

KITCASP

Key Indicators for Territorial Cohesion and Spatial Planning

Targeted Analysis 2013/2/20

(Draft) Final Report | Version 31 July 2013

Part B | Main Report



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.

This report does not necessarily reflect the opinion of the members of the Monitoring Committee.

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Foreword

This is the (Draft) Final Report of the KITCASP (Key Indicators for Territorial Cohesion and Spatial Planning) project. KITCASP is a Priority 2 Targeted Analysis transnational project commissioned by ESPON under the ESPON 2013 programme and based on stakeholder demand. The five stakeholder territories are Scotland (the lead stakeholder), Ireland, The Basque Country, Iceland and Latvia, who developed the project specifications in conjunction with the ESPON Coordination Unit.

Five research institutes, one for each stakeholder territory, constitute the Transnational Project Group (TPG). This (Draft) Final Report is the result of extensive cooperation between the TPG. The Lead Partner is the National University of Ireland, Maynooth, Ireland¹ who had overall responsibility for coordinating the TPG and ensuring the smooth implementation of the project. The four other project partners are the London South Bank University (LSBU), United Kingdom; Universitat Politècnica de Catalunya (UPC), Spain; University of Akureyri Research Centre (UNAK), Iceland; and the Vidzeme University of Applied Sciences (VUAS), Latvia. Each of the TPG partners has been responsible for working with the stakeholders in their respective territories.

The TPG wishes to sincerely thank everybody who has participated in the project, inputting into the territorial profiles; stakeholder consultation and workshops; and the various documents that have been developed as part of the project. Most importantly there has been extensive contact and dialogue with key representatives from the stakeholder territories who kindly gave their time to input into the project. Without their participation this (Draft) Final Report would not have been possible. Stakeholder workshops were held in each of the stakeholder territories which allowed for gathering invaluable insights into territorial challenges. The ESPON CU has contributed with very useful comments, which have had a significant influence on the contents of this (Draft) Final Report. Finally, the KITCASP TPG wishes to extend special thanks to Rhona Bradshaw who oversaw the financial management of the project.

The (Draft) Final Report is, in this sense, based on inputs from many contributors. Although the ESPON CU and the stakeholders developed the original project specification, it has inevitably evolved throughout the lifetime of the project. The TPG has tried to steer the project to a satisfactory conclusion and hopefully the output is close to that originally anticipated by the stakeholders. The TPG is, however, responsible for the contents of the report and any shortcomings therefore rest with them. While the overall aim of the KITCASP project was the identification of a key set of indicators for territorial cohesion and spatial planning, it may well be that the most enduring outcome and legacy from the project will be the relationships that have formed together with the rich exchange of ideas and experiences in territorial development between each of the stakeholder territories.

¹ The National Institute for Regional & Spatial Analysis (NIRSA) is based at the National University of Ireland, Maynooth

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Part B | Main Report

B1. Framing the Project

B1.1 Introduction

KITCASP is an ESPON Priority 2 Targeted Analysis project. The project is based on stakeholder demand, implying that the practical needs of the stakeholder are the key priority for the outcome of the project. The five stakeholders for the project are listed in **Table B1**.

ESPON Priority 2 projects seek the use of existing ESPON results in partnership with different groups of stakeholders with the aim of:

- Enhancing understanding of the larger territorial context;
- Making comparisons to other territories, regions and cities; and
- Including a European perspective to considerations on the development of their territories.

KITCASP is therefore not about generating new data, maps and typologies for the ESPON database. **The project's key purpose is 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 questions were identified by the stakeholders as part of the project specification to be addressed by 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?***

Central to the thinking of the TPG in the implementation of the project was to ensure a clear transferable character of the project results and to be capable of concrete implementation. The focus of the project was, therefore, on the stakeholder territories and the methodology developed was primarily inductive or 'bottom-up' as follows:

- Review the current use of spatial data by government and public agencies in the case study nations and identify any gaps, uncertainties or limitations in the data available;

- Examine the extent to which ESPON data have informed national spatial planning strategies and territorial development² policy in each case;
- Develop guidelines on the use of indicators and ESPON data in territorial policy development at the national level;
- Identify a core set of key indicators of territorial cohesion, economic competitiveness and sustainable development to inform spatial planning at the national level, drawing on ESPON research and datasets available in the case studies;
- Consider how the capacity for spatial analysis can be strengthened and harmonised at the national level; and
- 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.

| | | |
|---|----------------------|---|
|  | Scotland | Scottish Government's Directorate for the Built Environment |
|  | Ireland | Spatial Planning Unit, Department of Environment, Community and Local Government |
|  | The Basque Country | Department of the Environment and Spatial Policy |
|  | Iceland ³ | Icelandic National Planning Agency |
|  | Latvia | State Regional Development Agency, Analyses and Research Coordination Division & International Projects and Communication Division, |

B1.2 The Challenges and Parameters of the Project

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 praxis to address local, regional and global challenges. The need for a greater empirical understanding of national territorial development policy decisions and evidence-informed⁴ performance monitoring has been hastened by the ongoing fiscal crisis and the need to ensure greater optimisation, integration, coordination and justification

² Note: Throughout this report we understand the term "territorial development" as understood by the Barca Report (Barca, 2009) to refer to a 'Place Based' policy approach aimed at enhancing well-being and living standards in specific regions and at generating and sustaining regional competitive advantages with a fuller and better use of regions' assets. In this approach, regions are not defined according to administrative boundaries. The strategy is place-based, multilevel, innovative and geared to different types of regions, and aims at institutional building/strengthening, improving accessibility to goods, services and information, promoting innovation and entrepreneurship. In this context the objectives of territorial development are analogous to strategic spatial planning.

³ Note: Iceland is a member of the European Economic Area (EEA) and not a member of the EU.

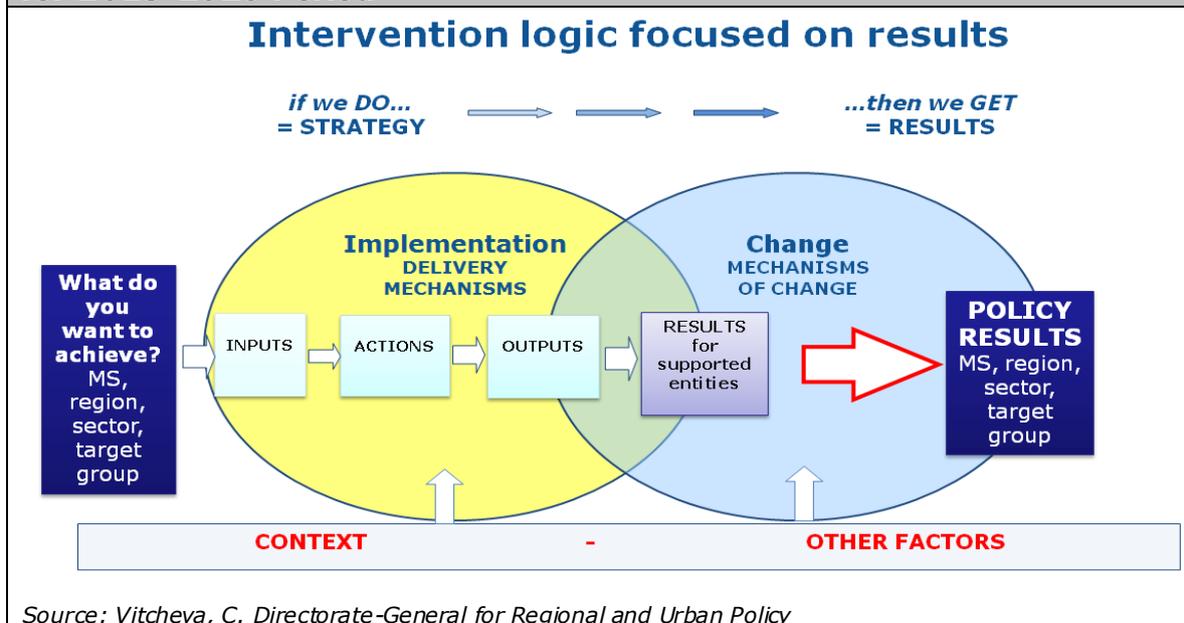
⁴ Note: Throughout this report the term 'evidence informed' rather than 'evidence-based' policy is used based on the understanding that 'evidence' is but one of several inputs into the policy-making process (see, for example, Davoudi, 2006; Dühr and Müller, 2012)

of sectoral policies. This is equally true in each of the stakeholder territories. For example, Ireland is shortly to commence a review of its National Spatial Strategy and has established a Regional Planning Indicators Working Group to develop a monitoring mechanism to measure progress in the implementation of spatial policies (**see Appendix E**). Similar initiatives are ongoing in Scotland (National Planning Framework 3), The Basque Country (Udalplan), Iceland (Iceland 2020) and Latvia (Latvia 2030).

The EU is also changing rapidly. The proposed Multi-Annual Financial Framework (MFF) for the 2014 – 2020 period places a new much tighter emphasis on the impact of EU cohesion funding and a strong focus on results, performance and conditionality coordinated with the European Semester and the Europe 2020 strategy (**See Figure B1**). 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 key aims of Cohesion Policy for the 2014-2020 period will be to:

- Promote economic, social and territorial cohesion and solidarity among Member States;
- Deliver the Europe 2020 strategy objectives of smart, sustainable and inclusive growth;
- Create a tighter link between cohesion policy and the European Semester;
- Deepen the internal market and boost economic growth, employment and competitiveness; and
- **Ensure a clear focus on results and performance in order to maximise the impact and efficiency of EU funding.**

Figure B1: Overview of Results Focussed Logic for Cohesion Policy for 2013-2020 Period



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, 2011a),

including, for example, Integrated Territorial Investments (Macro-Regional Strategies), integrated urban development, innovative urban actions and enhanced territorial cooperation. Furthermore, the main conclusions of new EU Territorial Agenda (TA) 2020 (**See Table B2**) calls for the cross-fertilisation of the Europe 2020 and TA2020; for Member States to integrate the principles of territorial cohesion into their spatial planning mechanisms; and to develop improved territorially sensitive spatial monitoring to better coordinate evidence-informed planning efforts to achieve country-specific Europe 2020 targets (Daly and Gonzalez, 2013).

| Territorial Development Priority | Policy Objectives |
|---|--|
| Promote polycentric and balanced territorial development | <ul style="list-style-type: none"> • Improve settlements' performance in European and global competition and promote economic prosperity towards sustainable development; and • Contribute to reducing the strong territorial polarisation of economic performance, avoiding large regional disparities by addressing bottlenecks to growth. |
| Encouraging integrated development in cities, rural and specific regions | <ul style="list-style-type: none"> • Smart development of city regions at varying scales; • Development of the wide variety of rural areas to take account of their unique characteristics; and • Recognise and promote urban-rural interdependence through integrated governance and planning based on broad partnership. |
| Territorial integration in cross-border and transnational functional regions | <ul style="list-style-type: none"> • Create a critical mass for development, diminishing economic, social and ecological fragmentation, building mutual trust and social capital. |
| Ensuring global competitiveness of the regions based on strong local economies | <ul style="list-style-type: none"> • Improve local economies through research and capacity building of the human capital, and the development of local products and markets, business environments, locally-oriented training provision, and partial self-sufficiency; • Preserve and improve the innovation capacity of all regions; and • Diversification of the local economy to decrease vulnerability. |
| Improving territorial connectivity for individuals, communities and enterprises | <ul style="list-style-type: none"> • Provide services and minimise infrastructure barriers (secure access to road, rail, water-based and air transport, and to other infrastructure facilities such as broadband and trans-European energy networks); and • Improve accessibility of urban centres in peripheries, rural areas, and islands and overseas territories. |

| | |
|---|---|
| <p>Managing and connecting ecological, landscape and cultural values of regions</p> | <ul style="list-style-type: none"> • Protection and enhancement of cultural and natural heritage; Joint risk management; • Local, regional and trans-regional management of cultural and natural landscapes; and • Strengthening awareness and responsibility of local and regional communities and environmentally friendly job creation. |
|---|---|

Conditions are being put in place through a Common Strategic Framework (CSF) (CEC, 2012) for all EU funding through the selection of eleven thematic areas to ensure that Cohesion Policy contributes in full to Smart, Sustainable and Inclusive Growth in the EU (**See Figure B2**). Proposed Cohesion Policy acknowledges that the 2007-2013 programme had limited impact due to fragmentation of resources. Partnership Agreements and Operational Programmes for Member States will be based on Needs Assessments which will include ex-ante conditionalities linked to the thematic objectives, country specific recommendations and investment priorities. General ex-ante conditionalities are also being put into place linked to horizontal aspects of programme implementation to ensure that conditions for effective investment are in place including an appropriate regulatory framework; effective policies with clear policy objectives; and sufficient administrative/institutional capacity, including enhanced monitoring arrangements.

