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Final Report



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List of authors

Erik Gløersen, Alexandre Dubois
and Mélodie Martin
(Nordregio, Sweden)

Jacques Michelet and Frédéric Giraut
(University of Geneva, Switzerland)

Danut Gitan, Mioara Bocanici, Andrei Zvoristeanu,
Ana Ildico Abrudean and Danut Ungureanu
(CEFIDEC, Romania)

Nicholas Konsolas, Emmanouil Christofakis,
Dimitris Skouras and Nicholas Karachalis
(Panteion University, Greece)

Jana Farrugia, Gordon Cordina and Lino Briguglio
(Islands Consulting Services, Malta)

Grétar Thór Eythórsson
(University of Akureyri, Iceland)

Foreword

ESPON TeDi is an applied and exploratory project addressing the issue of economic and social development in regions with geographic specificities such as mountainousness, insularity, demographic sparsity and high population density in peripheral regions. It is a targeted analysis based on an initial request from a group of stakeholders composed of:

The Norwegian Ministry of Local Government and Regional Development (Lead Stakeholder),

- The Cyprus Ministry of the Interior, Department of Town Planning and Housing,
- The Finnish Ministry of Employment and Economy,
- The Malta Environment and Planning Authority,
- The Romanian Ministry for Development, Public Works and Housing,
- Swedish Agency for Growth Policy Analysis,
- The Swiss Federal Office for Spatial Development,
- The North Sea Commission,
- Euromontana,
- Icelandic Regional Development Institute Byggðastofnun.

The three latter stakeholders have had observer status in the project Steering group.

Based on a series of case studies, described below, the study explores the capacity of regions with geographic specificities to contribute to the achievement of the Lisbon and Gothenburg Strategies. As such it focuses on the comparative advantages and development opportunities, and the policies that need to be applied to trigger them. Among these advantages, one may for example mention natural resources that may generate extractive industries, tourism or specialised knowledge-intensive activities, small scale economies with a higher degree of flexibility and adaptability or specific assets making it possible to attract highly qualified employees.

The project has actively involved insight providers in the regions through interviews and other exchanges, and sought to understand the processes of leading to the formulation of regional development strategies as much as assessing performance levels and objective advantages or handicaps per se. Elements of territorial diversity, such as mountainousness, demographic sparsity or insularity always occur within a regional context,

as one component within a wider range of social, economic, institutional and physical characteristics. The effects they may, or may not, have are intimately connected to their historic development path. Therefore, attempts at disentangling the chains of causality leading from the geographic specificities envisaged in this study to certain types of economic or social characteristics are extremely complex.

As part of the Action programme of the Territorial Agenda, the ESPON TeDi project focuses on identifying development opportunities in case study areas with geographic specificities such as mountainousness, (double) insularity, demographic sparsity and/or the combination of a peripheral location and high population densities. The case study territories are at widely different scales, with institutional statuses ranging from nation states to groups of communities and whose level of development and economic capacity is sometimes well above or well below European average values. This makes the identification of common analytical frameworks for the understanding of their development processes challenging.

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A Executive summary

1 Analytical part: key messages and findings

Much of the debate and studies on areas with geographic specificities is often limited to the identification of structural constraints and development obstacles. Although the tangible assets of a region (e.g. natural and cultural heritage, natural resources...) are often well known to the researcher and stakeholder communities, the strategies that would make it possible to fully exploiting these territorial potentials often remain to be defined.

The analytical part of the TeDi project includes three main components. First, the project provides an in-depth analysis of the conceptualisation of geographic specificities and the delineation of concerned areas. Different quantitative methods of approaching geographic specificities are described and assessed. It is in particular shown that the scale of analysis has a major impact on the assessment that can be made of the social and economic significance of geographic specificities.

Second, the TPG provides an overview of the main social and economic trends in TeDi areas. However, the analysis of key obstacles to their exploitation is generally insufficient, for instance demographic decline, lack of appropriate competencies or insufficiently developed infrastructure: one needs to assess the impact of these trends on the structure of the local economies and labour-markets.

Finally, the study proposes ways for areas with geographic specificities to overcome their challenges and develop strategies exploiting their territorial potential. The analysis suggests a framework for local development based on the combination of three main dimensions: human capital, natural resources & territorial positioning and institutional context & governance structures.

The need for a new approach focusing on “specificities” rather than on “handicaps”

The European Union pays increasing attention to the specific economic and social development conditions of mountainous, insular and sparsely populated areas. In Article 174 of the new European Treaty it is specified that “*particular attention shall be paid to [...] regions which suffer from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density and island, crossborder and mountain regions*”, but only as part of the general

ambition of “*reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions*”. The European Commission however proposes a more proactive stance in the Green Paper on Territorial Cohesion, which bears the subtitle “*Turning territorial diversity into strength*”. This pro-active and positive stance is quite different from traditional approaches of territorial diversity focusing on “handicaps” and “additional costs”, which one for example finds in agricultural policies and some national regional policies. This focus on opportunities does not imply that one belittles or neglects the major permanent natural handicaps these regions have to confront in their social and economic development. However, the focus of policies is no longer on maintaining activities in spite of these difficulties or on compensating for additional costs of operating businesses or of settling in areas with geographic specificities. Instead, one purports to build on local assets so that competitive businesses can emerge. Additionally, policies must help formulating a development model that is adapted to the specific social and ecological framework conditions.

It is in this perspective that the project has explored whether the delimitation of areas with geographic specificities and design of measures targeting them can improve the efficiency of European and national regional policies. However, there are significant differences in the understanding European, national or local stakeholders may have of what a mountainous, insular or sparsely populated area is. This impacts the capacity to establish a dialogue on these issues in a spirit of multi-level governance and subsidiarity. Establishing a capacity to conceive and implement policies that fit the needs of individual TeDi areas presupposes a more widely shared understanding on the nature and issues of territorial diversity in Europe.

Demographic challenges in TeDi areas

The sample of TeDi regions shows an extreme diversity in terms of demographic structures and trends, which makes it difficult to envisage a transversal and crosscutting analyses. In all case study areas except Malta, one however observes polarising demographic trends. This implies that the population is thinning out in the more rural or less accessible parts of the regions and that it is increasingly concentrated. It is important to consider these trends at the level of functional economic areas corresponding to the territories within which most of the daily mobility occurs. The evolution of the regional human capital at this scale has a direct impact on the capacity of the labour-market to develop and regenerate itself over generations. By considering regional demographic data only (at the NUTS 2 or NUTS 3 levels), as is often the case in

European analyses, these polarising trends are not and a central challenge of most TeDi areas is therefore ignored.

To understand how demographic decline and/or imbalances in the structure of the population may affect development perspective, one has to take into account the spatial distribution of the population. We address this issue both by specifically analysing settlement patterns, which poses serious statistical challenges, and by addressing the issue of human resources in the different case study areas. Notions such as “small scale economies” and “transitional labour markets” help understand the specific dynamics of areas characterised by the relatively smaller and more isolated local communities in which most of the specific dynamics of TeDi areas can be observed. The difficulties of these territories are not due to a lack of assets, but to an insufficient coherence of the economic, social and ecological dimensions of development that jeopardizes the perspectives of sustainable development on the long term possible.

Constructing more robust economies

A variety of strategies can be formulated to face this challenge, as the TeDi areas are remarkably diverse in terms of economic profiles and overall performance. The structure of the regional and local economies of the case study areas is quite diverse.

A further specialisation of local economies can be part of the development strategy of TeDi areas, as a factor of improved competitiveness, but is also a factor of vulnerability when local communities become dependent on a limited range of exports. Development strategies to improve the competitiveness while reducing the vulnerability generally seek to identify ‘niche’ activities, ideally with reduced competition from other regions and for which the given locality has a competitive advantage. A major challenge in such “niche”-based development is to reduce the mismatch on the labour market between the demand of specific type of labour force and the skills of the local active population. Incremental types of innovation strategies, involving both educational institutions and companies, seek to minimise this mismatch by increasing the added-value produced in traditional sectors. Such strategies can be found in all TeDi regions, and especially within agriculture (new production techniques, food processing, joint labelling of local products, bio-technological innovations based on natural specificities...) and tourism (better exploitation of the physical capital, more recreational infrastructure...).

Innovation strategies focusing on high-technology can however also be identified, both in the urban centres of TeDi areas and in localities seeking to “reinvent themselves” when their main source of economic subsistence

is challenged by external competition, product cycles or the depletion of a natural resource. One should also not underestimate the importance of knowledge intensive and innovative activities in changing the perception of territories with geographic specificities as being, at best, one step behind other regions. The presence of leading research facilities can change the perception of local communities and stimulate more positive social and economic trends.

The reactions of these areas to a situation of financial crisis also differ significantly. It is notable that some of these areas, e.g. North Iceland and Valais, have shown levels of performance in such conditions that area relatively better than those of more central regions. In the Valais, the relative strength of the internal demand, combined with the lower exposure to international financial risks, has allowed the canton to develop positively compared to more metropolitan parts of Switzerland. In the case of North Iceland, the devaluation of the national currency has considerably increased the competitiveness of local fisheries. The economic collapse has also, at least temporarily, caused people to move back to the periphery due to the weak labour opportunities in Reykjavik area. The North Calotte mining industry, on the other hand, has been hit hard by reduced world demand from iron pellets, even if this does not affect the long term growth perspectives for this industry.

Accessibility and transport infrastructure issues related to territorial diversity

There is no relationship of causality between mountainousness, insularity and demographic sparsity on the one hand, and peripherality on the other. The case studies indeed show that not all geographically specific areas are situated on the outskirts of Europe: The Valais is situated between the large cities of northern Italy to the South and the Lausanne, Fribourg and Berne urban regions to the North, but is effectively isolated from these potential metropolitan influences by mountains chains of up to 4000 m on both sides of the Rhone valley. This relative isolation in the centre of Europe creates a set of particular challenges and potentials. The physical obstacles to mobility are more modest in the Jura, but this region nonetheless experiences difficulties positioning itself at the crossroad of influences from Basel, Berne and the French city of Belfort.

Among the case study regions situated on the European margins, situations are extremely diverse. The main obstacles may be linked to a lack of quality or reliability of transport services, long distances to the nearest markets, insufficiently developed secondary networks or the insufficient access to key infrastructures such as airport, maritime ports or

multimodal hubs or the low quality of secondary roads is an important additional concern. Marathasa and Tylliria's peripherality has been accentuated by the Turkish occupation of adjacent areas.

Among the key obstacles to economic development identified in some of the case study areas, the lack of internal coherence of the transportation networks and the deficiencies of infrastructure in rural parts are recurring concerns. It is however notable that the different types of accessibility are associated with an equally diverse range of development perspectives. This leads to the formulation of hypotheses on the possibility of less mainstreamed perspectives on infrastructure improvements, in which the improvements of accessibility would be adapted to the industrial needs and societal visions of the concerned local communities.

The link between these local perspectives on infrastructure improvements and European approaches of accessibility is weak. The local needs in terms of transport infrastructure need to be assessed on a case-by-case basis. Connecting a region to Trans-European Networks is not necessarily the priority, depending on economic development priorities. European peripherality furthermore does not need to be a handicap, as all of the case study areas on the margins of the continent ambition to develop as European interfaces to their respective neighbourhood.

Natural resource exploitation benefitting local communities and Europe as a whole

The interplay between man and nature plays a particularly important role in territories with geographic specificities, through the importance of activities such as agriculture, forestry, fishing, mining and tourism. These sectors of activity provide essential inputs for European industries. The economic benefits drawn from them by the regions however do not necessarily reflect this strategic importance, as small-scale agriculture often generates limited incomes and as capital-intensive raw material extraction activities are often owned and operated by companies with headquarters situated in metropolitan regions.

Considering this asymmetric distribution of benefits, it is not surprising to note that development options favoured at the level of individual TeDi regions do not necessarily converge with the priorities of national or European actors. It is therefore necessary to design policies to promote a better convergence of local, regional, national and European economic development interests. This can for example mean that the strategic importance of certain types of natural resource exploitation is recognised by implementing policies ensuring that the communities making them possible are balanced and harmonious.

Tourism is described as an attractive development option in all TeDi areas. Their geographic specificity is an asset as such and some areas also possess a cultural heritage that can attract visitors. The evidence however shows that successful tourism developments, creating a stable source of income for local communities on the long term without jeopardizing their perspective of harmonious and sustainable development, require well defined strategies and coordinated actions of a wide range of public and private actors. The development of tourism is a way of diversifying local and regional economies, typically in predominantly agricultural rural areas. It may go hand in hand with strategies to promote the product of high quality food products in a preserved natural environment.

Overall analytical findings

The project has identified the diversity of Territorial Diversity regions as the main challenge for building an integrated European approach of mountainousness, insularity or demographic sparsity. Insofar as regional policies ambition to promote balanced and harmonious growth, rather than merely focusing on convergence, the fact that their economic and social performance levels are diverse however does not reduce the case for policies targeting these areas. We indeed note numerous parallelisms in the causal processes through which geographic specificities contribute to the emergence of structural growth constrains and of limitations in terms of quality of life. Similarly, even if the TeDi area have been more or less successful identifying and exploiting growth opportunities and quality of life assets based on their geographic specificity, their potentials are in many respects analogous. These parallelisms are illustrated by the syndrome diagram (see Figure 2 to Figure 10). If the purpose of a growth and sustainable development oriented regional policy is to identify and influence processes where public intervention is required to preserve strategic interests, or where the leverage of public funds is the greatest, geographic specificities can be useful guiding principles. Measures focusing on geographically specificities are justified on the basis of parallelisms in terms of processes and potentially beneficial interventions, rather than homogenous performance levels.

2 Options for policy development

Policies must therefore help formulating a development model that is adapted to the specific social and ecological framework conditions. This implies that one may need to challenge prevailing economic principles. Competition for example does not necessarily guarantee the cost-efficient delivery of services of general interest in areas where the demand is too small to justify the presence of multiple actors. Similarly, the existence of a "labour market" presupposes that workers may choose between different employers. This is not necessarily the case in mono-industrial towns. The notion of "failure of market based solutions" is central in the understanding of the specific social and economic dynamics of TeDi areas, and in explaining why a certain number of development potentials are not taken advantage of.

Ensuring a sustainable development based on regional comparative advantages

The objective is to improve the growth potential of these regions and their perspectives of sustainable development, ensuring that they contribute to the achievement of the Lisbon and Gothenburg objectives to the full extent of their possibilities. The focus is on identifying development opportunities, i.e. endogenous potentials that are not being fully exploited. There are probably as many reasons for which potential resources are not being taken advantage of as there are territories. One may however try to systematise the knowledge about these various situations by defining the territorial development opportunity as a way of improving the coherence between local natural resources, human capital and the institutional context / governance structures.

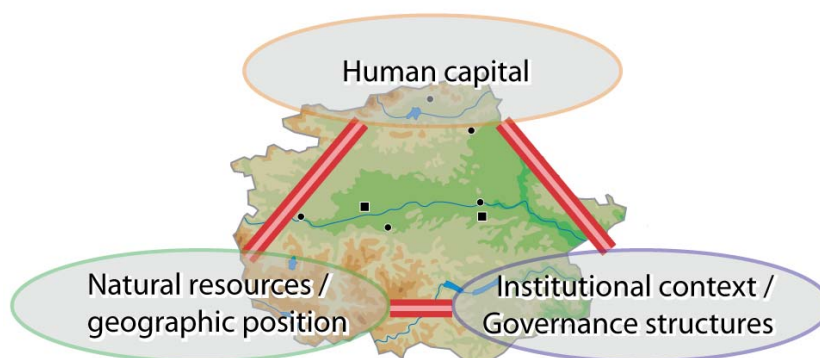


Figure 1 Conceptualisation of Territorial development opportunities

The underlying hypothesis is that the absence of exploitation of a given asset, leading to a suboptimal social and economic performance within a region, can on the long term be explained by weaknesses of specific factors or by incoherencies between the ways in which they have been developed. Such a model implies a change of perspective for local and regional authorities seeking to identify development opportunities. Rather than focusing on assets as such, the main priority is to identify the reasons for which the possibilities of growth and development have not been taken advantage of. From the point of view of territorial policy, development opportunities are therefore primarily approached as possibilities of improving coherence between the human capital, the natural resources and/or geographic position and the institutional context and/or governance structures.

Promoting a more balanced functional integration of TeDi areas in their wider regional neighbourhood and in the European context

Two contradictory types of aspirations of TeDi areas can be identified. On the one hand, they seek recognition of their specificity and difference compared to other regions and would like to preserve the constituent elements of their regional or local identity. On the other, they would like to establish framework conditions for economic and social development that would be as similar as possible to those of other regions, allowing their economic actors to compete with external competitors on equal terms and providing the inhabitants with access to high quality services. It is important to bridge these different types of ambitions in view of formulating a coherent development vision. This implies that possible or potential contradictions between different types of objectives are clearly formulated, before one can seek to identify adequate compromises or, ideally, imagining win-win solutions making it possible to re-establish a coherence in the territorial project.

The previously noted possibility that the economic and social interests of individual TeDi areas may diverge from those of national or European actors, especially concerning the exploitation of natural resources, implies that TeDi areas need to formulate their development vision autonomously and potentially challenge prevailing priorities and principles. This raises the question of the institutional and economic capacity of TeDi areas to undertake such an endeavour. The variable status of TeDi areas, from sovereign nation states to groups of municipalities, and the extreme contrasts in wealth, economic power, endowment with R&D institutions and local competence in the field of territorial development, implies that no single model can be applied across Europe. "Turning Territorial diversity into strength", as advocated by the Green Paper on Territorial

Cohesion, however presupposes that one acknowledges the diversity of objectives and ambitions and encourages the formulation and implementation of locally designed development strategies.

TeDi areas need to identify the specificity of their contribution to the “three mutually reinforcing priorities” of the Europe 2020 strategy, viz. “smart growth (developing an economy based on knowledge and innovation), sustainable growth (promoting a more resource efficient, greener and more competitive economy) and inclusive growth (fostering a high-employment economy delivering social and territorial cohesion). While the Commission communication on the Europe 2020 strategy emphasizes that the targets do not fit a “one size fits all” approach, the ways in which the overall ambitions are translated into national and regional objectives remains to be defined. In this respect, it is significant that when the European Commission describes the need to “tailor the Europe 2020 strategy” to each “particular situation”, it only considers the national level and disparities in levels of development and standards of living. The only exception is one mention of “rural areas”. This illustrates the need to develop a line of argumentation justifying the need for objectives and strategies adapted to territorial specificities at the regional or sub-regional scale, constructed in a spirit of subsidiarity.

Achieving a continuous long-term improvement of quality of life

While the project demonstrates that TeDi areas are not necessarily lagging, and that there are major development opportunities to be taken advantage of, the improvement of the quality of life is a concern in all case study areas. While they all have obvious assets in terms of living environment, not least when it comes to access to nature, the challenge can lie in the preservation of balanced social environment, especially in small and remote communities, and in ensuring a sufficient access to public and private services.

In terms of social equilibrium, the situations of the case study areas are diverse. Demographic polarisation however occurs in all areas except Malta and Gozo, as negative net migration and natural population change are often observed in the same municipalities. These evolutions have a significant impact on the perspectives of regional development, insofar as population figures in local functional areas fall behind threshold levels below which it becomes impossible to deliver services cost-efficiently and to create a sufficiently broad and diverse labour market. To understand and address them, it is necessary to consider sub-regional data, at the level of actual commuting areas or of territorial units that have been

defined by local authorities as corresponding to a desirable range of daily mobility. The compilation of data at this scale is a prerequisite for the formulation of policies addressing the demographic and social balanced development of communities in TeDi areas.

In all case studies, it appears that the main quality of life issues are related to small and isolated settlements. Recurring issues such as the difficulty of maintaining access to services of general interest, to generate balanced and robust "labour markets" or to improve the quality of the infrastructure are indeed all linked to insufficient population numbers. Independently of whether one considers mountains, islands or sparsely populated areas, settlement patterns and obstacles to mobility are therefore shared concerns leading to similar effects. This suggests that a European policy explicitly addressing settlement pattern related issues and formulating objectives for how the population should be organised across the European territory would be particularly relevant for TeDi areas.

While access to a minimal range of services is an obvious and important factor of social and demographic dynamism in TeDi areas, the case studies demonstrate that identity and self-perception also play a determining role. Branding efforts therefore important not only in view of attracting foreign visitors and investors, but also as part of a strategy to promote the awareness of local assets and pride in belonging to individual TeDi areas. One should in this respect not underestimate the importance of knowledge intensive and innovative activities in changing the perception of territories with geographic specificities as being, at best, one step behind other regions.

Improving the foundations of development and enhancing entrepreneurship in a perspective of sustainable development

This illustrates how central quality of life can be in the construction of solid long term foundations for economic development. The different case study areas however also illustrate how many TeDi localities may need to construct models of high quality of life in order to comply with the imperative of ecologically sustainable development. Pressures of a population aspiring to adopt a homogenous mainstream lifestyle in territorially diverse areas, e.g. in terms of access to commercial and public services, mobility habits and consumption, may therefore be a challenge.

Similar hesitations between the assimilation to "mainstream" areas and the preservation of specificities can also be observed at the level of the TeDi regions. On the one hand, there is a wish to be fully connected to their growth dynamics and to benefit from the services they offer. On the

other, these areas, with reference to their geographic characteristics and cultural specificities, seek to preserve their difference.

The European Commission in its Third cohesion report defined Territorial Cohesion as a policy seeking to ensure that *"people should not be disadvantaged by wherever they happen to live or work in the Union"*. Such an ambition however not only appears unrealistic in terms of infrastructural investments and foreseeable cost of delivering the services to make this *"absence of disadvantage"* possible. It may also lead to unsustainable environmental pressures when wide-ranging mobility patterns are encouraged to compensate for the lack of local employment opportunities or services. The Conference of Peripheral Maritime Regions (CPMR) has translated this approach of territorial cohesion into a principle of fairness, whereby *"The objective of territorial cohesion is to [...] offer fair access to services of general interest and to ensure optimal competitiveness conditions for all territories."* The key issue for Territorial Diversity areas is to define what this principle of "fairness" would entail. Such a question would need to be addressed within each region, in a bottom-up perspective. Institutional capacity building is therefore key to the construction of a framework that would make the constitution of robust and sustainable foundations for economic development possible.

Changing the conditions of the European dialogue on territorial development

The full exploitation of development opportunities in TeDi areas presupposes that the concerned local and regional authorities have the capacity to challenge prevailing norms in terms of economic development methods and objectives when this is required. If European policies are to support a development model that *"transforms diversity into a strength"*, this however also requires that an adapted analytical framework is established.

The assessment of regional performances against European or national average values, including metropolitan regions and other well-connected and highly populated areas, is in this respect a method which cannot offer a satisfactory basis for strategic decision-making. The justification for policy interventions in TeDi areas is indeed not based on an underperformance compared to such a benchmark, but on the extent of unexploited development potentials and the perspectives of improvement of the social and economic performance.

As highlighted by the syndrome diagrams produced for the TeDi case study areas, the policy issues of TeDi lie as much in the intermediate processes deriving from their geographical specificities as in their

geographical specificity as such. Observing the recurring features in this respect, such as access to services of general interest, modern logistics and communication centres, vicious demographic circles leading to continued demographic decline and depopulation and imbalances in the functioning of the labour markets one can hypothesise that the most efficient way of addressing the development of TeDi areas may not a "mountain", "island" or "sparsely populated areas" policy, but coordinated strategies addressing these key themes in a balanced territorial development perspective.

The case studies however provide ample evidence that being mountainous, insular or sparsely populated is a central element of the local or regional identity. This is not only important in the generation and implementation of territorial development strategies within the TeDi areas, but also when seeking to stimulate a European dialogue and exchange of good practice on these issues. Using these categories of territorial diversity in the European regional development discourse is therefore a way of incorporating the human dimension of these processes. The challenge, from a European perspective, is to link these intuitive and emotional factors and the concrete challenges to be addressed, in such a way as to construct a framework in which the concerned local and regional can be efficiently rallied around shared objectives of cohesive and sustainable growth.

Accepting and incorporating the mechanisms through which local and regional identities are constructed in territorial policies should however not lead to the formulation of self-centred development policies considering territories in isolation. Development opportunities on the contrary often emerge by creating new types of interaction between neighbouring territories: mountain areas needs to be considered in interaction with their piedmont and islands in relation to regions they are connected to by sea or air. A risk with the focus on endogenous potentials is that one focuses on individual territories and ceases to consider the potential for functional integration. Territorial cooperation is therefore a natural component of policies targeting geographically specific areas, in view of ensuring a sustainable development based on regional comparative advantages. The European level has an obvious role to play in promoting such territorial cooperation beyond national borders. Using the established instruments for territorial cooperation and adapting them to the specific conditions of TeDi areas is therefore a promising option.

The observed structural imbalances of flows in multiple TeDi areas contribute to justify of such a policy. It is necessary to acknowledge the existence of these imbalances, to identify their extent and to recognise the need for compensatory measures to create perspectives of socially

and economically sustainable development in TeDi areas. This would be part of a more systemic approach of the European economy, in which the importance of individual regions is assessed not only on the basis of their respective GDP, but also of the strategic importance of the inputs they produce.

Secondly, territorial cooperation is needed to stimulate the balanced functional integration of TeDi areas with their surrounding areas. In most case studies, stakeholders mention the challenge of relative isolation and the difficulties of positioning their area in relation to more densely populated and dynamic neighbouring regions. While the hope that improved transport infrastructure will help solving these issues is recurrently mentioned, evidence shows that accompanying “soft” measures are essential to ensure that weaker areas draw benefits from increased accessibility and that such investments actually contribute to balanced and harmonious territorial development.

Finally, territorial cooperation can contribute to strengthen the capacity of local and regional authorities to identify their growth potentials and formulate development strategies. Territorial cooperation could contribute to the previously mentioned objective of strengthening the capacity of TeDi areas to design economic and social policies and to define development ambitions that are adapted to their specific preconditions. European exchanges of experience and good practice could in this regard play a particularly important role, considering the large disparities in economic and social performance between islands, mountains and sparsely populated areas from country to country and the contrasted regulatory and institutional frameworks.

3 Need for further analysis/research

The central research priority highlighted by the present project is the need to establish a more systematic body of knowledge on how economic principles adopted with "mainstream" territories in mind may be unsuited for the balanced and sustainable development of areas with geographic specificities. This first concerns general regulatory principles such as the balance between services of general interest provided by or under the control of public owned bodies and those to be delivered by private actors. Part of the enquiries to be developed should therefore focus on the functioning of market based solutions in areas when the demand is too small to justify the presence of multiple actors.

Similarly, the existence of a "labour market" presupposes that workers may choose between different employers. This is not necessarily the case in mono-industrial towns. More systematic research around the notion of "transitional labour market", considering the extensive movements in and out of employment, between sectors and between functional labour markets that occur every year across Europe would make it possible to construct a more comprehensive assessment of the robustness of labour markets across Europe. A central notion in this respect for TeDi areas is that of multiple job holding (i.e. "Nebentätigkeit" or "multiactivité"). The importance of formal or informal multiple activities as a basis for constructing a basis for economic sustainability in small settlements appears in multiple case study areas. The fact that this issue is difficult to explore quantitatively across Europe should not lead to underestimate its importance for balanced territorial development, especially in TeDi areas. Swiss watch producing traditions are an example of how a side-activity can develop into a major source of income.

Secondly, the analysis of TeDi areas demonstrated the need for further research on the territorial effects of sectoral policies, e.g. within fields such as transport, health and the exploitation of natural resources. The analytical angle to be privileged in this respect is how sectoral policies can increase the propensity of local actors to take advantage of identified development potentials.

Overall, the central theme for further research is the notion of "failure of market based solutions", understanding how and why development possibilities are left unexploited. This is part of the more general objective of territorial research seeking to promote a more holistic and integrative perspective on social, economic and ecological processes, and should lead to the formulation of proposals for more efficient state support systems in TeDi areas. In this respect, it would be important to establish a clearer distinction between the need for constant and perennial measures compensating for structural imbalances (e.g. youth out-migration,

economic returns of primary and extractive activities that are insufficient to ensure social sustainability, transport services of strategic importance that require public support to be operated) and punctual interventions to overcome some key obstacles preventing market forces from taking advantage of identified economic development potentials (“pump priming”).

B Report

- 1 Main results, trends, impacts (please reflect on the points mentioned in the project specification, in the Annex III to your subsidy contract and on the recommendations given in the CU response to your Interim Report)

1. Characterising TeDi areas in terms of geographic specificities

Understanding and assessing Territorial Diversity presupposes that one has a clear and shared understanding of the different forms of geographic specificities characterising European territories. This is less obvious than it may seem, because each type of geographic specificity is a mental construction as much as it is a physical reality and because limitations in the data availability must also be taken into account to construct delineations that can actually be characterised in terms of social and economic structures and trends. The present section presents a review of main European delimitations, and uses these as a basis for the characterisation of the eight case study areas.

a. Mountain areas

High altitudes are not a sufficient criterion to identify mountainous areas, as some mountains go down to sea level. This typically concerns fjords and Mediterranean dry mountain. The European delimitation of mountain areas therefore also takes into criteria of slope and of local variations in altitude ("ruggedness") (Nordregio *et al.*, 2004). If quantitative criteria are being used, the measures and thresholds have been defined in order to fit with common perceptions of mountainousness in European countries as closely as possible. Mountains are therefore a constructed mental category of landscape just as much as it is a physical reality. Any European delimitation of mountain area is nonetheless a compromise between different national perceptions. Generally, the more mountainous a country is, the more restrictive the perception of mountains should be: Switzerland will tend to have a more restrictive understanding of mountains than e.g. Poland. There are however exceptions: Belgium, for example, does not have a national notion of mountain areas, and it

therefore came as a surprise to some stakeholders that one would identify some of the Ardennes plateau as mountainous in a European perspective (Philippe de Boe *et al.*, 2005) . This exemplifies how the category “mountains” is a relative and cultural notion.

The landscape category “mountains” can furthermore be useful not only for regional policy, but also for other types of public intervention, e.g. concerning environmental or agricultural issues. Different understandings of mountains may however be required for each of these purposes. Mountain delineations are therefore far from set in stone and unique.

Within territorial policy, two approaches of mountain areas can be identified. The notion of “*massif*” is inspired by French *aménagement du territoire* that single out mountain territories and implement targeted measures within these areas. These *massifs* can range over multiple regions or parts of regions and are delineated at the municipal scale. The objective is to construct a coherent strategy for an entire mountain area. The alternative approach considers “mountainous regions”. This perspective, applied by the European Commission (2008, 2009), looks at the proportion of mountain area or mountain dwellers within each region. The rationale is that a high degree of “mountainousness” could affect regional development processes. The objective is to integrate mountain policies with other regional policy instruments, if and when there is evidence to support the need for such interventions. There may be a need to combine these complementary perspectives, both for the understanding of mountain related territorial development issues and for implementation of measures. A focus on “mountainous regions” may be particularly useful when considering new potential forms of interaction between mountains and piedmont/lowland areas; the “*massif*” approach helps exploring the unique characteristics of mountain areas and the possible strengthening of growth and development alliances within them.

Map 1 overlays the proportions of mountain population per NUTS 3 region with the municipalities defined as mountainous in the Nordregio Mountain study, i.e. with more than 50% grid cells satisfying to the criteria in terms of altitude and slope. This makes it possible to observe the differences between the delimitations resulting from each of these two types of methodologies.

In the Green Paper on Territorial Cohesion, NUTS 3 regions are defined as “mountain regions” only if over 50% of the population need to be living in 1x1 km grid cells identified as having a rough topography in the Nordregio study on Mountain regions produced for DG REGIO in 2004 for a NUTS 3 region to be defined as mountainous. In Map 1, the resulting delimitation

of mountain areas is represented in brown. This implies that neither of the two case study areas Alba and Suceava is identified as mountainous in this map. Map 3 therefore also represents regions with proportions of mountain population below 50%.

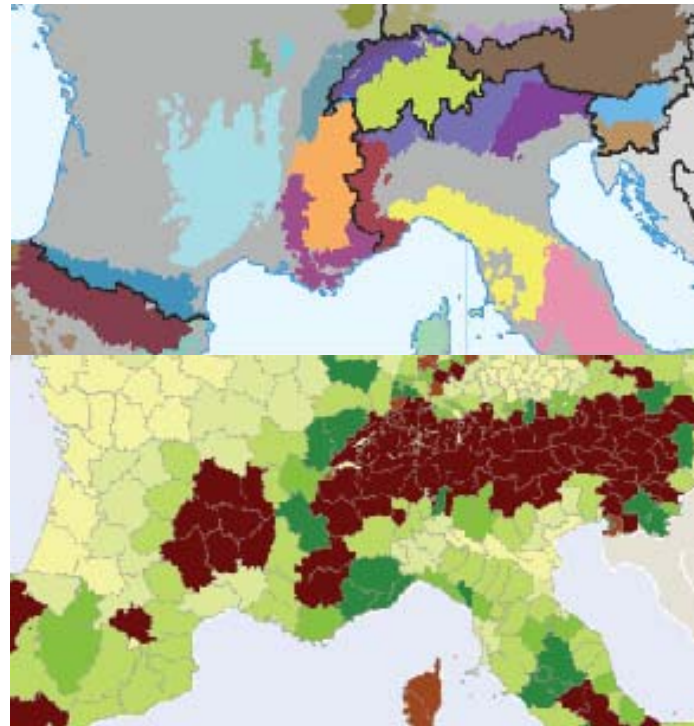
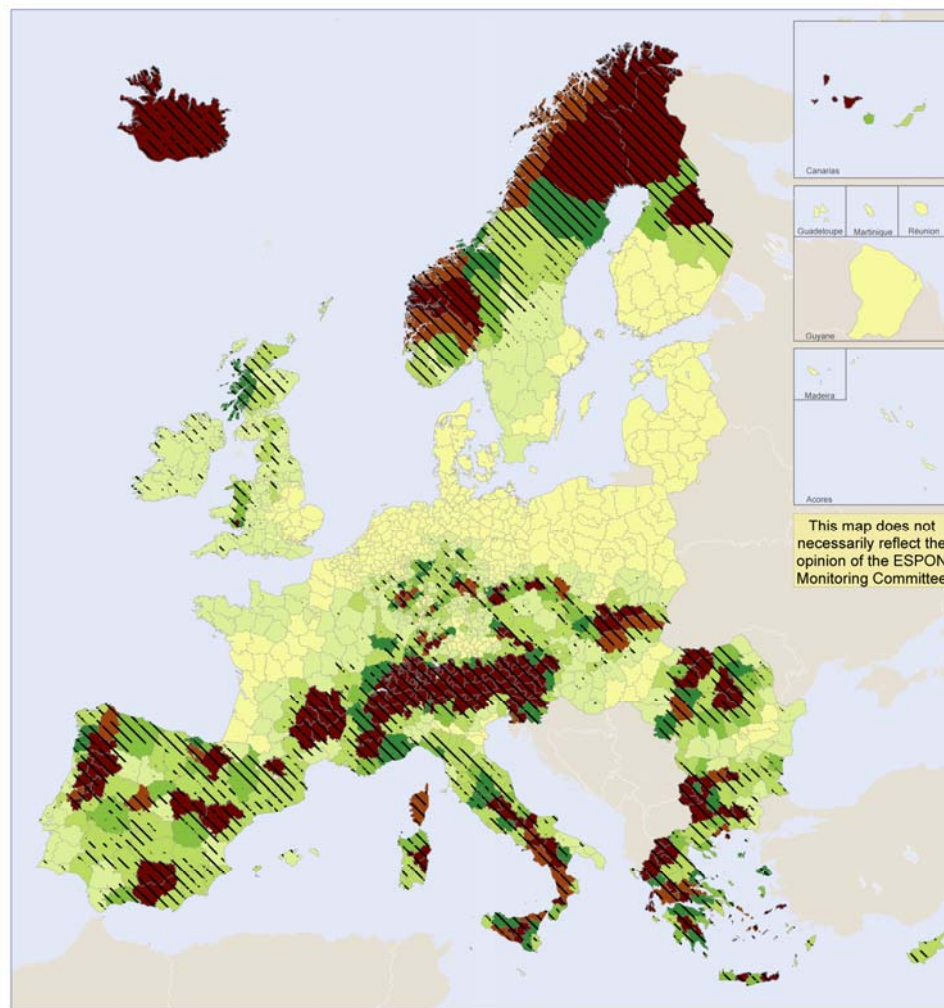


Figure 1 Massifs (top) and Mountainous Regions (bottom): two ways of approaching mountain areas

For some mountain ranges, the discrepancies mainly correspond to the difference in spatial resolution between the NUTS 3 and LAU 2 scales. This is for example the case in the French Massif Central and in most of the Alps (see Figure 1). By contrast, the differences are considerably larger in other areas. Massifs such as the northern Apennines and the Pyrenees, as well as all mountain ranges of the British Isles and of Cyprus are excluded from the analysis when considering only NUTS 3 regions with more than 50% mountain population. This creates a territorial policy concept of “mountain” which is distinct from the general understanding of “mountains”. There are therefore fundamental differences in the approaches of mountainousness. The Nordregio 2004 Mountain study focuses on mountain areas as a physical category delimited at the municipal scale, irrespective of whether the parts with a mountainous topography are populated or not. The Green Paper on Territorial Cohesion

Mountainousness in European regions



Proportion population living in mountainous areas
by NUTS 3 region, %
(including areas assimilated to mountain on the basis of climatic criteria)



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ESPON

© Nordregio, ESPON TeDi, 2009
© Eurogeographics association and GISCO
for administrative boundaries
Sources: Nordregio (2004) Mountain areas in Europe
(study produced for the European Commission, DG REGIO)
for the delimitation of mountain areas
European Commission DG REGIO (EU27)
Mélodie Martin, Erik Glaersen, Alexandre Dubois

Map 1 Degree of mountainousness of NUTS 3 regions overlaid with the extent of mountain ranges identified in the Nordregio mountain study (2004)

and subsequent Working Paper consider that mountainousness is relevant insofar as areas with a mountain topography constitute a context of living for a certain proportion of the population at regional (NUTS 3 level).

b. Islands

In terms of insularity, the Annex of the Green paper only considers NUTS3 regions composed completely of one or more islands as insular (Map 7). Applying this criterion to the ESPON TeDi areas, one observes that this implies that the approach excludes the insular areas of the Gulf of Bothnia, as well as outside the coast of Norway, while the revision of the initial delimitation of the delimitation of islands allows Malta and Cyprus to be considered as islands¹.

Applying the more general criterion that islands are territories not connected to the mainland by any physical link, one finds that the North Calotte comprises slightly over 100 islands with a year-round population², 48 of which have more than 50 inhabitants (Map 8). There are only 2 islands with more than 1000 inhabitants, situated along the coast of the Norwegian Sea³. Considering employment, there are about 72 islands on which there is employment (66 with employment and housing on the same islands), 14 of which have more than 100 jobs, with a maximum of 510 jobs in Karlsøy⁴. In total, North Calotte insular areas along the coast to the Norwegian have a population estimated to about 14 900 inhabitants and slightly more than 4 322 jobs (2001 data).

The North Calotte coast along the Gulf of Bothnia has a large number of islands, but these only totalise a population of about 500 persons and less than 20 employment opportunities. The numbers of inhabitants and jobs on these insular territories is therefore weak in comparison to the mainland. The importance attached to a human presence on these

¹ Comment to the list of regions with geographic specificities on the DG REGIO website: "After further discussions, DG Regional Policy has opted for analytical purposes to use a definition of island regions based on the criteria specified in Article 52 of the Structural Fund and Cohesion Fund regulation instead of the definition used in the Eurostat publication "Portrait of the Islands" which was used in the Green Paper and its annex. Please find below the classification of regions amended accordingly. The main difference with the classification used in the Green Paper is the inclusion of Cyprus and Malta in the group of island regions." http://ec.europa.eu/regional_policy/consultation/terco/terr_classifications_nuts3_2009.xls

² 2001 data.

³ Vega and Dønna

⁴ 2001 data.

isolated and remote territories however remains to be further verified among the stakeholders.

The typology of islands defined by the geographer André-Louis Sanguin (2007) provides some other useful categories for the understanding of "islands" as an object of territorial policy. Sanguin distinguishes three types of internal structures of islands or archipelagos. "Self centred islands" organised around one main island, e.g. Malta and Madeira, are distinguished from islands that are dominated by a capital city, but that also have significant secondary cities or towns. Sardinia, Corsica the Balearic and Canary Islands, the Açores and the Greek islands of the Aegean Sea are mentioned as examples of this latter category.

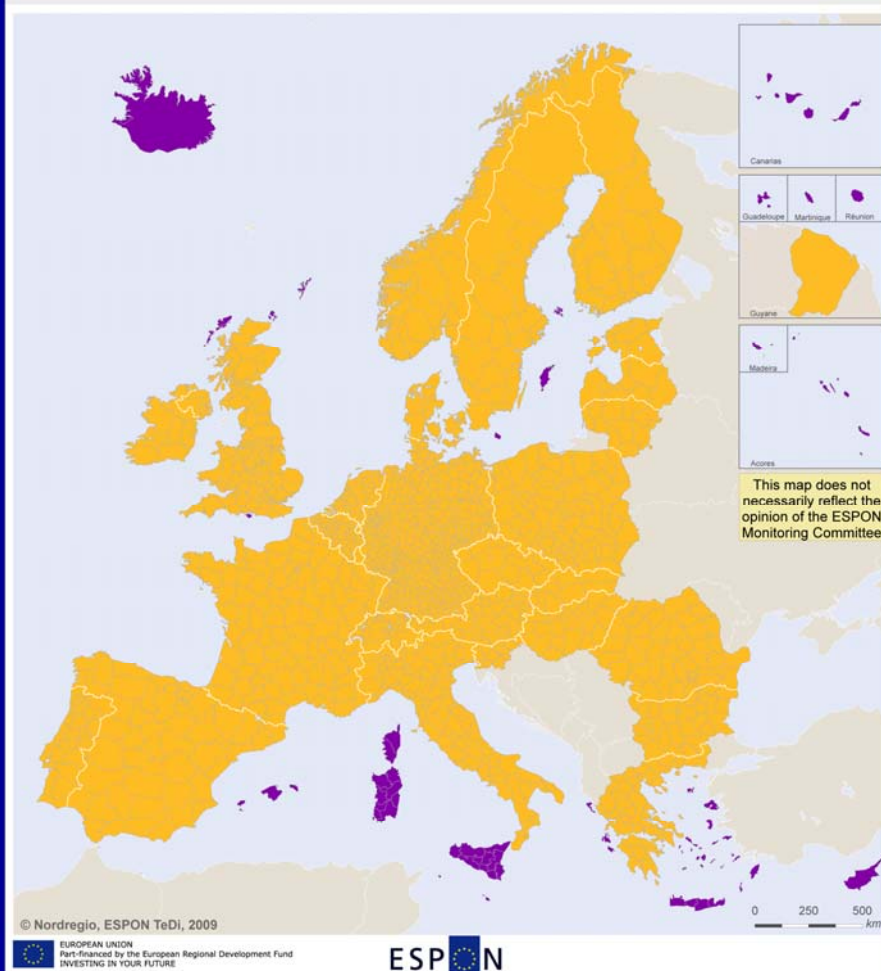
In many of these cases, one observes so-called "double insularity", i.e. islands that situated in the vicinity of another, larger, island. Double insularity creates additional development challenges and costs, due to the lower access to key services and transport infrastructure. Double insularity is however not considered in the Green Paper delimitation, i.e. an island situated outside the coast of another island. Among the ESPON TeDi case study areas, the main case in this respect is the Maltese island of Gozo, with a population of 31 300⁵. Differences in social and economic dynamics and development levels between Malta and Gozo constitute a main territorial development concern for Malta.

A separate type of islands identified by Sanguin is the large polycentric islands, where multiple competing nodes have clearly differentiated functions. Sicily belongs to this category.

Sanguin also highlights the separate challenges of isolated peripheral islands are typically situated on the outskirts of the European continent. The Orkneys, the Shetlands, Linosa and Lampedusa are mentioned as examples of such islands. One could however argue that Malta or Iceland could be mentioned in the same group.

⁵ 2007 data

Green paper delimitation of the insular areas



Map 2 regions in the Annex

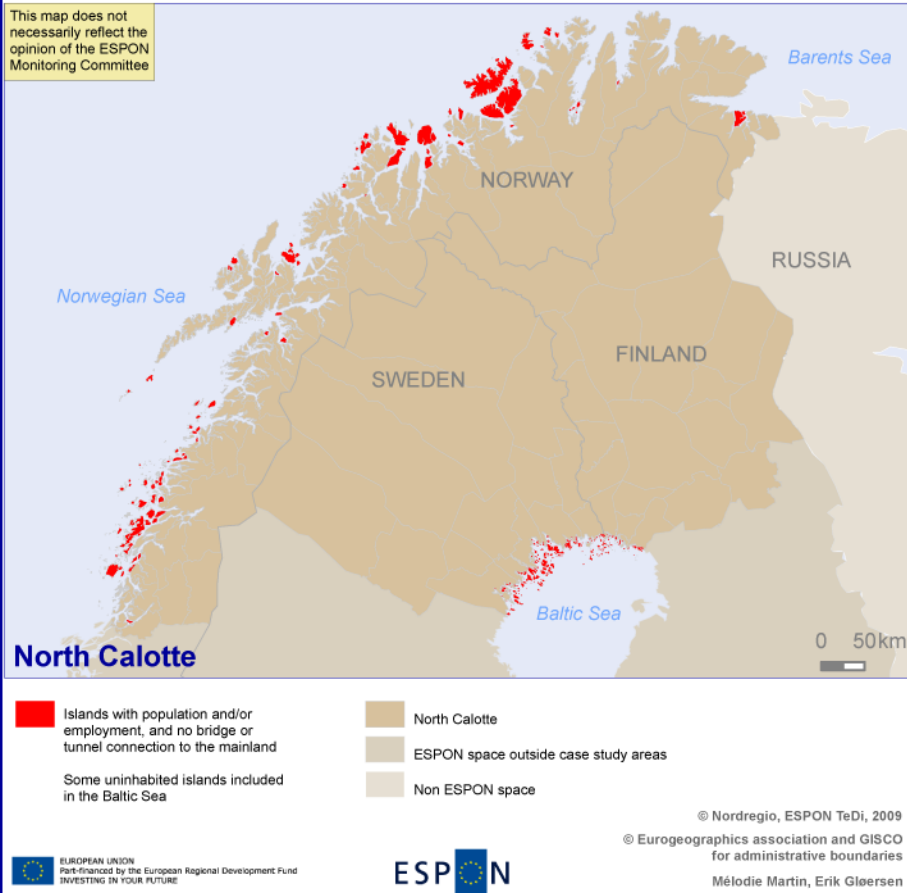
Delimitation of insular NUTS 3 to the Green Paper on Territorial Cohesion

Cohesion

Island regions were initially defined as NUTS3 regions composed completely of one or more islands, an island being defined according to the criteria used in the Eurostat publication "Portrait of the Islands" and in the DG REGIO study on island regions 2003-2004. After the publication of the Green paper, the European Commission announced that it would rather use a definition of island regions based on the criteria specified in Article 52 of the Structural Fund and Cohesion Fund regulation⁶. The main difference with the classification used in the Green Paper is the inclusion of Cyprus and Malta. These criteria have been applied in Iceland, Norway, and Switzerland to produce the present map.

⁶ Council regulation (EC) No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1260/1999
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:210:0025:0078:EN:PDF>

Insular areas in the North Calotte



Map 3

Islands in the North Calotte

Considering islands as territories not connected to the mainland with any physical link, but with a fixed population and/or employment opportunities, one can identify a considerable number in the North Calotte. These totalise a population estimated to 14 900 inhabitants along the coast of the Norwegian Sea, and only about 500 inhabitants along the Gulf of Bothnia (2001 data).

The number of inhabited islands in the Gulf of Bothnia is overestimated in the present map, as it corresponds to islands overlapping with 1k1 km grid cells with population.

Islands have some permanent features that make them more exposed to external shocks than other economies (Briguglio, 2003, Cordina, 2004). Among the factors of vulnerability, one can first mention economic openness, i.e. the relative importance of exports and imports in the overall economy. High openness implies a lack of circularity in the economy: the exchange of goods and services among the inhabitants of an island tend to be relatively less developed than in other regions and there is a greater dependence on external trade in final and intermediary consumption. A high dependence on a narrow range of exports is a second factor of vulnerability. In order to be competitive, small island communities need to focus on a limited number of sectors. This however implies that cyclical fluctuations within these key sectors can have a large social impact. The tourism industry and financial services in this regard need to be included in the list of exports islands can focus on. Finally, the reduced scope of local production leads to a higher dependence on strategic imports, e.g. energy and foodstuffs. In this respect, the degree of vulnerability depends on the stability of commercial relationships and the reliability of transports. These different forms of vulnerability are accentuated in small island states, e.g. Malta or Cyprus, where there is no external national entity that can act as a buffer.

Additionally, peripherality is also mentioned as a factor of insular vulnerability. However, while high transportation costs and long distances to main markets are recurring issues in all debates on their social and economic development, the key challenges are often rather about low connectivity and reliability. Distance has indeed not prevented Asian producers from exporting goods to Europe and North-America. The challenge is to operate regular and reliable connections to islands with a low population and a relatively limited economic activity cost-efficiently,

Finally, among the factors of vulnerability, one can mention the difficulty of establishing a system of checks and balance in governance systems. Insofar as islands are smaller and relatively more isolated, the networks of professional and political interaction and of kinship tend to be more closely knit than in other regions. This can be asset in terms of social cohesion, but may also require specific institutional arrangements to preserve plurality and encourage new initiatives.

c. Sparsely populated areas

Sparse population is a particular type of territorial specificity, insofar as it is not a physical category such a mountains and islands but describes a particular form of settlement structure. Indirectly, it however corresponds

to areas with a particularly low agricultural potential, i.e. which have not historically had the possibility of providing a livelihood for a large population. The main current territorial issue is however how this inherited geographical feature may influence regional development perspectives.

In the Annex to the Green Paper on Territorial Diversity, sparsely populated areas are defined as NUTS3 regions with a population density of less than 12.5 inhabitants per square km, with reference to paragraph 30.b of the Guidelines on national regional aid for 2007-2013 (2006/C 54/08). The corresponding list of regions (Map 4) includes a Nordic areas extending considerably beyond the North Calotte, as it includes most of East Finland, the Swedish inland down to Jämtland, the inland of south-eastern Norway as well as coastal counties including large uninhabited mountain areas. All of Iceland is sparsely populated except Reykjavik, as well as the three NUTS 3 regions of the Scottish highlands and islands, the Spanish inlands regions of Soria, Teruel and Cuency and the Greek region of Evrytania are also characterised as sparse. Additionally, the French outermost region of Guyana also belongs to this list.

The Green Paper applies the same approach of demographic sparsity as that which has prevail since it became an issue of European policy-making with the accession negotiations of Finland, Norway and Sweden. These led to regulations allowing large NUTS 2 regions with a population density of less than 8 inhabitants per km² to benefit from Structural Funds support. Additionally, national and regional investment aid, which is generally forbidden under European competition rules, is allowed in NUTS 2 regions with a population density of less than 12,5 inhabitants per km². In both cases, the delineation of sparse areas can be extended "*adjacent and contiguous smaller areas fulfilling the same population density criterion*". The regulation has not taken into the fact that the way in which borders are drawn has as much effect on population densities as settlement patterns.

Using average regional population densities as a measure of sparsity may furthermore be considered problematic in terms of meaning, as the issue of sparsity is not that there are few persons per land unit. The problem is that the small size of individual localities and the wide distances between them effectively limits the population of functional regions. In other words, sparsity relates to low population stocks in functional regions, and not of population ratios. The population of functional regions is important from a territorial development point of view, as it example largely determines whether:

- labour markets can operate efficiently, with a sufficient number of actors to generate dynamics of offer and demand that may regulate

the local economy, and a wide enough scope of employment opportunities to attract in-migrants?

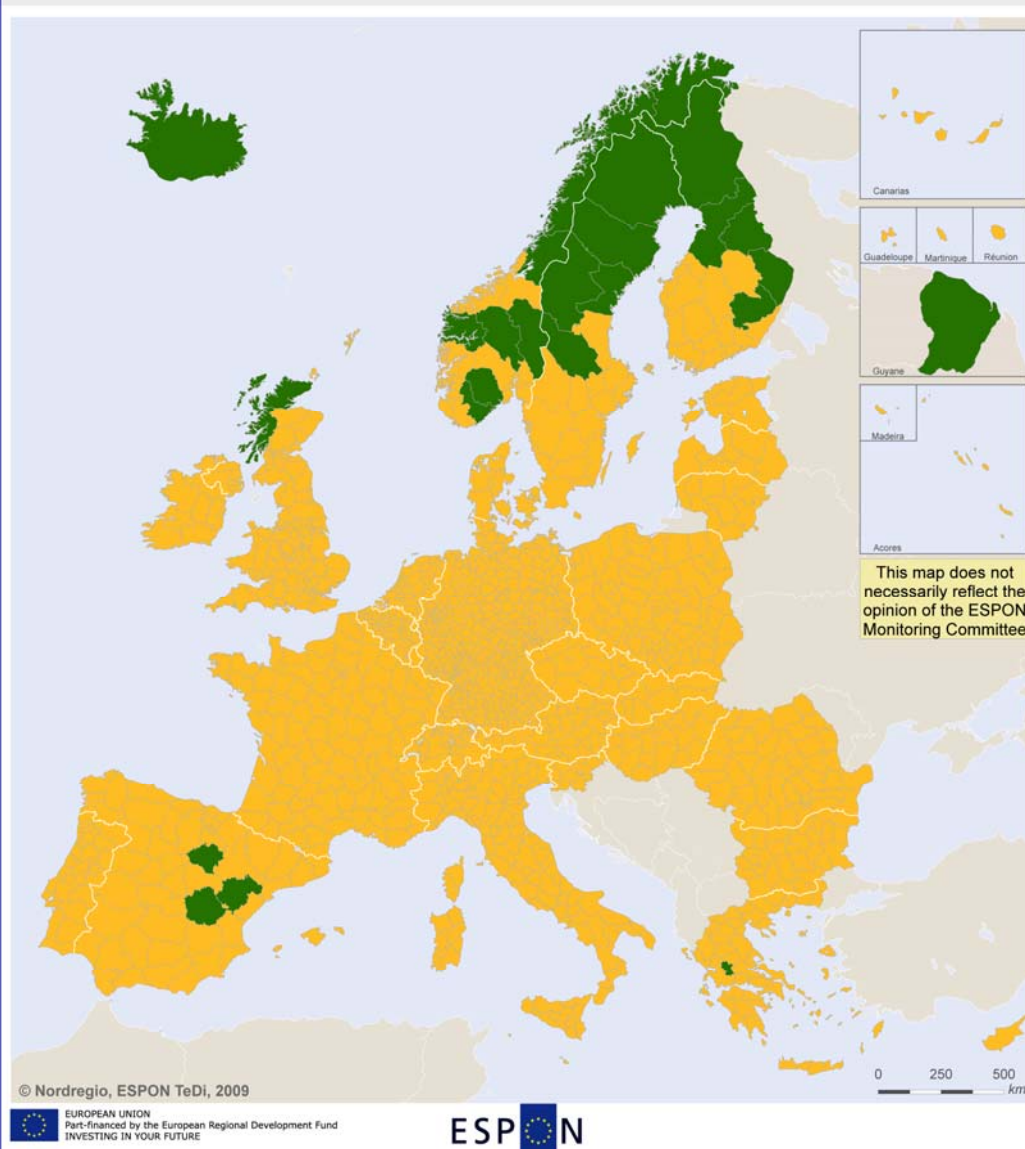
- there enough persons to operate public and private services cost-efficiently? Can services of general interest be delivered to the population without interventions from public authorities?

Functional regions are generally approximated to labour market areas. When such geographical units are used in the statistical analysis and as a basis for decision making, the risk is however that current mobility patterns are allowed to determine the future possibilities of territorial development. One may, in a more prospective perspective, base analyses on normatively defined desirable types of mobility, e.g. in terms of maximum daily travel time for each individual, of an intensity of exchanges between localities or a promotion of certain modes or axes of transportation rather than others.

To illustrate this type of thinking, Map 5 shows the number of persons within 50 km airline distance from municipality of the TeDi case study areas (Iceland excepted), standardised to the European average. The 50 km airline distance is here considered as a proxy for a possible desirable maximum daily commuting distance. The map in other words shows the total population of the functional context each municipality could consider, based on a political project seeking to maximise mobility in all directions within this maximum range. Such a measure corresponds what one calls a population potential in statistical terms.

The introduction of population potentials is mainly a method to demonstrate the economic and social meaning of sparsity. It does not necessarily lead to new types of delimitations compared to approaches based on regional population densities. Population potentials also make it possible to take into account both intra-regional diversity in terms of degrees of sparsity and the effect of neighbouring regions.

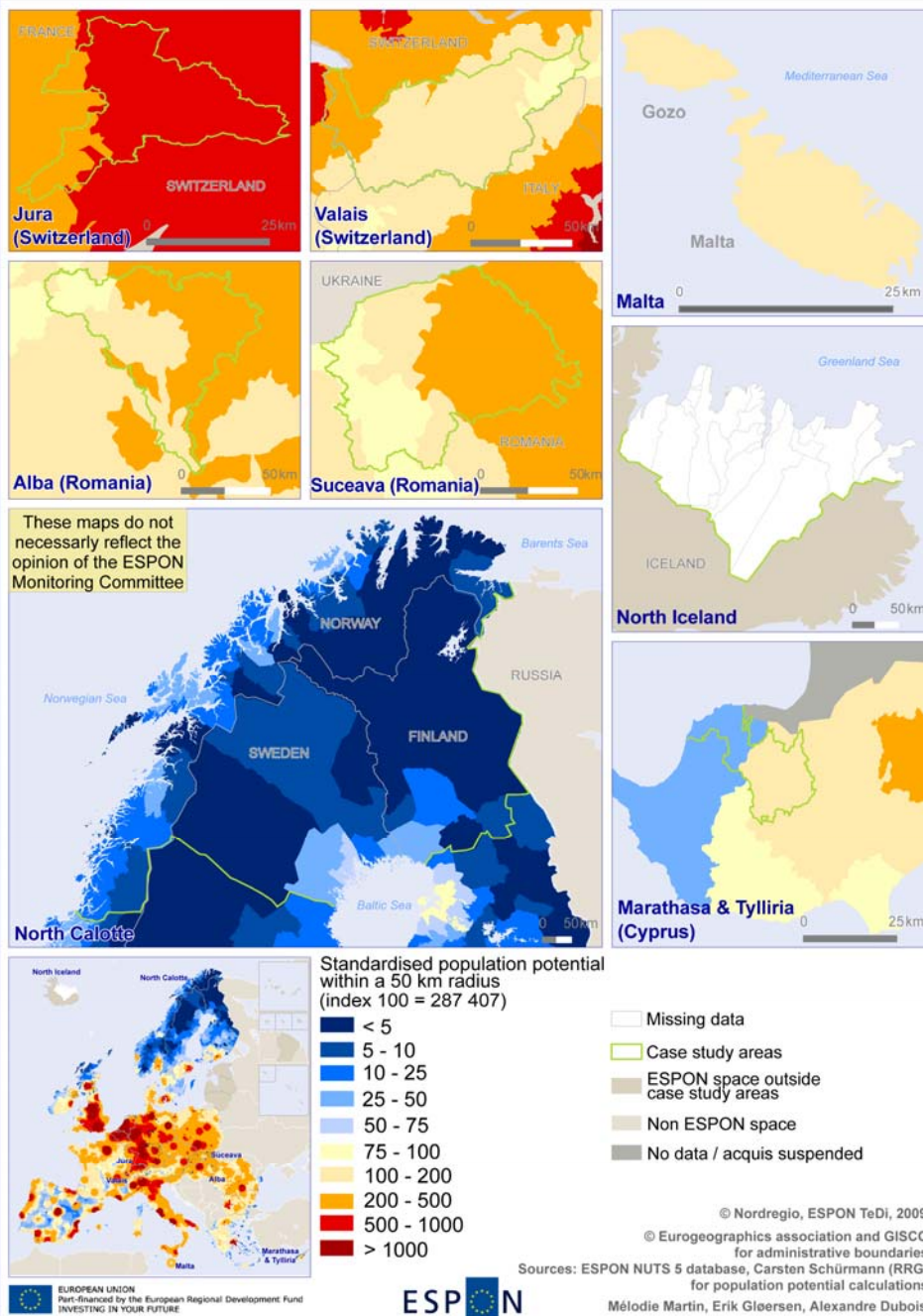
Green paper delimitation of the sparsely populated areas



Map 4 Delimitation of sparsely populated NUTS 3 regions in the Annex to the Green Paper on Territorial Cohesion

Sparsely populated areas are defined as NUTS3 regions with a population density of less than 12.5 inhabitants per square km, with reference to paragraph 30.b of the Guidelines on national regional aid for 2007-2013 (2006/C 54/08). These criteria have been applied in Iceland, Norway, and Switzerland to produce the present map.

Population potential within a 50 km radius



Map 5 Municipal population populations within 50 km

This representation corresponds to the number of persons to be found within a daily mobility area estimated to 50 km airline distance. It is only meant as an illustration of how one may use quantitative analyses to test how a political project would work out in a territory, rather than only seek to identify existing structures and trends.

A probabilistic use of population potentials has previously been introduced by Claude Grasland⁷, who uses them as a measure of the probability of interaction between individuals. This type of approaches has also later been used in a more pan-European perspective⁸. In a policy-applied research perspective, one can however usefully replace this "probabilistic" perspective one interaction with a "possibilistic" one: The purpose is to identify the total population that one could encourage to cooperate and integrate functionally from each point in space, given certain normative judgments on the desirable extent of daily mobility. The representation of population potentials is therefore hypothetical rather than descriptive. It is an illustration of how one can use quantitative analyses to test how a political project would function in given a territory, rather than only seek to identify existing structures and trends.

Many other types of representations could be envisaged. One could, in particular, replace the airline distance threshold with a maximum travel time calculated on the basis of a transport network model. This would particularly reduce the bias in mountain areas, where the correlation between airline distances and actual accessibility is weaker due to the topography.

With a reservation for such limitations, there are significant advantages with calculations of this type compared to e.g. population density or absolute population numbers. In Map 5, the added value of such a calculation appears with particular clarity for Malta. When approaching Malta in terms of population within daily mobility range, the island displays figures just above average, close to those to be found for example in the Swiss Valais or in Western Alba and Suceava. The situation is therefore quite different than for population density values, for which Maltese values are very high in a European comparative perspective. The highest population within daily mobility range can be found in Swiss Jura, with values more than five times superior to the European average over most of the canton's territory. This fits well with the perception of an area whose main challenge is to position itself in relation to neighbouring urban regions.

A representation such as Map 5 can however only be a starting point for more detailed discussions and analysis, as it neither reflects the orientation and quality of transportation networks nor the effects or cultural, institutional or legal frontiers. Furthermore, there are significant variations in accepted daily mobility distances from region to region.

⁷ Grasland, Claude (1991) « Potentiel de population, interactions spatiale et frontières : des deux Allemagnes à l'unification » in *L'Espace Géographique*, No. 3, pp. 243-254.

⁸ Boursier-Mougenot, Isidore, Cattan, Nadine, Grasland, Claude et Rozenblat, Céline (1993) « Images de potentiel de population en Europe » in *L'Espace Géographique*, Vol. 4, pp. 333-345.

Nonetheless, they do offer a good basis for typologies based on population potentials compared to equally unsatisfactory data on regional and municipal population densities.

2. Relevance of geographic specificities for economic growth and social sustainability

a. Importance of settlement patterns

A main reason for which geographic specificities are of socioeconomic relevance is that they affect the spatial organisation of the population. Settlement patterns are therefore important to understand the nature of the different forms of geographical characteristics. Settlement patterns are also particularly important when it comes to the possibilities of developing energy- and cost-efficient modes of transportation.

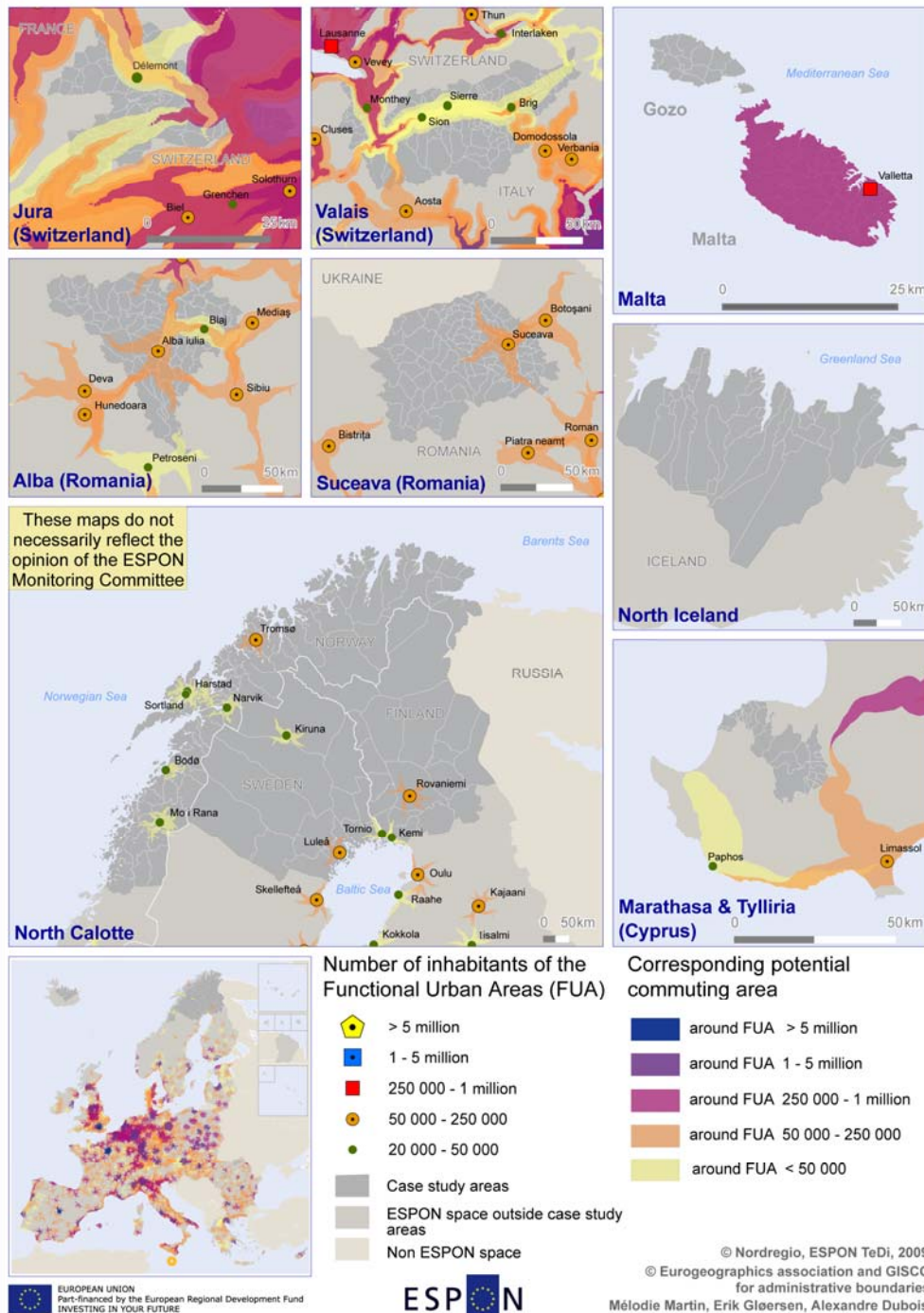
The review of available data on settlement across Europe, i.e. grid data and data on the number of inhabitants per agglomeration, shows that building a systematic knowledge basis on settlement patterns throughout Europe is therefore a challenge yet to be overcome. This would allow a better informed dialogue on the diverse forms of territorial challenges related to the spatial organisation of the population across Europe.

Another method to analyse settlement structures can be based on access to urban nodes, considering that these are central place with a concentration of services, public and private decision making functions and infrastructures allowing for a high virtual and physical connectivity. Map 6Map 17 represents areas within 45 minute travel time of the centres of Functional Urban Areas identified as part of the ESPON 1.1.1 project. This project only considered FUAs of more than 20 000 inhabitants⁹ - only the central nodes of such areas therefore appear on the map. From these central nodes, the area within reach in 45 minutes by road was delimited¹⁰. The network model used for this purpose included trunk roads mainly – some areas accessible with minor roads may therefore not appear. The 45 minute threshold was used as a travel time often referred to in the literature as a typical maximal daily commuting distance

⁹ A Functional Urban Area generally corresponds to a labour market area. The threshold therefore correspond to the labour market area as a whole, and not to the built-up area of its centre.

¹⁰ The isochrones were delimited by Carsten Schürmann (RRG)

Access to urban nodes



Map 6 Access to urban nodes

Access to urban nodes is a key parameter for local development. The ESPON TeDi case study areas display a wide diversity of situations in this respect. The Délemont isochrone has been added manually for illustrative purposes.

for most persons. Based on this representation, one may identify distinct situations in each case study area. It is however notable that all of the case study areas are, entirely or in part, characterised by a limited access to urban nodes of significant importance from a European perspective.

b. Causal relations linking geographic specificities and socio-economic processes

The notion of “syndrome” was introduced by environmental analysis in the 1990s. Inspired by medical science, it is initially a way of approaching “typical combinations of pertinent co-factors” when confronted with complex situations of unsustainable development with numerous parallel dimensions. The term can however also usefully be applied to the role played by geographic specificities in a territorial policy context. As in a medical syndrome, the situation of areas with geographic specificities is characterised by a number of associated symptoms of disadvantage, which, although they mutually reinforce the overall disadvantage experienced by these regions, are not necessarily connected in a causal sense. The term is used to avoid the pitfalls of *reductionism*, whereby these complex situations could be reduced to a series of measurements focusing on specific problems, and of analogous modelling, whereby the production of a virtual reality through mathematical simulations reproducing observed quantitative structures is presumed to offer the understanding needed for policy interventions. In the former case, one loses sight of the totality. The importance of interactions between various types of processes is ignored. In the latter case, models actually reproducing observed trends are so complex that they are of little help when trying to communicate politically about the relevant processes.

