

KITCASP

Key Indicators for Territorial Cohesion and Spatial Planning

Targeted Analysis 2013/2/20

(Draft) Final Report | Version 31 July 2013

Part A | Executive Summary



This report presents the **draft final** results a Targeted Analysis conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU28, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

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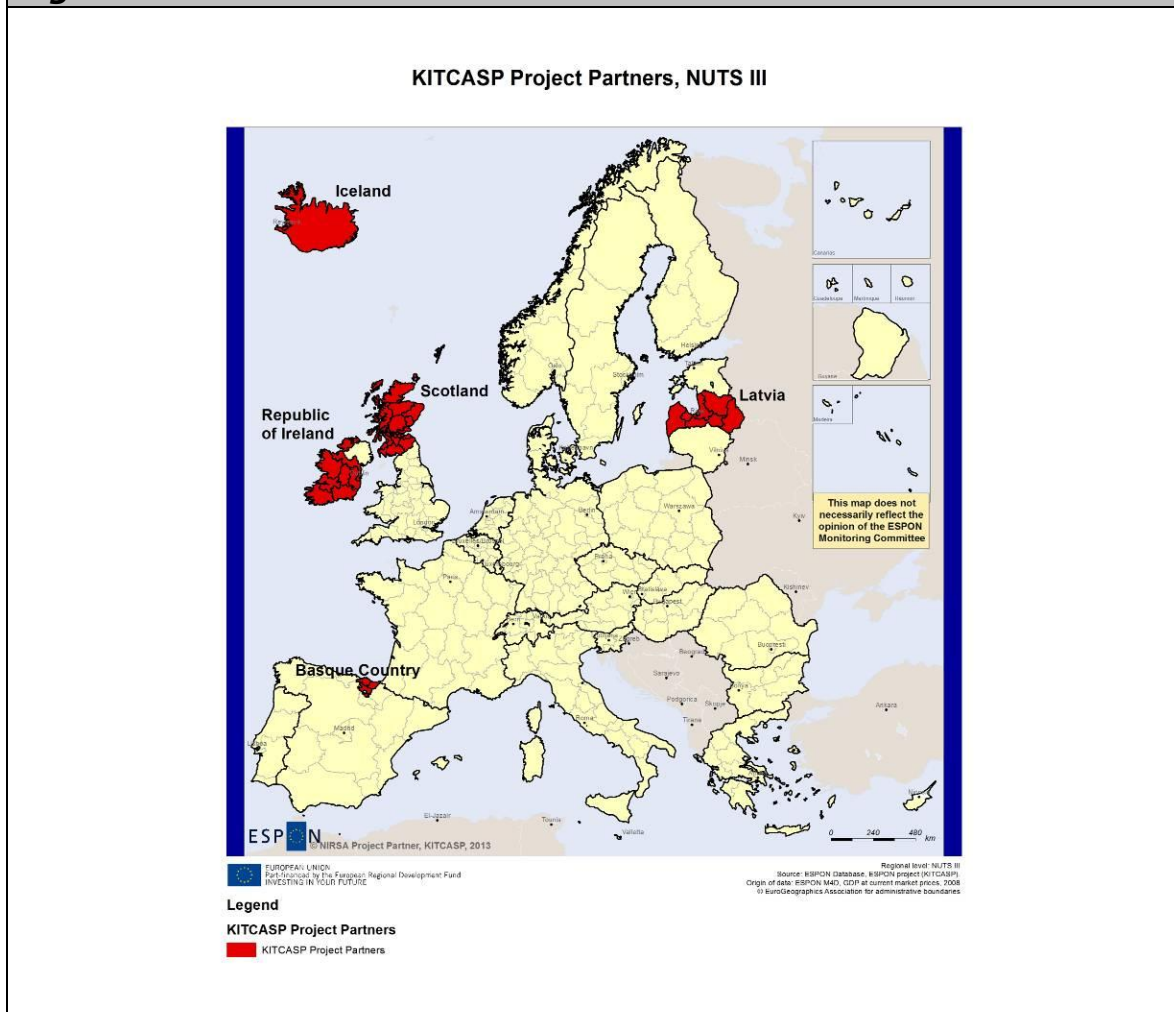
Part A | Executive summary