Figure B2: Key Elements of the Europe 2020 Strategy and the Corresponding CSF Themes



One of the key challenges in implementing the now required enhanced performance monitoring, oversight measures and reporting is that over the past decade there has been a very significant increase in the range and availability of spatial datasets on an ever wider series of topics collected at EU, national and regional levels, not least as a result of ESPON research. However, the use of these data to underpin evidence-informed spatial policy-making has

been typically sub-optimal, partly due to the sheer 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 distil these data and translate 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 aim of the KITCASP project was therefore to address three main goals:

- **Identification a core set of key indicators of territorial cohesion, economic competitiveness and sustainable development to inform territorial development/spatial planning at the national level;**
- **Development of guidelines on the use of indicators, ESPON data and spatial analysis in territorial policy development at the national level;**
- **Formulation of recommendations to ESPON on how national analytical experience and expertise can help to inform and take forward the EU Territorial Agenda and the implications for future ESPON research.**

The interactive stakeholder driven approach to the project across the five territories did, however present a number of significant hurdles. Firstly, each of the stakeholder territories demonstrates some significant sharing of territorial agendas and interests, particularly in respect of their relative peripherality to European core. However, they also display some significant geographical differences in terms of territorial development, physical attributes, challenges, policy drivers and governance. While all of the stakeholder territories have a common commitment to strategic spatial planning, there are also some substantial disparities in terms of planning systems and cultures. These heterogeneous conditions are common throughout all Member States and were recognised at the outset of the project as a central challenge for the identification of a set of consistent and coherent key indicators – including in any future rolling-out the project findings beyond the five stakeholder territories.

Secondly, while the participatory nature of the project is essential to capture concrete policy demand, inherent in the inclusion of multiple stakeholder voices from diverse territories in the selection of indicators is the risk of receiving many different and sometimes contradictory requirements that may not be reconcilable. **The primary aim of the KITCASP project is the identification of a set of key indicators of territorial cohesion, economic competitiveness and sustainable development. The TPG team, in consultation with the stakeholders, considered that no more than twenty indicators should be identified in order for the project to fulfil this requirement.** This core set could be supplemented with a bespoke set of discretionary (of case-specific) indicators for individual territories, as required. 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 specific characteristics of their territory. However, there are literally hundreds of potential indicators available from a multitude of data sources at the pan-European level, in each of the stakeholder territories and at different spatial

scales. Indicators are, by necessity, a compromise between scientific accuracy and conciseness, and the identification of the final set of twenty key indicators involved a filtering process which inevitably included an element of judgement, reasoning and compromise on the part of the KITCASP TPG. For each of the final set of indicators presented in this (Draft) Final Report, it is recognised that there may be numerous and justifiable counter-claims for alternative indicators.

Thirdly, the characteristic of a good indicator is its ability to translate, sometimes complex, relationships about 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. In order to achieve this, data must be available for the relevant spatial scale and temporal resolution at the highest possible level of quality. Each of the stakeholder territories exhibit differing data availability constraints including differing nomenclature and definitions in the unit of measurement of key data. In some instances, these data limitations presented particular problems in populating the final set of key indicators.

B1.3 Concept Definition and Refinement

The purpose of KITCASP was to develop a set of key indicators for 'territorial cohesion' and 'spatial planning'. In order to develop a relevant group of indicators, some unpacking of these two key concepts was required.

International literature suggests that there is no clear conceptual approach to defining the concept of territorial cohesion. The ESPON INTERCO Report grappled with the "impossible definition" of territorial cohesion and recognised that it was not encompassed by one single meaning (ESPON, 2012, see also, Adams et al., 2013; Cotella et al., 2012;). This is also clearly demonstrated by the diversity of definitions and narratives in Commission staff working document annexed to the Green Paper on Territorial Cohesion published by the European Commission in 2008 (CEC, 2008). The almost 400 responses submitted in response to the Green Paper by governments, local/regional government, quasi-government agencies and other stakeholders demonstrated some common themes but also considerable differences in the interpretation of the concept of territorial cohesion. This conclusion of lack of definitional clarity has also been reached in the KITCASP project research and also became apparent during stakeholder consultation. While the principle of territorial cohesion is already well integrated into national policies in all of the stakeholder territories, it was clear that there was differing levels of both understanding and implementation of the concept **(See Section C3.7)**.

Therefore, rather than a focus on a single definition, the KITCASP TPG considered that territorial cohesion may be more usefully understood as a broad process of promoting spatial justice and a more cohesive and balanced territory by:

- Supporting the reduction of socio-economic territorial imbalances;
- Promoting environmental sustainability;
- Reinforcing and improving territorial cooperation and governance processes; and,

- Reinforcing and establishing a more balanced and polycentric urban system (Medeiros, 2010)

Despite varying perspectives, a Europe-wide consensus appears to be forming around some aspects of territorial cohesion policy, including the application of the 'place-based' approach (Barca, 2009), which proposes geographically tailored interventions in functional spatial units, and the need for an integrated territorial orientation in policy implementation and evaluation.

Taking the "Torremolinos Charter"⁵ definition of spatial planning as starting point, it is clear that there is a very significant overlap between the concepts of territorial cohesion and spatial planning. A key aim of spatial planning is to promote territorial cohesion through a more balanced social and economic of regions, and improved competitiveness through the coordination and integration of the spatial dimension of sectoral policies through a territorially-based strategy (see Cullingworth and Nadin, 2002; Economic Commission for Europe, 2008). Indeed, some authors argue that EU territorial cohesion, and regional, policy are gradually evolving into, de facto, EU spatial policy (Elorrieta, 2011). This would appear to be reconfirmed by TA2020 which calls for a new "cross-fertilisation" of EU cohesion and spatial planning policy (CEC, 2011a). The European Commission's proposals for Cohesion Policy post-2014 also calls for new macro-regional strategies (also referred to as Integrated Territorial Investments) as broad-based funding instruments and has mechanisms to draw down cohesion policy co-financing based on the principles of horizontal coordination, evidence-informed policy-making and integrated functional area development, with an emphasis on a 'place-based' policy approach to unleash endogenous territorial potential and to build on specific local assets which contribute to competitiveness (CEC, 2011b). Although, ever since the publication of the European Spatial Development Perspective (CEC, 1999) there has been an absence of a mandate for EU spatial policy, it is clear that within the realms of EU cohesion and territorial policy there is clear coalescing of factors which signals the opportunity for a potential new role for spatial planning as a critical platform to coordinate and harmonise sectoral policy action and future EU cohesion funding programmes.

B2. Key Analysis

B2.1 Analytical Framework

The KITCASP project was required to encompass economic, demographic, social and environmental indicators relating to the stakeholder territories. The ESPON 2006 and ESPON 2013 programmes produced a wide range of Europe wide data and indicator sets. There is also a significant wealth of data available from other non-ESPON sources, at EU, national, regional and sub-

⁵ The European Regional/Spatial Planning Charter (often called the "Torremolinos Charter"), adopted in 1983 by the European Conference of Ministers responsible for Regional Planning (CEMAT) defined regional/spatial planning as: *"Regional/spatial planning gives geographical expression to the economic, social, cultural and ecological policies of society. It is at the same time a scientific discipline, an administrative technique and a policy developed as an interdisciplinary and comprehensive approach directed towards a balanced regional development and the physical organisation of space according to an overall strategy."*

regional levels. In order to navigate through this mass of information a suitable 'jumping off point' was required. The final report of the ESPON INTERCO (Indicators for Territorial Cohesion) (ESPON, 2012) 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 further builds upon the methodology developed by the ESPON 4.1.3 (Feasibility Study on Monitoring Territorial Development based on ESPON Key Indicators) project (ESPON, 2007). Given the obvious overlap with the KITCASP project, and in order to fully harness and capitalise ESPON research, INTERCO has been used as the primary starting point, or foundation, for the development of indicators in KITCASP. INTERCO has also provided invaluable methodological and filtering guidance for indicator selection including in terms of the identification of indicators with a clear spatial dimension as follows:

- They provide improved spatial resolution i.e. they are calculated at sub-national level, possibly at NUTS 3 level or below;
- They are based on intrinsic spatial components such as distance, area e.g. the population potential within a given distance;
- They are put in context i.e. they give some measure of intra-European or inter-regional differences;
- They are calculated by types of areas;
- They include a temporal dimension;
- They can be interpreted in relation to the territorial objectives expressed in policy documents such as the TA2020 or Europe 2020 (i.e. having a clear desired direction of change); and
- They can be linked together logically speaking (through a reasoning), or even ultimately combined into synthetic indicators, in order to provide a coherent multidimensional view on the territory.

(ESPON, 2012a)

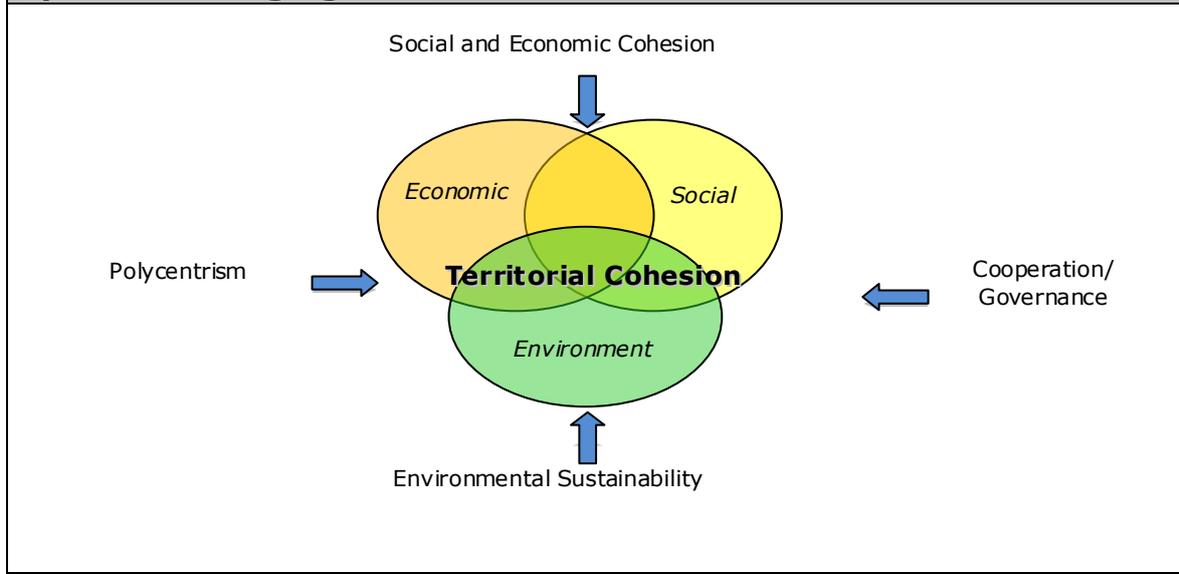
Of further particular interest to this study was a feasibility study on monitoring territorial development that was produced as one of the final outputs of the ESPON 2006 Programme. The project team, led by the Federal Office for Building and Regional Planning (BBR) in Germany, adopted a comprehensive understanding of 'spatial monitoring'; acknowledging the critical position of such monitoring frameworks at the interface between scientific research, policy and politics:

"Spatial monitoring must satisfy both the demands for an analytical base for sound spatial analysis and also for the varying political demands enabling the evaluation of policy strategies and the assessment of the achievement of policy aims"(ESPON, 2007)

In order to be useful, it is clear from previous studies and literature that indicators must be linked to key policy priorities and measure direction of change in achieving these priorities over time. Therefore, the first phase of the project focussed on identifying common priority policy goals for all of the five stakeholder territories. Having regard to the conceptual refinement of 'territorial cohesion' and 'spatial planning', the analytical model illustrated in **Figure B3** was developed to understand the cross-over between spatial

planning and territorial cohesion based on the sustainable development paradigm of integrated and balanced economic, social and environmental development. Therefore, the final list of KITCASP indicators was required to capture: (a) economic competitiveness; (b) social cohesion; and (c) environmental protection. These are complemented by two additional core aspects in the territorial cohesion agenda: (d) territorial cooperation and governance, and (e) balanced polycentric urban systems.

