultural landscapes features and biodiversity (most of which are natural conservation areas), although they have important impacts in the natural potentials, as well as the regional economic development, have not been discerned (SL).
- As unanswered but interesting questions could be additionally assigned the protected natural areas as a percentage to national territories and European one, the exact decrease causes, the fragmentation impact in biodiversity loss, the important instruments through spatial planning recommendations, etc. (SL).
- At the meso and micro scales urban and ecological networks are conflicting (FR).
- Moreover, some wrong data have been pointed out concerning the intensive – extensive agriculture in NL and the EU 15 NATURA 2000 coverage should be rechecked (NL, FR).
- The missing information loss should be covered from the beginning, may be by using independent expert bodies and not only using sources just from the official administrations which apply the European policies (FR).
- The selected case studies were considered as not representative concerning some of the applied European policies in relation to natural heritage and some of the bibliographic references were considered as unusable (FR).

**b. Do you consider the relation between scientific results and policy recommendations strong enough?**

The policy recommendations, suggested by the TPG, have been considered as "universal" and not directly related and adjusted to the analysis, due to the information missing of many but vital (more ecological) aspects of the natural heritage (NL, SL, FR, Czech Rep), although they are mostly correct (NL).

Besides, the ECP Belgium considers them very "classic", but well done and well connected to spatial development (BEL).

Concerning specifically the recommendation for polycentric development in corridors it was considered quite problematic due to the pollution concentration with negative impacts for the people, although the relative impacts might be better for nature (less fragmentation). Thus, the aforementioned policy recommendation issue should be moderated and better developed (BEL).

An efficient ecological network consists of both: strictly protected, lightly protected and sustainably developed areas. The above guideline should stimulate innovative recommendations concerning the natural heritage's territorial management (FR).

The Natura 2000 European policies already prohibit the structural support of the protected areas in case of conflicts with the Network. The Habitat directive as well permits the keeping of economic activities, practicing "protection by development" (FR).

**c. Are the chosen core indicators and the measurements simple enough to be covered by other research teams in different areas (Nuts 2, or Nuts 3)?**

This specific topic has been insufficiently faced by the ECP's commenting reports in relevance to the database and the capability to be used by other research teams in different areas (Nuts 2, or Nuts 3 level).

Concerning the outputs in mapping and in relation to some data combinations (for example, MAP 27: MEGA's and semi natural areas), it was considered that the intentions of maps and the problems to be addressed to were weak and unjustified (SL).

Moreover, the identification of the connections between the natural areas and how they are threatened would be more useful (SL), as well as the more detailed specifications of different areas (Czech Rep).

**d. Focussing on the scale of analysis: did the scale of some data and indicators show to be misleading?**

The scale of analysis was mainly considered as rather universal. The categorization of landscapes in 8 bio-geographic regions does not look appropriate as it does not take into account that there are mostly cultural landscapes in the European territory (SL). The lack of data, such as: in the fields of semi-natural landscapes, biodiversity, and extensive – intensive agricultural land, prevented a more balanced view (NL).

Moreover, through the above general approach of the TPG, small actions and areas could be ignored, if not located in large natural areas, due to the report scale (NL).

A typology through the morphology and land cover might be a better approach (SL).

The relation between the indicators DPSIR to GDP requires more caution because it includes accidents which need reparation which also concerns nature degradation, taking into account that the greatest the degradation, the greatest and more expensive the reparation. So, the more nature is impaired, the more GDP increases (FR).

The rest of the ECPs have not commented the report concerning the above point.

## IV] Programming of further research

It has been highlighted that more research is necessary concerning the natural heritage in relation to spatial planning, especially to cover the overlaps with transport policies in areas with high traffic volumes and sensitive natural areas (SL).

Moreover, it has been suggested that the project's address about the un-sustainability of polycentric development should be an issue for further development in relation to the ESDP's political choices that also should be further developed taking into account their potentials and actual impacts (BEL).

The specific conditions in the new EU member states should be further analyzed, regarding the positive or negative impacts of the accession into the EU economy and focusing on sustainable development through facing the conflicts and making compromises concerning the natural protection (Czech Rep).

Different EU policies in conflict should be studied. A special study is proposed, due to urbanization trends which will contribute to the people's growing need of nature that increases the threats towards natural heritage (FR).

The paradoxical influence of agriculture – forestry on natural heritage creates the need to find innovations for compatibility between them (FR).

The three kinds of tools for the natural heritage's management (legal regulations, land purchasing and management contract) should be studied (social acceptance and funds – results indicators included) (FR). Last, as the state of data remains a real problem, there would be an interest in a study presenting the state of the art as regards available data in the EU: data from independent expert, national data, EU data on Natura 2000, etc. (FR).

The NL ECP did not comment the report concerning the above point.

# 6. Synthesis of comments on the final report ESPON 2.1.1, "Territorial Impact of EU Transport and TEN Policies"

*Author of the synthesis*: Marko Peterlin, from Ministry of the Environment and Spatial Planning, Office for Spatial Development (ECP Slovenia)

*Authors of the comments*:

| ECP | Experts |
|---|---|
| Belgium | Pierre Cornut, IGEAT-ULB and Mrs. Sarah Luyten, KULeuven |
| Denmark | Thomas S. Nielsen, Aalborg University, Department of Development and Planning |
| Greece | Panagiotis Getimis, Urban Environment and Human Resources (UEHR) Institute |
| Hungary | Erzsébet Vajdovich Visy, VÁTI, Budapest |
| Ireland | Jim Walsh, NIRSA NUI Maynooth |
| Netherlands | Leo van 't Hof, Ministry of Transport, Public Works and Water Management, Directorate for Corporate Management and Strategy |
| Slovenia | Marko Peterlin, Ministry of the Environment and Spatial Planning, Office for Spatial Development |

## I] Brief presentation of the report

The objective of ESPON 2.1.1 was to assess the territorial impacts of EU Transport and TEN policies. The major question is how far the TEN provide the right answers for a territorial development as described in the ESDP. The measures proposed in the White Paper "European Transport Policy for 2010: Time to Decide" should provide the framework for the investigation.

In ESPON 2.1.1 the evaluation of the territorial impacts of EU transport and telecommunication policies is mainly conducted via scenario analysis. For this, three different forecasting models, that is SASI model, CGEurope model and STIMA model, and a set of analytical techniques to post-process the model results were used.

The main general result from the scenario simulations is that the overall effects of transport infrastructure investments and other transport policies are small compared with those of socio-economic and technical macro trends, such as globalization, increasing competition between cities and regions, ageing of the population, etc.

The second main result is that the magnitude of the effect seems to depend strongly on the already existing level of accessibility. For regions in the European core additional gains in accessibility through even more motorways or high-speed rail lines may bring only little additional incentives for economic growth, while in the regions at the European periphery or in the accession countries, however, a gain in accessibility through a new motorway or rail line may bring significant progress in economic development. But also the opposite may happen if the new connection opens a formerly isolated region to the competition of more efficient or cheaper suppliers in other regions.

The analysis of cohesion effects shows that in particular the distinction between relative and absolute convergence or divergence is important and that the spatial level at which cohesion is measured matters. The same holds true also for the comparison of polycentricity of MEGAs at the European level and polycentricity of FUAs in individual countries. Transport policies which reinforce polycentricity at the European level, may increase the dominance of capital cities within their national urban systems and so contradict the goal of the ESDP to achieve a balanced polycentric urban system.

Regarding pricing policies increased private transportation costs clearly work against the general objectives of cohesion and polycentricity. Not only regions in the European periphery, but also regions in the periphery of their respective national markets suffer from increasing transportation costs, because their interaction with the markets is more dependent on transportation than that of more central regions.

Regarding ICT policies the study is able to demonstrate that within the two typologies of regions (objective 1 regions, advanced regions), different reactions to a specific ICT policy exist. Within non-lagging regions, some areas are able to take advantage from both indiscriminate and efficiency policies, while others react exclusively to efficiency policies; similarly, there are lagging regions that react dynamically to cohesion policies, while others seem unable to react.

Among the policy recommendations two have to be mentioned. The first one is to stick to TEN and TINA plans despite their anti-cohesion effect on mezo level, but to stimulate the poorer regions for development of their secondary networks. The second one is that the lagging regions, rural regions and peripheral regions should be compensated for negative effects of pricing policies.

## II] Strategic reflection

### a. From a national point of view

In general, different comments agree that the trends described in the report correspond well to trends actually observed on the national level. These can be summarized as relatively small effect of transport policies on regional economic development, larger economic effects in the peripheral regions of Europe in relative terms but smaller in absolute terms, rise of polycentricity on the European level but decline on the national level, and pricing policies affecting more peripheral regions on the European level as well as the ones on the national level.

Most of the comments explicitly report the focus of infrastructural investments in the central regions on the national level or at least strongest effects of investments in those regions (ECP Denmark, Greece, Ireland and Slovenia). This coincides with the findings of the report that predict decrease of polycentricity and anti-cohesion effects of TEN/TINA projects on national level. However, ECP Netherlands points out that this does not hold true for the Netherlands, where a rise of polycentricity was observed on national level also due to (or despite of) the implementation of transport infrastructure projects.

Regarding challenges several comments point out an important finding of the project related to the previously described trend, showing that scale of observation matters a lot when talking about polycentricity and cohesion, and that the increase of both on one scale does not mean also the increase on another. Moreover, it may not be realistic to expect that key objectives such as polycentricity or territorial cohesion can be achieved on all scales at the same time (ECP Greece). While TEN and TINA projects should result in the rise of polycentricity on the European level, they would at the same time lead to a decrease on national level.