A1. Objectives of the Project

The overall aim of the KITCASP project is the **identification of the most suitable core set of key indicators of significant practical use to policy-makers and practitioners at national and sub-national levels in the preparation of territorial development and spatial planning strategies.**

KITCASP is a Priority 2 Targeted Analysis project commissioned by ESPON. The project explored the use of territorial and spatial data in developing and monitoring national territorial development and spatial strategies in five stakeholder territories, namely Scotland, Ireland, The Basque Country, Iceland and Latvia (**See Figure A1**), and the extent to which ESPON data has informed these strategies. The project was also tasked with developing guidelines on the use of indicators and ESPON data in territorial policy development at the national level. The project further considered how the capacity for spatial monitoring and analysis can be strengthened and harmonised at the national level; how national analytical experience and expertise can help to inform and take forward the EU Territorial Agenda; and the implications for future ESPON research.

Figure A1 – The KITCASP Stakeholder Territories



KITCASP is not about generating new data, maps and typologies for the ESPON database. As a Priority 2 project, the project seeks to capitalise on the use of existing ESPON results in partnership with different groups of stakeholders with the aim of enhancing understanding of the broader territorial context; making comparisons to other territories, regions and cities; and including a European perspective to considerations on the development of their territories. The project's key purpose, therefore, was to connect stakeholder needs with existing data, indicators and research analysis that ESPON is responsible for at the European level. In this context, the following key guiding questions were identified at the outset by the stakeholders in the project specification to be addressed as part of the KITCASP project:

- **What are good practices in the use of data to inform territorial policy development?**
- **How can the stakeholders make better use of ESPON data in developing their spatial policies?**
- **What data is needed for developing reliable key indicators?**
- **What are the key indicators for measuring territorial cohesion, economic competitiveness and sustainable development?**
- **How can indicators for different countries be compared?**
- **How can the key indicators most effectively inform spatial policy?**
- **To what extent are these indicators GIS-based and would this enhance their comparability and relevance?**
- **How can the key indicators be regularly updated and how is this to be managed?**

In seeking to answer these questions, the methodology designed by the KITCASP Transnational Project Group (TPG) combines both 'bottom-up' and 'top-down' approaches. Information (methodologies, data, indicators, maps and typologies) from existing ESPON projects have been applied, together with information from other sources, including national and regional indicators and statistical information. Extensive stakeholder consultation was also undertaken in each of the five territories to better understand stakeholder perspectives and practical requirements on territorial development and monitoring.

A2. Options for policy development – What Can KITCASP Teach Us?

European Union (EU) Cohesion Policy, which accounts for one-third of the EU budget envelope, is currently in a period of significant change and transition. Cohesion Policy is the principal lever available to the EU for reducing disparities between the levels of development of the various regions and promoting more balanced and cohesive territorial development. In the context of a background of ongoing austerity and financial crisis across much of the EU territory, Cohesion Policy and funding through programmes such as the European Regional Development Fund (ERDF) and European Social Fund (ESF) will, in real terms, be the only major source of investment available in the

short-to-medium term for many peripheral regions and therefore of critical importance for territorial development¹.

The proposed Multi-Annual Financial Framework (MFF) for the 2014 – 2020 period places a new emphasis on the impact of EU funding and a strong focus on results, performance and conditionality coordinated with the European Semester and the Europe 2020 strategy. Proposed Cohesion Policy acknowledges that the 2007-2013 programme had limited impact due to fragmentation of resources. The key priority of the emerging 2014-2020 programme is to focus on limited number of areas which contribute to economic and social development. In this context, eleven thematic dimensions have been developed under a Common Strategic Framework (CSF) developed by the European Commission. The CSF sets a strategic direction for investment planning in Member States and their regions within which funding will be concentrated and closely aligned to the Europe 2020 strategy of Smart, Sustainable and Inclusive Growth. **These changes to Cohesion Policy point to an important new role for enhanced national monitoring in order to ensure the impact of funding and investment is optimised.**