Figure B3: Components of Territorial Cohesion and Overlap with the Spatial Planning Agenda.

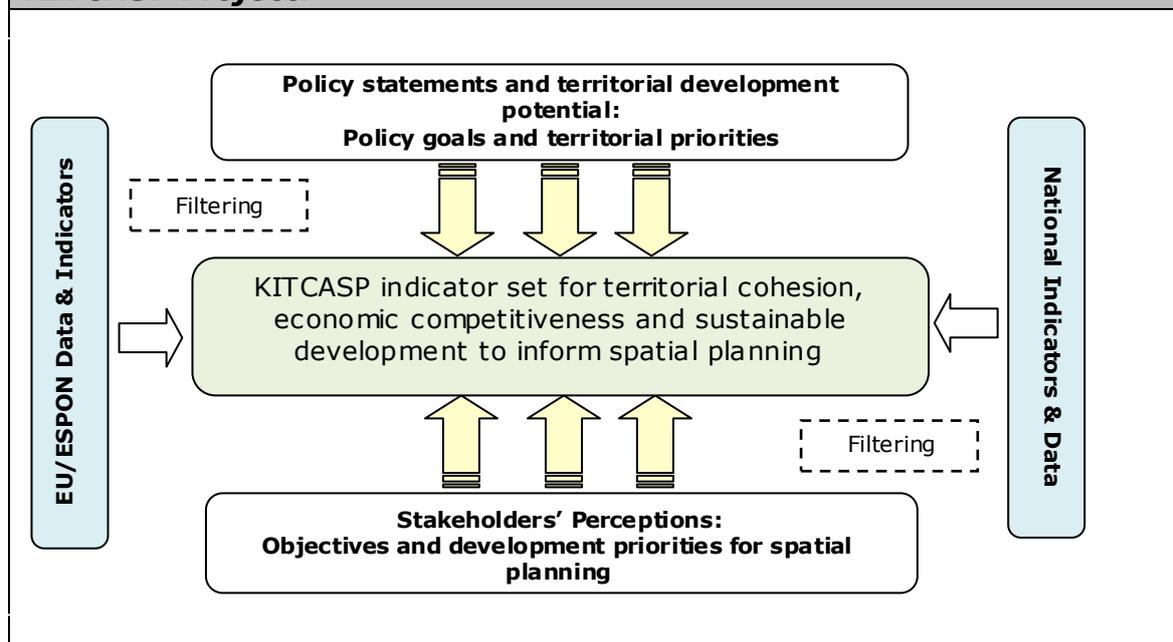


B2.2 Methodological Approach

In order to clearly situate the KITCASP project with existing ESPON research, the methodology developed combines both 'bottom-up' with 'top-down' approaches. This mixed approach was inspired by the ESPON INTERCO and ESPON Project 4.1.3 combining the analytical framework developed by the KITCASP TPG and participatory interactions with stakeholders in order to capture their practical needs.

Figure B4 illustrates the broad components of the methodological approach applied in the project. The 'top-down' approach was used to define key EU and national policy priorities based on a review of policy statements and territorial development potential, as well as to establish a preliminary inventory of indicators based on their relevance and applicability. The 'bottom-up' approach was applied to gather practical insights from stakeholders on policy objectives, policy drivers and development priorities in the context of spatial planning and territorial development. These two components converge through a filtering process to determine indicator selection criteria and thus provide a final set of core and discretionary indicators. This synthesised methodological approach to the KITCASP project is further elaborated in **Section C2** of this (Draft) Final Report.

Figure B4: Schematic Representation of The 'Top-Down' and 'Bottom-Up' Approaches To Indicator Selection Developed for the KITCASP Project.

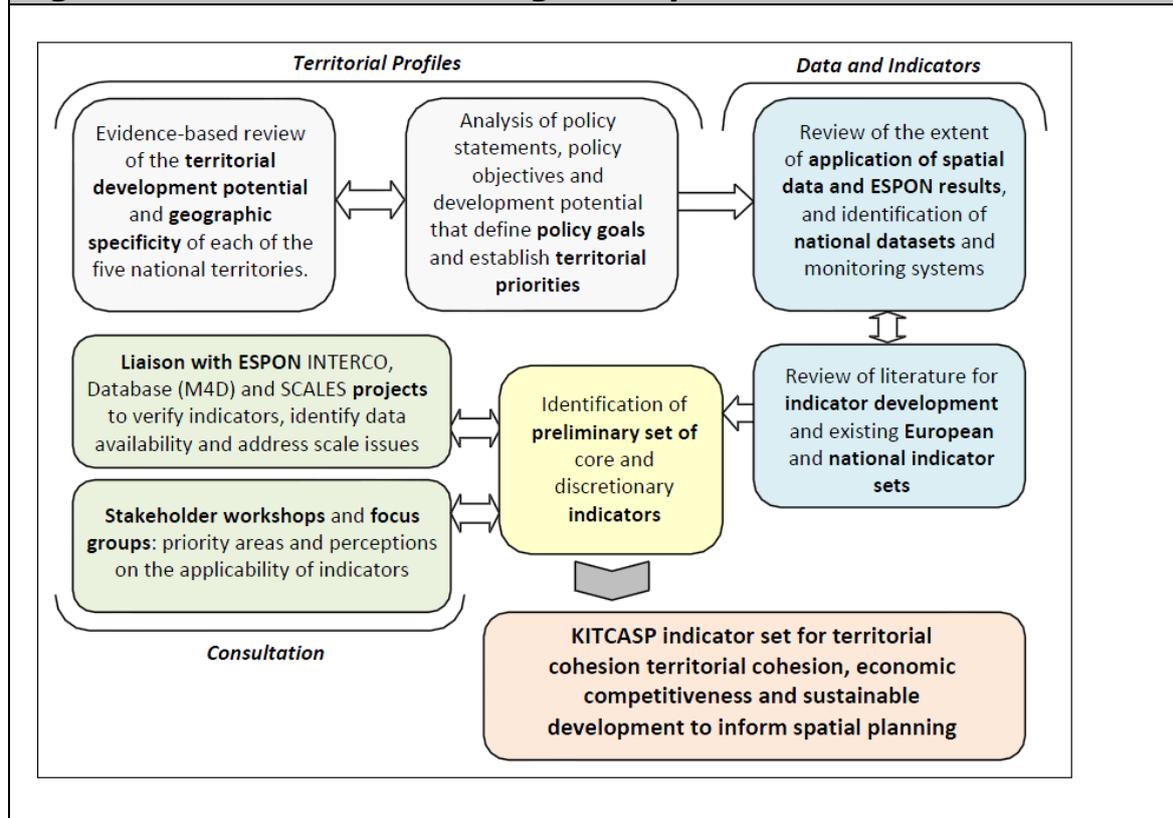


In responding to the project specification, the KITCASP project was undertaken in a sequential phased basis. The methodological sequence is illustrated in **Figure B5** can broadly be outlined as follows:

1. A desktop review of the territorial development potential and geographic specificity of each of the five territories was undertaken by each member of the TPG using a common, structured approach.
2. A detailed and systematic analysis of policy statements, policy objectives and development potential that define policy goals and establish territorial priorities was undertaken in each territory. The analysis was supplemented with workshops and expert interviews with key stakeholders at national level.
3. A review of the extent of application of spatial data and ESPON results, and identification of national datasets and monitoring systems. The primary focus of this analysis was to provide an assessment of, firstly, the current application of spatial data and, secondly, the application of ESPON results, in each case study territory.
4. A review of literature for indicator development, methods and existing European and national indicator sets in order to facilitate indicator development.
5. Structured stakeholder workshops and focus groups were undertaken to identify key spatial policy priority themes and to understand perceptions on the applicability of indicators and national requirements for spatial indicators.
6. Analysis of the ESPON INTERCO and Database (M4D) to verify indicators, identify data availability and address scale issues.
7. Identification of preliminary set of core and discretionary indicators specific to each territorial context and linked to common themes.

8. Filtering and refinement of core and discretionary indicators to ensure that the proposed indicators were adjusted to maximise their explanatory power, practicality, relevance and ease of understanding. The filtering and refinement process also served as a systematic check regarding data availability and spatial resolution and to ensure they resonate with EU priorities and agendas.
9. Development of guidelines on the use of indicators and ESPON data in territorial policy development at the national level and the identification of key recommendations for ESPON arising out of the research project.

Figure B5: KITCASP Methodological Sequence



B2.3 Territorial Profiles of the Five Stakeholder Territories

Territorial profiles were carried out for each of the five stakeholder territories in order to provide a qualitative description of the case study territories. The territorial profiles, which are provided in full in **Section C3 and Appendix A**, were used as a tool to develop a baseline overview of the key spatial planning priorities within each stakeholder territory of direct relevance to indicator selection. This qualitative desktop analysis was supplemented with quantitative data to describe context and offer insights into why certain territories may focus more on certain policy priorities rather than others and to inform the subsequent stakeholder workshops. The territorial profiles were undertaken using a common standardised structured approach in order to facilitate their comparative analysis between the stakeholder territories as follows:

- Overview of key characteristics of the case studies within their European and national contexts;
- Assessment of key territorial development challenges and specific issues in each national context;
- Assessment of territorial policy orientations and objectives in each national context; and
- Review of the current use of spatial data and indicators (including ESPON).

As part of providing an overview of key characteristics of the case study, each case study territory was placed within its broader European context through a process of spatial positioning. Spatial positioning facilitates new insights and identifies possible new opportunities and relationships using ESPON typologies (including the urban – rural, performance and structural typologies). Once each stakeholder territory had been positioned within its broader European context, the key elements of the national context were described, in order to provide a framework for assessing the commonalities and differences in the characteristics between the case studies. A brief overview of the spatial structure and territorial characteristics (within the place, people and power framework developed for the ESPON PURR project(ESPON, 2012b)) of the case study territories was prepared using quantitative and qualitative data, along with their NUTS classification (**See Section C3**). The key elements of the national context were structured under the following headings:

Place

- Location, spatial characteristics and spatial structures
- Accessibility
- Economic profile
- Natural resources and qualities
- Landscape resources and qualities

People

- Demographic indicators (total population, population dynamics, structure, densities)
- Education, skills and training (educational attainment, population with tertiary education)
- Research and innovation capacity (extent and distribution of higher education opportunities)
- Access to services
- Inclusion, quality of life, health and well being
- Strength of social and cultural capital

Power

- Institutional and governance structure(s)
- Key documents relating to territorial development
- Extent of engagement with EU programmes and projects
- Extent and nature of NGO, community and voluntary sector
- Political context and extent of political engagement
- Extent of endogenous and exogenous capital and financing

B2.4 Stakeholder Engagement & Workshops

The ultimate aim of the ESPON KITCASP project was to ensure high usability and concrete implementation of the final set of indicators by policy-makers dealing with territorial cohesion and spatial planning in each of the stakeholder territories. Accordingly, the TPG actively engaged with stakeholders throughout the course of the project to factor in their perspectives and perceptions. As a Priority 2 project, it was considered highly important to ensure links and ongoing communication between research and practice in order to ensure the relevance and applicability of the resulting final set of indicators and the practical implementation of the guidelines and recommendations.

The TPG worked closely with the lead stakeholder in each case study territory to identify relevant stakeholders to consult with based on their involvement in strategic spatial planning (*see Section C3 and Appendix A*). Stakeholder engagement took a variety of forms in each of the case study territories. Structured workshops with key local actors were combined with focus groups and semi-structured interviews with representative individuals in each of the case studies. Typically, two main rounds of consultation workshops were carried out. The first round of stakeholder workshops focused on defining the vision, policy drivers and key policy objectives for each case study arising from the territorial profiles. Stakeholder consultation was guided by a standard set of questions. Although issues to be discussed were not limited to these questions, they were intended as a comparative framework for reporting on the workshops outcomes. A set of preliminary indicators were then identified and these were validated and fine tuned at the second and subsequent rounds of workshops.