Another challenge mentioned (ECP Denmark, ECP Ireland) is the conflict between short-term and long-term objectives of transport policies. While short-term objectives stress the efficient use of infrastructure and therefore concentration of investments in congested central areas, the long-term objectives such as territorial cohesion and equity point in different direction. This conflict can only be resolved on the political level.

In relation to challenges ECP Netherlands points out that the impression is made in the report, that territorial cohesion translates into equity between regions. To make things clearer the concept of territorial cohesion should be made operational. It also stresses that in the Netherlands the focus in spatial economic policy has changed from removing regional disadvantages to the utilization of opportunities, so more attention should be paid to the diversity between regions. ECP Slovenia also stresses that terminology used in the project (e.g. "spatial equity" or "environmental sustainability") is sometimes not equivalent to the one used in ESDP, for instance, which might lead to misunderstandings.

ECP Netherlands makes some remarks also on the options proposed in the report. First, it stresses that the benefits of TEN policy are not sufficiently demonstrated as the report concludes that the effects of infrastructure investments on regional economic development are small. Second, it objects the conclusion in the report that especially new member states should be financially compensated for the development of secondary networks and for the negative effects of pricing policies, as due to the objective of liberalization it should be prevented that more money is reallocated between the different countries and regions within the EU (it has to be noted here that

the report uses mostly the term "peripheral regions" and not "new member states", as in fact most of the current peripheral regions are in the EU-15).

**b. From a general point of view**

*Focussing on policy recommendations by other TPG's: do you see common or contradicting points?*

As one of the policy recommendations in the report is to stick to TEN/TINA policy, most of the comments actually focus on the compliance of this policy with the policy recommendations from other TPGs, especially in the light of the findings of this project. Some comments (ECP Hungary, ECP Ireland) thus point out the possible conflict between the expected decrease of polycentricity on mezo level caused by the implementation of TEN/TINA projects on one hand and the recommendations by the 1.1.1 and 1.1.2 reports on the other. ECP Greece, that also stresses this contradiction, proposes a possibility that the objective of a more balanced spatial development can be achieved in different stages on different levels.

Several reports (ECP Belgium, ECP Greece, ECP Slovenia) also make the link with the project 1.3.2 dealing with natural heritage, which proposes development in corridors as a main policy recommendation. While ECP Belgium and ECP Greece indicate that not enough emphasis had been made on the negative effects of transport corridors and expected increase in the volume of traffic on natural heritage, ECP Slovenia stresses also that the corridors themselves do not coincide in both projects.

*Focussing on the ESDP: which policy recommendations correspond and which conflict with the ESDP's basic concepts?*

It can be said that in general all comments agree the report follows quite strictly the objectives set by the ESDP. Some of the comments (ECP Denmark, ECP Greece, ECP Hungary) also note that the report was quite successful highlighting the contradictions among different objectives of the ESDP, which is an important lesson to be learned from this report. Not all the objectives of the ESDP can be achieved at the same time and even the objective of a balanced spatial development alone cannot be achieved on all scales simultaneously.

## III] Methodological matters

**a. Do you consider the project scientifically well grounded?**

All the comments agree that the project is scientifically very well grounded. Through the use of scenario analysis and three different forecasting models, that is SASI model, CGEurope model and STIMA model, the project was able to demonstrate some important points regarding territorial aspects of EU transport policies. Regarding this ECP Slovenia considers that the TPG did a great job in connecting spatial modeling with ESPON context and particular spatial development issues like polycentricity or territorial cohesion. ECP Greece believes the models and techniques have proved to be sufficiently sensitive to policy input at different spatial and temporal scales but at the same time sufficiently robust in the face of serious but unavoidable data deficiencies. ECP Denmark regards the prospective part of the project as a projection of the

present state of knowledge and the present state of affairs into the future under different assumptions of implemented transport policies. Last but not least, ECP Ireland considers that the produced results are also intuitively plausible, and simultaneously challenging for the ESPON agenda.

Nevertheless, some of the comments bring forward also a few critical thoughts on the methodology used in the project. ECP Slovenia misses a methodological framework as an assessment tool that would knit together several of the existing assessment methods, since this was one of the expectations expressed in Terms of Reference. This kind of framework would offer an interpretative background that would use best the strengths and weaknesses of particular models. The models should be used as tools for understanding the driving forces of spatial development and their quantitative illustration instead as direct forecasts. Although this kind of framework is added in the last part of the project, that is conclusions and recommendations, that assesses the results of the models, ECP Slovenia believes that it should be the basis of the analytical part.

ECP Belgium also makes a few remarks on the methodology. The first one is that the report should include a critique of the used models, so that it would be recognizable to what extent should the results should be considered accurate. The second remark notes that it is not clear, weather the models include the possibility of modal shifts when evaluating the pricing scenarios, e.g. the modal shift toward rail or inland water when road prices increase.

**b. Do you consider the relation between scientific results and policy recommendations strong enough?**

There is no consensus among the comments regarding the relation between scientific results and policy recommendations. ECP Netherlands considers that scientific results don't give sufficient base for the policy recommendations in the report. According to this comment the benefits and necessity of the TEN-policy are not sufficiently demonstrated as the report concludes that the regional economic effects of investments in infrastructure are small compared to effects of socio-economic and technological developments. Besides, ECP Netherlands considers the conclusion that especially the new member states should be financially compensated for the development of secondary networks and for the negative effects of pricing policies without basis in the scientific results of the project.

On the other extreme ECP Slovenia believes that the project is quite strict avoiding conclusions that do not stem from the results of the analysis. Several other comments (ECP Greece, ECP Belgium, ECP Hungary, ECP Ireland) also express positive attitude regarding the relation between scientific results and policy recommendations in the report, although ECP Ireland would in some instances prefer the policy implications set out more starkly.

Probably related to this last comment is also the opinion of ECP Denmark that there are no actual policy recommendations in the project.

**c. Are the chosen core indicators and the measurements simple enough to be covered by other research teams in different areas (Nuts 2, or Nuts 3)?**

Although one comment (ECP Denmark) points out that the data input and calculations are generally not simple, most comments (ECP Greece, ECP Slovenia, ECP Hungary, ECP Ireland) regard the chosen indicators simple enough to be covered by other TPGs as well.

Two of the comments (ECP Slovenia, ECP Ireland) note that caution will be required in moving beyond the context of the models, and also in handling the technical statistical issues related to scale mixing (ECP Ireland).

**d. Focussing on the scale of analysis: did the scale of some data and indicators show to be misleading?**

Most of the results are presented at NUTS3 level which most comments consider satisfactory for European level analyses. Two of the comments though (ECP Belgium, ECP Greece) express their doubts regarding the time scale of analysis. ECP Greece considers that long term forecasts should be dealt with in the context of the scenarios project 3.2.

ECP Hungary notes that the scale of the analysis might be responsible for too general conclusions of the project, although ECP Slovenia considers that otherwise the scale issue is well tackled in the conclusions.

## IV] Programming of further research

Only ECP Netherlands considers that no further research is necessary as the scientific results give sufficient basis for a political discussion on the possible policy implications. All other comments believe that there is still a lot to be investigated within the topic.

ECP Denmark considers that the effect of infrastructure on territorial cohesion remains a challenge for further investigation. ECP Greece agrees on that as well but proposes to step one level down in scale and focus on macro-regions, as the findings of the project show that achieving balanced spatial development on all scales simultaneously could be very difficult. ECP Ireland goes even further in that direction and proposes to undertake a kind of research similar to this project at the level of regions or member states, as most investment decisions about transport infrastructure are still decided upon by national governments. This would provide answers to the key questions addressed in this project but at a level much closer to the arena within which most policy makers operate. It would facilitate efforts to reconcile where possible the competing objectives in national spatial strategies, and identify the need for a revision of policy objectives when complementarity cannot be achieved.

ECP Slovenia believes that a truly integrated general assessment tool regarding territorial effects of transport policies still remains a challenge. This kind of tool would start with spatial development issues like the distribution of certain hotspots in the territory etc. or policy options like polycentricity and then make use of different models according to the needs. It should be at least partly independent from particular models in order to be able to make use of the latest knowledge in this fast developing field.

ECP Hungary points in another important direction and considers that further research would be necessary to critically analyze the actual TEN and especially TINA policies with the aim of the improvement of the spatial pattern of the proposed network.

# 7. Synthesis of comments on the final report ESPON 2.1.2, "The Territorial Impact of EU Research and Development Policies"

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*Authors of the comments*:

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|---|---|
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# I. Report Summary

The final report of ESPON project 2.1.2 is subdivided into Part 1 Summary; Part 2 Results of the project and Part 3 Annexes. The objectives of the project were:

- To develop a 'typology' of regions, in terms of their capacity to undertake R&D
- To assess the spatial distribution of R&D policy interventions
- To assess the impact that these interventions are having on regional development - in particular, to what extent such interventions are supporting the 'catch-up', or convergence, of Less Favoured Regions.

In order to address these objectives, the research team lead by ECOTEC Research and Consulting Ltd have:

- Provided an overview of the R&D and innovation capacity in the regions of the EU 27+2 on the basis of a range of indicators for which data were collated,
- Developed regional typologies to assist future analyses of the R&D and innovation data,
- Analysed the distribution and territorial effects of EU R&D policies and related activities supported by the Structural Funds,
- Devised and applied a methodology for a territorial impact of R&D policy, and related activities supported by the Structural Funds,
- Identified policy conclusions and recommendations.