At the same time, the Lisbon Treaty, which came into force in December 2009, added territorial cohesion to the twin goals of economic and social cohesion as a core objective of the EU. The introduction of the territorial dimension to cohesion policy now requires that all future EU funding programmes and policies address this objective with particular emphasis on a 'place-based' policy approach (CEC, 2011b) including, for example: an overall integrated territorial approach; improved metropolitan governance; integrated urban development; and greater territorial cooperation. Furthermore, the main conclusion of new EU Territorial Agenda (TA) 2020 calls for:

- The cross-fertilisation of the Europe 2020 strategy, Cohesion Policy and the TA2020;
- For Member States to integrate the principles of territorial cohesion into their spatial planning mechanisms; and,
- The development of improved territorially sensitive spatial monitoring to better coordinate evidence-informed planning efforts to achieve country-specific Europe 2020 targets.

It is clear that at EU level a very significant shift is ongoing with an explicit focus on results and performance and a requirement for integrated actions responding to territorial challenges in order to optimise investment. Equally, throughout Europe national and regional policy actors in the fields of spatial planning and territorial development are grappling with the complex task of instituting a new, more evidence informed policy paradigm to address local, regional and global challenges. The need for a greater empirical understanding of national territorial development policy decisions and performance monitoring has been hastened by the ongoing fiscal crisis and the need to ensure optimisation, integration and coordination of sectoral policies together with more efficient investment. In this context, what is required is not only

¹ Note: Iceland is a member of the European Economic Area (EEA) and not a member of the EU. Therefore Cohesion Policy does not apply to Iceland.

greater understanding of the policy decisions relating to territorial development but also of the territorial development trends themselves.

Based on the observation of these recent policy developments both at EU and national levels, one can readily recognise the need for **Key Indicators for Territorial Cohesion and Spatial Planning** which are robust, relevant and usable for policy makers. Key indicators can assist in:

- Measuring the impact of territorial policy interventions;
- Optimising investment and joined-up sectoral policy decisions;
- Promoting territorial cohesion and cooperation; and,
- Monitoring and reporting conditionalities at the EU level.

Developing such indicators can also assist in taking forward the agenda of cross-fertilising Europe 2020 and TA2020, the key focus of ESPON research.

A3. The Indicators

Over the past decade there has been a profound increase in the range and availability of spatial datasets on an ever wider series of topics collected at EU, national and regional territorial scales, not least as a result of the ESPON programme. However, the use of these data to inform evidence-informed territorial development and spatial planning policy-making has been typically sub-optimal, partly due to the overwhelming breadth, fragmentation and compartmentalised nature of the information available. This short-fall points to the need for the development of key indicators which have the ability to translate sometimes complex relationships about territorial phenomena in a simple way and in a manner which can be easily understood by policy-makers to provide usable and reliable signals of important trends over time.

The challenge for the KITCASP project was the identification of a core set of key indicators of significant practical use to policy-makers in the preparation of territorial development/spatial strategies. During the course of the project it was agreed, in consultation with the project stakeholders, that this core set should not extend to more than twenty indicators. However, from the beginning it was recognised by the KITCASP TPG that this challenge was anything but straightforward. The indicators that the KITCASP project presents had to capture economic, social, demographic and environmental indicators; should be able to measure territorial cohesion and dynamic spatial planning processes, outputs and outcomes; and be comparable across the diverse stakeholder territories with often diverging, and sometimes irreconcilable, policy goals. This challenge had to be met in some instances despite the absence of data; the lack of data at the appropriate spatial resolution; and differing nomenclature and units of measurement. A further major challenge confronted by the TPG was selecting indicators for undefined and multidimensional concepts of 'territorial cohesion' and 'spatial planning'. These concepts are essentially political in nature and therefore constantly shifting with the political priorities of policy actors.