The workshops captured the diverse understandings of territorial cohesion and revealed the multiple spatial planning policy debates and the contradictory forces at stake both within and between stakeholder territories. For example, stakeholders in The Basque Country, Ireland, Latvia and Scotland agreed that territorial cohesion related to the pursuit of more balanced patterns of development and reducing disparities. Stakeholders in the The Basque Country related this to achieving a balance between the three main cities and between the smaller centres and rural areas. Stakeholders in Scotland felt that the position of the Scottish Government resonates strongly with the cohesion agenda and stressed the importance of context sensitive local solutions to respond to the diverse challenges facing territories. Concerns were raised about the extent to which the rhetoric of balanced development is reflected in the reality of the economies of many countries being increasingly driven by a small number of large urban centres, primarily the capital regions such as Riga in Latvia and Dublin in Ireland.

Equally, there was a high degree of consensus between stakeholders in the case study territories about interpretations of key concepts such as economic competitiveness and sustainable development. However, there was also consensus that these were extremely broad terms and in the context of KITCASP the focus should be on the territorial/spatial dimension of these concepts. There was a strong emphasis on the need to strengthen economic

competitiveness and to create employment opportunities. Stakeholders in Scotland argued, however, that resilience was more relevant than competitiveness as the latter is a more subjective term, the meaning of which can evolve in different contexts and can leave territories more vulnerable to negative impacts of globalisation. Scottish stakeholders also raised concerns about increasing conflicts and tensions between economic and environmental goals.

Territorial co-operation and governance was also a theme that emerged strongly during the workshops, particularly in Ireland, The Basque Country, Iceland and Latvia. Effective territorial governance was noted as a pre-condition of successful spatial planning, particularly in the increasingly complex multi-level (vertical) and cross-sector (horizontal) environment within which decisions with spatial implications are made. Strengthening the effectiveness of governance structures and processes has received considerable attention throughout Europe in recent years. Nevertheless, recent reports in Ireland (DoECLG, 2010), for example, have been critical of implementation mechanisms and processes suggesting that there is still considerable scope for strengthening governance arrangements, including monitoring. Despite this, no clear direction emerged from the stakeholders in the final list of key indicators for the inclusion of qualitative process indicators with a strong preference in favour of output/outcome indicators. The 'fuzzy' and abstract nature of the concept of governance mean that it is difficult to measure in a meaningful way that would be easily comparable between different territories.

In addition to the above, the TPG met formally four times and these meetings were combined a stakeholder workshop in the territory where the meeting took place and to which all stakeholders and the ESPON CU were invited. These workshops were timed to coincide with key milestones of the project – Latvia (July 2012- Inception Report); Donostia-San Sebastian (December 2012 – Interim Report); and, Reykjavik (May 2013 – Pre - (Draft) Final Report). The purpose of these meetings/workshops was to report progress in project implementation and steering, present interim findings and to receive feedback from the stakeholders. All of the input received from stakeholders has been taken on board in the final development stages of the project. Overall, the workshops provided invaluable insights and have been an extremely important part of the project work, allowing the TPG to better understand the user perspective of indicator development and to build a bridge between theory and practice.

B2.5 Selecting Policy Themes

Drawing on the feasibility study on monitoring territorial development produced as part of the ESPON 2006 Programme as described in **Section B2.1** above, in order to ensure high usability of the final indicators by policy-makers, it is essential that each indicator must be linked to a policy priority. In the absence of such linkage indicators serve no discernible purpose and provide no added value to policy implementation and governance. In effect, this stage of the project asked the question: "what is to be measured?". A central component of the project from the outset was therefore the identification of a common set of key priority policy drivers. The basic idea of

using this framework is that indicators should reflect the territorial/spatial impact of policy priorities so that the implementation of that policy can be measured over time and space. However, application of this framework is far from straightforward when applying it to disparate territories and where policy instruments are often concerned directly and/or indirectly with territorial cohesion and spatial planning.

The results of the workshops were extremely illuminating for the purpose of identifying policy priorities but what had to be measured was still vague, particularly in trying to cross all of the challenges, policy conflicts and issues within and between them. Ultimately each member of the TPG, in consultation with stakeholders, drew up a list in order of importance of the key policy drivers in each territory in respect of territorial cohesion and spatial planning using the analytical framework developed in **Section B2.1**. This enabled the development of a comparative table which was used to isolate the key common policy priorities that were relevant for each territory, regardless of its geographic and territorial specificities. The policy priority drivers were put forward for consideration by each TPG member on the basis of the individual territorial profiles and stakeholder input. Importantly, the policy drivers were also supported by a preliminary review of existing national and ESPON indicators sets so that, where possible, there was a sound practical and empirical back-up based on: explanatory power/policy relevance, availability/data basis, spatial dimension and practicability. On the basis of the outcomes of this process, a preliminary consensus on the shared spatial challenges and territorial priorities across some of the priority drivers was observed (**See Section C3.7**).

Once the shared policy drivers were identified, these were grouped into themes. The purpose of themes was to enable the identification of a common set of consistent and coherent indicators between each of stakeholder territories under which the indicators could be grouped. The core role of the themes and their associated storylines was to be a crossing point between key policy driver orientations on the one hand and the issues to be measured on the other hand - around which indicators could be categorised. As such, this process constituted a critical step in the process as a classification scheme for the selection of indicators and facilitated a check to ensure that all of the subsequently selected indicators covered all of the dimensions of territorial cohesion and spatial planning as identified by the stakeholders. The themes were subsequently refined through a further round of iterative stakeholder consultation and presented at the stakeholder meeting in Donostia-San Sebastian in December 2012. **Table B3** illustrates the four common priority policy themes which were ultimately agreed between the stakeholders and the TPG as the basis for grouping and categorising indicator sets⁶.

⁶ Note: The Basque Country stakeholders requested a fifth theme relating to 'Mobility and Infrastructure' be included. However, it was considered by the TPG that these issues were adequately captured in the four selected themes.

| Table B3: 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 |
| Integrated⁷ 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. |

B2.6 Selecting the Indicators

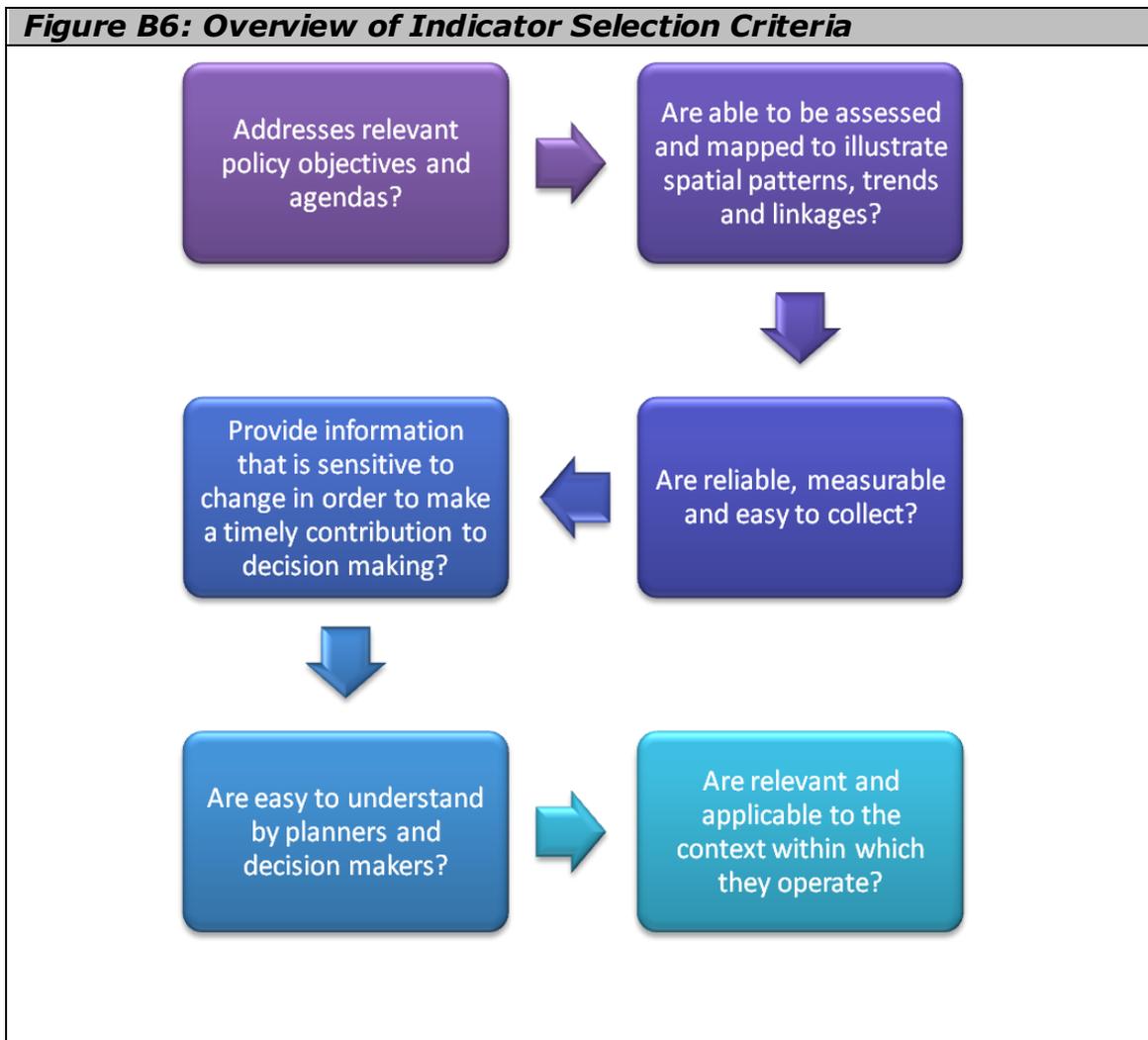
Once the common themes had been selected, the objective was **to identify the five indicators for each case study territory that (a) most suitably addressed the agreed themes and (b) built on existing data and indicators, as much as possible.** Furthermore, a 'long list' of three additional indicators were also pre-selected for each territory if considered relevant and appropriate in order to provide flexibility to the approach and address any additional context-specific issues. On the basis of this iterative and policy driven prioritisation approach the total indicator inventory was narrowed down to approximately 35 clear and easy to interpret; relevant; applicable; measurable; and analytically sound indicators in each case study territory. However, this was still too many and a further round of refinement was required in order to reduce the number down to twenty common core indicators to ensure the project responded to the requirement of having a small number of simple, meaningful and policy relevant indicators as required by the stakeholders. The filtering process used to identify the final list of indicators is more fully described in **Section C2.1.**

⁷ Note: 'Managed Spatial Development' was originally selected but this was subsequently amended to 'Integrated Spatial Development' through consultation and refinement.

In keeping with the overall 'bottom-up' philosophy of the project, the indicator sets brought forward from each of the case study territories for each of the policy themes formed the basis for indicator selection. It was considered that making use of existing indicator sets would more easily contribute to ensuring that:

- (a) Indicators are more likely to be currently applied and understood by plan and policy-makers as an informed selection has been made when developing these indicator sets; and
- (b) A monitoring system is in place (or can more easily be put in place) that ensures regular data gathering and reporting and thus data is available to populate individual indicators. Where relevant indicator sets were not available or where such sets did not address the identified policy themes, other data sources were analysed to identify any relevant sources of proxy information in support of the development of relevant indicators.

Figure B6: Overview of Indicator Selection Criteria



The indicator filtering process was then complemented with a 'top-down' cross-check to ensure that themes and associated indicators fulfilled the requirements of the project in the context of the policy goals and territorial priorities set in the Europe 2020 strategy and TA 2020. This was considered a

key component of the project as it offered the best possibility of revealing common indicators relevant to the EU territorial cohesion agenda as these policies will define the overall territorial political agendas over the next decade for the whole of the EU territory. In addition, the applicability of ESPON data, and consistency with other ESPON indicator sets (e.g. INTERCO, SIESTA, PURR, TANGO, TPM and BSR-TEMo (for Latvian Indicators)), as well as national indicator sets and data were used as important filters for indicators selection. The ESPON Database and this was examined to see if relevant indicators could be identified and data available to populate the indicators.

