SPECIFICATION

ESPON Scientific Platform/Tools Project 2013/3/4

European Territorial Monitoring System (ERMS) (2012-2014)

(o) Territorial challenges relevant for ESPON 2013 projects

The development of the European territory is facing several ongoing mega trends and impacts of policies:

- The integration of the EU in global economic competition is accelerating, offering more options for regions and larger territories in deciding on their development path as development is no longer a zero sum game for Europe.
- Interaction is growing between the EU territory and the surrounding neighbour countries as well as the other parts of the world, becoming apparent by e.g. migration pressure on more developed countries, which are themselves confronted with population decline and by access to and investment in new markets.
- Market forces and the evolution of society in general are supporting a geographical concentration of activities.
- The ongoing demographic change with an ageing European population and migration is affecting the regions differently and boosts the competition for skilled labour.
- The occurrence of hazards is increasing due to climate change while different parts of Europe experience different types of hazards.
- Increasing energy prices and the emergence of a new energy paradigm have significant territorial impacts, some regions being more affected than others, some of which have particular potential for production of renewable energy sources.
- The enlargement of the EU to 27 Member States, and at a later stage maybe to more, presents an unprecedented challenge for the competitiveness and internal cohesion of the Union.

ESPON results have revealed that territorial capital and opportunities for development are inherent in the regional diversity that is a characteristic of Europe. Consequently, different types of territories are endowed with diverse combinations of resources, putting them into different positions for contributing to the Europe 2020 Strategy as well as to EU Cohesion Policy. Territorial diversity, particularly in the economic base, implies that taylor-made strategies will be appropriate and most viable for European regions.

The ESPON 2006 Programme provided integrated analysis and long term spatial scenarios which enriched the European policy debate and knowledge base. The results and observations produced by ESPON on territorial structures, trends, perspectives and assessment of EU policy impacts had not been fully evident before and supported a better understanding of the

European dimension of territorial dynamics. Therefore, interest is growing among policy makers and practitioners for the information, knowledge and understanding ESPON can offer.

The ESPON 2013 Programme shall bring this knowledge base one step further by carrying out applied research and targeted analyses, indicator development and data collection, capitalisation events presenting results, etc. All these actions will be related to an improved understanding of territorial structures, development trends, perspectives and policy impacts.

The European-wide evidence provided by the ESPON 2007-2013 Programme will potentially benefit stakeholders all over Europe at all levels. Policy makers dealing with territorial development require sound evidence and comparable regionalised information as well as medium and long-term development perspectives in order to draw up sustainable and efficient integrated policy responses for their territories.

All in all, the European process moves towards a more integrated approach to policy making which makes the territorial dimension important for policy makers. The aim of territorial cohesion included in the Treaty supports this approach by taking the territory as an explicit element in the framework for policy making. Due to its provision of evidence based on analyses of territorial units the ESPON 2013 Programme is of strategic importance for the European policy development and cooperation.

By further extending and deepening the existing knowledge and use of indicators for monitoring European territorial trends, the ESPON 2013 Programme will play a strategic role in supporting the policy process of the current period 2007-2013 and contributing to the development of Cohesion Policy beyond 2013.

(i) General objectives of projects under Priority 3

The general objectives of applied research projects within the ESPON 2013 Programme are the following:

- Contribute to the consolidation of the scientific platform of the ESPON 2013 Programme and to the territorial knowledge base needed for informed policy formulation and application
- Ensure data, territorial indicators and tools that are usable for policy makers and practitioners at all administrative levels
- Respond to needs for public access to the ESPON data and tools
- Ensure availability of comparable and robust regional (and urban) data at as detailed geographical scale as possible as well as statistical quality control and data validation
- Ensure that European standards for spatial referencing and storage of data are respected (such as applying the ETRS1989 standard and the Inspire Directive).
- Support a concrete application and use of data for policy, strategy and planning processes, including tools and techniques for forecasting and modelling
- Continuously provide an updated basis for monitoring and assessing territorial development trends in relation to territorial policy objectives at European level based on relevant territorial indicators/indices.

This project shall contribute to these general objectives during its implementation, and in doing so make best use of existing ESPON results, new results in other ESPON projects as well as other research results and relevant studies.