Inspired by the application of the syndrome approach to Nordic sparsely populated areas by Andrew Copus (Gløersen et al., 2006), we have used it to synthesise the situations of the TeDi case study areas. We have however also developed the model further: While the syndrome approach explicitly focuses on a situation of disadvantage or threat, a similar type of methodology may also be applied to local communities where the geographic specificity is transformed into an asset and an opportunity. Concomitant and associated social, economic and physical elements allowing a local community to grow and/or to develop in a sustainable way coexist. However, the causal relationships between them are not necessarily known. On this basis, two parallel and opposite dimensions of geographic specificity can be defined: While the syndrome approach explicitly focuses on a situation of disadvantage, a similar type of methodology may also be applied to local communities where the

geographic specificity is transformed into an advantage. Concomitant and associated social, economic and physical elements allowing a local community to grow and/or develop in a sustainable way coexist.

Comparing the diagrams, one can identify similarities in the patterns and causalities, but also local specificities. The framework conditions for development, described in the left column ("Historic legacy") include a mixture of physical elements related to insularity, mountainousness and/or sparsity, economic structures and settlement patterns. In some areas, such as Gozo and Suceava, it also appears necessary to invoke institutional aspects at this level. The intermediate processes leading from these framework conditions to structural growth constraints and to factors affecting the quality of life are the core elements of the model. Contrary to the framework conditions, which are generally of a permanent nature, these causal relationships can be targeted through appropriate policy measures in view of reducing their negative effects. Some of these processes can be found in multiple case study areas: the insufficient access to services of general interest, the lack of modern logistics and communication centres and the vicious demographic circles leading to continued demographic decline and depopulation are examples of such recurring issues. Finally, the right column lists the more diversified ranges of growth opportunities and perspectives of improving the quality of life.

Such syndrome diagrams are necessarily incomplete and partial interpretations of the social and economic situation of individual TeDi areas. It however helps structuring the thinking on the constants and variable dimensions of Territorial Diversity across Europe, while focusing on processes rather than on performance. Secondly, they encourage an approach of TeDi areas abandoning a fatalistic attitude focusing on the permanent and therefore unchangeable geographic specificities, and instead target intermediate processes on the one hand, and opportunities on the other. Finally, this is a way of emphasising that the policies dealing with the effects of geographical specificity are not developed for their own sake, but in view of making the exploitation of potentials possible. As such, the diagram models synthesise analytical findings on trends and impacts, but can also serve as a starting point for policy discussions in view of identifying the most relevant challenges and opportunities, and determining which policy interventions would have the most leverage promoting growth and sustainable development.

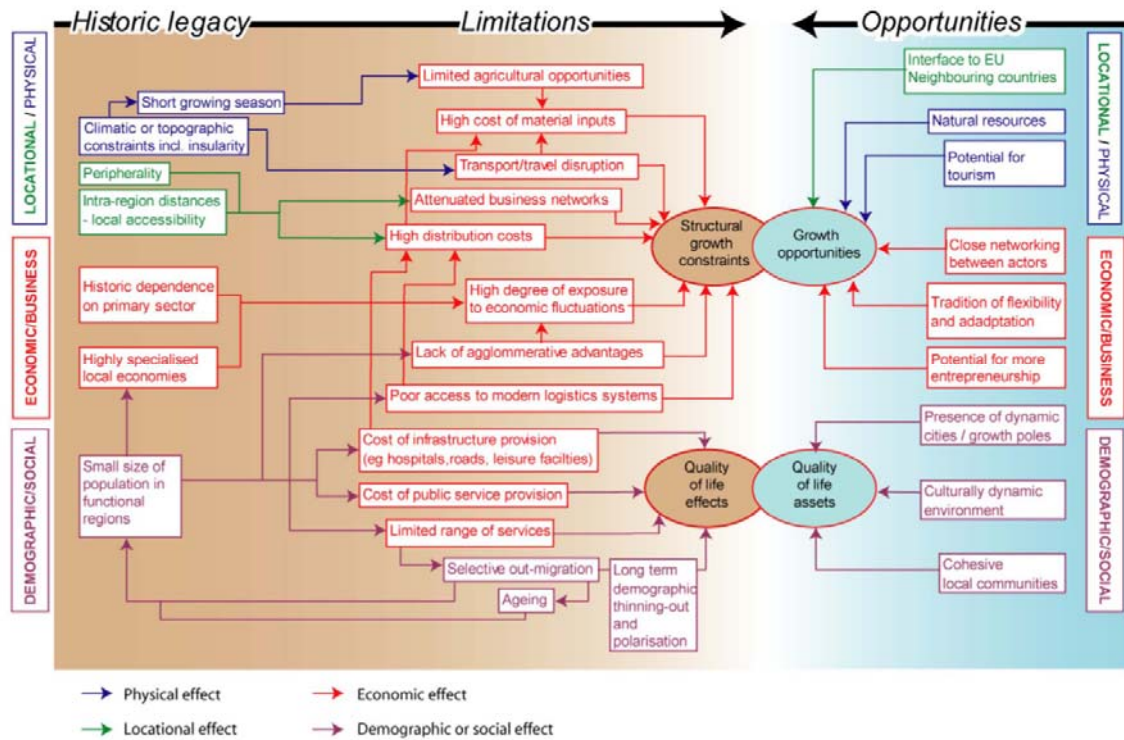


Figure 2 Syndrome diagram for the North Calotte

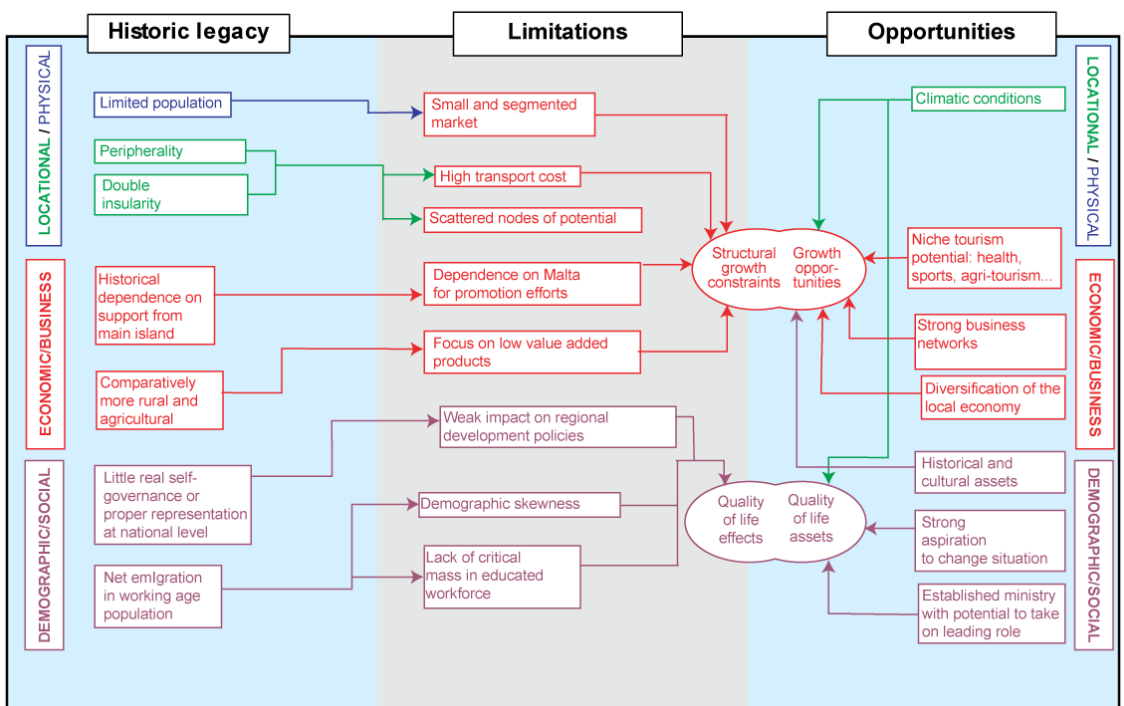


Figure 3 Syndrome diagram for Gozo

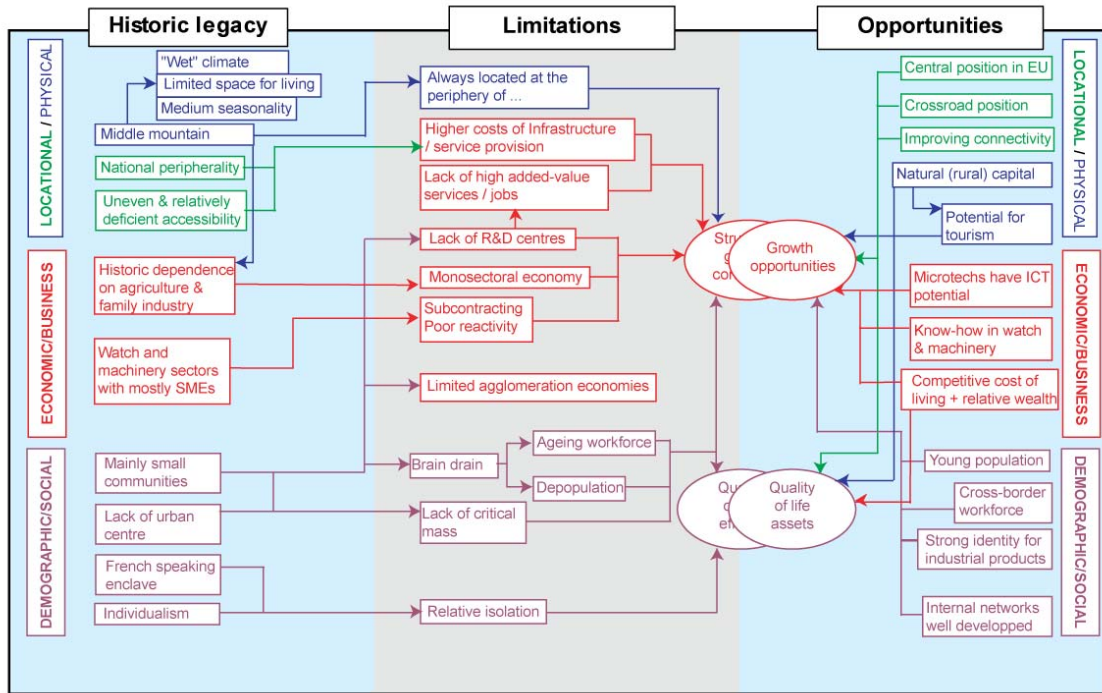


Figure 4 Syndrome diagram for Jura

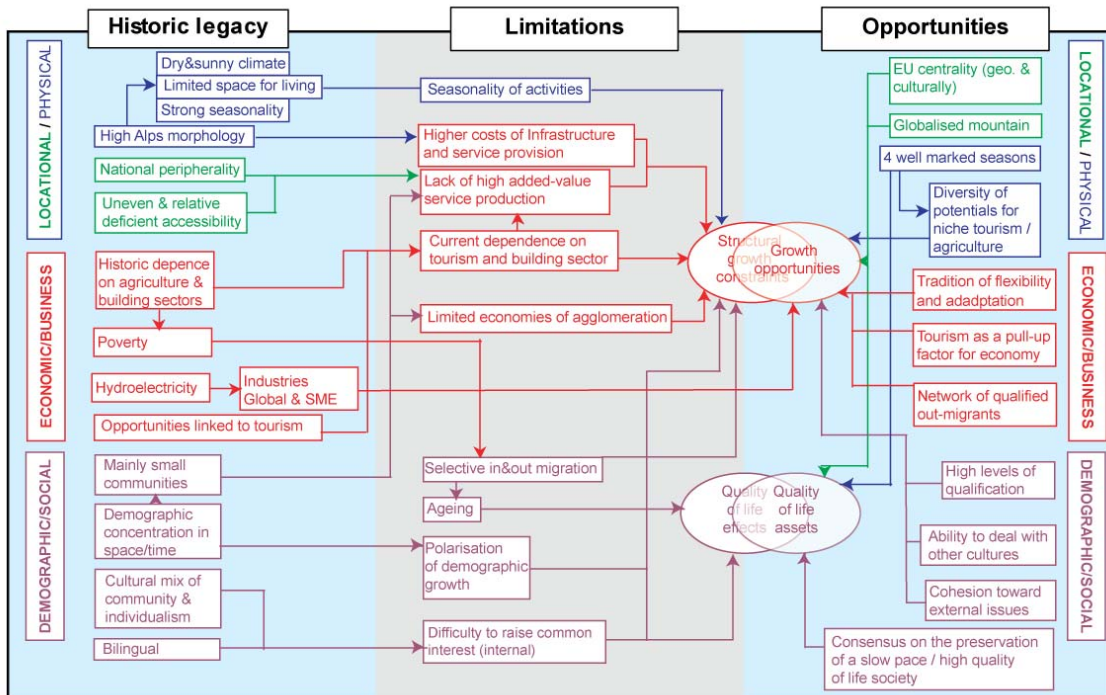


Figure 5 Syndrome diagram for Valais

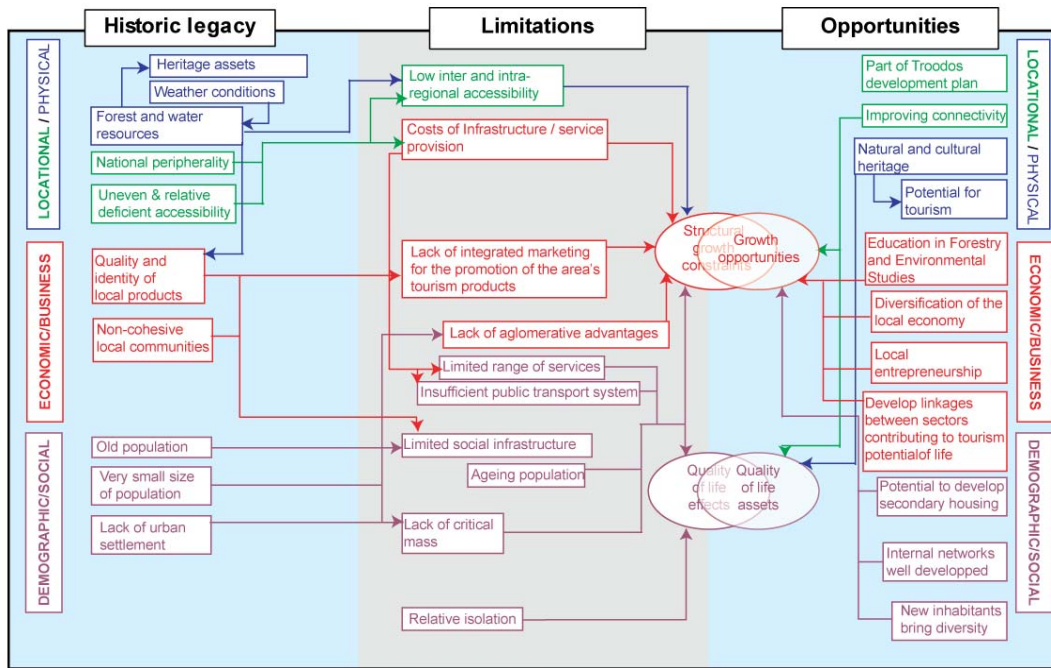


Figure 6 Syndrome diagram for Marathasa

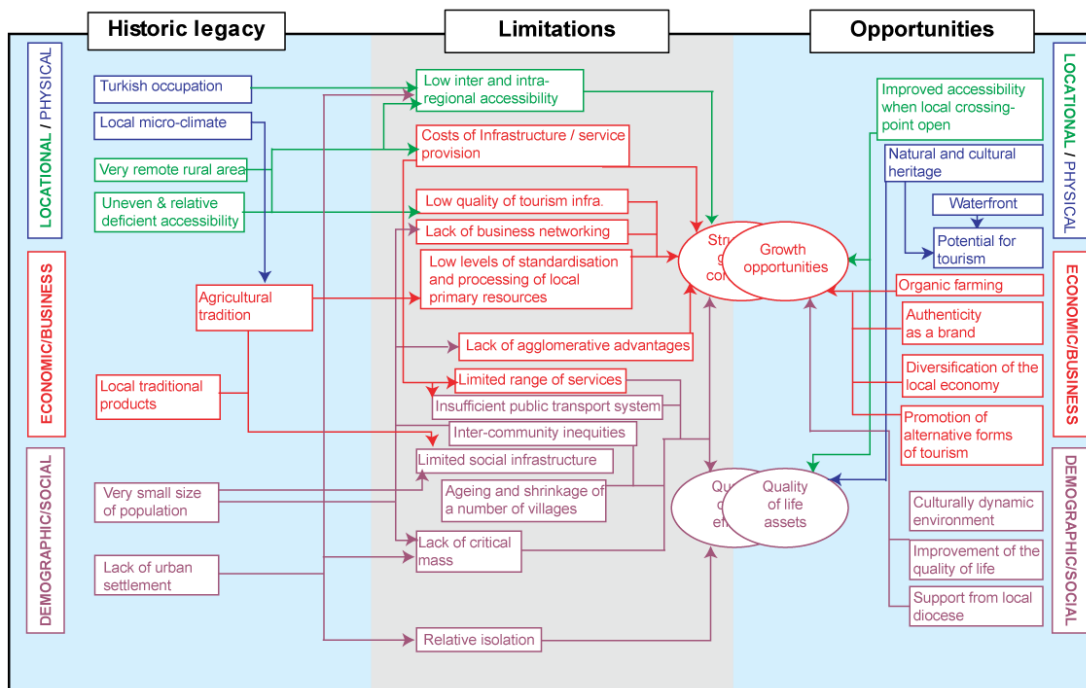


Figure 7 Syndrome diagram for Tylliria

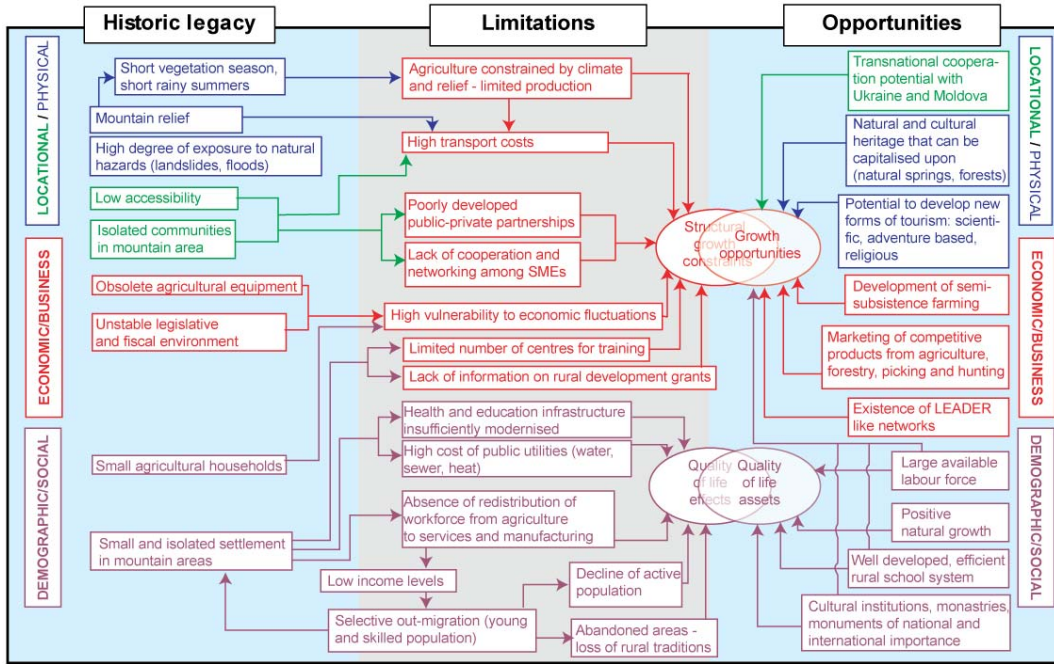


Figure 8 Syndrome diagram for Suceava

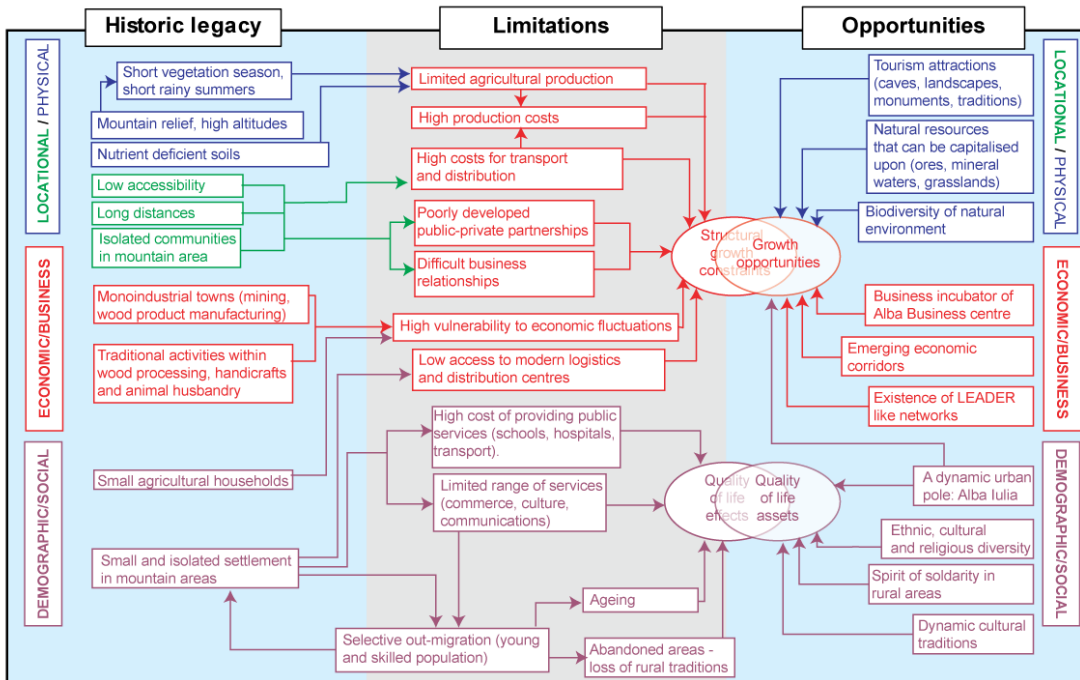


Figure 9 Syndrome diagram for Alba

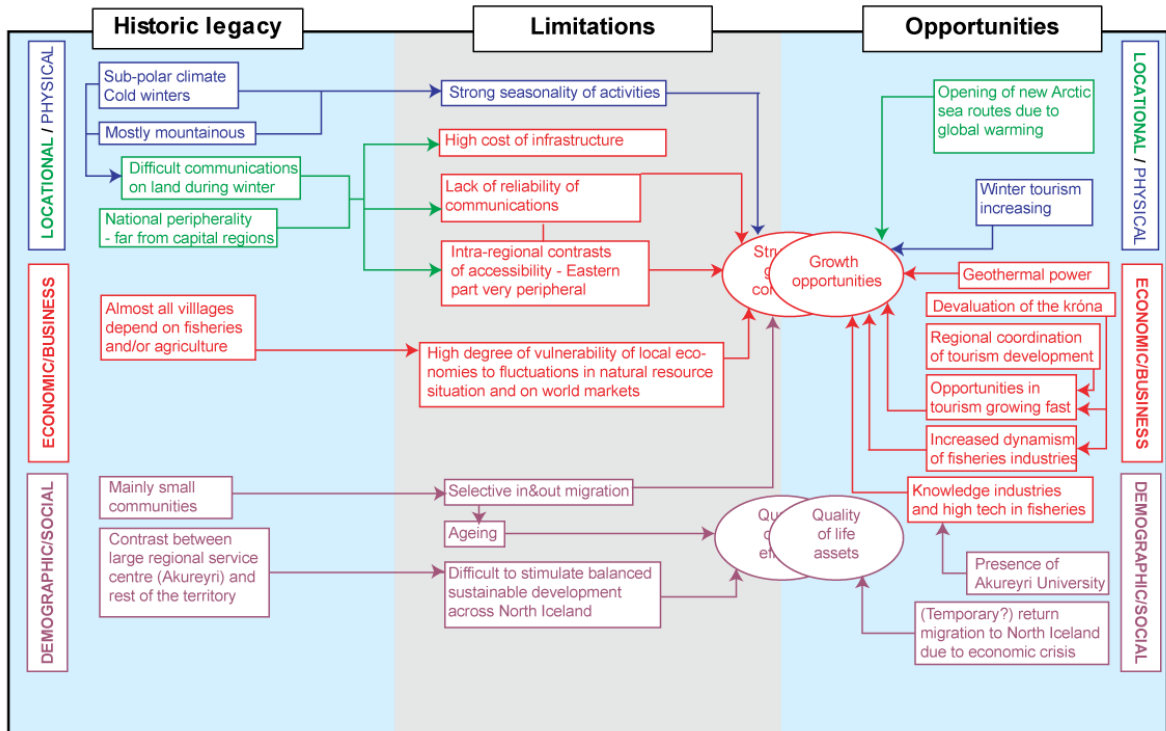


Figure 10 Syndrome diagram for North Iceland

2 Options for policy development (basis for interventions related to development opportunities for improving European competitiveness and cohesion)

Policies must help formulating a development model that is adapted to the specific social and ecological framework conditions of TeDi areas. This implies that one may need to challenge prevailing economic principles. Competition for example does not necessarily guarantee the cost-efficient delivery of services of general interest in areas where the demand is too small to justify the presence of multiple actors. Similarly, the existence of a “labour market” presupposes that workers may choose between different employers. This is not necessarily the case in mono-industrial towns. The notion of “failure of market based solutions” is central in the understanding of the specific social and economic dynamics of TeDi areas, and in explaining why a certain number of development potentials are not taken advantage of.

Ensuring a sustainable development based on regional comparative advantages

The objective is to improve the growth potential of these regions and their perspectives of sustainable development, ensuring that they contribute to the achievement of the Lisbon and Gothenburg objectives to the full extent of their possibilities. The focus is on identifying development opportunities, i.e. endogenous potentials that are not being fully exploited. There are probably as many reasons for which potential resources are not being taken advantage of as there are territories. One may however try to systematise the knowledge about these various situations by defining the territorial development opportunity as a way of improving the coherence between local natural resources, human capital and the institutional context / governance structures.

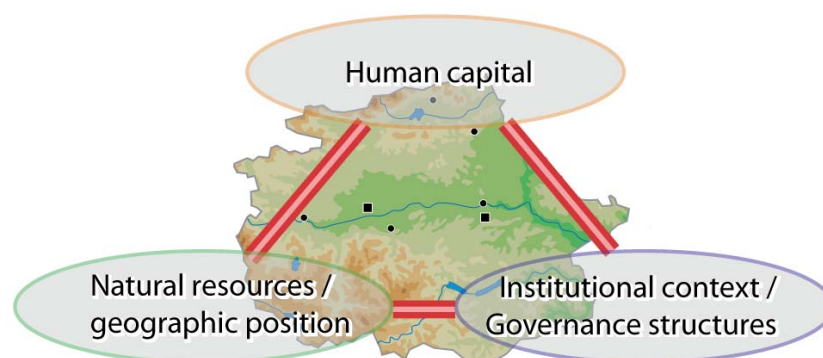


Figure 2 Conceptualisation of Territorial development opportunities

The underlying hypothesis is that the absence of exploitation of a given asset, leading to a suboptimal social and economic performance within a region, can on the long term be explained by weaknesses of specific factors or by incoherencies between the ways in which they have been developed. The human capital is considered in terms of the composition, competencies of the workforce, but also with regards to the degree of social cohesion. Both these aspects are of determining importance for the emergence of sustainable communities having the capacity to adapt to changing framework conditions. The structuring of local communities around not-for-profit organisations, political, confessional or cultural movements or strong regional identities can also contribute to strengthen local bonds that have an effect on the human capital. The quality of the institutional setup and governance structures can only be assessed in relation to these "organic" forms of social organisation, which they contribute to shape and of which they may seek to compensate the weaknesses. Natural resources, finally, are not approached as a given feature of individual territories, but as the result of economic initiatives and strategic choices making it possible to transform natural features into economic resources.

Such a model implies a change of perspective for local and regional authorities seeking to identify development opportunities. Rather than focusing on assets as such, the main priority is to identify the reasons for which the possibilities of growth and development have not been taken advantage of. From the point of view of territorial policy, development opportunities are therefore primarily approached as possibilities of improving coherence between the human capital, the natural resources and/or geographic position and the institutional context and/or governance structures.

All of these three elements are themselves variable and part of public efforts may lie in targeting either of them. However, these interventions are necessarily designed in relation to the other factors: natural resources are developed as part of efforts to create a socially and economically more favourable context for the reproduction of the human capital, and to improve the perspectives of sustainable development of the region or locality; the institutional and governance structures are reformed in order to improve their capacity to develop the human capital and create adequate framework conditions for the exploitation of natural resources; a long term strategy to preserve and enhance the human capital must be based on an assessment of how the natural resources and geographic position could allow for a corresponding level of economic activity and in parallel develop an institutional setup that improves the local or regional

social cohesion. This approach of territorial development opportunities therefore entails a more systemic and holistic approach of TeDi areas.

The territorial approach can make it easier to handle this complex three variable equation, as one can circumscribe the different elements more easily and formulate economic, ecological and social ambitions within people's daily life environment. Furthermore, insofar as the territory is part of the identity of individual actors, they may be more easily mobilised around a territorially identified project. This however does not imply that one should consider territories in isolation; development opportunities on the contrary often emerge by creating new types of interaction between neighbouring territories: mountain areas needs to be considered in interaction with their piedmont and islands in relation to regions they are connected to by sea or air. A risk with the focus on endogenous potentials is that one focuses on individual territories and ceases to consider the potential for functional integration.

Promoting a more balanced functional integration of TeDi areas in their wider regional neighbourhood and in the European context

Two contradictory types of aspirations of TeDi areas can be identified. On the one hand, they seek recognition of their specificity and difference compared to other regions and would like to preserve the constituent elements of their regional or local identity. On the other, they would like to establish framework conditions for economic and social development that would be as similar as possible to those of other regions, allowing their economic actors to compete with external competitors on equal terms and providing the inhabitants with access to high quality services. It is important to bridge these different types of ambitions in view of formulating a coherent development vision. This implies that possible or potential contradictions between different types of objectives are clearly formulated, before one can seek to identify adequate compromises or, ideally, imagining win-win solutions making it possible to re-establish a coherence in the territorial project.

The previously noted possibility that the economic and social interests of individual TeDi areas may diverge from those of national or European actors, especially concerning the exploitation of natural resources, implies that TeDi areas need to formulate their development vision autonomously and potentially challenge prevailing priorities and principles. This raises the question of the institutional and economic capacity of TeDi areas to undertake such an endeavour. The variable status of TeDi areas, from sovereign nation states to groups of municipalities, and the extreme contrasts in wealth, economic power, endowment with R&D institutions

and local competence in the field of territorial development, implies that no single model can be applied across Europe. "Turning Territorial diversity into strength", as advocated by the Green Paper on Territorial Cohesion, however presupposes that one acknowledges the diversity of objectives and ambitions and encourages the formulation and implementation of locally designed development strategies.

A focus on TeDi areas can in this respect contribute to the definition of Territorial Cohesion as one of the fundamental policy objectives pursued by the European Union. TeDi areas demonstrate that a high European performance in terms of economic and social development is not simply the sum of high local and regional performances. They provide particularly striking examples of the fact that high European performance is instead the result of carefully calibrated, coordinated and integrated diverse contributions from equally diverse territories. In so doing, TeDi areas provide a further justification of the need for a territorial cohesion policy that is separate from social and economic cohesion. One of the objectives of territorial cohesion from their perspective is to ensure that social, economic and ecological ambitions, instruments and measures are adapted to the diversity of territorial contexts in order to be fully efficient.

As such, TeDi areas need to identify the specificity of their contribution to the "three mutually reinforcing priorities" of the Europe 2020 strategy, viz. "smart growth (developing an economy based on knowledge and innovation), sustainable growth (promoting a more resource efficient, greener and more competitive economy) and inclusive growth (fostering a high-employment economy delivering social and territorial cohesion). While the Commission communication on the Europe 2020 strategy emphasizes that the targets do not fit a "one size fits all" approach, the ways in which the overall ambitions are translated into national and regional objectives remains to be defined. In this respect, it is significant that when the European Commission describes the need to "tailor the Europe 2020 strategy" to each "particular situation", it only considers the national level and disparities in levels of development and standards of living. The only exception is one mention of "rural areas". This illustrates the need to develop a line of argumentation justifying the need for objectives and strategies adapted to territorial specificities at the regional or sub-regional scale, constructed in a spirit of subsidiarity.

Achieving a continuous long-term improvement of quality of life

While the project demonstrates that TeDi areas are not necessarily lagging, and that there are major development opportunities to be taken

advantage of, the improvement of the quality of life is a concern in all case study areas. While they all have obvious assets in terms of living environment, not least when it comes to access to nature, the challenge can lie in the preservation of balanced social environment, especially in small and remote communities, and in ensuring a sufficient access to public and private services.

In terms of social equilibrium, the situations of the case study areas are diverse. Gender imbalances are an issue in the North Calotte and in North Iceland; ageing is particularly pronounced in Alba and Marathasa. Demographic polarisation however occurs in all areas except Malta and Gozo, as negative net migration and negative natural population change are often observed in the same municipalities. These evolutions have a significant impact on the perspectives of regional development, insofar as population figures in local functional areas fall under threshold levels below which it becomes impossible to deliver services cost-efficiently and to create a sufficiently broad and diverse labour market. To understand and address them, it is necessary to consider sub-regional data, at the level of actual commuting areas or of territorial units that have been defined by local authorities as corresponding to a desirable range of daily mobility. The compilation of data at this scale is a prerequisite for the formulation of policies addressing the demographic and social balanced development of communities in TeDi areas.

In all case studies, it appears that the main quality of life issues are related to small and isolated settlements. Recurring issues such as the difficulty of maintaining access to services of general interest, to generate balanced and robust "labour markets" or to improve the quality of the infrastructure are indeed all linked to insufficient population numbers. Independently of whether one considers mountains, islands or sparsely populated areas, settlement patterns and obstacles to mobility are therefore shared concerns leading to similar effects. This suggests that a European policy explicitly addressing settlement pattern related issues and formulating objectives for how the population should be organised across the European territory would be particularly relevant for TeDi areas. The first questions to be addressed in this respect are whether current polarising trends, as they have been observed in all TeDi case study areas except Malta, would become unsustainable if they are allowed continue. If a consensus can be reached around the notion of "unsustainable polarisation", it may be more difficult to define the criteria identify territories experiencing such a situation and to adopt appropriate counter-measures. Many TeDi areas can be considered as pilot areas in terms of population decline and demographic "thinning out" processes, as these processes have been going for on for a long period of time and are

particularly advanced. They can therefore be used as test cases for the management of depopulation and demographic decline, in a context where “shrinking regions” constitute an increasing proportion of the European territory.

While access to a minimal range of services is an obvious and important factor of social and demographic dynamism in TeDi areas, the case studies demonstrate that identity and self-perception also play a determining role. Branding efforts are therefore important not only in view of attracting foreign visitors and investors, but also as part of a strategy to promote the awareness of local assets and pride in belonging to individual TeDi areas. One should in this respect not underestimate the symbolic role of knowledge intensive and innovative activities. The presence of leading research facilities can change the perception of local communities and stimulate more positive social and economic trends. In North Iceland, the establishing of the University of Akureyri in 1987 is described as one of the most efficient measures ever taken in Icelandic regional policy. It has strengthened the economic life in Akureyri and surroundings and is now a strong and stable University which plays one of the key roles for economic development in north Iceland. Not only as a contribution to the economic life, but this has helped to redynamise the educational structure of the region as a whole.

Targeted efforts aiming to improve the perception teenagers have of their local environment are another interesting strategy. The objective is to ensure that a larger proportion of young people will return to their place of birth after graduation from centrally located higher education institutions. Policies improving the quality of life of youth can therefore be an integral part of a strategy of economic sustainability.

Improving the foundations of development and enhancing entrepreneurship in a perspective of sustainable development

This illustrates how central quality of life can be in the construction of solid long term foundations for economic development. The different case study areas however also illustrate how many TeDi localities may need to construct models of high quality of life in order to comply with the imperative of ecologically sustainable development. Pressures of a population aspiring to adopt a homogenous mainstream lifestyle in territorially diverse areas, e.g. in terms of access to commercial and public services, mobility habits and consumption, may therefore be a challenge.

Similar hesitations between the assimilation to “mainstream” areas and the preservation of specificities can also be observed at the level of the TeDi regions. This is particularly striking in the cases of Gozo and Jura, in

their capacity of TeDi regions that are contiguous to dynamic and densely populated areas, and seek to position themselves in relation to these. Conflicting types of aspirations are expressed in this regard. On the one hand, there is a wish to be fully connected to their growth dynamics and to benefit from the services they offer. On the other, these areas, with reference to their geographic characteristics and cultural specificities, seek to preserve their difference. In the case of Gozo, the lower population densities, environmental assets and traditional lifestyle are some of the values local stakeholders wish to safeguard. At the same time, there is an aspiration to improve the functional integration to Malta. The Canton of Jura is a French-speaking enclave in the northwest of Switzerland that was founded as late as 1979. It on the one hand seeks to reap benefits from its proximity to the Basel metropolitan region and to Belfort and Montbelliard that will be connected to the French high speed railway network in 2011. On the other hand, a group of regional development measures introduced under the banner "Opening up the Jura" ("*Jura, pays ouvert*") were rejected by public referendum in 2004. This illustrates the difficulty of formulating a consensual development strategy for TeDi areas overcoming the contradiction between the "preservation of specificities" and the "alignment on other territories".

In view of formulating a solution to this dilemma, the Northern Peripheral Sparsely Populated Areas, a transnational group of regions in northern Finland, Norway and Sweden including the North Calotte, has organised a Foresight process in which regional and local stakeholders have been actively involved. This has led to the production of a report containing a vision for the area in 2020 and a policy road map. By branding the region as "Strong, Specific and Promising" the representatives of the regions claim that the preservation of these regions' specificities is a prerequisite for the sustainable exploitation of their potentials rather than an obstacle to their development. TeDi regions however do not necessarily have the institutional and economic capacity to formulate and implement the alternative development models required to turn difference into a strength in this way.

The European Commission in its Third cohesion report defined Territorial Cohesion as a policy seeking to ensure that "people should not be disadvantaged by wherever they happen to live or work in the Union". Such an ambition however not only appears unrealistic in terms of infrastructural investments and foreseeable cost of delivering the services to make this "absence of disadvantage" possible. It may also lead to unsustainable environmental pressures when wide-ranging mobility patterns are encouraged to compensate for the lack of local employment opportunities or services. The Conference of Peripheral Maritime Regions

(CPMR) has translated this approach of territorial cohesion into a principle of fairness, whereby "The objective of territorial cohesion is to [...] offer fair access to services of general interest and to ensure optimal competitiveness conditions for all territories." The key issue for Territorial Diversity areas is to define what this principle of "fairness" would entail. Such a question would need to be addressed within each region, in a bottom-up perspective. Institutional capacity building is therefore key to the construction of a framework that would make the constitution of robust and sustainable foundations for economic development possible.

Changing the conditions of the European dialogue on territorial development

The full exploitation of development opportunities in TeDi areas presupposes that the concerned local and regional authorities have the capacity to challenge prevailing norms in terms of economic development methods and objectives when this is required. If European policies are to support a development model that "transforms diversity into a strength", this however also requires that an adapted analytical framework is established.

The assessment of regional performances against European or national average values, including metropolitan regions and other well-connected and highly populated areas, is in this respect a method which cannot offer a satisfactory basis for strategic decision-making. The justification for policy interventions in TeDi areas is indeed not based on an underperformance compared to such a benchmark, but on the extent of unexploited development potentials and the perspectives of improvement of the social and economic performance. This implies that policy interventions may also be justified in areas which, e.g. thanks to an abundant natural resource, may appear affluent in a European policy perspective but nonetheless finds it difficult to establish the basis for a social and ecologically harmonious and sustainable development. The fact that individual TeDi areas display satisfactory value when considering the indicators of performance considered at the European level furthermore cannot be interpreted as a sufficient validation of the absence of significant structural obstacles to growth and development. As illustrated by the "syndrome of disadvantage" models proposed for the different case study areas, each case study area is characterised by complex systems of contradictory processes that may outweigh or block each other either a positive or negative direction. The focus of a regional policy targeting growth and sustainable development needs to be on the critical assessment of these underlying processes, rather than on simplistic interpretations of performance indicators.

As highlighted by the syndrome model, the policy issues of TeDi lie as much in the intermediate processes deriving from their geographical specificities as in their geographical specificity as such. Observing the recurring features in this respect, such as access to services of general interest, modern logistics and communication centres, vicious demographic circles leading to continued demographic decline and depopulation, one can hypothesise that the most efficient way of addressing the development of TeDi areas may not a “mountain”, “island” or “sparsely populated areas” policy, but coordinated strategies addressing these key themes in a balanced territorial development perspective.

The case studies however provide ample evidence that being mountainous, insular or sparsely populated is a central element of the local or regional identity. This is not only important in the generation and implementation of territorial development strategies within the TeDi areas, but also in when seeking to stimulate a European dialogue and exchange of good practice on these issues. Using these categories of territorial diversity in the European regional development discourse is therefore a way of incorporating the human dimension of these processes. The challenge, from a European perspective, is to link these intuitive and emotional factors and the concrete challenges to be addressed, in such a way as to construct a framework in which the concerned local and regional can be efficiently rallied around shared objectives of cohesive and sustainable growth.

The importance of this human dimension of territorial diversity implies that the capacity of individual actors to be able to identify with delimitations of geographic specificities may be more important than the solidity of their scientific justification or the degree to which socio-economic statistics can be compiled to assess their situation. The distinction between notions such as “mountainous regions” or “insular regions”, on the one hand, and actual delimitations of massifs or islands on the other is therefore important to ensure that a continued dialogue between the European and local levels on these issues remain possible. The extent of the upset caused to local communities by European delimitations suggesting that they would not be mountainous (e.g. Suceava and Alba) or insular (e.g. Malta and Cyprus) and the effect this may have on the quality of the European dialogue on issues of territorial development should not be underestimated.

Accepting and incorporating the mechanisms through which local and regional identities are constructed in territorial policies should however not lead to the formulation of self-centred development policies considering territories in isolation. Development opportunities on the contrary often emerge by creating new types of interaction between neighbouring

territories: mountain areas needs to be considered in interaction with their piedmont and islands in relation to regions they are connected to by sea or air. A risk with the focus on endogenous potentials is that one focuses on individual territories and ceases to consider the potential for functional integration. Territorial cooperation is therefore a natural component of policies targeting geographically specific areas, in view of ensuring a sustainable development based on regional comparative advantages. The European level has an obvious role to play in promoting such territorial cooperation beyond national borders. Using the established instruments for territorial cooperation and adapting them to the specific conditions of TeDi areas is therefore a promising option.

Part of the justification of such a policy is the observed structural imbalances of flows in multiple TeDi areas: youth out-migration is a necessity considering the objective increasing the proportion of the workforce with tertiary education. Similarly, the organisation of production systems implies that only a limited proportion of the value generated on the basis of raw materials produced or extracted in TeDi areas benefit the concerned regions. It is necessary to acknowledge the existence imbalances, to identify their extent and to recognise the need for compensatory measures to create perspectives of socially and economically sustainable development in TeDi areas. This would be part of a more systemic approach of the European economy, in which the importance of individual regions is assessed not only on the basis of their GDP, but also of the strategic importance of the inputs they produce.

Secondly, territorial cooperation is needed to stimulate the balanced functional integration of TeDi areas with their surrounding areas. In most case studies, stakeholders mention the challenge of relative isolation and the difficulties of positioning their area in relation to more densely populated and dynamic neighbouring regions. While the hope that improved transport infrastructure will help solving these issues is recurrently mentioned, evidence shows that accompanying "soft" measures are essential to ensure that weaker areas draw benefits from increased accessibility and that such investments actually contribute to balanced and harmonious territorial development.

Finally, territorial cooperation can contribute to strengthen the capacity of local and regional authorities to identify their growth potentials and formulate development strategies. Territorial cooperation could contribute to the previously mentioned objective of strengthening the capacity of TeDi areas to design economic and social policies and to define development ambitions that are adapted to their specific preconditions. European exchanges of experience and good practice could in this regard play a particularly important role, considering the large disparities in

economic and social performance between islands, mountains and sparsely populated areas from country to country and the contrasted regulatory and institutional frameworks.

3 Key analysis / diagnosis / findings and the most relevant indicators and maps

1. Demographic trends as an indicator of social and economic sustainability

ESPON 2006 and on-going ESPON projects such as DEMIFER provide demographic evidence at the NUTS 2 and NUTS 3 levels. The question is however whether it adequately reflects the demographic challenges and opportunities of areas characterised by geographic specificities. One can fear that the results obtained at these scales may be due to the demographic dynamics of a few regional centres only that statistically dominant the results for the whole region. In that sense, a more detailed spatial analysis of the demographic trends within the TeDi regions enable to confirm or infirm that hypothesis. Yet, if total population change provides a broad picture, it is necessary to have a closer look at the spatial distribution of these trends (internal polarization or homogenous trend) and at the relative contributions of different population categories (working age population, young adults, elderly...).

Municipal (LAU 2) data collected for each of the 8 study areas makes it possible to provide complementary evidence at a more narrow scale. The map of the total population change for (approximately) the same period of time as for Map 20 at the municipal level in TeDi regions shows that these demographic processes affect directly different parts of the regions (Map 21).

For instance, it reveals that the increase in total population in the Troms region noticed earlier is mainly due to the population growth occurring in the main regional centre, the city of Tromsø, while almost all other municipalities have a total population that has decreased or, at best, been stable during that period. In the same manner, the city of Akureyri concentrates the population growth of the North-East region of Iceland, while other municipalities are either stagnating or decreasing in population size. The polarisation processes highlighted by the Nordic cases confirm that regional demographic processes, whether it is population growth or shrinking, may affect the internal territorial balance of the region.

The situation in the two Swiss regions, Valais and Jura, also shows a wide disparity in population change between regional municipalities. Yet, the growing municipalities are more numerous, and are not limited to the largest municipalities alone.

On the Maltese islands, the spatial disparities in population change are almost reversed: the largest centres on both Gozo (Rabat) and Malta (Valletta) have lost population, whether surrounding (e.g. Sannat) or more distant (e.g. Mtarfa, Mellieha, Marsaskala) localities have gained population. The demographic processes in the Maltese islands, which are considerably more compact and densely populated and the other TeDi regions, may be assimilated to suburbanisation.

Short or mid-term demographic trends are often influenced by economic cycles, especially related to in- and out-migration. Consequently, long-term effects of demographic changes on the regional labour-market can hardly be assessed through the analysis of recent demographic data. In order to identify long-standing, persisting trends of population change it is necessary to collect, compile and analyse population data on a longer time-scale.

The comparison of population figures in 1981 and 2007 makes it possible to identify the following long-term trend in the TeDi regions. This shows that, in the long run, the territorial distribution of the population is altered. Most of the case study regions witness a marked polarisation. This means that some local small scale communities may fall below minimal demographic thresholds for their long term sustainability. As some parts of the region are *thinning out*, it becomes more difficult for them to sustain economic activities as the flows described above (see Figure 3 and Figure 4) cease to function adequately. Furthermore, the scope of private services is narrowed, and the price of producing essential public services increases. Defining such threshold population levels below which small scale economies cease to be sustainable would require that one takes into account the relative importance of the different population groups represented in Figure 3 and Figure 4, as a young and employed population will for example be more sustainable than a corresponding ageing and unemployed one.

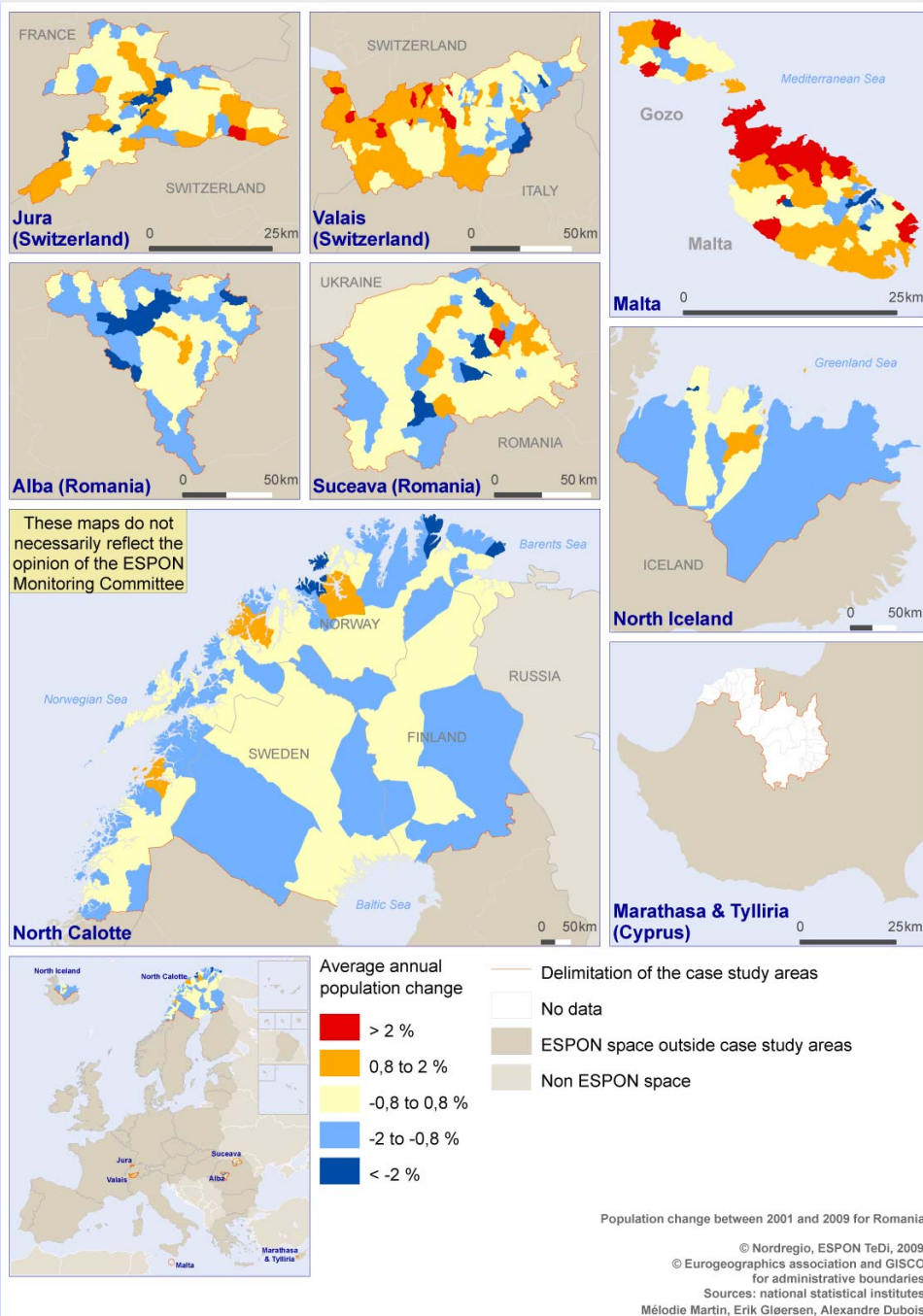
The relevance of municipal data to assess these situations may be questioned, just as that of NUTS 2 or NUTS 3 data. Insofar as a municipality may not correspond to a daily life environment, or to the areas within which commuting trips occur, the figures may indeed be more or less useful to identify *thinning out* processes that may jeopardize the livelihood of a locality. When municipalities are smaller than daily life environments or commuting areas, population changes may simply correspond to an internal redistribution of population which does not affect the development perspectives. When they are larger, as can typically be the case in some parts of the North Calotte or some isolated parts of mountain areas, it is possible that functional communities within municipalities are effectively falling below thresholds of social and

economic sustainability even if this is not observed statistically. Additionally, daily life environments and commuting ranges change over time, both as a result of new types of mobility behaviour and of public policies, e.g. through the provision of transport infrastructure or public transportation services. In order to gain a more in-depth understanding of how demographic trends reflect perspectives of sustainable development from a social and economic point of view, it is therefore necessary to consider both current functional areas and the type and range of mobility that is deemed desirable from a strategic and political point of view.

Another central issue is to distinguish situations where such movements leading to the disappearance of communities correspond to a necessary adaptation to changing economic and/or social conditions, and those where they express a failure of market forces to take advantage of actual or potential resources or to ensure a human presence that is needed for the balanced development of the region. One can for example imagine that market dynamics may underestimate the positive externalities of herding activities on the landscape, or the social cost of closing down (and possibly re-establishing) communities as an adaptation to a temporary reduction in demand for their main produce. It is notable that these kinds of reflections have not been identified in the policy documents analysed in any of the TD case study areas.

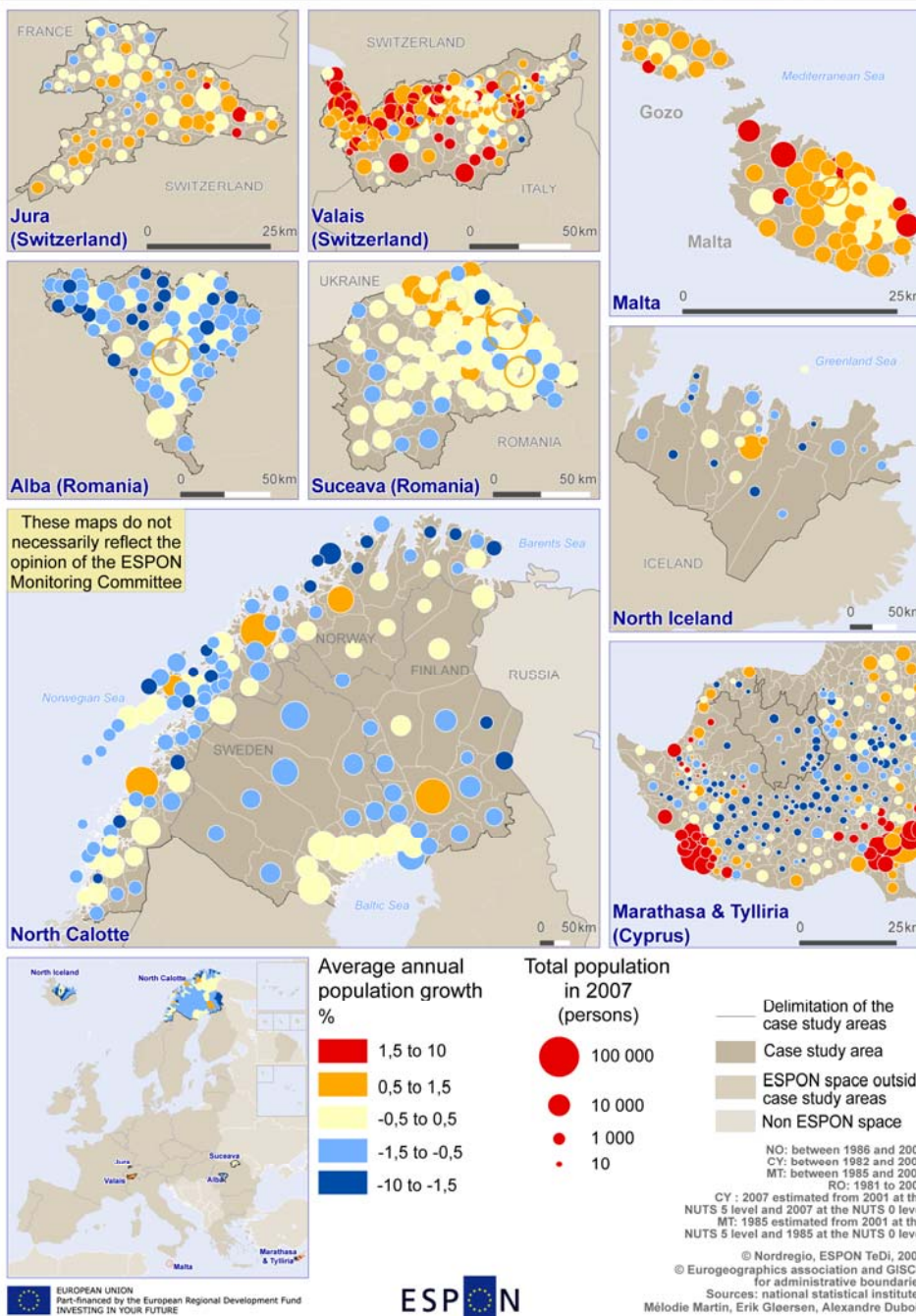
Municipal evidence on migratory flows and natural change shows that there is generally a positive correlation between these dynamics. In other words, large parts of the TeDi case study areas have both negative net migration and negative net migration figures. The picture is however not only negative. Birth rates are particularly weak in the northern parts of Jura, the central parts of Valais and Alba as well as some isolated localities in the North Calotte and North Iceland. There are however also high birth rates to be found in TeDi areas, for example found in western and central parts of North Iceland, Northern and Eastern parts of Suceava, northern parts of Norway. These high birth rates are an asset that may be transformed into a concrete development potential insofar as the concerned local areas manage to attract these cohorts when they become adult.

Population change between 2001 and 2007



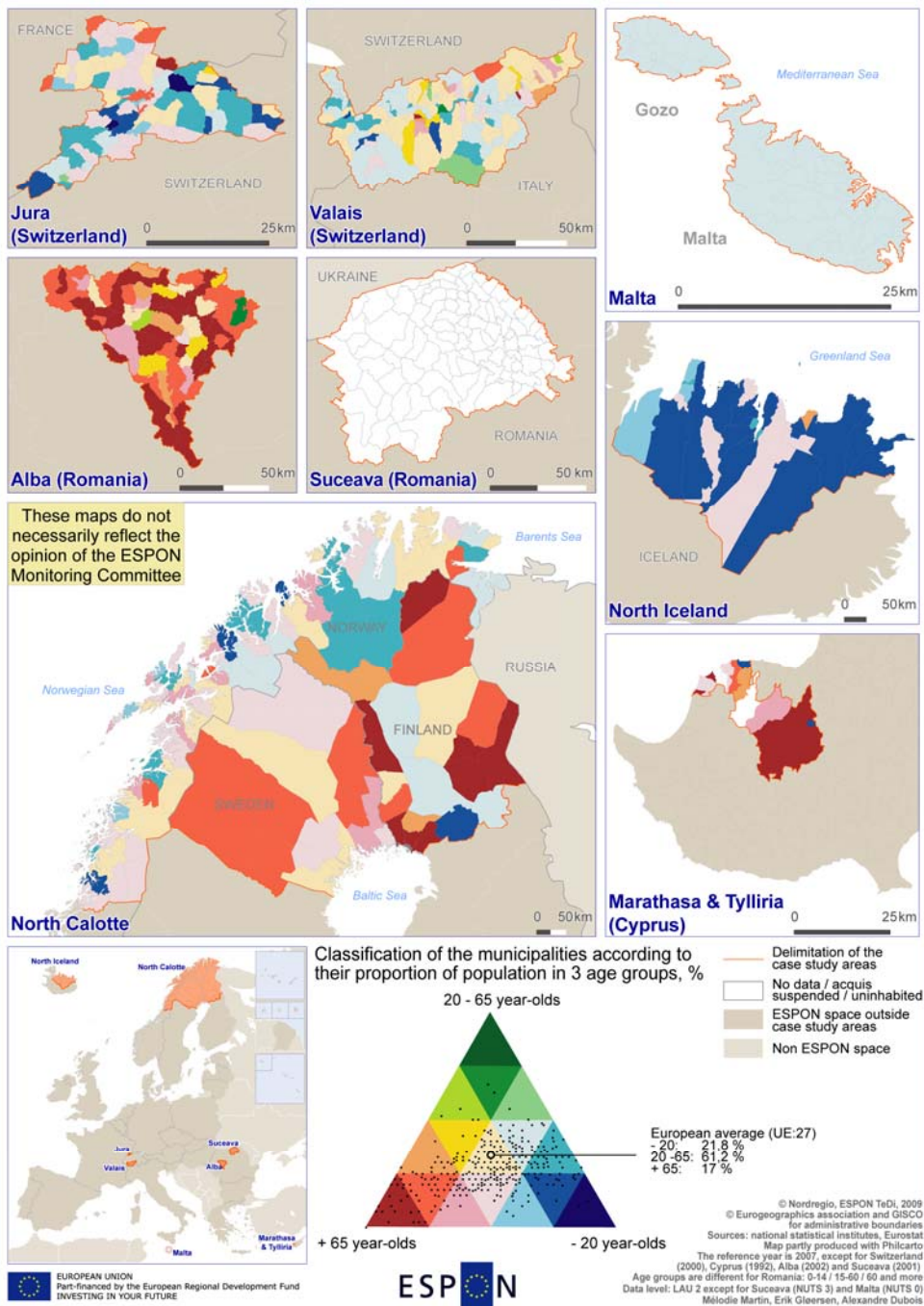
Map 7 Population change between 2001 and 2007 at LAU 2 level

Evolution of the population between 1981 and 2007



Map 8 Population change between 1981 and 2007 at LAU 2 level showing the relative importance of the municipalities in 2007

Age structures in the case study areas



Map 9 Classification of municipalities according to the relative importance of main age groups

In terms of migration, the evidence suggests that none of the TeDi regions are subject to a massive, homogenous out-migration phenomenon, i.e. all parts of their territories have more people leaving than entering. It shows that the TeDi regions are primarily subject to marked intra-regional disparities. With the exception of Malta, the more densely populated parts of each region tend to be more attractive than less densely populated ones. This contrast is clear in the case of Valais (Switzerland), Alba and Suceava (Romania), as well as in North Iceland. In the case of the North Calotte, such a trend is less visible on the map due to the large size of municipalities in comparison with other TeDi regions.

Contrasted patterns can also be observed in terms of age structures. Admittedly, an overrepresentation of working age population is very rare in the case study regions. Only a few communities in the Valais (Switzerland) and few in Alba (Romania) show this characteristic. An overrepresentation of young people compared to the European average can be observed in many communities show of the Swiss region of Jura and, especially, in Iceland. On the contrary, many communities in the North Calotte, in Alba and in Marathasa & Tylliria are faced with a more or less marked overrepresentation of elderly persons. Traditionally, this is perceived as a burden for the regional economy as this category of population is seen as a non-productive part of the population that has specific needs in terms of services and care. Yet, despite their non-participation to the labour-market, elderly person can represent a potential for the regional economy insofar as they bring in a stable income into it. This however depends upon the degree to which an established welfare state guarantees sufficiently high retirement pensions for all inhabitants; the economic effect of the presence of elderly people will be stronger in the North Calotte than in Alba, Marathasa and Tylliria.

2. Economic specialisation as source of competitiveness and vulnerability

As most analyses of regional economic performance are performed at the NUTS 2 or NUTS 3 levels, it is important to analyse the extent to which these may reflect the strengths, weaknesses of TeDi areas and help designing policies to take advantage of their opportunities and address their challenges. To this end, the TPG has reviewed a series of ESPON 2006 analyses

The regional classification of Europe on 'economic success' (Map 29 p. 172) provides valuable inputs on the comparability of performance levels across Europe. It is however notable that almost all regions scoring above average correspond to or include leading metropolitan areas. Benchmarking other regions against a "European average" including these areas is not necessarily meaningful, insofar as they exert a de facto quasi-monopoly on a number of advanced, high value-added service provision and decision-making functions concentration. It is therefore not surprising, and not necessarily informative, to note that most TeDi case study areas score around average. Map 29 however also highlights the difficult position of Romanian case study regions in the European context. Indeed, as all other Romanian regions except Bucharest, they belong to the category that scores below the European average. This means that not only is their level of GDP well below European average, but the growth has also been slower than for Europe as a whole between 1995 and 2002. This, in consequence, means that the mountain areas of Alba and Suceava evolve in a regional context which is itself at risk of marginalisation in the European context, creating a situation of double disadvantage.

Another way approach has been proposed in the framework of the ESPON 3.4.2 project focusing on the regional impacts of EU economic policies, which produced an economic typology of European regions, based on economic performance indicators and employment by sector data at the NUTS2 and NUTS3 levels and using a clustering method. The resulting typology distinguishes 7 types of regions when it comes to their economic profiles. The characteristics of the classes are displayed in Table 3 p. 174, while their spatial distribution over the European space is displayed on Map 30 p. 173. The typology uses data from 2002. Unfortunately, data for Cyprus and Iceland are missing in this analysis. Contrary to the previously described classifications based on composite indicators, the results of such a cluster based approach are not distorted by the presence of atypical regions such as those that include major metropolitan areas. The model first identifies these types of special cases as separate groups, and their

uniqueness does not affect the identification of variation among other regions. It is therefore not surprising that this type of approach highlights a greater diversity of regional contexts for the TeDi regions than the previous maps. By showing this diversity, they pay testimony to this variety of strengths and weaknesses of TeDi regions or of their territorial context.

The economic typologies of European regions at NUTS 2 and NUTS 3 level are therefore informative insofar as they provide a broad understanding of the economic structure of the European space. However, the different types of methodologies are not equivalent for this purpose, as the benchmarking against a European average value provides limited inputs. The understanding of territorial diversity requires approaches such as the clustering method applied by ESPON 3.4.2 that focuses on the specific profiles of individual regions rather than comparing them to an average which is thereby assimilated to a norm. It is however worth noting that the ESPON 3.4.2 analysis, based on data from 2002, would need to be updated to gain in policy relevance. In most cases, the analysis furthermore only provides evidence on the regional context of TeDi areas; they cannot be presumed to provide a picture of their economic and social specificity.

To complement the analysis of the ESPON 2006 3.4.2, the TeDi project has produced a similar type of clustering analysis based on more recent data from 2008, focusing exclusively employment by sector and using an ascendant classification method. Contrary to the ESPON 3.4.2 typology, the typology produced focuses on economic profiles of European regions rather than incorporating indicators of socio-economic performance such as GDP per capita, unemployment rates and net-migration. This reduced the scope of investigation, but may also improve the readability of the resulting clusters. This typology at the NUTS 2 level provides some additional inputs on the regional context of the case study areas, through alternative qualifications of some regions and some further distinction, e.g. between the regional contexts of Suceava and Alba. It however also confirms the need for analyses at a more narrow scale to explore the potential specificity of economic dynamics in TeDi areas, as the local specificities of mountainous, insular and sparsely populated areas are generally not reflected in NUTS 2 or NUTS 3 data.

The specialisation of local economies can be identified by looking at the relative importance of industries or branches, calculated on the basis of the distribution of employed persons per municipality. In spite of some difficulties in the data collection, the datasets make it possible to analyse some characteristic features of the local economies and their level of dependence on certain industries or branches.

A first step in identifying local specialisation is to compare the map the composition of the local economies as divided by primary, secondary and tertiary industries. A triangle classification makes it possible to identify different types of combinations of these sectors of activity in the countries where LAU2 data were available, i.e. Switzerland, Cyprus and the North Calotte (Map 10). This shows the extreme diversity of local profiles:

- The North Calotte municipalities are typically positioned close to the 'tertiary' corner (red to dark red), thus emphasizing the high relative importance of public services in terms of employment. Primary and secondary industries are of limited importance in terms of employment, even if some of those branches (for instance mining) are still dominating the economy when it comes to produced added value (Gloersen et al., 2009).
- In Cyprus, many localities in the inland are dominated by the primary sector (green to dark green). However, a handful of localities show a strong dominance in the secondary (dark blue) or tertiary (dark red) sectors.
- The two Swiss regions, despite both being mountainous regions, show a great deal of variety in the specialisation of their local economies. In the canton of Jura, several localities have a strongly dominating secondary industry (dark blue), linked to the watch-making industry, or primary industry (dark green), but with no locality with a strong prominence of the tertiary industry. The situation in the Valais is almost the opposite one: the more mountainous municipalities have a strong specialisation of their economies in the tertiary industry, essentially driven by the tourism industry (e.g. winter resort), and in some cases combined with a strong agriculture. A few municipalities have a distinct secondary-sector dominated profile.

For Malta and North Iceland data was only available at the level of the whole territory, the tertiary sector dominates with about 70% of employment in each case. These wide scale data are however hardly comparable to the previous LAU2 data.

The data on employment per economic branch, identified as groups of NACE classes have also been collected and analysed using a Hierarchical Ascendant Classification method that makes it possible to identify the most homogenous groups of LAU2 areas as possible when it comes to the composition of the local economy according to branches. Based on this analysis, we have chosen to identify 7 different classes, each of them corresponding to a specific type of economic specialisation (Map 11).

This typology highlights the high relative importance of agriculture in the inland parts of Cyprus (and especially in Marathasa and Tylliria) and in many localities of Jura (Switzerland). It also confirms the dominance of the service sector in the North Calotte region, comprising both public services (health care, education, administration) and private services (services to businesses, real estate). It also reveals the pivotal importance of fisheries for the economy of many coastal communities in Norway, as well as in North Iceland.

The Romanian case studies show mixture of localities with an over-representation of either the public service sector or the manufacturing and energy sectors. Yet, it shows as well the importance of capital-intensive industries such as mining in some localities (dark red).