The context for the study is encapsulated by the Lisbon Agenda goal of creating a European Research Area (ERA) and the subsequent Barcelona objective of increasing investment in R & D in the EU to 3% of GDP by 2010.

The potential links between R & D, innovation and economic development have important implications for the spatial development of the European territory. Section 6 of the main report examines disparities in the R & D capacity of the EU-27 on the basis of a set of chosen indicators. The results of this analysis show that

- research, innovation and high technology 'hotspots' tend to be concentrated in core areas of North West Europe and Scandinavia.
- There are extensive areas in Southern, Central and Eastern Europe where R&D and innovation levels are low, with the exception of some of the capital city regions.
- Many new member and accession states perform strongly in terms of human capital, which is regarded as an important component of innovation systems.
- There is some tentative evidence of regional 'catch-up' in that growth rates in lower performing regions tend to be higher, (however the plateau effect has to be taken into account).

The research for this project confirms a positive relationship between GDP, levels of tertiary education and employment in high tech manufacturing and R&D expenditure. In the case of FP participation, a negative relationship was found between participation rates and levels of high tech manufacturing employment. This result may reflect the reality that high tech manufacturing in a given territory does not necessarily require a local presence of R&D capacity.

While these results shed some light on which types of region are more likely to engage in R&D, they tell us little about the mechanisms that affect R&D activity. This reflects the explanatory limitations of the quantitative data available (particularly at regional level) and highlights the importance of the qualitative aspects of this study. By combining the regional data that was available, however, it was possible to construct typologies of regions, according to their R&D and innovation "profile". This gives a more complete picture of regional disparities (by combining indicators rather than viewing them in isolation) and provides a sound basis for further research into the policy implications.

While two different approaches were used, giving somewhat different results, there were enough common features to allow regions to be assigned to one of five types:

- Type 5 exceptionally strong system of R&D and innovation
- Type 4 strong system of R&D and innovation
- Type 3 mixed fortunes in undertaking R&D and innovation
- Type 2 average strengths in R&D and innovation
- Type 1 weak at undertaking R&D and innovation

With 13 regions each, Types 5 and 4 contain the least number of EU regions (just 8%). These are located in Germany, Finland, France, the Netherlands and the UK. The long 'tail' of poorly performing regions in the context of R&D and innovation activity is clearly evident in this analysis. Most regions are found in Type 1 (32%) closely followed by Type 3. Most member states have at least one region in each of these categories. The weak positions of Greek and Portuguese regions is clearly evident, as is the position of Austrian regions. In this case it is the position of Vienna that is ambiguous as it is performing well on some counts, but less well on others.

**The territorial effects of EU R&D Policy**

Having attempted to establish a baseline in terms of regional performance in R&D and innovation, the next task was to overlay the effects of EU R&D policy interventions to

- Examine the distribution of R&D policy interventions, to assess "what is happening where" and
- Assess the impact these interventions on regional development *per s*e, with a particular focus on the situation in Less Favoured Regions.

Framework Programme participation is dispersed across the European territory, with project participants under the 4th and 5th Framework Programmes in all areas of the EU- 27 +2. This analysis shows a relatively strong 'cross' of regions focused on the north of Italy extending north-south from the Benelux countries to Rome and east-west from Slovenia through to north east Spain. There are also strong 'islands' of activity in the Iberian peninsular; north west France and central Europe. Although Ireland, the UK, Sweden and Finland demonstrate general strengths, in the case of the UK and Sweden, pockets of weak participation can be identified. In FP5 rates of participation in Eastern Europe were generally low, reflecting their status as third country participants in the Programmes at the time.

The analysis of regional participation in the Framework Programmes in relation to GDP suggests a significant correlation between participation rates and levels of GDP per capita. Regions in the lowest quartile based on the level of GDP per capita tend to have the lowest levels of participation in the Framework Programmes. Between FP4 and FP5, there is, nevertheless, some evidence that participation by organisations in Less Favoured Regions is increasing.

# II Strategic Reflection

### a. From a national point of view

Each of the ECPs that provided comments are pleased with the extent and depth of the analyses undertaken for this project. The findings in relation to the very favourable positions of Finland and Denmark are given further interpretation by the commentators. In Denmark there is a strong national system of innovation which is supported by well nurtured linkages between higher education institutions and private sector businesses. The role of organisational innovations in developing the absorptive capacities of innovative firms is identified as a key influence on the level of R& D and innovation in Denmark. However, the commentator claims that there is a need for even stronger links between public research institutions and private companies especially in relation to technology transfer and dissemination of new knowledge. Similarly, in Finland there is much emphasis on the role of structural factors, including social capital, and especially the crucial role of R&D in maintaining and developing high-end quality products in all areas of production in order to sustain economic growth and competitiveness. An important point made by the Finland ECP relates to the challenge of finding measures that are effective but do not lead to an erosion of the existing relations of trust and / or a loss of social capital.

The UK ECP is in broad agreement with the observations about the UK in the report. The national system of innovation in the UK is heavily biased towards the higher education-basic research interrelationship, and weak on technological innovation-absorptive capacity. Since UK universities are widely distributed at NUTS 3 level, it means that on some measures the system of innovation is relatively decentralised. In contrast the project found that Northern Ireland and Yorkshire and Humberside score poorly by European standards on measures of business expenditure on R&D in 1999, though much of the rest of England comes out well, and Northern Ireland had a strong growth rate. Inner London is one of Europe's leading regions on the indicator Human Resources in Science and Technology. Rural regions of Wales, Scotland and Northern Ireland tend to score badly on a range of R&D activity indicators. In the typology Northern Ireland is in the category "weak at undertaking R&D and innovation", while Scotland and Wales do not fare much better.

The ECP agrees that better co-ordination between Structural Funds and the Framework Programme is desirable, and the work cited in the study showing how in Wales universities and public research institutes have benefited from supply-side oriented SF investments, but are now putting more emphasis on networking in the region around them points a way ahead. Nevertheless the ECP cautions that, as the report points out, key R&D investment remains within

firms, innovation is itself uncertain, intangibles like trust and reciprocity matter and there is research evidence that much new knowledge is sourced internationally rather than locally.

While the data presented in relation to Slovenia portrays an above average performance on many key indicators the ECP has noted that on a number of criteria the situation is far from satisfactory especially in relation to the challenges presented by the Lisbon agenda. The ECP authors point to the lack of a national innovation system with a broad developmental perspective, and also to fragmented and weakly coordinated administrative, legal and financial support systems. Consequently, they contend that there is an inefficient exploitation of the potential that could be derived from improved communication among local enterprises on the one hand, and, on the other hand, better relationships between enterprises and higher education and research institutes plus development agencies and policy making public officials.

The Belgian ECP notes that Belgian regional development plans contain hardly any specific targeted attention to the development of R&D which was also the situation in Ireland until the late 1990s. The comments from Hungary point to several major challenges, most notably the concentration in the capital cities of whatever R&D activity that is currently underway, and secondly the low contribution of the private sector which it suggests may be due to the dominance of multinationals with management headquarters and R&D centres outside Hungary. This situation is apparently repeated in other countries of Eastern Europe. Related to these structural weaknesses is a brain drain effect which has major long term implications. There is also a need for strong policy measures to foster innovation and locally financed R&D in order to stimulate local and regional development.

Ireland is in transition from the type of scenario described for Hungary to one that has ambitions to emulate the practice in Scandinavia and other highly competitive economies. The evidence presented for Ireland is very partial. There are indicators of high participation in the Framework programmes, but there are hardly any data presented at NUTS 2 or NUTS 3 levels which is a serious omission as some key indicator data does in fact exist. The relatively high level of participation in the framework programmes is in part a reflection of the enthusiasm and capabilities of the scientific research community in Ireland. However, for most of the period covered a more plausible explanation is probably the very low level of public funding provided by the government to support research in the higher education institutions. This situation has been significantly altered over the past five years or so. The National Development Plan 2000-2006, which included the proposal to prepare a National Spatial Strategy, also included provision for very significant investment in the development of research programmes in targeted areas in order to support the overall goal of developing and maintaining a knowledge- based approach to economic competitiveness. A key feature of the strategy is to build critical masses of world class researchers in a relatively small number of areas. A vital part of this strategy is a vigorous effort to recruit world class research leaders from all parts of the world. Some aspects of this strategy are now being considered by the European Commission as a model for other countries.

Finally, it is necessary to note some reservations about this report. They concern data gaps (ECPs Denmark, UK and Ireland), insufficient reference to sources of variations within countries (ECPs Belgium and Finland) and the fact that very few novel findings have been produced (ECPs Finland and Ireland).

**b. From a general point of view**

*Focussing on policy recommendations by other TPG's do you see common or contradicting points?*

Comments on this question have only been provided by the ECPs for Finland, UK, Hungary, Slovenia and Ireland. All are agreed that the conclusions and recommendations of this project are in line with those of other TPGs, especially those of Project 111. There is a shared view on the need for better coordination of R&D policies and Structural Funds and on the need for building critical mass in order to support the overarching goal of a leading knowledge based global economy. Reconciling the territorial dimension of this goal with the ESDP goals can be best achieved by fostering stronger research networks organised in accordance with the principles underlying polycentricity at each geographical scale. In regions with relatively weak research infrastructures, in terms of human, physical and capital resources, much can be gained from actively promoting inter-institutional collaboration. Finland ECP strongly emphasises the role of co-operation as a key component of support systems for the network society, while the UK notes the importance of national policies.

*Focussing on the ESDP; which policy recommendations correspond and which conflict with the ESDP's basic concepts?*

There is a consensus that the policy recommendations are in accordance with the ESDP objectives. A significant contribution that this report makes is that it provides evidence to support a more territorially focussed approach to the implementation of R&D policies (e.g. via regional networks). Otherwise, there is an ongoing risk of further divergence between the very strong and weaker regions.