(ii) Relation of this project to the ESPON 2013 Programme

The priorities describing the work-programme of the ESPON 2013 Programme are structured in four strands:

a) Applied research on territorial development, competitiveness and cohesion: Evidence on European territorial trends, perspectives and policy impacts

The applied research projects will opt for information and evidence on territorial potentials and challenges focusing on opportunities for success for the development of regions. Cross thematic applied research will be a major activity integrating existing thematic analysis and adding future analysis of new themes. Territorial impact studies of EU policies will be another focus under this priority.

b) Targeted analysis based on user demand: European perspective to development of different types of territories

This priority responds to a clear demand of practitioners for user and demand driven actions within the ESPON 2013 Programme. By convening an analytical process where ESPON findings are integrated with more detailed information and practical know-how, new understanding of future development potentials and challenges may arise, which could be transformed into projects and actions.

c) Scientific platform and tools: Territorial indicators and data, analytical tools and scientific support

The scientific platform and analytical tools built up within the ESPON 2006 Programme will be maintained and further expanded. New actions shall be undertaken to develop current achievements and make use of the indicators, data and tools.

d) Capitalisation, ownership and participation: Capacity building, dialogue and networking

Under this priority, actions are foreseen that will be aiming at making the evidence and knowledge developed operational through measures raising awareness and involving stakeholders in the results and their practical use.

Priority 3 of the ESPON 2013 Programme includes, as an essential action, the development of a Territorial Monitoring and Reporting System at European level for the continuing assessment of territorial development dynamics in relation to territorial policy objectives.

The action on Territorial Monitoring is part of a trilogy of actions in which the two other actions on the ESPON 2013 Database development and on Territorial Indicators / Indices are in development. The ambition with the trilogy is to create mutual support whereas the territorial monitoring will make use of the developments within the two other actions and subsequently make use of relevant territorial indicators, indices and tools.

iii) Thematic scope and context

The stronger political focus on a territorial dimension in policy and the improved knowledge of territorial structures, trends and scenarios generated by ESPON, highlights the need to create a European Territorial Monitoring System (ETMS) that on a regular basis can provide and promote territorial information and evidence in relation to European policy orientations and objectives (as mentioned in the ESPON Operational Programme).

A continuous monitoring of territorial trends and structures shall be able to provide policy relevant information to target groups on key trends occurring for European regions, specific type of territories, metropolitan regions, cities and towns in relation to the policy aims and priorities of the Europe 2020 Strategy, EU Cohesion Policy and the TA 2020.

A Territorial Monitoring at European level should support European, national and regional policy makers with information to define territorial strategies and implement 'place-based' policies taking into account the trends present for the regions and cities in the European context.

This ESPON project shall provide a practical and operational European Territorial Monitoring System (ETMS), which builds mainly on existing statistical information, data and tools developed (database, mapping tools) within the ESPON Programme, and which can be the base for a continued monitoring of European territorial trends.

The work developed in INTERCO project and the ESPON 2013 Database Project (Phase I and phase 2) are the main pillars to build upon in this project. Other tools developed within Prority 3 add to the available toolbox for this project. ESPON 2013 projects addressing cities and towns such as FOCI, TIGER, KIT and "Small and Medium Sized Towns in their Functional Urban Areas" shall also be considered as an important input in terms of data and information. Supporting inputs from the experience developed so far by national observatories, DG Regio and EUROSTAT should also be taken into account.

In addition, it shall consider the experience gained during ESPON 2006, in particular the results of the test phase implemented at the end of the previous programming period with the ESPON 2006 project 4.1.3 on "Feasibility study on monitoring territorial development" based on ESPON key indicators.

The European Territorial Monitoring System shall rely on and integrate data, indicators and time-series from the INTERCO Project and from the ESPON Database. The project should provide opportunity for standardised and regional ESPON data to be supplemented and supported by other available data which may be more up to date and more geographically strategic.

The monitoring shall target different types of territories including cities, metropolitan areas, and other types of regions as stated in the Structural Funds Regulation and in the Treaty (e.g. urban, rural, mountain, islands, sparsely populated regions,...).

This project will be complementary to the ESPON European Urban Benchmarking tool, which focus is to provide detailed a quick scan tool providing more detailed information at urban level highlighting opportunities and risks for cities within the logic of supporting public and private management and investments in cities (bottom-up approach).