The specialisation of local small scale economies is important from a policy perspective as it often a precondition for the emergence of competitive activities generating higher added-value. If such a strategy makes it possible to generate a sufficient economic mass within a given activity in spite of the limited size of the functional region that hosts it, it also increases the exposure of the local economy to risks related to fluctuations of prices and product cycles. A high degree of specialisation makes the concerned communities more vulnerable: the social impact of economic crises within the sector of specialisation will be larger when their effect cannot be compensated by other sources of income or by attenuated by a significant internal exchange of goods and services. Furthermore, high degrees of specialisation may increase the risk of mismatch in the labour-market between, on the one hand, the demand of specific type of labour force, stemming from the local/regional economic specialisation, and the supply of qualified labour force (education, life-long learning). Finally, an insufficient scope of employment opportunities for young people or a gender imbalance in the employment opportunities may threaten the long term sustainability of local communities, when it leads to selective out-migration affecting the social equilibrium and reproductive capacity.

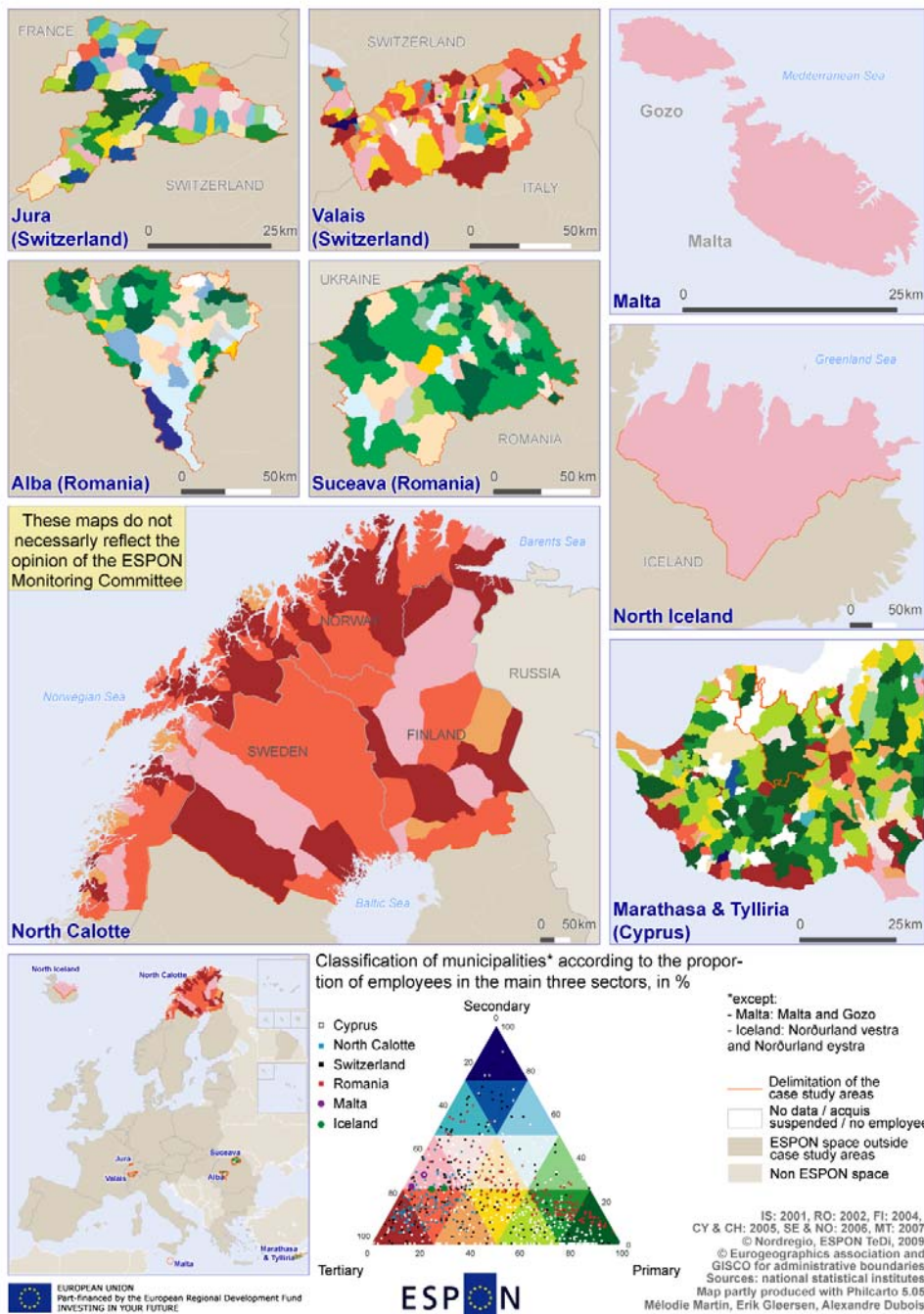
In a context of economic crisis, TeDi areas are in an ambivalent position. On the one hand, their relative isolation from major metropolitan areas may allow them to be less exposed to downturns in the financial sector such as the one that has occurred recently. The Valais offers a good example in this respect, as the crisis has given the Canton an opportunity to demonstrate some unsuspected strengths of its local economy (see Text Box 1 p. 188). On the other hand, the high degree of economic specialisation in may make TeDi areas particularly exposed to fluctuations in world market prices. This is not always the case: In the case of North

Iceland, for example, the devaluation of the national currency has considerably increased the competitiveness of local fisheries. The economic collapse has also, at least temporarily, caused people to move back to the periphery due to the weak labour opportunities in the Reykjavik area. The North Calotte mining industry, on the other hand, has been hit hard by reduced world demand from iron pellets, even if this does not affect the long term growth perspectives for this industry. In any case, resilience only becomes an issue insofar as there are local economic forces capable of taking advantage of economic opportunities when they occur and of adjusting to changing contexts. In the case of Gozo, the lack of such an economic capacity appears as the primary challenge to be met (see Text Box 2 p. 192)

A variety of strategies can be formulated to face this challenge, as the TeDi areas are remarkably diverse in terms of economic profiles and overall performance. The structure of the regional and local economies of the case study areas is quite diverse. The importance of the primary, secondary and tertiary economic activities differs widely both between and within TeDi regions. The North Calotte and North Iceland municipalities have typically a large proportion of tertiary activities, emphasizing the high relative importance of public services in terms of employment, and the small weight of primary and secondary industries in terms of employment at the regional level. However, some of those branches (for instance mining, forestry or fishing) play a pivotal role for the economy of many individual communities and are of key importance for the regions when it comes to generating export revenues. In Marathasa and Tylliria (Cyprus), many localities in the inland are dominated by the primary sector. However, a handful of localities show a strong dominance in the secondary or tertiary sectors, suggesting that they could potentially become local development nodes providing the services needed for the development of these regions as a whole.

The two Swiss regions of Valais and Jura illustrate the diversity of situations encountered in mountainous areas. Stark differences are indeed observed in the specialisation of their local economies. In the canton of Jura, several localities have a strongly dominating manufacturing sector, linked to the watch-making industry or agriculture, but no locality where the service sector is overrepresented compared to the general profile of the case study areas. The situation in the Valais is almost the opposite one: the more mountainous municipalities have a strong specialisation of their economies in the services, essentially driven by the tourism industry (e.g. winter resorts), and in some cases combined with a strong agriculture. A few municipalities have a distinct manufacturing-oriented economic profile.

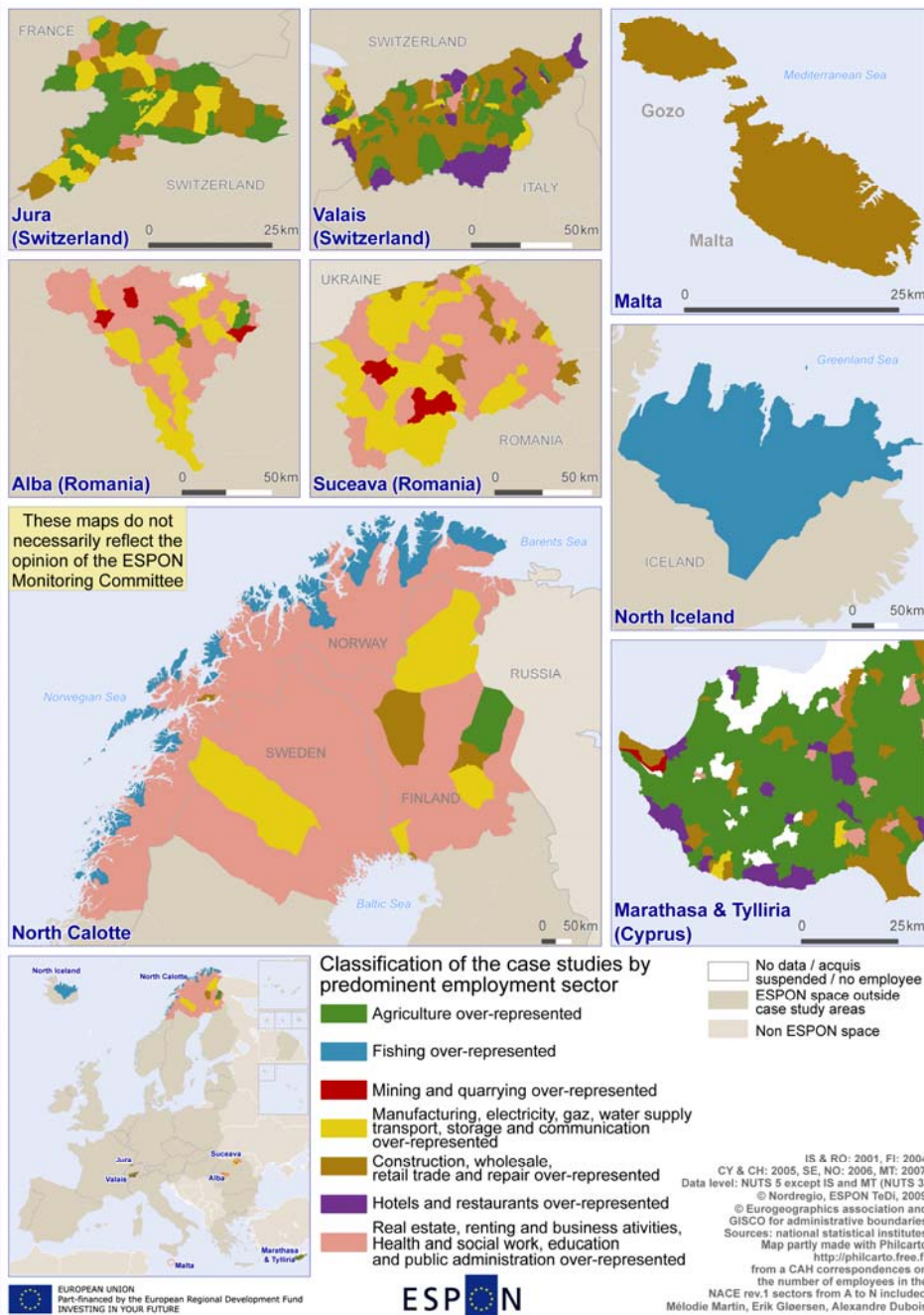
Structure of the employment in the case study areas



Map 10 Classification based on the relative importance of the primary, secondary and tertiary sectors

This type of representation puts the emphasis on combinations dominant sectors of activity (primary, secondary, tertiary) within LAU 2 (or regions in the case of Malta and Iceland).

Structure of the employment in the case study areas



Map 11 Classification based on the relative over-representation of specific branches of activity, compared to the average profile in the case study areas

This type of representation puts the emphasis on the branches whose relative weight in LAU 2 (or regions in the case of Malta and Iceland) deviates most from the average values for the entire case study area.

The Romanian case studies show mixture of localities with an overrepresentation of either the agricultural sector or the manufacturing and energy sectors. Yet, it shows as well the importance of capital-intensive industrial activities such as mining in some localities.

Constructing more robust economies

A further specialisation of local economies can be part of the development strategy of TeDi areas, as a factor of improved competitiveness, but is also a factor of vulnerability when local communities become dependent on a limited range of exports. Development strategies to improve the competitiveness while reducing the vulnerability generally seek to identify 'niche' activities, ideally with reduced competition from other regions and for which the given locality has a competitive advantage. A major challenge in such "niche"-based development is to reduce the mismatch on the labour market between the demand of specific type of labour force and the skills of the local active population. Incremental types of innovation strategies, involving both educational institutions and companies, seek to minimise this mismatch by increasing the added-value produced in traditional sectors. Such strategies can be found in all TeDi regions, and especially within agriculture (new production techniques, food processing, joint labelling of local products, bio-technological innovations based on natural specificities...) and tourism (better exploitation of the physical capital, more recreational infrastructure...).

Innovation strategies focusing on high-technology can however also be identified, both in the urban centres of TeDi areas and in localities seeking to "reinvent themselves" when their main source of economic subsistence is challenged by external competition, product cycles or the depletion of a natural resource. One should also not underestimate the importance of knowledge intensive and innovative activities in changing the perception of territories with geographic specificities as being, at best, one step behind other regions. The presence of leading research facilities can change the perception of local communities and stimulate more positive social and economic trends.

The reactions of these areas to a situation of financial crisis also differ significantly. It is notable that some of these areas, e.g. North Iceland and Valais, have shown levels of performance in such conditions that area relatively better than those of more central regions. In the Valais, the relative strength of the internal demand, combined with the lower exposure to international financial risks, has allowed the canton to develop positively compared to more metropolitan parts of Switzerland. In the case of North Iceland, the devaluation of the national currency has

considerably increased the competitiveness of local fisheries. The economic collapse has also, at least temporarily, caused people to move back to the periphery due to the weak labour opportunities in Reykjavik area. The North Calotte mining industry, on the other hand, has been hit hard by reduced world demand from iron pellets, even if this does not affect the long term growth perspectives for this industry.

The central element in the differentiation of TeDi areas' capacity to take advantage of economic opportunities on the basis of a strategy of balanced, harmonious and sustainable development however lies in their respective capacity to formulate and to implement locally adapted measures targeting key obstacles to growth. The governance structures are the main filter through which a possible European shared perspective on areas with geographic specificities may lead to the implementation of concrete measures. In many respects, these governance structures are themselves largely influenced by the general perception of areas with geographic specificities and by the self-perception of their inhabitants. A key role of the European level lies in making it possible for the stakeholders of mountainous, insular, sparsely populated and peripheral regions with very different economic and social starting points to get together, discuss possibilities and challenge preconceived ideas on their possibilities.

3.Sustainable exploitation of natural resources benefiting local communities

TeDi areas are in many cases identified as possessing natural assets of strategic interest in a wider regional and/or national context. This is for example the case for Gozo, which compared to Malta stands out as a distinctly less populated area with more preserved natural areas. This is one of the justifications behind the vision of establishing Gozo as an ecological island within 2015 is integrated in the National Reform Programme (NRP), which refers to the development of a master plan for the Citadella which will promote the historical aspect of the Island and the upgrading of several tourism zones which aim at increasing sustainability within the Gozitan tourism industry. This is associated with an adapted development strategy in the agricultural strategy, setting up research laboratories supporting modern agricultural technologies related to livestock, biodiversity and local produce. The National Strategic Reference Framework identifies that rural development in Gozo acts an important food supplier to the tourism sector and contributes strongly to the landscape of Gozo. The NSRF identifies that despite the decline in agriculture, there is the potential for the sector to contribute to high value market niches such as specialised tourism.

In Cyprus, the Marathasa region as many other mountain areas constitutes a potential water tower. This wealth of water resources, especially in a country that is affected by an almost permanent drought, constitutes an important comparative advantage. To this direction, a series of actions have already been adopted regarding infrastructures for water collection and storage along with an entrepreneurial activity (eg Moutoullas village bottles mineral water from its own spring, Kalopanagiotis has a dam stocked with fish from its fish farm). At the same time, the climatic conditions in both TeDi regions, in a general hot-climate Mediterranean country, create an additional advantage, given the expected future climatic change.

Other types of initiatives can be more indirectly related to the natural environment. The North Calotte spatial research centres of Andenes in Norway and of Kiruna in Sweden benefit from the high latitudes of these regions, creating advantages for the study of solar electromagnetic phenomena and for downloading data from remote sensing satellites circling around the planet. But the expertise within these high technology activities also opens up perspectives for "space tourism", with projects of organising commercial suborbital flights from Kiruna. These initiatives

have led to the inauguration of "Spaceport Sweden" in 2007, and the conclusion of agreements with Virgin Galactic whose objective is to operate the flights.

Another initiative in Rovaniemi in Finnish Lapland demonstrates the possibility of developing a tourism industry based on an "intangible resource"¹¹. Initiated by a public strategy in the 1980s, the "Santa Claus tourism" concept was implemented together with exceptionally well-coordinated effort of private commercial interests. Admittedly, the presence of reindeer and the possibility of mobilising some nearby elements of Sami culture facilitated these efforts. However, the Santa Claus concept was mainly established thanks to a long term marketing effort and through joint efforts to create a coherent tourism product.

These examples, ranging from the observation of a natural asset that could be exploited as a resource to forms of human intervention transforming a natural feature that is *a priori* of limited economic significance into a major source of income, illustrate the complexity of the interplay between man and nature. One can note that this interplay plays a particularly important role in territories with geographic specificities, especially through the importance of activities such as agriculture, forestry, fishing, mining and tourism. These sectors of activity provide essential inputs for European industries. The economic benefits drawn from them by the regions however do not necessarily reflect this strategic importance, as small-scale agriculture often generates limited incomes and as capital-intensive raw material extraction activities are often owned and operated by companies with headquarters situated in metropolitan regions.

Considering this asymmetric distribution of benefits, it is not surprising to note that development options favoured at the level of individual TeDi regions do not necessarily converge with the priorities of national or European actors. For local communities, an optimal exploitation of natural resources presupposes the development of activities generating employment opportunities, higher income levels and tax revenues for local or regional authorities. From the national or European perspective, different initiatives may be assessed on the basis of their respective contribution to overall creation of wealth or the industrial development perspectives they open. It is therefore necessary to design policies to promote a better convergence of local, regional, national and European economic development interests. This can for example mean that the strategic importance of certain types of natural resource exploitation is

¹¹ Pretes, Michael (1994) "Postmodern tourism : The Santa Claus Industry" in *Annals of Tourism Research*, vol. 22, no 1, 1995, pp. 1-15.

recognised by implementing policies ensuring that the communities making them possible are balanced and harmonious.

Tourism is described as an attractive development option in all TeDi areas. Their geographic specificity is an asset as such and some areas also possess a cultural heritage that can attract visitors. This for example concerns Suceava, which is part of the historic region of Bucovina, which extends into Chernivtsi Oblast on the other side of the Ukrainian border. Beyond their scenic qualities, these regions concentrate tourism opportunities, with a well-preserved natural qualities. The sports tourism can be based on numerous activities such as skiing, fishing, hiking, paragliding and rafting, that create possibilities of year-round frequentation of many facilities. The presence of natural reserves such as the Calimani National Park add to the attractiveness of the region. In other parts, the abundance of game makes it possible to generate considerable incomes through hunting. The region is furthermore among the most attractive in Romania for cultural tourism with its numerous 15th and 16th century monasteries famous for their exterior frescoes, seven of which are included on the UNESCO World Heritage List. Finally, there is a long tradition for spa tourism, e.g. in Vatra Dornei where it has also made it possible to develop a Casino activity. The benefits from these tourism activities are however quite unevenly distributed: A more specific focus on the development of rural mountain tourism and agri-tourism would however be needed

Similar types of strategies can also be identified in Cyprus. It is considered strategically important at the national level to change the general perception of Cyprus as a "sun and sea" destination, as there is increasing competition for this type of tourism and because a positioning within more specialised segments can have greater economic, social and environmental benefits. TeDi areas can make particular contributions in this respect, as areas that are not yet concerned by mass tourism and that can more easily develop an alternative image. A study for the mountainous resorts (in which the Marathasa region is included) for example suggests that the creation of a new tourism identity around the notion of a "Troodos Mountain Nature and Culture Park". The Troodos National Forest Park covers an area of 9,337 hectares around the peak of Mount Olympus. This area of great natural beauty is suitable for activities such as hiking, winter skiing (although limited), biking, nature study and picnics. Along with natural wealth, the Troodos mountains are where the painted churches of Cyprus can be found, superb examples of Byzantine art, ten of which have been put on UNESCO's World Heritage List.

Tourism is also very important economically in the Valais as it account for about 25% of the gross regional product, with prestigious destinations

such as Zermatt. The need to further promote this activity is recognised. Integrated initiatives between neighbouring destinations are for example being developed, and an innovative branding initiative has been put in place (see Text Box 4). At the same time, some economic actors consider that the promotion of the Valais as a leisure destination can lead to problems in terms of branding, as it may be difficult to reconcile such an image with the objective of commercial and industrial development. This can call for a clearer distinction between the functions of different territories.

What appears in all case studies is the complexity of the tourism sector that requires coordinated actions within a wide range of sectors to be successful. This not concerns the need to concerted strategies within sectors such as transport, hotels, cultural events and others directly participating to the creation of a tourism product. Tourism is also for many only an additional source of income and of diversifying local and regional economies, typically in predominantly agricultural rural areas. This makes it necessary to think precisely of how it may fit into a wider context of multiactivity. Both Romanian counties of Alba and Suceava are in the process of imagining how to develop more extensive agri-tourism sectors. Additionally, tourism development is also a way of developing the self-perception of the inhabitants in TeDi areas, as it implicitly helps valorising their region, asserting the value of their heritage and traditions. The case of Gozo helps further understanding the potential value of such an exercise in defining and asserting a local identity

In a balanced territorial development perspective, it is necessary to assess to what extent the exploitation of a natural resource benefits the concerned local communities. Such an interrogation is valid for all types of natural resource exploitation, from tourism to mining. Capital intensive, externally owned forms of exploitation of natural resources may appear as a favourable alternative from a national or European point of view, insofar as they generate substantial income; from the local perspective, one may rather favour initiatives creating employment opportunities and corresponding to the needs and qualifications of the local population. There is therefore not necessarily a convergence of interests of different territorial scales do not converge. It appears from the review of the case stories that such diverging strategic interests occur more frequently in TeDi areas insofar as these areas have particular modes of integration in wider economic circuits. Explicitly integrating their existence in the implementation of the Lisbon and Gothenburg strategies and would be needed to formulate strategies to handle these contradictions. It is also necessary to design policies to promote a better convergence of local regional, national and European economic development interests. This can

for example mean that the strategic importance of certain types of natural resource exploitation at the national or European scales is recognized by ensuring that the communities making them possible are balanced and harmonious.

Finally, the possible conflict between economic and environmental perspectives can also be an argument for the need of more coordination of sectoral policies. The areas of exceptional natural beauty in many of the TD case study areas should not lead to forget the existence of numerous direct environmental threats. In Suceava, soil erosion is accelerating due to uncontrolled and continuous deforestation, while pastures and hay-fields are on the contrary degrading because of reductions in the number of cattle and under-exploitation. While water quality is locally affected by the improper disposal of manure, the drinking water supply system and the sewage networks are generally obsolete in cities or non-existent in most of rural areas, i.e. in more than 70% of the area.

Alba county is facing challenges due to industrial air pollution that has affected an already fragile mountain environment, reducing the vitality of the vegetation over large areas and indirectly leading to erosion.

Even if areas such as Gozo, where the lower land use pressure compared to Malta has facilitated the preservation of environmental qualities, the protection of the marine environment has been a preoccupation. The construction of a sewage plant in 2008 has however improved this situation.

This contrasts against the assessment of the environmental situation in sparsely populated regions of North Calotte and North Iceland, where a perception of an untouched nature generally prevails. Territorial development debates in these areas rather how local strategic choices contribute to overall ecological sustainability. This for example concerns the possibilities of using hydroelectricity to develop an aluminium industry in North Iceland or the mining, steel and forestry industries in the North Calotte, all of which can have a significant impact on e.g. CO₂ emissions. The central question in this respect is how TeDi areas best can contribute to a generally more sustainable development in Europe.

4.Improved accessibility as a factor of development

The overlay of infrastructure endowment and actual connections, on the one hand, and European accessibility maps, on the other, as exemplified in Map 12, provides useful inputs to an exchange between the European and local/regions on issues of transport. It makes the need for a distinction between the two types of approaches quite obvious. While European maps typically focus on the integration of the continental territory, local actors identify obstacles to economic development related to transport issues that are not necessarily limited to Europe, and that do not always focus on improved connections in direction of areas with largest population or GDP figures, but rather on observed bottlenecks for exports or local environmental issues related to transport. Rather than a reflection of transport and accessibility related economic development challenges, the European representation of multimodal accessibility (Map 43) is therefore rather a starting point for enquiries and discussions.

The fact that the Eurocentric perspective of European accessibility calculations significantly reduces their relevance in a local and regional development perspective is confirmed by the case study areas. For all that are situated on the European margins, extra-European accessibility may be as relevant for economic development as intra-European accessibility. The North Calotte is increasingly functioning as an interface to North West Russia, benefiting from increasing commercial relations. Together with North Iceland, it also tries to position itself as a gateway to the Arctic. This is highlighted as one of the main future growth perspectives for the area. Similarly, Cyprus is in a position to act as a European gateway to the Middle East, Malta to North Africa and North-Eastern Romania to Ukraine and Moldova. Jura and Valais can be considered as exceptions in this regard, with an intra-European wider functional context. In the case of Jura, the central position, as confirmed by the European accessibility map, is perceived as an asset; similarly the specific position of Valais, as a lower accessibility enclave surrounded by well-connected urban and metropolitan regions, corresponds to the perspective expressed in the regional strategic documents.

It is however, even in these cases, problematic to approach accessibility as a general and unique value. Within the North Calotte, North Norwegian fisheries require next day delivery and refrigerated modes of transportation, the mining industry needs railways with a very high axle load and access to deep water ports, and the forestry industry requires efficient access to and from exploitation sites. The accessibility needed for

the tourism industry to develop in any of the case study areas is obviously of a yet another nature. It would however not be meaningful to aim for high overall accessibility in a European comparative perspective as a strategic objective for the development of any of these activities. Instead, regional stakeholders need to identify the precise accessibility needs of their present and future economic activities. This is a required to define the priorities in terms of scale (intraregional coherence or international connectivity), orientation (access to which markets?), modes (air, rail, road?) and targets (reliability, speed, cost?).

This type of considerations however not generally observed in the regional planning document of the TeDi case study area. A recurring underlying rationale observed in strategic development documents is that increased accessibility should be expected to mechanically lead to enhanced growth, by facilitating exports, creating new opportunities for commuting and/or facilitating the access to the region by tourists. However, at the same time, some of the arguments advanced contradict this hypothesis.

In Gozo, the lower accessibility is the main reason for which the pressure on land use is lower than in Malta and may be a prerequisite if the island is to become an "Eco-islands" as suggested in some strategic documents. The general reluctance of Gozitans to projects of building a bridge between Malta and Gozo (MEPA Public Attitude Survey, 2000) illustrate these ambivalent effects of accessibility. In Marathasa and Tylliria, while improvement in the transport infrastructure is eagerly promoted in view of attracting more tourists, one also notes that new trade regulations facilitating flows by opening up the borders and removing protectionist barriers have had detrimental effects. By facilitating imports, these changes have indeed contributed to putting local producers of e.g. fruits and charcoal out of business.

The Swiss canton of Jura provides an example of a region where debates on accessibility and functional integration are not only inspired by economic considerations, but also by cultural and linguistic issues. The Jura is indeed situated in proximity to the metropolitan region of Basel to which a significant number of its inhabitants commute. However, the linguistic barrier between this French speaking canton and German speaking Basel is a significant obstacle to integration that also influences strategic choices in infrastructure developments.

Issues of identity and of self-perception in TeDi areas are therefore far from irrelevant when addressing issues of accessibility and transport infrastructure. On the contrary, the economic function of local communities and their development vision in terms of lifestyle and interaction with neighbouring areas appear as essential elements in designing the investments to be made and integrating these

improvements in a wider territorial development plan. TeDi areas are specific in this respect as their geographic features have often allowed them to maintain or develop in a more self-centred way than other regions in Europe or with more selective interactions with urban regions and neighbouring regions. This in particular concerns islands, but also settlements of mountain valleys and sparsely populated areas with limited access to neighbouring regions. There is a potential for turning this specificity into strength, e.g. by drawing on elements of localism that may contribute to improve the perspectives of sustainable development.

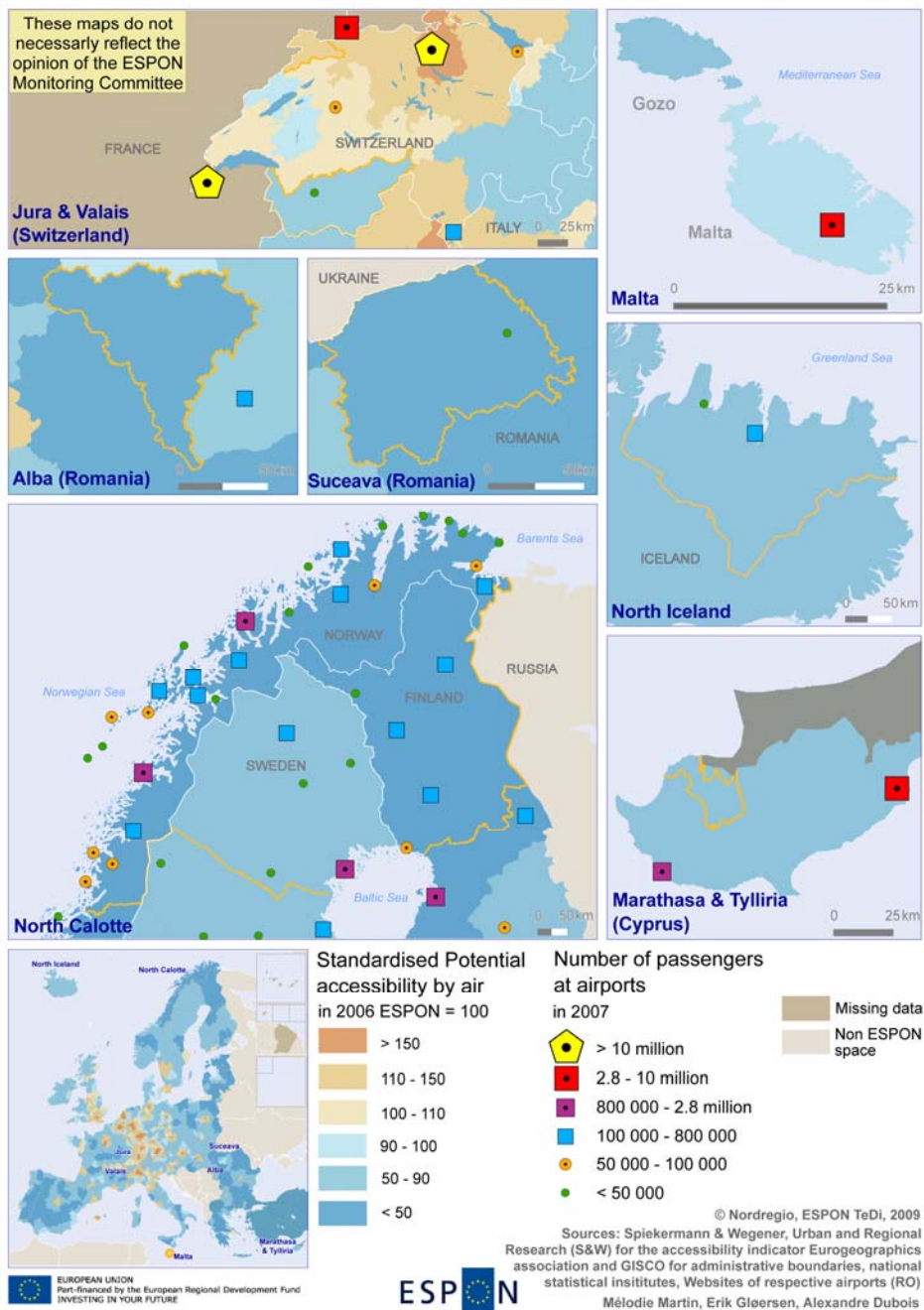
However, it appears that access to a minimal range of services allowing for a modern, contemporary lifestyle is a prerequisite for a sustainable social and demographic development. This requirement may be more symbolic than practical. Indeed, one can note that tourism locations may continue to grow even in remote locations. The issue is therefore not so much to have access to a range of commercial and public services as to feel that one is part of mainstream type of lifestyle. There are however obvious differences in this respect between regions, as the lifestyle expectations and demands will be higher in richer regions. The success of the Haparanda-Tornio shopping area on the Swedish-Finnish border in the North Calotte illustrates the extent of this type of demand in the North Calotte. Situated in a town with a labour market area of only 34 000 inhabitants, the IKEA shop of this shopping area alone attracted over 2 million visitors during its first year of operation in 2005 from all over the North Calotte. This implies that many visitors were prepared to travel up to 7 or 8 hours one way to reach such a shopping area. While this type of atypical mobility may be considered unsustainable, it is certainly a parameter to be taken into account in infrastructure policies in TeDi areas.

Information and Communication Technologies (ICT) could substantially improve the development perspectives of TeDi areas, both by creating new possibilities of economic growth and by improving access to services. Two types of challenges however need to be overcome: First, the deployment of broadband networks in areas with major natural obstacles and, in many cases, a small market basis, may not be economically interesting for private actors. Public-private partnerships are one possibility to overcome such difficulties. Second, the efficient use of broadband access where it exists requires that institutions, companies and individual households integrate the potentials of this instrument in their daily practices. Because of their geographic challenges, TeDi areas can be precursors in the development of e-business, e-government applications, e-health and e-education.

Many of the case study areas report an either complete (Valais and Jura), very extensive (North Calotte) or rapidly expanding (Marathasa and

Tylliria) broadband coverage. In Romania, the installation of so-called infokiosks (infochioscuri) in public spaces can make internet services available to a broad audience. It therefore appears that ambitious government policies to compensate for the failures of markets to develop ICT infrastructure of strategic importance for the long term development of TeDi areas are being implemented. The concerned TeDi areas are therefore facing a period of potential rapid evolution in commercial practices and public service delivery. Exchanges of good practice could prove particularly fruitful in this phase, as some areas are more advanced than others. A point stressed in Finnish Lapland is for example that the active use of ICT should be stimulated also in traditional economic sectors, as a way of increasing their efficiency and competitiveness. The possible uses can be found in the wood product industry (by adding intelligent components such as service sensors, production management), cold climate technology (for developing testing methodology), security service and natural product and food industry (for positioning systems and wireless measuring of raw material quality on the spot). At the same time, the strategy for Lapland suggests that Lapland could be a test laboratory for new types of activities in the region such as for instance for online services and navigators.

Accessibility by air in the case study areas



Map 12 Airport traffic and endowment compared to European measures of air accessibility.

While the highest values regional accessibility values are well correlated to the proximity to a major international airport (e.g. Jura and Valais), lower air accessibility is a result of both a more peripheral position in the European airport system and a lower endowment in infrastructure.

- 4 In case the research addresses themes being dealt with by ESPON 2006 and produces opposing results, an explanation of these differences and a presentation of proposals for further European research, case studies, etc.

Many of the themes touched upon in the TeDi project were addressed in projects from the ESPON 2006 programme: effects of demographic trends, regional profiling regional economies, accessibility to urban nodes, and importance of natural assets for development...

Instead of providing a general review of ESPON 2006 findings and connect those with the TeDi analytical framework, the TPG has used specific ESPON 2006 findings as a way to highlight (1) the broader territorial context for the whole of the ESPON space and (2) the need for further scientific analysis in the TeDi project in order to connect ESPON 2006 methodologies with the expectations of the TeDi Stakeholders.

The Regional Classification of Europe (project 2.4.2) was used throughout the scientific report in order to provide a first insight on the positioning of the TeDi case study areas compared to the rest of the ESPON regions. It is necessary to point out to the fact that, because TeDi regions often consists of NUTS 3 or lower regions, most of the ESPON 2006 results, mainly elaborated at the NUTS 2 level, do not specific information on the region itself. Hence, it enables to highlight the positioning of the wider TeDi regions (i.e. the NUTS 2 in which the TeDi region is located) in the European context.

The Regional Classification of Europe showed that the TeDi regions have very diverse situations when it comes to demography, labour market, economy or naturalness. However, if the RCE findings provide an overall look at the 'performance' of the TeDi regions, they do not provide information on the internal disparities of the regions: what territories act as magnet for economic and population growth? What territories are under threat of emptying?

As a complement to the RCE work, the TPG has gathered extensive data at the municipal level in order to identify those internal disparities and trends. Looking at the internal disparities provide an important insight to the Stakeholders in understanding the processes underway in their region, and how the development of different territories within TeDi regions are connected to each other.

The findings and methodologies developed in the ESPON 2006 project on Transport trends (1.2.1) were also used as a starting point for the work of

the TPG on the TeDi case study areas. The project 1.2.1 proposed an approach to the analysis of the settlement pattern based on access to urban nodes of more than 200.000 inhabitants. These nodes are thought as structuring the European space. The results show that TeDi regions have also a diverse situation when it comes to access to agglomerations: the North Calotte counties are distant from such centres, whereas the Valais or Jura cantons in Switzerland are closer to such ones.

Hence, the TPG advocates that access to smaller urban centres of more than 20.000 inhabitants helps structuring the European space at the micro-scale, as those centres often act as service provision centres for their surroundings. In that respect, the TPG mapped the access to smaller urban nodes in the TeDi regions, using calculations of 45 minutes-isochrones from FUAs (adapted from ESPON 1.1.1).

Finally, the TPG integrated the results from the Economic typology of European regions elaborated in the framework of the ESPON 3.4.2 project. The results show that TeDi regions belong to rather diverse types of regional economies, thus emphasizing the fact that a one-size-fits-all approach cannot be applied in the TeDi project. The TPG further elaborated on that by developing a similar typology including more recent data, as well as a typology of economic spaces within each of the TeDi regions, thanks to extensive collection of employment data per sector at the municipal level.

The project therefore does not note any contradictions between ESPON 2006 results and our findings, but their complementary uses. The TPG furthermore emphasizes that some methods of multivariate analyses used in ESPON 2006 are more appropriate than other when seeking to identify and characterise the specificity of TeDi areas (see pp. 167-176).

5 Issues for further analytical work and research, data gaps to overcome

The central research priority highlighted by the present project is the need to establish a more systematic body of knowledge on how economic principles adopted with "mainstream" territories in mind may be unsuited for the balanced and sustainable development of areas with geographic specificities. This first concerns general regulatory principles such as the balance between services of general interest provided by or under the control of public owned bodies and those to be delivered by private actors. Part of the enquiries to be developed should therefore focus on the functioning of market based solutions in areas when the demand is too small to justify the presence of multiple actors.

Similarly, the existence of a "labour market" presupposes that workers may choose between different employers. This is not necessarily the case in mono-industrial towns. More systematic research around the notion of "transitional labour market", considering the extensive movements in and out of employment, between sectors and between functional labour markets that occur every year across Europe would make it possible to construct a more comprehensive assessment of the robustness of labour markets across Europe. Significant data gaps have not made it possible to carry out such an analysis within the ESPON TeDi project.

A central notion in this respect for TeDi areas is that of multiple job holding (i.e. "Nebentätigkeit" or "multiactivité"). The importance of formal or informal multiple activities as a basis for constructing a basis for economic sustainability in small settlements appears in multiple case study areas. The fact that this issue is difficult to explore quantitatively across Europe should not lead to underestimate its importance for balanced territorial development, especially in TeDi areas. Swiss watch producing traditions are an example of how a side-activity can transform into a major source of income.

Secondly, the analysis of TeDi areas demonstrated the need for further research on the territorial effects of sectoral policies, e.g. within fields such as transport, health and the exploitation of natural resources. The analytical angle to be privileged in this respect is how sectoral policies can increase the propensity of local actors to take advantage of identified development potentials.

Overall, the central theme for further research is the notion of "failure of market based solutions", understanding how and why development possibilities are left unexploited. This is part of the more general objective of territorial research seeking to promote a more holistic and integrative

perspective on social, economic and ecological processes, and should lead to the formulation of proposals for more efficient state support systems in TeDi areas. In this respect, it would be important to establish a clearer distinction between the need for constant and perennial measures compensating for structural imbalances (e.g. youth out-migration, economic returns of primary and extractive activities that are insufficient to ensure social sustainability, transport services of strategic importance that require public support to be operated) and punctual interventions to overcome some key obstacles preventing market forces from taking advantage of identified economic development potentials ("pump priming").

C Scientific report

Please reflect on the points mentioned in the project specification

1. Introduction:

Policy context and theoretical foundations for policies ambitioning to “turn diversity into strength”

The ESPON Tedi project is part of the Action programme of the Territorial Agenda. The project can be considered as part of a further elaboration of the initial thinking of the Territorial Agenda, which does not consider areas with geographic specificities from a development opportunity point of view. It instead refers to “*areas with specific geographic challenges and needs (e.g. structurally weak parts of islands, coastal zones and mountainous areas)*” and otherwise considers coastal zones and mountainous areas from a natural risk management perspective. The ambition to consider geographic specificities from the point of view of development opportunities rather than handicaps can be seen as part of efforts to better identify the territorial scope for policies targeting regional competitiveness and employment. But geographic specificities also appear as a legitimate concern in terms of territorial cooperation, as geographic specificities are generally different forms of obstacles to interaction between individuals and economic actors. The need for policy actions to promote the functional integration of TeDi areas both internally and in wider regional, national or international contexts is therefore investigated as part of the project.

This renewed understanding of TeDi areas, focusing on opportunities rather than handicaps, is to be understood in the wider context of policy debates surrounding the understanding of Territorial Cohesion as a one of the fundamental objectives of the European Union, and concrete implementation of corresponding measures. It also entails a specific type positioning with regards to theoretical debates on why regional differences in economic performance occur and on how public interventions may promote a more balanced and harmonious territorial development.

a. Policy context

The recent European Commission working paper entitled *Territories with specific geographical features* focuses on the relative levels of performance of areas with geographic specificities delimited at the level of NUTS 3 regions. Looking for possible correlations between geographic specificities and social and economic performance, the report observes that “*the extent of disparities within categories [of territories with specific geographical features] often compares with that observed when considering the EU-27 as a whole*”. It is concluded from this that “*it is*

difficult to use such categories for setting up specific regional development programmes and that *“a case by case approach where policy interventions are specific to the local context rather than to a given type of territory”* is needed. In other words, the working paper concludes that geographic categories such as mountains, islands, sparsely populated areas, border and outermost regions are of little help when formulating and implementing European regional policies.

This line of reasoning however does not seek to isolate the impact of geographical specificities from other types of factors determining regional performance. It does not envisage the hypothesis that similar types of processes related to geographic specificities may be occurring across Europe, but have drastically different effects because of the variety of economic, social and institutional contexts in which they operate. This defect can be observed in many discussions of geographic specificities and their relevance for territorial policies, as illustrated by the Article 174 of the new Treaty on the Functioning of the European Union in which the *“particular attention”* to be *“paid to [...] regions which suffer from severe and permanent natural or demographic handicaps”* is only envisaged within the general ambition of *“reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions”*. The present project seeks to compensate for this by focusing on processes related to geographic specificities rather than on measures of performance.

Different types of arguments may be advanced to justify European policy responses to these processes, if not dedicated programmes. First, the construction of the European Single Market on the basis of a principle of *“fair and unbiased competition”* does not only call for the enforcement of competition rules on antitrust, mergers, State infringements and State aid control, but also for pro-active measures in localities where the balanced and harmonious development requires special arrangements. Measures to preserve services of general interest may for example be needed as national regulatory frameworks ensuring adequate territorial coverage are dismissed in view of facilitating European competition. Second, many areas with geographic specificities lag behind in their national context even if their performance rank may be variable from a European benchmarking perspective. It is however not obvious that the regional or national levels will be most fit to recognise and exploit their development possibilities, insofar as inherited traditional views on the respective potentials of regions may prevail. The European level can therefore play a significant role disseminate examples of good practice, inspiring local actors and encouraging innovative types of strategies in areas with geographic specificities irrespective of their current level of social and

economic performance. There is ample evidence of (inter-) regional processes that have been initiated as part of or in reaction to European Union policies. Encouraging these types of dynamics more systematically however presupposes that certain types of forums and frameworks facilitating communication and exchanges are in place.

This study has been conceived and implemented as an input to ongoing debates on the territorial dimension in European policies. The new Treaty on the European Union establishes territorial cohesion as an objective for Community policies in its own right, without specifying its exact meaning or implications. Under the section on Economic, Social and Territorial cohesion, the Treaty on the Functioning of the European Union specifies that *"the Union shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions"* and that *"among the regions concerned, particular attention shall be paid to [...] regions which suffer from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density and island, cross-border and mountain regions"* (art. 174).

There is discrepancy between this way of specifying territorial cohesion as a sub-theme of a convergence objective, focusing on the reduction of disparities between regions, and the terms of the debate on territorial cohesion initiated by the European commission with the *Green Paper on Territorial Cohesion – Turning Territorial diversity into a Strength*. In her introductory statement introducing the *Green Paper*, the previous Commissioner in charge of Regional Policy Danuta Hübner indeed focuses on functional interactions, stressing the need to develop *"new sets of relationships binding EU territories at different levels and new forms of cooperation, coordination and partnerships"*. The underlying rationale is therefore that increased wealth can be created by improving the functional interactions between territories with different types of profiles and specificities.

In the *Green Paper* itself, *"balanced and sustainable territorial development of the EU as whole, strengthening its economic competitiveness and capacity for growth while respecting the need to preserve its natural assets and ensuring social cohesion"* are presented as the key challenges in the promotion of territorial cohesion. Rather than targeting areas with geographic specificities only insofar as they are characterised by backwardness, as suggested by the Treaty, the European Commission therefore proposes a wider geographic focus. The position that is submitted for debate is that territorial cohesion policies could be justified in all parts of the European Union where public interventions are required for a balanced and sustainable territorial development to prevail

and/or where public interventions would make a significant contribution in overcoming obstacles to growth. If this wide type of European policy targeting areas with geographic specificities does not find its justification within the Treaty, it may be implemented on the basis of a political consensus on its efficiency in making the EU *"the most dynamic and competitive knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion, and respect for the environment"*.

The focus of the ESPON TeDi study on development opportunities in areas with geographic specificities is therefore in line with this positioning of territorial cohesion as *"a means of transforming diversity into an asset"* for Europe. The hypothesis to be tested is whether territorial diversity (TeDi) areas may be particularly well-adapted to a territorial policy focusing on economic development, because their geographic specificities create a limited range of key obstacles to growth that may be overcome through well targeted policy interventions. Secondly, the role of the European level in these types of interventions is explored: what justifies a European involvement in these issues of territorial diversity? Are there specific situations in which European interventions can achieve territorial development objectives with greater chances of success or more cost-efficiently than corresponding measures implemented at the national, regional or local levels?

The selected case studies offer a wide and diversified basis for investigation of these issues:

- The North Calotte, grouping the northernmost regions of Finland (Lappi), Norway (Nordland, Troms and Finnmark) and Sweden (Norrbotten), correspond to extremely sparsely populated regions with abundant natural resources, high living standards and satisfactory to high economic performance levels from a European point of view. As a regions situated on the outer margins of the continent, it has low scores in terms of European accessibility, but functions as an interface to the Arctic and to North-West Russia.
- North Iceland is in a similar situation with regards to peripherality and low population density, but within an insular national context. As part of a country particularly hardy hit by the global financial crisis, it also offers some evidence on the role a remote area specialised in primary activities (fisheries) may play in such a context.

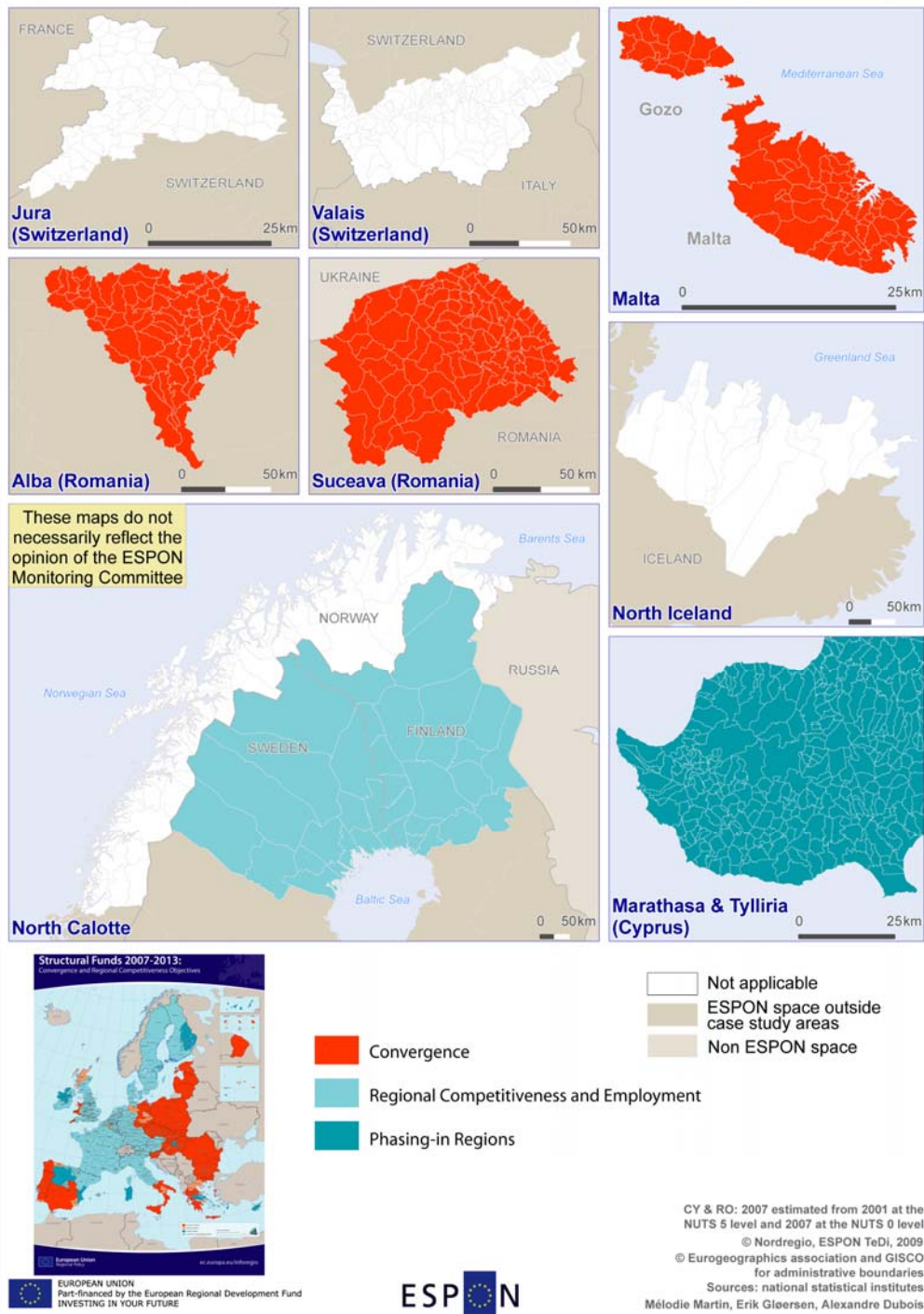
- The canton of Valais in Switzerland on the contrary examples of centrally located regions in the European context, as it is technically within the Pentagon, but which due to the topography is separated both from the neighbouring Italian cities to the South and from the dynamic Swiss Mittelland plateau to the North. At the same time, it is a high altitude mountain range, with all the industrial and touristic assets associated with this type of configuration.
- The canton of Jura in Switzerland is on the contrary an example of a medium altitude mountain area, with relatively good connections to neighbouring metropolitan region of Basel, to Berne and to Belfort in France. As a well-identified cultural entity at the cross-roads of these different types of influences, it however experiences difficulties positioning itself.
- The county of Suceava in Romania is an example of a traditional agricultural region, with over 50% employment in agriculture and extensive subsistence and semi-subsistence farming. It is also a border region, as part of the historic region of Bucovina which extends into the Ukrainian oblast of Chernivtsi. Considering the deficiencies of the economic and social governance structures, the lack of infrastructure and the absence of basic public and private services in many areas, Suceava county raises the question of the relevance of a focus on geographic specificities in territorial policies in areas with major structural challenges. At the same time, compared to neighbouring lowland areas along the border to Republic of Moldova (Botoşani, Iaşi and Vaslui counties), Suceava appears as an area with many assets, good potentials and a relatively better recent economic development.
- The county of Alba in Romania presents similar characteristics. Its specificity lies in the extensive human settlements at high altitudes (above 1000 m), with many households performing different forms of multiactivity combining agriculture, the production of handicrafts and tourism. It also offers examples of conflicts of usage in environmentally sensitive mountain areas, e.g. between mining, tourism and conservation.
- Malta offers an example of an insular nation state, which with its small size and high population densities faces particular development challenges. The focus in the present project has however also been on the Maltese island of Gozo, offering a typical example of double insularity. Despite being situated only 25 minutes by boat from Malta, Gozo is characterised by

distinctly lower levels of economic performance. The question of the choice of development model is particularly acute in this situation, as the island basically has the choice between becoming a functionally integrated part of Malta or of seeking to promote an alternative development path built on its current specificities and qualities. This raises the question of the capacity of an island with a population of 31,000 inhabitants to design and implement its own development model.

- Marathasa and Tylliria (Map 2) are sparsely populated and poorly connected areas of North-West Cyprus, whose relative isolation has been accentuated by the Turkish occupation of adjacent areas. As subregional entities with no separate administrative status, these areas illustrate the need to look below the level of statistical regions to identify geographic specificities. The enquiries also deal with the methods needed to implement measures dealing with geographic specificities in such a context of weakly coordinated small local authorities.

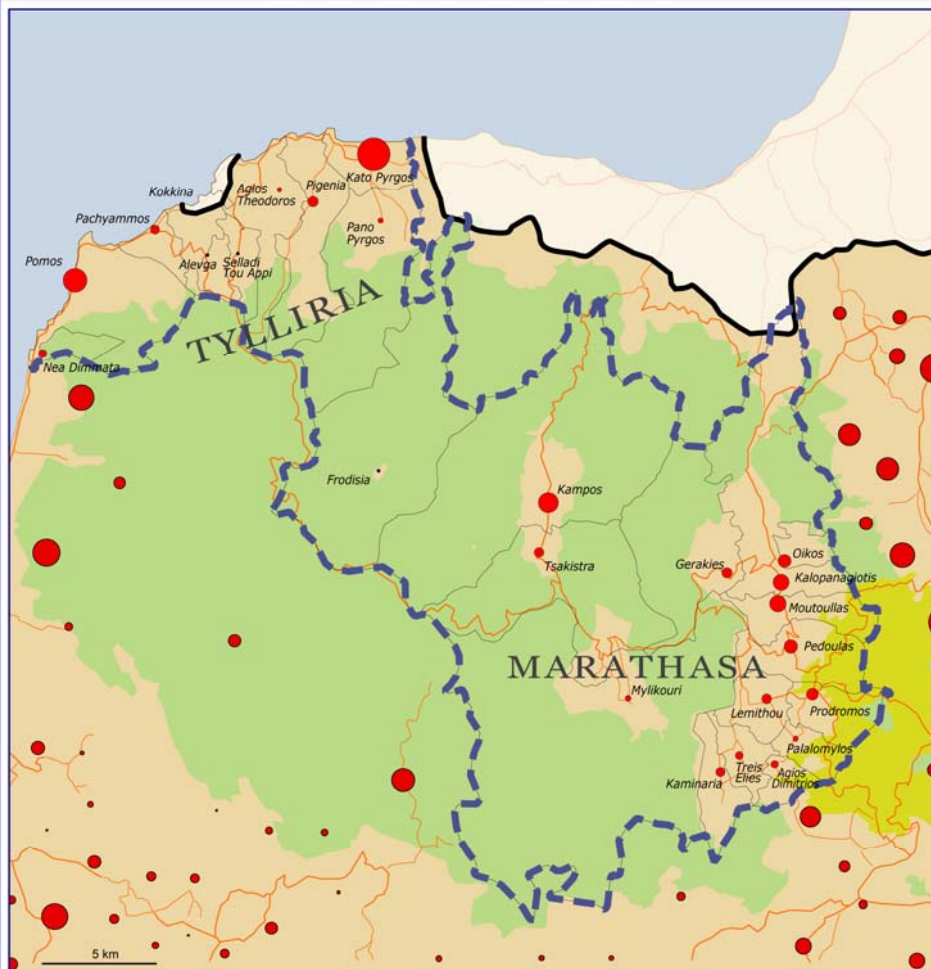
As illustrated in Map 1, Structural Funds convergence regions are not over-represented among the case study areas of the study. While Alba, Suceava and Malta are convergence regions, the Swedish and Finnish parts of the North Calotte, Marathasa and Tylliria belong to so-called "competitiveness and employment regions". Jura, Valais, the Norwegian part of the North Calotte and North Iceland are not concerned by this distinction as belonging to countries that are not members of the European Union. None of these areas would however satisfy the criteria of eligibility to become convergence regions, as their GDP is above the 75% of EU-average threshold. This diversity of situations illustrates the fact that TeDi areas are not necessarily lagging, but may on the contrary in many cases be characterised by high levels of economic and social performance in a European comparative perspective.

Structural Funds 2007-2013



Map 1 Overlay of ESPON TeDi case study areas with Structural Fund support zones

Marathasa and Tylliria



- — — Delimitation of the case study area
- Administrative limits inside the case study area
- Limit of the area under Turkish occupation
- Hard surface two lanes road
- Hard surface one lane road
- Forest
- Troodos national forest park

Population in the community in 2007 (estimation from 2001)

- 1000
- 500
- 100

• Uninhabited settlement in the case study area

Map 2 Delimitation of the Marathasa and Tylliria case study area in Cyprus

The Marathasa and Tylliria case study area corresponds to two groups of villages. The Tylliria Strategic Development Plan, published in the final phase of the present study, includes additional villages along the coast to the west.

b. Theoretical framework

The development opportunities of these various areas are the project's main object of enquiry. In the context of a knowledge economy, where the most important parameter for economic development is the capacity to constantly develop, access and implement efficient production methods, this leads us to question the specificity of innovation processes in regions with geographic specificities.

Within the wide literature on innovation processes, three major geographical approaches may be distinguished:

- Innovation and spatial constraints or disadvantage related to centre-periphery relations. This approach has been adopted not only in geography (Reynaud, 1981) but also in regional economics and particularly in the so-called "**new economic geography**" (Fujita, Krugman & Venables, 1999; Espace géographique, 2007). The academic recognition of results produced by this school of thought has recently been confirmed with award of the Nobel Prize to Paul Krugman, while their impact on policy applied research for example appears in the spatial doctrine set out in the World Bank's latest report on world development (World Bank, 2009). This doctrine postulates the inevitability of development stimulated and capitalised by urban areas and metropolitan environments. The only margin for manoeuvre is in the accompaniment and facilitation of the spatial diffusion of the effects of development.
- The "**innovation milieus**" approach, which seeks to identify local social and economic environmental qualities capable of compensating for the relative disadvantage of small population numbers and a peripheral situation. This approach therefore seeks to demonstrate that the trends and processes observed by the "new economic geography" do not necessarily lead to regional discrepancies in wealth and living standards, insofar as they may be effectively countered by other types of dynamics. It is upheld by numerous studies in the field of regional economics that attempt to identify the different forms of innovative milieus (Camagni & Maillat, 2006), industrial districts and other local productive systems (Benko & Lipietz, 1992 & 2000; Fauré & Labazée, 2005). Other researchers have focused on the processes allowing local actors to identify and exploit economic potentials based on natural resources, cultural heritage and/or other territorial characteristics (Pecqueur, 2005; Landel & Senil. 2009).
- **Organisational innovation** and the pursuit of efficiency in territorial arrangements relate more to political geography, political

science and development studies. Research in this field focuses on innovative forms of spatial and institutional constructions that go beyond the narrow codes of territorial modernity and its spatial patterns, such as exclusive sovereignty, continuity, fixed limits, strict hierarchical relations between administrative units and territorial levels of decision making. (Gerbaux & Giraut, 2000; Antheaume & Giraut, 2005; Vanier, 2008).

While the first of these approaches (innovation and centre-periphery relations) corresponds to a scientific enquiry on structural constraints on innovation and its spatial diffusion, the two latter provide an analytical framework to approach the territorial dimension of innovation, either in terms of (favourable) milieu, or of territorial governance structures and institutional arrangements.

Considering development opportunities of regions with geographic specificities, the two former approaches tend to lead to opposite conclusions. The shift from a focus on structural constraints due to centre-periphery relations to a more agency oriented reflection on the qualities of local milieus and specific territorial resources is reflected in territorial policies. The new generation of regional policies do not focus on convergence as the main priority, but encompass wider concerns for territorial competitiveness and the exploitation of local assets.

This change of paradigm does not directly concern the third type of organisationally focused approaches of innovation, which helps specifying the institutional and spatial dimension of transformations induced by geographic specificities. The innovative institutional and territorial arrangements observed are in most cases a form of "new regionalism" built on territorial projects (Pike *et al.*, 2006). These projects however necessarily derive from a negotiation process bringing together a coalescence of actors in a design process. Their coming together reflects new types of variable geometry functional territorialities that evolve over time; it however also constantly needs to relate to the more stable institutional boundaries and structures within which public authorities and bodies intervene. Organisational innovation emerges from these complex interactions between groups and territories. It can be a particularly relevant notion in TeDi areas, insofar as the geographical specificities create a relative isolation or "a sense locality" that makes it easier to challenge norms and structures imposed by central authorities.

Because of their diversity and internal contradictions, the three approaches provide complementary answers to central questions surrounding innovations in TeDi areas. In the present project, they will

therefore help guiding enquiries on the extent to which TeDi regions can be considered as innovative milieus in their own right, or as mere recipients of externally produced innovations. In the latter case, the structural obstacles and facilitating factors of diffusion need to be further explored. Furthermore, the effects of a permanent situation of being, at best, "one step behind" core regions need calls for a further discussion: do the effects of such constant territorial contrasts need to be handled politically to avoid processes triggering an aggravation of disparities? If yes, what measures are needed?

With the focus on "contributions to overall policy goals like Lisbon and Gothenburg Strategy" and "development potentials" already present in the Terms of Reference, the ESPON TeDi project adopts a resolutely optimistic stance. In other words, the framework for the study is based on an optimistic perspective on centre-periphery relations that does not condemn areas with geographic specificities to dependency but, on the contrary, credits them with the capacity of generating potentially innovative environments.

Are the situations evoked, however, related to geographical specificities or to socio-spatial marginality? Is a mountainous, insular or sparsely populated location sufficient to determine a peripheral situation? We know that regions described as peripheral from a continental or national point of view can be characterised by a great diversity of local environments (Scholz, 2005). Centre-periphery relations indeed prevail within the peripheral regions, establishing some places as central nodes. Other places can function as gateways on the basis of privileged connections with external centres. Debates on the status of winter sports resorts illustrate this issue in the Swiss context: Are they to be considered as local hotspots for the exploitation of climate and landscape resources, or rather "offshore" (or "de-territorialised") extensions of metropolitan economies? The same types of questions are being raised for a range of economic exploitation where the embeddedness of initiatives and operations in local economic structures is not obvious, as for example in the case of mining resources in the North Calotte.

In the typology of peripheries proposed in 1981, Alain Reynaud had already envisaged that these would not only correspond to "deprived isolates", "dominated" and "exploited" areas, but could also be "associated" to central growth centres or build a successful growth strategy by "relying on their own strength". With the intensification of economic globalisation since the 1980s, it is all the more important to focus on local areas in TeDi areas that may develop metropolitan and global connections.

The optimistic perspective on TeDi area is therefore potentially a plea against the theoretical foundations of the new economics of geography, that is, against the deterministic constraints generated by increasing returns (agglomeration effects) and path dependency (historical sequence that confers an advantage on already "acquired" situations). However, it does not simply relate to a blissful theory of meeting a challenge, so important in the historiography of pioneer regions. It focuses on the wiggle room available to TeDi areas to design development strategies that are not dependent on agglomeration economies, and on the need these areas may feel to free themselves from norms, regulations and standards imposed by core regions. Philippe Bourdeau (2009) describes the numerous advantages local communities in TeDi regions can draw from "disconnecting themselves from prevailing norms" in order to design solutions to their particular challenges and issues. Insofar as TeDi areas are disconnected from core regions, such specific local arrangements have a lower probability of challenging established national or European institutional and ideological arrangements. This situation can enable TeDi areas to become experimental areas (Antheaume & Giraut, 2002).

An inherent risk of these approaches is of course to overestimate the potential economic and social effects of processes that are of secondary importance from a quantitative point of view. It is however important to differentiate between geographical scales in this respect, as minor processes from a macro perspective may be of decisive importance for the development of individual communities. Integrative and participative methods of exploiting local heritage are for example marginal when considering the economy as a whole, but have proven their efficiency from a local development perspective in a number of cases.

An central question to be addressed in ESPON TeDi is therefore how one may systematise the knowledge on solutions that may be marginal from a macro-economic perspective, but create the framework for a socially and economically sustainable future in local communities.

2. Contrasted territories

a. Synthetic characterisation of the case study areas

On the basis of the successive presentations of mountainousness, insularity, settlement patterns, urban endowment, access to urban areas and air transport accessibility, the TPG has produced a synthetic characterisation of the various case study areas in Table 1. The table takes into account the different scales of the case study areas, particularly insofar as this is of relevance for the institutional context of formulation of development strategies. Marathasa and Tylliria are groupings of communities with no specific institutional status, even if the Marathasa Local Plan has been delimited along the same area outline as that used by the present project; it therefore seemed necessary to include a characterisation of Cyprus as a whole to put their situation in perspective. Admittedly, this is also the case for northern Iceland, but in this case Akureyri as the main urban node gives a greater functional and symbolic coherence to the area.

At the other end of the scale, the Maltese islands and the North Calotte are grouping of NUTS 3 regions, each of which are well-identified sub-entities with specific institutional frameworks and policy agendas. These case study areas have therefore been dealt with both as a group and considering their NUTS 3 sub-entities.

The table demonstrates the uniqueness of the situation in each case study area, confirming that the selection of case studies offers a good basis for enquiries on a wider European typology but rendering a typology exercise among the TeDi areas themselves relatively meaningless. The main proximity can be identified between the situations of the North Calotte and North Iceland.

The complexity of the table with regards to scale reflects a more general challenge for the European approaches of territorial diversity. The table only considers the relation of each case study area to regions with NUTS 3 status, but could also have incorporated the wide differences between the case study areas in terms of geographical extent. While the European observation of territorial trends and design of development policies needs to relate to a stable and reasonably homogenous system of geographical units (e.g. NUTS), this implies that territorial diversity can only be addressed if statistical methods, criteria of eligibility and implementation principles take

Table 1
classification of the ESPON TeDi case study areas

Synthetic multi-scalar

Supra NUTS 3	NUTS 3	Infra NUTS 3	Mountainous	Insular	Settlement Pattern	Urban Endowment Relative to population	Access to Urban areas
	Valais		Exclusively	No	Sparse – concentrated	Intermediate	Low
	Jura		Largely	No	Sparse – dispersed	Very low	Very high
Cyprus			Marginally	Exclusively	Sparse – contrasted	High	Contrasted
		Marathasa	Exclusively	Exclusively	Very sparse	Very low	Low
		Tylliria	Largely	Exclusively	Very sparse	Very low	Low
	Alba		Partly	No	Sparse – dispersed	Intermediate	Intermediate
	Suceava		Partly	No	Sparse – dispersed	Intermediate	Intermediate
North Calotte			Partly	Partly	Very sparse	High	Contrasted
	Norrbottnens län		Marginally	Marginally	Very sparse – rel disp.	High	Contrasted
	Lappi		Marginally	Marginally	Very sparse – rel disp.	High	Contrasted
	Nordland		Partly	Partly	Very sparse – rel conc.	High	Contrasted
	Troms		Partly	Partly	Very sparse – rel conc.	High	Contrasted
	Finmark		Partly	Partly	Very sparse – rel conc.	High	Contrasted
Maltese islands			-	Exclusively	Very dense	High	Contrasted
	Malta		-	Exclusively	Very dense	High	Very high
	Gozo		-	Exclusively	Very dense	High	intermediate
	North Iceland		Partly	Exclusively	Very sparse – rel conc.	High	Contrasted

into account these differences of scale. Rather than “homogenising out” territorial diversity by considering NUTS 2 or 3 average values, one may construct regional indicators focusing on the stocks of population, production unit or wealth creation that is taking place within areas characterised by geographic specificities.

It is also our contention that an understanding of social and economic challenges related to geographic specificities requires a detailed knowledge of settlement patterns. Settlement patterns determine the physical framework within which individual communities may create a strategy for lasting and sustainable development or be functionally integrated in the dynamics created by neighbouring towns, cities or communities. It is therefore important to emphasize that we only have register population data allowing for a systematic detailed knowledge of settlement patterns in a few European countries. This issue is described in further detail below.

The initial typology presented in this section only includes physical and settlement-related aspects. This reflects the analytical perspective of the project, exploring possible causal relationships between these categories of territories and specific social, economic and institutional processes that may require dedicated policy measures. As has been mentioned in the introduction, our hypothesis is that if such similar processes exist, they produce different effects depending on the context in which they occur. We however do not attempt to integrate these diverse contexts in the typology at this stage; the maps and analyses presented in the following sections will provide ample evidence of this multi-faceted diversity of territorial diversity. Instead, we focus on specifying the conceptual understanding of different notions of territorial diversity and on issues of delimitation.

b. Description of the geographic specificities in TeDi areas

The physical categories considered in ESPON TeDi are mountainousness, insularity, demographic sparsity and high population densities in peripheral areas. With the exception of the latter one, these categories have been the subject of specific attention in European policy making through dedicated studies commissioned by DG REGIO¹² or by the concerned regions¹³. They have also been given special attention in the Green paper on Territorial cohesion published by the European Commission in September 2008, which describes them as “facing particular development challenges” and proposes delimitations at the NUTS 3 level.