## III. Methodological matters

**a. Do you consider the project scientifically well grounded?**

In general the responding ECPs consider the project to be scientifically well grounded. The report is very careful to qualify findings and to set indicators and data in the context of more qualitative and theoretical work, even if this means attaching less weight to the indicators than is the norm in ESPON (ECP UK). The overall positive response applies especially to the methodologies and indicators used (ECPs Finland, Slovenia, Ireland, Hungary and Denmark) though there are some reservations about omissions related to unavailability of data (which is contested by ECPs Denmark, Ireland, Belgium) and insufficient analysis at the meso scale (Denmark) and of the situation in Eastern Europe (ECP Slovenia). The efforts to develop a TIA methodology are applauded by ECPs Slovenia, UK and Ireland.

**b. Do you consider the relation between scientific results and policy recommendations strong enough?**

There is broad agreement that the recommendations are related well to the scientific results.

**c. Are the chosen core indicators and the measurements simple enough to be covered by other research teams in different areas (NUTS 2 or NUTS 3)?**

There are mixed responses to this question. ECPs for Slovenia and Hungary are satisfied with the present indicators. Finland, Denmark and Ireland are concerned about the availability and possible appropriateness of the indicators at levels below NUTS 0. Finland and Ireland are of the view that more complex indicators may be required for future analyses. This view is shared by the UK ECP.

**d. Focussing on the scale of analysis: did the scale of some data and indicators show to be misleading?**

There is a widely shared view that data at NUTS 2 level are not sufficiently detailed to provide insights into the processes that are important for this project (ECPs Slovenia, Finland, Ireland, UK, Belgium). In particular it is necessary to recognise that the emphasis on institutional factors and regional innovation systems is unlikely to be captured by data at NUTS2 and even NUTS 3 level. The problem is not just the scale of analysis but its presumptions about the pre-eminence of indicators, quantitative analysis and mapping to understanding the spatial aspects of innovation (ECP UK). Tracing the territorial impact of R&D requires more sophisticated modelling where greater use can be made of case studies using locally geo- coded data. There is a need for more detailed databases as in the case of many other ESPON indicators.

## 1V. Programming of further research

More attention should be given to given to transnational meso- level analyses (ECPs Denmark, UK and Ireland), national evaluations of R&D programmes (Finland, Slovenia and Ireland), better statistical databases, including especially Eastern Europe (Finland, Hungary), further monitoring across all countries (ECP Hungary) and more in-depth literature reviews to take account of critical appraisals of key concepts, processes (especially those of the 'softer' variety), methodologies, along with well grounded in-depth and contextualised empirical analyses (ECP Ireland and UK).

Given the importance of competitiveness and innovation, future ESPON projects need to build on the work done in this project and in several others. There is a need to gain a better understanding of the spatial aspects of knowledge networks at all scales and develop robust concepts that can be understood and applied by practitioners. Of course most R&D is not EU funded and some more in-depth comparative work would be valuable – comparing EU with USA and East Asia and also making comparisons at national and regional level within the ESPON territory (ECP UK).

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# 8. Synthesis of comments on the final report ESPON 2.1.3, "The Territorial Impact of CAP and Rural Development Policy"

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*Authors of the comments:*

| ECP | Experts |
|---|---|
| Belgium | Pierre Cornut, from IGEAT-ULB<br>Sarah Luyten, from KULeuven |
| Denmark | Erling Andersen, from Danish Centre for Forest, Landscape and Planning |
| Finland | Hilkka Vihinen, from MTT Agrifood Research Finland, Economic Research |
| France | Hélène Delorme, from CERI (Sciences Po) |
| Hungary | Elisabeth Vajdovich Visy, from VÁTI |
| Netherlands | Dineke van Zvieten, from Ministry of Agriculture, Nature and Food Quality |
| Norway | Olaf Foss, from NIBR<br>Dag Juvkam, from NIBR |

## I] Brief presentation of the report

The final report of the ESPON project 2.1.3 examines the territorial impacts of the EU's Common Agricultural Policy (CAP) and Rural Development Policy (RDP). The principal aim is to evaluate whether these policies contribute to the goals and concepts of European spatial development policies. The specific research objectives were defined in the following way:

- Build up a method for the analysis of the territorial impacts of the CAP and RDP.
- Establish a set of indicators, typologies and concepts to implement the territorial impact assessment (TIA) method.
- Create a structured presentation of the CAP and its potentially differential impact across the EU, and apply the TIA method to show the impact of the CAP on spatial development.
- Examine the relationship between the CAP and national agriculture/land use-related policies and best examples of implementation.
- Recommend further policy developments for the CAP from the viewpoints of the ESDP.

The answers to these research questions are derived from a statistical analysis of indicators and data on the NUTS3 level over the period 1990 to 2000. This quantitative approach is complemented by a comprehensive review of relevant literature. Moreover, the spatial impacts of the CAP are analysed in more detail through a number a case studies, and by evaluating the estimated impacts of the latest reforms of the CAP.

The report is set up in ten chapters, divided into three parts and totalling 381 pages with annexes. After the Executive Summary (Ch.1), the brief introduction of the project and its methodology are presented (Chs. 2 and 3). The analysis and findings are reported in the following five chapters (Chs. 4.-8.). The scientific conclusions and policy recommendations are presented in Chapter 9 and the final chapter is devoted to the issues of further research.

The key conclusion from the project is that in aggregate terms the CAP does not promote the ESDP objectives of balanced development or cohesion. The analyses also show that the proposed reforms of the CAP will not change the existing, "uneven" spatial pattern. The distribution of the so-called Pillar 1 support of the CAP (market price support and direct income payments) is found to be most inconsistent with the economic and social cohesion objectives, i.e. the Pillar 1 support seems to be systematically and significantly higher in more accessible and prosperous areas, and lower in more peripheral areas at all spatial scales. In contrast, the territorial impacts of the Pillar 2 (including the LFA scheme, agri-environmental schemes and rural development measures) are found to be more dispersed and also – at least to some extent – more consistent with the cohesion objectives of the EU. Particularly, the LEADER-type measures are found to have considerable positive impacts on the development of rural regions, although their budget is small compared to other rural development instruments considered.

If the policy aim is territorial cohesion, the report clearly recommends an increase in the Pillar 2 budget, and, more specifically, a larger spending on the LEADER-type measures. The report also points out the need of an institutional reform and the importance of an integrated, cross-sectoral approach in order to decrease overall Pillar 1 market price support for agriculture in the long run, and thus, allowing an increase of resources supporting the sustainable rural community development beyond the agricultural sector.

## II] Strategic reflection

### a. From a national point of view

Clearly, the reflections on this first topic comprise a diverse mix of reactions and opinions. This comes as no surprise due to the fact that the commentators come from different scholarly and institutional backgrounds, the topic is politically sensitive and a "national point of view" can be interpreted in different ways. Overall, both scientific and political perspectives into the CAP seem to be widely, while not uniformly, represented among the received seven comments. The commentators do not explicitly discuss on what they understand as scientific, national or political views.

Most comments (for example, DEN, HU and FIN) take a prudent but positive position on the primary policy proposal of the report – shifting resources from the Pillar 1 to the Pillar 2. Also the Belgian commentators are open for reform but remain sceptic about the predicted benefits for their farmer's incomes. A somewhat similar attitude prevails concerning the second key recommendation – to differentiate the supports by territories. According to the Danish comments, for example, the territorial aspects of the agricultural policies form a topic of increased importance currently in Denmark. On the other hand, the Dutch commentator notes that the Pillar 1 is neither targeted at the cohesion purposes at all, nor is Dutch government willing "to make differences between the regions" in the future. The commentators also point out a number of practical difficulties and national specificities associated with the policy proposals of the project. These remarks concern, for example, transition periods needed for reforms (DEN), misleading and missing interpretations of the current nationally financed support (FIN), and defects in the analysis of the so-called peri-urban regions (NL).

### b. From a general point of view

*Focussing on policy recommendations by other TPG's: do you see common or contradicting points?*

Only four out of the seven comments include views on this issue. The lack of interest is perhaps due to the fact that some commentators come outside the (broadly defined) ESPON community; the results of the ESPON TPG's are not necessarily familiar to them.

The views are very general in nature. The Norwegian comment remarks that while the findings show the CAP working against cohesion, the policy proposals seem to support the recommendations from the other ESPON projects. Overall, the report's findings and recommendations are seen complementary to the ESPON studies 1.3.2 (HUN), 1.1.2. (FIN, HUN), and 1.1.1 (HUN). In particular, the Hungarian commentator sees the results reinforcing the conclusion that the most prosperous regions are gaining more from European policies than less prosperous ones. The comment from Belgium is basically in line with this view, but calls for a deeper discussion of the consistency/inconsistency of the results from these three studies (i.e. 1.1.1, 1.1.2, and 2.1.3). The Finnish commentator also points out that the recommendations are rather "urban centred", and therefore may appear irrelevant for the less densely populated parts of Europe.

*Focussing on the ESDP: which policy recommendations correspond and which conflict with the ESDP's basic concepts?*

The relationship between the policy proposals and ESDP objectives is explicitly mentioned in six comments. Without an exception, the commentators consider the recommendations to be in line with the key concepts of ESDP. In the detailed remarks, it is referred to the wise management of natural resources (HUN), competitiveness of territories (FRA), polycentricity (FRA), and cohesion (FIN). The Danish comment sums up this close and complementary relationship: "…the recommendations therefore provide a useful way forward to improve the EU-level framework for the integration of ESDP objectives into the CAP", qualified with the remark "...the final outcome … depends on the Member State implementation of the EU-level framework." The Danish comment concludes that the proposals stressing the importance of multi-level governance could be the most influential way for incorporating these ESDP objectives into the CAP in practice.