The European Territorial Monitoring System being a highly practical and statistical exercise, focusing on the European level (mainly using a top-down approach) should lead to an operational monitoring system at European level for policy makers. Consequently, a close dialogue with the ESPON Monitoring Committee is necessary during project implementation.

iv) General objectives

The aim of this project is to develop a simple, easy understandable and policy relevant European Territorial Monitoring System, covering the entire ESPON space, capable of continuous interpretation, assessment and communication of territorial development trends in relation to policy objectives related to Territorial Cohesion (in particular the EUROPE 2020 Strategy and the Territorial Agenda 2020).

In general, in order to support continuous observation of trends, this project will to a large extend rely on, integrate and select time-series of territorial indicators developed by the INTERCO project and from the ESPON 2013 Database. The project should also interact with

the ESPON KITCASP project on "Key Indicators for Territorial Cohesion and Spatial Planning" and other ongoing ESPON projects considered relevant.

The European Territorial Monitoring System aims at supporting policy makers and practitioners at all levels in their practical work with factual information on trends related to European regions, cities and types of territories. By reading and interpreting the quantitative statistical information in the light of policy objectives and aims related to territorial cohesion, the results of this project may help policy makers to identify development opportunities and territorial challenges, as well as better understand the diversity and position (benchmarking) of cities, regions and territories in the European context.

The objectives with this ESPON project are:

1) Definition and setting up a practical and operational European Territorial Monitoring System (ETMS), meeting the needs of policymakers for factual, statistical information on territorial trends, dynamics, patterns and structural changes (imbalances and disparities) in European regions, specific territories and cities. It shall allow comparing and benchmarking cities, regions, and territories in Europe.

The results from the INTERCO project, ESPON Database and the ongoing ESPON project dealing with the territorial dimension of the EUROPE 2020 Strategy should serve as the main input for this project. In addition, the results of the FOCI, TIGER, KIT and SMESTO Projects shall be the main input in relation to cities.

It should propose a volume of territorial indicators that is manageable (max. 30-50 indicators) with a high communicative value and covering different geographical levels. NUTS (2 and 3) should be used as the main regional breakdown and it shall integrate maps and graphs based on the indicators selected. In this process, existing ESPON tools for territorial analysis, data integration and data visualisation such as the ESPON HyperAtlas, the OLAP Cube and the Online Mapping Tool shall be considered and eventually be made use of.

- 2) Build a simple and user friendly application1 providing access and ensuring an easy communication for policy makers of the European Monitoring System (proposed under point 1), preferably to be integrated in the ESPON Database interface, allowing to select the "monitoring indicators", to visualise and to communicate to policy makers the trends related to various European regional profiles. The application shall be conceived so it allows comparing and benchmarking European regions and cities. In particular it shall use and link in to relevant elements of ESPON tools, bringing the different components developed during the ESPON 2013 Programme together. Gaps and deficiencies in the current tools should be pointed out. Finally, it should use the most modern communication technologies. In doing so the project should consider applications such as Apps, etc. The purpose is to promote the widest possible the ETMS by smart communication².
- 2) Elaboration of a first "European Territorial Monitoring Report" based on the results achieved under point 1 and based on the indicators selected (app. 50 pages, both in paper and digital format for web publishing). This report should include territorial facts and

¹ The web application developed for the ESPON Map Finder can give inspiration on this issue in the sense that is simple, intuitive and highly communicative.

² In general, open source approaches are encouraged by the European Commission and might give more freedom to ESPON as it makes possible that an application produced by a given research team at one moment can be transferred, further completed or expanded by the ESPON Programme later on. However, the choice for Commercial Off The Shelf (COTS) or open source applications should be made in function of the detailed requirements.

evidence (including maps, figures and graphs) on territorial dynamics (time series) and spatial patterns in European regions, specific territories and cities aimed at policy makers at different levels. It should include factual information based on the interpretation of the indicators and datasets selected in the light of the policy aims and priorities mentioned in the EUROPE 2020 and TA2020. This report should be seen as an informative output of the ETMS and elements suggested under Point 1, and include maps, figures and graphs supported by a high communicative and policy oriented text interpretation the trends observed.