The final indicators are grouped into *core* (i.e. those applicable in all the case studies and *discretionary* indicators (i.e. case-specific indicators of high policy relevance). The latter are indicators which, due to lack of commonality, were not selected for the final list of twenty key indicators but are distinctive to individual territories and can be used in a complementary role with the key indicators or for the development of a bespoke set of 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 specific characteristics of their territory. The final selected list of indicators is set out in **Table B4**.

| Table B4: Final Inventory of Twenty Key Indicators for Territorial Cohesion and Spatial Planning Selected By KITCASP | | |
|---|---|--|
| 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) |

B2.7 Reasoning Scheme for the Final Set of Key Indicators

B2.7.1 Overview

The indicators that the KITCASP project presents should be able to measure territorial cohesion and dynamic spatial planning processes, outputs and outcomes, and be comparable across the territories. The indicators had to find a means of measuring often diverging goals across disparate territories using a maximum of twenty simple key indicators. This challenge had to be met in some instances despite the lack of data; the lack of data at the appropriate spatial resolution and differing nomenclature and units of measurement. As discussed earlier, a further major challenge confronted by the TPG team 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.

In order to come to a common final set of key indicators the following selection criteria were applied building upon the analytical framework and methodological approach. Indicators should:

- Possess a **clear and rational purpose**; they address the policy context and serve to provide an assessment and interpretation of territorial development dynamics, patterns and trends in light of specific policy objectives around territorial cohesion, economic competitiveness and sustainable development.
- **Be linked to European, national and regional policy** and, therefore, are linked to future targets and development priorities, providing suitable information to promote change. As noted briefly above, indicators were

explicitly linked to the Europe 2020 and TA2020 strategies as these policies will define the common overall territorial political agendas over the next decade for the whole of the European territory.

- **Provide a means of assessing the performance of integrated territorial development strategies** and thus have the potential to demonstrate the added value of place-based approaches.
- **Provide spatially-specific results** in order to facilitate information transfer and application in spatial planning.
- **Be regularly measured** and sufficient data are accessible to monitor progress and performance; monitoring procedures are in place or could be planned.
- **Provide information sensitive to change** on a timely manner within the policy-making and planning processes.
- **Communicate the results** of scientific analysis and research to policy-makers **in a concise and accessible manner**. In this way, they are a core element of territorial planning, monitoring systems and reports.

Only those indicators that positively answered the questions above for each case study territory were selected. However, it should be noted that the lack of available monitoring mechanism or current absence of data, or data at the correct spatial scale, to populate a given indicator, was not necessarily considered a limiting factor. Where an indicator was deemed highly relevant in addressing a policy priority, but no data are currently available to support it and the appropriate spatial resolution, the indicator was considered valid and recommendations made accordingly for relevant data gathering and analysis.

Process, outcome (and output) indicators were considered. Process indicators seek to measure the effects of a policy, strategy or concept within the governance system. This latter type of indicator relates to an understanding of territorial cohesion as a process for coordinating the spatial impacts of sectoral policies. In contrast, outcome indicators seek to measure spatial development outcomes. These indicators provide a necessary evidence-base for future policy intervention, but need to be interpreted in the wider context given that it may be difficult to attribute particular outcomes to specific policy interventions. Outcomes are defined as the eventual benefits to society that policies are intended to achieve but it is widely accepted that sometimes they cannot be directly measured. In such a case, the solution is to specify outputs (i.e. *output indicators* illustrating immediate/short-term performance as a proxy of outcome indicators, which can only be evaluated in the longer-term) as intermediate steps along the way. It was clear from stakeholder consultation that planning practitioners and policy-makers are, by and large, mostly interested in outcome indicators which can be easily communicated to policy and political actors, and clearly illustrate a desired direction of change in achieving a policy goal. There was no overall wish on behalf of the stakeholders to progress process indicators.

KITCASP was required to encompass economic, demographic, social and environmental indicators. While selecting a number of the indicators was straightforward, others were more problematic. For example, the selection of environmental indicators was much more clear-cut as there is largely a common European agenda in the terms of environmental policy and legislation

applicable to most of the territories⁸. On the other hand, selection of economic and social indicators is much more challenging as there remains a high degree of territorial autonomy on these matters, although this is rapidly changing through the application of the Europe 2020 strategy.

In coming to the final list included in **Table B4**, we have defined a set of indicators that comply with the selection parameters developed by the TPG team. We have selected twenty core indicators that reflect policy themes. A further set of discretionary indicators have also been selected for each territory which may also be interchangeable between territories as required (**see Section C5.2**). It was not possible to populate all of the indicators as data was not available (or unavailable at an adequate spatial resolution). Instead, a cohort of four indicators for each of the themes was populated to demonstrate the potential of the indicators (**see Section C5.5**). In an effort to ensure the high usability of the findings, including beyond the stakeholder territories, the indicators have been designed to explicitly link to all dimensions of the Europe 2020 strategy, namely research and development; employment rate of population aged 20-64; population at risk of poverty; population aged 30-34 with tertiary education; greenhouse gas emissions and renewable energy production.

B2.7.2 Key Indicators for Economic Competitiveness and Resilience

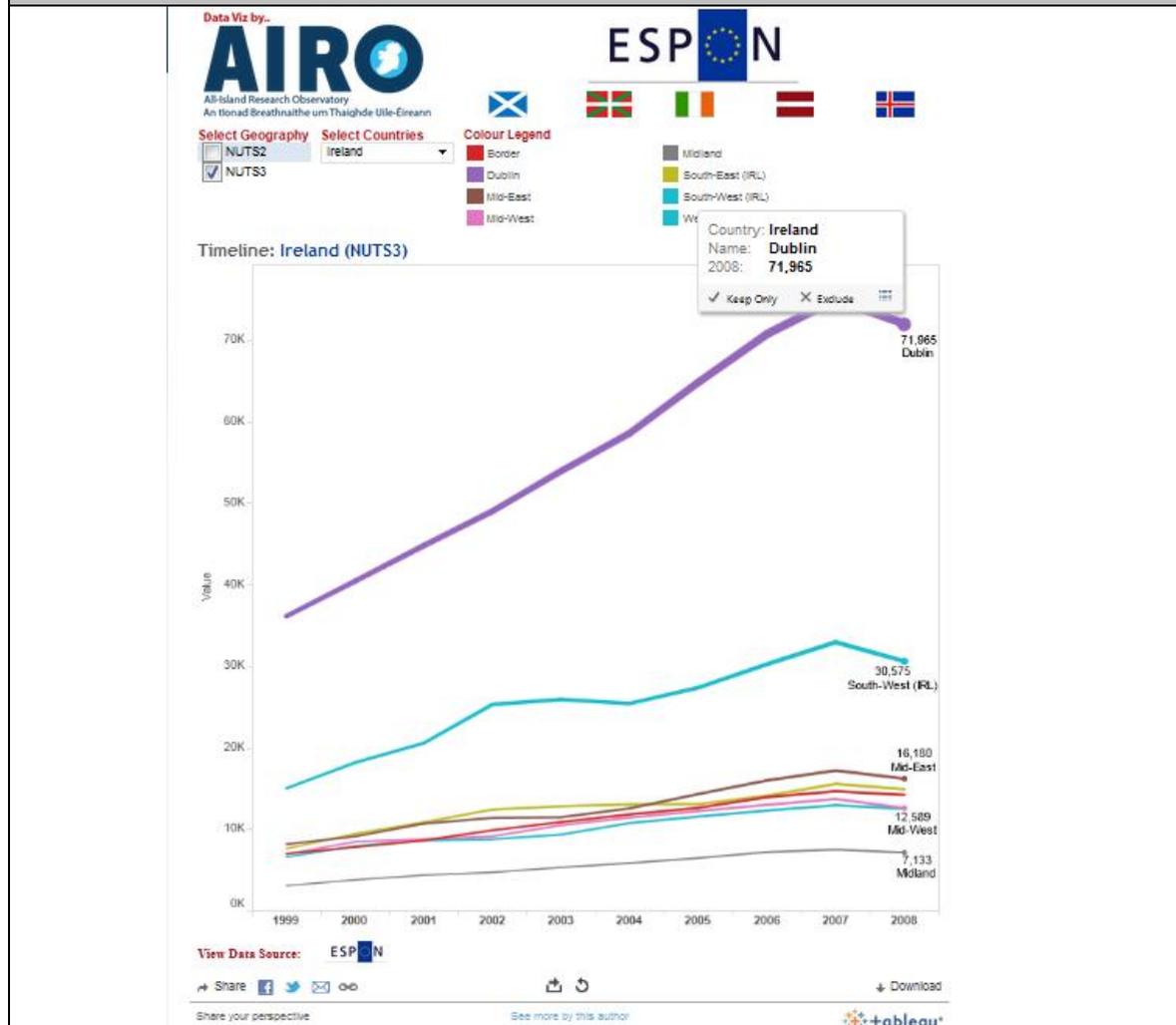
This theme embraces adaptability and diversification as promoters of increased economic activity and employment, paired with innovation and economic cooperation/collaboration. The most commonly used indicator for measuring the economic strength of a territory is typically **Gross Domestic Product (GDP) per capita** (**see Figure B7**). There are numerous criticisms of GDP as a measure of economic performance and activity, particularly in respect of the fact that it does not take sufficient account of environmental and social externalities. However, GDP is the most widely measured metric of economic activity and therefore consistently selected by stakeholder territories. However, the TPG team decided that GDP per capita should also be complemented with **GVA per capita** to provide options for policy-makers in relation to measuring productivity. While GDP/GVA is the most commonly accepted economic metric it is not necessarily linked with employment growth. A key objective of Europe 2020 and all national governments is to provide for job rich economic growth. Therefore we included **Employment Rate of Population Aged 20-64** as well as GDP/GVA as a key economic metric. There was high degree of consensus amongst the stakeholders for this indicator. Both of these indicators are selected in a number of other ESPON projects, including SIESTA, PURR, TPM, INTERCO, EU-LUPA and DEMIFER.

Innovation is a cornerstone of current EU strategies for economic recovery and it is equally high on the agenda of national governments. Knowledge and innovation are seen as key drivers of economic development and can assist in distributing wealth. Research and Development (R&D) is also a key theme of the CSF for Cohesion Policy post-2013 (CEC, 2012). R&D is also considered a key component of eco-efficiency, development of a low-carbon economy and

⁸ Note: EU environmental legislation is not directly applicable to Iceland but nevertheless, as an EEA member, it is highly influenced by EU law.

the need for energy efficiency. For this reason, **Total R&D expenditure as % of GDP** was selected as a metric to assess local efforts in the development of innovation strategies. There was a level of consistency across the case study territories but not all put R&D forward as an indicator. However, given its inclusion in the Europe 2020 strategy it was considered highly relevant for this theme. R&D indicators have been selected in SIESTA, PURR, TPM and INTERCO.

Figure B7: Mapped Example Of GDP Performance By NUTS3 Region in Ireland



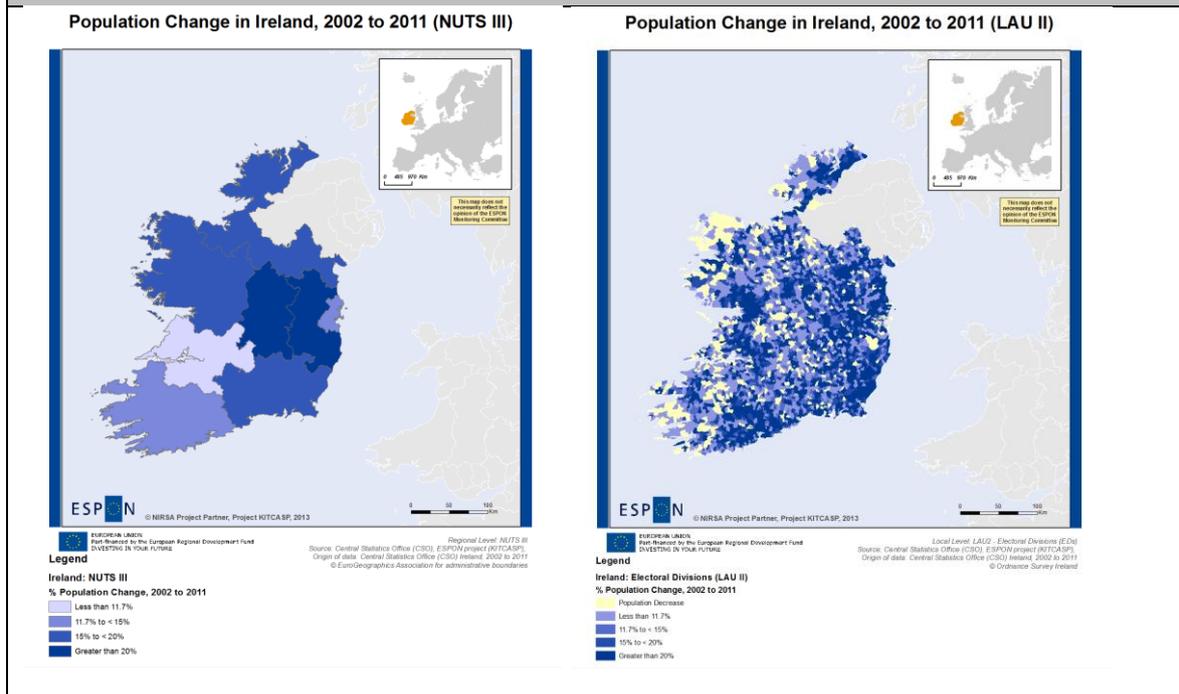
Increasing exports is a central element of all stakeholder territories' strategies for achieving competitiveness, foreign income and, as a consequence, territorial development. There was a level of consensus across the case study territories around this objective but no clear indicator emerged. Ireland proposed "Foreign Direct Investment (FDI)", The Basque Country "Balance of External Trade", Latvia "Foreign Direct Investment Contributions", and Scotland refers to both FDI and value of exports as an appropriate metric. The TPG considered **Balance of External Trade** as a suitable compromise indicator to capture this key component of economic competitiveness. However, it was acknowledged that gathering data at below the NUTS 1 level may not be possible in all cases. This indicator is included in both the SIESTA and TPM ESPON projects. Finally, a clear message from the Scottish