Our initial understanding of what constitutes a mountain area, an island and a sparsely populated region is based on the criteria and delimitations proposed in these reports. In the Annex to the Green paper on Territorial cohesion, the European Commission has however sought to simplify these delimitations at NUTS 3-level. The same delimitations are used in the previously mentioned Working Paper *Territories with specific geographical features*. It is on basis of these delimitations that it is concluded that the diversity of situations encountered is such that there is no case for building general and transversal territorial policies focusing on each category of geographic specificity.

Mountainous areas

High altitudes are not a sufficient criterion to identify mountainous areas, as some mountains go down to sea level. This typically concerns fjords and Mediterranean dry mountain. The European delimitation of mountain areas therefore also takes into criteria of slope and of local variations in altitude (“ruggedness”) (Nordregio *et al.*, 2004). If quantitative criteria are being used, the measures and thresholds have been defined in order to fit with common perceptions of mountainousness in European countries as closely as possible. Mountains are therefore a constructed mental category of landscape just as much as it is a physical reality. Any European delimitation of mountain area is nonetheless a compromise between different national perceptions. Generally, the more mountainous a country is, the more restrictive the perception of mountains should be: Switzerland will tend to have a

¹² Planistat and Bradley Dunbar *et al.* (2003) *Study on the islands and outermost regions / Analyse des régions insulaires et des régions ultrapériphériques de l'Union européenne*, Study commissioned by the European Commission DG REGIO.

Nordregio *et al.* (2004) *Mountain Areas in Europe: Analysis of mountain areas in EU member states, acceding and other European countries*, Study commissioned by the European Commission DG REGIO.

http://ec.europa.eu/regional_policy/sources/docgener/studies/study_en.htm

¹³ Erik Gløersen *et al.* (2006) *Northern Peripheral, Sparsely Populated Regions in the European Union and in Norway*, Nordregio Report 2006:2.

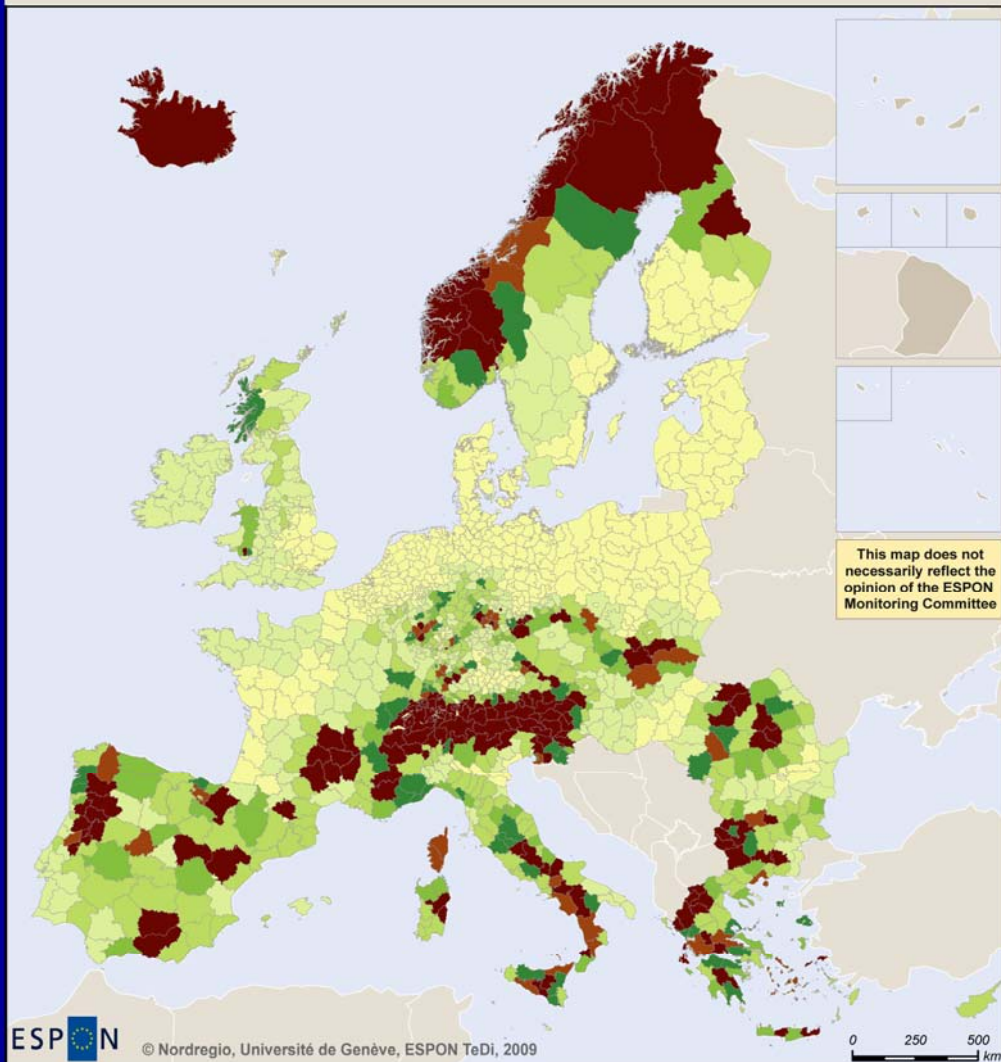
<http://www.nordregio.se/Files/r0602.pdf>

more restrictive understanding of mountains than e.g. Poland. There are however exceptions: Belgium, for example, does not have a national notion of mountain areas, and it therefore came as a surprise to some stakeholders that one would identify some of the Ardennes plateau as mountainous in a European perspective (Philippe de Boe *et al.*, 2005) . This exemplifies how the category "mountains" is a relative and cultural notion.

The landscape category "mountains" can furthermore be useful not only for regional policy, but also for other types of public intervention, e.g. concerning environmental or agricultural issues. Different understandings of mountains may however be required for each of these purposes. Mountain delineations are therefore far from set in stone and unique.

Within territorial policy, two approaches of mountain areas can be identified. The notion of "*massif*" is inspired by French *aménagement du territoire* that single out mountain territories and implement targeted measures within these areas. These *massifs* can range over multiple regions and are delineated at the municipal scale. The objective is to construct a coherent strategy for an entire mountain area. The alternative approach considers "mountainous regions". This perspective, applied by the European Commission (2008, 2009), looks at the proportion of mountain area or mountain dwellers within each region. The rationale is that a high degree of "mountainousness" could affect regional development processes. The objective is to integrate mountain policies with other regional policy instruments, if and when there is evidence to support the need for such interventions. There may be a need to combine these complementary perspectives, both for the understanding of mountain related territorial development issues and for implementation of measures. A focus on "mountainous regions" may be particularly useful when considering new potential forms of interaction between mountains and piedmont/lowland areas; the "massif" approach helps exploring the unique characteristics of mountain areas and the possible strengthening of growth and development alliances within them.

Degree of mountainousness in European regions



Proportion of population living in mountainous areas by NUTS 3 region
(including areas assimilated to mountain on the basis of climatic criteria)



Sources: Nordregio (2004) Mountain areas in Europe
(study produced for the European Commission, DG REGIO)
for the delimitation of mountain areas

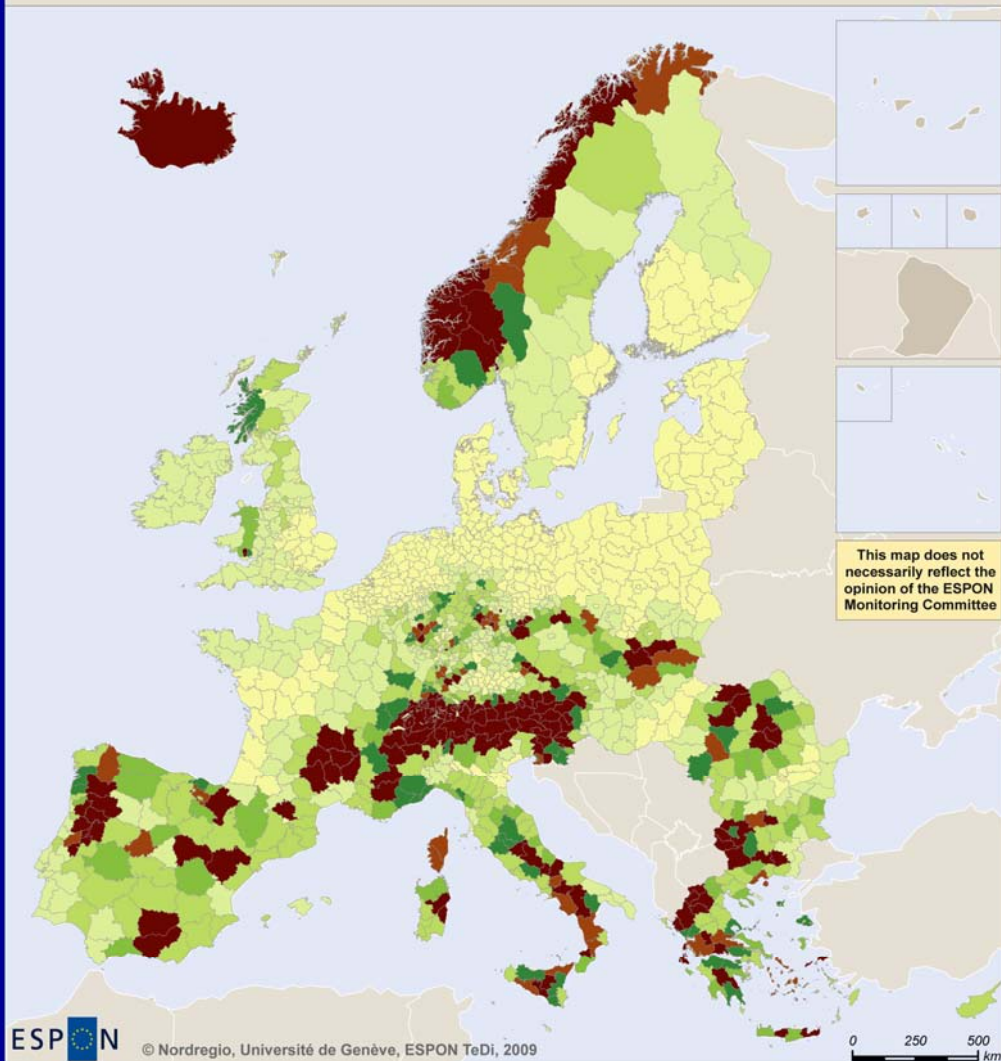
European Commission DG REGIO (EU27)
National statistical institutes (NO, SE, FI), OFS (CH)

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Map 3 Degree of mountainousness of NUTS 3 regions, including areas assimilated to mountain on the basis of climatic criteria

Degree of mountainousness in European regions



Proportion of population living in mountainous areas by NUTS 3 region
(excluding areas assimilated to mountain on the basis of climatic criteria)



Sources: Nordregio (2004) Mountain areas in Europe
(study produced for the European Commission, DG REGIO)
for the delimitation of mountain areas

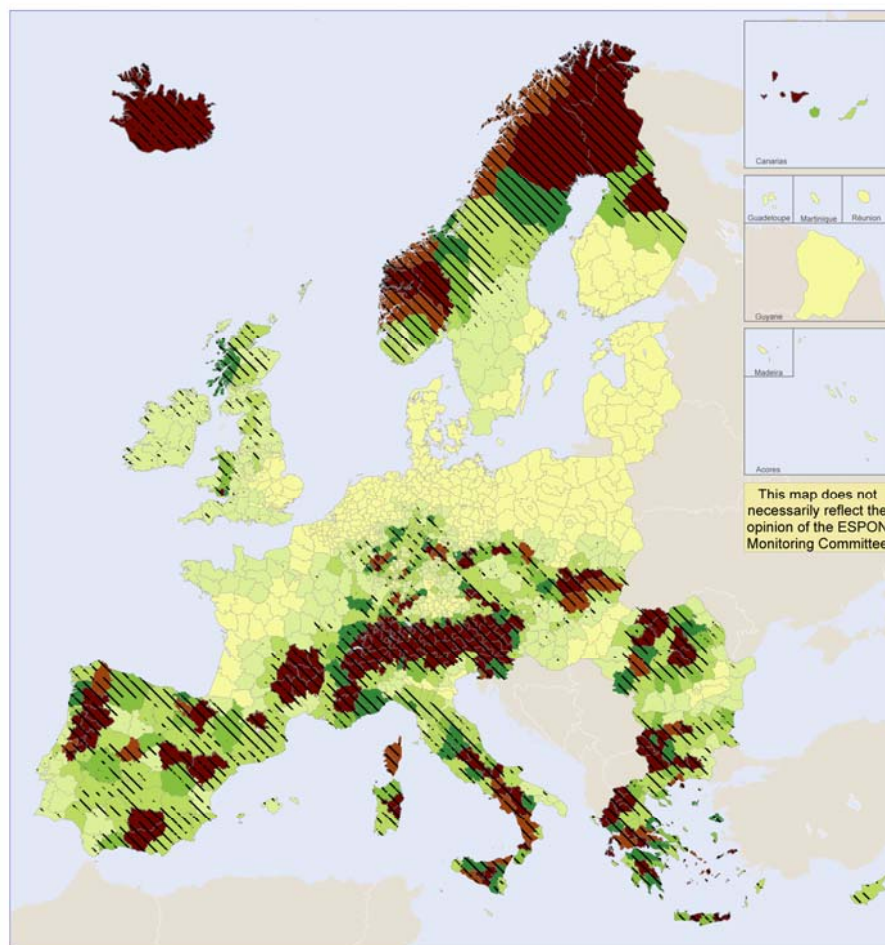
European Commission DG REGIO (EU27)
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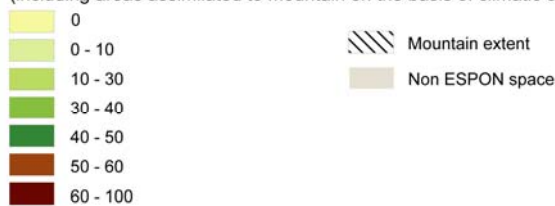
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Map 4 Degree of mountainousness of NUTS 3 regions, excluding areas assimilated to mountain on the basis of climatic criteria

Mountainousness in European regions



Proportion population living in mountainous areas
by NUTS 3 region, %
(including areas assimilated to mountain on the basis of climatic criteria)



© Nordregio, ESPON TeDi, 2009

© Eurogeographics association and GISCO
for administrative boundaries

Sources: Nordregio (2004) Mountain areas in Europe
(study produced for the European Commission, DG REGIO)
for the delimitation of mountain areas

European Commission DG REGIO (EU27)

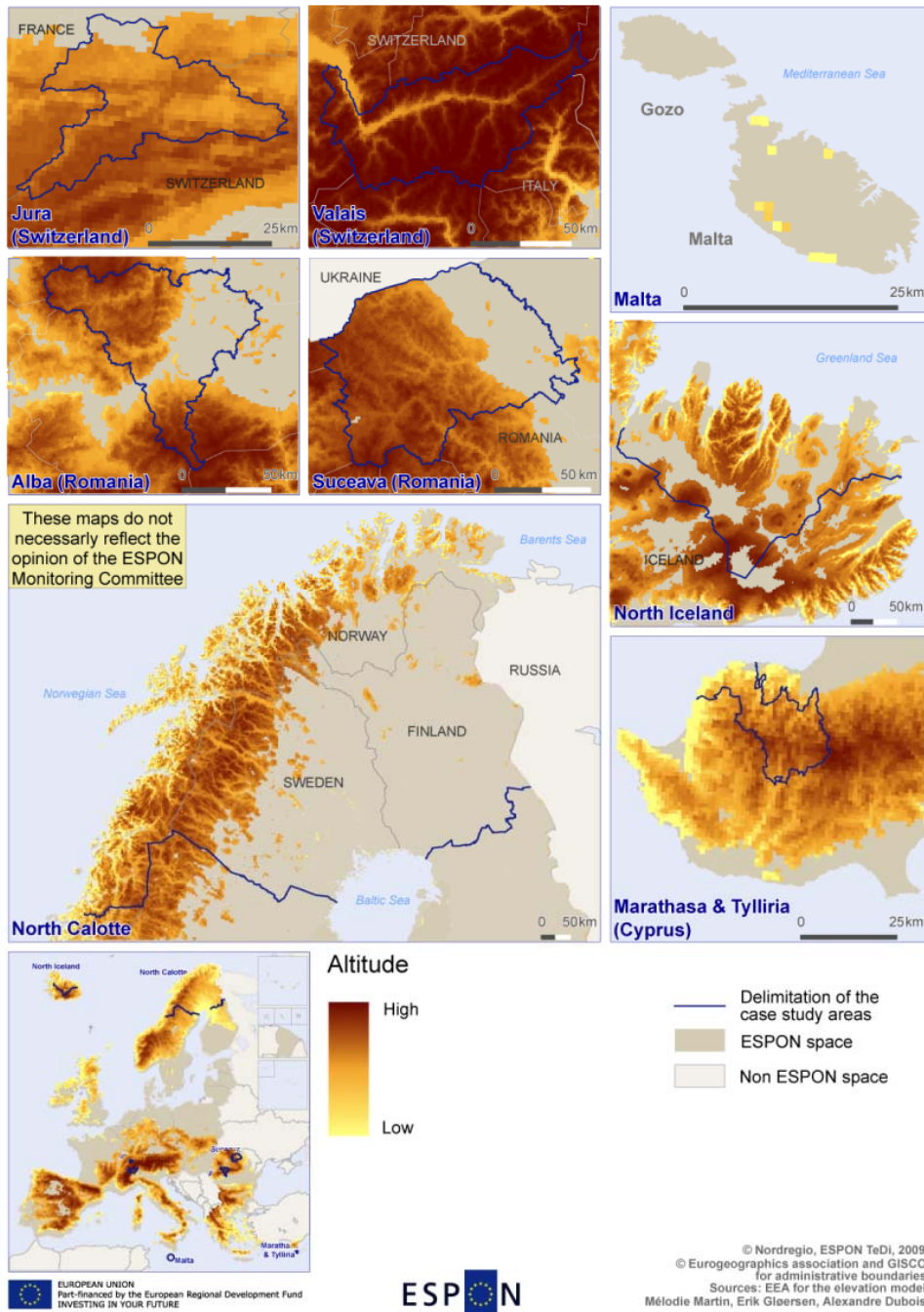
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Map 5 Degree of mountainousness of NUTS 3 regions overlaid with the extent of mountain ranges identified in the Nordregio mountain study (2004)

Delimitation of the mountain in the case study areas



Map 6 Delimitation of mountain areas in the case study areas

Table 2 Proportions of persons living in mountain areas

Supra NUTS 3	NUTS3	Infra NUTS 3	Percentage of population living in mountain areas	
			Excluding areas assimilated on the basis of climatic constrains	Including areas assimilated on the basis of climatic constrains
	Valais		100%	100%
	Jura		94%	94%
		Marathasa	100%	100%
		Tylliria	54%	54%
	Cyprus		12%	12%
	Alba		42%	42%
	Suceava		35%	35%
	Norrbottnens län		8%	82%
	Lappi		1%	96%
	Nordland		45%	51%
	Troms		48%	54%
	Finnmark		31%	71%
	North Calotte		25%	71%
	Malta		1,5%	1,5%
	Gozo		0%	0%
	Maltese islands		1,5%	1,5 %
	North Iceland		No data	No data

The identification of 1,5% of the Maltese population (6,000 persons) living in mountain areas illustrates a general problem in the type of approach used in the Green Paper. This methodology implies that one considers the population estimated to be living in grid cells with rough topography as mountaineers. However, the notion of mountain does not only imply high altitude and/or steep slope, but a local concentration of such geographical features. By omitting to integrate any such element of local concentration in the model, the calculation identifies the population of small areas situated close to coastal cliffs in Malta as mountaineers, even if these geographic features do not confer any character of mountainousness to the living environment. The same type of problem occurs, albeit less visibly, in the other case study areas when piedmont areas with isolated steep slopes are wrongly identified as mountains.

In the Green Paper on Territorial Cohesion, NUTS 3 regions are defined as "mountain regions" only if over 50% of the population need to be living in 1x1 km grid cells identified as having a rough topography in the Nordregio study on Mountain regions produced for DG REGIO in 2004 for a NUTS 3 region to be defined as mountainous. In Map 3, the resulting delimitation of mountain areas is represented in brown. This implies that neither of the two case study areas Alba and Suceava is identified as mountainous in this map. Map 3 therefore also represents regions with proportions of mountain population below 50%. The same analysis has also been carried out using an alternative mountain delimitation excluding areas assimilated to mountain areas on the basis of climatic criteria (Map 4). This only leads to changes in northern Norden, and helps illustrating the

diversity of topographic situations in the North Calotte, where only the Norwegian regions of Finnmark, Troms and Nordland are massively mountainous.

Map 5 overlays the proportions of mountain population per NUTS 3 region with the municipalities defined as mountainous in the Nordregio Mountain study, i.e. with more than 50% grid cells satisfying to the criteria in terms of altitude and slope. This makes it possible to observe the differences between the delimitations resulting from each of these two types of methodologies.

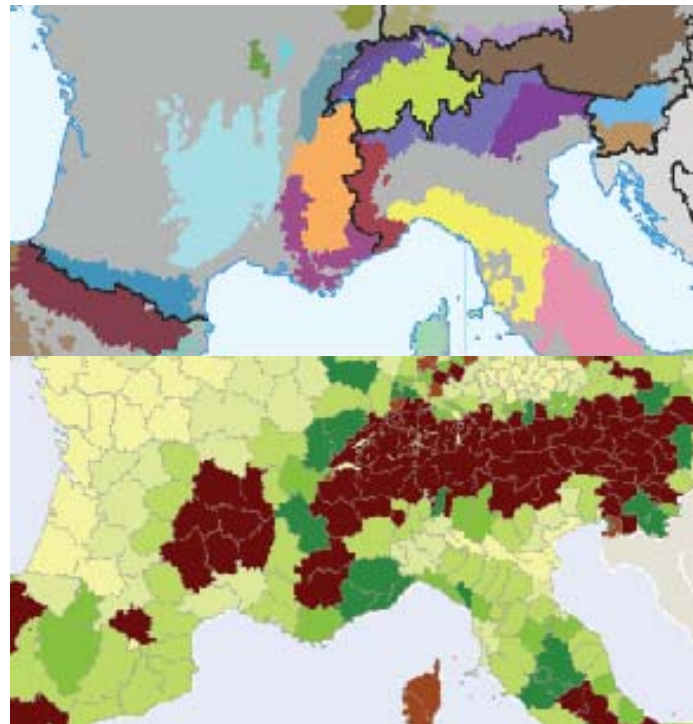


Figure 1 Massifs (top) and Mountainous Regions (bottom): two ways of approaching mountain areas

For some mountain ranges, the discrepancies mainly correspond to the difference in spatial resolution between the NUTS 3 and LAU 2 scales. This is for example the case in the French Massif Central and in most of the Alps (see Figure 1). By contrast, the differences are considerably larger in other areas. Massifs such as the northern Apennines and the Pyrenees, as well as all mountain ranges of the British Isles and of Cyprus are excluded from the analysis when considering only NUTS 3 regions with more than 50% mountain population. This creates a territorial policy concept of "mountain" which is distinct from the general understanding of "mountains". There are therefore fundamental differences in the approaches of mountainousness. The Nordregio 2004 *Mountain study* focuses on mountain areas as a physical category delimited at the municipal scale, irrespective of whether the parts with a mountainous topography are populated or not. The *Green Paper on Territorial Cohesion* and subsequent Working Paper consider that mountainousness

is relevant insofar as areas with a mountain topography constitute a context of living for a certain proportion of the population at regional (NUTS 3 level).

Insular areas

In terms of insularity, the Annex of the Green paper only considers NUTS3 regions composed completely of one or more islands as insular (Map 7). Applying this criterion to the ESPON TeDi areas, one observes that this implies that the approach excludes the insular areas of the Gulf of Bothnia, as well as outside the coast of Norway, while the revision of the initial delimitation of the delimitation of islands allows Malta and Cyprus to be considered as islands¹⁴.

Applying the more general criterion that islands are territories not connected to the mainland by any physical link, one finds that the North Calotte comprises slightly over 100 islands with a year-round population¹⁵, 48 of which have more than 50 inhabitants (Map 8). There are only 2 islands with more than 1000 inhabitants, situated along the coast of the Norwegian Sea¹⁶. Considering employment, there are about 72 islands on which there is employment (66 with employment and housing on the same islands), 14 of which have more than 100 jobs, with a maximum of 510 jobs in Karlsøy¹⁷. In total, North Calotte insular areas along the coast to the Norwegian have a population estimated to about 14 900 inhabitants and slightly more than 4 322 jobs (2001 data).

The North Calotte coast along the Gulf of Bothnia has a large number of islands, but these only totalise a population of about 500 persons and less than 20 employment opportunities. The numbers of inhabitants and jobs on these insular territories is therefore weak in comparison to the mainland. The importance attached to a human presence on these isolated and remote territories however remains to be further verified among the stakeholders.

The typology of islands defined by the geographer André-Louis Sanguin (2007) provides some other useful categories for the understanding of "islands" as an object of territorial policy. Sanguin distinguishes three types of internal structures of islands or archipelagos. "Self centred islands" organised around one main

¹⁴ Comment to the list of regions with geographic specificities on the DG REGIO website: "After further discussions, DG Regional Policy has opted for analytical purposes to use a definition of island regions based on the criteria specified in Article 52 of the Structural Fund and Cohesion Fund regulation instead of the definition used in the Eurostat publication "Portrait of the Islands" which was used in the Green Paper and its annex. Please find below the classification of regions amended accordingly. The main difference with the classification used in the Green Paper is the inclusion of Cyprus and Malta in the group of island regions." http://ec.europa.eu/regional_policy/consultation/terco/terr_classifications_nuts3_2009.xls

¹⁵ 2001 data.

¹⁶ Vega and Dønna

¹⁷ 2001 data.

island, e.g. Malta and Madeira, are distinguished from islands that are dominated by a capital city, but that also have significant secondary cities or towns. Sardinia, Corsica the Balearic and Canary Islands, the Açores and the Greek islands of the Aegean Sea are mentioned as examples of this latter category.

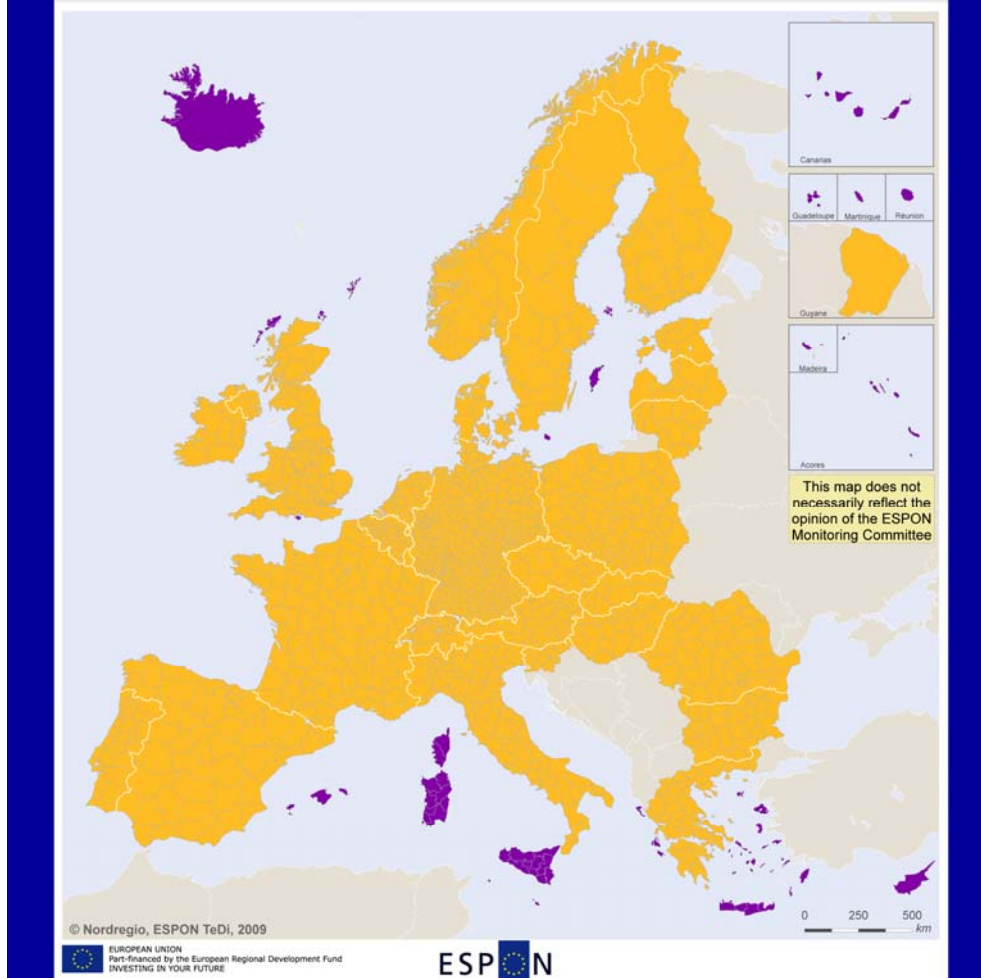
In many of these cases, one observes so-called “double insularity”, i.e. islands that situated in the vicinity of another, larger, island. Double insularity creates additional development challenges and costs, due to the lower access to key services and transport infrastructure. Double insularity is however not considered in the Green Paper delimitation, i.e. an island situated outside the coast of another island. Among the ESPON TeDi case study areas, the main case in this respect is the Maltese island of Gozo, with a population of 31 300¹⁸. Differences in social and economic dynamics and development levels between Malta and Gozo constitute a main territorial development concern for Malta.

A separate type of islands identified by Sanguin is the large polycentric islands, where multiple competing nodes have clearly differentiated functions. Sicily belongs to this category.

Sanguin also highlights the separate challenges of isolated peripheral islands are typically situated on the outskirts of the European continent. The Orkneys, the Shetlands, Linosa and Lampedusa are mentioned as examples of such islands. One could however argue that Malta or Iceland could be mentioned in the same group.

¹⁸ 2007 data

Green paper delimitation of the insular areas

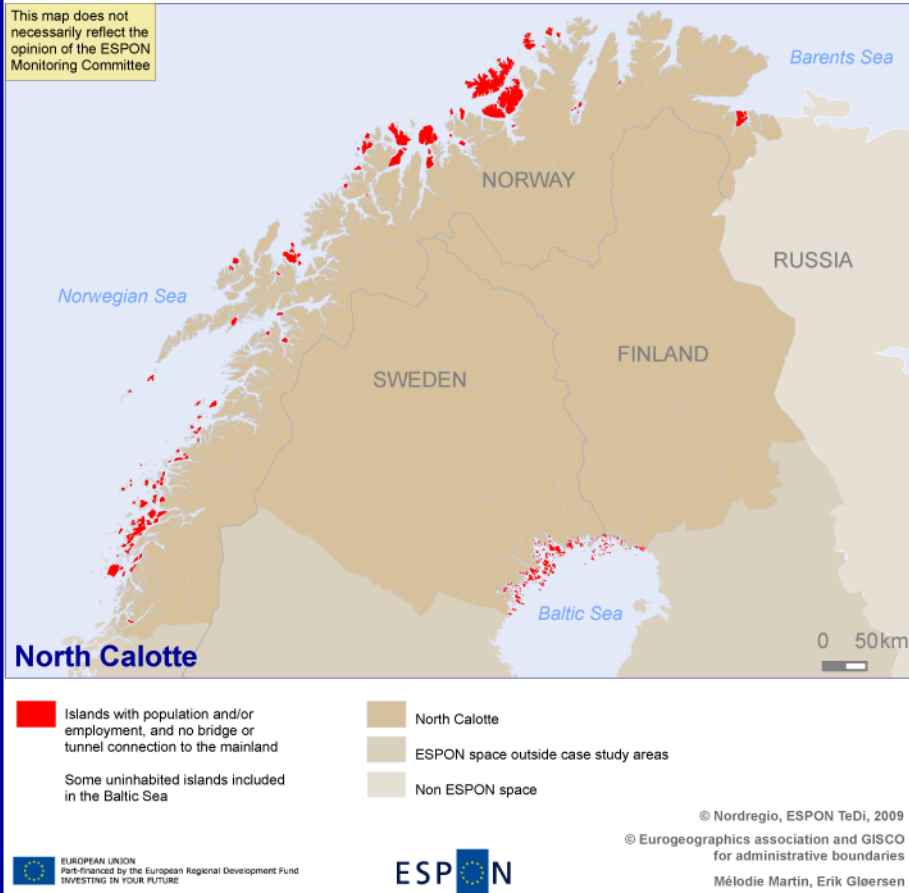


Map 7 Delimitation of insular NUTS 3 regions in the Annex to the Green Paper on Territorial Cohesion

Island regions were initially defined as NUTS3 regions composed completely of one or more islands, an island being defined according to the criteria used in the Eurostat publication "Portrait of the Islands" and in the DG REGIO study on island regions 2003-2004. After the publication of the Green paper, the European Commission announced that it would rather use a definition of island regions based on the criteria specified in Article 52 of the Structural Fund and Cohesion Fund regulation¹⁹. The main difference with the classification used in the Green Paper is the inclusion of Cyprus and Malta. These criteria have been applied in Iceland, Norway, and Switzerland to produce the present map.

¹⁹ Council regulation (EC) No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1260/1999
<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:210:0025:0078:EN:PDF>

Insular areas in the North Calotte



Map 8 Islands in the North Calotte

Considering islands as territories not connected to the mainland with any physical link, but with a fixed population and/or employment opportunities, one can identify a considerable number in the North Calotte. These totalise a population estimated to 14 900 inhabitants along the coast of the Norwegian Sea, and only about 500 inhabitants along the Gulf of Bothnia (2001 data).

The number of inhabited islands in the Gulf of Bothnia is overestimated in the present map, as it corresponds to islands overlapping with 1k1 km grid cells with population.

Islands have some permanent features that make them more exposed to external shocks than other economies (Briguglio, 2003, Cordina, 2004). Among the factors of vulnerability, one can first mention economic openness, i.e. the relative importance of exports and imports in the overall economy. High openness implies a lack of circularity in the economy: the exchange of goods and services among the inhabitants of an island tend to be relatively less developed than in other regions and there is a greater dependence on external trade in final and intermediary consumption. A high dependence on a narrow range of exports is a second factor of vulnerability. In order to be competitive, small island communities need to focus on a limited number of sectors. This however implies that cyclical fluctuations within these key sectors can have a large social impact. The tourism industry and financial services in this regard need to be included in the list of exports islands can focus on. Finally, the reduced scope of local production leads to a higher dependence on strategic imports, e.g. energy and foodstuffs. In this respect, the degree of vulnerability depends on the stability of commercial relationships and the reliability of transports.

Additionally, peripherality is also mentioned as a factor of insular vulnerability. However, while high transportation costs and long distances to main markets are recurring issues in all debates on their social and economic development, the key challenges are often rather about low connectivity and reliability. Distance has indeed not prevented Asian producers from exporting goods to Europe and North-America. The challenge is to operate regular and reliable connections to islands with a low population and a relatively limited economic activity cost-efficiently,

Finally, among the factors of vulnerability, one can mention the difficulty of establishing a system of checks and balance in governance systems. Insofar as islands are smaller and relatively more isolated, the networks of professional and political interaction and of kinship tend to be more closely knit than in other regions. This can be asset in terms of social cohesion, but may also require specific institutional arrangements to preserve plurality and encourage new initiatives.

Sparsely populated areas

Sparse population is a particular type of territorial specificity, insofar as it is not a physical category such as mountains and islands but describes a particular form of settlement structure. Indirectly, it however corresponds to areas with a particularly low agricultural potential, i.e. which have not historically had the possibility of providing a livelihood for a large population. The main current territorial issue is however how this inherited geographical feature may influence regional development perspectives.

In the Annex to the Green Paper on Territorial Diversity, sparsely populated areas are defined as NUTS3 regions with a population density of less than 12.5 inhabitants per square km, with reference to paragraph 30.b of the Guidelines on

national regional aid for 2007-2013 (2006/C 54/08). The corresponding list of regions (Map 9) includes a Nordic areas extending considerably beyond the North Calotte, as it includes most of East Finland, the Swedish inland down to Jämtland, the inland of south-eastern Norway as well as coastal counties including large uninhabited mountain areas. All of Iceland is sparsely populated except Reykjavik, as well as the three NUTS 3 regions of the Scottish highlands and islands, the Spanish inlands regions of Soria, Teruel and Cuency and the Greek region of Evrytania are also characterised as sparse. Additionally, the French outermost region of Guyana also belongs to this list.

The Green Paper applies the same approach of demographic sparsity as that which has prevail since it became an issue of European policy-making with the accession negotiations of Finland, Norway and Sweden. These led to regulations allowing large NUTS 2 regions with a population density of less than 8 inhabitants per km² to benefit from Structural Funds support. Additionally, national and regional investment aid, which is generally forbidden under European competition rules, is allowed in NUTS 2 regions with a population density of less than 12,5 inhabitants per km². In both cases, the delineation of sparse areas can be extended "*adjacent and contiguous smaller areas fulfilling the same population density criterion*". The regulation has not taken into the fact that the way in which borders are drawn has as much effect on population densities as settlement patterns.

Using average regional population densities as a measure of sparsity may furthermore be considered problematic in terms of meaning, as the issue of sparsity is not that there are few persons per land unit. The problem is that the small size of individual localities and the wide distances between them effectively limits the population of functional regions. In other words, sparsity relates to low population stocks in functional regions, and not of population ratios. The population of functional regions is important from a territorial development point of view, as it example largely determines whether:

- labour markets can operate efficiently, with a sufficient number of actors to generate dynamics of offer and demand that may regulate the local economy, and a wide enough scope of employment opportunities to attract in-migrants?
- there enough persons to operate public and private services cost-efficiently? Can services of general interest be delivered to the population without interventions from public authorities?

Functional regions are generally approximated to labour market areas. When such geographical units are used in the statistical analysis and as a basis for decision making, the risk is however that current mobility patterns are allowed to determine the future possibilities of territorial development. One may, in a more prospective perspective, base analyses on normatively defined desirable types of

mobility, e.g. in terms of maximum daily travel time for each individual, of an intensity of exchanges between localities or a promotion of certain modes or axes of transportation rather than others.

To illustrate this type of thinking, Map 10 shows the number of persons within 50 km airline distance from each point across the ESPON study area (Iceland excepted), standardised to the European average. The 50 km airline distance is here considered as a proxy for a possible desirable maximum daily commuting distance. The map in other words shows the total population of the functional context each municipality could consider, based on a political project seeking to maximise mobility in all directions within this maximum range. Such a measure corresponds what one calls a population potential in statistical terms.

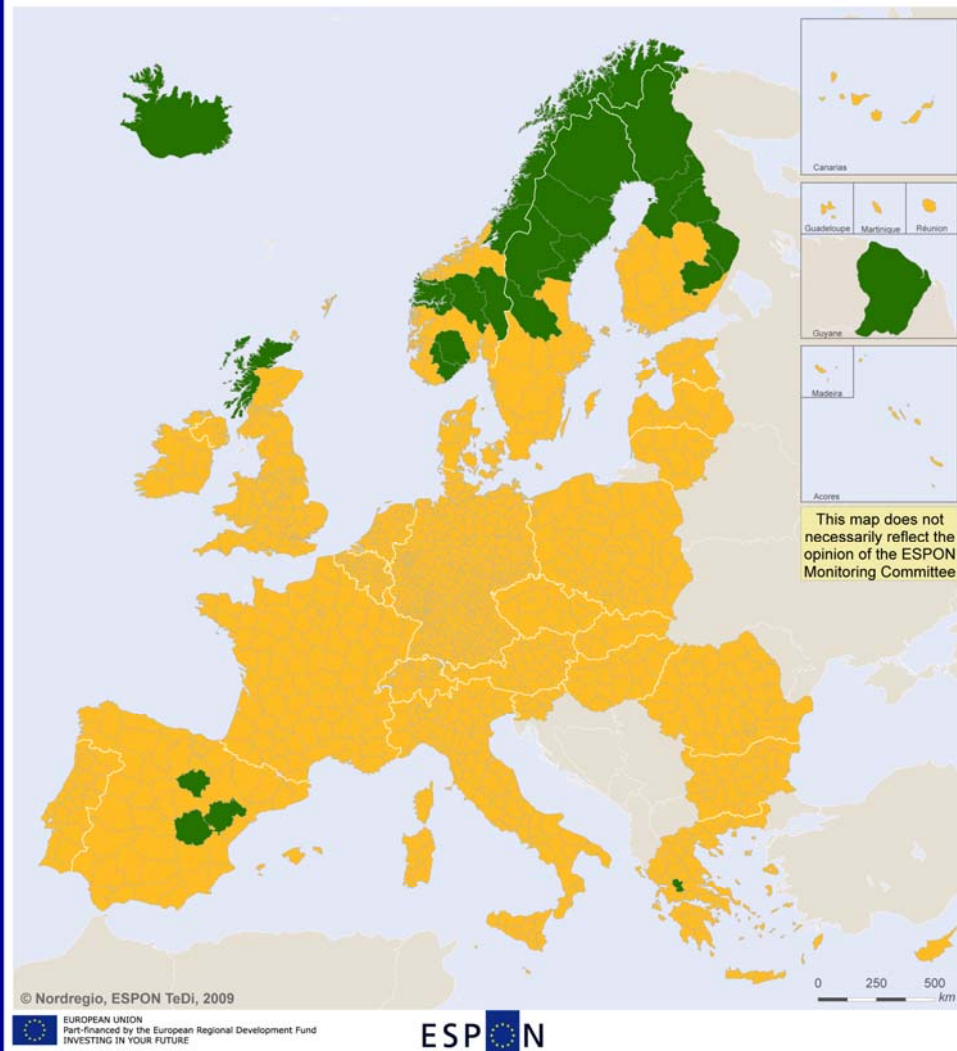
Map 10 also represents the NUTS 3 regions identified as sparsely populated on the basis population densities below 12,5 inh/km² in overlay. This tends to show that the areas with Europe's lowest population potentials are generally well covered by a delimitation based on average regional population densities. The introduction of population potentials is therefore a method to demonstrate the economic and social meaning of sparsity that does not necessarily lead to new types of delimitations. Population potentials however do make it possible to take into account both intra-regional diversity in terms of degrees of sparsity and the effect of neighbouring regions.

A probabilistic use of population potentials has previously been introduced by Claude Grasland²⁰, who uses them as a measure of the probability of interaction between individuals. This type of approaches has also later been used in a more pan-European perspective²¹. In a policy-applied research perspective, one can however usefully replace this "probabilistic" perspective one interaction with a "possibilistic" one: The purpose is to identify the total population that one could encourage to cooperate and integrate functionally from each point in space, given certain normative judgments on the desirable extent of daily mobility. The representation of population potentials is therefore hypothetical rather than descriptive. It is an illustration of how one can use

²⁰ Grasland, Claude (1991) « Potentiel de population, interactions spatiale et frontières : des deux Allemagnes à l'unification » in *L'Espace Géographique*, No. 3, pp. 243-254.

²¹ Boursier-Mougenot, Isidore, Cattan, Nadine, Grasland, Claude et Rozenblat, Céline (1993) « Images de potentiel de population en Europe » in *L'Espace Géographique*, Vol. 4, pp. 333-345.

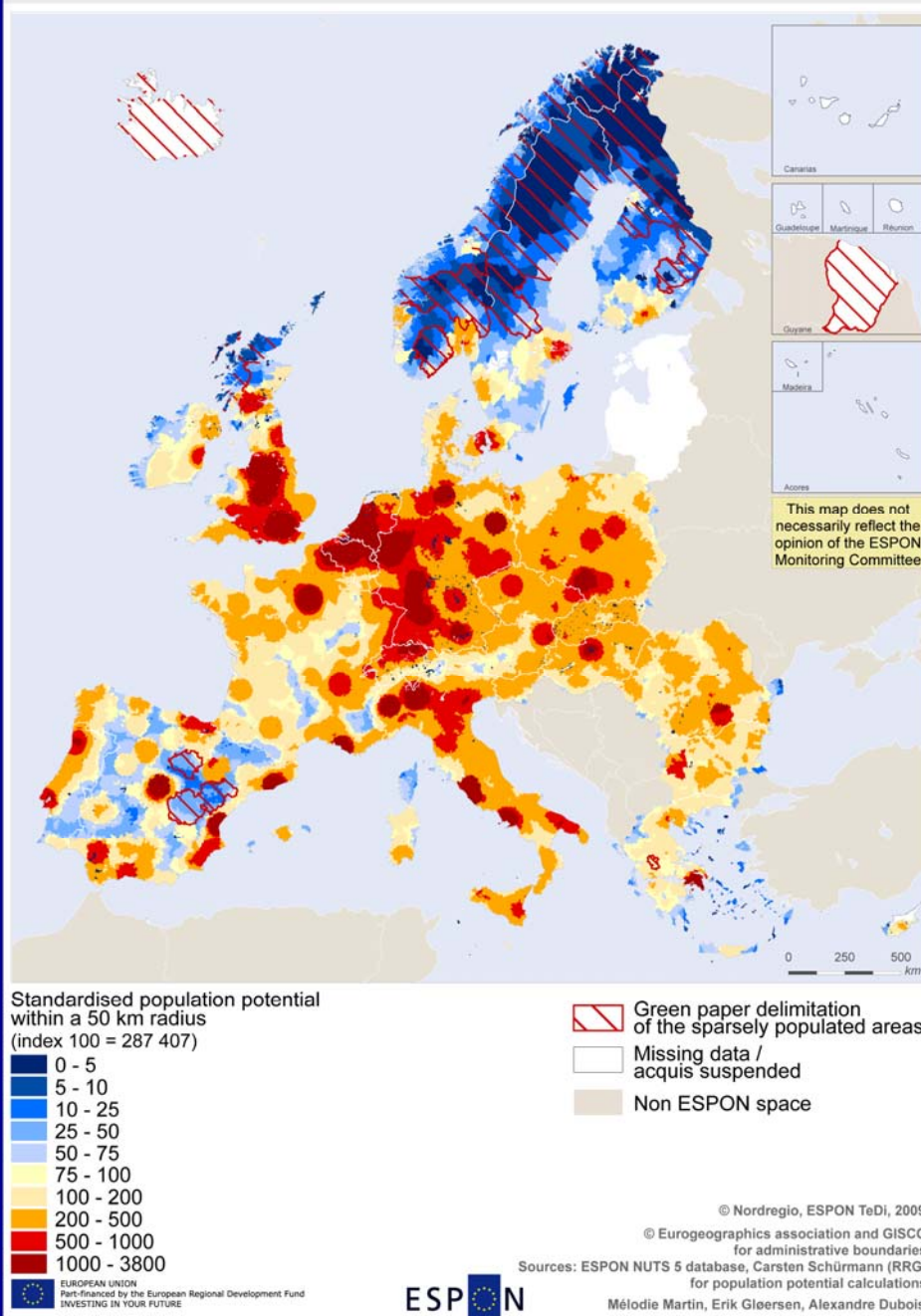
Green paper delimitation of the sparsely populated areas



Map 9 Delimitation of sparsely populated NUTS 3 regions in the Annex to the Green Paper on Territorial Cohesion

Sparsely populated areas are defined as NUTS3 regions with a population density of less than 12.5 inhabitants per square km, with reference to paragraph 30.b of the Guidelines on national regional aid for 2007-2013 (2006/C 54/08). These criteria have been applied in Iceland, Norway, and Switzerland to produce the present map.

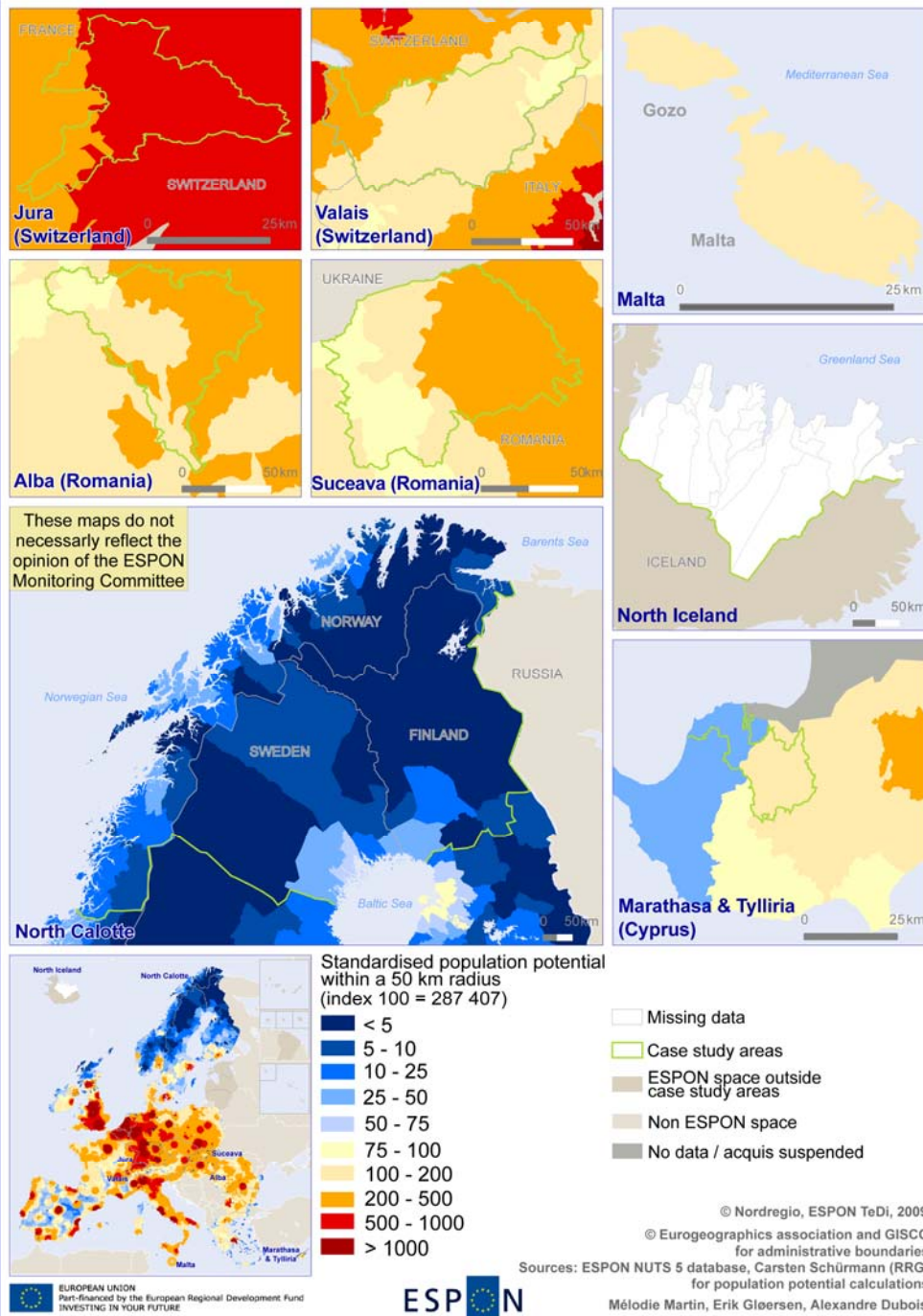
Population potentials and sparsely populated areas



Map 10 Sparsely populated NUTS 3 regions overlaid with population potentials within a 50 km radius

In this map, the Green Paper criterion for the identification of sparsely populated areas (NUTS 3 population density < 12,5 inh/km²) has been applied to Iceland, Norway and Switzerland.

Population potential within a 50 km radius



Map 11 Municipal population populations within 50 km

This representation corresponds to the number of persons to be found within a daily mobility area estimated to 50 km airline distance. It is only meant as an illustration of how one may use quantitative analyses to test how a political project would work out in a territory, rather than only seek to identify existing structures and trends.

quantitative analyses to test how a political project would function in given a territory, rather than only seek to identify existing structures and trends.

Many other types of representations could be envisaged. One could, in particular, replace the airline distance threshold with a maximum travel time calculated on the basis of a transport network model. This would particularly reduce the bias in mountain areas, where the correlation between airline distances and actual accessibility is weaker due to the topography.

With a reservation for such limitations, there are significant advantages with calculations of this type compared to e.g. population density or absolute population numbers. In Map 11, the added value of such a calculation appears with particular clarity for Malta. When approaching Malta in terms of population within daily mobility range, the island displays figures just above average, close to those to be found for example in the Swiss Valais or in Western Alba and Suceava. The situation is therefore quite different than for population density values, for which Maltese values are very high in a European comparative perspective. The highest population within daily mobility range can be found in Swiss Jura, with values more than five times superior to the European average over most of the canton's territory. This fits well with the perception of an area whose main challenge is to position itself in relation to neighbouring urban regions.

A representation such as Map 11 can however only be a starting point for more detailed discussions and analysis, as it neither reflects the orientation and quality of transportation networks nor the effects or cultural, institutional or legal frontiers. Furthermore, there are significant variations in accepted daily mobility distances from region to region. Nonetheless, they do offer a good basis for typologies based on population potentials compared to equally unsatisfactory data on regional and municipal population densities.

c. Statistical challenges in the understanding of settlement patterns in TeDi areas

A main reason for which geographic specificities are of socioeconomic relevance is that they affect the spatial organisation of the population. Settlement patterns are therefore important to understand the nature of the different forms of geographical characteristics. Settlement patterns are also particularly important when it comes to the possibilities of developing energy- and cost-efficient modes of transportation.

While the limitations of regional (NUTS 2 or NUTS 3) population figures when it comes to understanding the spatial organisation of the population have repeatedly been identified, it has often been presumed that that municipal (LAU 2) figures would provide an adequate picture. Admittedly, it is notable that one finds the same range of contrasts between the municipalities of each case study areas as one can observe among regions at the European level. This is illustrated by Map 13, in which the same range of colours/categories can be observed for the pan-

European map in the bottom left corner as for most of the case studies, even if they admittedly appear in different proportions. This fractal type of organisation of European space, with the same type of structures reproduced at different scales, can inspire the organisation of structures aiming at surveying and managing territorial disparities.

It is however important to note that the extent of these contrasts is not fully reflected by municipal figures: Only grid population figures (Map 14) for example make it obvious that the Valais regions is not characterised by a contrast between high and low population density areas, but by a combination of densely populated valleys and a mostly uninhabited highland. The development perspectives and planning challenges are in other words very different from those of Jura, with its rural population spread out on the entire territory. Similarly, while the municipal map of the North Calotte suggest comparable municipal population densities over most of the territory, the grid data shows distinct patterns from country to country: While the Norrbotten (SE) and Lappi (FI) rural population is organised along rivers and transportation axes, it is mostly concentrated in small communities along the coast in Norway, creating different types of challenges, e.g. for accessibility and public service production. Similar data for Romania would have made it possible to identify the very small settlements in the area of Apuseni Mountains in the county of Alba, where several communes comprise more than 30 villages. This settlement pattern creates significant challenges in terms of transport infrastructure and service delivery, making it all the more difficult to integrate individual semi-subsistence agricultural households in economic circuits and to combat poverty.

The European environmental agency has sought to estimate grid population data across Europe by disaggregating municipal population according to CORINE land use types (Map 15). The underlying hypothesis is that one can associate a certain level of population density to each of land use type, identified through remote sensing. The comparison of Map 15 and Map 14 however illustrates the extensive differences between register-based and estimated grid population data, e.g. by consider the contrasts along the French-Swiss and French-Italian borders. This shows that the estimated data suggest more outspread population patterns than the ones one may observe when register-based data are available. The extent of this bias in each area is however difficult to assess, as most ESPON countries do not have register-based population data. Building a systematic knowledge basis on settlement patterns throughout Europe is therefore a challenge yet to be overcome. This would allow a better informed dialogue on the diverse forms of territorial challenges related to the spatial organisation of the population across Europe.

In countries where data on individual agglomeration (i.e. built-up areas with a maximum distance between contiguous houses) are available, it is possible to construct local or regional indicators synthesising the way in the population

organised spatially. In Map 16, such a method has been applied for the North Calotte and North Iceland, classifying municipalities according to the category of settlement-sizes in which the largest proportion of its population lives. This makes it possible to differentiate sparsely populated areas with few large towns from those with numerous small settlements.

Another method to analyse settlement structures can be based on access to urban nodes, considering that these are central place with a concentration of services, public and private decision making functions and infrastructures allowing for a high virtual and physical connectivity. This analytical perspective was already developed for the entire European territory in the ESPON 2006 project on transport trends (See Map 12). The urban nodes that were thought as structuring the European space were the agglomerations (FUAs) of more than 200,000 inhabitants. Although using the same threshold does not make sense for the investigation of the access to urban nodes in our TeDi study, a similar approach could be developed. Map 17 represents areas within 45 minute travel time of the centres of Functional Urban Areas identified as part of the ESPON 1.1.1 project. This project only considered FUAs of more than 20 000 inhabitants²² - only the central nodes of such areas therefore appear on the map. From these central nodes, the area within reach in 45 minutes by road was delimited²³. The network model used for this purpose included trunk roads mainly - some areas accessible with minor roads may therefore not appear. The 45 minute threshold was used as a travel time often referred to in the literature as a typical maximal daily commuting distance for most persons.

Based on this representation, one may identify distinct situations in each case study area: In the Maltese islands, contrary to the population potential map (Map 11), the difference between Malta and Gozo is quite obvious. All of Malta is within daily commuting distance from Valletta, which explains why the island as a whole was identified as one FUA. This FUA however excludes Gozo. In Jura, the only FUA centres that can be identified is Delémont, with only just over 20,000 inhabitants²⁴. However, there is access to numerous external centres of FUAs of major significance. The main planning challenge therefore lies in the positioning of predominantly rural region in close proximity to major urban poles. Valais has a series of smaller FUA centres, but only its westernmost parts are within commuting distance of a major agglomeration. Regional development will therefore be organised around these minor poles, whose specificity is to be organised along a linear spatial pattern imposed by the topography. Alba and Suceava have similar patterns, with only parts of the regional territory within

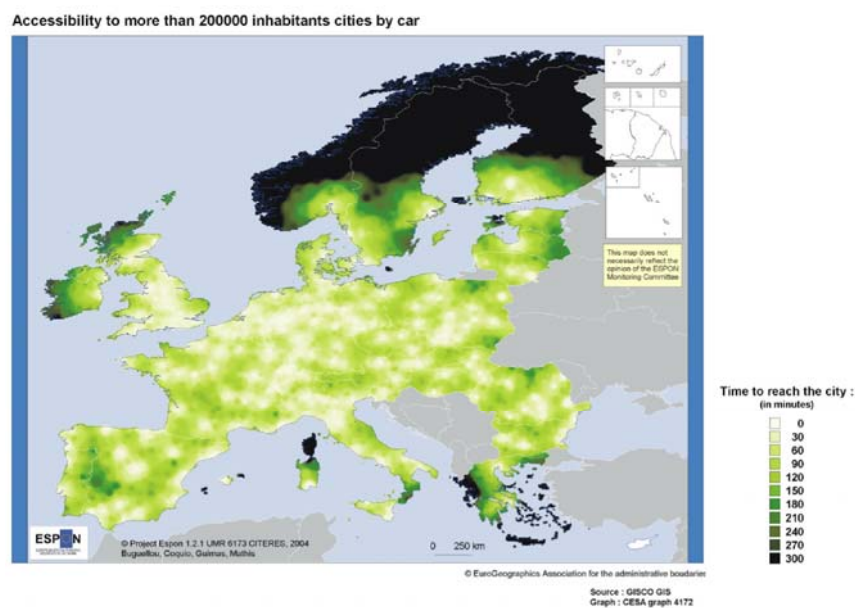
²² A Functional Urban Area generally corresponds to a labour market area. The threshold therefore correspond to the labour market area as a whole, and not to the built-up area of its centre.

²³ The isochrones were delimited by Carsten Schürmann (RRG)

²⁴ The Délemont FUA was mistakenly omitted by the ESPON 1.1.1 project, but has been reintegrated for the purpose of the present project.

commuting distance a medium-sized main node, and a smaller accessibility to external centres. Part of the specificity of Marathasa and Tylliria derives from being beyond commuting distance from Nicosia, Limassol and Paphos.

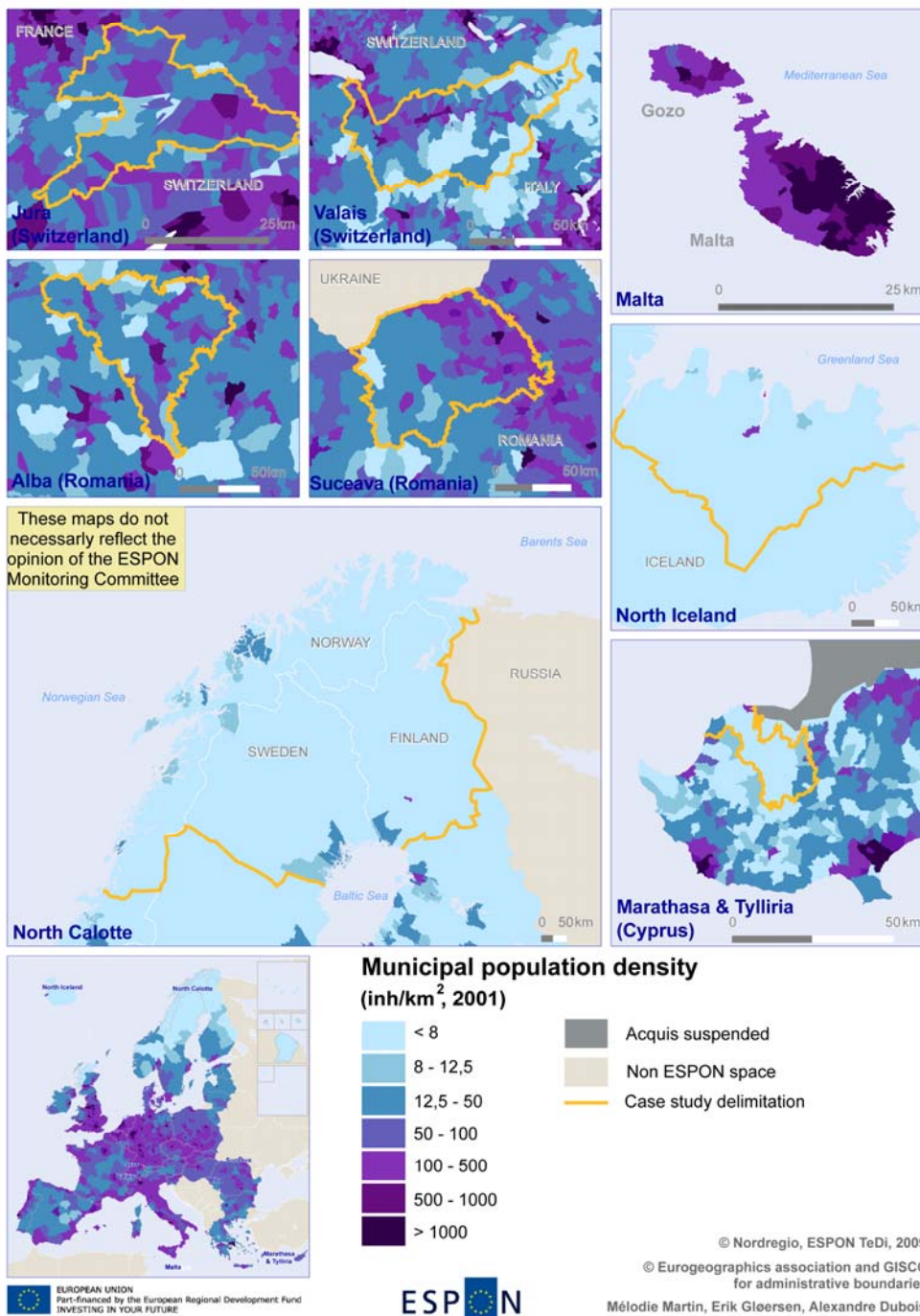
Finally, in the North Calotte, the delimitation of 45 minute isochrones from the main urban centres make the difference is scale compared to the previously described case studies quite obvious: only a minor proportion of the study area is within commuting distance of FUA centres. We have however in other studies demonstrated that the 20 000 inhabitants threshold is not adapted in the North Calotte. The observation of population changes at settlement level rather demonstrates that access to towns down to 10 000 and sometimes 5 000 inhabitants can be sufficient to generate a stable or positive demographic trend. In other areas, however, the lack of access to significant urban centres becomes a major obstacle to a socially and economically sustainable development. Equally, in north Iceland, one would need to draw a 45 minute isochrones around the main urban node of Akureyri to reflect the area with a satisfactory access to urban areas.



Map 12 Access to large urban cores

TeDi regions show different preconditions when it comes to their proximity to large urban centres of more than 200,000 inhabitants. No data were available for Cyprus and for the Outermost regions for this calculation.

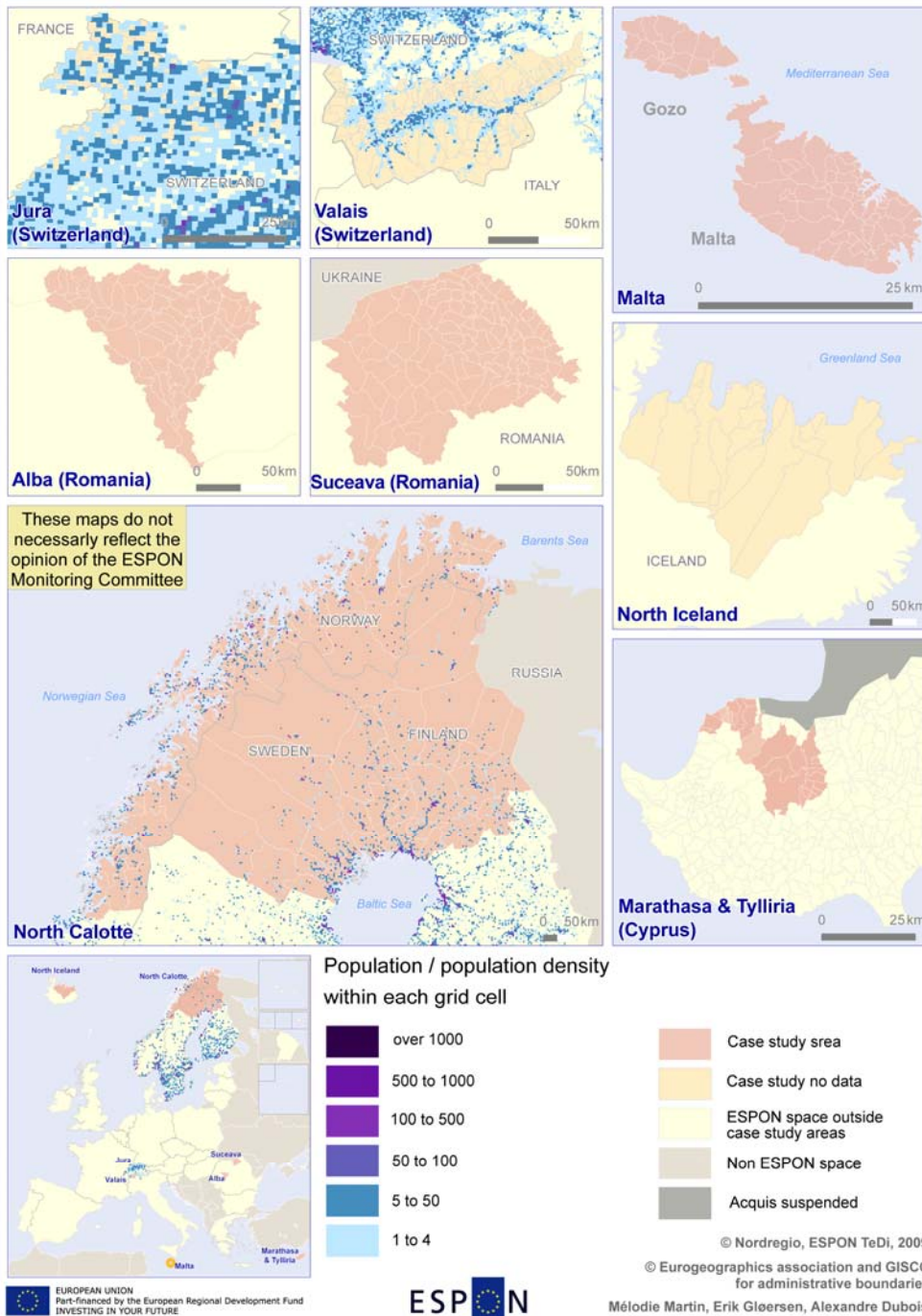
Disparate and internally constrained case studies



Map 13 Municipal population densities in TeDi case study areas compared to European NUTS 3 values

Most case study areas display the same range of municipal values as those observed at NUTS 3 level for Europe.