The key policy concepts and priorities related to a territorial dimension of future EU Cohesion Policy and the Territorial Agenda 2020 and the development in this respect shall be the basis when interpreting statistical data, producing graphic elements and drafting the report. In this context, general aims such as territorial cohesion; competitiveness; balance and polycentricity; geographical specificities; regional imbalances; discontinuities; governance; territorial co-operation, and urban sprawl, functional regions, territorial capacities/endowments/assets could be taken into consideration.

The report should as well link into the main territorial challenges facing Europe, including: recovery from the global economic recession; global economic competition; vulnerability to climate change; energy supply and efficiency; demography: ageing and migration; Transport, accessibility and connectivity. A draft version of this report should be discussed with the ESPON Monitoring Committee.

3) Elaboration of a short, easy understandable and policy relevant booklet (app. 10-20 pages, both in paper and digital format for web publishing) on "Territorial Key Facts and Figures" on the territorial dynamics, trends and structures of the European regions, specific territories and cities based on the "European Territorial Monitoring System" proposed (cf. point 1) and taking into account the current European policy priorities mentioned in the EUROPE 2020 Strategy, TA2020 and Future European Cohesion Policy.

In order to achieve these objectives, the following aspects shall be taken into account in project proposals and during the project implementation:

- (a) Target groups. The results of this project are expected to be a source of (statistical) information, containing practical evidence on European territorial dynamics and structures for policymakers and practitioners at all geographical levels. Therefore, it should support policymaking processes at different geographical levels.
- (b) Communicative approach. It is important to ensure that the outcomes of this project: the European Territorial Monitoring System, the booklet and the report are conceived and presented in a simple and readable manner for policy makers. Specifically, the application shall ensure a trouble-free access and user-friendly interface as well as concrete and to the point information. In this respect, communication skills within the TPG are necessary to complement the scientific insight.
- (c) Build on ESPON 2006 results. Efforts of developing a territorial monitoring system and indicators measuring territorial cohesion were already started under the ESPON 2006 Programme within the ESPON 2006 Project 4.1.3. In particular some progress has been made also in relation to propose a "Tentative Spatial Monitoring Report" that should be seen as an input to this ESPON Project.

- (d) Capitalise on the outcome of the ESPON Workshop on "Monitoring Territorial Dynamics" of 12 November 2008, which involved representatives from European organisations and national observatories.
- (e) Build on the results of the ESPON 2013 Programme. It is particularly important to consider the other two projects of the triad in Priority 3: the Database Project and the Indicators and Indices (INTERCO) Project. Regarding the latter, this TPG is expected to provide the necessary input to the Monitoring Project. In addition, results from relevant ongoing ESPON Projects: SIESTA (Territorial dimension of the |EUROPE2020 Strategy), TPM (Territorial Performance Monitoring) and should be taken into account.
- (f) Take into consideration the experience on territorial monitoring systems from national observatories such as France, Germany, Romania and Navarra region. In addition, the experience developed by other international and European organisations should also be taken into account (DG Regio, OECD, EUROSTAT).
- (g) Take into account the main European policy concepts, orientations and objectives related to territorial development. In particular relevant policy orientations of the Fifth Cohesion Report, the Commission's Green Paper on Territorial Cohesion, the Territorial Agenda 2020 and the EUROPE2020 Strategy and Future European Cohesion Policy.
- (h) Integration of time-series. The territorial monitoring and reporting tool shall integrate time and define a procedure to ensure their update in a regular basis. The selected TPG is mainly expected to integrate statistical data and time series already available in the ESPON programme, in particular developed in the framework of the INTERCO and ESPON 2013 Database Project. However, the gathering, production and creation of additional statistical information might be necessary in a few cases.
- (i) Geographical framework. The backbone for territorial monitoring and reporting are the NUTS regions (NUTS 3, NUTS 2 and combination of NUTS 2 and 3) as these play an important role in relation to the implementation of European policies. However the Territorial Monitoring and Reporting System shall be able to lower and enlarge the geographical framework when relevant and appropriate. In particular areas with territorial specificities such as cities and metropolitan regions, rural regions, mountain regions, sparsely populated areas and islands, as well as agglomerations and functional areas shall be included as geographical identities in the framework of this project. With regard to this issue it is important to consider the use of raster-based data sources in order to bridge the gap between the different breakdowns.
- (j) Apply a 5-level-approach in the interpretation of territorial trends. The 3-level-approach (European transnational regional / inter-regional) has been used in the context of the ESPON 2006 Programme. This approach should, where relevant and feasible, be considered enlarged to a 5-level-approach by adding (a) the global positioning of Europe as a whole and (b) a more detailed geographical level considering the local level.

v) Analytical framework and deliveries expected

This ESPON project, to be implemented during 2012-2014, shall be based on a clear planning with relation to its objectives.