stakeholders was the need to include 'resilience' as key concept to buffer vulnerable territories from the asymmetries and capricious nature of globalisation. This was discussed extensively by the TPG and it was considered that some broad measure of **Economic Structure** should be included. However, no clear indicator emerged from the stakeholder territories and due to scale and consistency limitations this proxy indicator has been put forward in order to provide policy-makers with some insights into economic diversification and resilience as part of territorial development.

B2.7.3 Key Indicators for Integrated Spatial Development

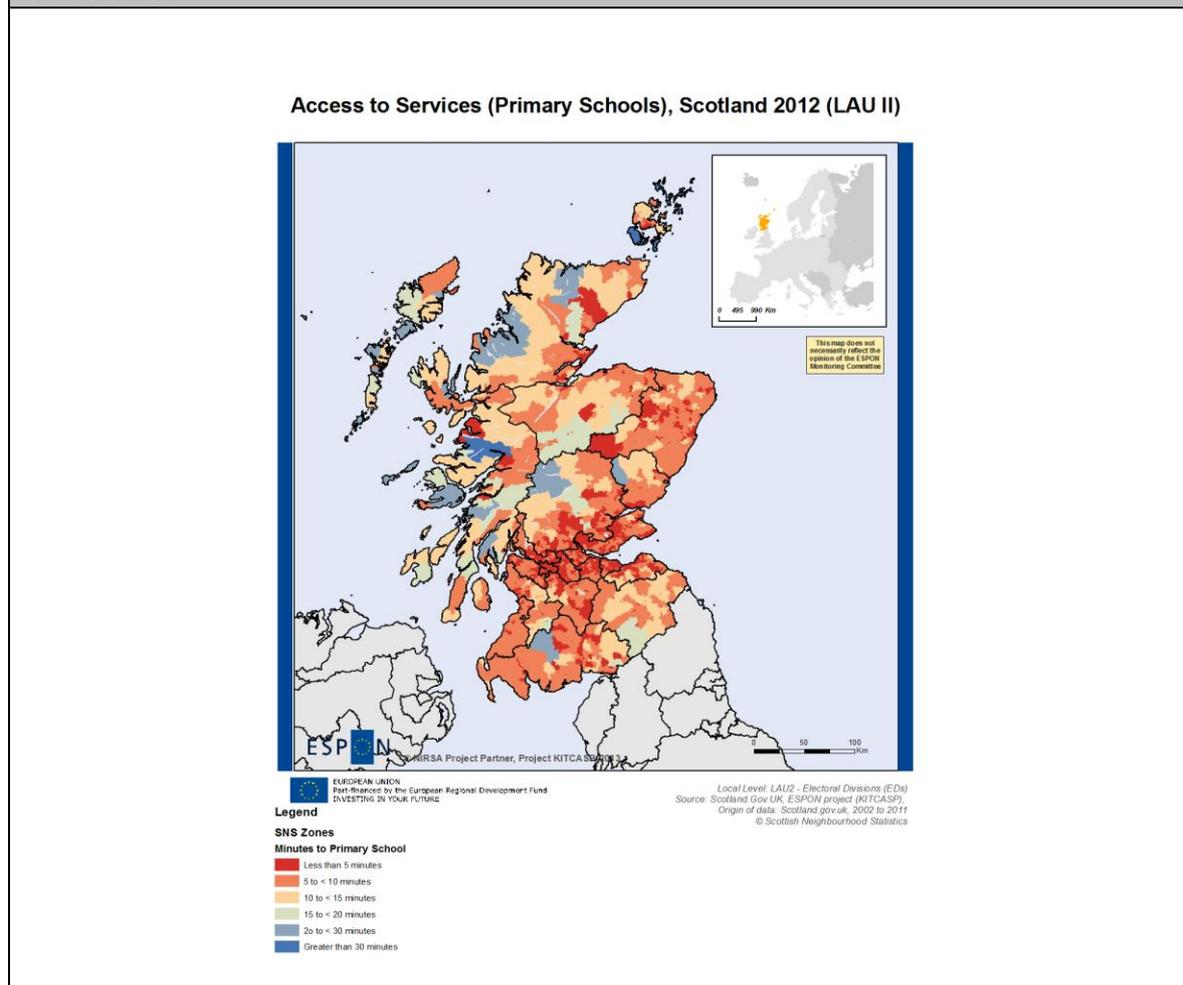
This theme is based on the principles of balanced regional development and settlement-infrastructure alignment, entailing well-managed and effective spatial development that is tailored to local needs. It supports polycentricism and compact cities that take account of territorial capacities and assets. It is a key objective of TA2020 as well as all of the national territorial development strategies to provide for fair and affordable accessibility to services and minimising infrastructure barriers that can improve competitiveness and the sustainable and harmonious development of the EU. The Europe 2020 strategy also focuses on this objective and notes that ensuring access to services and opportunities is essential for territorial cohesion. Integrated spatial development implies promoting a coherent physical organisation of space according to an overall strategy. Providing metrics for this strategy is a core component of spatial monitoring. For this theme, it was decided to select a core indicator which is a basic measure of territorial development, namely **Population Density/Population change (See Figure B8)**. There was a high level of consensus across the case study territories and it is widely selected in ESPON projects, including PURR and TPM.

Figure B8: Mapped Example Of Population Change In Ireland Illustrating The Importance Of Spatial Scale In The Use Of Indicators



Settlement and housing is a key output from spatial planning processes. Therefore, measuring **House Completions**, particularly the alignment of new housing development with infrastructure and services, was considered appropriate. There was a high degree of consensus across the case study territories but this indicator is not found in any of the relevant ESPON projects. However, data are typically available at national level and measuring house completions provides a key contextual outcome indicator of the territorial development. Of particular relevance to the Icelandic and Irish case studies, this indicator may help signal the formation of housing oversupply especially if expressed as a ratio of inhabitants in an area. Sustainable transport is a key objective of EU climate change and cohesion policy. Integrated land use and transport planning is also a key competency of spatial planning. It was therefore decided by the TPG team to put forward **Modal Split** as a key indicator. Although there is a slight variation when referring to transport indicators, there is a high consistency across the case study territories for selecting this indicator and it is selected in the ESPON PURR, EU-LUPA and Re-Risk projects.

Figure B9: Mapped Example Of Access To Primary Schools In Scotland.



Spatial planning is to a large degree about managing competing demands for land. As territories become more urbanised retaining land for other uses including agriculture, recreation, forestry, habitat protection etc. and

preventing fragmentation. A clear demand for a metric which measured **Land Use Change** was articulated by the stakeholders and the TPG concurred that there are merits in adopting the indicator of land use change, particularly in light of the **EU CORINE project**⁹ and the fact that land use change reflects strongly on territorial capital. Such an indicator is selected in the ESPON PURR and EU-LUPA projects, and would also capture landscape protection issues which are a key concern for the Scottish and The Basque Country stakeholders, in particular. Finally, the classic indicator of **Access to Services** was selected which can serve to alert policy-makers to the need to take action to create more balance territories and avoid spatial discrimination. Due to negative demographic trends, in some territories access to services and the political issue of maintaining adequate levels of public services has gained increasing salience in the context of EU wide fiscal consolidation. Hospitals and schools were selected as two key high-order services and were considered to provide a bellwether for wider service provision. However, other services could equally be used where spatial data was available at an appropriate scale. The ESPON SeGI project is developing a set of indicators to measure the level of services of general interest across the EU (**See Figure B9**).

B2.7.4 Key Indicators for Social Cohesion and Quality of Life

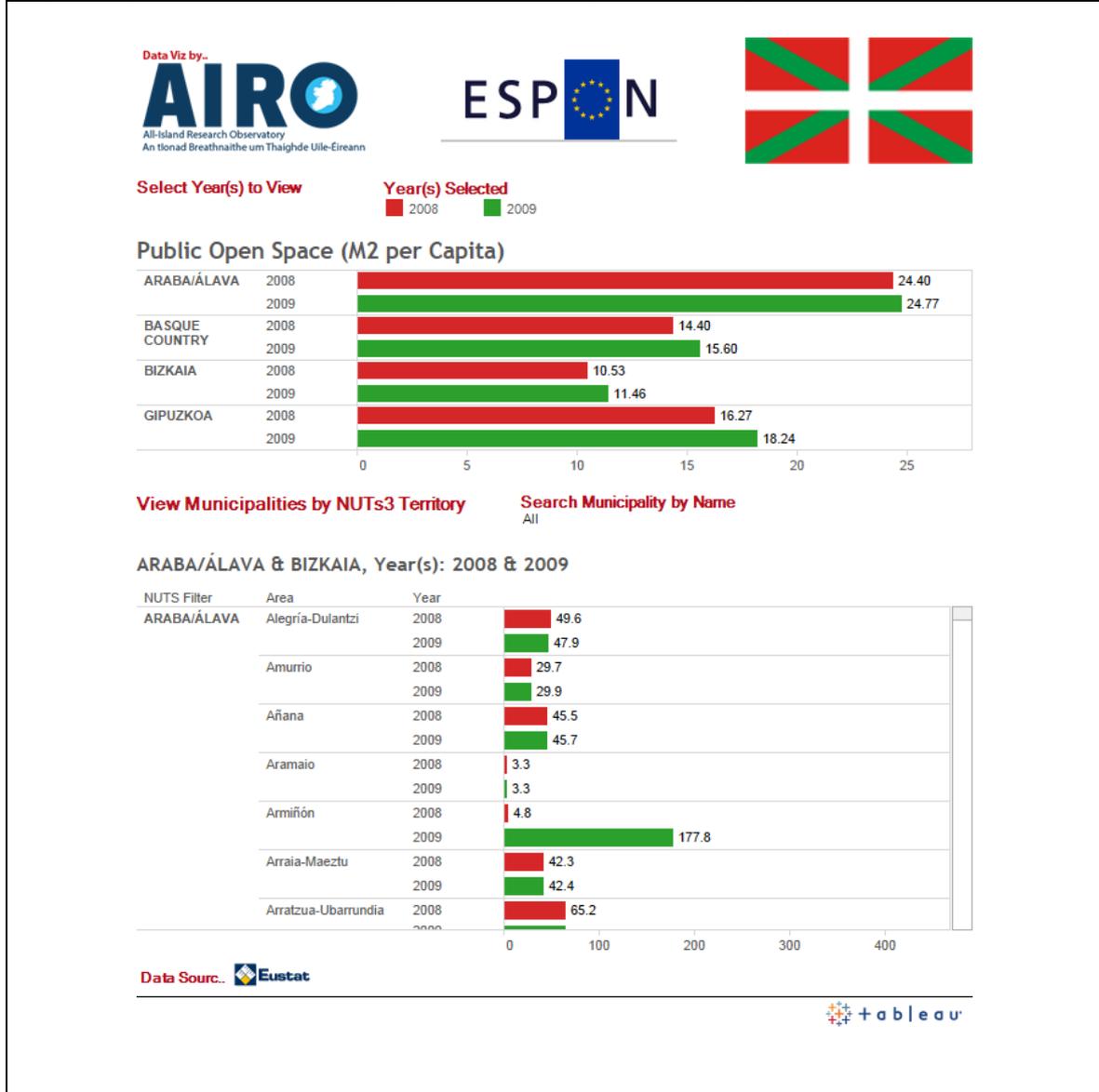
This theme addresses issues of equality, choice and well-being. It encourages increased accessibility to services and green areas, and connectivity to public services in support of healthy living. This theme serves the overall Europe 2020 objective that is the well-being of population which should be a core function of spatial planning policy and for reducing social disparities and inequalities across the EU territory. Indicators selected for this theme are clearly linked to other themes in that Social Cohesion and Quality of Life are both a result of and input for economic development. Equally, Integrated Spatial Development and a high environmental quality also impact on social cohesion and quality of life. A key component of the Europe 2020 strategy is to foster innovative territories, social capital and educational attainment in order to improve the match between skills supply and labour force requirements in high skilled sectors requiring tertiary qualifications such as ICT, engineering, science, health and financial services. There was a high degree of consensus across the case study territories for inclusion of an indicator relating to education and indicators for educational attainment are widely selected in ESPON projects including in the SIESTA, PURR, TPM, INTERCO, EU-LUPA, DEMIFER projects.