## III] Methodological matters

### a. Do you consider the project scientifically well grounded?

In the main, the views on the scientific achievements and the methods are positive. The study is considered to represent a good scientific practice, applying the proper research methodologies in an appropriate and qualified way (see, for example, the comments from HUN and NL). The comments do not indicate any specific chapter or part of the study that would particularly suffer from a poor quality or would need a "scientific revision".

As typical in ESPON-studies, the project reports to have suffered from data problems. Specific difficulties concerned the disaggregation of agricultural supports to the NUTS3 level, but the research team seems to have found innovative solutions to this problem. They are given attention in the Danish comment, which calls for a clearer description the disaggregation, and what methods were used. The data problem is pointed out also in the French and Norwegian comments, and the Finnish commentator concludes that due to the limitations with data, the results "should be treated more indicative than as absolute measurements". With respect to the quality of the study, the French comment includes several doubts, concluding that "…the study looks too narrowed in terms of disciplinary approach and scope by farming economy. So its assessments …remains always qualitative, inferred from literature and therefore little convincing".

### b. Do you consider the relation between scientific results and policy recommendations strong enough?

The policy recommendations of the study remain fairly general in nature, which implies a need to specify how they could be applied in practice. This seems the basic limitation of the so-called three-level approach, in which the proposals should be derived from, or at least linked with, the analytical results to fit in with all three spatial scales (macro-meso-micro). Taking into account this restriction, the tone of the comments is that the report represents a good ESPON standard: policy proposals are traced from scientific findings.

The Dutch comment reminds of that the Pillar 2 support is linked with the structural funds, the instruments of which vary across the countries and regions. This linkage, however, is not taken into account in the analysis, and therefore, the regional comparisons may be misleading. The French and Dutch commentators, in turn, pay attention to the effectiveness of the CAP and RDP measures, noticing that territorial impacts of, for example, LEADER-type measures, are not clearly demonstrated. Concerning this critical point, the French comment refers to the desk study aspects of the project: "…no criterion is proposed for the assessment neither (1) of LEADER concrete impacts, nor (2) of its ability to integrate rural, agricultural and territorial development, the later being postulated but not proven."

The critics point out that RDP measures, and particularly the LEADER initiative, are rated high with respect to their rural and regional development potential, while this statement is based on literature review with only weak, if any, empirical evidence. The Danish commentators support this line of reasoning by distinguishing the case studies from the other analyses. They note that only the recommendations based on the latter approach represent "a clear connection between the presented results and the recommendations", and it is not possible to judge the link to the proposals from the case studies.

**c. Are the chosen core indicators and the measurements simple enough to be covered by other research teams in different areas (Nuts 2, or Nuts 3)?**

As noted in the Norwegian comment, most of the core indicators of the project have been formulated for this application, aiming at answering to TPG's specific research questions. Therefore they are not, to any major extent, necessarily relevant for the other ESPON transnational research groups.

The Danish comment, however, draws attention to the fact that in some cases, the relevance of dataset is unnecessarily weakened by using the Agricultural Work Units (AWU) as a scaling factor in the analysis of the distribution of supports. The comment also suggests that the use of AWU may even explain some of the key results: the policy implication concerning the Pillar 1 support – and particularly the observed difference between the North and South – could be different if the distribution of the supports would be related to, for example, the farm income or the agricultural area.

**d. Focussing on the scale of analysis: did the scale of some data and indicators show to be misleading?**

Overall, the comments for the data focus more on the availability and quality issues than on the proper scale. The French and Dutch commentators, for example, see the data gaps as a key problem, and strongly agree with the TPG's proposal for an improvement of the European-wide statistical databases on agriculture.

The Finnish comment refers to the NUTS2/3 controversy, seeing the NUTS3 level as an appropriate level of the analysis of the CAP. The Danish comment agrees this view in general, but raises the issues concerning the NUTS3 scale in the case of the market price component of the Pillar 1. According to the Finnish comment, however, the dataset in this particular study should have included more indicators in order to give a more complete and correct picture of the topic. The commentator illustrates the difficulties associated with the data set including only a

few indicators by an example from the cluster analysis of the report: most Finnish regions are classified as “Core Farming Regions”, while only the features of “lower than average number of hotels, and farmers over 65 years” may have something to do with the characteristics of these regions.

## IV] Programming of further research

There seems to be a consensus in this commenting community that the TPG 2.1.3 has answered the questions addressed in the research plan and the associated tender documents. In addition, it can be concluded from the comments that the results are seen to give rise to new research themes. While it can be agreed with the Norwegian commentators that the TPG’s own recommendations for future research are of most interest, and should be given a priority, there are also a number on relevant other suggestions. The following list covers this wide spectrum:

- Update of the ESPON 2.1.3 study for the entire ESPON space; analysing impacts of European policy changes (HUN), evaluating the most recent CAP reform (BEL, FIN), including scenarios (NOR), focusing on explanations behind the uneven territorial impacts of agricultural policies (DEN), and explicitly linked to recommendations concerning territorial assessments as set down by ESPON project 3.1 (NOR)
- Thematic ESPON study on agriculture (NOR)
- Study on territorial impacts of decoupling; including viewpoints on farming households adjustments strategies (NL, FRA), and farming production structures against decoupling (FRA)
- Study on agro-industrial industries; how policies and quality regulations contribute to territorial balances (FRA), and what are the territorial implications of the food supply chain (NL)
- Study on small and medium size cities in rural areas (HUN); local labour market problems (NL), migration (FRA), and future prospects (NL)
- Analysis on how the territorial data on agriculture can be improved, and how policy tools can be developed in order to monitor the territorial impacts of agricultural policies and to incorporate the territorial objectives into these measures (DEN, FIN)
- Study on how the results of ESPON 2.1.3 and ESPON programme in general can be used as inputs for new projects (DEN)

# 9. Synthesis of comments on the final report ESPON 2.2.3, "Territorial Effects of the Structural Funds in Urban Areas

*Author of the synthesis*: Mrs. Elisabeth Vajdovich Visy, VÁTI Budapest (ECP Hungary)

*Authors of the comments*:

| ECP | Expert |
|---|---|
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| Denmark | John Jørgensen, The Nordic Centre for Spatial Development |
| France | Guillaume Lesecq, UMR Géographie-Cités, Paris |
| Hungary | Elisabeth Vajdovich Visy VÁTI |
| Netherlands | Jan Goedman, VROM |
| Slovenia | Franc Lenarčič Ministry of Environment and Spatial Planning |

## I. Brief presentation of the report

The urban issue came to the forefront of European thinking recently. The task of ESPON project 2.2.3 was to assess the impact of Structural Funds on urban areas. The definition of the task outlined in the Terms of Reference is justified by the leading role of cities as motors of development as well as concentrations of both wealth and poverty, of growth and decline. The Structural Funds are likely to exert important influence on urban areas in the eligible regions, and this research was expected to assess the magnitude, type and quality of this influence. The objectives set in the Terms of Reference are very ambitious. The TPG is expected to undertake a detailed, thorough analysis of urban areas at different scales and of the positive and negative trends, outcome of Structural Fund programmes. Furthermore, similarly to other ESPON projects, recommendations are expected for policy development in support of territorial cohesion as well as for institutional, instrumental and procedural aspects

As a matter of fact, the Final Report of this project is particularly difficult to comment, as the research project remained unfinished, the Transnational Project Group decided to give a halt before the deadline. The reason is the lack of appropriate, consistent, comparable data on European urban areas. Indeed, some data are available both for Functional Urban Areas (provided by project 1.1.1) and for Structural Fund spending (collected, with great effort, by the TPG of the 2.2.3 project) but there is a lack of correspondence between the two sets of data. In Europe the overwhelming majority of cities or urban areas are formed of a combination of areas represented by NUTS 4 and NUTS 5 units, whereas the Structural Funds are allocated to NUTS 2 or NUTS 3 regions. Because of this conflict no meaningful and uniform statistical assessment could be made for the territory of 29 European countries.

Nevertheless, the TPG has taken great effort to carry out the research project and has achieved useful results. In data collection a three stage approach was adopted: collection of indicators that were comparable across to whole territory of 29 countries at NUTS2 and NUTS3 level, collection of data from national statistics for a sample of 800 urban areas and in-depth analysis of the sample of 28 urban areas. Partly on the basis of empirical analysis, and partly on the basis of earlier research, the Final Report presents typical urban trends and issues resulting from or associated with these trends. Conclusion is also made that the success of cities appears to depend on their ability to meet the need of society and business. The chief factors influencing urban development are listed as the skills base of local population, accessibility of the urban area, existing economic base, attractiveness (to business, tourist etc) and the overall size.

As for the relation of Structural Funds and urban development it is estimated that over half of SF spending went to Functional Urban Areas of local or regional importance (as classified by project 1.1.1), 20 % to FUA's of national importance, 10 % to areas of transnational, European importance and 15 % to areas not defined as functional urban area. The Structural Fund programs in Objective1, Objective 2 and Objective 3 regions are tailored according the specifications of the regional programs rather than the characteristics and need of the urban area concerned. Nevertheless, on the basis of the case studies a fair correspondence has been found between the EU and the national and local policy aims especially with regard to competitiveness, accessibility, improvement of the economic and social context and of the physical (built) environment.