Taking the thematic scope and the main objective for the ESPON 2013 Project on Territorial Monitoring and Reporting System the deliveries are expected to target policy makers. This project shall cover the entire ESPON territory and in addition be able to address particularly territorial and policy concepts as described above. Recognising the importance of the

territorial scale for analytical results and policy considerations, the Territorial Monitoring and Reporting System proposed shall consider the various aspects mentioned under point IV.

The geographical coverage of the project should encompass all the countries participating in the ESPON 2013 Programme and as much as possible Croatia, for which the accession negotiations were closed and the Accession Treaty was signed at the end of 2011, and in the EU Candidate Countries (i.e. The former Yugoslav Republic of Macedonia, Turkey, Montenegro) and/or the other countries of the Western Balkans (i.e. Bosnia and Herzegovina, Serbia, Albania, Kosovo under UN Security Council Resolution 1244)... Depending on the respective data situation these countries would then be included in the European Territorial Monitoring System, application and reports developed.

The deliveries expected can be broken down to groups of tasks related to the objectives of the project:

- 1) Tasks related to the conceptualisation of a European Territorial Monitoring System include:
 - Targeted dialogue with policy makers, in particular with the ESPON Monitoring Committee for the selection of policy relevant indicators.
 - Definition of the various elements and outputs of territorial monitoring that allows for continuous monitoring and reporting on indicators important for policies related to territorial development and cohesion.
 - Pursuing a highly communicative output and inter-phase that can provide policymakers with easy understandable and condensed information on facts on trends related to European territorial development issues according to policy aims and objectives.
 - Integration of information, data and indicators from relevant ESPON Projects. In particular INTERCO, ESPON 2013 Database Project and SIESTA will be the base here.
 - Screening and use of ESPON tools for territorial analysis, data visualisation and data integration linking them into the system opting for synergy and complementarity. Identify shortcomings in these tools.

2) Tasks related to the application

- Development of a simple, clear and easy understandable application aimed at policy makers providing access to the ETMS proposed and in particular allowing the visualisation and communication of the trends, dynamics and structures related to Europe, its regions, cities and types of regions (in line with the objectives mentioned under Point IV).
- Testing of the application with the target groups and amendment if appropriate/necessary
- 3) Tasks related to the development of a First "European Territorial Monitoring Report"
 - Proposal on the content and communication of the report based on the conceptualisation undertaken
 - Collection of information, analysis and drafting of the report

- Dialogue with the ESPON CU, including feedback from the ESPON Monitoring Committee and possible adjustments
- Finalisation of the report for printing by the ESPON programme.
- 4) Tasks related to the production of a booklet on "Territorial Key Facts and Figures" on main territorial dynamics of the European territory, its regions and cities.
 - Design of a communicative structure and selection of information.
 - Integration of content into the structure with emphasis on practical use by policy makers.
 - Analyses and communication of information selected; dialogue with the CU based on the feedback of the ESPON Monitoring Committee; implementation of adjustments and finalisation.

(vi) Expected results and timetable

The implementation of the project for 2012-2014 shall include a flexible approach to the individual work packages proposed where 3 contact meetings with the ESPON CU and one consultation with the ESPON MC (related to the conceptualisation of the "European Territorial Monitoring System") will support the development of this project and clarify open questions.

Taking into consideration the nature and the practical side of this ESPON project as well as the target group envisaged (policy makers at different geographical levels), skills in the communication of results in a simple and understandable way is an important element to be considered as part of the expertise of the TPG.

The project is supposed to follow, as far as possible, a timetable and specifications of outputs as presented below:

December 2012 (Inception Report):

- Detailed description of the conceptualisation of the project, taking into account the objectives envisaged, including the identification of priorities, resolution of problems and definition of delimitations.
- Detailed proposal on the approach envisaged making the project deliveries highly communicative, policy relevant and useful in practical policy making.
- Presentation of a strategic overview of all activities envisaged and an overall time planning.
- Presentation of the description and timetable of the various project deliveries.
- Work plan until the Interim Report.