However, the indicators put forward by the stakeholder territories were not consistent (e.g. "participation in higher education" and "educational attainment" for Scotland and Iceland versus "population with tertiary education" for The Basque Country). The TPG opted to select the key Europe 2020 indicator of **Population Aged 30-34 with Tertiary Education** to provide a metric of innovative capacity. An absence of population within this cohort with tertiary education can point to structural deficiencies within the territorial economy whereby highly-qualified skilled workers are electing to migrate to other territories where higher quality employment opportunities are

⁹ <http://www.eea.europa.eu/publications/COR0-landcover>

available. However, although the indicator has been worded so it is aligned with the Europe 2020 targets, different age bands are noted across the case study territories which will require some recalibration of data gathering to ensure consistency (e.g. 20-39 for Iceland, 16-64 for Scotland).

Figure B10: Output From The KITCASP Web Tool Illustrating Public Open Space Accessibility In The Basque Country



Reducing the risk of poverty is a further key objective of the Europe 2020 strategy with a headline target of at least 20 million fewer people in or at risk of poverty and social exclusion by 2020. The primary policy tools to reduce severe material deprivation and consequently poverty are measures that increase employment and, as a result, there is a clear link with indicators in the Economic Competitiveness and Resilience theme. Reduction of poverty is also a very important priority for the stakeholder territories. However, an indicator to measure poverty emerges across the case study regions in quite a varied way (e.g. "population at risk of poverty" in Ireland, "deprivation levels" in Scotland, "GINI Coefficient" in Iceland). The TPG considered that the most

appropriate indicator in these circumstances was the Europe 2020 indicator of **Population at Risk of Poverty** which is also selected in the ESPON projects of SIESTA, PURR, TPM, INTERCO, EU-LUPA and DEMIFER. International research points to access to green spaces as a key determinant of human health and well being (Burls, 2007). Spatial planning has a fundamental role in improving accessibility to green spaces through the implementation of land-use strategies. The TPG team therefore considered that **Green Space Accessibility** should be included as an indicator. Nevertheless, there was no unanimity across the stakeholder territories for this indicator reflecting the differing territorial contexts of each of the stakeholders (**See Figure B10**).

There are several attempts globally to measure sustainable development and quality of life. The most pertinent examples include the Physical Quality of Life Index, Human Development Index, Genuine Progress Indicator, Happy Planet Index, OECD's Better Life Index and the World Development Index. The Icelandic stakeholder proposed the **Well-being Index** (WHO-5) developed by the World Health Organisation (WHO). This index is aimed at measuring subjective well-being from a mental health perspective. It captures better social cohesion and quality of life aspects than the gender gap (proposed by The Basque Country and Iceland) and the GINI coefficient which measures income differentials (proposed by Latvia and Iceland). The Well-Being Index is a composite index and is only available at NUTS 1 and has not been used previously by other ESPON projects. Well-being has been criticised for being something of a vague concept but can be measured by using different approaches. It can be determined by synthesizing several indicators which strongly correlate with it, such as self reported quality of life, material living conditions and requirements for sustaining wellbeing over time. Despite conceptual and methodological difficulties, it was considered important in the context of this theme to put forward indicators which attempted to measure well being outside of narrow economic and demographic metrics especially because macro-economic statistics do not always account for what people really perceive about the state of their lives. Moreover, the importance of measuring well-being has been high on the agenda of United Nations Economic Commission for Europe, OECD and Eurostat who are pursuing work on measuring sustainable development, aiming to develop better metrics for human well-being and sustainability. Several countries have launched well-being-related consultation and monitoring initiatives (United Kingdom, Germany Norway, Italy, Spain, Slovenia and others)¹⁰

Finally, the age vibrancy of the population is of critical importance to sustain social cohesion and quality of life. As spatial planning is a future-orientated discipline, the evolution of the demographic profile can provide early indicators of future territorial needs, particularly in respect of service provision but also for the future of the labour force and municipal budgets. An aging population can also point to demographic deficits where young people are migrating away from certain territories to benefit from better opportunities. The TPG considered that a metric for **Dependency Ratio** was therefore important as a key indicator. The indicator was proposed by Ireland and supported by the

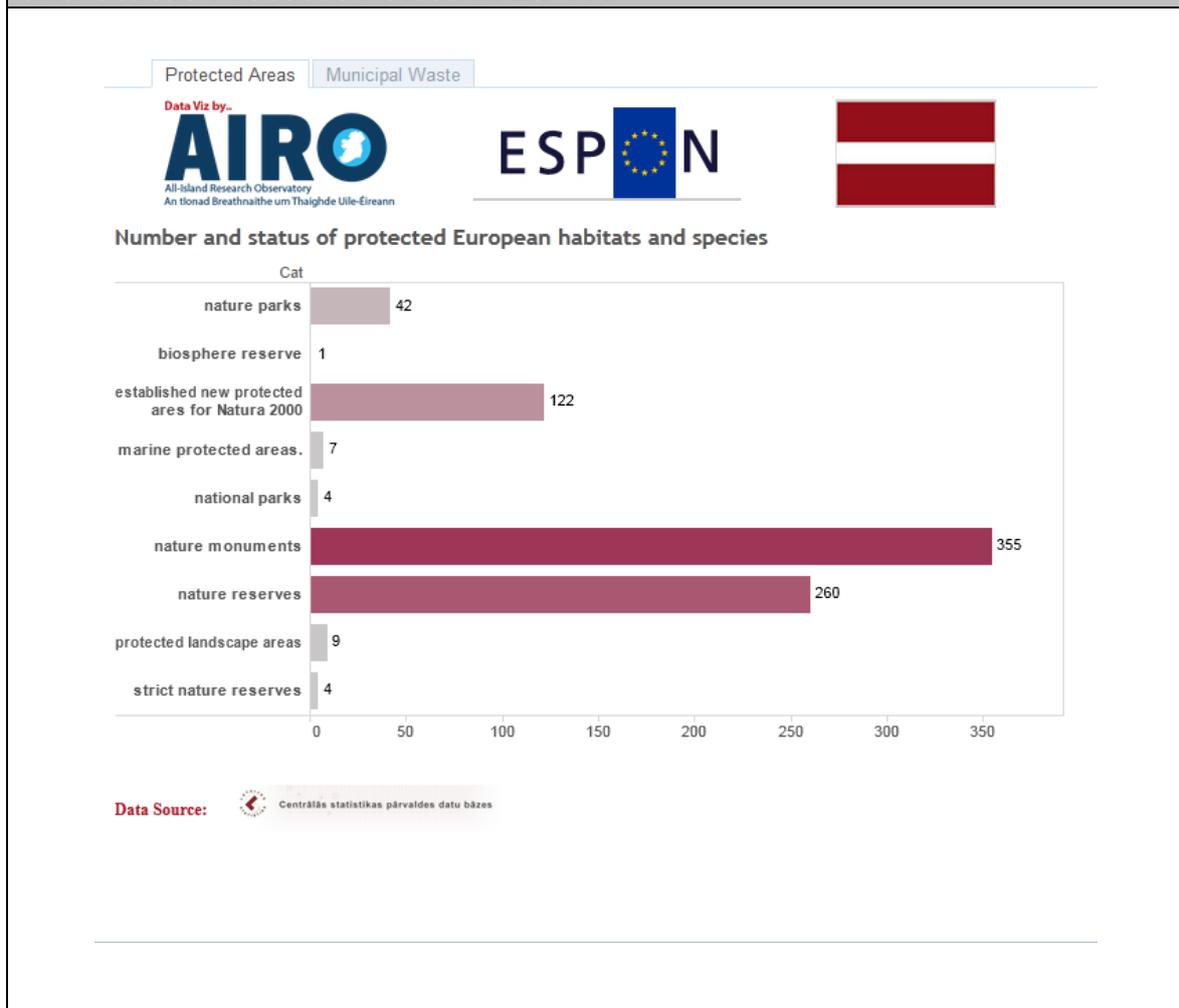
¹⁰ See <http://www.oecdbetterlifeindex.org/>

"ageing index" proposed by The Basque Country and the "healthy life expectancy" proposed by Scotland.

B2.7.5 Key Indicators for 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. Promoting decentralised, secure and environmentally friendly production and use of renewable and low carbon energy are core objectives of Europe 2020 and TA2020 as a means to building a resource efficient and sustainable economy. The ESPON INTERCO and ReRISK projects found that level of data collection and time series in respect of renewable energy production was not sufficient to draw analysis. However, **Renewable Energy Production** was put forward by the stakeholder territories and there was a high degree of consensus for the use of this indicator which is a key metric for energy security for which data at NUTS 1 and below is increasingly being collected.

Figure B11: Output From The KITCASP Web Tool Illustrating Number and Status Protected Sites in Latvia



EU climate policy has developed into a major policy agenda and a key cross-cutting focus of Europe 2020, Cohesion Policy and TA2020. Mitigating and adapting to anthropogenic climate change is also a major focus of all stakeholder territories. All territories within the EU have been assigned binding targets to reduce **Greenhouse Gas Emissions** with mandatory reporting requirements and, given the urgent importance of this issue; this was therefore an obvious indicator for selection. There was a high degree of consensus across the stakeholder territories for this indicator and it is selected in the ESPON PURR and SIESTA projects. However, further work will be required in all territories to gather data at NUTS III level and below in order to provide a meaningful indicator for strategic spatial planning. Potential vulnerability to climate change is also an area whereby data limitations exist and this issue was explored in the ESPON INTERCO project. In order to reflect the key issue of adaptation to climate change, the TPG put forward **Population at Risk of Flooding** as a proxy indicator for promoting climate change adaptation, risk prevention and management. The European Floods Directive¹¹ requires all EU territories to map flood prone areas and can readily be developed to social vulnerabilities to climate change, of which increased flooding (both coastal and fluvial) arising from intense weather events is projected to be a key consequence. Spatial Planning can act as a key mitigating mechanism in increasing the preparedness of national, regional and local governments to extreme climatic events. There was a high degree of consensus across the stakeholder territories for this indicator.

Across the EU, the implementation of the EU Habitats Directive has given rise to the development of the Natura 2000 network of Special Areas of Conservation and Special Protection Areas. The Natura 2000 network is the EU's flagship initiative for protecting biodiversity and promoting ecosystem services, including green infrastructure. Considerable effort will be needed to meet the targets defined in the EU Biodiversity Strategy¹². Given the common reporting requirements for Natura 2000 sites under the EU Habitats Directive, it was considered that the **Number and Status of Protected European Habitats and Species** was an appropriate indicator for incorporating the key issue of nature protection (*see Figure B11*). There was a high degree of consensus across the case study territories and promoting biodiversity protection is a key objective of all stakeholder territories. However, the wording of the indicator put forward by each territory varies quite significantly (e.g. "number of designated sites", versus "area or status, breeding birds", etc.). However, number and status of protected European habitats and species are brought forward in the final list of key indicators as these are a European reporting requirement and a similar biodiversity indicator is included in the ESPON SIESTA, PURR, TPM, INTERCO and EU-LUPA projects.