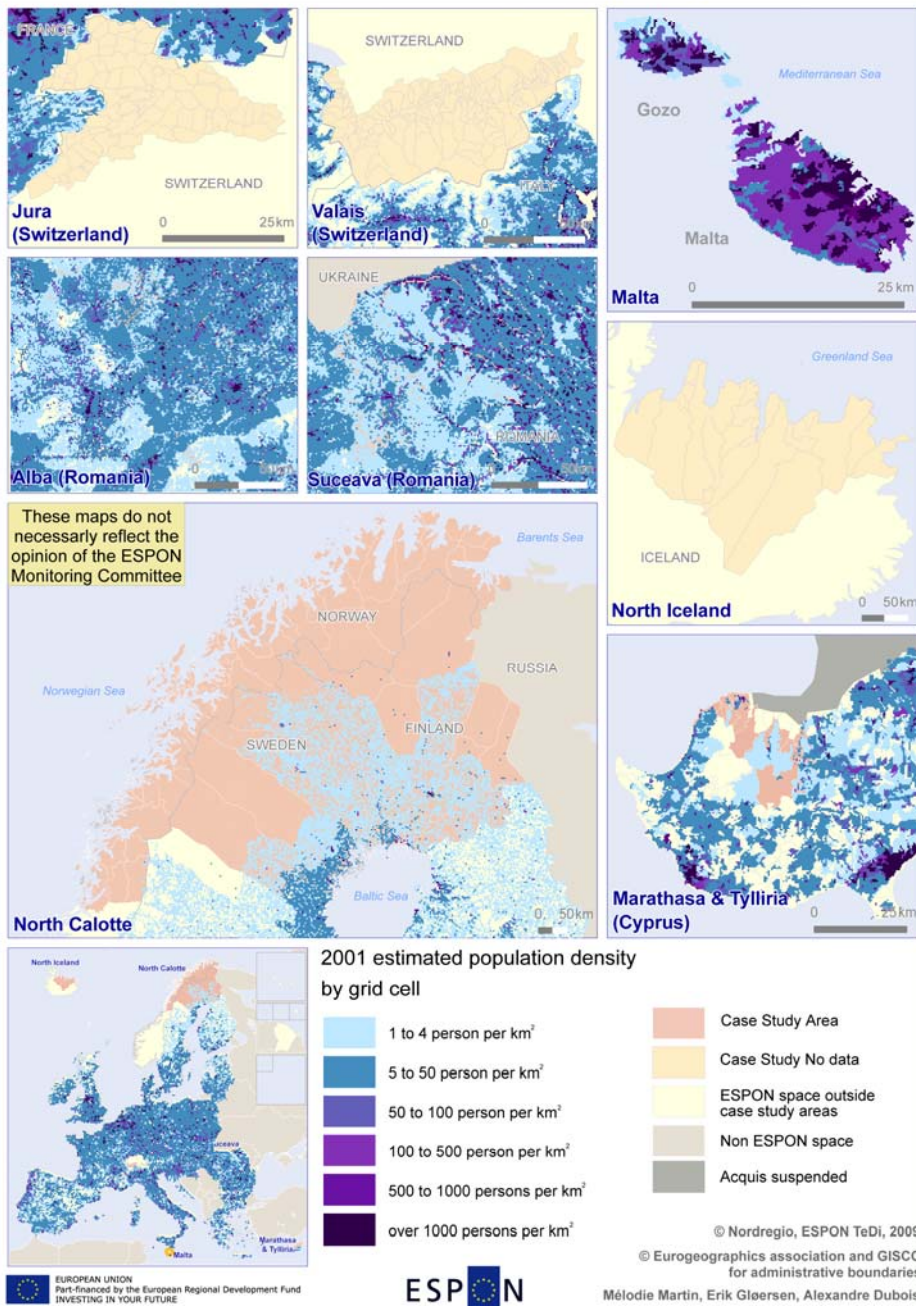
National register based grid data available in the Nordic countries and in Switzerland



Map 14 Register-based grid population

Register-based grid populations are only available in a minority of countries. They make it possible to observe significant differences in settlement patterns between municipalities with similar population densities..

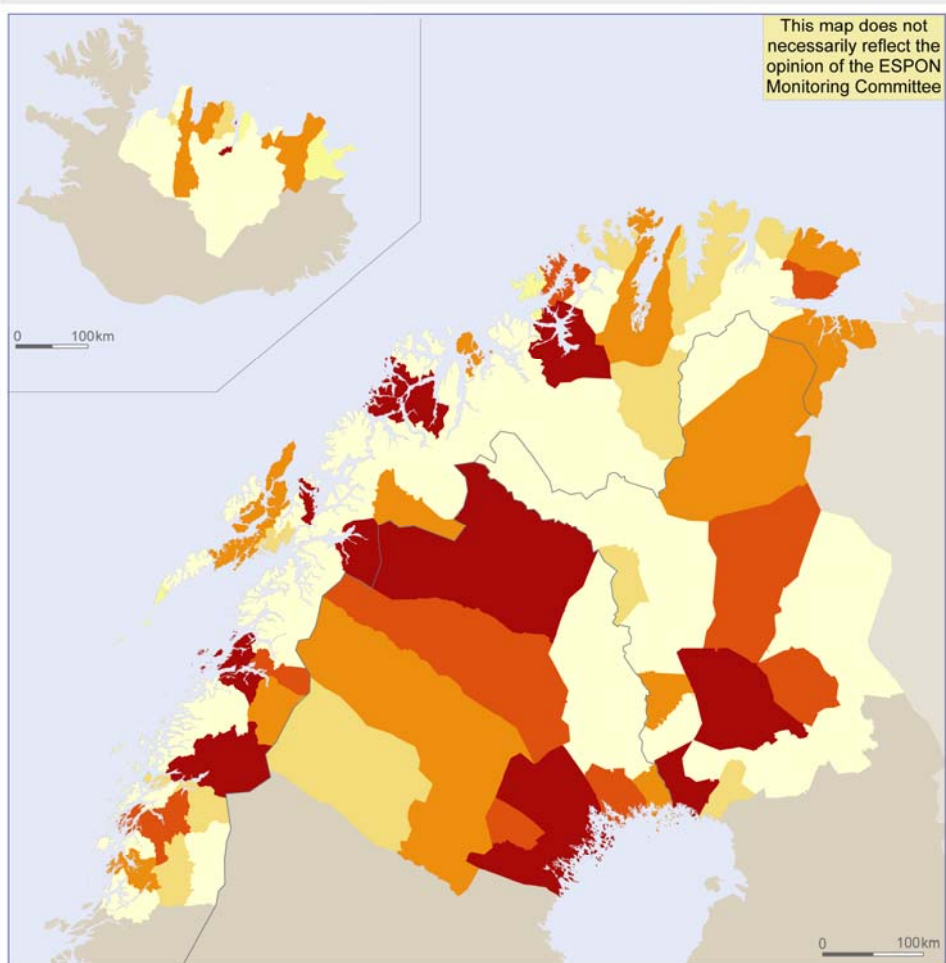
Municipal population figures disaggregated according to Corine land cover 2000 (EEA)



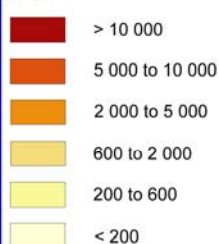
Map 15 Estimated grid population: Disaggregation of NUTS 5 municipal population according to land use zones

One so called estimated grid population figures are in fact estimated population densities per continuous land use area. There are significant differences these estimated and the register based figures, as illustrated here in the North Calotte (see Map 14). CORINE 2000 data for Switzerland were not yet available when this map was produced.

Organisation of the population in the North Calotte and Iceland



Size of settlement in which the largest proportion of inhabitants live



ESPON space outside case study areas
 Non ESPON space

North Calotte: 2005, Iceland: 2006

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© Eurogeographics association and GISCO for administrative boundaries
 Sources: national statistical institutes

Mélodie Martin, Erik Gleersen, Alexandre Dubois

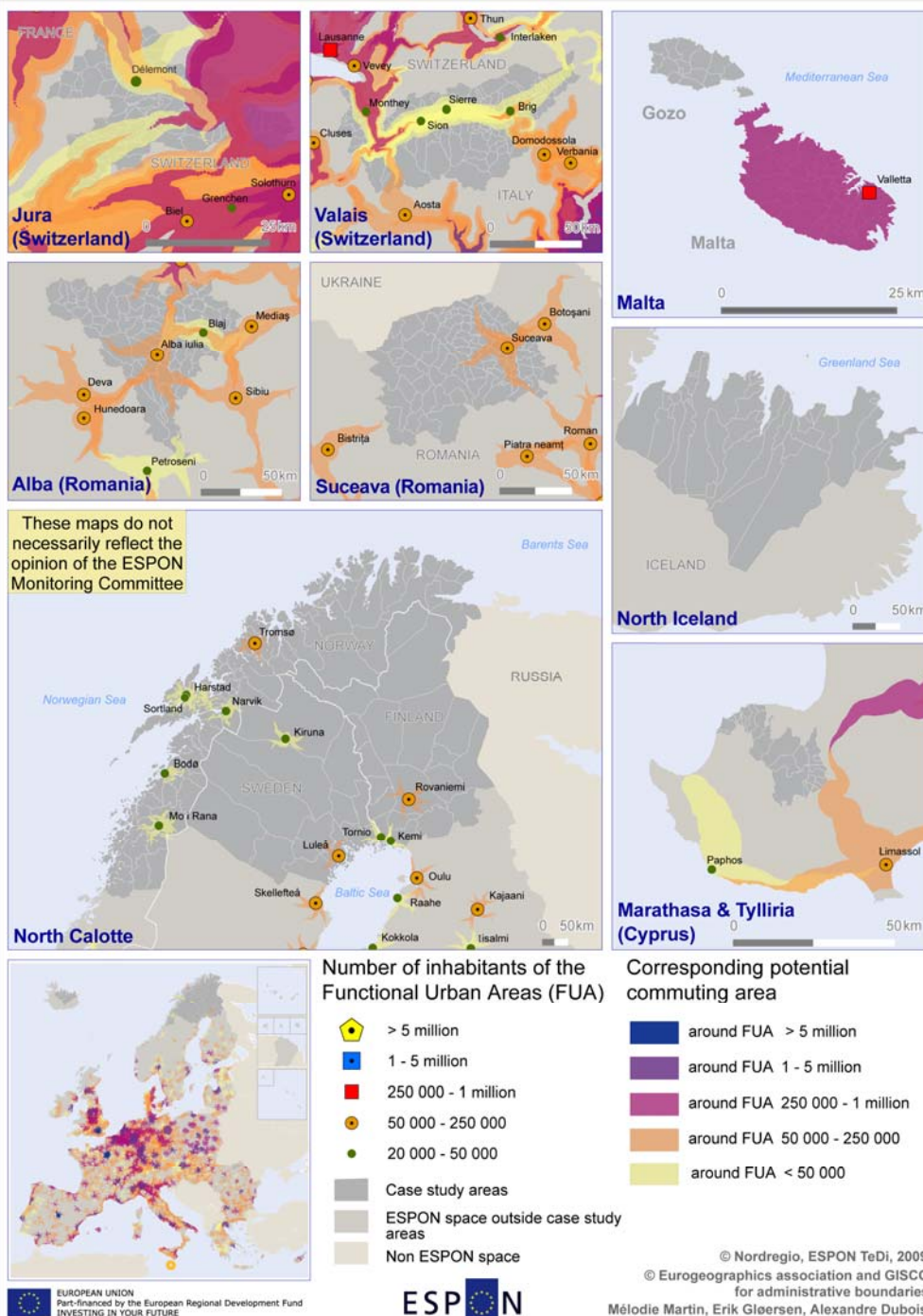
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Map 16 Predominant size of settlements by municipality

One can construct local or regional indicators synthesising settlement structures. Here, the colour of each municipality corresponds to the category of settlement-sizes in which the largest proportion of its population lives. This makes it possible to differentiate sparsely populated areas with few large towns from those with numerous small settlements.

Access to urban nodes



Map 17 Access to urban nodes

Access to urban nodes is a key parameter for local development. The ESPON TeDi case study areas display a wide diversity of situations in this respect. The Délemont isochrone has been added manually for illustrative purposes.

d. Land use

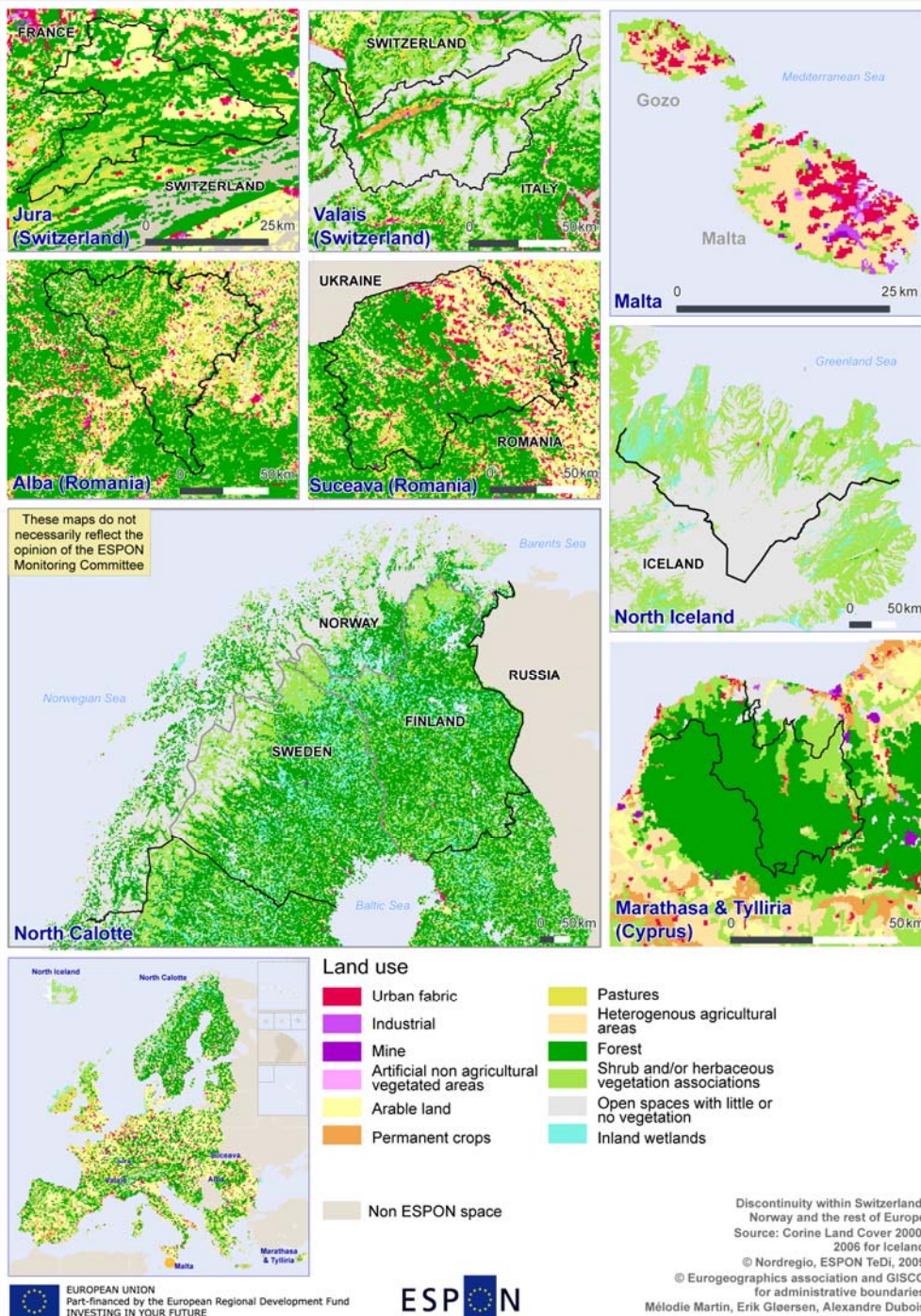
Considering that physical features play a major role in the definition and delimitation of TeDi areas, one could hypothesise that land use patterns would help understanding their development opportunities and challenges. The TPG therefore sought to collect data on land, in an attempt to identify different sub-categories of TeDi areas based on the relative extent of different types of agriculture, forests and open landscapes. We also sought to collect land use data for different years, as for example to reduction of agricultural land and the degradation of unexploited pastures are often described issues.

However, it proved surprisingly difficult to collect comparable data from the ESPON TeDi case studies to assess the relative extents dedicated to specific types of agricultural and forestry related practices. We therefore have to base out analyses of land use patterns on CORINE landcover data (Map 18). This first shows the importance of forested areas in the TeDi case study areas, covering most of the Finnish and Swedish components of the North Calotte and of the Marathasa valley in Cyprus, over half of Jura, Alba and Suceava regions and extensive parts of the Valais valleys. The extent of wetlands are however a specificity of North Calotte forest areas, while the higher degree of intertwining of built up and agricultural land in mountain areas characterise Alba and Suceava. The different characteristics of the forest areas, and their respective economic potential, should therefore be the object of further enquiries.

Malta is in an exceptional position with built-up areas and arable land making up the major part of the land use, both in Malta and Gozo. The nature of the arable lands, the types of exploitation and the evolution of the agricultural sector has been particularly focused upon in the data collection. The objective is to assess the relative importance of these types of activities in TeDi areas, and the possible existence of unused potentials, e.g. in a context of increased demand for bio-energy or for different types of raw materials.

At the other end of the scale, highland parts of the North Calotte and of the Valais have either shrub or little to no vegetation, land use types which are also predominant in North Iceland. If they are barren from an agricultural point of such, these types of land use can be a major asset for tourism, especially when the climatic conditions make winter tourism possible and as sources of water and hydro-electric energy.

Land use in the case study areas



Map 18 Land use in ESPON TeDi case study areas

e. Conclusion: the limited comparability of the case study areas

Two main conclusions can be drawn from the overview of physical characteristics presented in the present section. First, far from being a technical concern, issues of conceptualisation and delimitation determine the understanding of territorial diversity in Europe. Considering mountains as a physical category of spaces that may be inhabited or not, or only insofar as it constitutes a context of living for a certain proportion of the population, leads to very different types of analyses. Island regions identified at the NUTS 3 level is not the same object of study as insular territories of coastal regions. Sparsity will not be approached in the same way if it approached as a weak ratio of population per land unit, or as a low number of persons in (actual or potential) functional regions. The case studies will help further exploring the importance of these distinctions.

This analysis is facilitated by the diversity of scales in the case study areas, which have been delimited with very different types of rationales, from a sovereign nation state (Malta) and a transnational groupings of regions (North Calotte), federal Swiss Cantons with a high degree of autonomy, regions of an only partially decentralised country such as Romania, the region of North Iceland which has no specific administrative status and down to subregional selection of municipalities corresponding to a cultural region (Marathasa and Tylliria). This diversity is significant, as the delimitation of case study areas has been made in interaction with stakeholders and therefore reflects differences in the political approaches of territorial diversity from country to country.

This however also means that the comparability between the case study areas is limited. This second main conclusion from this section implies that the project cannot seek to benchmark the performance levels of the case study areas, but will merely seek to gain a more in depth understanding of their functioning, to identify their different opportunities of economic growth, as well as the perspectives of promoting a socially balanced and ecologically harmonious development

This implies understanding the interactions between physical specificities and certain key socio-economic features. Current living standards are an important element in this respect, as well as institutional structures and the quality of social and economic networks. Additionally, the extent of natural resources and the capacity to develop an exploitation of these resources that benefits the local economies need to be taken into account. More generally, one may consider that geographic specificities only become sources of opportunities or obstacles to development in interaction with a given economic, social and institutional framework, and not taken in isolation and mechanically.

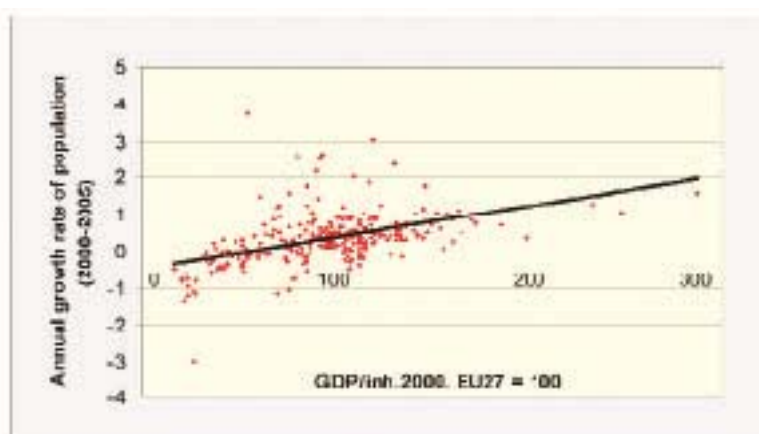
Considering that these aspects should be integrated in a general typology of specificities however leads to a traditional pitfall of regional geography. By seeking to integrate the wide range of parameters determining regional performance, one

emphasizes the uniqueness of each area and loses sight of principles that could guide a European or national territorial policy. By way of consequence, the heuristic value of the classification decreases. The objective however cannot be to deny the diversity of TeDi areas, but to incorporate it in the analysis in view of establishing a meaningful basis for territorial policies. The present study therefore uses the quantitative analyses in this perspective, as additional background for the understanding of social and economic processes linked to geographic specificities rather than as indicators of performance.

3. Human resources in territories with geographic specificities: more than just people, a labour-market issue

Human resources are an important part of a region's territorial capital. While it is not unusual to see a correlation between the two trends, i.e. regions witnessing a steady economic growth are also increasing their population, it is hardly possible to identify a causal link between the two phenomena. In general in Europe, two hypotheses can be confronted. On the one hand, economic growth can stimulate in-migration by increased labour demand and higher general living standards. On the other hand, demographic growth in central, urban areas may accentuate economies and agglomeration and therefore stimulate economic growth. This latter hypothesis is for example a central element in the type of New Economic Geography thinking presented in the Introduction.

While it is difficult to distinguish the relative importance of each of these causal processes, there is strong evidence on the existence of a positive correlation between GDP/capita levels and demographic growth at the regional level. Indeed, one of the conclusions of the study on shrinking regions commissioned by the European Parliament in 2007-08 is that there is a positive correlation between the level of socio-economic performance and the recent demographic trends (UMS RIATE et al., 2008) (see Figure 2). Nevertheless, the study insists on the fact that such a correlation "*between demographic change and wealth distribution at regional level is not stable in time and space*" (UMS RIATE et al., 2008). For instance, the correlation, if strong when considering all European regions, is less obvious if one considers regions of EU15 and of the New member States separately.



Source: UMS RIATE et al., 2008

Figure 2 Correlation between demographic trend and GDP growth

Population decline is on the other hand the consequence of several factors: strong out-migration, insufficient in-migration, low fertility and low birth rate, high mortality rates or a combination of these factors. Moreover, net natural change is not only determined by longevity and other quality of life-related factors, but is also connected to the age structure in the region. Measures of natural change are also affected by so-called "cohort effects", reflecting the delayed impact of past events without necessarily providing evidence on the current demographic dynamics of an area. Furthermore, a low birth rate may be due to a lower than average number of women in age of having a child in that region, but also due to lower propensity of women of childbearing age to give birth (i.e. low fertility rate).

Clearly, it would be too simplistic to couple demographic trends with values or level of socio-economic performance of a region directly. Population shrinking, or for that matter population growth, may have multiple facets and origins.. The present chapter proposes a model on how to approach these dynamics in the TeDi areas, providing a basis for the assessment of on-going demographic processes in the case study areas and the design of adapted policy responses.

a. Integrating demographic components in a regional labour-market model

The ESPON TeDi project aims at identifying each region's development opportunities and comparative advantage in the Europe setting and providing a framework for enhanced dialogue between, on the one hand, European policymakers, having to deal with overarching EU policy issues (Territorial Cohesion, Lisbon Agenda...), and, on the other hand, national and regional stakeholders having to deal with 'real life', concrete policy issues.

As for human resources, the TPG has made the choice not to provide an extensive overview of demographic trends, but rather to focus on the link between the observed demographic trends and their implications for the functioning of the regional labour-market. To make this claim more concrete, we could argue that regional population decline may have very different impacts on the labour-market depending on the nature of the phenomenon: it will be much different to handle this decline if all strata of the population are reduced in the same proportion (harmonious shrinking?) or if the decline is due to the decline of a particular age category (for instance young female adults).

The goal of this chapter is to provide an analytical framework that enables to synthesize the various demographic components into a model of the regional population and interpret how it affects the functioning of the regional labour-market. By using this model we will be able to (1) better highlight the differences in terms of demographic/labour-market processes in our 8 TeDi regions and (2) recompose the combined impact of these trends for each of the regional labour-

markets and how it may affect development opportunities connected to human resources.

Using the concept of transitional labour-markets to understand the functioning of small scale economies

As a framework for reflection, the TPG suggests a general model on the links between demographic and labour-market data is complicated (0). This model provides a first simplified representation of the relations between the different stocks of people belonging to the labour market (e.g. number of employed male, number of unemployed persons, number of persons in age of working...), and the general population divided by gender and age groups.

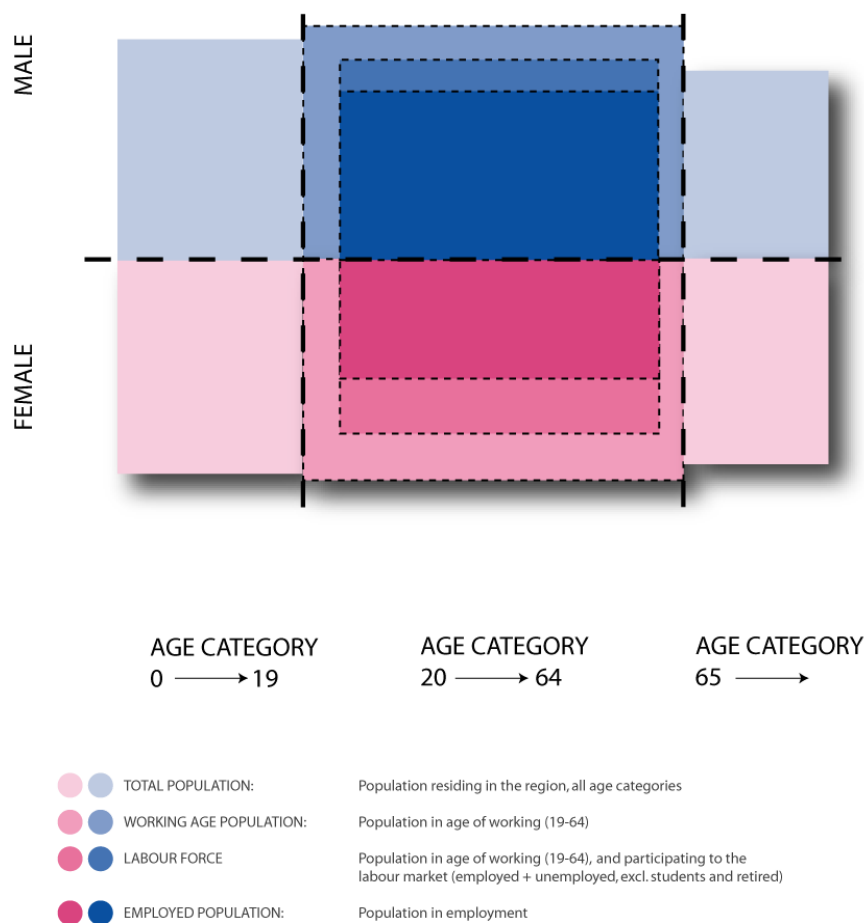
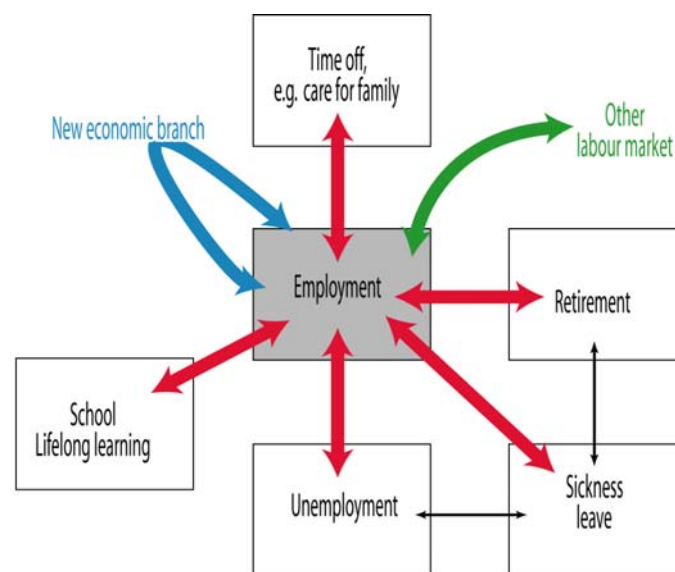


Figure 3 Graphic model for the synthesis of demographic and labour market related dynamics

Different types of flows occur within this model. The first and maybe most obvious ones are the longitudinal flows, as different cohorts succeed each other in each age category. Depending on the propensity to acquire higher education and young age unemployment the category “employed population” will comprise a larger or smaller proportion of the your working age population. Similarly, movement out of the employed population to retirement will depend on the general age of retirement and the propensity to go into pre-retirement.

The second category of flows are the *transversal* ones, which correspond to movements between different forms of ‘employment’ or ‘non-employment’ (Gloersen et al. 2009). These types of flows are shown in Figure 4. Movements between employment and different forms of non-employment (registered unemployment, sickness leave, retirement, continued education, time off) are shown as well as movements between economic branches. Evidence from Nordic countries suggests that these movements “to employment” on average amount to 20 to 25% of the total employed population in each labour market area, including 8 to 10% movements between economic branches (Person, 2004).



After Günther Schmid (1999) and Lars-Olof Persson (2005)

Figure 4 The transitional labour market

Finally, Figure 4 also shows the last category of flows corresponding to geographic movements in and out of other labour market areas, either within within the same country or to/from abroad. Here it is important to note that in-commuting beyond labour market boundaries corresponds to an in-movement; inversely commuting out of the labour market area corresponds to an out-movement.

The multiple and relative importance of these flows have led economists to identify so-called *transitional labour market areas*. At all moments, the movements

described above contribute to the equilibrium of the labour market. This helps understanding some of the difficulties of small and relatively labour market areas to be found in many TeDi areas where the low population numbers makes the management of these flows more difficult. This provides a background for the general analysis of demographic trends and of their significance for economic development perspectives in TeDi areas.

b. A synthesis of demographic trends in TeDi regions

Demographic trends may have both *direct* and *indirect* impacts on the structure of the regional labour-market and, in fine, the potential for regions to regenerate their human resources, depending on the category of the population that the trends affect most.

For instance, the out-migration of young female adults, often well-educated, from the sparsely populated areas of the North Calotte region is a direct impact as it reduces the pool of human resources in the region of an important part of its potential labour force, if not quantitatively at least qualitatively.

On the other hand, a low fertility and birth rates in a region will probably cause a negative natural change which will not enable the region to perpetuate a labour-market of the same size without appealing to external flows (in-migration, immigration).

Consequently, picturing the main demographic trends in the TeDi regions is already a first step to understand the present and future challenges of the regions when it comes to labour-market and human resources.

The thematic findings of the ESPON 2006 2.4.2 project regarding demography provide a rough description of the state of the human capital in European regions (at NUTS 2 level). The results, taking into account ageing, reproduction potential and population growth indicators, are displayed in Map 19. At NUTS 2 level, it appears that TeDi regions are deemed to belong to the categories of regions that score above or strongly above the European average. Alba in Romania is the only case study area that does not belong to these categories.

Following up on the work of the ESPON 2006 programme on demography, the results of ESPON 2013 DEMIFER, provide a more recent overview of regional demographic context (at NUTS 3 level) of TeDi regions. Map 20 on the total population change between the years 2000 and 2007 shows that the demographic context for TeDi regions differs strongly. Population change in Cyprus, Malta and Iceland has been strongly positive since the turn of the century. For the North Calotte, the total population has overall slightly decreased in most of its parts, with the exception of Finnish Lapland here it has strongly decreased, and Norwegian Troms, where it has slightly increased. In Romania, whereas most of the country

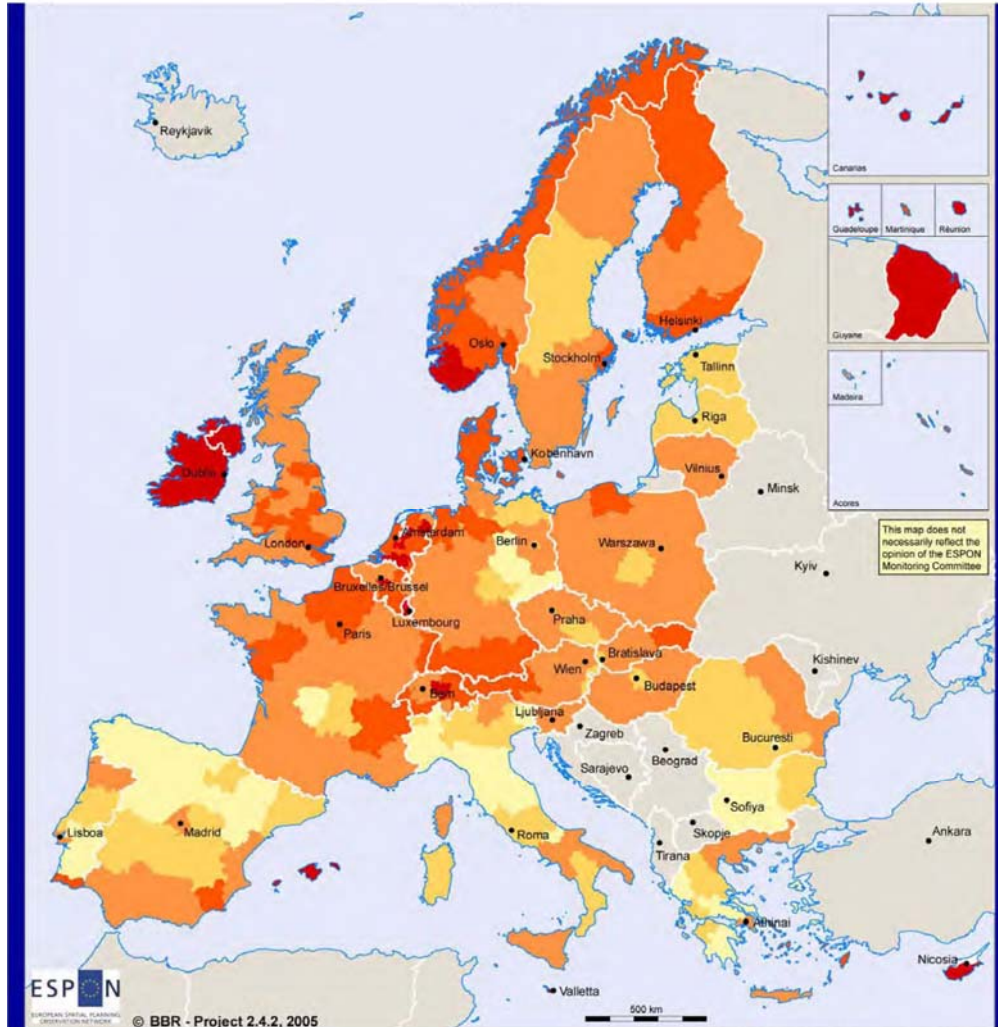
(except for the capital region) is depopulating, the context for our 2 Romanian TeDi regions, Suceava and Alba, is different: while Suceava has witnessed a mild increase, Alba has seen its total population mildly decrease over the same period of time.

The question is however whether any of this evidence at the NUTS 2 and NUTS 3 levels adequately reflects the demographic challenges and opportunities of areas characterised by geographic specificities. One can fear that the results obtained at these scales may be due to the demographic dynamics of a few regional centres only that statistically dominant the results for the whole region. In that sense, a more detailed spatial analysis of the demographic trends within the TeDi regions enable to confirm or infirm that hypothesis. Yet, if total population change provides a broad picture, it is necessary to have a closer look at the spatial distribution of these trends (internal polarization or homogenous trend) and at the relative contributions of different population categories (working age population, young adults, elderly...).

Municipal (LAU 2) data collected for each of the 8 study areas makes it possible to provide complementary evidence at a more narrow scale. The map of the total population change for (approximately) the same period of time as for Map 20 at the municipal level in TeDi regions shows that these demographic processes affect directly different parts of the regions (Map 21).

For instance, it reveals that the increase in total population in the Troms region noticed earlier is mainly due to the population growth occurring in the main regional centre, the city of Tromsø, while almost all other municipalities have a total population that has decreased or, at best, been stable during that period. In the same manner, the city of Akureyri concentrates the population growth of the North-East region of Iceland, while other municipalities are either stagnating or decreasing in population size. The polarisation processes highlighted by the Nordic cases confirm that regional demographic processes, whether it is population growth or shrinking, may affect the internal territorial balance of the region.

Regional classification of Europe: Demography



Degree of population profile challenges as an aggregate of 3 indicators:

- Ageing (Share of population in the age over 65, in %) -
- Reproduction potential (20-29 years in 2020 per 20-29 years in 2000) +
- Population growth (Change 1995-2002, in %) +

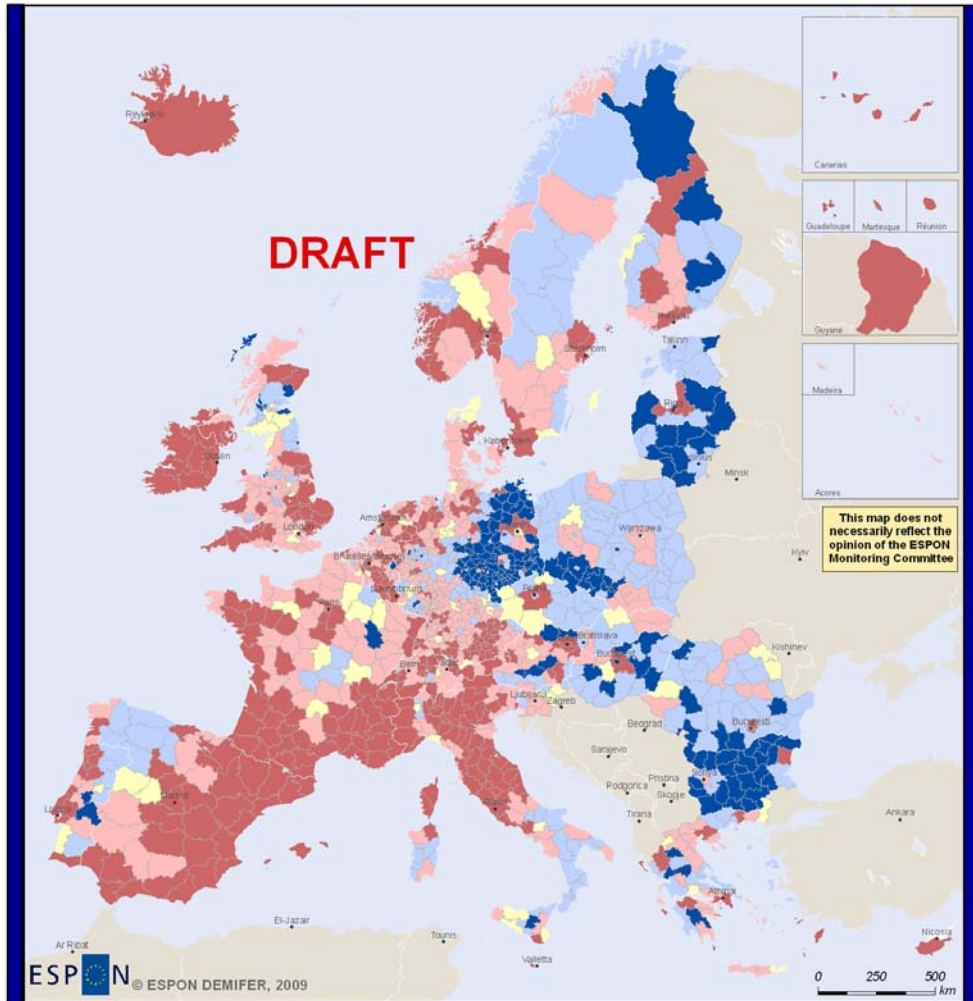
- Below average
- Moderately below average
- Average
- Moderately above average
- Above average

© EuroGeographics Association for administrative boundaries
Regional level: NUTS 2
Origin of data: ESPON 1.1.4 ITPS,
ESPON 2.4.2 BBR, own calculations
Cyprus: data for government controlled areas only
Source: ESPON database

Standardised based on the European mean value

Map 19 Regional Classification of Europe: Demography (NUTS 2)

At NUTS 2 level, the population profile of the TeDi regions can be deemed to be above the European average (Cyprus, Malta, North Finland, North Norway, Valais) or around the average (North Sweden, Jura and Suceava). Yet, this reflects more the situation of few regional urban centres than the whole region.



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Total population change

Annual average change per 1000 inhabitants, in 2000-2007



Source: ESPON Database 2013

CH & DEE0 2001-2006;
ES53 & ES70 on NUTS2 level
PL partly on NUTS2 level

Source: ESPON DEMIFER

Map 20 Total population change between 2000 and 2007 (NUTS 3)

At NUTS 3 level, recent demographic trends for ESPON TeDi regions range from strong growth (Cyprus, Malta and Iceland) to strong decline (Finnish Lapland). The most relevant demographic trends in these areas from a territorial policy point of view however occur at the sub-regional scale.

The situation in the two Swiss regions, Valais and Jura, also shows a wide disparity in population change between regional municipalities. Yet, the growing municipalities are more numerous, and are not limited to the largest municipalities alone.

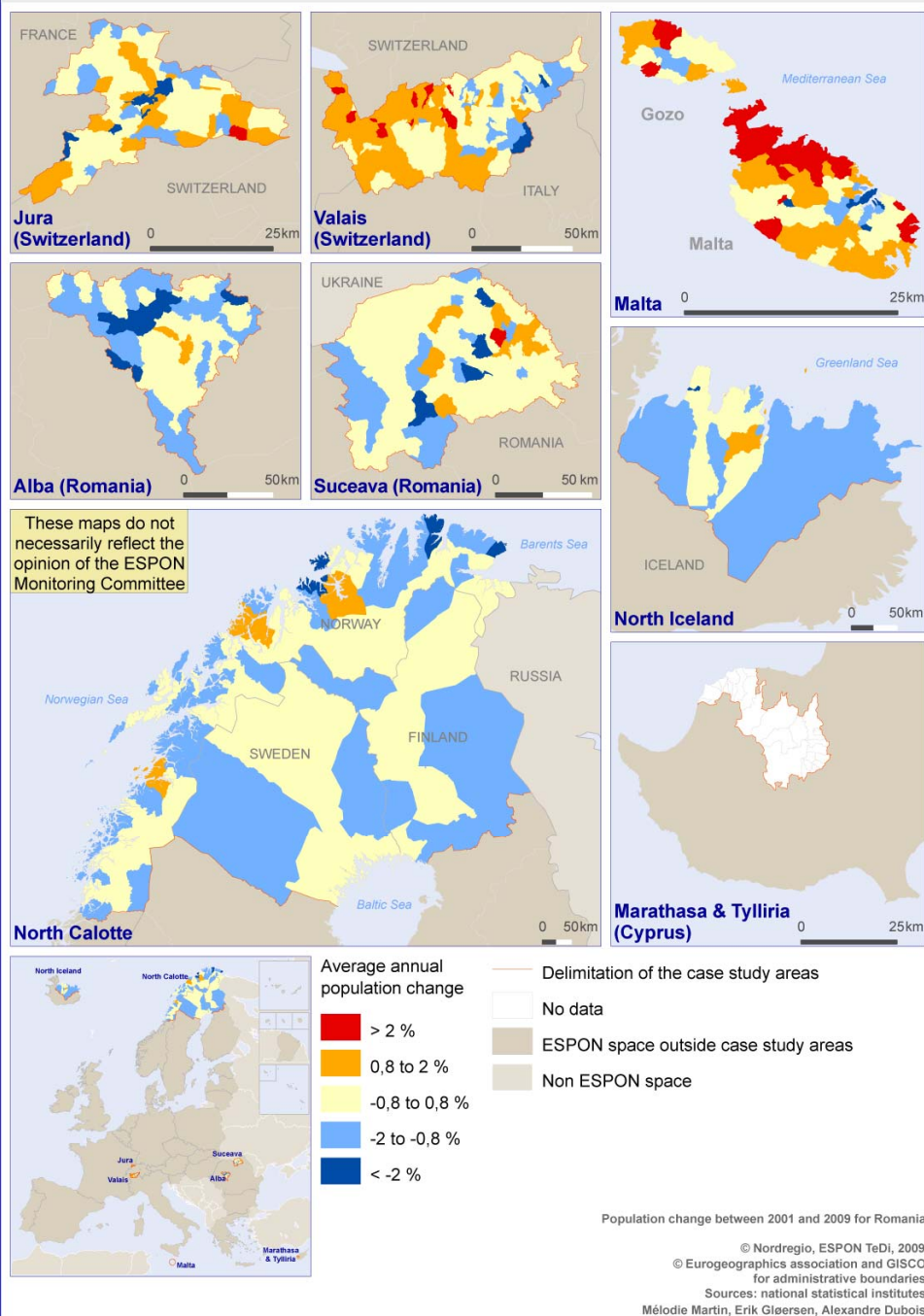
On the Maltese islands, the spatial disparities in population change are almost reversed: the largest centres on both Gozo (Gozo) and Malta (Valletta) have lost population, whether surrounding (e.g. Sannat) or more distant (e.g. Mtarfa, Għadira, Marsaskala) municipalities/centres have gained population. The demographic processes in the Maltese islands, which are considerably more compact and densely populated and the other TeDi regions, may be assimilated to suburbanisation.

Short or mid-term demographic trends are often influenced by economic cycles, especially related to in- and out-migration. Consequently, long-term effects of demographic changes on the regional labour-market can hardly be assessed through the analysis of recent demographic data. In order to identify long-standing, persisting trends of population change it is necessary to collect, compile and analyse population data on a longer time-scale.

The comparison of population figures in 1981 and 2007 makes it possible to identify the following long-term trend in the TeDi regions:

- *Jura (Switzerland)*: most of the municipalities have had a stable population. The municipalities in the southern and eastern part of the region are typically the ones having witnessed the strongest growth. The few municipalities that have witnessed negative population change are located along the French border.
- *Valais (Switzerland)*: many municipalities show a strong population growth since 1981. These municipalities are mainly located in the western part of the region, but some can also be found in other parts of Valais. A distinct acceleration of depopulation trends can be observed from 2000 onwards.
- *Alba (Romania)*: most of the municipalities of Alba have shrunk in size since 1981. Municipalities in the central parts of the region have stagnated.
- *Suceava (Romania)*: the municipalities in the most populated part of the region, the north-east part, have mostly stagnated since 1981. Some larger municipalities on the Ukrainian border have shown mild population growth.
- *Malta (Malta)*: Population growth in the main centre of Malta (Valletta) and Gozo (Gozo) has been rather mild, while other surrounding or peripheral parts of the islands have witnessed strong demographic growth.

Population change between 2001 and 2007



Map 21 Population change (2001 -2007) in municipalities of case study areas

Recent population changes at the municipal level show an accentuation of polarising trends in Valais, continued polarisation in the North Calotte, Jura Alba and Suceava and stronger population movements out of the city centres in Malta and Gozo.,

- *North Iceland*: The main regional centre (Akureyri) increases its dominant geographic position in the region as its population grew steadily. Surrounding municipalities have stagnated while other parts of the region have lost population on average over the last three decades.
- *Marathasa & Tylliria (Cyprus)*: Most of the population growth in south-western Cyprus takes place in and around the main urban centres (e.g. Paphos and Limassol) and along the coast. A similar pattern can be found in the case study area. Marathasa communities have, as many other inland communities, experienced strong population decline although generally to a greater extent together with some neighbouring communities. The coastal communities of Tylliria, on the other hand, have generally had a stable or growing population over the last three decades although in a more restrained way than other rural areas on the coast, where population growth has been generally positive.
- *North Calotte*: the main population gains are found in the larger regional centres such as Rovaniemi (Finland), Tromsø, Bodø and Hammerfest (Norway). In Sweden, inland areas have depopulated over the last three decades, while coastal, more urbanised, parts have slightly increased or stagnated. In Finland, inland municipalities have witnessed steady loss of population, except for northern municipalities that traditionally enjoy a high, positive natural change. In Norway, the smallest communities are losing population, while the largest ones are growing. It is however notable that there a much wider range of medium-sized municipalities where the population is stable. This is *inter alia* a result of proactive national policies to preserve settlement patterns.

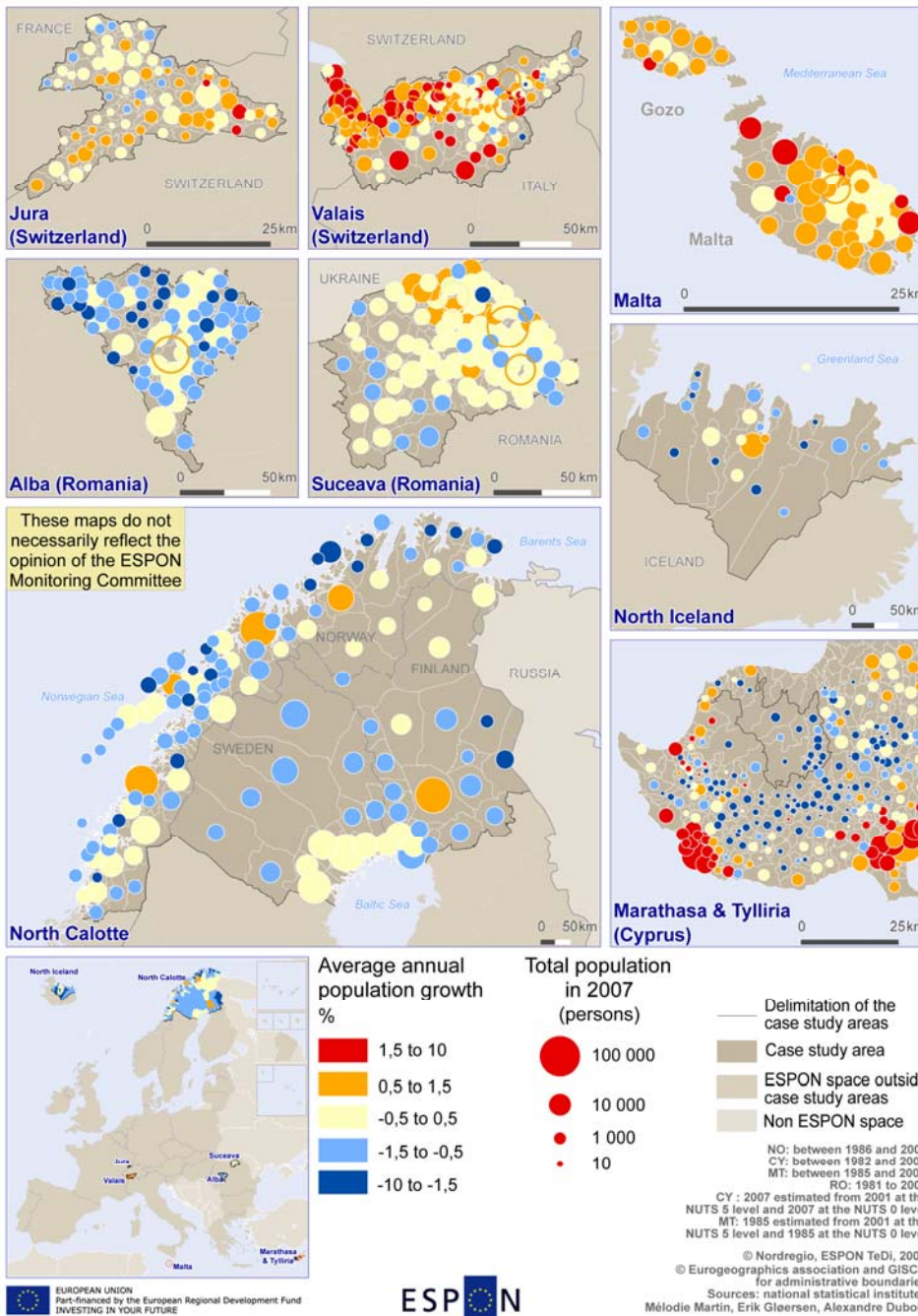
In the long run, the territorial distribution of the population is altered. Most of the case study regions witness a marked polarisation. This means that some local small scale communities may fall below minimal demographic thresholds for their long term sustainability. As some parts of the region are *thinning out*, it becomes more difficult for them to sustain economic activities as the flows described above (see Figure 3 and Figure 4) cease to function adequately. Furthermore, the scope of private services is narrowed, and the price of producing essential public services increases. Defining such threshold population levels below which small scale economies cease to be sustainable would require that one takes into account the relative importance of the different population groups represented in Figure 3 and Figure 4, as a young and employed population will for example be more sustainable than a corresponding ageing and unemployed one.

The relevance of municipal data to assess these situations may be questioned, just as that of NUTS 2 or NUTS 3 data. Insofar as a municipality may not correspond to a daily life environment, or to the areas within which commuting trips occur, the figures may indeed be more or less useful to identify *thinning out* processes that may jeopardize the livelihood of a locality. When municipalities are smaller than

daily life environments or commuting areas, population changes may simply correspond to an internal redistribution of population which does not affect the development perspectives. When they are larger, as can typically be the case in some parts of the North Calotte or some isolated parts of mountain areas, it is possible that functional communities within municipalities are effectively falling below thresholds of social and economic sustainability even if this is not observed statistically. Additionally, daily life environments and commuting ranges change over time, both as a result of new types of mobility behaviour and of public policies, e.g. through the provision of transport infrastructure or public transportation services. In order to gain a more in-depth understanding of how demographic trends reflect perspectives of sustainable development from a social and economic point of view, it is therefore necessary to consider both current functional areas and the type and range of mobility that is deemed desirable from a strategic and political point of view.

Another central issue is to distinguish situations where such movements leading to the disappearance of communities correspond to a necessary adaptation to changing economic and/or social conditions, and those where they express a failure of market forces to take advantage of actual or potential resources or to ensure a human presence that is needed for the balanced development of the region. One can for example imagine that market dynamics may underestimate the positive externalities of herding activities on the landscape, or the social cost of closing down (and possibly re-establishing) communities as an adaptation to a temporary reduction in demand for their main produce. It is notable that these kinds of reflections have not been identified in the policy documents analysed in any of the TD case study areas.

Evolution of the population between 1981 and 2007



Map 22 Population change (1981 -2007) in municipalities of case study areas

This representation of demographic trends makes it possible to reflect the population concerned by a population increase or decline in each municipality.

c. Unpacking population dynamics: birth rates and migration

Understanding better the phenomena leading to the heightened territorial disparities in our case study regions necessitates the unpacking of population dynamics, by focusing on its two main components, natural change, measuring the difference between birth and deaths, and net migration, measuring the difference between people migrating in the region and those migrating out of it.

Of course, these two processes are not totally independent: for instance, the migration of young adults out of a region will have an impact on the birth rate. Yet, they provide interesting insights on the future prospects for the regional human resources.

Large parts of our TeDi regions have birth rates that are below the European average. Large parts of the TeDi case study areas have both negative natural change and negative net migration figures. Birth rates are particularly weak in the northern parts of Jura, the central parts of Valais and Alba as well as some isolated localities in the North Calotte and North Iceland. Areas where birth rates are high are especially found in western and central parts of North Iceland, Northern and Eastern parts of Suceava, northern parts of Norway.

Yet, if birth rate is an important aspect when it comes to the regeneration of generations, policies encouraging higher birth rates are often the prerogative of the nation states. This makes it more difficult for regional and local actors themselves to have the possibility to have a marked influence on the process. Moreover, natality policies are a 'bet on the future' that are, in essence, stretching over long period of time. Thus, policies aiming at improving the natural change might be of little interest for solving short- or medium-term labour-market problems. In that regard, migrations are seen as a much more important mechanism for strengthening labour-market opportunities at the regional and local levels.

The issue of migration can be linked to the notion of *territorial attractiveness*. In practice, this often boils down to how to get more people into the region, both from other domestic regions (domestic in-migration) and from other countries (immigration). In fact, efficient initiatives aiming at increasing a territory's net migration should focus on two dimensions of attractiveness:

- first, it should aim at reducing or restraining the flow of persons leaving the region (domestic out-migration or emigration), thus aiming at providing individuals the infrastructure and services necessary for them to develop themselves both privately and professionally;
- second, it should aim at improving the region's position as a destination for settling and living, thus aiming at increasing the number of persons entering the region (domestic in-migration or immigration).

Consequently, territorial attractiveness should be dealt with as both inward and outward at the same time. Dealing with only one of these dimensions, e.g. the outward attractiveness could be counterproductive in the long-run: after all, when newcomers are settled in the region you need to be able to 'fix' this new population to the territory, otherwise they will move to another, more attractive, region.

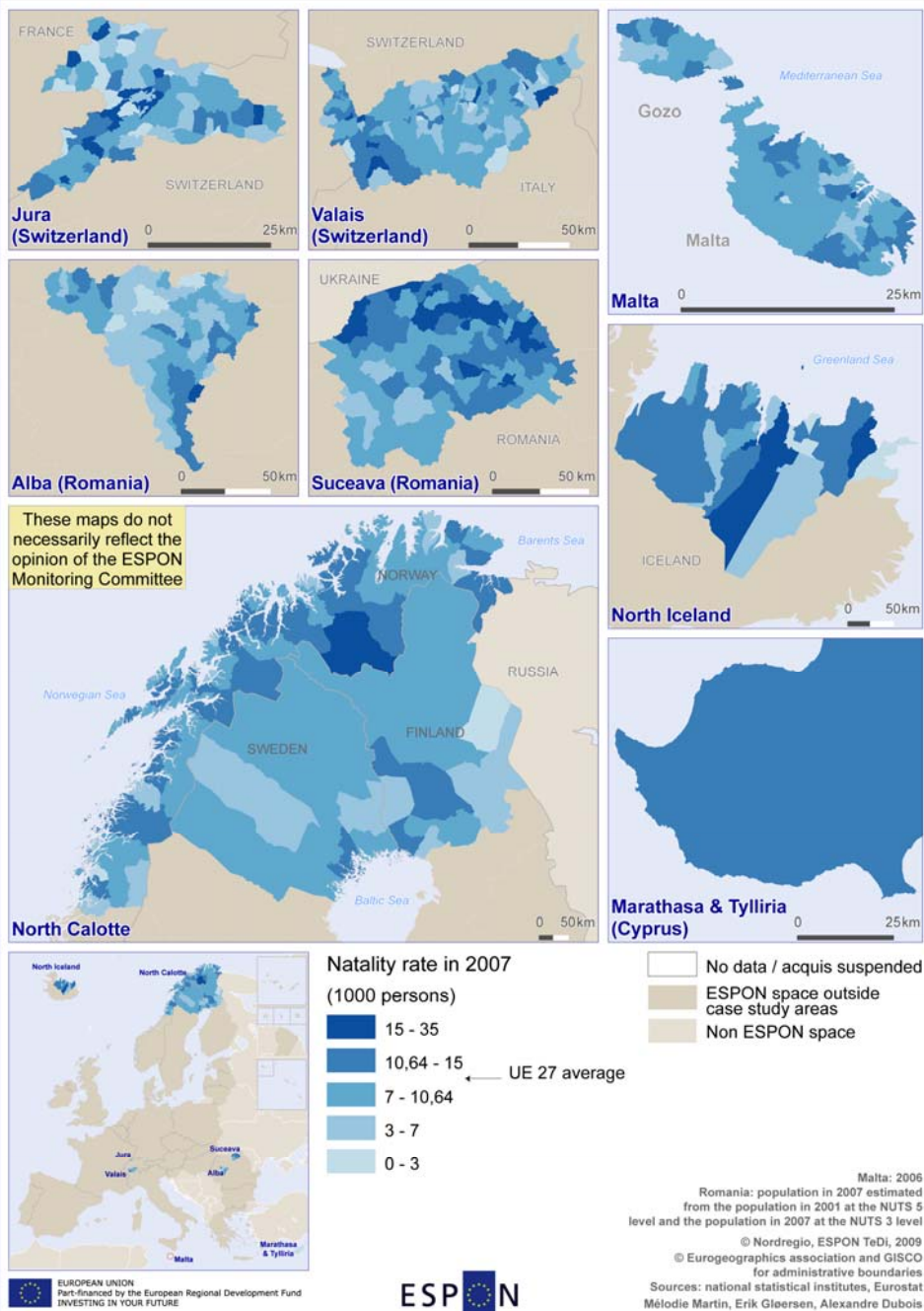
The map entitled "Migrations in case study areas" provides a picture of the main migratory trends in the local communities of the case study areas, for the period 2003-2007.

The evidence provided by the map suggests that none of the TeDi regions are subject to a massive, homogenous out-migration phenomenon, i.e. all parts of their territories have more people leaving than entering. In fact, it shows, again, that the TeDi regions are strongly subject to marked intra-regional disparities. Yet, with the exception of Malta, a pattern is that the more densely populated parts of each region tend to be more attractive than less densely populated ones. This contrast is clear in the case of Valais (Switzerland), Alba and Suceava (Romania), as well as in North Iceland. In the case of the North Calotte, such a trend is less visible on the map due to the large size of municipalities in comparison with other TeDi regions.

As for Malta, the results of the migration map confirm the dynamism of peripheral areas compared to centres such as Valletta and Victoria, essentially due to land-use pressure in those centres.

The results also confirm that the level of total migration from/to (adding out-migration and in-migration) a locality is correlated with the total population of the locality. Total migration has a strong importance when it comes to the labour-market. A region with a high number of newcomers and leavers will need to install more flexible labour-market mechanisms that are able to accommodate with the steady flows of labour force.

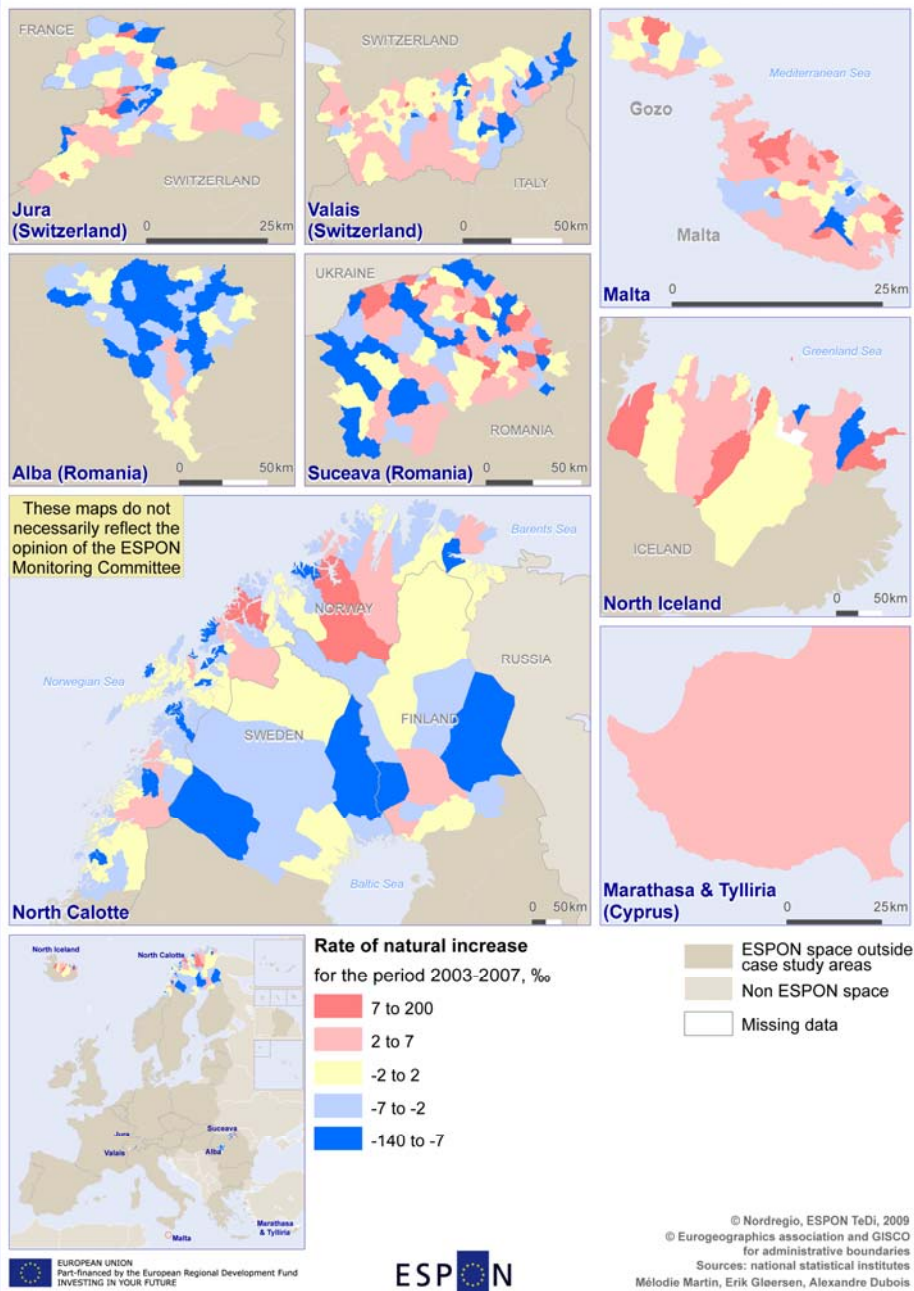
Natality rate in the case study areas



Map 23 Birth rates in case study areas (municipal scale, Cyprus excepted)

The relatively contrasted patterns within each case study area mainly reflect local differences in the age structure of the population.

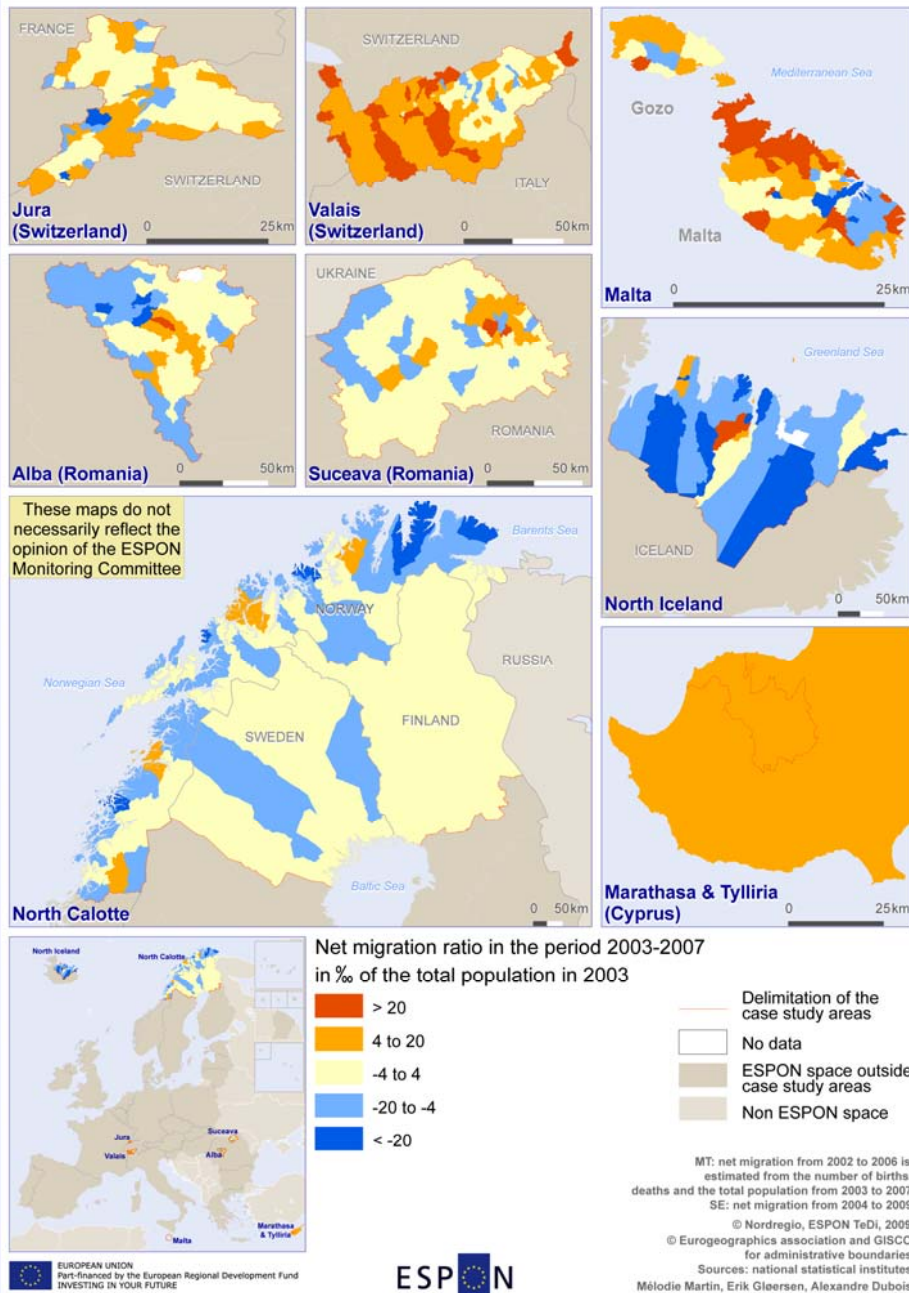
Natural increase of the population in the case studies



Map 24 Natural population increase rates (municipal scale, Cyprus excepted)

Natural population increase is often correlated with positive net-migration, while out-migration is observed in areas with net natural decrease. The two processes therefore reinforce each other.

Net migration ratio



Map 25 Net migration rates (municipal scale, Cyprus excepted)

Extensive polarising trends can be observed in all case study areas. It is however important to note that small municipalities will mechanically have high in- or out-migration rates, and that comparisons between areas can therefore be difficult.

d. Impacts of demographic imbalances on the functioning of regional labour-markets

The previous section has shown that both short-term and long-term trends tend to increase the state of intra-regional disparities in our case study regions. Yet, for a regional labour-market and local economies to function properly, a right mix of the population is needed. Imbalances may lead to the disfunctioning of the labour-market.