April 2013 (Interim Report):

- Draft version of the European Territorial Monitoring System (selection of key policy indicators) directly linked to the outputs of the INTERCO project, to the ESPON 2013 Database and to the ESPON SIESTA Project.
- Outline of use of existing ESPON tools as components in the ETMS.

- Screening and overview on different options for building up the application and IT solutions for the ETMS communication.
- Short reporting of the activities, both planned and realised, resolution of problems and definition of delimitations.
- Work plan until the Draft Final Report.

October 2013 (Intermediate deliveries)

- Final proposal of a European Territorial Monitoring System
- Draft version of the first "European Territorial Monitoring Report".
- Draft version of the booklet on "Territorial Key Facts and Figures" on the main territorial dynamics of the European territory, its regions and cities.
- Draft version and presentation of the application

April 2014 (Draft Final Report):

- Draft documentation of all aspects of the project implementation
- Final version of the first European Territorial Monitoring Report
- Final version of the booklet on Territorial Key Facts and Figures on the main territorial dynamics of the European territory, its regions and cities.
- Final version of the application

July 2014 (Final Report)

- Final documentation of all aspects of the implementation of the project
- Final version of the First European Territorial Monitoring Report
- Advice on the continuous Monitoring and use of the ETMS.
- Supporting deliveries for communication (such as 10 slides including the main outcomes of the first European Territorial Report, presented in a very communicative and simple way for policy makers).

(vii) Budget

The maximum budget foreseen for this project amounts to €598.000. Proposals exceeding this value will not be considered.

All real eligible costs incurred for carrying out the approved project will be refunded 100% by the ESPON 2013 Programme.

The printing and lay outing costs related to the booklet on "Territorial Key Facts and Figures" to the "first European Territorial Report" shall not be covered by the project budget.

(viii) Existing access points

The access points listed below can serve the purpose of providing the TPG useful information for preparing a proposal. It is by no means meant to be exhaustive, but should be considered as information that can be helpful in tracing additional useful background information.

Policy Documents:

- Europe 2020 Strategy
- Pack of draft EC regulation for future EU Cohesion Policy
- Fifth Cohesion Report
- Green Paper on Territorial Cohesion
- Territorial Agenda 2020

Content oriented documents:

- ESPON 2013 Project 2013/3/1 "ESPON Database and Data development" (2008-2011)
 - Current ESPON 2013 Database: http://www.espon.eu/main/Menu_ScientificTools/ESPON2013Database
 - o Results of the project so far:
 http://www.espon.eu/main/Menu_Projects/Menu_ScientificPlatform/espondatabase20
 http://www.espondatabase20
 http://www.espondatabase20
 <a href="
- ESPON Project 2013/3/2 "Territorial Indicators and Indices"
- ESPON Project 2013/1/18 "European Regions: potential contribution to the EU 2020 Strategy"
- ESPON Project 2013/2/13 "TPM Territorial Performance Monitoring"
- ESPON Project 2013/2/9 "EATIA ESPON and Territorial Impact Assessment"
- ESPON Project 2013/3/9 "Territorial Monitoring in a European Macro Region A test for the Baltic Sea Region"
- ESPON Project 3.1 "Integrated tools for European Spatial Development", Part C on New tools and instruments for European spatial analysis
- ESPON Project 3.2 "Spatial Scenarios and Orientations in relation to the ESDP and Cohesion Policy", volume 6 on General scientific coordination of ESPON and Handbook for data collection, harmonisation and quality control
- ESPON 3.4.1 "The Modifiable Areas Unit Problem"
- ESPON Workshop on "Monitoring Territorial Dynamics" of 12 November 2008: http://www.espon.eu/main/Menu_Events/Menu_Workshops/workshop0811.html
- EUROSTAT http://epp.eurostat.ec.europa.eu/portal/page?_pageid=1090,30070682,1090_33076576&_dad=portal&_schema=PORTAL
- GMES Global Monitoring for Environment and Security http://www.gmes.info
- INSPIRE Directive http://www.ec-gis.org/inspire/
- International Organisation for Standardisation (ISO) http://www.iso.org/iso/home.htm

Reference Framework for Sustainable Cities - http://www.rfsustainablecities.eu