The TPG analyzed the influence and outcome of the Urban programs, which, of course are much more closely related to the actual urban issues and needs, but because of budget limitations the projects are predominantly small-scale interventions.

The recommendations of the project are relevant. A set of recommendations relate to the strengthening of the urban focus of the Structural Funds (a recommendation supported by the three level empirical analysis), with special regard to the urban territorial goals of the ESDP and to the urban areas identified as key parts of the EU urban system. Another set of recommendations is of methodological nature and relates to the ex ante Territorial Impact Analysis and to the ex post assessment of the effects of Structural Funds in urban areas.In connection with this latter set of recommendations the need arises to improve data availability. It is recommended that TIA should consider territorial objectives which are relevant for urban development (strengthening the strategic role of gateway cities, improvement of the economic base, environment and servi9ce infrastructure etc.). It is also stressed that Structural Funds should be used to strengthen governance functions and links between urban areas, an issue hardly considered so far, yet important for the effective operation of the urban system.

## II. Strategic reflection

### a. From a national point of view

Five from the six ECP comments express national points of view.

ECP comment from Netherlands highlights the difference of the national from EU approach. On the EU level emphasis is on the economic and social indicators, whereas in the Netherlands the economic, the social and the physical are equally important pillars of urban renewal policy.

The comment from Denmark points out that the TIA approach is in tune with the monitoring and evaluating efforts of the Danish ministry.

The comments from Hungary and Slovenia underline the importance of urban development support in both countries.

The comments from Belgium and France argue that the report is too general, descriptive (the results are not robust enough – mentions the French comment) to be submitted to a strategic reflection.

### b. From a general point of view

*Focussing on policy recommendations by other TPG's: do you see common or contradicting point?*

The ECP commentators have not found any conflicting recommendations from the other TPG's.

The comment from Belgium refers to the need of link with project 1.1.2 (urban – rural)

*Focussing on the ESDP: which policy recommendations correspond and which conflict with the ESDP's basic concepts?*

The ECP comments agree that the policy recommendations correspond with the ESDP concepts.

The comment from the Netherlands points out that the urban issue, which is a core issue of ESDP has moved to the forefront of SF programmes only recently, and argues that there should be a better match and co-operation between the levels of understanding and intervention.

The comments from Denmark mentions the potential conflict ( between the spatial levels) of the implementation of polycentrism policy – as pointed out in project 1.1.1.

## III. Methodological matters

**a. Do you consider the project scientifically well grounded?**

The ECP comments differ in their view of the scientific grounds of this research.

The comments from Belgium, Denmark and the Netherlands are satisfied in this respect.

The comment from Denmark highlights the merit of assessing the correspondence of SF programs, urban initiatives and national urban policies.

Other comments, the ones from Hungary and Slovenia refer to the early finishing of research because of the data limitations. The comment from Slovenia argues that in spite of all the efforts the statistical analysis and the case studies so not provide satisfactory ground for the conclusions.

In the comment from France on methodological matters in general it is argued that the project was poorly defined at the outset and should not have been undertaken, and there is no link between the analysis of urban competitiveness and Structural Fund spending, as their relation is irrelevant..

**b. Do you consider the relation between scientific results and policy recommendations strong enough?**

The comments from Denmark, Hungary and the Netherlands see that the relation of the scientific results and the policy recommendations is generally satisfactory.

The comment from Slovenia sees it rather weak.

The comment from Belgium contains an interesting argument questioning the relevance of the policy recommendation saying that Structural funds should be determined partly on the ESPON 111 polycentric typology of urban areas. There is no consensus on the economic, social and environmental usefulness of polycentrism neither on the way to measure it, so ECP Belgium highlights the danger of basing a policy on such a contested scientific debate. They also highlighted that polycentric development on the EU level may lead to over investment in the peripheral areas while overlooking the urban problems in the Pentagon.

**c. Are the chosen core indicators and the measurements simple enough to be covered by other research teams in different areas (NUTS2 or NUTS3)?**

The comments from Belgium, Denmark, Hungary, Slovenia refer to the data limitations which the researchers had to confront.

The comment from Belgium (and also from France) point out the lack of maps in the Final Report.

The comment from the Netherlands agrees with the proposal in the report that urban and regional levels should be analysed selectively.

**d. Focussing on the scale of analysis: did the scale of some data and indicators show to be misleading?**

The comment from Denmark stresses the importance of NUTS 4 and NUTS 5 levels when analysing urban issues.

The comment from Slovenia points to the issue of the comparability of data at different scales.

From Belgium and Hungary no objection was raised.

The comment from the Netherlands highlights the difference between the local and the regional level in the Dutch approach. At the local (neighbourhood) level the social, whereas at the regional level the economic aspect is given greater emphasis.

## IV. Programming future research

The comment from Belgium calls attention to the impact of EU level policy of polycentric development upon internal urban areas. On the example of Brussels it is demonstrated that specialisation on international tertiary sector results deterioration of the employment and dwelling conditions of the urban poor.

The comment from Denmark proposes to carry further the important recommendation of the Final Report about TIA as both ex ante and ex post analysis at different scales. It also proposes, in agreement with the holistic approach recommended in the Final Report, to analyse the impact of EU policies other than Structural Funds.

The idea put forward by the comment from France is to analyse the urban areas from the point of view of their eligibility to Structural Funds.

The comment from Hungary proposes to elaborate more case studies on this subject, including the multiplier effect of EU policies.

The comment from the Netherlands argue that policy impact studies should take on board the difference between understanding (knowledge) and intervention (policy) and paths from one to the other: disciplines, discourses and doctrines.

The comment from Slovenia argues that the original aim of the project still remains a challenge, which is made difficult by the need for a comparable set of data for urban areas (and of a simple and consistent definition of the urban area) as well as the need for data on the proportion of SF amount spent in urban areas. Furthermore, the strengthening of ties among urban areas and between urban and rural areas aimed by polycentric policies brings forward the relational aspect, which is a particularly challenging aspect.

**In summary:**

All ECP comments highlight the limited availability of comparable data to analyse in a consistent way the European urban areas and the effects of Structural Funds. The issue of limited comparability of data on different levels is also generally raised.

The ECP comments are of the view that the analysis of a sample of urban areas and greater focus on case studies could have led to more satisfactory results.

The recommendations relating to Territorial Impact Analysis both as ex ante and ex post evaluation have been met with agreement and seen as an important contribution.

The importance of urban areas and of the holistic approach of their analysis has been emphasised in the comments and the continuation of relevant studies partly along the lines proposed by the project is strongly recommended.

# 10. Synthesis of comments on the final report ESPON 3.1, "Integrated Tools for European Spatial Development"

*Author of the synthesis*: Cliff Hague, from Heriot-Watt University (ECP United Kingdom)

*Authors of the comments:*

| ECP | Experts |
|---|---|
| Belgium | Pierre Cornut (IGEAT-ULB) and Sarah Luyten (KULeuven) |
| Hungary | Elisabeth Vajdovich Visy (VATI) |
| Netherlands | Nico van Ravesteyn, David Evers, Ed Dammers & Aldbert de Vries ( Netherlands Institute for Spatial Research); Dirk Schaap and Martijn Odijk (VROM) |
| Slovenia | Marko Peterlin and Metka Jug (Ministry of the Environment and Spatial Planning) |
| Sweden | Lisa Van Well (Swedish Institute of Growth Policy Studies) |
| UK | Cliff Hague (Heriot-Watt University) and Metka Jug |

## I] Brief presentation of the report

Project 3.1 was rather different than the other first round reports, which were either thematic studies or policy impact analyses. Instead 3.1 was cross-thematic and co-ordinating, and more than any other project it had the task of developing new tools and techniques. Similarly liaison with the other project teams was a more central part of the work for project 3.1 than for any of the other projects. Therefore the report of project 3.1 is something of a summary of what ESPON achieved in its first two years. As the Netherlands' comments remind us, this is the first time in history that relatively reliable quantitative analyses are being undertaken by a large, transnational network working to tight deadlines and with "low remuneration".

The report is divided into 3 Parts. Part A provides a summary and overview of the whole report. Indeed at a little over 100 pages it might usefully be seen as the report, not least because it goes into some detail about some of the tools that were developed, and has quite a substantial discussion of policy recommendations. Part B then is a summary of the reports of the other ESPON projects. These are presented one after the other without commentary. Part C contains more information and detail on the work of 3.1 and the various tools, and with appendices this takes the total length of the 3.1 report to over 1000 pages. The result is that the report will be used by people who want to check particular items – e.g. the Regional Classification of Europe (RCE) developed by the project, or the summary of one of the other ESPON final reports – rather than being read as a whole from beginning to end. It is more a working document within the "inner family" of ESPON than a means of disseminating ESPON to a wider audience.

The report demonstrates how much ESPON has achieved in a relatively short time. It describes the various Guidance Papers that 3.1 produced as it strove to get the numerous Transnational Project Groups to adopt similar (if not always common) approaches, and to see their research as one part of a shared endeavour of developing the technical infrastructure necessary to do systematic spatial analysis across 27 European countries. It presents new tools – e.g. the Regional Classification of Europe (RCE), the ESPON map kit, the "hypercube", the ESPON database, the ESPON web-based GIS, and the Hyperatlas. It provides some reflection on the welter of recommendations generated by the various ESPON reports.