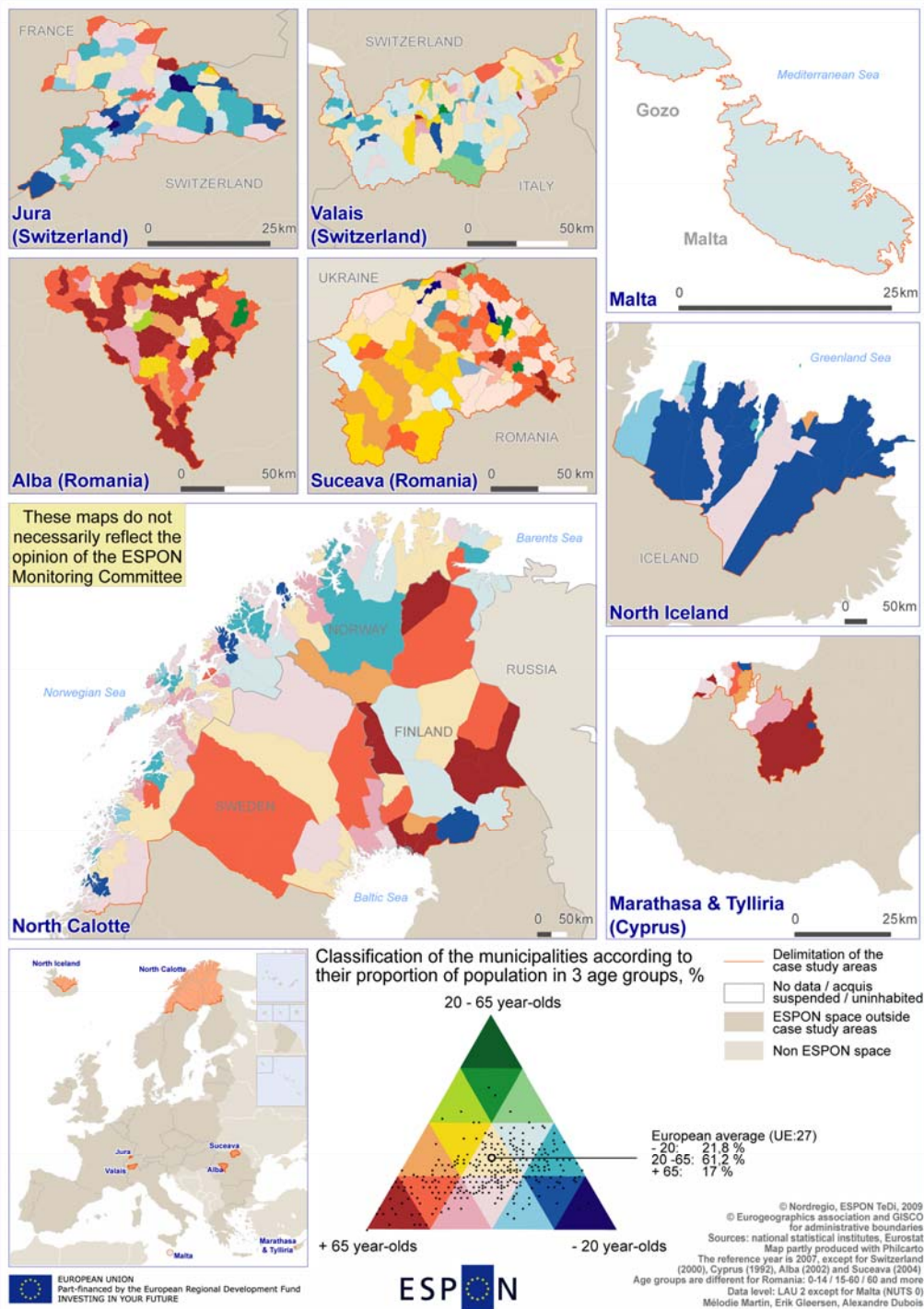
These increased imbalances are not only *spatial* in character: they affect also the structural composition of the regional and local population, i.e. the mix of different *categories of population*, especially according to age and gender.

The population is divided into three main age categories: children and youngsters under 19 years of age, adults between 20 and 64 years of age, and, finally, elderly person (65+). These categories have a specific importance when it comes to the regional (and national for that matter) labour-market: persons between 20 and 64 represent the working age population, i.e. the pool of human resources available *at present* for participating in the labour-market; youngsters represent the future pool of human resources that will be available in the future; and elderly persons that have ceased to participate to the labour-market.

Consequently, for a local community or region, the overrepresentation of any of these age categories has a different impact for the communities to develop sustainable local economies and labour-markets. This is often calculated using the age dependency ratio method.

In the following map entitled "Age structures in the case study areas", the combination between these three components is shown for the municipalities located in our case study regions. The map reveals a large diversity of possible combinations within and between our regions of reference. Per se, the diversity in terms of generational mix between the different local communities might be an asset for the region if the mobility of the labour-force is ensured through adapted mechanisms, for instance, commuting.

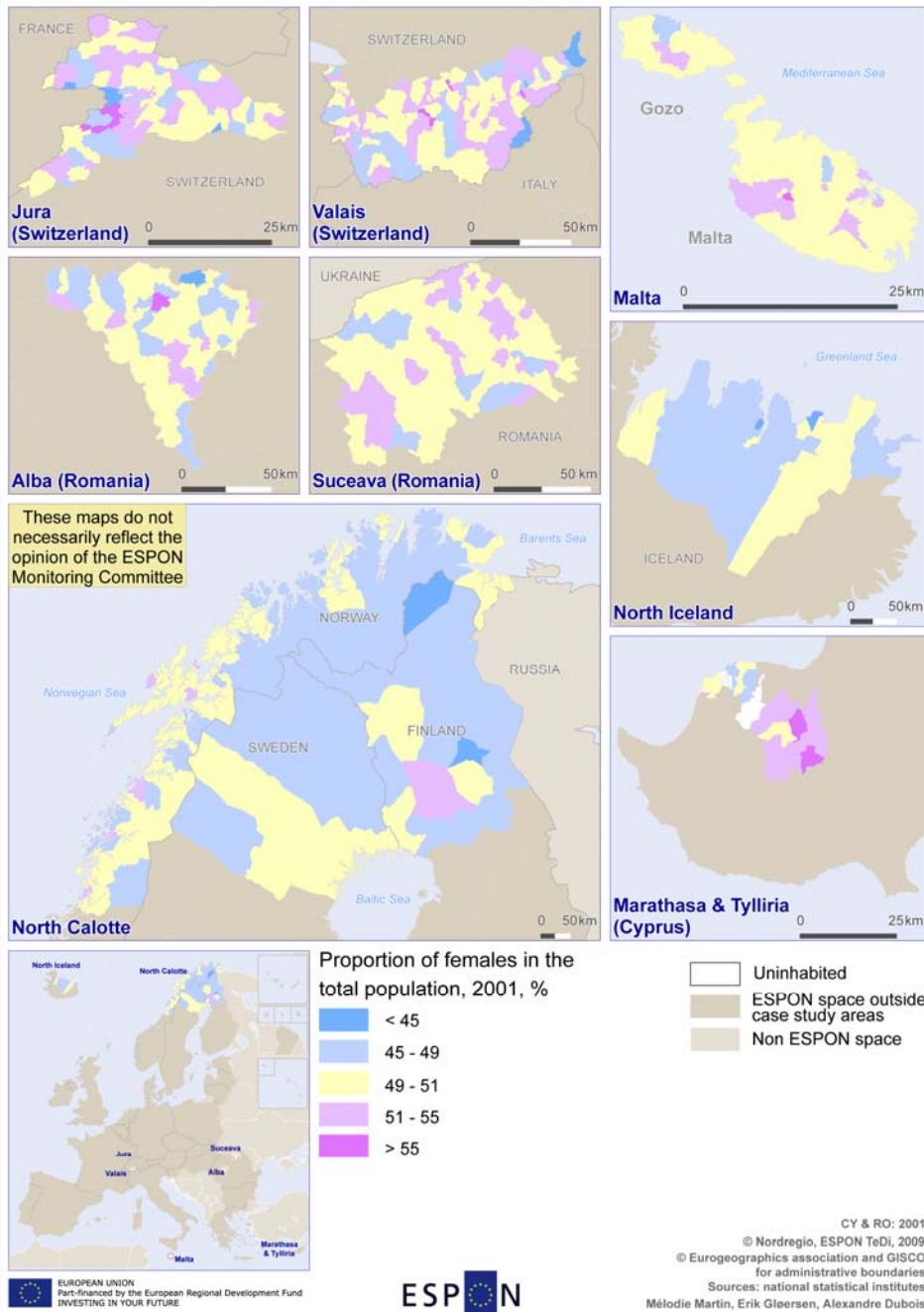
Age structures in the case study areas



Map 26 Age structures in case study areas

This synthetic representation of age structures makes it possible to show different types of combinations of over- and under-representations of youth, working-age population and elderly. Ageing is particularly is Alba, Marathasa/Tylliria and parts of the North Calotte, while North Iceland has a strikingly young population.

Proportion of females in the population



Map 27 Proportion of females in the population

Gender balance is an important indicator of harmonious social and economic development. The North Calotte and North Iceland stand out with a large male overrepresentation, while women are particularly overrepresented in Marathasa.

A quick way to interpret the map is to focus on the 'extreme' categories. The colour 'red' reveals a overrepresentation of elderly persons, compared to the other two categories. In the same manner, 'green' represents an overrepresentation of the working age population and 'blue' in the youngsters' population. The intensity (lighter to darker) in the three colours mentioned above is linked to the intensity of the phenomenon: the darker the colour, the more pronounced is the overrepresentation of the category in question. The overrepresentation is calculated as the deviation to the European (EU27) average.

A first remark from the result is that the overrepresentation of working age population is very rare in our case study regions. Only a few communities in the Valais (Switzerland) and few in Alba (Romania) show this characteristic.

In the Swiss region of Jura and, especially, in Iceland, many communities show a clear overrepresentation of young people, as compared to the European average. This type of overrepresentation may be seen as a clear potential when it comes to regional human resources. For these regions, the main challenge is thus to be able to 'retain' or 'fix' this potential pool of future working age population, thus securing the long-term sustainability of the regional labour-market.

On the contrary, many communities in the North Calotte, in Alba and in Marathasa & Tylliria are faced with a more or less marked overrepresentation of elderly persons. Traditionally, this is perceived as a burden for the regional economy as this category of population is seen as a non-productive part of the population that has specific needs in terms of services and care. Yet, despite their non-participation to the labour-market, elderly person can represent a potential for the regional economy insofar as they bring in a stable income into it. This however depends upon the degree to which an established welfare state guarantees sufficiently high retirement pensions for all inhabitants; the economic effect of the presence of elderly people will be stronger in the North Calotte than in Alba and Marathasa & Tylliria.

Another demographic imbalance that may have strong impact on the regional labour-market structure is the gender of the population. Gender is important to highlight because the labour-market is still strongly impregnated of male domination, even in the more progressive countries such as the Nordic countries. Males are still over-represented in the labour-market of non-metropolitan areas, where the primary and secondary sectors are still dominating the regional economy. These aspects will be further developed in the chapter on the "regional economy", but already, the analysis of the gender imbalances in our case study regions may provide some hint of some 'untapped potential' vis-à-vis labour-market participation.

A first conclusion of the map "Proportion of females in case study areas" is that gender disparities in the Swiss, Romanian and Maltese TeDi regions are evening out. This means that in those regions, most of the localities show a rather

balanced balance between genders, and the number of localities with male overrepresentation is almost as numerous as the ones with female overrepresentation.

In that respect, the two Nordic case study regions and the Cypriot one show clear spatial gender imbalances. In the North Calotte, inland communities are typically witnessing an overrepresentation of male, while coastal, more urbanized areas show a more balanced gender structure. Likewise, in North Iceland, a majority of municipalities witness an overrepresentation of males in their population. In the case of Marathasa & Tylliria, the inland and costal parts have a strong overrepresentation of women.

The differences between the case of North Calotte and Marathasa & Tylliria are less due to the territorial setting (inland, mountainous, sparsely populated) than to different levels of development of the regional economies and labour-markets. Indeed, while the gender imbalance in the North Calotte is essentially due to the out-migration of young, well-educated women to the larger urban centres, in order to work in the service industry, the overrepresentation of female in the Cypriot region is primarily due to an ageing population combined with a longer life expectancy of women.

4. Economic profiles of the TeDi areas

The structure of the employment is the only indicator of the structure of the regional economy that is generally available at the sub-regional scale this project operates. Employment data have been collected at the LAU2 level in order to highlight the spatial disparities between and within TeDi regions along different dimensions:

- the *general state of the labour force*, by calculating employment participation and unemployment rate, and the capacity of the TeDi regions to increase their pool of human resources endogenously (out of the population already residing in the region).
- the *weight of the various economic branches* in the regional and local economies, by calculating the proportion of persons employed per branch out of the total employed population. The case of the tourism industry will be especially emphasised.
- the *degree of specialisation of the local economies*, by calculating the over-representation of some industries or branches in local economies, compared to the average of TeDi regions.

The exploitation of the overall gathered material is limited by the lack of availability of corresponding labour force data at municipal level across the 8 countries and 8 regions represented in the TeDi project.

a. The regional economic contexts of TeDi areas

Several projects of the ESPON 2006 programme (ESPON 1.1.4 on Demography, ESPON 2.4.2 Zooming-in project or ESPON 3.4.2 on impacts of EU economic policies) have dealt with thematic aspects relating to labour-market or economic issues at the regional level. This resulted in many findings classifying regions (mainly at NUTS 2 level) with regards to their economic performance or situation. Although NUTS 2 level is not *per se* adapted for our analysis of territorial diversity in the case of our TeDi regions (which mainly consist of NUTS 3 or LAU2 territories), reviewing these results may give a first insight of the wider territorial context in which the TeDi regions evolve.

The thematic findings of the Regional Classification of Europe on labour-market efficiency show that TeDi regions evolve in diverse regional settings (Map 28). This classification is based on unemployment and employment data and it aims at assessing as well the robustness of the labour-markets and their capacity to

regenerate, using replacement ratio. The Swedish and Norwegian parts of the North Calotte, together with Cyprus and South Switzerland (Valais), have scores that are above the European average. Malta and North-West Switzerland (Jura) show scores that are relatively in line with the European average, whereas North Finland and Romanian regions score below the European average.

The regional classification of Europe on 'economic success' (Map 29) provides valuable inputs on the comparability of performance levels across Europe. It is notable that almost all regions scoring above average correspond to or include leading metropolitan areas. Benchmarking other regions against a "European average" including these areas is not necessarily meaningful, insofar as they exert a de facto quasi-monopoly on a number of advanced, high value-added service provision and decision-making functions concentration. It is therefore not surprising, and not necessarily informative, to note that most TeDi case study areas score around average. Map 29 however also highlights the difficult position of Romanian case study regions in the European context. Indeed, as all other Romanian regions except Bucharest, they belong to the category that scores below the European average. This means that not only is their level of GDP well below European average, but the growth has also been slower than for European as a whole between 1995 and 2002. This, in consequence, means that the mountain areas of Alba and Suceava evolve in a regional context which is itself at risk of marginalisation in the European context, creating a situation of double disadvantage.

The aim of the Regional Classification of Europe is mainly to assess the level of performance of European regions (NUTS2) according to specific dimensions: labour-market and economy, but also Lisbon performance or naturalness. The idea is to assess the particular strength and weaknesses of those regions that could be built upon for elaborating their future regional development strategies. Another way for doing so that developed in the framework of the ESPON 3.4.2 project focusing on the regional impacts of EU economic policies. One of the interesting findings of the project is its economic typology of European regions, based on economic and employment data at NUTS2 and NUTS3 levels.

The typology distinguishes 7 types of regions when it comes to their economic profiles. The characteristics of the classes are displayed in Table 3, while their spatial distribution over the European space is displayed on Map 30. The typology uses data from 2002. Unfortunately, data for Cyprus and Iceland are missing in this analysis. Contrary to the previously described classifications based on composite indicators, the results of such a cluster based approach are not distorted by the presence of atypical regions such as those that include major metropolitan areas. The model first identifies these types of special cases as separate groups, and their uniqueness does not affect the identification of variation among other regions. It is therefore not surprising that this type of approach highlights a greater diversity of regional contexts for the TeDi regions

than the previous maps. By showing this diversity, they pay testimony to this variety of strengths and weaknesses of TeDi regions or of their territorial context.

In the case of the North Calotte, it appears that the three national components (North Finland, North Norway and North Sweden) belong to three distinct classes. North Finland belongs to type 3, "High & Medium technological industry", which is characterised by high levels of light and technological industries, low unemployment and high activity rates. North Norway belong to type 6, "Market & non-market personal services, weak in industry", which is characterised by high levels of non-market services, high levels of agriculture and fisheries activities and low industrial development. Finally, North Sweden belongs to the type 1, "Non-market services, agriculture & light industry", which is characterised by high levels of non-market services, agricultural activities and light industries. The example of the North Calotte shows that the geographical specificity itself cannot account alone on the economic profile of a region. The economic profile of the regions is the result of a development path that is strongly influenced by national interests (e.g. the mining industries of North Sweden) and the exploitation of the natural capital (e.g. fisheries and mining). The case of North Finland could be explained as such: the NUTS 2 regions of North Finland comprises the FUA of Oulu, which is strongly specialised in manufacturing of low and high technological products and is the main base for the Telecom manufacturer giant Nokia.

The results of the typology for the Swiss TeDi regions put the emphasis on the statistically bias that geographical proximity to a large city may bring in the visualisation and interpretation of analytical results. In the typology, the NUTS 2 region to which the Valais canton belongs is part of type 2, "MEGAs advanced services: Finances & Business", whereas the one to which the Jura canton belongs is type 7, "Neutral Central without big cities". At NUTS 2 level, the canton of Valais is in the same statistical unit that Geneva, the *Région Lémanique*. Consequently, the economic profile of Valais itself is over-weighted by the economic profile of Geneva, which is why it ends up in the type 2, which is typical for Europe's metropolitan areas (Paris, London, Stockholm, Madrid...). Hence, the typology is not informative on the Valais' economic profile. At NUTS 2 level, the canton of Jura belongs to the same unit as the Swiss capital Bern, the *Espace Mittelland*. The Espace Mittelland, in the typology, is deemed to be in line with the European average, and scores above average in terms of GDP per capita and weight of technological industries. The importance of industries such as watch-making in the region is thus brought to light. Yet, specific weaknesses or strengths of the Jura economy as diluted in the broader region's economic profile.

All Romanian regions outside the capital region of Bucharest belong to type 5. When it comes to employment structure, this class is characterised by high participation in primary sector, light industries and trade, hotel and restaurants. Moreover, regions in this class are lagging behind economically lagging, with levels

of GDP per capita in 2002 of 50% of the European average for the group as a whole.

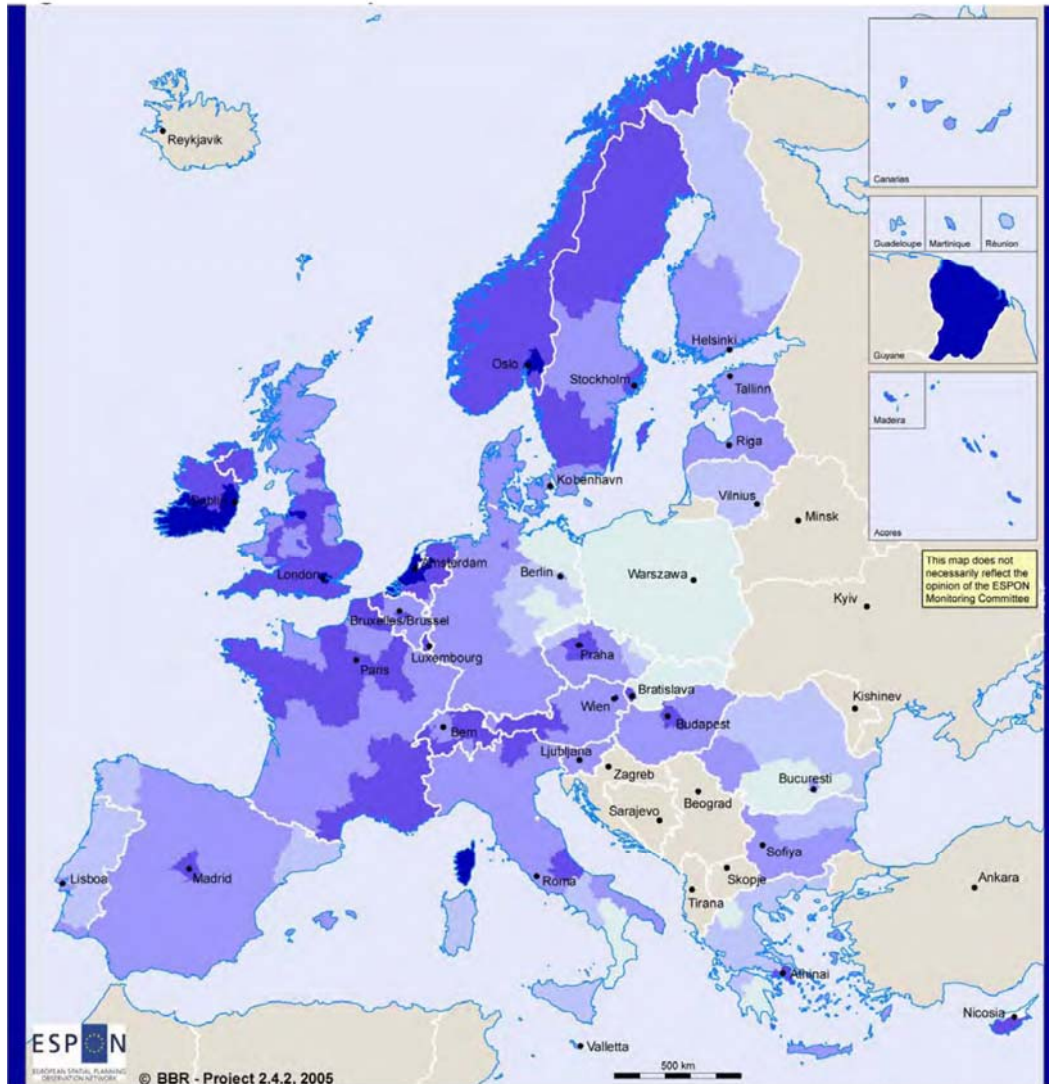
Finally, Malta belongs to type 4, which is characterised by an economy where light industries, trade and hotels and restaurants are the most important sectors, thus highlighting the importance of Malta as a place for trade and tourism. The island of Gozo only has a limited impact on this classification, given its limited economic and demographic weight; the proximity to a main island of Malta belonging to such a dynamic group of regions is an asset, but also a challenge insofar as it may make it more difficult to design and implement an autonomous development strategy focusing on local needs and aspirations.

As a conclusion, the economic typologies of European regions proposed in the ESPON 2006 project on the regional impacts of EU economic policies are informative insofar as they provide a broad understanding of the economic structure of the European space. However, the different types of methodologies are not equivalent for this purpose, as the benchmarking against a European average value provides limited inputs. The understanding of territorial diversity requires approaches such as the clustering method applied by ESPON 3.4.2 that focuses on the specific profiles of individual regions rather than comparing them to an average which is thereby assimilated to a norm. It is however worth noting that the ESPON 3.4.2 analysis, based on data from 2002, would need to be updated to gain in policy relevance. In most cases, the analysis furthermore only provides evidence on the regional context of TeDi areas; they cannot be presumed to provide a picture of their economic and social specificity.

To complement the analysis of the ESPON 2006 3.4.2, the TeDi project has produced a similar type of clustering analysis based on more recent data from 2008, focusing exclusively employment by sector²⁵ and using an ascendant classification method. Contrary to the ESPON 3.4.2 typology, the typology produced focuses on economic profiles of European regions rather than incorporating indicators of socio-economic performance such as GDP per capita, unemployment rates and net-migration. This

²⁵ Employment per within 6 categories of sectors: (1) Agriculture, Fisheries & Mining, (2) Manufacturing, (3) Construction, (4) Trade, transport, hotels & restaurants, (5) Business and markets services and (6) Administration, Education, Health care and other personal services

Regional classification of Europe: Labour market



Degree of labour market efficiency as an aggregate of 6 indicators:

- Unemployment (Unemployment rate 2003) -
- Development of unemployment (Change of unemployment rate 1999-2003 in pp) -
- Youth unemployment (Unemployed <25 years per 1.000 inh. 15-<25 years 2003) -
- Labour force replacement ratio (Population ages 10-19 / pop. ages 55-64) +
- Employment density (Number of persons employed per km² 2003) +
- Employment in tertiary sector (Share of total employment 2003) +

© EuroGeographics Association for administrative boundaries
 Regional level: NUTS 2
 Origin of data: ESPON 1.1.4 ITPS,
 ESPON 2.4.2 BBR, own calculations
 Cyprus: data for government controlled areas only
Source: ESPON database

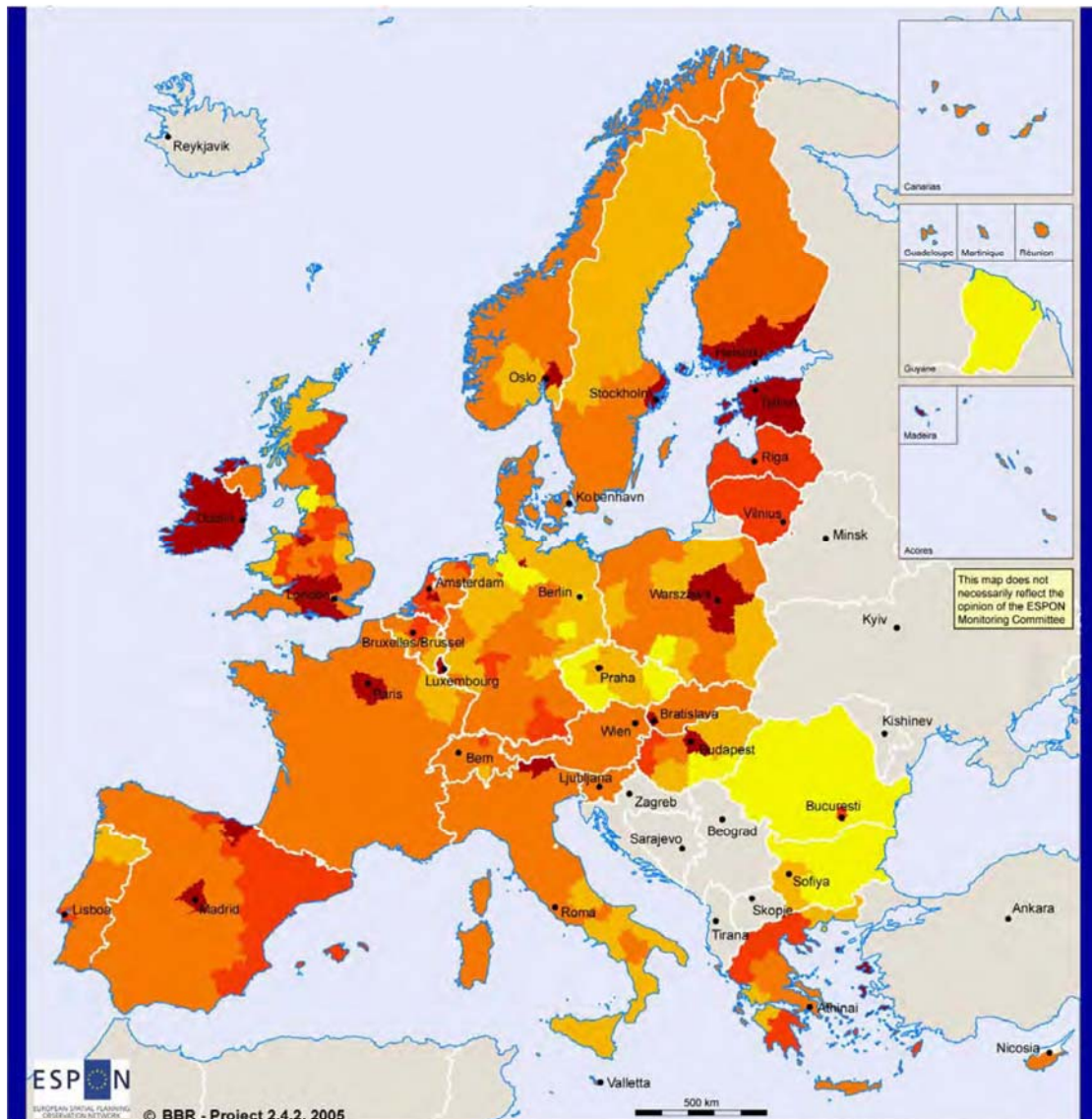
Standardised based on the European mean value

- Below average
- Moderately below average
- Average
- Moderately above average
- Above average

Map 28 Regional Classification of Europe: Labour market

Based on employment and unemployment data at NUTS 2 level, the typology proposes to assess the efficiency of the regional labour-markets of Europe. The situation of the TeDi regions wider context is diverse: North Sweden, North Norway, Valais and Cyprus score high whether other TeDi regions have average or below average scores.

Regional classification of Europe: Economy



Degree of economic success as an aggregate of 2 indicators:

- GDP (GDP per capita in PPS 2002) +
- GDP growth (Growth in GDP per capita in PPS 1995-2002, in %) +

- Below average
- Moderately below average
- Average
- Moderately above average
- Above average

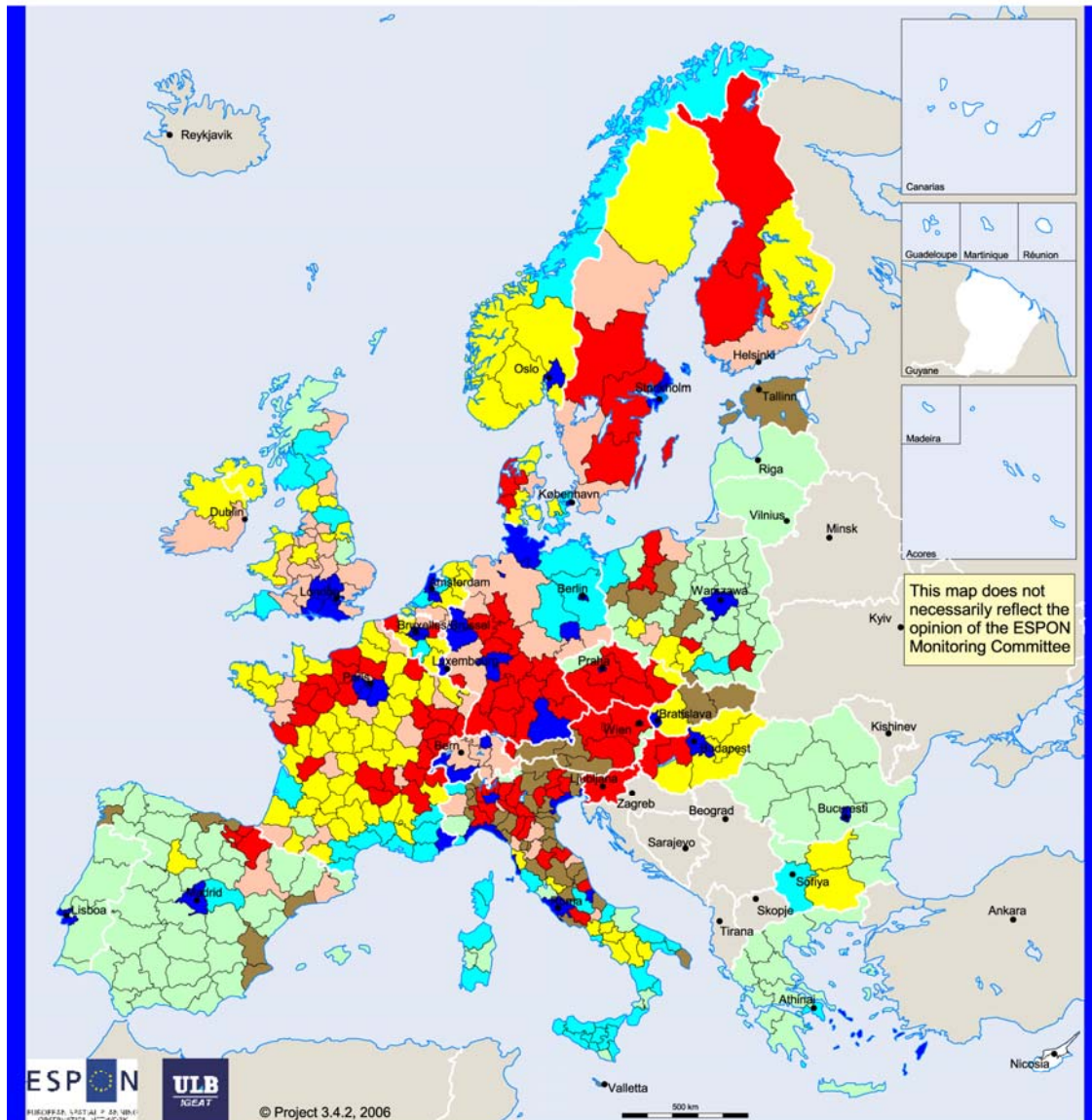
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 Regional level: NUTS 2
 Origin of data: ESPON 2.4.2 BBR, own calculations
 Cyprus: data for government controlled areas only
 Source: ESPON database

Standardised based on the European mean value

Map 29 Regional Classification of Europe: Economy

The map puts into light the low score of Romanian regions when it comes to economic performance, as measured in GDP per capita. Other territories including TeDi regions have average scores.

Economic typology of European regions in 2002, 7 types



7 TYPES



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Origin of data: EU 25, CC's and CH, NO : Eurostat, National Statistical Offices.

Map 30 Economic typology of regions, 2002

The map displays the over-representation of certain sectors and socio-economic characteristics across the European space. European regions are clustered in 7 types of regions that share a relatively high degree of similarity in their socio-economic structure.

Table 3 Statistical characterisation of the 7 types of European regions identified by ESPON 2006 project 3.4.2

TYPE	Type 1 Non-market services, agriculture & light industry	Type 2 MEGAs Advanced services : Finances & Business	Type 3 High & medium technological industry	Type 4 Textile personal market services	Type 5 Agriculture Non-market services Trade Hotels & Restaurants Industry (construction & light)	Type 6 Market & non-market personal services Weak in industry	Type 7 Neutral Central without big cities	Total
Proportion of European GDP (%)	10,7	28,1	17,0	5,0	9,0	8,9	21,1	100
Proportion of European population (%)	12,9	19,0	16,2	5,3	17,9	10,1	18,6	100
GDP/cap 2002 (EU=100)	83,1	147,9	105,3	94,5	50,5	88,2	113,5	100
Evolution of GDP 2002-1995 (°°)	-6,9	2,0	-6,1	-2,2	6,2	0,0	1,6	
Agriculture, Fisheries, Construction (A-B+F)	133	60	99	136	205	112	95	7,7
Light industries (DA->DD+DI+DN)	135	47	141	169	159	84	99	5,4
Technological industries (DK+DL+DM)	84	74	190	77	39	52	115	6,1
Trade, Hotels and Restaurants (G-H)	94	97	87	132	133	104	98	14,7
Financial and other business services (J-K)	73	136	83	79	61	93	97	27,4
Non-market services (L-N)	127	88	93	82	101	133	99	17,5
Unemployment rate (Unemployed/Actif pop.)	107	78	74	117	141	141	76	7,9
Activity rate (°)	92,6	104,3	96,9	97,9	101,3	95,4	105,3	100
Migratory balance 96-99 (‰)	0,6	1,1	1,6	4,5	2,0	0,6	1,7	1,5
Mean annual population growth	0,93	0,32	0,35	0,66	-0,03	0,11	0,30	0,33
(°) Activity rate = (Actif population + unemployed)/Total population (EU=100) (°°) compared to average EU evolution								

Source: ESPON 3.4.2 (IGEAT et al.)

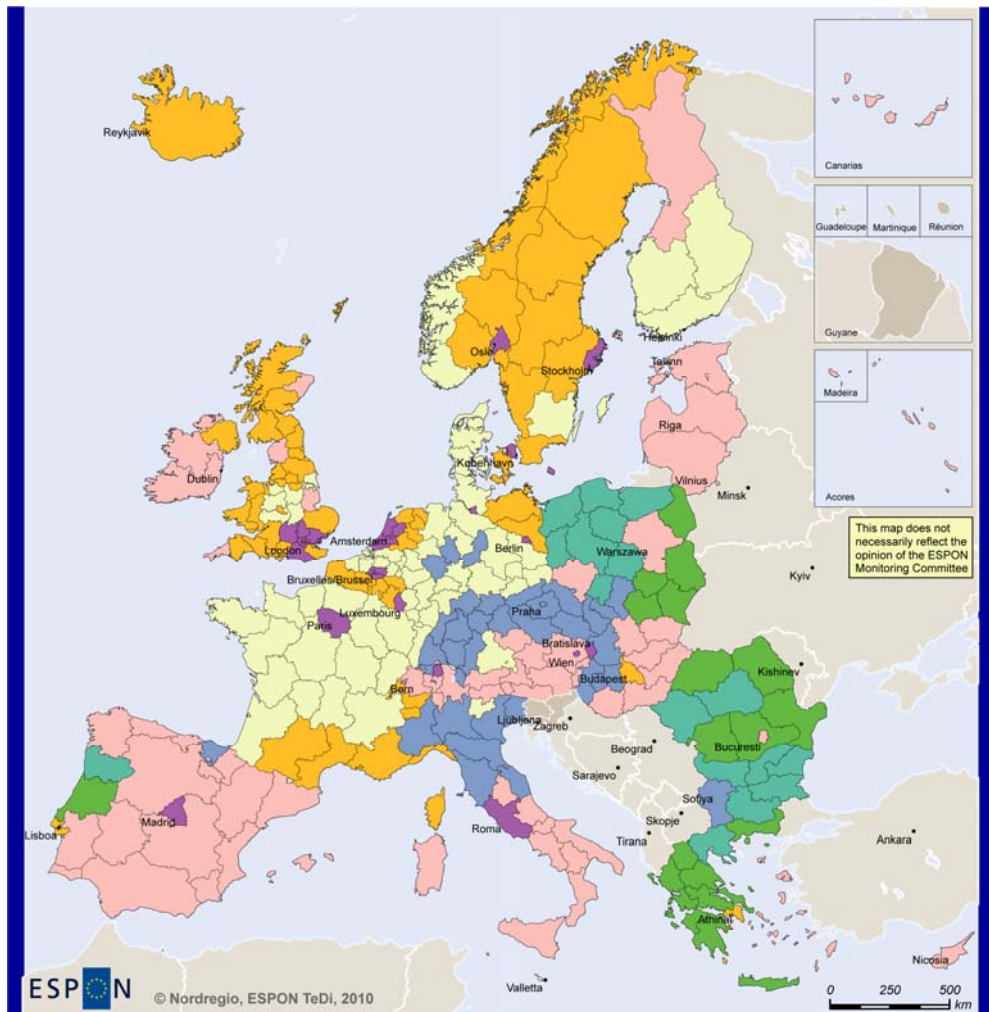
reduced the scope of investigation, but may also improve the readability of the resulting clusters.

In this typology (Map 31), Iceland, North Sweden, North Norway and *Région Lémanique* (including Valais) belong to the class characterised by an over-representation of public services such as administration, education or health care. *Espace Mittelland* (including Jura), North Finland and Cyprus on the other hand belong to the class characterised by an over-representation of the sectors of Construction and Trade, transport and accommodation. The classification therefore confirms the subdivision of the North Calotte in multiple classes, and the distinction between the respective macroregional contexts of Jura and Valais in *Région Lémanique* and *Espace Mittelland*, although with somewhat different qualifications than those used in ESPON 3.4.2.

Contrary to the ESPON 3.4.2 typology, a distinction is made between the economic profiles of the NUTS 2 Romanian regions of Nord-Est (including Suceava) and Centru (including Alba). The Nord-Est region belongs to the class characterised by an over-representation of agriculture and mining activities, whereas the Centru region belongs to the class characterised by an over-representation of agriculture and manufacturing.

Finally, Malta belongs to the class of regions that do not show any substantial deviation from the European average in their structural composition of sectoral activities.

This typology at the NUTS 2 level therefore provides some additional inputs on the regional context of the case study areas. It however also confirms the need for analyses at a more narrow scale to explore the potential specificity of economic dynamics in TeDi areas, as the local specificities of mountainous, insular and sparsely populated areas are generally not reflected in NUTS 2 or NUTS 3 data.



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Typology of regional economies at NUTS 2 level based on an Ascendant classification using employment data

- Public Services over-represented
 - Agriculture and mining over-represented
 - Construction, Trade and tourism facilities over-represented
 - Manufacturing and energy over-represented
 - Business and financial services and administration over-represented
 - Agriculture and manufacturing over-represented
 - Regions in line with European average
 - Non ESPON space
 - Missing data
- PL and BG: TPG estimations based on 2005 figures

Map 31 Typology of regional economies (2008)

The typology proposes an outlook on the different main economic profiles found in Europe at the regional (NUTS 2) level. The typology for instance makes it possible to distinguish the profiles of the regional economic contexts of interest for the TeDi study areas in Romania (Suceava and Alba).

b. Economic specialisation of TeDi areas

The specialisation of local economies can be identified by looking at the relative importance of industries or branches, calculated on the basis of the distribution of employed persons per municipality. In spite of some difficulties in the data collection, the datasets make it possible to analyse some characteristic features of the local economies and their level of dependence on certain industries or branches.

A first step in identifying local specialisation is to compare the map the composition of the local economies as divided by primary, secondary and tertiary industries. A triangle classification makes it possible to identify different types of combinations of these sectors of activity in the countries where LAU2 data were available, i.e. Switzerland, Cyprus and the North Calotte (Map 32). This shows the extreme diversity of local profiles:

- The North Calotte municipalities are typically positioned close to the 'tertiary' corner (red to dark red), thus emphasizing the high relative importance of public services in terms of employment. Primary and secondary industries are of limited importance in terms of employment, even if some of those branches (for instance mining) are still dominating the economy when it comes to produced added value (Gloersen et al., 2009).
- In Cyprus, many localities in the inland are dominated by the primary sector (green to dark green). However, a handful of localities show a strong dominance in the secondary (dark blue) or tertiary (dark red) sectors.
- The two Swiss regions, despite both being mountainous regions, show a great deal of variety in the specialisation of their local economies. In the canton of Jura, several localities have a strongly dominating secondary industry (dark blue), linked to the watch-making industry, or primary industry (dark green), but with no locality with a strong prominence of the tertiary industry. The situation in the Valais is almost the opposite one: the more mountainous municipalities have a strong specialisation of their economies in the tertiary industry, essentially driven by the tourism industry (e.g. winter resort), and in some cases combined with a strong agriculture. A few municipalities have a distinct secondary-sector dominated profile.

For Malta and North Iceland data was only available at the level of the whole territory, the tertiary sector dominates with about 70% of employment in each case. These wide scale data are however hardly comparable to the previous LAU2 data.

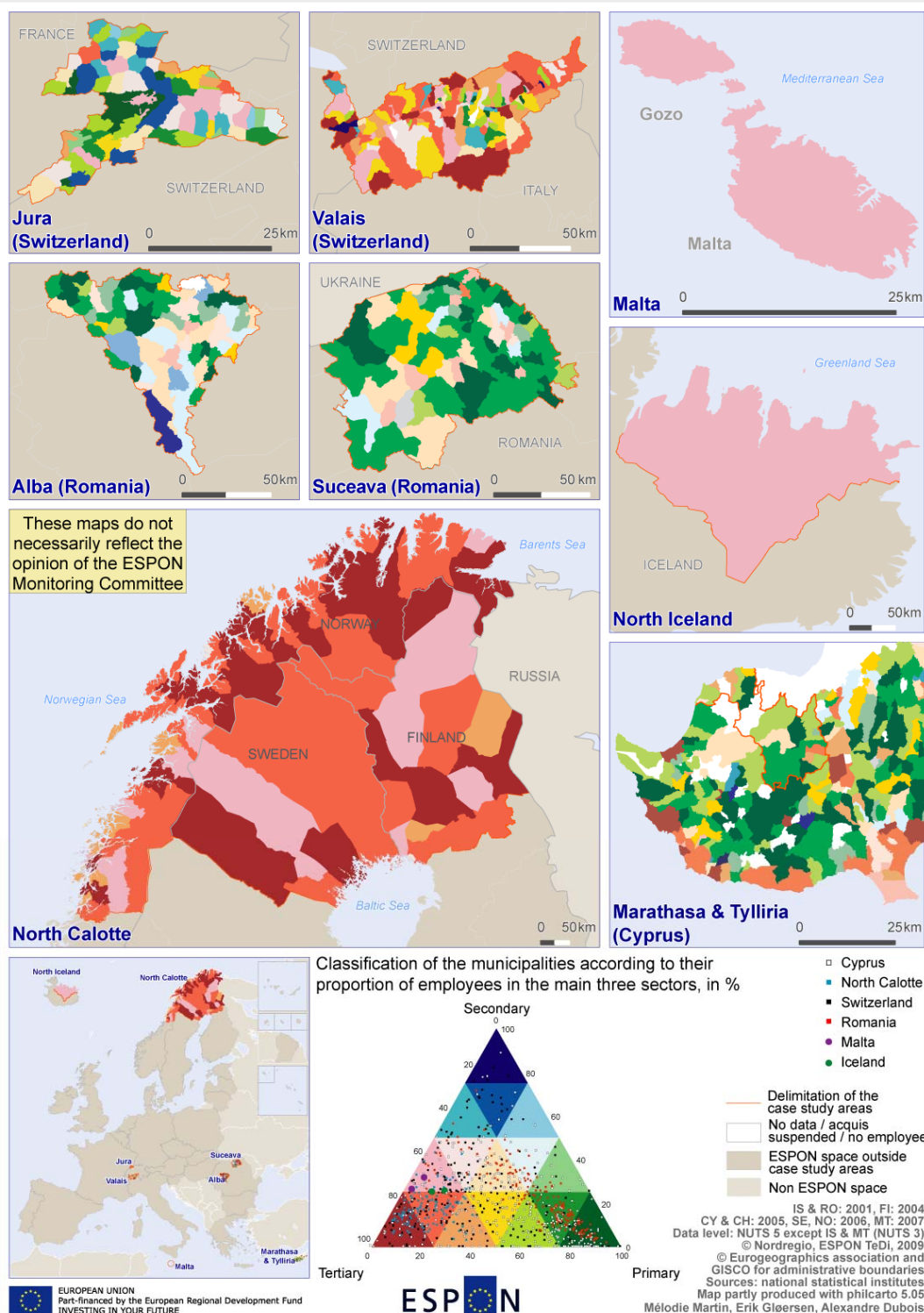
The data on employment per economic branch, identified as groups of NACE classes have also been collected and analysed using a Hierarchical Ascendant Classification method that makes it possible to identify the most homogenous groups of LAU2 areas as possible when it comes to the composition of the local economy according to branches. Based on this analysis, we have chosen to identify 7 different classes, each of them corresponding to a specific type of economic specialisation.

This typology highlights the high relative importance of agriculture in the inland parts of Cyprus (and especially in Marathasa and Tylliria) and in many localities of Jura (Switzerland). It also confirms the dominance of the service sector in the North Calotte region, comprising both public services (health care, education, administration) and private services (services to businesses, real estate). It also reveals the pivotal importance of fisheries for the economy of many coastal communities in Norway, as well as in North Iceland.

The Romanian case studies show mixture of localities with an over-representation of either the public service sector or the manufacturing and energy sectors. Yet, it shows as well the importance of capital-intensive industries such as mining in some localities (dark red).

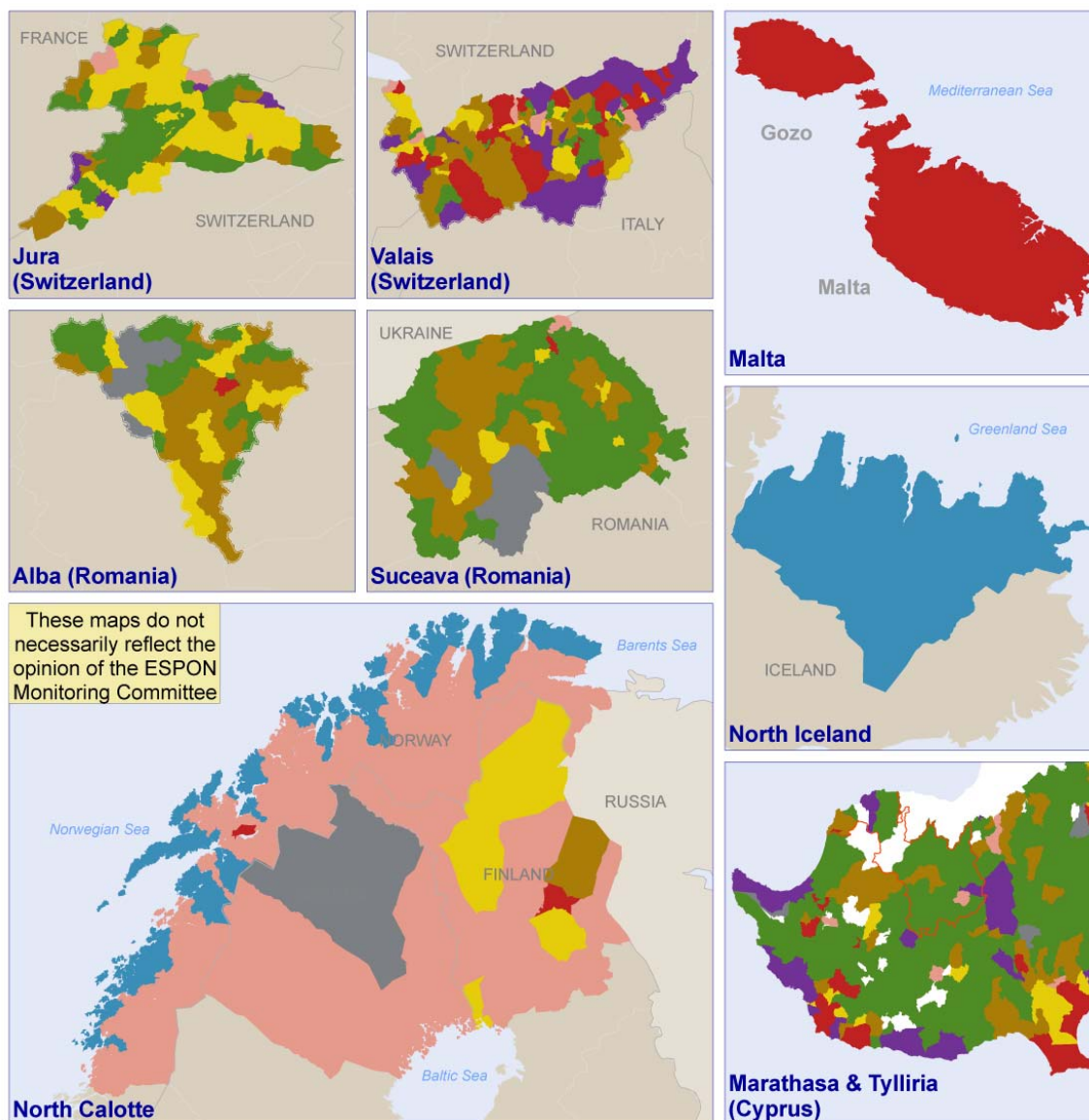
The specialisation of local small scale economies is important from a policy perspective as it often a precondition for the emergence of competitive activities generating higher added-value. If such a strategy makes it possible to generate a sufficient economic mass within a given activity in spite of the limited size of the functional region that hosts it, it also increases the exposure of the local economy to risks related to fluctuations of prices and product cycles. A high degree of specialisation makes the concerned communities more vulnerable: the social impact of economic crises within the sector of specialisation will be larger when their effect cannot be compensated by other sources of income or by attenuated by a significant internal exchange of goods and services. Furthermore, high degrees of specialisation may increase the risk of mismatch in the labour-market between, on the one hand, the demand of specific type of labour force, stemming from the local/regional economic specialisation, and the supply of qualified labour force (education, life-long learning). Finally, an insufficient scope of employment opportunities for young people or a gender imbalance in the employment opportunities may threaten the long term sustainability of local communities, when it leads to selective out-migration affecting the social equilibrium and reproductive capacity.

Structure of the employment in the case study areas



Map 32 Classification based on the relative importance of the primary, secondary and tertiary sectors

This type of representation puts the emphasis on combinations dominant sectors of activity (primary, secondary, tertiary) within LAU 2 (or regions in the case of Malta and Iceland).



These maps do not necessarily reflect the opinion of the ESPON Monitoring Committee

Classification of municipalities* according to main deviations in employment by sector

- Agriculture over-represented
- Fishing over-represented
- Mining and quarrying over-represented
- Manufacturing/or electricity, gas and water supply over-represented
- Construction and manufacturing weakly over-represented
- Trade, transport and/or financial intermediation over-represented
- Hotels and restaurants over-represented
- Health and social work, education and public administration over-represented

- No data / acquis suspended / no employee
- ESPON space outside case study areas
- Non ESPON space
- Cyprus case study area

*except:
- Malta: Malta and Gozo
- Iceland: Norðurland vestra and Norðurland eystra

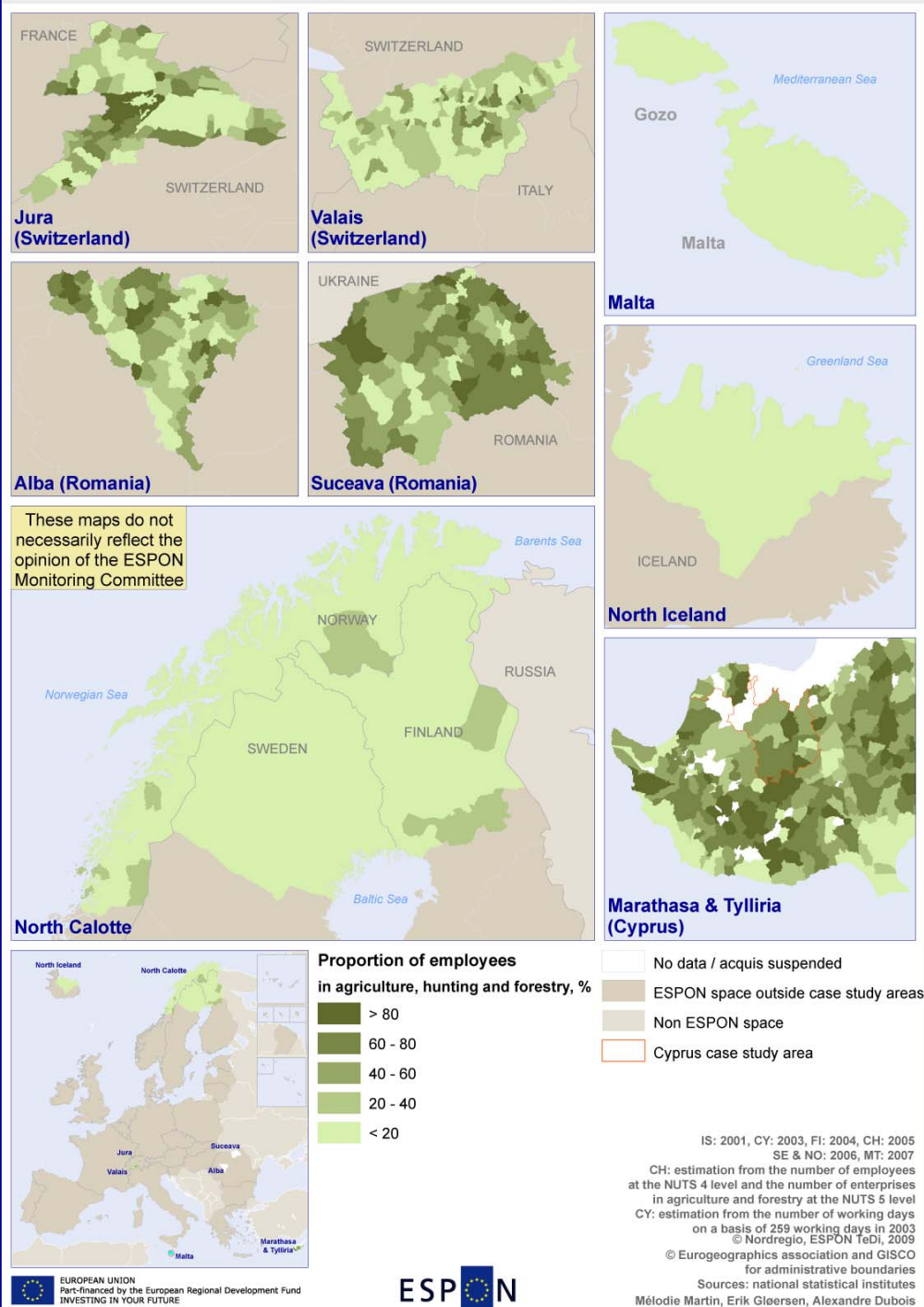


IS: 2001, RO: 2002
FI: 2004, CY & CH: 2005
SE, NO: 2006, MT: 2007
© Nordregio, ESPON TeDi, 2009
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Sources: national statistical institutes
Map partly produced with Philcarto applying an ascendant classification method to the numbers of employees per sector, considering NACE rev.1 sectors A to O only.
Erik Gløersen, Melodie Martin, Alexandre Dubois

Map 33 Classification based on the relative over-representation of individual branches compared to other case study municipalities

This map shows the diversity of economic profiles in TeDi areas.

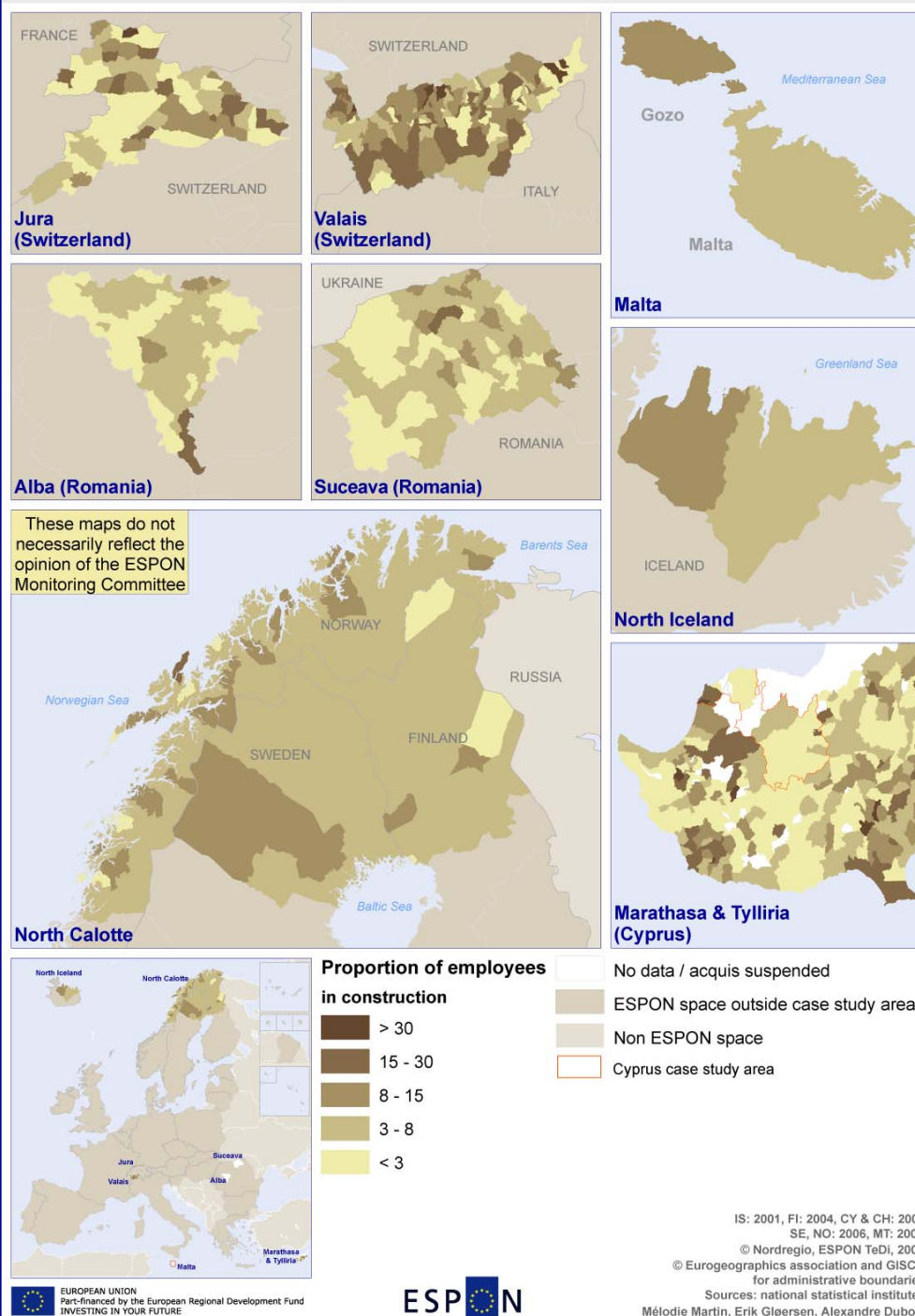
Employees in agriculture, hunting and forestry



Map 34 Proportion of employment in agriculture, hunting and forestry

TeDi areas generally have high values compared to the European average. Cyprus stands out with the very high relative importance of the agricultural sector across the rural areas. The values to be found in Marathasa and Tylliria are not exceptional in the national context. Western Jura and parts of Western Valais (High Valais) are also characterised by strong local agricultural sectors.

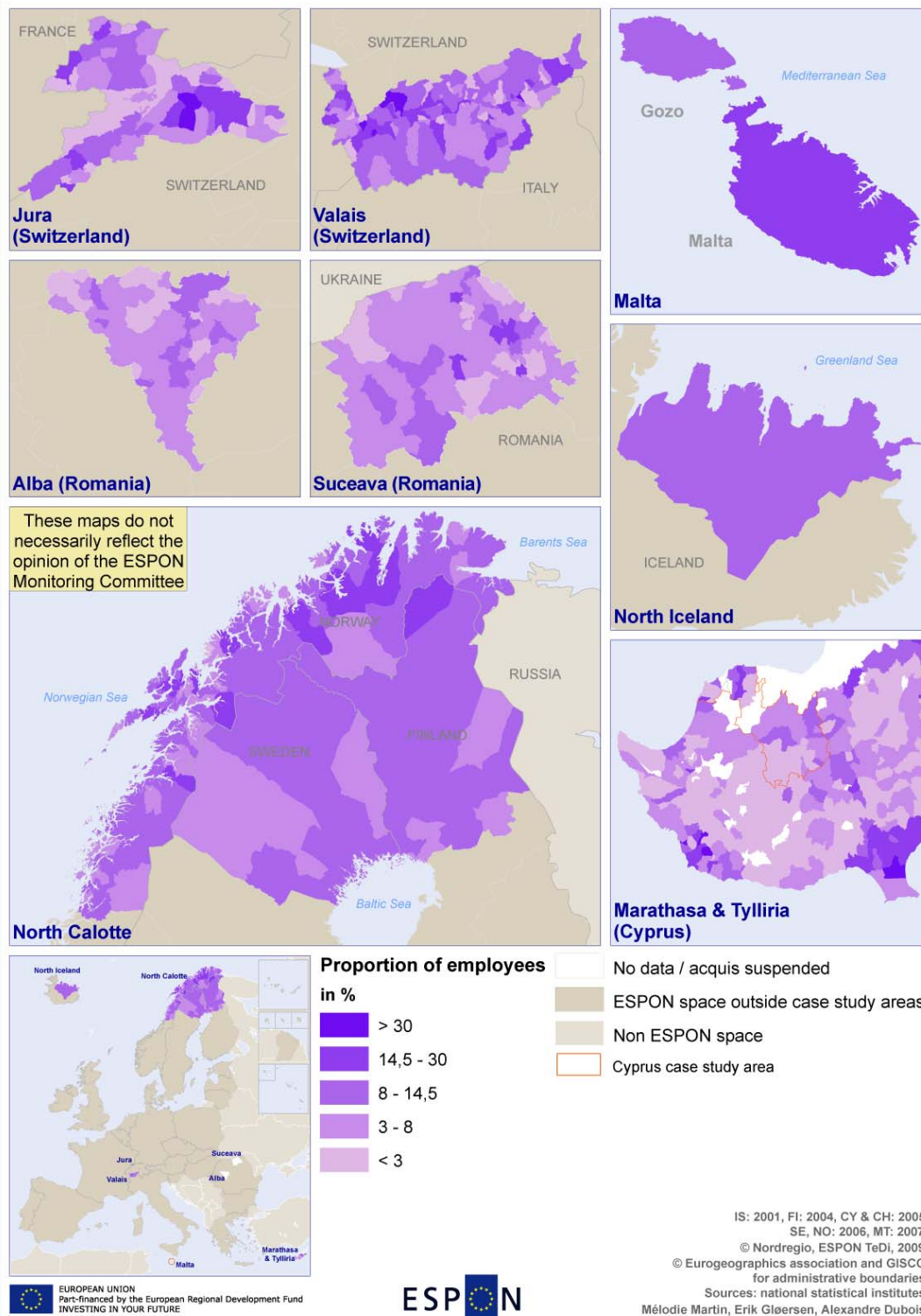
Employees in construction



Map 35 Proportion of employment in construction

The relative importance of the construction sector is generally in line with the European average. High values can be encountered both in relatively isolated and peripheral parts of the case study areas and close to urban sectors, suggesting that similar types of proportions can correspond both to larger production plants and individual or SME-types of activities.

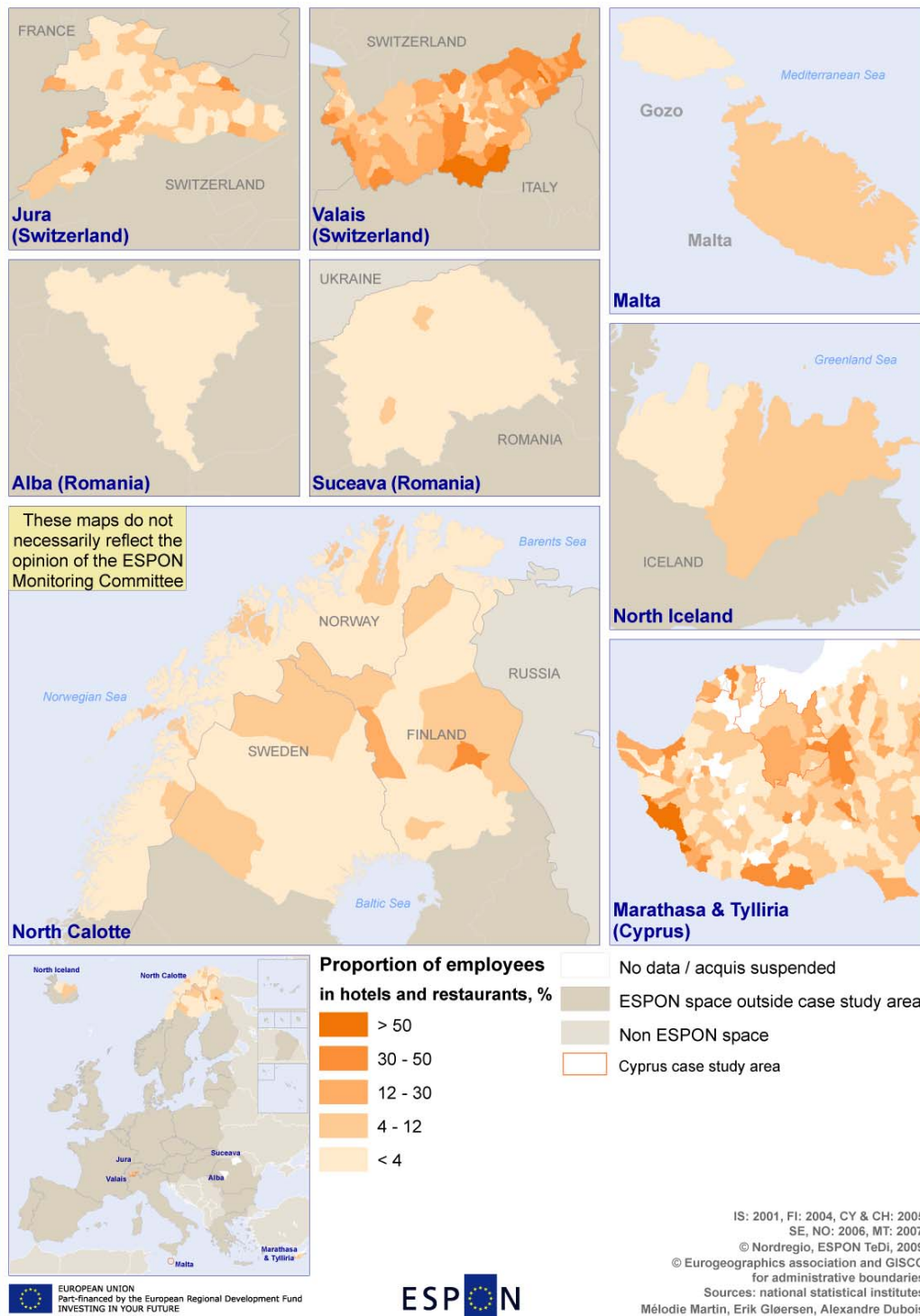
Employees in wholesale and retail trade, repair of motor vehicles and personal and household goods



Map 36 Proportion of employment in commercial activities

Commercial activities are typically concentrated in more central parts of the case study areas.