Finally, the EU Water Framework Directive will have a profound impact on spatial planning over the next two decades with strict reporting requirements in 2015, 2021 and 2027. It was therefore considered appropriate to have an

¹¹ Directive 2007/60/EC

¹² Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions: Our life insurance, our natural capital: an EU biodiversity strategy to 2020, COM(2011)244 final.

indicator relevant to water quality. Although **Water Quality Status** was an indicator solely proposed by Ireland (with Scotland referring to "river water quality" and The Basque Country referring to "water consumption"), there are clear merits in including an indicator for water quality given the common EU reporting requirements within the Water Framework Directive (WFD). A similar indicator is selected in the ESPON EU-LUPA project.

B3. Recommendations for ESPON

A key requirement of the KITCASP project specification is 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. The following section summarises the main findings of the project at the European level and how future ESPON research and analysis might be tailored to generate appropriate data and methodologies to support spatial planning. The purpose of these recommendations is to provide a set of guideposts for future ESPON projects in the development of indicators to ensure that they are relevant and practical for spatial planning practitioners.

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 (even sometimes absent) and not considered directly relevant to stakeholder's daily work. However, this is not due to lack of interest, but communication and the day-to-day demands on policy-makers. As a result of the KITCASP project working hand-in-hand with stakeholders on 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 network, ESPON Priority 4 projects (e.g. EPSON INTERSTRAT) 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.

The spatial resolution of data collection and presentation clearly matters for understanding trends¹³. While mapping at NUTS 1/2/3 level is beneficial for trans-national comparative research and benchmarking, 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 a rich resource of data at a lower spatial scale which better reflects the territorial complexities at local levels, and which are decisive in the spatial policy decision making process and the territorial cohesion agenda. In many cases this data gathering is not making use of consistent unit of measurements, nomenclature etc. This has clear implications for the future direction of ESPON research and data gathering.

¹³ Indeed this was a key conclusion of the ESPON SCALES (Breakdown and capitalisation of ESPON results on different scales) project.

To a large degree, there is a mismatch between the data being collected at the national, regional and local level for spatial planning 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 essential. 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 level spatial planning policy.

However, a key learning outcome from the KITCASP project was that national stakeholders often appeared to be unaware of what data was being collected of relevance to spatial planning at EU or National level, or even within institutions which they were a part of. This can obviously lead to duplication of data collection and an underutilisation of resources. There is strong potential for ESPON to play a key role in assisting national stakeholders to develop centralised inventories of available spatial data through promoting greater harmonisation of spatial data collection around specific themes of relevance to territorial cohesion.

The following recommendations are of relevance to future ESPON projects in respect of indicator development:

- **Indicators should, where possible, be selected in agreement with national stakeholders and give due consideration to territorial evidence, policy objectives and EU spatial policy context.** In order to be useful and relevant, stakeholders need to be involved in identification of main policy drivers and objectives embedded in national spatial planning frameworks and, particularly, in reaching agreement on main themes that will shape indicator development. Consultation should be carried out with stakeholders responsible for elaborating and implementing spatial policies as well as with institutional bodies involved in indicator administration. This points to a clear role for the ECP network and future Priority 4 projects in bridging the divide between policy-makers and ESPON scientific projects.
- **Harmonised methodologies for measuring data should be developed in selected common thematic areas important for spatial planning and territorial cohesion in national contexts.** Different policy goals and units of measurement clearly present hurdles to comparing data even while policy drivers in different territories are similar. For example, in the indicators developed by the KITCASP project, greater harmonisation would be needed for service provision indicators, especially in education and health, and also for indicators measuring access to green public spaces. ESPON research can play a key role in identifying what these key thematic areas should be¹⁴. A

¹⁴ It is hoped that the KITCASP project may present a first step in this process.

direct link to European policy offers the best grounds for coherent EU-wide indicators. For example EU Directives require a standardised approach to the collection of data in defined units of measurement, permitting territorial comparability and benchmarking, as in the case of NATURA 2000 sites and the Water Framework Directive.

- **The use of outcome indicators is preferred by spatial planning policy-makers in monitoring territorial cohesion.** Policy-makers involved in KITCASP exercise mostly preferred outcome indicators with dynamic properties, since they can be more tangibly measured, easily communicated and clearly illustrate progress towards achieving a policy goal through maps and other diagrammatic formats. It is acknowledged, that governance systems and inter-sectoral cooperation are of critical importance to spatial planning and the use of process indicators can provide invaluable contextual insights into the territorial characteristics of an area. However, these insights were largely considered by spatial planning policy-makers as complementary to their primary goal of achieving concrete outcomes and sustainable place making.
- **More research is needed to improve consistency and applicability of contextual quality of life indicators in spatial planning and territorial cohesion.** Well-being indicators were not selected initially for the list of final key indicators because they are not widely used in practice in EU countries. Well-being is a vague concept and difficult to measure directly. However, as similarly concluded by the ESPON INTERCO project, it is clear that that territorial cohesion, along with spatial planning (sustainable development), should be considered a means for creating well-being and progress, particularly in eliminating regional disparities. A common and consistent methodology for measuring well-being across Europe should be developed.
- **Greater spatial resolution matters for understanding trends relevant to spatial planning. Therefore higher resolution mapping should be used wherever possible** to maximise the relevance of the project findings to stakeholders and better reflect the territorial complexities at local levels, which are decisive in the spatial policy decision-making process. While much of ESPON's focus to date has been data collection and mapping at NUTS 1/2/3 level to enable trans-European comparison, this data is of limited utility to spatial planning at the national level. It is clear from the KITCASP research that this is one of the key reasons for the poor capitalisation of ESPON results by spatial planning policy-makers at the national level. The ESPON SCALES project has a clear role to play in this process.
- **Improving the usability of ESPON Data base with easy to use web-based interactive interfaces** is paramount to increasing ESPON's relevance and usability in policy making. ESPON has traditionally had a focus on producing static maps which are included in ESPON reports or on the 'ESPON Map Finder'¹⁵. However, in order to increase usability there is a clear need to move to more web-based interactive formats. The web-tool developed by the KITCASP project is a first step in providing an interactive web-tool for spatial indicators which can be easily queried and analysed by policy-makers. In this context,

¹⁵ <http://mapfinder.espon.eu/>

the datasets provided through the ESPON Database should be transformed into an understandable and visual structure permitting their further use and allowing for simple data mining functions.

- **Stronger monitoring mechanisms are required to ensure that ESPON Database indicators are updated on a regular basis and the Database contains datasets of all past, present and future projects.** In this way these mechanisms will provide timely information that captures change. The KITCASP project explored the ESPON database in order to populate indicators. However, we typically found the information to be absent or out of date. While it is acknowledged that the ESPON Database is being consistently improved, further efforts should be made in collecting information in respect of key indicators for territorial cohesion and spatial planning identified by the KITCASP project to support the populating of indicators at national level.

B4. Guidelines and Recommendations for National Stakeholders

From the project specification, a key output from the KITCASP project are guidelines and recommendations for national stakeholders in the use of indicators and ESPON data in the preparation and monitoring of spatial strategies and territorial development policies. The KITCASP project has run numerous workshops targeting interested stakeholders and the ESPON community during the lifetime of the project. These workshops have been important working tools but also form part of the project's dissemination of the KITCASP work and progress made. Through its participative approach the KITCASP project has created some expectations towards the final results. Therefore it is envisaged to disseminate the results as widely as possible as soon as the projects is finalised and the (Draft) Final Report has been approved. The development of user guidelines will form a key part of these dissemination activities.

One of the key preferences expressed by stakeholders during the KITCASP project in developing guidelines was the need for simplicity and clarity of approach using a minimum of technical language, acronyms and jargon. This has become a cornerstone of the TPG's thinking, resulting in the identification of a limited number of key indicators linked to spatial planning themes in each country. The simplicity of the approach continues with the Guidelines. Complexity has been deliberately avoided in favour of clear concise explanations of the most important and relevant issues.

The user guide developed by the KITCASP TPG is included in **Appendix F** and is intended to provide user-friendly advice and recommendations for spatial planning practitioners and policy-makers drawing on the research and experience during the KITCASP project. The use of indicators in spatial planning is first discussed before the concept and rationale for the KITCASP indicators is explained. Transferable lessons are drawn that are potentially relevant to other national contexts as well as being relevant to stakeholders at different levels of governance. Guidance is also provided on how the KITCASP indicators can be applied and how practitioners throughout Europe can develop a bespoke set of indicators that are appropriate to their own specific territorial context.

The guidelines offer practitioners readable advice whether they are seeking general information about the use of indicators, whether they are intending to apply the KITCASP indicators or whether they are seeking to develop a set of bespoke indicators relevant for a specific territorial context. The structure of the guidelines is intended to help practitioners by being divided into easy to find sections focusing on each of these issues.

B5. Conclusions

After eighteen months of research, the KITCASP project has selected 20 key indicators which are structured around four policy themes. They aim at reflecting both the thematic and policy dimensions of territorial cohesion and spatial planning in the broad context of EU Cohesion Policy, the Europe 2020 strategy and TA2020.

The conduct of the project highlighted interesting challenges and difficulties to reach its objectives to develop practical indicators that can be used by policy-makers on the ground to concretely measure territorial cohesion and spatial planning. Both territorial cohesion and spatial planning are dialectical concepts fostering much conceptual fluidity being constantly reshaped by the political context. However, it is clear that both territorial cohesion and spatial planning policies at the national level are increasingly being defined by EU policy. Therefore, in order to thread a commonality between the five diverse stakeholder territories we sketched the indicators out of TA2020, reformed Cohesion policy and Europe 2020 which will set the pan-European territorial agenda for at least the next decade as well as adopting core common policy drivers of the spatial planning process in each of the territories. While, in consultation with the stakeholders, we have reached a consensus on a common and coherent final set of indicators for our five stakeholder territories it is recognised that there may be justifiable counter-claims for alternative indicators. There is, however, no perfect indicator as they are, by necessity, a compromise between scientific accuracy and conciseness. This trait is both the utility and shortcoming of indicators requiring policy-makers being capable of interpreting indicators in the round for effective policy making in respect of their own specific territory.

While, in order to be useful indicators must be durable and tracked over the long-term, the recurrent updates of the policy objectives and shifting political debates will also require a flexible attitude including the flexibility for stakeholders to adapt specific elements of the methodology in a way that is appropriate to their specific aims and to the specific characteristics of their territory. This process has already commenced in Ireland, for example, with the Regional Planners Network already completing a test-run of bespoke indicators which were developed with guidance from the KITCASP TPG (**See Appendix E**). In this context the guidelines and recommendations for national stakeholders produced as part of the project are a key output from the project which set out good practices in the use of data including drawing on ESPON data in developing their spatial policies and developing reliable key indicators. The guidelines will allow both the roll-out of the KITCASP project beyond the stakeholder territories and for the indicators to be updated and refined over time as required.

An important part of the project was to build upon previous ESPON projects. For a project like KITCASP, which is at the crossroad of theory and practice, it was very helpful to be able to rely on previous studies that a specialised institution like ESPON had helped in conducting. While this research provided a rich resource for the TPG it was clear from our extensive interaction with stakeholders that very little of this research filters down to policy practice. However, through a Priority 2 project such as KITCASP it is also clear from our experience that there is a strong appetite and demand amongst policy-makers to bring a European perspective to their policy work. This points to a greater need for capitalisation of ESPON results and data, and intensive work with policy actors at the national level.

Despite developing a very large database of core and discretionary indicators for each of the five stakeholder territories the populating of the indicators with data is not as complete as desired. A key finding from KITCASP is that data at NUTS 1/2/3 levels, typically the preferred scale of ESPON, is of very limited utility in monitoring national spatial planning. As a result, the ESPON Database, for example, was of little use to the project. The official data collection at national level is often not yet fully adjusted to the newest political priorities such as Europe 2020 and TA 2020. It is hoped that developing key indicators which are critical to effective policy delivery will prompt the data providers to gather the missing data.

Finally, the KITCASP TPG strongly considers that it is important for ESPON to move away from static maps and final reports and towards interactive web-tools which will increase usability and relevance to policy-makers. Several of the stakeholder territories have developed innovative web platforms for handling spatial data which is easily accessible and with simple functionality. It is hoped that the webtool developed as part of the KITCASP project can assist in this process.

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