As an ESPON Priority 2 project, the methodology developed by the TPG was primarily 'bottom-up' with the practical needs of the stakeholders identified from the outset as the key priority for the outcome of the project. However, in

order to situate KITCASP within a sound analytical framework, a combined approach linking theoretical and participatory activities was developed to reveal indicators which are robust, relevant and usable for policy-makers at the 'coal-face' of spatial planning practice. The KITCASP project integrated a significant amount of material produced by other ESPON projects during all stages of the project, including the compilation and filtering of indicators and methodological approaches. The final report of the ESPON INTERCO (Indicators for Territorial Cohesion) project states that all ESPON projects dealing with indicators to measure territorial cohesion should first consider the themes and indicators identified by the INTERCO project. INTERCO has therefore been used as the primary starting point, or foundation, for the development of indicators in the KITCASP project.

In order to capture the multiple views on territorial cohesion and spatial planning across the heterogeneous stakeholder territories, the KITCASP TPG built the set of indicators around a composite list of four policy-orientated spatial planning and territorial cohesion themes (**See Table A1**). These themes were developed as a result of extensive profiling and review of policy literature in each of the stakeholder territories, considerable dialogue with stakeholders and a comparative analysis of priorities, agendas and policy drivers. This approach ensured that the final inventory of key indicators would be consistent and coherent across the territories and enable the evaluation of policy strategies and the assessment of the achievement of policy aims – a fundamental requirement of spatial monitoring.

Table A1: Agreed Policy Themes on Spatial Planning and Territorial Cohesion for the Classification Of Indicators.	
Theme	Storyline
Economic Competitiveness and Resilience	This theme embraces adaptability and diversification as promoters of increased economic activity and employment, paired with innovation and economic cooperation/collaboration
Integrated Spatial Development	This theme is based on the principles of balanced regional development and settlement-infrastructure alignment, entailing well-managed and effective spatial development that is tailored to local needs. It supports polycentricism and compact cities that take account of territorial capacities and assets.
Social Cohesion and Quality of Life	This theme addresses issues of equality, choice and well-being. It encourages increased accessibility to services and green areas, and connectivity to public services in support of healthy living.
Environmental Resource Management	This theme sustains enhanced and sustainable management of environmental resources, including water, air quality, biodiversity and the landscape. It also addresses climate change issues, including flood risk and the need for a low-carbon economy.

From more than 300 indicators originally identified by the TPG in the first phase of the project from EU, national and regional data sets, the filtering process allowed, in the second phase, the prioritisation and cross-checking of the indicators, and finally the specification of twenty key indicators organised around the four policy priority themes (**See Table A2**). The interaction with stakeholders at key stages of the project, by way of workshops, meetings and one-to-one communication with key policy actors, provided critical inputs for the final set of indicators. While selecting some of the indicators was straightforward, others were more problematic due to the diversity of territorial challenges, opportunities and priorities in each of the stakeholder territories. Accordingly, through necessity, the selection process required compromise and judgement on the part of the TPG team in consultation with the stakeholders.

Table A2: Final Inventory of Key Indicators for Territorial Cohesion and Spatial Planning		
Indicator		Unit of Measurement
Policy Theme: Economic Competitiveness and Resilience		
1	GDP per capita/ GVA per capita	€ per inhabitant
2	Employment rate of population aged 20-64	% (total work force)
3	Total R & D expenditure as % of GDP	% of GDP
4	Balance of external trade	% of total trade
5	Economic structure	% employment by sector (Primary, Secondary, Tertiary)
Policy Theme: Integrated Spatial Development		
6	Population density Population change	Number of people per Km ² Absolute values for change in population
7	House completions	Absolute values or % of total housing stock
8	Modal split	% of total number of trips (bus, rail, car, bicycle)
9	Land use change	% of total (building, roads, domestic, green space, agricultural, woodland, water, etc.)
10	Access to services (hospitals and schools)	Travel time (minutes) to hospitals/schools
Policy Theme: Social Cohesion and Quality of Life		
11	Population aged 30-34 with tertiary education	% of total population aged 30-34
12	Population at risk of poverty	% of total population at risk of poverty
13	Green space accessibility	% of total population within 500 metres of public managed green areas (active and passive)

14	Well-being index	Index Score
15	Dependency ratio	% of total population
Policy Theme: Environmental Resource Management		
16	Renewable energy production (wind, hydro, biomass, etc.)	Megawatts and % by renewable energy type
17	Greenhouse gas emissions	Tonnes CO ₂ eq. per individual
18	Population at risk of flooding (living in flood-prone areas)	% of total population
19	Number and status of protected European habitats and species	Number and Conservation Status (EU defined status of Natura 2000 sites - SACs and SPAs and Annexed species)
20	Water quality status	Absolute values on the actual status or objective met/failed (as per WFD for groundwater, rivers, lakes, estuarine, coastal)