The report of this project is a mine of information but it is not an easy read. Indeed the Dutch respondents said "it presents itself as an imposing, uninviting and unwieldy tome of esoteric knowledge." There is too much jargon and assumed prior knowledge, and the style of the language is off-putting, while graphics are not always clear and can be "needlessly complex". The same commentators noted that Part C explains the new tools and data, but these also need to be made available; "it seems unfair to whet the appetite but withhold the meal" they remark. The Slovenian response made a similar point: "it is difficult to assess these tools without using them". The Netherlands commentators described 3.1 as "one of the calling cards of the ESPON programme", and noted that the authors of the 3.1 report wrote that it would be used by persons coming to it from outside the audience already familiar with European spatial policies and ESPON. The Dutch ECP argued that for this reason a further effort should be made to edit the report and in particular to get beyond the "cut and paste" style, even if that involves additional expenditure, since with more time and resources much more could have been achieved.

## II] Strategic Reflection

### a. From a national point of view

As ECP comments recognised, this project was primarily concerned with the development and application of tools and techniques, and with synthesising other ESPON reports. Thus the report does not contain original results that invite comment from a national perspective in quite the same way as most of the other projects. The Dutch addressed this dilemma by arguing that the strategic reflection should focus on the *additional* trends and challenges in the process of making the overview. In particular, despite the material in the report, they say it is still difficult to distil specific courses of action that might be put into practice at a policy level. They cite an example of wording (in relation to transport policy) that is "conspicuously vague", and say that the words used do not make clear whether or not a change in transport policy is being proposed. Similarly the Belgian comments said that the report is not always clear about the scale at which the analysis was done, or at which the recommendations apply.

So many words, so many concepts, but is there enough clarity? The Swedes believe that national and regional policy makers need to be better informed of the use they could make of project 3.1's array of tools and of the conclusions from other TPGs. The response from Slovenia noted that even the concept of polycentricity, while very familiar, remains deeply ambiguous. It can be an analytical concept, a policy objective or a policy measure and is often a mix of all three. In similar vein the Slovenian commentators suggested that the hypercube "suffers from the typical spatial planning weakness: what is it?" – it might be an analytical tool, or an evaluation checklist, for example.

Despite these difficulties, the RCE in particular was seen as setting a useful context for thinking about national scale actions. The RCE combines the most important territorial indicators and produces a ranking of European regions. "It helps to place Hungary in an international, European context", as their ECP observed, and will be useful there for the elaboration of a new National Spatial Strategy. However, as the Slovenians noted, the analysis was at NUTS 2 level and the whole of Slovenia is one NUTS 2 region. Thus the results are useful to set Slovenia in a European context, but do not give insights to regional differences within Slovenia. The same limitation applies to other smaller countries within ESPON.

However, larger countries also raised some similar concerns. The RCE is seen as "not so useful for Sweden in a national spatial context since the results at NUTS 2 are quite obvious… and do not reflect important inter-regional discontinuities." The UK ECP makes the same point in more generalised terms, arguing that one feature of the synthesis in the project 3.1 report is that at times the focus on national level can mean that regional variations within the UK become understated. For example, on page 81 of Part A, it suggests that "No depopulation regions occur to high degree in…UK": while much depends on the interpretation of "high degree", depopulation is now a significant worry for policy-makers in Scotland. Similarly the Dutch feel that the ESPON database is more helpful for analysing Netherlands in a European context than for spatial policy making within the country.

The Swedish respondents also made explicit the very important point that the RCE is a snapshot, the European territory roughly in the year 2000, whereas an understanding of the dynamics of regional cohesion is really required. That means we need time series data over at least a 5-10 year period.

ECPs had some difficulties in deconstructing the assumptions and analysis that have underpinned the findings. The Slovenians argued that "since the (RCE) results are presented around themes (and not around single indicators) it is a bit unclear what a specific result actually means (what does 'outperforming' in 'spatial structure' mean?)." Choice of indicators was also questioned – "How do share of population living in Functional Urban Areas (not harmonized by different countries), change of a region's share of EU27+2 GDP, or accessibility by rail and road, weighted by population, contribute to the performance of 'spatial structure'? From a national point of view it seems strange that Slovenia, having one of the most polycentric urban systems in Europe (according to 1.1.1) performs only average in 'spatial structure'. Does this mean there is no connection between polycentricity and spatial structure?"

The disparity between the very high ranking of the Brussels region in GDP and its position as 18th in the compound indictors in the RCE was spotted and explained by the Belgian ECP team. They pointed out that the administrative boundary of the Brussels Capital Region does not represent the agglomeration and its commuter zone. High skilled workers produce a high GDP in Brussels, but live some distance away and their income is counted outside the Capital Region. Brussels actually has one of the highest income polarisations of any city in Europe, so is not performing well in terms of social cohesion.

Overall, the UK ECP felt that the report highlights a number of issues that are highly relevant from a national perspective. In particular, it emphasises the possible tensions between polycentricity at a European scale and at the national scale, and some of the detrimental regional effects of TEN-T projects. It also points up the understating of sustainable development concerns in many of the ESPON projects. All these considerations should be to be taken into account by member states.

**b. From a general point of view**

*Focussing on policy recommendations from other TPGs: do you see common or contradicting points?*

Again ECPs found this question rather hard to answer (in comparison with other reports) because of the nature of 3.1 as a summary of those reports, but also because (in the view of the Netherlands ECP, for example) the report focuses mainly on instruments and tools. The UK ECP summarised it as follows: "The report provides a commentary on the policy recommendations from the different reports. It highlights the implicit premises and assumptions that generated policy recommendations in other reports and explicitly only seeks to focus on the overall picture, not the detail of each report. Thus it emphasises the need to improve horizontal and vertical co-ordination of policy and to strengthen the spatial component and work on 'specific development potentials'. These are consistent with findings from reports and, while necessarily generalised, are still messages worth sending out from ESPON."

Nevertheless, the feeling of the ECPs is that ESPON has generated so much information that it should provide a strong platform for analysing and recommending policy. However, the report from project 3.1 does not manage to engage with the recommendations in that depth. In part the problem may be that not only are there many recommendations in the various other project reports, but they do not point to simple and unambiguous answers. The Swedish ECP noted that "policy combinations must sometimes be interpreted variously at different levels of application and for different territorial entities or territorial typologies." However, the view is that it would

have been good to highlight recommendations (especially in the sectoral areas) that are in conflict with each other. This could be a first step to identifying where the needs for spatial synergies are greatest. In particular the Slovenian respondents pointed to the fact that the reports between them encompass several different visions for transport infrastructure networks. In particular, the calls from project 1.3.2 for balanced development in corridors imply a spatial strategy that is significantly different from the more orthodox proposals in other reports supporting polycentric urban development patterns. There is scope for ESPON to focus on such important issues and to initiate an informed debate; maybe one of the future ESPON seminars could take more the form of a debate with real contrasting positions being tested.

*Focussing on the ESDP: which policy recommendations correspond and which conflict with the ESDP's basic concepts?*

As the UK contributed explained, the report contains a useful discussion of ESDP, noting for example how the very ambiguity of the concept of polycentric development made it appealing as a way of bridging between competitiveness and balanced development. However, "It is less strong in probing the ESDP idea of parity of access to infrastructure networks. Similarly the report recognises the increasing significance of territorial cohesion in the years since the ESDP was agreed, but is less strong on emphasising the Lisbon-Gothenburg agenda." Similarly the Swedish and Hungarian ECPs felt that insufficient attention had been given to ESDP recommendations on environmental matters, and so 3.1 had not really delivered the "ESDP's fundamentally holistic approach". Furthermore the Dutch noted that the environment is only defined by indicators of artificial surface, natural surface and agricultural intensity: and task what about indicators for air, water and noise pollution? However, the Swedish respondents recognised also that project 3.1 does reflect the recommendation that pricing polices could help achieve more sustainable transport, and this together with the weightings in the RCE does go some way to address environmental maters.

Overall the ECPs felt that the project 3.1 report can be said to be in correspondence with the ESDP recommendations but not to have gone as far as it might have done in shaping debate and research agendas around them. For example the Slovenian contributors argued that with the passage of time the ESDP should be treated more critically. Similarly the Swedes commented that too much uncritical faith is being invested in the idea of polycentric development.

## III] Methodological matters

### a. Do you consider the project scientifically well grounded?

The view of the ECPs was that the report was well grounded in quantitative analysis. However the Slovenian ECP stressed that spatial analysis also requires use of qualitative methods. Similarly, the UK ECP felt that the report could be rooted more strongly in the academic literature on policy analysis, and that some stronger conclusions might have been drawn. For example, "the diversity of approaches to doing territorial impact analysis is noted but no real conclusion is drawn about their strengths and weaknesses."

The Belgian ECPs also feel that the report too often uses concepts without subjecting them to critical academic scrutiny. They cite the example of polycentricity: the notion of polycentric growth outside the Pentagon is too easily accepted as being desirable, whereas the case for a monocentric structure with "a good redistribution system towards the peripheral regions" at least should be recognised as a possible alternative. The Belgians go so far as to propose that page 81 of Part A needs revision because its logic is flawed. Specifically it argues that polycentrism coincides with the most favourable wealth contribution "at least to some extent", and that the new member states "have on average a more polycentric urban system than the old EU Member States". On this basis one might expect the new members to be the richest parts of the EU! Quite simply causal associations between polycentricity and other variables perceived as indicating desirable tendencies are too casually assumed, without proper scientific testing or debate. For example (following Part A page 84) polycentric countries might indeed use less energy, but that might not be because they are polycentric. The Netherlands' comments also questioned the discussion of polycentricity (specifically Part A, pages 74-76)

The Netherlands ECP made some important additional observations. Almost all projects encountered data problems, and for some these were very severe indeed. Furthermore, they noted that there is reference (e.g. Part C page 235) to gaps in the cross-sector analysis that could not be closed by using original data: what is the percentage of missing data and the measure of uncertainty? Some teams got round the data problem by "ingeniously creating compound indicators". However, can the creative steps to create data additions be properly and transparently traced by the end user? There is an important need now to improve links between ESPON's data and other work on regional indicators, notably by OECD. Furthermore institutional actions are needed to ensure that ESPON can achieve sustained data collection at a reliable level. Liaison with EUROSTAT is obviously needed, and the Dutch suggested that data continuity and maintenance is likely to be more secure with a permanent organisation like EUROSTAT than through a time-limited project.