Employees in hotels and restaurants



Map 37 Proportion of employment in hotels and restaurants

This indicator provides a good indication of the general importance of tourism activities. This illustrates well the contrast between Cyprus and Malta, where the highest proportions of tourism employment are to be found in the more urban and central parts, and Valais, North Calotte and Jura, where peripheral and isolated locations correspond to the tourism hotspots.

c. Business environment and innovation

If specialisation of local economies is seen as positive in order to make them more *competitive* at the national, European or even global levels, a certain degree of diversification of these economies makes it possible to provide more *stability*, i.e. to be less dependent on the fluctuations within one or two sectors of activity.

Strategies aiming at both increasing the specialisation and diversification of regional and local economies should be strongly connected to the existing business environment and should seek to develop new regional routines when it comes to the multiple dimensions of innovation (organisational, incremental, technological...).

In the Swiss canton of Valais, clustering has become an important part of the economic dynamic catalysed by the regional strategy. Clustering in that case aims at strengthening the relations between SMEs in the region, and focusing on some high-value economic activities (chemistry, herbal industry...) that will serve as the spearhead of the regional economy. Clearly, in the case of Valais, innovation is seen as a potential to increase the competitive edge in some sectors of activity, but is not solely linked to high-tech industries, which the region lacks. On the contrary, *incremental innovations* in agriculture (new techniques for mountain agriculture, food processing...) or tourism (winter sports infrastructures...) based on the existing economic activities are sought.

In Jura, the promotion of economic modernization and diversification in order to improve the region's economic competitiveness is the goal of the CREAPOLE organisation. This organisation also aims at strengthening the networks of regional economic actors and promoting transfer of technology in the regional business environment.

Across the North Calotte, interesting initiatives have been taken in order to improve the regional business environment and the capacity of economic actors to develop new innovative products and processes. Clearly, those strategies, mainly initiated in the region, promote incremental innovations able to increase the added-value produced by the traditional economic activities of the region (mining, forestry and wood processing, energy production...). Diversification in the range of activities developed is seen as an important strategy for improving the attractiveness of the most remote or sparsely populated parts of the region, using wilderness tourism for instance. Collaboration and experience-sharing networks such as MULTIPOLIS also enable local and regional actors (authorities, education centres and companies) to improve the region's competitiveness and establish integrated labour-markets. Finally, R&D investments are particularly targeted at the sectors

that utilize the region's territorial specificity in order to develop new 'niche' sectors (e.g. cold climate technology).

The business environment in the Alba County is strongly dominated by industries connected to the exploitation of natural resources, especially mining and wood processing industry. The mono-sectoral character of the business environment is strongly felt in the county's mountain areas. The ongoing processes of restructuring in those industries emphasize the need to develop alternative activities in order to diversify the economic structure. In mountain areas, the development of projects aiming at developing the touristic offer (e.g. the Heaven's Gate project in the Sebes Mountain area) is one of such initiatives. Innovation strategies in the county essentially aim at promoting the acceleration of information society development. Use of new technologies to improve the quality and access to public services is prioritised (e-government, e-education, e-health).

In the Suceava County, the development of tourism is a cornerstone of the regional development strategy and a way to ensure the diversification of the local and regional economies. Support to existing SMEs, especially using the EU funding available, is initiated in order to strengthen the regional business environment. Innovation initiatives in the region are specifically targeted to increasing the added-value produced in the agricultural sector by promoting bio-technological innovations, based on the natural specificities of the Suceava territory (e.g. fito-genetic resources in the northern parts of the Carpathian Mountains, or genetic vegetal resources of 'less explored', remote geographical areas).

For Gozo, tourism, especially culture and recreation aspects, is alleged to be an opportunity for the future socio-economic development of the island. The eco-label strategy aims at utilizing environmental aspects as an asset for socio-economic development. The eco-label is thought to have an impact on the touristic profile of Gozo, as well as opening new possibilities regarding environment-related research, with the establishment of research laboratories supporting modern agricultural technologies related to livestock, biodiversity and local products.

The Marathasa and Tylliria TeDi region is strongly dependent on low value-added agricultural sector. Ways to break this dependency go essentially through the development of a wide range of tourism activities (agro-tourism, conference-tourism, sports-tourism...), thus making it possible to avoid the seasonal effects of tourism activities. The promotion of an integrated brand for the area is deemed important to highlight the specificity of the touristic offering of the region (Troodos Mountain Nature and Culture Park). Although the innovation capacity in the Marathasa & Tylliria region is rather low, important initiatives are taken in order to develop new 'niche' opportunities for the region. For instance, the focus of the national strategy on renewable energy opens up new possibilities: the installation of solar panels, or the production of solid fuel utilising wastes from local industries (production of pellets by compressing wood sawdust, a by-product of sawmilling and other wood processing industries). Yet, when it comes to renewable energies,

potential conflicts may arise regarding how to integrate such energy production facilities while keeping preserving the local landscapes (necessary for tourism activities).

d. Economic resilience in the face of the financial crisis

In a context of economic crisis, TeDi areas are in an ambivalent position. On the one hand, their relative isolation from major metropolitan areas may allow them to be less exposed to downturns in the financial sector such as the one that has occurred recently. The Valais offers a good example in this respect, as the crisis has given the Canton an opportunity to demonstrate some unsuspected strengths of its local economy (see Text Box 1). On the other hand, the high degree of economic specialisation in may make TeDi areas particularly exposed to fluctuations in world market prices. This is not always the case: In the case of North Iceland, for example, the devaluation of the national currency has considerably increased the competitiveness of local fisheries. The economic collapse has also, at least temporarily, caused people to move back to the periphery due to the weak labour opportunities in the Reykjavik area. The North Calotte mining industry, on the other hand, has been hit hard by reduced world demand from iron pellets, even if this does not affect the long term growth perspectives for this industry. In any case, resilience only becomes an issue insofar as there are local economic forces capable of taking advantage of economic opportunities when they occur and of adjusting to changing contexts. In the case of Gozo, the lack of such an economic capacity appears as the primary challenge to be met (see Text Box 2)

Text Box 1 The Valais performing relatively better in a period of financial crisis

The economy of canton Valais is always considered as having strong structural weaknesses. Much has been criticized until the 2008 crisis about the lack of superior services (insurance, financial ...) that sticks the canton to the bottom of classification regarding added-value per capita. It is therefore interesting to have a quick look at its resilience to the financial crisis over the past 1 and ½ year.

First of all, one must clarify that weak added-value per capita does not necessarily means low living standard. The 2006 Crédit Suisse Economic Research report entitled *The disposable income in Switzerland: what is left for the households when all has been deduced?*²⁶ shows that households in the agglomeration of Sion (canton capital) dispose of the highest available income in Western (French speaking) Switzerland, once fixed charges such as taxes, social insurances and housing expenses are paid. Since 2006, local taxes have been reduced by 23%, suggesting that this ranking would now place the Valais in an even more favourable position. In the 2008 study update of the Crédit Suisse report cantons of Jura and Valais rank above Swiss average and ahead of Western Switzerland cantons²⁷.

In addition, with 4.8% unemployment in November 2009, Valais was the less affected canton of Western Switzerland (average = 5.7%). For most public and private actors in charge of economy, crisis has hit the Valais less severely than Switzerland as a result of its economic pattern. Indeed, most tertiary (administration, health...) and secondary (construction) jobs are not oriented toward export and regional market kept in good shape. Among SME, industry is confident in a slow revival along with increased pressure on profits, while service expect business to continue as usual. Global industries (Novelis/Alcan aluminum, Lonza biotechnologies/chemical, Scintilla-Bosch machine-tool) have certainly suffered of the global crisis. They had to set some workforce on administrative leave, but have recovered since fall 2009, hiring again.

Finally, regional banking system offers some overall perspective on resilience of Valais economy under global economic crisis. Unlike global banks like UBS, the Cantonal bank of Valais (BCV) is primarily involved in regional and national markets. While UBS was loosing 20 billions CHF in 2008, BCV was breaking historical records. Furthermore, since 2008 its

²⁶ Rühl, Thomas and Carnazzi Weber, Sara (2006) *Le revenu disponible en Suisse: tout déduit, que reste-t-il aux ménages?*, Crédit Suisse : Zürich.

²⁷ Rühl, Thomas and Carnazzi Weber Sara (2008) *Le revenu disponible en Suisse: Où la vie est-elle la moins chère?*, Crédit Suisse : Zürich.

balance has progressed of 18.4% (1.5 billion). By 2009, indicators were once again breaking new records. Other banks active regionally like Raiffeisen show similar trends.

It is a bit early to draw a final conclusion on the effect of the crisis on Valais by the end of 2009. It is however possible to learn that such regional economy is less affected than metropolitan areas by global financial crisis as a result of lower exposure to financial services. It is also quite clear that the crisis hits regional economy with a delay.

Text Box 2 The difficulties of Gozo to prove its resilience

Up to 2007, Malta had been benefitting from strong economic growth as a result of the global economic expansion, its entrance to the European Union, and a number of initiatives that allowed the country to take advantage of the opportunities this presented, however Gozo did not benefit from this economic growth in a proportionate manner which resulted in growing disparity between the islands. This could be attributed to a number of issues which limit Gozo's economic competitiveness, but especially the fact that the growth industries at the national level in the past four years, including pharmaceutical production, online betting and financial services, practically do not feature on Gozo at all. It is also worthwhile to note the strong intervention of government in economy in employment in Gozo, which while providing security in the long term, does not allow the economy to benefit from positive economic fluctuations.

Gozo has been relatively insulated from the recent financial crisis for two main reasons. First, the economy of Gozo is not exposed to the international financial sector and secondly, the financial system in Malta is very resilient since it is mainly financed through domestic borrowing. However Gozo did suffer from the resulting economic crisis, mainly from the impact it had on tourism. In this respect Gozo suffered more than Malta, as the overflow of tourism activity from Malta out of which Gozo usually benefits was the first to be cut off. In this respect its isolation and peripherality have made Gozo more vulnerable. This weakened resilience was what prompted the MCESD regional governance initiative which is explained in Text Box 10.

Another case where Gozo failed to prove its resilience is in introduction of low-cost airlines, such as Ryanair. The introduction of low cost airlines brought both opportunities and threats to the tourism industry in Gozo. It provided access to a much larger and economically diverse market for the local tourism industry but it also created the product of cheap holidays in neighbouring destinations that poached internal tourism from Gozo. The island has not been able to take advantage of the positive benefit as strongly as it has suffered from the negative threat. A possible reason could

be that it has a weak presence in the online tourist market, which tourists using low-cost airlines are likely to use. It also has been weak at individual companies adapting to take advantage of opportunities. There are quality management issues and an element of business neglect, with grand ideas failing to be followed through in the long run. This is especially visible in the case of revenue allocated for recurrent maintenance of hotels.

Resilience allows you to take greater advantage of the upturns than the suffering incurred from the downturns. In periods of booms, however, Gozo is not benefitting as much and in times of recession it has been suffering more. The link between the geographical specificities to this situation may lie in the capacity of the human resources to adapt and face change. The attitudes and beliefs are typical of insular and peripheral islanders. The view that Gozo is typically associated with businessmen who are hoarders but not investors, who feel at risk and as a result are very protective of earnings emerged from discussions with insight providers. At the General Workers Union (GWU) regional conference in Gozo (November 2009) a number of participants noted that following the initial investment injection little capital is ploughed back into Gozitan businesses. Being resource scarce, leads to high competition for resources, and the population is characterised by high risk aversion as a result of historically never having had much control over their own destiny. These attitudes are starting to change, with more local stakeholders taking an active part in the social dialogue process and exerting influence over the direction of regional policy.

Text Box 3 Tylliria and Marathasa: preserved, but also limited, by isolation and small scale

The two areas, Tylliria and Marathasa, that constitute the Cyprus TeDi region are characterised by different constraints and challenges, but also share many common features. They are relatively isolated inland mountainous and rural areas, densely populated and suffer from different negative trends (ageing, abandonment of traditional economic activity, etc.), despite their important historical, cultural and natural resources that could support the differentiation process. Their economic profile is still characterized by the continuing strong dependence on a low value-added agricultural sector with many structural problems and the difficulty to differentiate their productive base, despite the gradual turn to tourism attempted in the last few years. Finally, along with the structural problems it should be mentioned also the political problems that affected the Cyprus TD areas developmental process. In the particular case of Tylliria the intensification of the isolation from the capital city of Nicosia and of the rest urban centres, while in the particular case of Marathasa, the cutting of the area from its traditional markets, affected their developmental process.

The two case study areas are affected to the extent that their local economies are relatively integrated to the wider Cypriot economy an input-

output framework and flows relations. When the local markets are isolated, the effects are small. When the local markets are integrated, the global effects on the Cypriot economy pass through the connections to the local level. Moreover the EU integration in the case of Cyprus has not had the same effects as in the case of other new EU members due to the combined impact of peripherality, insularity and the permanent absence of a connection with other areas of the EU common market.

Because of the small scale of the local economies, the maintained importance of traditional economic activities and the isolation, the area is in some respects protected from external economic fluctuations so far. The major challenge at the present time is therefore the diversification of the regional economic basis along with the improvement of the attractiveness of the regions. The key strategic objectives include the attainment of long-term sustainability through the promotion of appropriate forms of economic development and the improvement of attractiveness through the reconstitution of the social and economic fabric, the diversification of the local economic base, with emphasis on higher added value activities, the support of rural development, the protection of natural and cultural heritage, in order to render the areas into a visitor destination, as well as the improvement of their accessibility. Still there are indications that a diversification of the economic base building on quality of life assets (e.g. secondary housing), sustainable tourism and traditional products is ongoing. These processes also help promoting a new, improved image of the concerned areas.

5.The environment: quality of life and economic opportunities

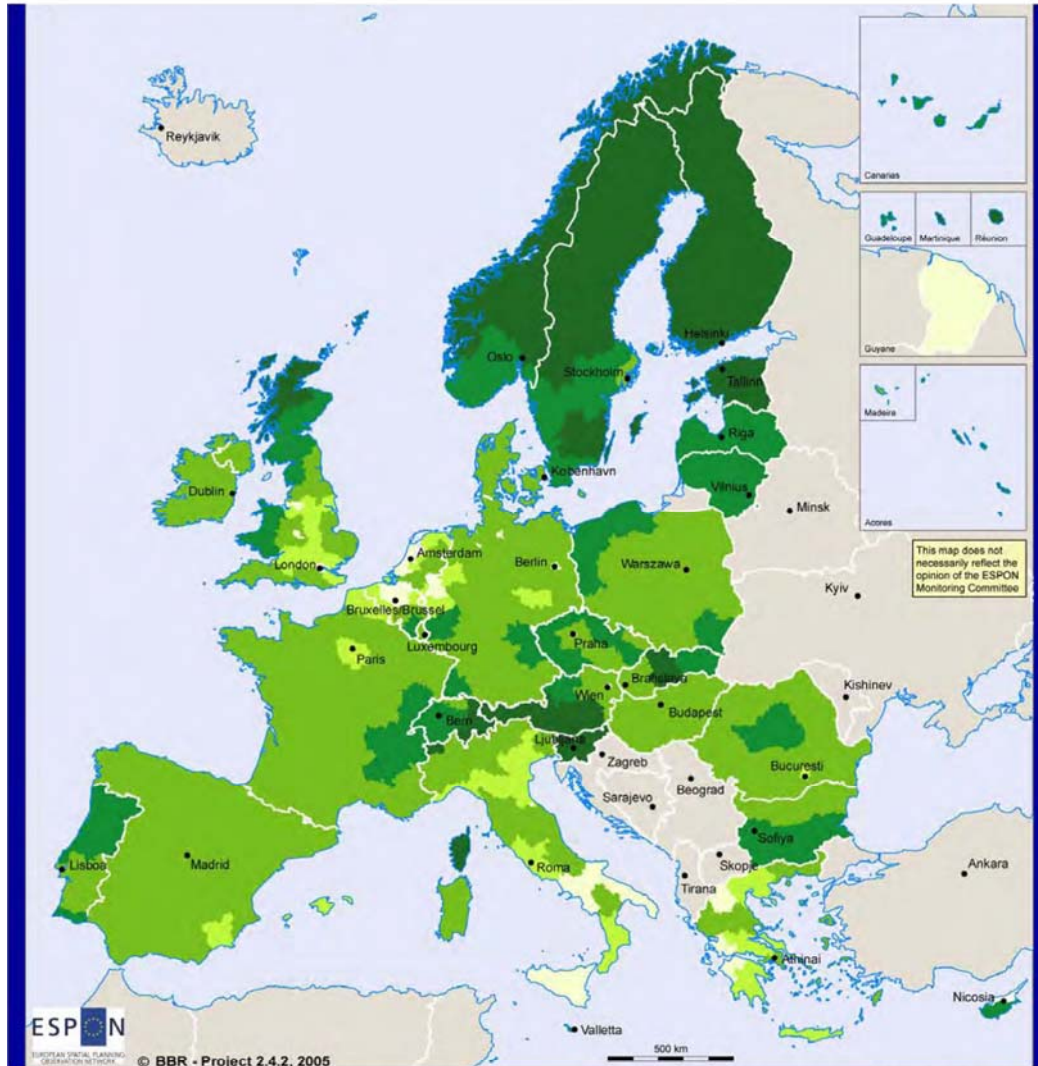
As previously described, the TeDi areas are characterised by distinct and varied economic profiles, many of which are directly related to the natural features of the area. This for example concerns specialisations in fisheries in North Iceland and along the North Norwegian coast, in agriculture in Suceava, Marathasa and Tylliria, in tourism in Valais and mining and forestry in North Sweden and North Finland. Local and regional emphasise the importance and value added of these sectors and activity, as well as the need to promote their modernisation and to preserve their competitiveness. They however also tend to challenge ideas according to which their economic profiles would be predetermined by the natural context. The ambition of developing more knowledge-intensive types of activities, in which the local natural feature would only be a part of an initial competitive advantage, can be found in all case study areas. In this context, the good access to a natural environment and the quality of the social interaction are highlighted as factors that may help attracting a more highly educated and entrepreneurial persons to the localities.

a. The regional environmental context of TeDi areas

The environment in ESPON 2006 projects is often seen as an intrinsic natural quality rather than a potential for grounding present and future economic activities. Moreover, the natural space is often defined as a remainder of the artificial or built-up space: the natural quality is defined as a “default setting” rather than as an asset per se. Finally, the development potential of the environment is often limited to the sole agricultural activity, leaving aside the potential use of the landscape for tourism activities or the richness of the underground for extracting activities.

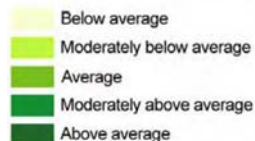
The regional classification of Europe, developed in the framework of the ESPON 2006 2.4.2 project, propose a definition of ‘naturalness’ based on the extent of artificial surfaces, of natural surfaces (both according to CORINE database) and of agricultural activities, at the NUTS 2 level.

Regional classification of Europe: Naturalness



Degree of naturalness as an aggregate of 3 indicators:

- Artificial surface (Share of total area, CORINE) -
- Natural surface (Share of total area, CORINE) +
- Agriculture intensity (Output/input ratio) -



© EuroGeographics Association for administrative boundaries
 Regional level: NUTS 2
 Origin of data: ESPON 3.1 Taurus,
 ESPON 2.4.2 BBR, own calculations
 Cyprus: data for government controlled areas only
 Source: ESPON database

Standardised based on the European mean value

Map 38 Regional Classification of Europe: Naturalness

At NUTS 2 level, TeDi regions are often above the European average on the thematic indicator of naturalness. Yet, the indicator does not enable an analysis of more detailed development opportunities based on environmental or natural characteristics of TeDi regions.

Not surprisingly, most of the NUTS in which TeDi regions are located are above the European average. This is especially due to the fact that those regions are less populated than other European regions, and contain less large urban centres.

b. Tourism as a vector of territorial development

Tourism is however also seen a central component of development strategies in most case study areas, based on a combination of favourable natural conditions and/or elements of cultural heritage. Some case study areas emphasize that the beauty of local sceneries and the extensive local heritage could be further exploited. This for example concerns Suceava, which is part of the historic region of Bucovina, which extends into Chernivtsi Oblast on the other side of the Ukrainian border. Beyond their scenic qualities, these regions concentrate tourism opportunities, with a well-preserved natural qualities. The sports tourism can be based on numerous activities such as skiing, fishing, hiking, paragliding and rafting, that create possibilities of year-round frequentation of many facilities. The presence of natural reserves such as the Calimani National Park add to the attractiveness of the region. In other parts, the abundance of game makes it possible to generate considerable incomes through hunting. The region is furthermore among the most attractive in Romania for cultural tourism with its numerous 15th and 16th century monasteries famous for their exterior frescoes, seven of which are included on the UNESCO World Heritage List. Finally, there is a long tradition for spa tourism, e.g. in Vatra Dornei where it has also made it possible to develop a Casino activity. The benefits from these tourism activities are however quite unevenly distributed: A more specific focus on the development of rural mountain tourism and agri-tourism would however be needed

Similar types of strategies can also be identified in Cyprus. It is considered strategically important at the national level to change the general perception of Cyprus as a "sun and sea" destination, as there is increasing competition for this type of tourism and because a positioning within more specialised segments can have greater economic, social and environmental benefits. TeDi areas can make particular contributions in this respect, as areas that are not yet concerned by mass tourism and that can more easily develop an alternative image. A study for the mountainous resorts (in which the Marathasa region is included) for example suggests that the creation of a new tourism identity around the notion of a "Troodos Mountain Nature and Culture Park". The Troodos National Forest Park covers an area of 9,337 hectares around the peak of Mount Olympus. This area of great natural beauty is suitable for activities such as hiking, winter skiing (although limited), biking, nature study and picnics. Along with natural wealth, the Troodos mountains are where the painted churches of Cyprus can be found, superb examples of Byzantine art, ten of which have been put on UNESCO's World Heritage List.

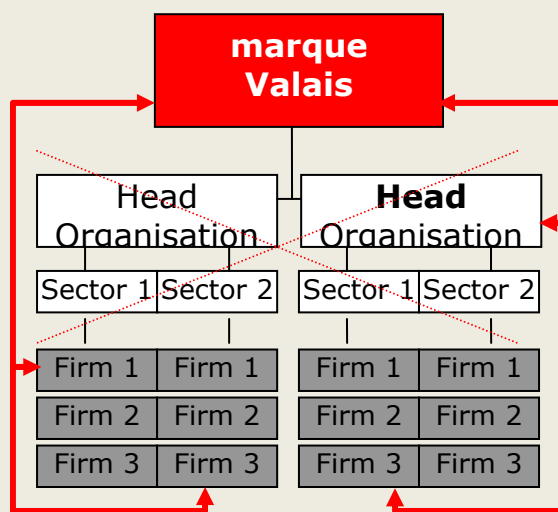
Tourism is also very important economically in the Valais as it account for about 25% of the gross regional product, with prestigious destinations such as Zermatt. The need to further promote this activity is recognised. Integrated initiatives

between neighbouring destinations are for example being developed, and an innovative branding initiative has been put in place (see Text Box 4). At the same time, some economic actors consider that the promotion of the Valais as a leisure destination can lead to problems in terms of branding, as it may be difficult to reconcile such an image with the objective of commercial and industrial development. This can call for a clearer distinction between the functions of different territories.

What appears in all case studies is the complexity of the tourism sector that requires coordinated actions within a wide range of sectors to be successful. This not concerns the need to concerted strategies within sectors such as transport, hotels, cultural events and others directly participating to the creation of a tourism product. Tourism is also for many only an additional source of income, which makes it necessary to think precisely of how it may fit into a wider context of multiactivity. Both Romanian counties of Alba and Suceava are in the process of imagining how to develop more extensive agri-tourism sectors. Additionally, tourism development is also a way of developing the self-perception of the inhabitants in TeDi areas, as it implicitly helps valorising their region, asserting the value of their heritage and traditions. The case of Gozo helps further understanding the potential value of such an exercise in defining and asserting a local identity (see Text Box 4).

**Text Box 4 Organisational innovations
to implement the “marque Valais” brand**

In order to brand the Valais region, the “Association Marque Valais” was created in 2005 by the chamber of commerce, the tourism promotion administration and the chamber of agriculture together with other major regional actors. When developing the “Valais” brand, it however became obvious that the usual hierarchical structures through which Swiss regional policy operates were not adapted. Internal competition between organisations representing economic interests or localities made it difficult to define a common strategy.



**Direct
contract**



les Alpes-Source

In this context, the “Association Marque Valais” innovated by short-circuiting these traditional circuit. It did so by establishing direct contacts with entrepreneurs, who would sign an agreement on usage of the brand and the codes and values associated with it. The strength of this system is that joining “marque Valais” is a personal and voluntary process. Entrepreneurs who choose to do so join a “club” and not an association. Local authorities or head associations are also invited to be part. If this way of proceeding challenged some habits, first results since the launch of the “marque” in the fall of 2009 suggest that it is quite efficient.

www.marquevalais.org

Text Box 5 Conflicting branding issues for Gozo

The fact that Gozo is an island with particularly attractive landscape, climatic and cultural heritage assets has served its branding as a tourist destination. However, the image, or brand, that Gozo holds in the eyes of the Maltese population is not shared on an international scale (where Gozo is of course not that geographically close), and it has not been the product of a concerted effort or a cleverly thought out marketing campaign. The national perception of the Gozo brand has grown in an organic way through tradition, history and hearsay. The Maltese population has a mixed image of Gozo, which they look upon with nostalgia due to its preservation of a more traditional way of life, 'the Malta of 40 years ago' while at the same time they resent the image that Gozo would benefit disproportionately from national funds. This dichotomy in imagery has two polar effects. On one hand it draws internal tourism to the Island, with many Maltese heading to Gozo for long weekends, summer holidays and to enjoy special festivities such as carnival celebrations. On the other hand the underlying resentment by the Maltese who feel Gozo should be pulling its own weight resonates within private sector attitudes towards conducting business in Gozo and, in certain circumstances, public sector attitudes towards implementing policies for the development of the Island Region. This seriously hampers greater visions of closer collaboration between the islands and impacts the quality of governance structures and the effectiveness of representation of Gozo on national bodies.

Looking at the international brand of Gozo, this has also emerged in a somewhat haphazard and definitely less developed manner. Gozo is generally promoted as a sub-theme of a Malta image. The entity responsible for tourist branding is the Malta Tourism Authority (MTA) who has the responsibility and funding to promote the national brand on an international scale. Gozo has a representative on the MTA board, however this minority representation often means that Gozo gets relegated to a secondary role in such promotional activities. In addition, images of Gozo are usually used to brand the 'Malta' (as a country) tourist product. So tourists are attracted to the country by a brand that is drawing upon the charm of Gozo, however the typical tourist spends a day in Gozo on a bus tour that takes them to all the main attractions and they leave without spending a single night on the island therefore leaving a relatively minor economic contribution to the island's economy. This situation arises due to the lack of overseas promotion of the island by the MTA. Clearly a one-person representation on a national board is not able to deliver the strength and intensity that a Gozo brand needs. However Gozo still manages to represent the idyllic Mediterranean island image in the minds of many on an international setting even though this is not paying off in terms of economic growth and local income.

The image of Gozo in terms of a manufacturing base is very poor, due to its geographical specificities. Once again Gozo has a solitary representation on the national body charged with the promotion of industry, Malta Enterprise, which has a Gozo office, however this office acts as a 'branch', implementing the national policy in Gozo rather than drafting its own regional policy. This has resulted in a fragmented policy towards branding of Gozo in terms of a place to do business. It is also to be noted that Gozo has often been branded to investors in manufacturing not as a viable business opportunity per se but as a place where you can receive government subsidies to business to offset inherent disadvantages of remoteness, peripherality and insularity. This is not a credible brand to investors, as subsidies run the risk of being withdrawn or of becoming insufficient to meet increasing production costs over time and are definitely not a source of durable competitive advantage. This approach, rather than one based on developing a brand for a credible business model in manufacturing, has actually nowadays removed much of the possibilities for manufacturing investment in Gozo. It is however to be noted that over the years, such subsidies were called for by the manufacturers operating in Gozo themselves, which have over time dwindled substantially.

A new concept has been launched by central Government, that of Eco-Gozo, which sees Gozo becoming an ecological island and pioneering the change to a greener way of life. This has the potential to exploit Gozo's key strengths in climate, agriculture, culture of food production, growing agri-tourism sector and rural lifestyle. However this vision is still in its infancy as the Eco-Gozo action plan (2010-2012) has been launched only recently. There is the potential to use the strategy design put together by the Gozo committee of the Malta Council for Economic and Social Development to apply this vision to the island, which joined together with the LEADER programme as a tool for implementation could see this vision become a reality. It is essential to note that both Eco-Gozo and the LEADER programme are running the risk of presenting separate brands for Gozo, thereby risking creating confusion in the marketplace and unnecessary duplication of effort.

These conflicting branding issues have a common thread running through them in that Gozo is inherently a 'pretty' place, which is an attribute ranked high on the quality of living index of developed nations, however for the inhabitants who find it hard to gain employment, for the families that are uprooted through internal migration and to the companies that are in a constant struggle to be competitive in the face of harsher business environment, the beauty of the island provides little consolation. In terms of policy the image that the island is not carrying its own weight has a larger impact on the everyday lives of people in Gozo than the sun and sea image, it prevents them from making their voice heard, and while being stereotyped as idyllic and included in national aims to preserve this image,

they are not allowed sufficient self-governance and power to allow them to counter the parasitic image.

Text Box 6 Challenges to be overcome to brand the natural assets and regional products of Tylliria and Marathasa

The regional specificities of the areas refer to their rural resources which may be classified into three categories, namely natural resources, tradition and cultural heritage, and environment-amenity resources. Natural resources refer to the use of raw materials in the production of value-added and processed agricultural, sea, forestry and mineral products as for example, charcoals in Tylliria or grape juice products in Marathasa. Environment and amenity pertain to the regions' appeal for reasons of a good climate such as in Marathasa (and **the whole Troodos mountainous area**), **clean air, exceptional standards of** living and sea resorts such as in Tylliria that distinguish the two regions as a place for quality life and tourism. Tradition, cultural heritage and history relate specific goods with the two regions, such as, for example, the woven sacks for which the region of Marathasa has developed traditional methods of production, while the product itself, both in its production and consumption, has become part of the region's cultural heritage. Craftsmanship may collectively account for this.

Despite the fact that the regional specificities create a regional image, i.e., an image recognisable by internal consumers, this image is not pro-actively used in branding strategies. One major obstacle in addressing a branding strategy is the fact that, in both areas, an uninterrupted supply of their imaged products cannot be easily secured. Bear in mind that farmer-owned or regional brands directly control supplied quantities by limited membership, intellectual property rights over the use of some ingredient or process or trade secrets.

Activities leading to the production of regional imaged goods and/or tourism create both synergies and conflicts. Synergies are created between agricultural and food production not only because food is an indispensable part of the tourism experience but also because agricultural production maintains the traditional rural landscape in these areas. Conflicts arise usually over conservation issues and land use. It is however important to note that conflicts trigger innovation that leads to compliance, improves the economic activity and conserves the environment. This is what is currently going on in the production of Tylliria's charcoals.

Text Box 7 What happened to Marathasa's woven sacks?

While in Cyprus, the technique of weaving was a female occupation, the textile articles which were manufactured in the mountains of Marathasa (mainly sacks) were woven by men, the "Sakkas". Production centers were the Kaminaria Pedoulas and other communities in the region. For this local production thick cotton yarn and wool was used. The sacks were used to transport agricultural products. This technique was gradually abandoned and now the last "Sakkas" is supported by the Cyprus Handicraft Organization. He uses the traditional technique to manufacture articles other than the traditional sacks such as curtains, carpets, blankets and pillows bags. The Cyprus Handicraft Organization encourages young people to learn the technique.



Text Box 8 The Bukovina and Dorna brands in Suceava

Some companies and cooperatives are developing brands that are increasingly known in the Romanian domestic market. These organisations exploit the natural and cultural assets of the Suceava County in order to develop products that are embedded in the County's territorial heritage.

One of those is the Bukovina brand, referring to the ecumenical tourism in the monasteries of Bukovina. The brand takes advantage of the international reputation of the Monasteries of Northern Republic of Moldova, which were included in the UNESCO world heritage in 1993, and include the monasteries of Voronet, Humor Moldovita, Sfantul Ioan cel Nou of Suceava, and the churches of Patrauti and Arbore. Bukovina is the most known tourism area in the North-East.



Voroneț monastery

Another example is the Dorna brand. This brand made Dorna Basin known throughout the entire Romania, thanks to three main products:

- Mineral waters exploited and bottled in this area;
- Dairy products under the brand "La Dorna" - organic milk, cream, butter, cheese (Schweitzer)
- Spa tourism developed in Vatra Dornei resort

The 'Dorna branding' intends to promote an idea of the Dorna area thanks to key products with a focus on wellness.

c. Territories with specific functions in the wider context

Such a type of distinction can for example be found in Malta, where Gozo stands out as a distinctly less populated area with more preserved natural areas. This is one of the justifications behind the vision of establishing Gozo as an ecological island within 2015 is integrated in the National Reform Programme (NRP), which refers to the development of a master plan for the Citadella which will promote the historical aspect of the Island and the upgrading of several tourism zones which aim at increasing sustainability within the Gozitan tourism industry. This is associated with an adapted development strategy in the agricultural strategy, setting up research laboratories supporting modern agricultural technologies related to livestock, biodiversity and local produce. The National Strategic Reference Framework identifies that rural development in Gozo acts an important food supplier to the tourism sector and contributes strongly to the landscape of Gozo. The NSRF identifies that despite the decline in agriculture, there is the potential for the sector to contribute to high value market niches such as specialised tourism.

In Cyprus, the Marathasa region as many other mountain areas constitutes a potential water tower. This wealth of water resources, especially in a country that is affected by an almost permanent drought, constitutes an important comparative advantage. To this direction, a series of actions have already been adopted regarding infrastructures for water collection and storage along with an entrepreneurial activity (eg Moutoullas village bottles mineral water from its own spring, Kalopanagiotis has a dam stocked with fish from its fish farm). At the same time, the climatic conditions in both TeDi regions, in a general hot-climate Mediterranean country, create an additional advantage, given the expected future climatic change.

Other types of initiatives can be more indirectly related to the natural environment. The North Calotte spatial research centres of Andenes in Norway and of Kiruna in Sweden benefit from the high latitudes of these regions, creating advantages for the study of solar electromagnetic phenomena and for downloading data from remote sensing satellites circling around the planet. But the expertise within these high technology activities also opens up perspectives for "space tourism", with projects of organising commercial suborbital flights from Kiruna. These initiatives have led to the inauguration of "Spaceport Sweden" in 2007, and the conclusion of agreements with Virgin Galactic whose objective is to operate the flights.

Another initiative in Rovaniemi in Finnish Lapland demonstrates the possibility of developing a tourism industry based on an "intangible resource"²⁸. Initiated by a

²⁸ Pretes, Michael (1994) "Postmodern tourism : The Santa Claus Industry" in *Annals of Tourism Research*, vol. 22, no 1, 1995, pp. 1-15.

public strategy in the 1980s, the “Santa Claus tourism” concept was implemented together with exceptionally well-coordinated effort of private commercial interests. Admittedly, the presence of reindeer and the possibility of mobilising some nearby elements of Sami culture facilitated these efforts. However, the Santa Claus concept was mainly established thanks to a long term marketing effort and through joint efforts to create a coherent tourism product.

d. Conflicts between territorial scales in the exploitation of natural resources

In some cases, environmental threats can be transformed into an economic asset. With the development of oil and gas exploitation in the Barents Sea, the risk of oil spills is increasing along the North Norwegian coast. This has given further impetus to the development of Fiskebøl in the Lofoten islands, which is home one of the world’s leading producers of oil containment booms and a wide range of specialised equipment to handle environmental disasters resulting from hazardous liquid spills. In the same locality, the North Norwegian Centre for Emergency Preparedness) proposes courses, seminar and consulting services on risk and disaster management related to the extraction and transportation of oil. Together, they have formed the Arctic Centre for Protection against Oil Spills in an effort to mutualise the expertise of the local cluster.

Conflicts in the exploitation of natural resources are to be found in multiple case study areas. The Romanian county of Alba offers an example of such a situation. In this area, the Rosia Montana Gold Corporation wants intends to exploit some of the largest gold deposit in Europe by using open cast cyanide leaching to separate the gold from the ore.

Alburnus Maior Association, a local NGO, considers that the RMGC project will directly affect 1600 ha of land and about 800 hectares of forest will be cleared, the lake of cyanide tailings from Corna Valley will spread over 600 hectares and will have a 185meter high dam. In their opinion, Tthis will lead to destruction of numerous churches and threatens the ruins of the Roman city Alburnus Maior. Furthermore, 958 households are threatened with expropriation, and. Ooverall, it is estimated that the project will generate 196 million tons of cyanide.

To gain access to land for the development of the mining project, Rosia Montana Gold Corporation began to buy properties in July 2002. To this date, 78% of private properties (farms) from the impact area of the project have been purchased. RMGC emphasizes that this project will have a positive impact, it will build a modern mine, will reinvigorate the local economy and will honour the cultural heritage, will respect the global standards in environmental protection and social protection.

These claims are however challenged by several local groups and some of the national environmental NGOs, who stress that more jobs and more opportunities are being lost rather than gained with the mining operations. They are also arguing that there are numerous alternative sources of living (especially development of ecotourism) for the local communities, offering examples such as Albac, where the agri-tourism has expanded and there are more than 50 hostels operating, or Arieşeni whose ski facilities have had increasing interest from tourists.

Independently of debates on whether one should preserve a natural area such as the Rosia Montana or exploit it, this is an example of how a policy focusing on the full exploitation of local territorial resources may be in contradiction with economic strategies and/or at the national or European scales. The interests of the different territorial scales do not converge. The possible conflict between economic and environmental perspectives can also be an argument for the need of more coordination of sectoral policies.

It is therefore necessary to design policies to promote a better convergence of locale regional, national and European economic development interests. This can for example mean that the strategic importance of certain types of natural resource exploitation is recognized by ensuring that the communities making them possible are balanced and harmonious.

This types of conflicts examples make obvious the existence of diverging economic interests between communities within a given territory, and between different territorial scales. The most beneficial exploitation of natural resources from the European or national point of view of local communities is not necessarily the optimal one for local communities or regional stakeholders. It appears from the review of the case stories that such diverging strategic interests occur more frequently in TeDi areas insofar as these areas have particular modes of integration in wider economic circuits. Explicitly integrating their existence in the implementation of the Lisbon and Gothenburg strategies and would be needed to formulate strategies to handle these contradictions.

e. Environmental threats in fragile environments

The areas of exceptional natural beauty in many of the TD case study areas should not lead to forget the existence of numerous direct environmental threats. In Suceava, soil erosion is accelerating due to uncontrolled and continuous deforestation, while pastures and hay-fields are on the contrary degrading because of reductions in the number of cattle and under-exploitation. While water quality is locally affected by the improper disposal of manure, the drinking water supply system and the sewage networks are generally obsolete in cities or nonexistent in most of rural areas, i.e. in more than 70% of the area.

Alba county is facing challenges due to industrial air pollution that has affected an already fragile mountain environment, reducing the vitality of the vegetation over large areas and indirectly leading to erosion.

Even if areas such as Gozo, where the lower land use pressure compared to Malta has facilitated the preservation of environmental qualities, the protection of the marine environment has been a preoccupation. The construction of a sewage plant in 2008 has however improved this situation.

This contrasts against the assessment of the environmental situation in sparsely populated regions of North Calotte and North Iceland, where a perception of an untouched nature generally prevails. Territorial development debates in these areas rather how local strategic choices contribute to overall ecological sustainability. This for example concerns the possibilities of using hydroelectricity to develop an aluminium industry in North Iceland or the mining, steel and forestry industries in the North Calotte, all of which can have a significant impact on e.g. CO₂ emissions. The central question in this respect is how TeDi areas best can contribute to a generally more sustainable development in Europe.

6. Transport infrastructure, Connectivity and accessibility

Low accessibility, insufficient quality of transport infrastructure and difficulties accessing important services are recurring issues raised in all case study areas, possibly with the exception of the Canton of Jura. These limitations are perceived very strongly by local stakeholders: Persons interviewed in Marathasa and Tylliria in Cyprus recurrently refer to the low quality of the roads, while their counterparts in Gozo reiterate the need for improved maritime connections to Malta and an own airport that could improve international connectivity. A similar ambition appears in North Iceland, while North Calotte stakeholders insist that their railway infrastructure is congested and that further investments are needed if mining activities and processing industries are to develop further.

The present section will first seek to characterise the relative situation of TeDi areas, before it analyses the underlying rationale and objectives for infrastructure strategies in TeDi areas.

a. Accessibility levels from a regional perspective

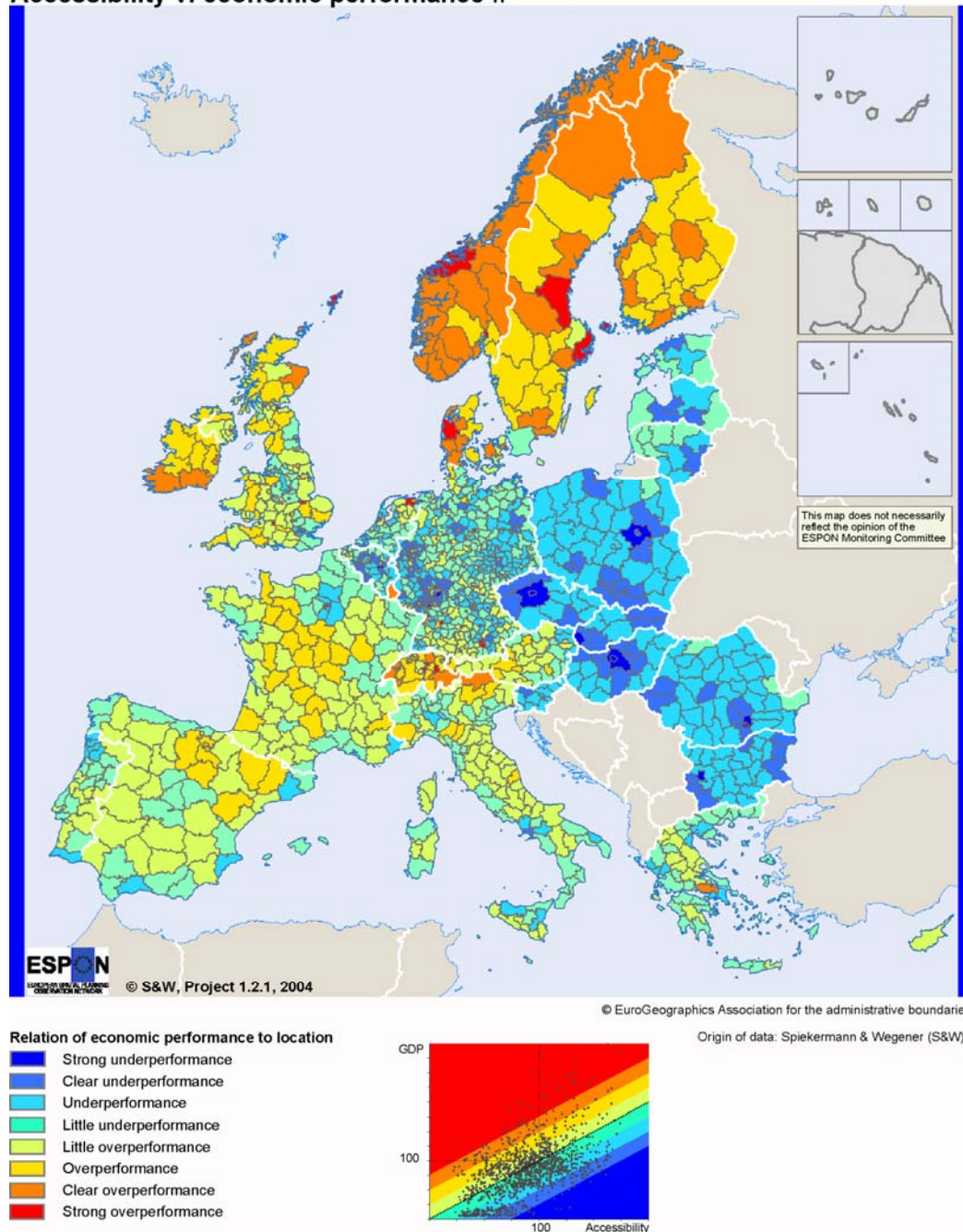
In the ESPON 2006 programme, accessibility was deemed in many studies as an important factor potentially explaining the level of development or performance of a region compared to other European regions. All too often, a simplistic causal link was assumed between the degree of peripherality and regional performance.

For instance, results from the ESPON 2006 project on transport trends proposed to visualise the potential correlation between accessibility and economic performance (See Map 39). The case of Nordic countries or Ireland shows that economic performance can be good in spite of a peripheral location in Europe.

Yet, most of the measures of accessibility were based on a large-scale, pan-European model of accessibility following a gravitational model: the further away from large (in population or GDP) European regions, the least those are deemed accessible to locally-based companies.

For regional actors, such measures of accessibility may be helpful positioning their region in the wider European space. The question is however whether

Accessibility v. economic performance II



they may be of use in a regional development perspective, enabling case study areas to draw maximum benefits from their relative position, compensate their weaknesses in terms of accessibility and contribute to improve their perspectives of sustainable development.

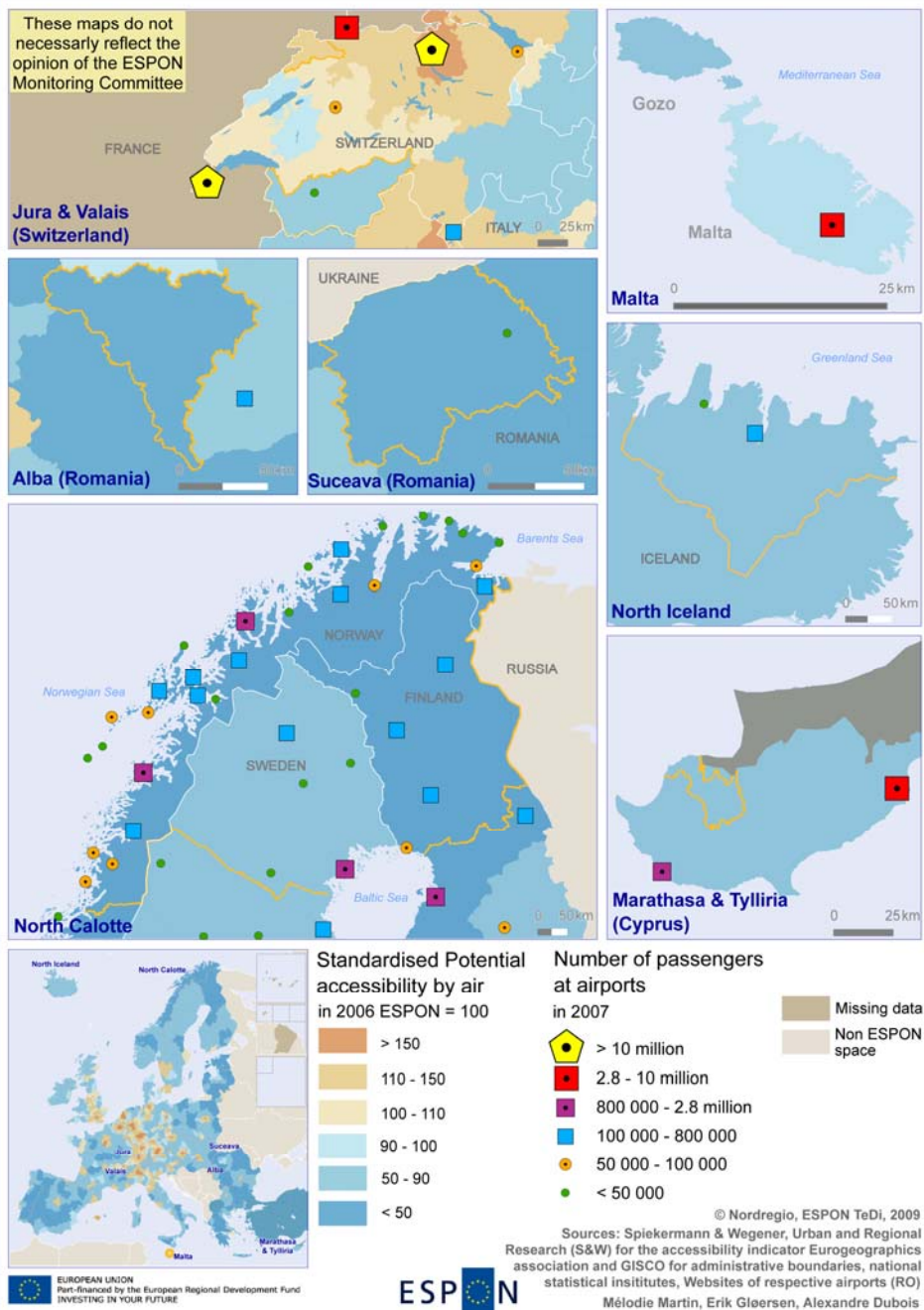
b. Levels of accessibility and connectivity in TeDi areas

In terms of long range accessibility, we have focused on the comparison between air accessibility values derived from the "Update of Air and Multimodal Potential Accessibility Indicators" produced by Spiekermann & Wegener in March 2009, and the airport traffic and airport infrastructure endowment of the ESPON TeDi regions. The Spiekermann & Wegener measures are based on centroids in each region, and therefore do not purport to reflect the effects of territorial diversity. The question is however whether they do, as a synthetic regional value, give some indication on the development challenges and opportunities in the concerned areas.

The calculation of air accessibility is based on a "detailed air transport network" with "a description of scheduled flight connections between all European airports, including "smaller regional airports as well as flight services of low-cost carriers". The results show that while the highest values regional accessibility values are well correlated to the proximity to a major international airport (e.g. Jura and Valais), lower air accessibility is a result of both a more peripheral position in the European airport system, a lower endowment in airport infrastructure and fewer connections.

In this respect, the North Calotte is a specific case study area because of the distance between its towns and cities. The quality of air transport connections within the case study area is therefore a relevant issue. As illustrated by Map 40, there are contrasted patterns in terms of endowment in airport infrastructure and network systems within the North Calotte. Northern Norway has two regional "hubs" in Bodø and Tromsø, and numerous connections between small local airports. There are also some direct international connections available. Most connections in Sweden and Finland are on other hand directed towards the national capital city, creating a direct dependence on a remote external airport. Furthermore, in spite of multiple attempts, it has so far not proved possible to establish lasting transnational connections within the North Calotte.

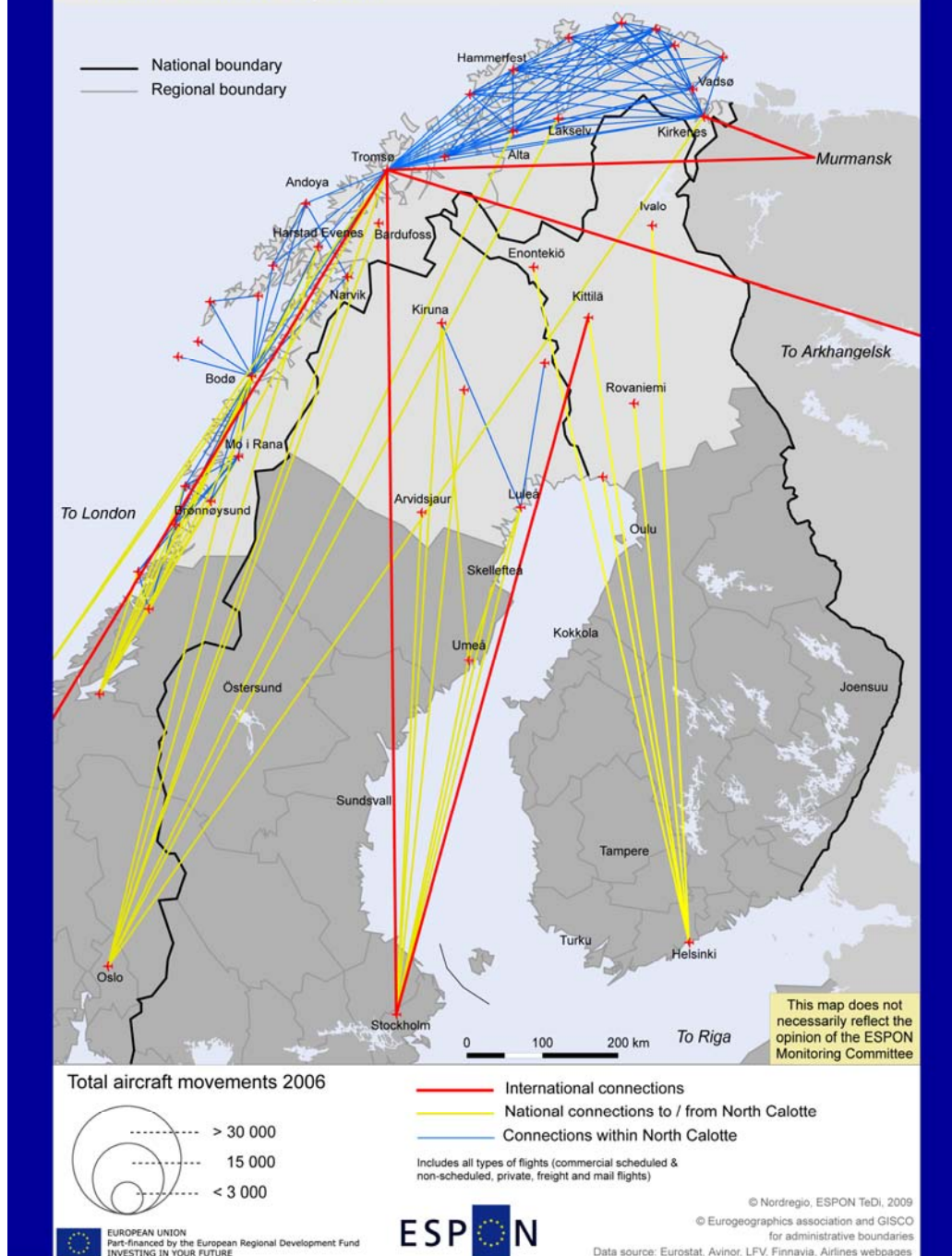
Accessibility by air in the case study areas



Map 40 Airport traffic and endowment compared to European measures of air accessibility.

While the highest values regional accessibility values are well correlated to the proximity to a major international airport (e.g. Jura and Valais), lower air accessibility is a result of both a more peripheral position in the European airport system and a lower endowment in infrastructure.

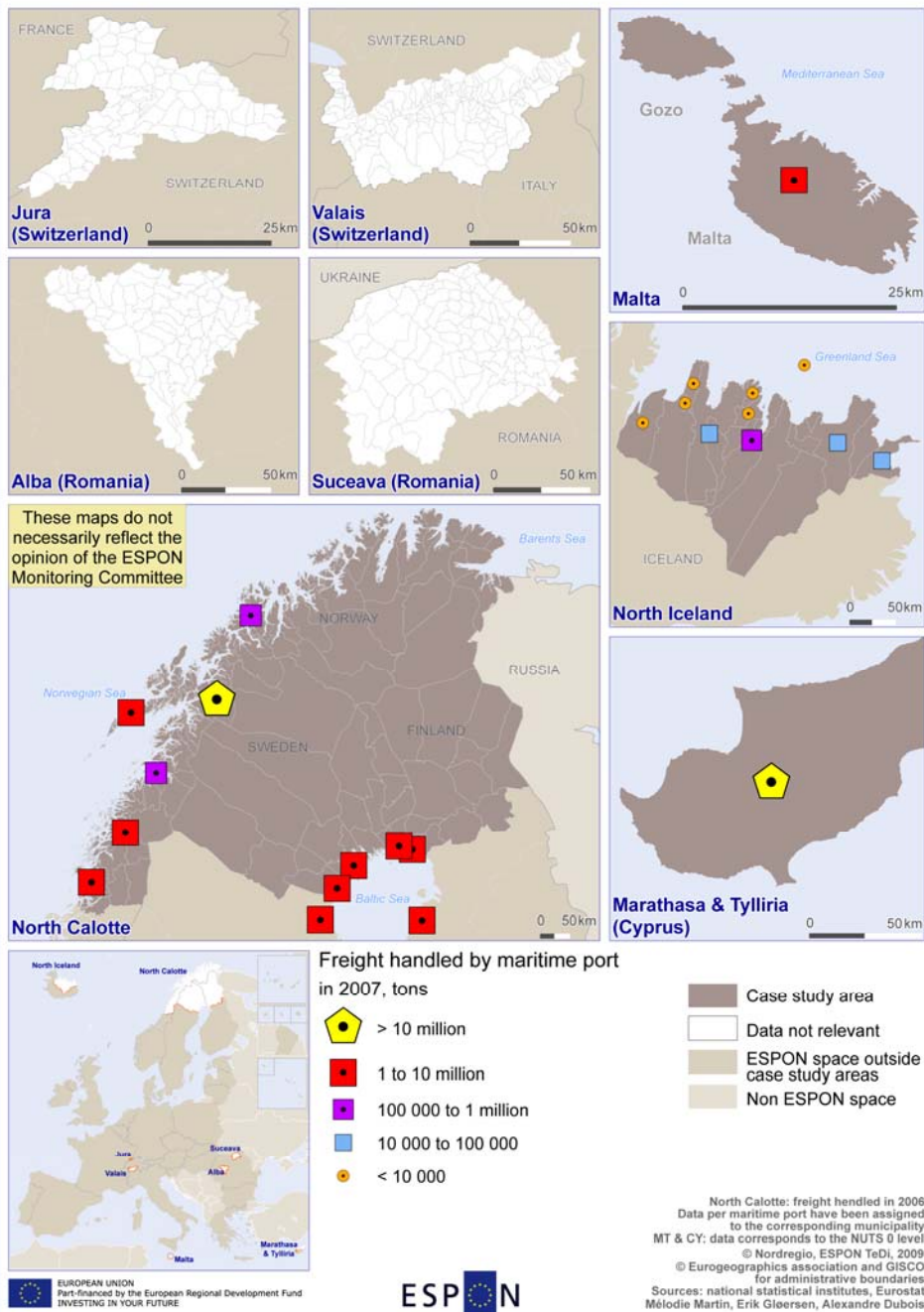
Flight connections and total aircraft movements in North Calotte airports



Map 41 Airport traffic and endowment compared to European measures of air accessibility.

The North Calotte is specific as the only ESPON TeDi case study area where internal air transport plays a major role. The difference between the Norwegian part, with multiple connection and two "hubs" and the Swedish and Finnish parts where Stockholm and Helsinki may be the most convenient meeting place for persons from neighbouring cities, is however striking.

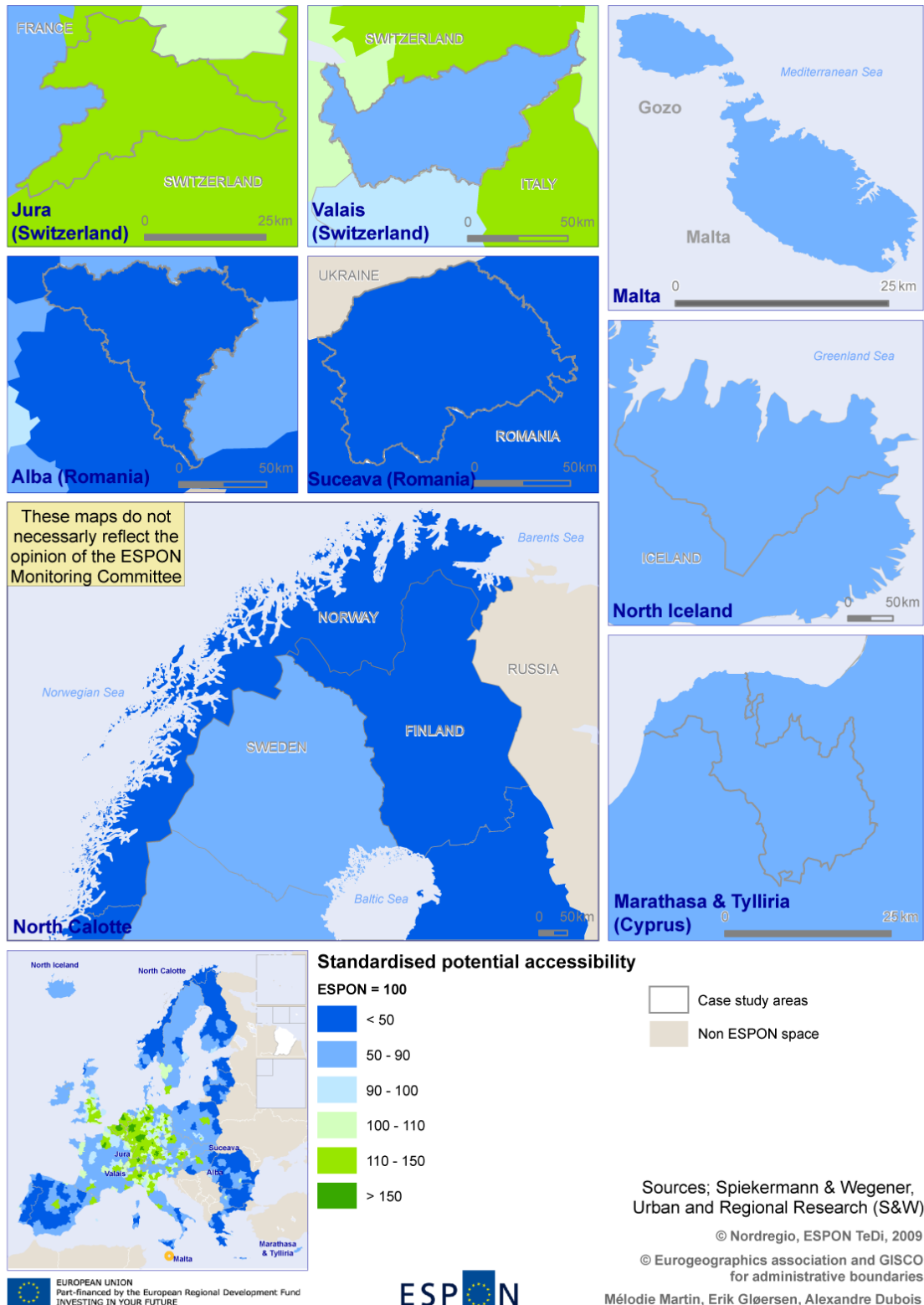
Freight handled by maritime ports



Map 42 Freight handled by maritime ports.

Ports play an essential an obvious role in insular territories such as Malta and Cyprus. In the North Calotte, ports play a central for major regional exports such an the products of the mining and forestry industries.

Multimodal potential accessibility in 2006



Map 43 Multimodal accessibility maps from the point of view of individual ESPON TeDi regions

Table 4 Air transport accessibility in case study areas

Supra NUTS 3	NUTS3	Infra NUTS 3	Air transport Accessibility
	Valais		Major airports, long dist.
	Jura		Major airports, long dist.
Cyprus			Contrasted
		Marathasa	Large airports, long dist.
		Tylliria	Large airports, long dist.
	Alba		Single airport, few connect.
	Suceava		<i>Idem</i>
North Calotte			Contrasted
	Norrbottnens län		Multiple airports, few connections
	Lappi		<i>idem</i>
	Nordland		Numerous airports – multiple connections
	Troms		<i>Idem</i>
	Finnmark		<i>Idem</i>
Maltese islands			Contrasted
	Malta		Well-connected large airport
	Gozo		Local airport deemed insufficient Long distance to large airport on malta
	North Iceland		Multiple airports, few connections

This type of overlay between infrastructure endowment and actual connections, on the one hand, and European accessibility maps, on the other, therefore provides useful inputs to an exchange between the European and local/regions on issues of transport. It makes the need for a distinction between the two types of approaches quite obvious. While European maps typically focus on the integration of the continental territory, local actors identify obstacles to economic development related to transport issues that are not necessarily limited to Europe, and that do not always focus on improved connections in direction of areas with largest population or GDP figures, but rather on observed bottlenecks for exports or local environmental issues related to transport. Rather than a reflection of transport and accessibility related economic development challenges, the European representation of multimodal accessibility (Map 43) is therefore rather a starting point for enquiries and discussions.

The fact that the Eurocentric perspective of European accessibility calculations significantly reduces their relevance in a local and regional development perspective is confirmed by the case study areas. For all that are situated on the European margins, extra-European accessibility may be as relevant for economic development as intra-European accessibility. The North Calotte is increasingly functioning as an interface to North West Russia, benefiting from increasing

commercial relations. Together with North Iceland, it also tries to position itself as a gateway to the Arctic. This is highlighted as one of the main future growth perspectives for the area. Similarly, Cyprus is in a position to act as a European gateway to the Middle East, Malta to North Africa and North-Eastern Romania to Ukraine and Moldova. Jura and Valais can be considered as exceptions in this regard, with an intra-European wider functional context. In the case of Jura, the central position, as confirmed by the European accessibility map, is perceived as an asset; similarly the specific position of Valais, as a lower accessibility enclave surrounded by well-connected urban and metropolitan regions, corresponds to the perspective expressed in the regional strategic documents.

It is however, even in these cases, problematic to approach accessibility as a general and unique value. Within the North Calotte, North Norwegian fisheries require next day delivery and refrigerated modes of transportation, the mining industry needs railways with a very high axle load and access to deep water ports, and the forestry industry requires efficient access to and from exploitation sites. The accessibility needed for the tourism industry to develop in any of the case study areas is obviously of a yet another nature. It would however not be meaningful to aim for high overall accessibility in a European comparative perspective as a strategic objective for the development of any of these activities. Instead, regional stakeholders need to identify the precise accessibility needs of their present and future economic activities. This is a required to define the priorities in terms of scale (intraregional coherence or international connectivity), orientation (access to which markets?), modes (air, rail, road?) and targets (reliability, speed, cost?).

c. An issue related to identity and local development visions

This type of considerations however not generally observed in the regional planning document of the TeDi case study area. A recurring underlying rationale observed in strategic development documents is that increased accessibility should be expected to mechanically lead to enhanced growth, by facilitating exports, creating new opportunities for commuting and/or facilitating the access to the region by tourists. However, at the same time, some of the arguments advanced contradict this hypothesis.

In Gozo, the lower accessibility is the main reason for which the pressure on land use is lower than in Malta and may be a prerequisite if the island is to become an "Eco-islands" as suggested in some strategic documents. The general reluctance of Gozitans to projects of building a bridge between Malta and Gozo (MEPA Public Attitude Survey, 2000) illustrate these ambivalent effects of accessibility. In

Marathasa and Tylliria, while improvement in the transport infrastructure is eagerly promoted in view of attracting more tourists, one also notes that new trade regulations facilitating flows by opening up the borders and removing protectionist barriers have had detrimental effects. By facilitating imports, these changes have indeed contributed to putting local producers of e.g. fruits and charcoal out of business.

The Swiss canton of Jura provides an example of a region where debates on accessibility and functional integration are not only inspired by economic considerations, but also by cultural and linguistic issues. The Jura is indeed situated in proximity to the metropolitan region of Basel to which a significant number of its inhabitants commute. However, the linguistic barrier between this French speaking canton and German speaking Basel is a significant obstacle to integration that also influences strategic choices in infrastructure developments.

Issues of identity and of self-perception in TeDi areas are therefore far from irrelevant when addressing issues of accessibility and transport infrastructure. On the contrary, the economic function of local communities and their development vision in terms of lifestyle and interaction with neighbouring areas appear as essential elements in designing the investments to be made and integrating these improvements in a wider territorial development plan. TeDi areas are specific in this respect as their geographic features have often allowed them to maintain or develop in a more self-centred way than other regions in Europe or with more selective interactions with urban regions and neighbouring regions. This in particular concerns islands, but also settlements of mountain valleys and sparsely populated areas with limited access to neighbouring regions. There is a potential for turning this specificity into strength, e.g. by drawing on elements of localism that may contribute to improve the perspectives of sustainable development.

However, it appears that access to a minimal range of services allowing for a modern, contemporary lifestyle is a prerequisite for a sustainable social and demographic development. This requirement may be more symbolic than practical. Indeed, one can note that tourism locations may continue to grow even in remote locations. The issue is therefore not so much to have access to a range of commercial and public services as to feel that one is part of mainstream type of lifestyle. There are however obvious differences in this respect between regions, as the lifestyle expectations and demands will be higher in richer regions. The success of the Haparanda-Tornio shopping area on the Swedish-Finnish border in the North Calotte illustrates the extent of this type of demand in the North Calotte. Situated in a town with a labour market area of only 34 000 inhabitants, the IKEA shop of this shopping area alone attracted over 2 million visitors during its first year of operation in 2005 from all over the North Calotte. This implies that many visitors were prepared to travel up to 7 or 8 hours one way to reach such a shopping area. While this type of atypical mobility may be considered unsustainable, it is certainly a parameter to be taken into account in infrastructure policies in TeDi areas.



Photo : Erik Gløersen

Figure 5 The Tornia-Haparanda shopping area on the Finnish-Swedish border

d. Challenges and potentials of ICT

Information and Communication Technologies (ICT) could substantially improve the development perspectives of TeDi areas, both by creating new possibilities of economic growth and by improving access to services. Two types of challenges however need to be overcome: First, the deployment of broadband networks in areas with major natural obstacles and, in many cases, a small market basis, may not be economically interesting for private actors. Public-private partnerships are one possibility to overcome such difficulties. Second, the efficient use of broadband access where it exists requires that institutions, companies and individual households integrate the potentials of this instrument in their daily practices. Because of their geographic challenges, TeDi areas can be precursors in the development of e-business, e-government applications, e-health and e-education.