For each of the final list of key indicators selected it is fully recognised that there may well be legitimate counter-claims for alternative metrics. That said, it should be noted that the indicators presented in this (Draft) Final Report are as a result of the application of the methodological process developed by the KITCASP TPG designed for these five specific territories and in consultation with a specific set of stakeholders. The analysis did not extend to the pan-European scale but specific recommendations are made in this (Draft) Final Report with respect to extending the KITCASP methodology across the EU territory. A clear source of commonality between the stakeholder territories were the overarching targets of the Europe 2020 strategy and EU environmental directives, such as the Habitats or Water Framework Directives. As a consequence, these have been used where possible and reflect the broader agenda of EU territorial cohesion.

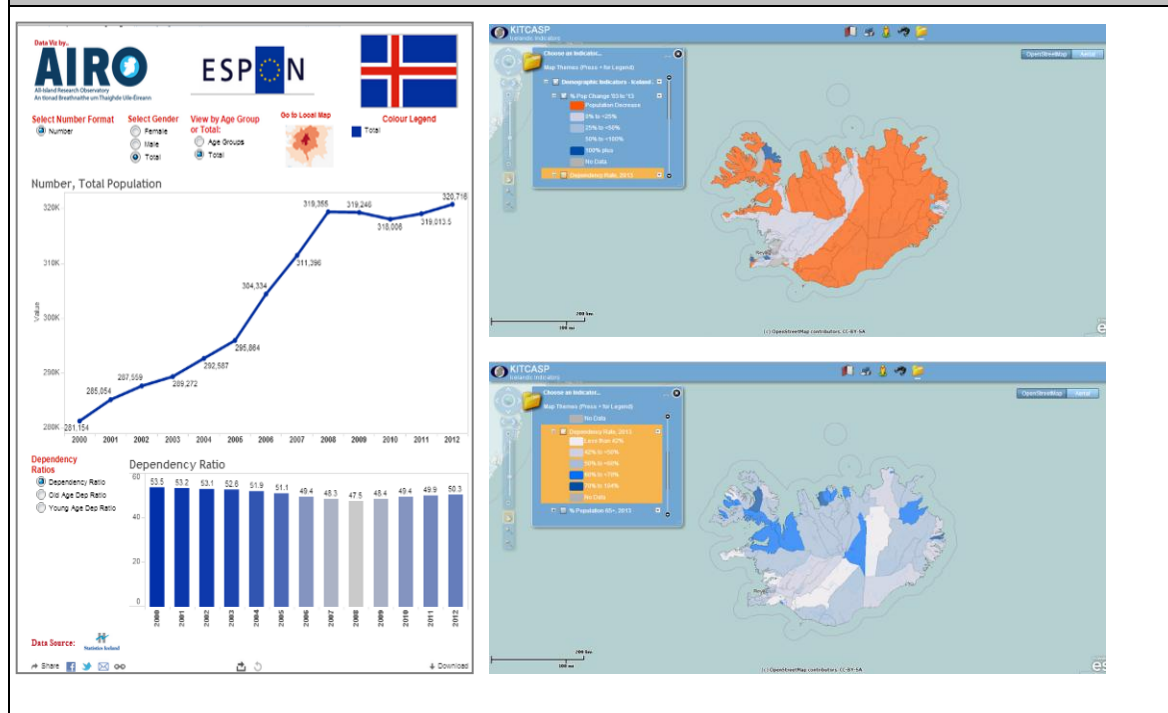
The extensive review of the significant data available in each of the stakeholder territories together with the application of the KITCASP methodology also revealed an inventory of discretionary indicators. These are indicators which, due to lack of commonality, were not selected for the final list of twenty key indicators but are distinctive to individual stakeholder territories capturing context-specific issues, and can of-course be used in a complementary role with the key indicators. This provides flexibility for stakeholders to adapt specific elements of the methodology in a way that is appropriate to their specific aims and to the precise characteristics of their territory.