The Dutch also made the important observation that while the Z-score approach used for the RCE is justified, everything depends on the initial selection of indicators. In their view the selection procedure was not well documents. Thus policy makers are told that the RCE "picture looks different from a map of GDP", but the possible distortions created by boundaries of administrative units (see the reservations about data for Brussels earlier in this collation of comments) are not explained. Nor is it clear what the policy makers should do with the RCE results.

The comments from the Netherlands also reflected some of the concerns raised by the UK about the approach to policy analysis, particularly in respect of the summarising of the Priority 2 projects. The Dutch noted that for CAP, R&D and Regional Policy, only data about expenditures were available. Similarly, "knowledge about the ways the EU policies are implemented and on the interaction between EU, national and regional authorities (their governance) is limited… Furthermore factors causing changes of EU policies, their implementation and their territorial impacts have not been analysed. Examples of these factors are enlargement of the policy arena (e.g. by the accession of new Member States), reforms of decision-making procedures, and changing policy-coalitions (e.g. of EC Members, EP Members and Member States)."

The Dutch also noted that the spatial typologies, while clearly explained in Part C, Chapter 4, will not necessarily fit with the spatial typology definitions in their country. For example, the definition of Metropolis (Part C, page 134) probably does not fit the definition of Randstad

Holland. The regional classification in the Netherlands' National Spatial Strategy is functional rather than based on administrative units.

**b. Do you consider the relation between scientific results and policy recommendations strong enough?**

The UK ECP was understanding of the challenges that the 3.1 team faced in synthesising and evaluating recommendations from many reports in a relatively short space of time, while also developing new analytical tools and promoting them to the TPGs. "In the end the section of the report on policy recommendations emerges as a thoughtful commentary rather than as specifically driven by a particular methodology". This general feeling that there is still work to be done in synthesising across the many ESPON reports is shared by the ECPs. For example, the Dutch suggested that the typologies from 2.1.3 (agriculture) and 1.1.1(polycentricity) needed to be compared. "Do they correspond to the same areas? Do certain rural types appear more frequently around certain kinds of urbanisation patterns? What happens when the logic of one typology is applied to another theme?"

The Belgians felt that the TIA methodologies could have been probed more, a point also made by the UK, The Belgians also pointed to some inconsistencies. For example, if regional specialisation is desirable, should all regions seek to strengthen R&D? (Part A, page 85). They also posed the important question of how policy makers are expected to choose in a situation where ESPON is regularly telling them that "the meaning and implication of concepts change depending on the level in question and can even contradict each other"? Overall though the Belgians are appreciative of the recognition in 3.1 that results require careful interpretation and there is a need for more realistic boundaries for data collection units.

The Dutch queried the lack of reference to international/European metadata standards like CEN / ISO in discussions of the ESPON database, and suggested that where algorithms have been used to derive indicators there needs clear explanations of the actual data, sources and methods. This goes to the heart of the problems ESPON has encountered in accessing and combining really comparable and consistent sources of data across so many countries. Crucially the Dutch pose the question of how can these problems be solved or reduced in the future? They also ask what will happen if the spatial typologies change – will the old indicators be updated according to the new typologies?

**c. Are the chosen core indicators and the measurements simple enough to be covered by other research teams in different areas (NUTS 2 or NUTS 3?)**

The UK ECP commented that the report notes that 103 core indicators have been identified. "To have identified over 100 indicator is an achievement of sorts but not one that lends itself to simple manipulation and clear messages". Similarly the ECP for Slovenia reported that it would be useful to have a small list of the most important indicators. The RCE attempted this, but there are questions about the selection of those indicators and a view that the message behind the indicators gets blurred through the process of combination within the RCE.

The Belgium comments went into more detail about the RCE, which they greatly appreciated as a concept. They suggested that multivariate factorial analysis might be used to combine all the variables, since it is "blind to the potential dependency of the variables between each other",

which is not necessarily the case with the methods used to produce the RCE. They had specific difficulties with Map 4 on page 33 of Part A, and the causal logic behind it, and concluded the indicator used there was not "simple enough to be covered by other research teams". They also raised questions about the following pages in Part A:

- 44 – how is an "agglomerated region" defined?
- 45-46 – might the RCE be correlated with the polycentricity index of 1.1.1?
- 46 – Figure 11 – put countries in RCE mean order, not alphabetical order;
- 55 – the value and use of the hypercube is not clear;
- 56 - "regional integration" is used but has not been defined;
- 59 – what is "regional enlargement"?.
- 90 - there is no explanation of the title saying that transnational co-operation is "under-utilised";
- Part B page 140 – the scheme about the application of the territorial approach is confusing.

The response from the Netherlands proposed further work on indicators. In particular accessibility measures need to be made more sophisticated so as to take account of the realities of congestion that increase journey times and the unpredictability of travel times. They also stressed the importance of developing ways to update the data, since time series data is critical for use in the policy sphere.

The Dutch also raised questions about what happens to the map kits when future software updates come along? They were also concerned that in endeavouring to make the GIS software accessible there is a risk of misuse of geo-data and mis-representation on maps. The Netherlands also argued for integrating the database and GIS tools into one single application. They advocated that while much effort has gone into developing state of the art web and GIS techniques, the real challenge lies in the content – the data and indicators – and that more attention should have been given to these aspects.

#### d. Focussing on the scale of analysis: did the scale of some data and indicators show to be misleading?

A number of ECPs had concerns about NUTs levels and the limited value of RCE at NUTS 2. The Belgians pressed the need to modify the NUTS level inside a state, with specific reference to the problems of Brussels, mentioned already. The Dutch felt that the project had made a good case for a better regional division, and that the ESPON approach to cohesion at all three levels (part A pages 29-30) is "ESPON at its most convincing". However, the consequences of the NUTS2 /3 modifications needed to be made clearer. More particularly, the Netherlands' view was that using GDP as an indicator for economic health at the regional level gives a distorted picture of the economic structure of their country. Figures for the relatively poor north are inflated because of the natural gas production in that region, whereas Flevoland looks disadvantaged but this is because many residents are commuters.

The Belgians referred to Part A, page 80 – Map 12 - at this scale so many cities are identified that on the map the whole of Europe appears like a PPIA. Different maps, at the 3 different scales, would be clearer

The report from the Netherlands ECP raised a substantial list of specific questions about the database, GIS tools and indicators, addressing particular questions in Part C. These are summarised briefly here, but for the full list and details readers should refer to the original comments from the Netherlands.

## IV] Programming of future research

The UK commented that there is still a need to develop TIA in a more consistent manner, to critically explore the application of ESDP concepts and link them to territorial cohesion and Lisbon-Gothenburg. "We also need a more consistent and considered methodology for policy evaluation. This itself implies a strong focus on vertical integration and the implementation process." A similar point was made from Sweden – the need is to develop further the scientific tools for integrated spatial and to translate scientific findings into policy recommendations. Policy makers need guidance in interpreting ESPON results and this needs to be built into dissemination of ESPON. The Slovenians pondered on the challenges posed by the relational nature of territorial dynamics and saw the process of unravelling the underpinning network structures as a major spatial planning research need. This is an important message, for the results so far challenge the traditional core-periphery model in some respects, hinting at very complex and dynamic processes that are structuring territory, and posing major challenges in situations where there are conflicting priorities between different scales of government.

The Dutch again stressed the need for more attention to be given to the processes of making and implementing policy within and across different levels of government. More specifically, they also pointed to the need to assess the impact of EU environment policies on land use and territorial cohesion. Following the Ministerial meeting on Territorial Cohesion in Rotterdam in 2004, there is a case for ESPON studies of spatial opportunities and problems in different European regions with comparable territorial circumstances. They also referred to the study Unseen Europe, which can be downloaded from www.rpb.nl/en-gb/ for a list of recommendations for future research.

The Slovenians echoed entirely the view of the Dutch that 3.1 as it stands cannot be a means to communicate ESPON results to a wider audience.

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# List of main abbreviations

| | |
|---|---|
| CAP | Common Agricultural Policy |
| CU | Coordination Unit |
| ECP | ESPON Contact Point |
| ESDP | European Spatial Development Perspective |
| ESPON | European Spatial Planning Observation Network |
| EU | European Union |
| FUA | Functional Urban Area |
| GDP | Growth Domestic Product |
| GIZ | Global Integration Zone |
| ICT | Information and Communication Technologies |
| LFA | Less Favoured Area |
| LP | Lead Partner |
| MC | Monitoring Committee |
| MEGA | Metropolitan European Growth Area |
| NUTS | Nomenclature of Territorial Units for Statistics |
| PIA | Potential Polycentric Integration Area |
| PUSH | Potential Urban Strategic Horizon |
| R&D | Research & Development |
| RDP | Rural Development Policy |
| SF | Structural Funds |
| TEN | Trans European Network |
| TIA | Territorial Impact Assessment |
| TINA | Transport Infrastructure Needs Assessment |
| TPG | Transnational Project Group |