A4. Presentation of the Indicators

The All-Island Research Observatory (AIRO) at NUI Maynooth was commissioned as part of the KITCASP project to develop a web-tool to support the work with territorial cohesion and spatial planning indicators. Where possible, the data supporting the final set of indicators has been compiled and graphically illustrated in an intuitive and interactive online format, grouped by policy theme. All available and relevant data have been gathered in Excel files at NUTS III level as well as at Local Administration Unit (e.g. municipal

boundaries and district electoral divisions) where available. Time-series data has also been collated where available. The web-tool enables a visual evaluation of changes and trends in indicator values through time, as well as their spatial assessment (**See Figure A2**).

Figure A2: Sample Output Of Time-Series and Mapped Data for Iceland from the KITCASP Web-Tool.



Based on existing technology used by the AIRO web platform (Tableau, ESRI ArcGIS for Server), a series of data visualisation examples have been compiled in an online indicator dashboard systems for each territory. For the purposes of the project, the AIRO team has developed a dashboard for 3 indicators in each of the 4 project themes. Depending on data availability, the dashboard system allows a simple and straightforward interactive analysis of the changes and trends in indicator values through time, as well as their spatial assessment. The technology used in the development of the system also allows users to share results (email dashboard, embed in blog or website) and download images and data. Although all dashboards are embedded within the AIRO website for illustrative purposes it must be noted that project partners/stakeholders can easily extracting the .html code for the individual dashboards and embed within their own corporate websites. The dashboards are therefore fully accessible and 'open' and encourage the underlying evidence to be used as a basis for discussion and policy-making.

The KITCASP indicators within the AIRO website can be found at: <http://airo.ie/spatial-indicators>

A5. Data Availability

Despite the very large database gathered and developed as part of the KITCASP project, population of the final indicator set is not as complete as desired. While data availability was a core element of the selection criteria for the final set of twenty key indicators, it was not necessarily a defining rule. In some instances, an indicator was retained as part of the final set as it was considered important despite the lack of data availability in some or all the stakeholder territories. For example, measuring biodiversity represents a key difficulty with different territories displaying varying levels of data collection at different spatial scales and time series.

Nevertheless, an important part of the KITCASP process was to send a signal to national stakeholders to consider standardised data collection to populate key indicators. If and when the data becomes available the web-tool developed as part of the project can be easily updated. Furthermore, stakeholders expressed a clear desire for outcome/output indicators which would enable them to measure the concrete results of their political actions on subjects on which they have a direct influence. In this context, and although they were clearly important, process indicators which measure more vague dimensions of territorial cooperation and cohesion, such as governance and sectoral policy integration, were by and large rejected by the stakeholders as part of this project².

A6. Need for Further Analysis and Research

A key requirement of the KITCASP project specification was to examine how national analytical experience and expertise can help to inform and take forward the EU Territorial Agenda and the implications for future ESPON research. It was not the role of the KITCASP project to provide commentary on the main findings of the spatial trends revealed by the key indicators selected (as was the case in ESPON INTERCO, for example). The objective of the research was to select an inventory of key indicators based primarily on concrete user defined needs and to populate these indicators with data, where possible.

As discussed above, the KITCASP methodology has only been applied to the five specific stakeholder territories. These territories display numerous physical, geographical and institutional differences but at the same time they possess certain similarities particularly due to the fact that all of the territories display a strong commitment to strategic spatial planning. In this sense, the KITCASP project has shown that the methodology can be adapted to five quite diverse territories implying that it can be applied more generally across the EU. Indeed, a key innovative output from the KITCASP project has been the development of guidelines on the use by policy-makers of indicators and ESPON data in territorial policy development and spatial planning at the national level (**see Appendix F**).

² The ESPON TANGO project examines the supporting role of spatial planning instruments and other instruments in good territorial governance including the development of qualitative indicators for good territorial governance.

While most ESPON projects to date have focussed on spatial data at the pan-European scale, the originality of the KITCASP project is that it is among the first projects that undertook a very extensive review of the current use of spatial data held by governments and public agencies within individual case study territories. KITCASP also engaged widely with national stakeholders within each territory in order to gain their perspectives on data gathering and the use of data to underpin evidence-informed spatial planning. It is clear that there are numerous innovative initiatives ongoing in each of the territories with respect to the gathering, compiling and dissemination of spatial data, particularly through the use of open-source web based interfaces. For example, the MyPlan system developed by the Irish government brings together a wealth of spatial data and information together in a single user-friendly platform. The TPG consider that ESPON can learn significantly from much of the data gathering and innovative visualisation practices being undertaken in different national territories, particularly in the use of interactive web based interfaces. These best-practices can provide considerable inspiration as ESPON evolves into a more effective resource for spatial planners and policy-makers in the coming years.

There is also a clear appetite amongst stakeholders for greater use of spatial data in informing national spatial planning strategies and territorial development policy. However, our research reveals that typically the extent to which ESPON data have informed national policy development is currently limited. Indeed, it is true to say that ESPON data and research are somewhat abstract, and even unknown, to policy-makers and practitioners in the field of spatial planning who are often operating under numerous pressing local challenges and time constraints. In our view, this has clear implications for future ESPON research. From our detailed analysis of national analytical experience and expertise, the KITCASP project makes a number of recommendations to ESPON in terms of taking forward the EU Territorial Agenda and the implications for future ESPON research. However, perhaps the three primary recommendations arising from the KITCASP project are as follows:

1. Over the eighteen month period of working extensively with national stakeholders it is clear that there is very strong interest in all five case study territories in ESPON research and the use of spatial data to inform policy making. Nevertheless, knowledge of the work done by ESPON, the Europe 2020 strategy and TA2020 remains generally poor and often not considered directly relevant to stakeholder's daily work. However, this is not due to lack of interest or relevance, but communication. As a result of the KITCASP project working hand-in-hand with national stakeholders on the use of data and the development of spatial indicators, there is now a much stronger recognition of the value-added that ESPON research can bring to evidence informed policy making within the case study territories. This demonstrates that there is no substitute for personal engagement and implies that the role of the ESPON Contact Point (ECP) network and the proximity of interaction with policy actors through further Priority 2 projects is of crucial importance for the future capitalisation and use of ESPON results.

2. The spatial resolution of data collection and presentation clearly matters for understanding trends³. While mapping at NUTS 1/2/3 level is beneficial for trans-national comparative research and benchmarking and which has been the mainstay of ESPON research to date, it is of extremely limited functionality when undertaking national level spatial planning. As a consequence, national stakeholders are increasingly gathering data at a lower spatial scale which better reflect the territorial complexities at local levels, and which are decisive in the spatial policy decision making process. The KITCASP project explored numerous best-practices which are ongoing within national territories with respect to the use of data to inform spatial planning. ESPON can learn significantly from these innovative practices in the presentation and visualisation of data to improve usability.

3. Improving the coherency between ESPON data and indicators at the pan-European level and local level data being collected by local policy actors would greatly enhance the usability of ESPON research to inform spatial planning policy and to take forward the territorial agenda. To a large degree, there is a mismatch between the data being collected at the national, regional and local level for spatial planning/territorial development purposes and that being collected at the pan-European scale for EU reporting requirements. Given the new monitoring and conditionalities associated with Cohesion Policy post-2014 and the new territorial dimension to Cohesion Policy, the development of a set of key indicators which act as a bridge between spatial at a local level and the Europe 2020 strategy is therefore important. There is consequently a compelling case for extending the KITCASP project across the European territories which can simultaneously strengthen and harmonise the capacity for spatial analysis and continue the important work of cross-fertilising Europe 2020, TA 2020, wider Cohesion Policy and national territorial development/spatial planning policy.

³ This was a key conclusion of the ESPON SCALES (Breakdown and capitalisation of ESPON results on different scales) project

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The ESPON 2013 Programme is part-financed by the European Regional Development Fund, the EU Member States and the Partner States Iceland, Liechtenstein, Norway and Switzerland. It shall support policy development in relation to the aim of territorial cohesion and a harmonious development of the European territory.

ISBN