Many of the case study areas report an either complete (Valais and Jura), very extensive (North Calotte) or rapidly expanding (Marathasa and Tylliria) broadband coverage. In Romania, the installation of so-called infokiosks (infochioscuri) in public spaces can make internet services available to a broad audience. It therefore appears that ambitious government policies to compensate for the failures of markets to develop ICT infrastructure of strategic importance for the long term development of TeDi areas are being implemented. The concerned TeDi areas are therefore facing a period of potential rapid evolution in commercial practices and public service delivery. Exchanges of good practice could prove particularly fruitful in this phase, as some areas are more advanced than others. A

point stressed in Finnish Lapland is for example that the active use of ICT should be stimulated also in traditional economic sectors, as a way of increasing their efficiency and competitiveness. The possible uses can be found in the wood product industry (by adding intelligent components such as service sensors, production management), cold climate technology (for developing testing methodology), security service and natural product and food industry (for positioning systems and wireless measuring of raw material quality on the spot). At the same time, the strategy for Lapland suggests that Lapland could be a test laboratory for new types of activities in the region such as for instance for online services and navigators.

The ICT sector is considered to be one of the main drivers for Malta's and Gozo's economic growth. Investment in infrastructure needs to take place in order to compensate for the lost jobs and to create further long-term employment opportunities, particularly within the ICT industry. Boosting the services sector in Gozo is deemed as essential as it is not affected excessively by the inter-island costs disadvantage and it contributes to a higher value added. In fact, The National Reform Programme for the period 2008-2010 mentions the need for the promotion of ICT application in Gozo and for the development of a business park on the Island. Given the overriding objective of developing the island region of Gozo as an eco-island, the development of sustainable transport as well as the ICT sector which exercises minimal environmental impact would be considered to be complementary to this objective.

As shown by this general overview, the issue for TeDi areas is therefore not only the improvement of accessibility as such, but the identification of key obstacles to balanced and harmonious territorial development in terms of infrastructure. It is important to keep in mind that the relative accessibility of TeDi areas will in any case remain lower than centrally located areas with no geographic constraints. The improvement of transport infrastructures from peripheral, isolated areas to the more centrally located ones will aggravate these relative contrasts of accessibility by accentuating the radial pattern of flows. Only strategies focusing on transversal links may contribute to homogenise accessibility levels across the territory; the cost-benefit ratios of such investment may however appear as insufficient. The objective is in other words not necessarily to reduce disparities in accessibility levels as such, as these disparities are to a wide extent created by the transport infrastructure that make trade and local economic development possible. In a Territorial Cohesion perspective, it is therefore all the more important to carefully focus infrastructure investments in TeDi regions on well-identified needs for local and regional development, rather than relying on mechanical effects of increased accessibility. The risk is otherwise to reinforce centripetal economic trends leading to increased contrasts.

The analyses of regional development strategies in the TeDi case study areas show that such integrated approaches to transport infrastructure investments are

seldom to be found. The effect of sectoral subdivisions of responsibilities and the often limited capacity of local and regional stakeholders to influence major transport infrastructure investments make themselves felt in this respect.

The lack of internal coherence of TeDi areas is however repeatedly highlighted as a challenge that could be more directly addressed at the regional level. Reinforcing the regions by focusing on improved urban-rural connections and by facilitating commuting over wider distances is seen as a strategic measure to create wider, more robust labour market areas and to facilitate access to services. These issues of internal coherence are however quite different depending on the scale of the case study areas. In the North Calotte, the lack of air connections between the Finnish, Norwegian and Swedish parts is highlighted, as well as the potential for developing East-West connections from Russia to the Norwegian Sea. In most other regions, the focus is on the insufficient connections between urban and rural areas. At the other end of the scale, in Marathasa and Tylliria, the local development poles and service delivery centres around which one could organise the areas and improve their internal coherence remain to be created. Major improvements of connections to urban areas may reduce the perspectives of successful implementation of such a strategy, as these would increase the dependence on external service providers and employment opportunities. .

More generally, the case studies demonstrate that accessibility issues linked to local development in TeDi areas lead to policy agendas that are quite distinct from European transportation policies focusing on European integration, e.g. through the promotion of Trans-European Networks. They therefore illustrate the need to separate these two dimensions of transportation policies, local development one the hand and European integration on the other, more clearly.

7. Governance of territories with geographic specificities

The identification of territorial diversity as an issue for territorial development at the European level stresses the need to elaborate adapted policy mechanisms that are able to capture and capitalise on this diversity.

In order for such strategies to be successful, this emphasis on territorial diversity ought to be recognized and embraced as well at the national and regional levels so that economies of scope can be drawn across the policy chain.

Yet, it has become obvious that 'mountainousness' or 'sparsity' cannot be used as such to elaborate regional development strategies indifferently across European regions without taking into consideration existing regional and local settings: the physical characteristics of a territory bring along different constraints and opportunities in different parts of Europe. Consequently, territorial governance needs to hold a central position in the debate on territorial diversity both as an initial input (what structures or initiatives are already in place?) and as a possible outcome (what initiatives need to be taken to address territorial diversity and foster achievable development opportunities?).

European policy initiatives aiming at exploiting territorial diversity can hardly be elaborated using a top-down approach. As a matter of consequence, the involvement of regional and local actors, and to a certain extent national authorities, is central to the success of such initiatives, as they are more able to 'spot' the necessary investments that could unleash the regional growth potentials.

a. Territorial diversity in the national context

In each country covered by ESPON TeDi, national policy documents are promoting territorial diversity as a potential asset for their country. In all cases, this identification is based on specific geographical features, either regarding the physical (mountain, island...) or human (sparsity, tourism...) aspects, or in some cases both.

In the Nordic countries, the distinction of the High North and sparsely populated areas is made on the basis of differences in the geographical settings, as compared with the rest of the national territory: long distance to markets (both national and European), extreme cold climate, thin and scattered settlement pattern. Consequently, the 'specific territories' are specific not only for endogenous reasons (structure of its internal territory), but also for exogenous reasons (in relation to other national territories). Metropolitan areas, as specific territories, are also highlighted in Nordic policy documents.

In Malta, the territorial diversity is identified by distinguishing between the main island of Malta and the smaller islands of Gozo and Comino. The main arguments behind this is the issue of double insularity (an island within an archipelago) and the relative small population size of these islands (with lower population density, 450 inh./km², than the main island of Malta).

In Switzerland, three specific types of territories are highlighted: (1) regions that participate to European territorial cooperation (i.e. cross-border areas), (2) territories that show “problems and opportunities specific to mountainous and rural regions” and (3) “areas with tiny potential” (i.e. with accessibility problems and lack of critical mass). These territories are identified in the light of the Swiss New Regional Policy, which implies that those ‘specific’ territories necessitate ‘specific’ policy responses. The identified territories concern many different geographic spaces in Switzerland: the rather vague definition of these categories is made on purpose so that the finer territorial specificities can be better taken into consideration during the implementation stage of the NRP. The National Spatial Plan of Switzerland also proposes a distinction of the Swiss territory from a functional perspective, i.e. differentiating territories with different levels of centrality.

In Cyprus, although national and regional policies overall distinguish between urban areas on one hand, as areas with adequate opportunities and dynamism, albeit facing a number of urban-related problems and threats; and rural areas on the other hand, especially more remote ones, as areas facing problems of shrinking populations and economies, not much else differentiation has been made with regard to geographic specificities. However, district authorities (LAU1 level), administered under the Ministry of the Interior, have long practiced a discretionary approach in the distribution of state contributions to local authority (LAU2 level) budgets for communities with economic, social and geographic specificities. Likewise, central government contributions towards co-funded projects have also been higher for such communities as a standard practice. More recently, subsidies for household heating have been provided for localities over an altitude of 600 m a.s.l. In addition, some special policies (e.g. concerning housing, entrepreneurship incentives, public infrastructure investments etc.) apply to localities in government controlled areas adjacent to the UN Buffer Zone, which are faced with a unique form of territorial specificity. In the current 2007-2013 programming period, both the national Rural Development Programme and the national Strategic Development Plan contain some references to areas with geographic specificities. In the former case, for example, “less favoured areas²⁹” receive a 10% increase on eligible agricultural subsidies, while in relation to the latter document, priority for the implementation of EU Structural Funds projects is given to areas with territorial specificities. In spite of these differentiations, the Planning Bureau, as the authority

²⁹ All communities of Marathasa and Tylliria examined in this case study are classed as “less favoured” by the [Rural Development Programme 2007-2013](#).

competent for regional development policies, admits that more should be done before it can be claimed that territorial diversity is adequately addressed by the various sectoral policies in an integrated manner. Nonetheless, the intention is discernible, especially in more recent policies or policies currently under elaboration. More specifically, within the spatial planning policy framework's recent amendments, five types of territories are distinguished: (1) urban³⁰, (2) peri-urban or favoured/growing communities, located within easy commuting distance of the main urban centres or seaside resorts (3) intermediate rural areas, and (4) less favoured rural areas, including remote and mountain communities or areas with other territorial specificities, such as those isolated due to the UN Buffer Zone; with a subcategory of (5) mountain rural areas where, despite the presence of territorial specificities a clear range of development opportunities exist, especially regarding tourism and recreation activities. The distinction is made on the basis of proximity to urban centres (centrality), differences in terms of economic activities (tourism, agriculture) and territorial features (remoteness, mountainousness, and rurality). All Marathasa and Tylliria communities under examination have been classed in the fourth category, with the exception of Tylliria's two westernmost communities, which are within easy commuting distance from the tourist area around Polis in the north of Paphos District and have therefore been classed in the second category. These differentiations are meant to be used for a more territorially specific application of spatial planning provisions.

In Romania, the national legislation formalises the delimitation of mountain areas as areas specific natural handicaps. Articles 37 and 50 of Council Regulation (EC) no. 1698/2005 and article 1 of Government Decision no.949/2002 state that "Mountain areas are those zones that are characterized by significantly limiting land use opportunities and by appreciably increasing of its working cost", due to high altitude and steepness of terrain.

³⁰ This includes the four main urban agglomerations of the island, around the towns of Nicosia, Limassol, Larnaca and Paphos, each comprising numerous municipalities and communities; as well as smaller urbanised entities with municipality status, such as Paralimni and Agia Napa on the south-eastern coast of Cyprus.

**Text Box 9 Adapting to a change of paradigm in regional policy:
The Valais case**

The change of paradigm in the Swiss regional policy implies that economic impulse must fit with economic functionality of territories at different levels. Case story of Valais has shown the adaptation of socio-economic regions from 8 to 3. It corresponds to the transition from 1980 architecture base on towns, to 2000 architecture based on merging of towns into regional agglomeration as a result of urban sprawl.

There is however another stake at smaller scale, where issues consist of grouping communes in order to gain synergies in public services or efficiency in development planning. If one takes a look at the "local operational" regionalisation (regrouping public and/or private actors into a territorial project based on side-valleys or hillsides functionalities), it betrays what is possible to achieve in a near future:

7 communes of Val d'Hérens have chosen to set up an "association of communes" around former policy program intended to promote rural development at the scale of the valley. It has since evolved to cross border collaboration with INTERREG and the UNESCO.

In Val d'Anniviers, the process chosen was the fusion of the 6 communes into one functional entity. Such a fusion was eased by historical, political and other factors linked to women implication, vote of new "foreign" residents and fragmentation of clannish power. Soon after, the 6 ski lift companies were starting to talk about merging; showing by this way that integration's movements are widening.

The High-Valais was the first to group its 3 towns into an agglomeration under a federal program. If collaboration works on paper, controversial subjects (who will get the hospital for example) have not yet been debated.

It is likely that such collaborations will become more and more common over the coming years because the factors in stake are converging: public finances in relations with growing tasks, regionalisation of lifestyles, renewed paradigm in regional policy and effects of globalisation on local economies.

b. From territorial diversity to socio-economic constraints

The main argument for targeting territories with specific geographic in each country is that they would affect the level of socio-economic performance of those territories, and will act as a hindrance for their future development, especially in comparison with other national territories. Consequently, the identification of territorial diversity is tightly connected, in the national discourse, to the acknowledgment that certain territorial constraints to development may persist.

Small internal market/Low accessibility

The challenges linked to smallness and remoteness are highlighted in all countries investigated. The combination of these two territorial features is believed to lead to an economic disadvantage compared to other regions as the regions (and its economic agents, the firms) cannot draw on economies of scale. In the Nordic countries, the low accessibility to large markets and the poor possibility for regional enlargement are explicitly identified as disadvantages for the 'specific territories'. In Switzerland, the fact that the mountainous and rural communities are often small isolated communities is highlighted. In the case of Gozo, the territorial constraint (double insularity) both limits the possibility of movements for resources and engenders additional transaction costs at the expense of the local economy. In Cyprus, the high operation costs engendered by the territorial specificity are emphasized. In Romania, the poor state of basic infrastructure (roads, water supply, health care...) and the high cost of operations of services operates as a constraint for development.

Economic structure

In all countries, the differences in the economic structure or focus of the specific territories are highlighted. For instance in Switzerland, it is pointed out that there is little alternative to the tourism industry in mountainous areas. Similarly, the dependence on agricultural activities in Gozo (Malta) and the fragility of this sector (not productive enough) poses a problem. In Cyprus as well, the low incomes generated by agriculture, but at the same time the limited availability of employment opportunities outside the agriculture sector and the low diversification of rural economy, make rural territories more vulnerable. Climatic constraints (drought in the south and cold in the north) also affect the capacity to sustainably develop activities based on the exploitation of the land. In all countries, it is implied that the regional economies of 'specific territories' have limited potential for diversification. In Romanian mountainous areas (belonging to the category 'rural areas'), agricultural activities, essentially consisting in small subsistence or

semi-subsistence farming, have an important role to provide an income, through their employment, while the diversity of activities in rural areas remains a challenge.

Demographic/labour-markets challenges

Depopulation and polarisation of the population within the specific territories are seen as source of insecurity for the future development of these areas. In Cyprus, the result of long periods of out-migration and of commuting to urban areas is pointed out. In the Nordic countries, similar trends are identified. In Romania, the combined effects of ageing and depopulation are especially felt in rural and mountainous areas.

Access to services

In all countries investigated, the territorial characteristics are perceived to have substantial impact on the capacity of the nation-states to deliver the same level of access to services in all parts of the national territory. The latter has an impact on both private persons and businesses. In Switzerland, the high costs related to the provision of services (health care and education) are particularly emphasized. In addition, the business structure (SMEs) and the remoteness to high degree education centres (universities, polytechnics) engenders a chronic lack of public and private R&D and innovation capacity. In Gozo, the difficult access to essential services is also pointed out, while in Cyprus, the shrinkage of rural populations has resulted in the closure of many local schools and some health centres and the re-grouping of health care and education service facilities on a sub-regional basis, serving groups of villages rather than single communities, as had been the case in the 1960's.

c. Achieving the regions' potential

In all cases, the identification of the socio-economic dimension of territorial diversity is expressed in a negative way, i.e. by focusing on the problems it engender. Only in the case of Switzerland, it is mentioned that the debate on territorial diversity is related to "problems and opportunities specific to mountainous and rural regions".

Yet, the national and regional policy documents clearly identify 'specific' potential in the regions identified. Throughout the case studies, it becomes evident that the potential are not that specific, as the same feature appears across the 8 countries.

- Tourism: all (especially through cultural and historical heritage)
- Strategic positioning at the edge of Europe: NSPA, Malta, Cyprus.

- Exploitation of natural and energy resources: NSPA, Switzerland, Cyprus, Romania

Thus, the regional potential is still essentially associated to the presence of tangible assets of the region.

In the case of Switzerland, some further dimensions are identified. For instance, the fact that some SMEs in the regions are integrated in global production chains thanks to specific 'niche technologies' or know-how is seen as a potential for all other businesses in the region. In a similar pattern, the importance of tourism goes beyond the sector itself as it is conceived as a potential "economic pull factor" for the whole cantonal economy.

d. Territorial governance - Strategic and operational policy responses

Role of the EU

In many countries, a part of the national policy response is linked to the EU regulations or financial instruments. In addition, the accession of countries to the EU has enabled to formalise and delimitate the territorial extent of the 'specific territories'. This is true with the sparsely populated areas (SPA) of the Nordic countries, and Cyprus, for which the accession to the EU fostered the adoption of the Less Favoured Areas (LFA) schemes. The LFA enables to define mountainous municipalities, less favoured areas (non-mountainous) and areas with specific handicaps (areas adjacent to the UN Buffer Zone in Cyprus). Moreover, the formalisation of those spaces has an impact on the policy instruments and level of financial support that are available (e.g. 35 Euros per inhabitant and per year for the SPA). In Malta, special programming arrangements under priority 4 (Regional distinctiveness) of the national strategy have been made in relation to EU affairs.

Finally, the dimension of cross-border and transnational cooperation can be seen as linked to the European level: in the Nordic countries and Switzerland, such cooperation is conceived as an integrated part of territorial development policies.

Text Box 10 Institutional capacity in Gozo

Gozo has long history of regional governance; Gozo had a Regional Council that had self-governing roles on different levels and with varying extents of responsibility for most of the 20th century. This Council disappeared in the 1970's. Another notable development was the introduction of the Ministry for Gozo in 1987. The introduction of the Ministry served a demonstrative effect in that Gozitans felt that they were being recognised as a separate region but it may also have served as alienation from satisfaction of genuine regional policy creation in other government entities. Local government was introduced at a much later stage, in 1993, and therefore are less established and powerful in Gozo than the Ministry itself. The Ministry performs an administrative role for central Government in terms of the provision of education, health care and other administrative functions. It has to date hardly been engaged in any longer-term development process, save for the occasional undertaking of studies. Recently, the Ministry is taking a lead role in the development of the Eco-Gozo strategy, which is however as yet in its incipient phases.

The Gozo Regional Council was reconstituted in mid-1990's as an advisory body to Ministry of Gozo. It was first made up of main social and civil players and asked representation on Malta Council for Economic and Social Development (MCESD). This was however not in line with the MCESD statutory provisions which require members to have a national standing. As a compromise a Gozo Regional Committee was set up within the MCESD. The MCESD is the forum for social dialogue in Malta which acts in a consultation and advisory role to Government. Other functions which are in the hands of other ministries in Malta do not include Gozo as an integrated region in their policy and may at times use the existence of the Ministry of Gozo as an excuse for not putting Gozo higher on their agenda; this is a perverse effect from that intended with the creation of the Ministry of Gozo in the first place.

In other governance issues Gozo features in three ways:

1. Representation at the level of national boards (eg. Malta Enterprise, MTA) – these are often ineffectual because Gozo would be a single voice within a large board
2. National institutions' representative offices in Gozo – these are often understaffed and under-resourced, and perform 'branch' duties rather than working on a specific regional strategy and policies
3. Little or no involvement at all

A structure which looks functional on paper may not be practical to implement because of resource insufficiencies and results in no real empowerment to the region. A regional development agency in Gozo with its own budget and resources would be a better solution to be able to tailor a development strategy to the region. This agency would be implementation-focussed and incorporate long term development in its planning capacity.

The isolation and peripherality of Gozo however do not only serve as a limitation to institution and administrative functions: they have also served as a benefit. The process of consultation based on EU model of social dialogue, which was implemented for the first time in Malta early in 2009, was introduced in Gozo. This time smallness proved to be an advantage, and coupled with proximity and cohesiveness of the people made Gozo an ideal test bed for attempting this process for the first time on a smaller scale than the national scale. There seemed to be a sense that there was less to lose, and the element of mistrust between the social partners at the national level was overcome by the shared sense of belonging to the region. It was thus easier to find common, 'win-win' situations and this allowed the social dialogue process to prosper. This resulted in a document with recommendations about regional development which was approved by MCESD and then transmitted to Government. Once the process was established in Gozo, and inherently became less risky, it was adapted in Malta. The social partners were so pleased with the process that it was repeated in Malta in the pre-budget consultation process.

There is now a risk is that failure to implement recommendations will undermine the social dialogue process which was initiated so successfully in Gozo. If dialogue and consultations are aligned with the Eco-Gozo strategy – the Government's official strategy- it can be used to update, refine and better define the strategies and policy for Gozo. If in addition this process was aligned with the LEADER process there would be three different policy levels which would be linked together: the greater Government vision of Eco-Gozo, the more concrete strategy outlines emerging from the Gozo Regional Committee and the LEADER programme as a tool for implementation.

Text Box 11 Institutional capacity in Marathassa/Tillyria

In the case of Cyprus there have been quite some important changes regarding the institutional capacity. The reform of the planning system which allows the planning authorities at the sub-regional level to implement spatial plans is a clear improvement of territorial governance for managing territorial diversity in Cyprus. The recent introduction of Local Plans is a major step for establishing a bottom up approach: in Marathassa Local Plans is currently under way, while the Tylliria one may be prepared in the future. In both cases, the initiatives that have been made cannot be evaluated yet, but are definitely examples a good practice. The operation of Local Development Agencies in both areas can also be considered as a key element. Apart from that, the implementation of a Development Plan for the Troodos mountainous area addresses the opportunities and threats of an extended spatial entity in an effective way. Still there are steps that have to be taken that can confront the institutional limitations; the mobilisation of the Cyprus Diaspora, the activation of civil society, cultural associations etc and finally, the formation of relationships of trust, cooperation and networking among all of the stakeholders, contribute to the success of these actions.

Dedicated territorial development strategy

Such a document/approach can only be found in Norway, where there is a specific territorial strategy for the northern periphery: High North Strategy. In Malta, a dedicated ministry has been put in place in order to coordinate the national actions towards the island of Gozo. In Cyprus, the regionalisation of tourism development strategy (e.g. the Troodos Tourism Development Agency, of which Marathasa forms a part), as well as the setting up of regional Development Agencies (including the Tylliria³¹ and Troodos³² Development Agencies) are the first steps in a similar general direction. In Switzerland, a more operational stance is taken: accompanying measures for integrating regional and sectoral policies at federal level are available at the implementation phase. In Romania, the Regional Operational Program of the Structural Funds is seen as the main instrument for promoting regional development. Moreover, it enables to bring in the EU and the national authorities as 'guarantors' of the process.

³¹ The Tylliria Development Agency includes all Tylliria villages under study as well as an additional number of villages along the Paphos District coast to their west.

³² The Troodos Development Agency includes all Marathasa villages under study as well as a number of adjacent mountain areas, such as Solea, Pitsilia and the Limassol Wine Villages.

Regional policy for preserving national interests

A recurrent argument for targeted policy actions for the 'specific territories' is the achievement of the national interest. For instance, in the Nordic countries, it is mentioned that the further exploitation of natural resources, which has been one of the cornerstones of the Nordic welfare, is only possible if the regional economies and communities are well functioning. In Cyprus, it is argued that the continued use of agricultural land provides an added-value for the whole country: maintaining semi-natural and cultural landscapes areas, preventing erosion, wild fires and illegal overgrazing, safeguarding water resources etc.

A New Deal in territorial governance

Clearly, the territorial diversity embraced in all investigated countries challenges the governance structures in place. In that respect, two main dimensions seem to emerge:

- *Adjustment of national policies and coordination of sectoral policies:* in the Nordic countries, regional development strategies (for all regions) act as an umbrella for the coordination of the impacts of national sectoral strategies on the regional territory. Yet, those plans are more operational than strategic, as they are dependent on national and EU strategies. In Switzerland, a similar approach is taken: the cantonal multi-annual program enables to adapt the federal national strategy (NRP) and instruments to the specific cantonal socio-economic conditions. The cantonal plan is essentially focused on "tourism and industry" in the Valais while it strives for increased cooperation with surrounding territories (to alleviate the effects of relative remoteness) in Jura. In Cyprus, the Marathasa Development Agency, now incorporated within the Troodos Development Agency, commissioned a study in 2006-2007 about the possibility to elaborate an endogenous development strategy for the territory. This led to the first ever integrated development plan for the region, targeting (1) reinforcement of the attractiveness of the area, (2) development conditions for increased entrepreneurship, (3) supporting actions for enhanced governance capacity (networking and collaboration), and (4) development of human capital. This has more recently been followed by the Troodos and Tylliria Strategic Development Plans, approved in 2009, both of which adopt a similar approach to each respective area's development.
- *More responsibilities to regional/local actors:* in the Nordic countries, the increased involvement of the regional authorities in the governance of economic development processes calls for an increased strengthen of the

regional level, i.e. a regional level with more planning instruments. In Switzerland, the (con-)federal structure of the state already provides substantial levers for the regional (here cantonal) level. In Cyprus, the establishment of a local action Team groups (LAG's) and the foundation of the Troodos and Tylliria Development Agencies, provide increased leverage for the local and regional actors regarding the development of the regions. Further administrative decentralisation is seen as a necessary step in the future and new legislative frameworks are currently under elaboration to enable both spatial planning to be carried out on a sub-regional basis and the administrative reform for a reorganisation/ grouping of local entities. In Malta, the regional/local inputs are weak as the initiatives for Gozo are steering at the level of Ministry (Ministry for Gozo).

e. Economic governance

In our framework, economic governance refers to the processes that lead to the elaboration and implementation of economic development strategies at the regional and local levels. The involvement of key economic actors in the region is an important parameter for a regional economic development strategy to be successful, i.e. to fulfil its purpose (creating economic growth and employment). Three dimensions of economic governance will be particularly investigated in our TeDi regions: first, the engagement of the regional/local level, in opposition to the national one, in economic development issues; second, the instruments available at the regional/local level to promote economic development; and finally, the interplays between local and regional actors in order to elaborate such a strategy.

We argue that the role of regional and local actors is central in capturing and exploiting the development opportunities of the regions, promoted by the notion of territorial diversity.

Alba (Romania)

Alba's development strategy for the period 2007-2013, aiming at improving the business environment and strengthening the market economy of the region, was elaborated by the County Council, in collaboration with representatives of local authorities, the private sector and the non-governmental sector. ECS connected to EU Structural Funds.

The County Council is the leading actor and facilitator of the process, taking the initiatives and federating the other actors. This role enables the Council to be an interface between the regional policy framework set up at higher governance level (EU and Nation-State) and the expectations of the regional and local actors.

The Chamber of Commerce and Industry Alba is a key support for the Council in order to operationalise the strategy.

Suceava (Romania)

The Sustainable Development Strategy of Suceava is the central document when it comes to regional economic development. It marks the direction for economic development in the county and provides a legal framework for coordinating and making use of resources.

Private actors, such as employer associations, professional associations, trade unions or companies, were consulted in the elaboration phase through the participation in working groups.

Industry associations (Chamber of Commerce), the County Environmental Protection Agency and Education & Research institutions (*Stefan cel Mare* University...) are important actors for operationalising the strategy.

Marathasa & Tylliria (Cyprus)

Economic development has been traditionally dealt with at the national level in Cyprus, in part due to the small size of the country. Until recently, sub-national authorities have had little influence on relevant processes, although consultation with local actors is now mandatory. The Strategic Development Plan is the main programming instrument for Cyprus, linked to the NSRF and OP's; there are good synergies between the strategic framework, sectoral (e.g. tourism, rural development, transport etc.) and spatial plans at the national level, which are generally elaborated to the local land use level.

A key objective of the current Rural Development Programme 2007-2013 concerns the reconstruction of the social and economic fabric, which is especially needed in mountainous areas.

The recent introduction of sub-regional spatial plans and the envisaged reform of the planning system allowing the creation of integrated planning authorities at the sub-regional level to implement those spatial plans is a clear improvement of territorial governance for managing territorial diversity in Cyprus.

Marathasa has been selected as one of the first areas in Cyprus for which such a sub-regional plan will be prepared and procedures for its elaboration, which provide for extensive local stakeholder involvement through an advisory body (Joint Board), written consultation with the public and formal public hearings, were recently initiated in 2009. An important result of this action will be the creation, for the first time, of a comprehensive spatial development framework for the Marathasa area, based entirely on local specificities, perspectives and visions. The process for

a similar sub-regional spatial plan for the Tylliria area is currently under consideration and such a plan will most likely be elaborated in the coming few years.

In the rural development framework, the establishment of Local Action Groups may be identified as central to fostering future capacity building for local economic and social sustainability. The Marathasa grouping, specifically representing the villages of Marathasa within the enlarged area of the Troodos Development Agency, as well as the recently established Tylliria Development Agency (with the participation of all currently functioning local administrative bodies of the Tylliria case study area, together with an additional three communities located to their west) are envisaged to play a leading role in the rural development of each area.

Gozo (Malta)

Regional and local actors in Malta (in general) and Gozo (in particular) have very little power when it comes to elaborating regional and spatial plans. Economic development strategies are elaborated at the national level. A specific Ministry is dedicated to Gozitan affairs (Ministry of Gozo). The Ministry is in charge of questions connected to the improvement of quality of life on Gozo, while protecting the cultural, social and environmental characteristics of the island.

The Ministry of Gozo essentially acts as a coordinative body for other sectoral ministries on issue of importance for Gozo, for instance those related to social, health and education development.

The impacts of the Ministry on regional development in Gozo are mixed: while the development of the Ministry has been fruitful rendering an element of autonomy for the region it also tends to create dependence on other Ministries whose objectives tend to be national and not regional.

North Calotte

Regional or county Plans are available for all regions in each of the three countries covering the North Calotte area (Finland, Norway and Sweden). For the elaboration and implementation phase of those plans, the County authorities are central actors as their role is to lead the process and to federate other relevant actors to create stronger intra-regional synergies. Economic Growth and Employment are central themes in the regional plans, often reflecting the national priorities.

Strategies also acknowledge the fact that the economic competitiveness of the region needs to support small scale business in rural areas, in order for it to be sustainable in the long run.

The elaboration of the regional strategies engage the most important regional actors in each county: regional federations of businesses, labour unions, regional chambers of commerce, but also universities and research centres that are seen as an important link between public action and private sector (*Triple Helix* model).

Although most of these initiatives are taken within each respective country, cross-border initiatives such as the Northern Sparsely Populated Areas (NSPA) Group aim at developing joint strategies for the whole cross-border region. This Group is constituted mainly of representatives of regional authorities (both County Administrative Board and County Council) and acts as an interface between the regional actors and the European level.

Development strategies have also been elaborated at the local level (Nordic municipalities are in general larger than continental ones). An example is the municipality of Jokkmokk for which a growth strategy is drafted in close collaboration with the business community and a local growth council has been established to increase cooperation between the private business sector and the local development office at the municipality.

Valais (Switzerland)

Switzerland being a confederation of cantons, the regional level (= canton) has strong prerogatives when it comes to regional development issues. The recently adopted Federal National Strategy (NRP) provides a clearer framework for the regional level to elaborate and operationalise its own development strategy.

Most of the initiatives under the regional strategy of Valais are orientated towards the theme of economic competitiveness: grouping forces, specialising productions, getting critical mass in various activities... An interesting feature of the regional strategy is that it acknowledges the canton's territorial diversity by enabling different parts of the canton (agglomeration, rural and touristic areas) to draw on their specific territorial potential.

Private actors have been consulted and are partners of the regional strategy in the long run, although the implication of local economic agents in the implementation phase is rather recent due to the young age of the NRP.

A specific regional organisation (The Ark) has been set up in order to support initiatives aiming at increasing the diversification of the Valaisian economy, essentially through the creation of clusters in high-value activities (biotechnology, artificial intelligence...).

Other organisations representing regional economic actors (Valais Tourism, Chamber of Commerce...) are active partners of the regional authorities in order to promote the canton's economic development.

Jura (Switzerland)

The NRP's implementation program in Jura seeks to raise the performance of the regional economy by, among others, ameliorating the factors of competitiveness (workforce, tax system, infrastructure...) and improving the innovation capacity of the region.

Private actors and associations were involved in the drafting process of strategy, but more at the end of it: the document was drafted by the regional administration and subsequently validated by those actors.

The canton of Jura has a whole strategy of incubators intended to work as network (cf. under) for fostering economic growth (strategy "high technology mainly). The organisation CREAPOLE, a public-private incubator organisation, is a central instrument to implement this strategy.

f. Conclusions

The findings of the TeDi project regarding governance stresses the need for an approach to territorial diversity that is based on the conception and implementation of dedicated territorial development strategies with a strong involvement of local actors and the identification of key policy leverages across the policy spectrum (i.e. from the local to the EU level).

The review has pointed out to the fact that the governance structures in the TeDi regions are dynamic. The new challenges facing European regions, and especially those faced with geographic specificities, necessitate reinventing the way policies are thought, designed and implemented.

As a matter of consequence, the institutional context and governance structures are deemed to be one of the essential pillars for local development in TeDi regions, but also in other regions with geographic specificities. The project findings advocate the necessity to define territorial development opportunity as a way of

improving the coherence between local natural resources, human capital and the institutional context.

The active role played by the EU and the national government/agencies as enablers for such territorial development strategies has been put into light in the examples of the TeDi regions. Indeed, the European and national levels create the institutional setting that enable local and regional communities to develop an institutional and economic capacity capable of undertaking endeavours for shaping the contours of future development opportunities.

It is clear as well that territorial positioning is an important part of TeDi regions' development opportunities. This means that TeDi regions need to enhance their institutional capacity by developing interactions and initiatives across administrative borders. Territorial Cooperation is thus a key policy cornerstone for shaping the TeDi regions' territorial development strategies.

8. Conclusions

a. Scientific support of policies promoting excellence in regional performance and territorial cohesion

A first preliminary conclusion from the ESPON TD project concerns the difficulty of bringing together development perspectives of this wide diversity of territories into a common framework. The case study territories are at widely different scales, with institutional statuses ranging from nation states to groups of communities and whose level of development and economic capacity is sometimes well above or well below European average values. This makes the identification of common analytical frameworks for the understanding of their development processes challenging.

This challenge is however that of Europe faced with territorial diversity. The diversity of diversity will be the main obstacle to be overcome both when seeking to implement article 174 of the new Treaty, and when attempting to transform the slogan of “transforming diversity into a strength” into concrete action. In these respects, the ESPON TeDi project is addressing key issues for the future of the cohesion policy. We have shown the wide disparity of economic profiles in TeDi areas and their different ways of relating to a situation of economic crisis. We have identified types of accessibility and connectivity that are hugely different, each of which is associated with different sets of economic development opportunities.

On the other hand, we have identified polarising demographic trends in most areas leading to local decreases in population levels that may at a certain stage threaten the sustainability of the concerned communities. These trends occur at the sub-regional level, and will therefore generally be invisible when considering currently used NUTS 3 data only. This leads to a twofold types of questioning: First, what local trends are relevant from a planning point of view? One needs to identify when local movements of population cease to be anecdotal and start affecting the general economic, social or ecological performance of a region. Second, what types of local depopulation trends should be considered as necessary adjustments to a changing context and, by way of consequence, accepted and managed? This is not only an issue of scientific analyses, but of normative political choices on the desirable settlement patterns in a long term perspective. We have observed the notion of “small scale economies” can help understanding key dynamics of these areas, through the various effects of specialisation on economic resilience and on

the difficulty of managing constant and major flows of population moving between different statuses of employment and non-employment.

The central element in the differentiation of TeDi areas' capacity to take advantage of economic opportunities on the basis of a strategy of balanced, harmonious and sustainable development however lies in their respective capacity to formulate and to implement locally adapted measures targeting key obstacles to growth. The governance structures are the main filter through which a possible European shared perspective on areas with geographic specificities may lead to the implementation of concrete measures. In many respects, these governance structures are themselves largely influenced by the general perception of areas with geographic specificities and by the self-perception of their inhabitants. A key role of the European level lies in making it possible for the stakeholders of mountainous, insular, sparsely populated and peripheral regions with very different economic and social starting points to get together, discuss possibilities and challenge preconceived ideas on their possibilities. Beyond the diversity of economic and social realities, one can therefore see a potential for exploiting the shared perception of being different.

This therefore means incorporating the diversity of territorial diversity into the policies, rather than looking at them as obstacles. By emphasizing that geographically specific areas can be both central and highly populated, territorial diversity can be used as a bridging concept between territories of which one otherwise have mainly seen difference. Similarly, the fact that some specific areas have high economic and social performance levels well above European average values can serve as a source of inspiration to geographically similar regions with considerably lower standards. This may lead to identify their positive dynamics as a result of their capacity to overcome the permanent structural obstacles associated with their geographic features.

As such, the focus on geographically specific areas may help overcoming the currently prevailing type of regional development thinking, according to which benchmarking against European average performance levels constitutes the main basis for policy design and evaluation. Firstly, considering that regional performance needs to be assessed against each area's potentials and endowment with natural resources, the formulation of credible local development strategies appears as a firmer basis for territorially based policies than deviations from the benchmark. Secondly, accepting that regions may contribute in different ways to the overall prosperity and harmonious development of Europe, with strategic inputs that may or may not be fully reflected in terms of market value, the prioritisation of interventions between regions may be challenged.

b. Policy perspectives

The evidence compiled in the TeDi case study areas therefore shows that policies must help formulating a development model that is adapted to the specific social and ecological framework conditions. This implies that one may need to challenge prevailing economic principles. Competition for example does not necessarily guarantee the cost-efficient delivery of services of general interest in areas where the demand is too small to justify the presence of multiple actors. Similarly, the existence of a “labour market” presupposes that workers may choose between different employers. This is not necessarily the case in mono-industrial towns. The notion of “failure of market based solutions” is central in the understanding of the specific social and economic dynamics of TeDi areas, and in explaining why a certain number of development potentials are not taken advantage of.

Ensuring a sustainable development based on regional comparative advantages

The objective is to improve the growth potential of these regions and their perspectives of sustainable development, ensuring that they contribute to the achievement of the Lisbon and Gothenburg objectives to the full extent of their possibilities. The focus is on identifying development opportunities, i.e. endogenous potentials that are not being fully exploited. There are probably as many reasons for which potential resources are not being taken advantage of as there are territories. One may however try to systematise the knowledge about these various situations by defining the territorial development opportunity as a way of improving the coherence between local natural resources, human capital and the institutional context / governance structures.

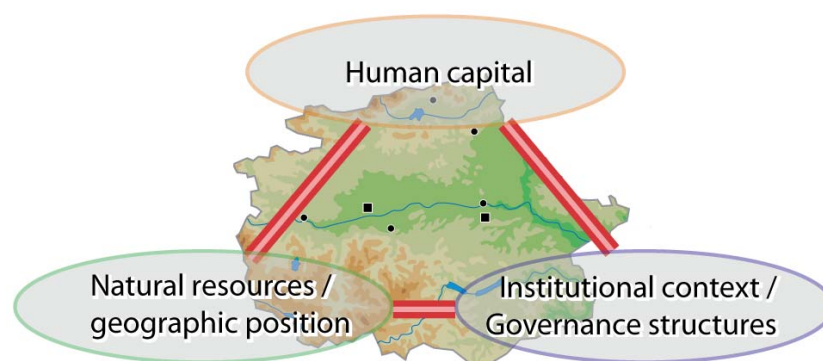


Figure 3 Conceptualisation of Territorial development opportunities

The underlying hypothesis is that the absence of exploitation of a given asset, leading to a suboptimal social and economic performance within a region, can on the long term be explained by weaknesses of specific factors or by incoherencies between the ways in which they have been developed. The human capital is considered in terms of the composition, competencies of the workforce, but also with regards to the degree of social cohesion. Both these aspects are of determining importance for the emergence of sustainable communities having the capacity to adapt to changing framework conditions. The structuring of local communities around not-for-profit organisations, political, confessional or cultural movements or strong regional identities can also contribute to strengthen local bonds that have an effect on the human capital. The quality of the institutional setup and governance structures can only be assessed in relation to these "organic" forms of social organisation, which they contribute to shape and of which they may seek to compensate the weaknesses. Natural resources, finally, are not approached as a given feature of individual territories, but as the result of economic initiatives and strategic choices making it possible to transform natural features into economic resources.

Such a model implies a change perspective for local and regional authorities seeking to identify development opportunities. Rather than focusing on assets as such, the main priority is to identify the reasons for which the possibilities of growth and development have not been taken advantage of. From the point of view of territorial policy, development opportunities are therefore primarily approached as possibilities of improving coherence between the human capital, the natural resources and/or geographic position and the institutional context and/or governance structures.

All of these three elements are themselves variable and part of public efforts may lie in targeting either of them. However, these interventions are necessarily designed in relation to the other factors: natural resources are developed as part of efforts to create a socially and economically more favourable context for the reproduction of the human capital, and to improve the perspectives of sustainable development of the region or locality; the institutional and governance structures are reformed in order to improve their capacity to develop the human capital and create adequate framework conditions for the exploitation of natural resources; a long term strategy to preserve and enhance the human capital must be based on an assessment of how the natural resources and geographic position could allow for a corresponding level of economic activity and in parallel develop an institutional setup that improves the local or regional social cohesion. This approach of territorial development opportunities therefore entails a more systemic and holistic approach of TeDi areas.

The territorial approach can make it easier to handle this complex three variable equation, as one can circumscribe the different elements more easily and formulate economic, ecological and social ambitions within people's daily life

environment. Furthermore, insofar as the territory is part of the identity of individual actors, they may be more easily mobilised around a territorially identified project. This however does not imply that one should consider territories in isolation; development opportunities on the contrary often emerge by creating new types of interaction between neighbouring territories: mountain areas need to be considered in interaction with their piedmont and islands in relation to regions they are connected to by sea or air. A risk with the focus on endogenous potentials is that one focuses on individual territories and ceases to consider the potential for functional integration.

Promoting a more balanced functional integration of TeDi areas in their wider regional neighbourhood and in the European context

Two contradictory types of aspirations of TeDi areas can be identified. On the one hand, they seek recognition of their specificity and difference compared to other regions and would like to preserve the constituent elements of their regional or local identity. On the other, they would like to establish framework conditions for economic and social development that would be as similar as possible to those of other regions, allowing their economic actors to compete with external competitors on equal terms and providing the inhabitants with access to high quality services. It is important to bridge these different types of ambitions in view of formulating a coherent development vision. This implies that possible or potential contradictions between different types of objectives are clearly formulated, before one can seek to identify adequate compromises or, ideally, imagining win-win solutions making it possible to re-establish a coherence in the territorial project.

The previously noted possibility that the economic and social interests of individual TeDi areas may diverge from those of national or European actors, especially concerning the exploitation of natural resources, implies that TeDi areas need to formulate their development vision autonomously and potentially challenge prevailing priorities and principles. This raises the question of the institutional and economic capacity of TeDi areas to undertake such an endeavour. The variable status of TeDi areas, from sovereign nation states to groups of municipalities, and the extreme contrasts in wealth, economic power, endowment with R&D institutions and local competence in the field of territorial development, implies that no single model can be applied across Europe. "Turning Territorial diversity into strength", as advocated by the Green Paper on Territorial Cohesion, however presupposes that one acknowledges the diversity of objectives and ambitions and encourages the formulation and implementation of locally designed development strategies.

A focus on TeDi areas can in this respect contribute to the definition of Territorial Cohesion as one of the fundamental policy objectives pursued by the European Union. TeDi areas demonstrate that a high European performance in terms of

economic and social development is not simply the sum of high local and regional performances. They provide particularly striking examples of the fact that high European performance is instead the result of carefully calibrated, coordinated and integrated diverse contributions from equally diverse territories. In so doing, TeDi areas provide a further justification of the need for a territorial cohesion policy that is separate from social and economic cohesion. One of the objectives of territorial cohesion from their perspective is indeed to ensure that social, economic and ecological ambitions, instruments and measures are adapted to the diversity of territorial contexts in order to be fully efficient.

As such, TeDi areas need to identify the specificity of their contribution to the “three mutually reinforcing priorities” of the Europe 2020 strategy, viz. “smart growth (developing an economy based on knowledge and innovation), sustainable growth (promoting a more resource efficient, greener and more competitive economy) and inclusive growth (fostering a high-employment economy delivering social and territorial cohesion). While the Commission communication on the Europe 2020 strategy emphasizes that the targets do not fit a “one size fits all” approach, the ways in which the overall ambitions are translated into national and regional objectives remains to be defined. In this respect, it is significant that when the European Commission describes the need to “tailor the Europe 2020 strategy” to each “particular situation”, it only considers the national level and disparities in levels of development and standards of living. The only exception is one mention of “rural areas”. This illustrates the need to develop a line of argumentation justifying the need for objectives and strategies adapted to territorial specificities at the regional or sub-regional scale, constructed in a spirit of subsidiarity.

Achieving a continuous long-term improvement of quality of life

While the project demonstrates that TeDi areas are not necessarily lagging, and that there are major development opportunities to be taken advantage of, the improvement of the quality of life is a concern in all case study areas. While they all have obvious assets in terms of living environment, not least when it comes to access to nature, the challenge can lie in the preservation of balanced social environment, especially in small and remote communities, and in ensuring a sufficient access to public and private services.

In terms of social equilibrium, the situations of the case study areas are diverse. Gender imbalances are an issue in the North Calotte and in North Iceland; ageing is particularly pronounced in Alba and Marathasa. Demographic polarisation however occurs in all areas except Malta and Gozo, as negative net migration and natural population change are often observed in the same municipalities. These evolutions have a significant impact on the perspectives of regional development,

insofar as population figures in local functional areas fall behind threshold levels below which it becomes impossible to deliver services cost-efficiently and to create a sufficiently broad and diverse labour market. To understand and address them, it is necessary to consider sub-regional data, at the level of actual commuting areas or of territorial units that have been defined by local authorities as corresponding to a desirable range of daily mobility. The compilation of data at this scale is a prerequisite for the formulation of policies addressing the demographic and social balanced development of communities in TeDi areas.

In all case studies, it appears that the main quality of life issues are related to small and isolated settlements. Recurring issues such as the difficulty of maintaining access to services of general interest, to generate balanced and robust "labour markets" or to improve the quality of the infrastructure are indeed all linked to insufficient population numbers. Independently of whether one considers mountains, islands or sparsely populated areas, settlement patterns and obstacles to mobility are therefore shared concerns leading to similar effects. This suggests that a European policy explicitly addressing settlement pattern related issues and formulating objectives for how the population should be organised across the European territory would be particularly relevant for TeDi areas. The first questions to be addressed in this respect are whether current polarising trends, as they have been observed in all TeDi case study areas except Malta, would become unsustainable if they are allowed continue. If a consensus can be reached around the idea of "unsustainable polarisation", the following questions are how one should define the criteria to identify such situations and what types of counter-measures could be envisaged. Many TeDi areas can be considered as pilot areas in terms of population decline and demographic "thinning out" processes, as these processes have been going on for a longer period of time and are particularly advanced. They can therefore be used as test cases for the management of depopulation and demographic decline, in a context where "shrinking regions" constitute an increasing proportion of the European territory.

While access to a minimal range of services is an obvious and important factor of social and demographic dynamism in TeDi areas, the case studies demonstrate that identity and self-perception also play a determining role. Branding efforts therefore important not only in view of attracting foreign visitors and investors, but also as part of a strategy to promote the awareness of local assets and pride in belonging to individual TeDi areas. One should in this respect not underestimate the importance of knowledge intensive and innovative activities in changing the perception of territories with geographic specificities as being, at best, one step behind other regions. The presence of leading research facilities can change the perception of local communities and stimulate more positive social and economic trends. In North Iceland, the establishing of the University of Akureyri in 1987 is described as one of the most efficient measure ever taken in Icelandic regional policy. It has strengthened the economic life in Akureyri and surroundings and is

now a strong and stable University which plays one of the key roles for economic development in north Iceland. Not only as a contribution to the economic life, but this has helped to redynamise the educational structure of the region as a whole.

Targeted efforts aiming to improve the perception teenagers have of their local environment are another interesting strategy. The objective is to ensure that a larger proportion of young people will return to their place of birth after graduation from centrally located higher education institutions. Policies improving the quality of life of youth can therefore be an integral part of a strategy of economic sustainability.

Improving the foundations of development and enhancing entrepreneurship in a perspective of sustainable development

This illustrates how central quality of life can be in the construction of solid long term foundations for economic development. The different case study areas however also illustrate how many TeDi localities may need to construct models of high quality of life in order to comply with the imperative of ecologically sustainable development. Pressures of a population aspiring to adopt a homogenous mainstream lifestyle in territorially diverse areas, e.g. in terms of access to commercial and public services, mobility habits and consumption, may therefore be a challenge.

Similar hesitations between the assimilation to "mainstream" areas and the preservation of specificities can also be observed at the level of the TeDi regions. This is particularly striking in the cases of Gozo and Jura, in their capacity of TeDi regions that are contiguous to dynamic and densely populated areas, and seek to position themselves in relation to these. Conflicting types of aspirations are expressed in this regard. On the one hand, there is a wish to be fully connected to their growth dynamics and to benefit from the services they offer. On the other, these areas, with reference to their geographic characteristics and cultural specificities, seek to preserve their difference. In the case of Gozo, the lower population densities, environmental assets and traditional lifestyle are some of the values local stakeholders wish to safeguard. At the same time, there is an aspiration to improve the functional integration to Malta. The Canton of Jura is a French-speaking enclave in the northwest of Switzerland that was founded as late as 1979. It on the one hand seeks to reap benefits from its proximity to the Basel metropolitan region and to Belfort and Montbelliard, that will be connected to the French high speed railway network in 2011. On the other hand, a group of regional development measures introduced under the banner "Opening up the Jura" ("*Jura, pays ouvert*") were rejected by public referendum in 2004. This illustrates the difficulty of formulating a consensual development strategy for TeDi areas overcoming the contradiction between the "preservation of specificities" and the "alignment on other territories".

In view of formulating a solution to this dilemma, the Northern Peripheral Sparsely Populated Areas, a transnational group of regions in northern Finland, Norway and Sweden including the North Calotte, has organised a Foresight process in which regional and local stakeholders have been actively involved. This has led to the production of a report containing a vision for the area in 2020 and a policy road map. By branding the region as "Strong, Specific and Promising" the representatives of the regions claim that the preservation of these regions' specificities is a prerequisite for the sustainable exploitation of their potentials rather than an obstacle to their development. TeDi regions however do not necessarily have the institutional and economic capacity to formulate and implement the alternative development models required to turn difference into a strength in this way.

The European Commission in its Third cohesion report defined Territorial Cohesion as a policy seeking to ensure that "people should not be disadvantaged by wherever they happen to live or work in the Union". Such an ambition however not only appears unrealistic in terms of infrastructural investments and foreseeable cost of delivering the services to make this "absence of disadvantage" possible. It may also lead to unsustainable environmental pressures when wide-ranging mobility patterns are encouraged to compensate for the lack of local employment opportunities or services. The Conference of Peripheral Maritime Regions (CPMR) has translated this approach of territorial cohesion into a principle of fairness, whereby "The objective of territorial cohesion is to [...] offer fair access to services of general interest and to ensure optimal competitiveness conditions for all territories." The key issue for Territorial Diversity areas is to define what this principle of "fairness" would entail. Such a question would need to be addressed within each region, in a bottom-up perspective. Institutional capacity building is therefore key to the construction of a framework that would make the constitution of robust and sustainable foundations for economic development possible.

Changing the conditions of the European dialogue on territorial development

The full exploitation of development opportunities in TeDi areas presupposes that the concerned local and regional authorities have the capacity to challenge prevailing norms in terms of economic development methods and objectives when this is required. If European policies are to support a development model that "transforms diversity into a strength", this however also requires that an adapted analytical framework is established.

The assessment of regional performances against European or national average values, including metropolitan regions and other well-connected and highly populated areas, is in this respect a method which cannot offer a satisfactory basis for strategic decision-making. The justification for policy interventions in TeDi

areas is indeed not based on an underperformance compared to such a benchmark, but on the extent of unexploited development potentials and the perspectives of improvement of the social and economic performance. This implies that policy interventions may also be justified in areas which, e.g. thanks to an abundant natural resource, may appear affluent in a European policy perspective but nonetheless finds it difficult to establish the basis for a social and ecologically harmonious and sustainable development. The fact that individual TeDi areas display satisfactory value when considering the indicators of performance considered at the European level furthermore cannot be interpreted as a sufficient validation of the absence of significant structural obstacles to growth and development. As illustrated by the "syndrome of disadvantage" models proposed for the different case study areas, each case study area is characterised by complex systems of contradictory processes that may outweigh or block each other either a positive or negative direction. The focus of a regional policy targeting growth and sustainable development needs to be on the critical assessment of these underlying processes, rather than on simplistic interpretations of performance indicators.

As highlighted by the syndrome model, the policy issues of TeDi lie as much in the intermediate processes deriving from their geographical specificities as in their geographical specificity as such. Observing the recurring features in this respect, such as access to services of general interest, modern logistics and communication centres, vicious demographic circles leading to continued demographic decline and depopulation, one can hypothesise that the most efficient way of addressing the development of TeDi areas may not a "mountain", "island" or "sparsely populated areas" policy, but coordinated strategies addressing these key themes in a balanced territorial development perspective.

The case studies however provide ample evidence that being mountainous, insular or sparsely populated is a central element of the local or regional identity. This is not only important in the generation and implementation of territorial development strategies within the TeDi areas, but also in when seeking to stimulate a European dialogue and exchange of good practice on these issues. Using these categories of territorial diversity in the European regional development discourse is therefore a way of incorporating the human dimension of these processes. The challenge, from a European perspective, is to link these intuitive and emotional factors and the concrete challenges to be addressed, in such a way as to construct a framework in which the concerned local and regional can be efficiently rallied around shared objectives of cohesive and sustainable growth.

The importance of this human dimension of territorial diversity implies that the capacity of individual actors to be able to identify with delimitations of geographic specificities may be more important than the solidity of their scientific justification or the degree to which socio-economic statistics can be compiled to assess their situation. The distinction between notions such as "mountainous regions" or

“insular regions”, on the one hand, and actual delimitations of massifs or islands on the other is therefore important to ensure that a continued dialogue between the European and local levels on these issues remain possible. The extent of the upset caused to local communities by European delimitations suggesting that they would not be mountainous (e.g. Suceava and Alba) or insular (e.g. Malta and Cyprus) and the effect this may have on the quality of the European dialogue on issues of territorial development should not be underestimated.

Accepting and incorporating the mechanisms through which local and regional identities are constructed in territorial policies should however not lead to the formulation of self-centred development policies considering territories in isolation. Development opportunities on the contrary often emerge by creating new types of interaction between neighbouring territories: mountain areas need to be considered in interaction with their piedmont and islands in relation to regions they are connected to by sea or air. A risk with the focus on endogenous potentials is that one focuses on individual territories and ceases to consider the potential for functional integration. Territorial cooperation is therefore a natural component of policies targeting geographically specific areas, in view of ensuring a sustainable development based on regional comparative advantages. The European level has an obvious role to play in promoting such territorial cooperation beyond national borders. Using the established instruments for territorial cooperation and adapting them to the specific conditions of TeDi areas is therefore a promising option.

Part of the justification of such a policy is the observed structural imbalances of flows in multiple TeDi areas: youth out-migration is a necessity considering the objective increasing the proportion of the workforce with tertiary education. Similarly, the organisation of production systems implies that only a limited proportion of the value generated on the basis of raw materials produced or extracted in TeDi areas benefit the concerned regions. It is necessary to acknowledge the existence of imbalances, to identify their extent and to recognise the need for compensatory measures to create perspectives of socially and economically sustainable development in TeDi areas. This would be part of a more systemic approach of the European economy, in which the importance of individual regions is assessed not only on the basis of their GDP, but also of the strategic importance of the inputs they produce.

Secondly, territorial cooperation is needed to stimulate the balanced functional integration of TeDi areas with their surrounding areas. In most case studies, stakeholders mention the challenge of relative isolation and the difficulties of positioning their area in relation to more densely populated and dynamic neighbouring regions. While the hope that improved transport infrastructure will help solving these issues is recurrently mentioned, evidence shows that accompanying “soft” measures are essential to ensure that weaker areas draw benefits from increased accessibility and that such investments actually contribute to balanced and harmonious territorial development.

Finally, territorial cooperation can contribute to strengthen the capacity of local and regional authorities to identify their growth potentials and formulate development strategies. Territorial cooperation could contribute to the previously mentioned objective of strengthening the capacity of TeDi areas to design economic and social policies and to define development ambitions that are adapted to their specific preconditions. European exchanges of experience and good practice could in this regard play a particularly important role, considering the large disparities in economic and social performance between islands, mountains and sparsely populated areas from country to country and the contrasted regulatory and institutional frameworks.

Annexes to the Scientific report

- List of indicators developed and datasets provided to the ESPON Database
- List of maps and tables
- List of missing data
- List of abbreviations and glossary
- List of references, including the use of results from projects outside the ESPON 2013 Programme
- List of publications of the TPG members resulting from the implementation of the Targeted Analysis
- Additional maps not included in the core text of the report
- Bibliography

Annexes to the Scientific report

- List of indicators developed and datasets provided to the ESPON Database

Indicator	Description	Valais (Switzerland)	Jura (Switzerland)	Alba (Romania)	Suceava (Romania)	North Calotte	Malta	Iceland	Marathasa & Tylliria (Cyprus)
A.NS_1	Number of farm holdings (81-01) of	1995-01-05	1995-01-05	81-91-00	81-91-00	SE: 91-01-07 NO & FI: 2000 & 200	2001 & 2007 NUTS3		2003
A.NS_2a	Agricultural turnover	2008 NUTS3	2008 NUTS3				2007 NUTS0		2006 NUTS0
A.NS_2b	Forestry and logging	2007 NUTS0	2007 NUTS0				2007 NUTS0		2006 NUTS0
A.NS_2c	emigration aquaculture	2007 NUTS0	2007 NUTS0				2007 NUTS0		2006 NUTS0
A.NS_3a	Number of persons working in agricultural	2005 by district		2001		SE & NO 2006 FI 2004	2007 NUTS3	2007 NUTS3	2003
A.NS_3b	Number of persons working in forestry and	2005 by district				SE & NO 2006 FI 2004	2007 NUTS3	2007 NUTS3	2006 NUTS0
A.NS_3c	Number of persons working in fishing and	2005 by district				SE & NO 2006 FI 2004	2006 NUTS3	2007 NUTS3	2006 NUTS0
A.NS_5	Age of farm holders	2007	2007			NO 2008 NUTS3 SE 2007 NUTS3 FI 2007 NUTS3	2007 NUTS0		2003
A.NS_7	Utilised agricultural area	1979-1985 1992/1997	1979-1985 1992/1997	1991 & 2001	1991 & 2001	NO 2000 & 2008 SE 2000 & 2007 FI 2000 & 2007	20001 & 2007 NUTS3		2003
D.NS_1a	Total population	81-91-01-07	81-91-01-07	81-91-01-09	81-91-01-09	SE & FI 81-91-01-07 NO 86-91-01-07	2001 & 2007 NUTS5 1981 & 1991 NUTS0	81-91-01-07	82-92-01 2007 NUTS0
D.NS_1b	Total population, female	81-91-01-07	81-91-01-07	81-91-01	81-91-01	SE & FI 81-91-01-07 NO 86-91-01-07	2001 & 2007 NUTS5 1981 & 1991 NUTS0	1991-01-07	2001 2007 NUTS0
D.NS_1c	Total population, male	81-91-01-07	81-91-01-07	81-91-01	81-91-01	SE & FI 81-91-01-07 NO 86-91-01-07	2001 & 2007 NUTS5 1981 & 1991 NUTS0	1991-01-07	2001 2007 NUTS0
D.NS_2	Population by age groups	90-00-estimation 07	90-00-estimation 07	92-02 3class	91-01 3class	1991-01-07	2001 & 2007 NUTS0	1991-01-07	1992
D.NS_3a	number of births per woman	2003 to 2007	2003 to 2007	81-91-01 and	81-91-01 and	2003 to 2007	2003 to 2007	2003 to 2007	2003 to 2007 NUTS0
D.NS_3b	number of deaths per woman	2003 to 2007	2003 to 2007	81-91-01 and	81-91-01 and	2003 to 2007	2003 to 2007	2003 to 2007	2003 to 2007 NUTS0
D.NS_4a	number of out-migrants	2003 to 2007	2003 to 2007	81-91-01 and	81-91-01 and	2003 to 2007	Net Migration 2002 to 2006	2003 to 2007	2003 to 2007 NUTS0
D.NS_4b	number of in-migrants (domestic)	2003 to 2007	2003 to 2007	81-91-01 and	81-91-01 and	2003 to 2007	Net Migration 2002 to 2006	2003 to 2007	2003 to 2007 NUTS0
D.NS_5	number of persons	2000	2000			2007/2008	2007 NUTS0		2007 NUTS0
E.NS_1a	Total active population	2000	2000	2007 NUTS 3	2007 NUTS 3	2006	2007 NUTS0	2001 NUTS3	2001
E.NS_1b	productive population	2000	2000	2007 NUTS 3	2007 NUTS 3	2006	2007 NUTS0	2001 NUTS3	2001
E.NS_1c	infractive population	2000	2000	2007 NUTS 3	2007 NUTS 3	2006	2007 NUTS0	2001 NUTS3	2001
E.NS_2	Total number of employees by sector /	2005	2005	2001	2001	SE & NO 2006 FI 2004	2007 NUTS3	2007 NUTS3	2005
E.NS_4a	Total number of unemployed persons	2007	2007	2002 and 200	2007 NUTS 3	2006	2007 NUTS0	2007	2005
E.NS_4b	Total number of unemployed persons	2007	2007	2002 and 200	2007 NUTS 3	2006	2007 NUTS0	2007	2007 NUTS0
E.NS_4c	Total number of unemployed persons	2007	2007	2002 and 200	2007 NUTS 3	2006	2007 NUTS0	2007	2007 NUTS0
E.NS_5	Total number of unemployed persons	2007	2007	2002 NUTS 3		NO 2009 SE 2007	2007 NUTS0		2007 NUTS0
E.NS_6	number of unemployed people by sector	2007	2007	2001 NUTS 3		2005/2007	2007 NUTS0	2007 NUTS3	2007 NUTS0
E.NS_7	number of unemployed people by sector	2005	2005			NO 2007	2007 NUTS0		2004/2005
E.NS_8	Total number of employees by size of	2008	2008	2007 NUTS 3		FI 2007 SE & NO 2008 NUTS			
E.NS_9	Total household income					SE 2003 FI & NO 2002	2000 NUTS0		2007 NUTS 0
E.NS_10	Number of persons by educational attainment	2000	2000			SE 2008 NO 2007	2007 NUTS0		
E.NS_11	Total number of students	2008/2009	2008/2009			2005	2007 NUTS0		Tertiary education 2007-2008 by district
E.NS_12	Number of companies created	2004	2004			NO 2008 SE 2007 FI 2005	2007 NUTS0	2007	2006 NUTS 0
E.NS_13	Number of companies closed	2004	2004			NO 2008 SE 2007 FI 2005	2007 NUTS0		2005 NUTS 0
E.NS_14	Turnover in tourism sector					NO 2006 NUTS3 FI 2005 NUTS0	2007 NUTS0		2007 NUTS0
I.NS_1	Number of people with broadband access	2009	2009			2006	2008 NUTS0		2007 NUTS0
I.NS_2	passengers	2007	2007	2007	2007	2005	2007 NUTS0	2007 NUTS3	2007
I.NS_3	handled by	2007	2007			2005	2007 NUTS0	2007 NUTS3	2007 NUTS0
I.NS_4	handled by	"c"	"c"	"c"	"c"	FI 2006	2007 NUTS0	1991	2007
I.NS_5	Freight handled by maritime ports	"c"	"c"	"c"	"c"	SE & FI 2006 NO 2002	2007 NUTS0	2007	2007 NUTS0

Data collection cancelled because of lacking data

Indicator canceled: not enough data

Indicator canceled: not enough data
Indicator canceled: not enough data

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Annex: Case stories

The purpose of the case stories is to summarise the issues territorial development and of local development in a synthetic way, focusing on key current obstacles and on the ways in which they may be overcome.

1. Alba (Romania)

The territorial context

Along with the county of Brasov, Sibiu, Covasna, Harghita and Mures, Alba County is part of the CENTER Region, CENTER Agency for Regional Development being based in Alba Iulia. Apuseni Mountains are the mountain with the highest density in terms of resident population. Alba County is situated in the central part of Romania, in the contact area of Transylvania Plateau with the Southern Carpathians and the Apuseni Mountains and has permanent human settlements at altitudes higher than 1000 m. The specific mountain household is based on pluri-activity (agriculture + Crafts + agro-tourism).

Predominant in Alba county are the high forms of relief and thus the mountains cover 52% of the surface, plateaus and hills areas 26%, rivers' meadows 22%.

The climate is temperate - continental, specific to the whole country, differentiated by altitude, with average annual temperature of 2 C degrees in the mountain areas and 9.5 C degrees in the meadow of Mures river. The most important natural resources in the county in deposits or exploited are: non-ferrous metal complexes (gold, silver, copper, lead, zinc, pyrite, mercury, etc.), salt, bentonite, limestone, manganese, ozocherita, sandstone, shale, clay, marble, construction stones, sand and gravel, wood, gas, etc..

Alba County's surface, which is of 624,157 hectares, is divided as follows: agricultural area is 327,934 ha (52.5% of county area). Out of this: - the arable land is 132,498 hectares (40.4%); 116,851 hectares of pastures and hayfields (35.6%); vineyards and vineyard nurseries 3239 hectares (0.98%); 1220 hectares of fruit orchards and nurseries 0.37%); forests 229,700 ha (36.8%); water and ponds 6370 hectares (1.0%); other areas 58,387 hectares (9.4%).

Alba county's population on January 1 2007 counted 376,747 inhabitants, 219,334 inhabitants (58.2%) in urban areas and 157,413 inhabitants (41.8%) in rural areas, population density per square kilometer was of 60.4 inhabitants. From this perspective Alba county's share is 1.8% at the level of the country.

Alba County's administrative area covers a total of 11 cities and towns, out of which 4 are cities - Alba Iulia (county's capital), Aiud, Blaj and Sebes and 7 towns: Abrud, Cimpeni, Cugir, Ocna Mures, Zlatna, Teius and Baia de Aries . In the county there are other 67 administrative-territorial units - communes and 656 villages.

In some mono-industrial areas unemployment is high and the possibilities of conversion are limited. The county's main socio-economic challenges relate to negative natural growth, population's aging, decreased standard of living.

The mountain areas are an important part of the County's development opportunities in link with sustainable regional development, by the existence of human communities that inhabit the mountains and by the green products obtained in these communities.

The destination of organic products of plant and animal origin, increasing, is the cities of the center region.

By stimulating production in these communities, raising funds necessary for the introduction of new technologies, the mountains will become a major supplier of raw materials for food and light industry. The association of producers from the mountain area into cooperatives will represent an improvement of the quality of life in mountain communities.

The Sustainable Development Program in the mountain area aims to stimulate the practice of crafts and trades typical to the small industry, which require a significant manual processing as an important means of establishing services and products obtained by using simple technology, especially the traditional technologies:

- winning external markets for such products and services, especially for those related to cuisine, folk art and handicrafts,
- stimulation of domestic demand for services and products that require a significant degree of manual processing,
- increased visibility and marketing of craftsmen and their products and services, and improving the access of craftsmen to market information and facilitate recovery of this information, including electronic commerce,
- increasing the degree of computerization of economic agents carrying out activities related to trades and crafts,
- promoting services and products made by using the simple technology and having a significant component of manual processing, especially those products using traditional technologies.

Craft products and services, small and craft industry products and services are made by artisans, small tradesmen and artisans, either completely by hand or using hand tools or mechanical tools, as long as the contribution of artisans or artisan hand remains the most substantial component final product. These products are produced without restriction on the quantity and using raw materials, generally appealing to natural resources. The special nature of craft and artisanal products derives from their distinctive features, which can be utilitarian, aesthetic,

artistic, creative, cultural, decorative, functional, traditional, symbolic and socially and religiously significant.

Handicraft products and services, small industry, arts and crafts include a wide range of objects and activities which exploit techniques, materials, forms and traditional ornaments: products and services with artistic and utility value tailored for modern life but still maintaining the specific manual fabrication. Promoting these products is made in the fairs and exhibitions, both in Romania and abroad.

Overcoming negative socio-economic trends

As a result of demographic trends in recent years and those projected in the medium and long term, the young population will be reduced by about 20%, focusing in particular on school demographic groups of 15 to 24 years. Demographic decrease is accelerated especially in the mountainous area, due to both migration of population and natural demographic phenomena.

Labour out-migration is seen as a problem mainly because those who leave are young and represent the main assets of the regional labour-market in the future.

Due to remoteness and poor levels of infrastructure development, access to basic services is low in the region. Romania's labour market in general and Alba County's in particular, has undergone major transformations in the context of economic restructuring, manifested by decrease of the active labour force and the occupied population, maintaining unemployment at relatively constant values (except for periods of recession) but the increase of long-term unemployment and – an issue with strong negative connotations – also increase of the inactive population. Also, one can notice high unemployment rate in some mono-industrial areas and low possible conversion solutions. The impact of demographic phenomena on the development of human resources (declining birth rates, maintaining high mortality, increased external migration) was accompanied by economic effects such as economic restructuring, recession that increased urban-rural migration and employment in subsistence agriculture, development of informal labour market or the existence of a significant share of inactive population.

At regional and local levels an increase in employment was recorded in public administration, electricity, gas and water, health and welfare. In terms of employment structure in Alba County one can notice a relatively high employment in agriculture (25%) and low in commercial services (17%).

Alba county's economy is predominantly oriented towards services and industry, especially light industry. The analysis of the processing industry structure shows a

quasi-majority of the woodworking industry (42.3%), followed by food and beverages (16.8%), chemicals (8.9%) and leather and footwear (7.3%). These data strongly points out the character dependant on the exploitation and capitalization of natural resources for industry in Alba County.

There are also problems because of the mono-industrial mining towns and rural settlements in the mountain area (Abrud, Zlatna, Baia de Aries, Campeni, Bucium, Almas, Posaga, Sohodol, Bistra, Lupsa etc.), because of the restructuring / closing of mining industry (all mines in Alba County are affected by this approach), the restructuring of steel (Aiud, Zlatna, Cugir) and chemical (Ocna Mures) industry, difficult reconversion of military industry (Cugir).

The R & D Sector, the technology of transfer and innovation is in decline, the collaborations between research universities and the business sector are poorly developed.

The share of tourism (and agri-tourism) registers a growth trend in Alba though one may notice the lack of a regional tourism concept which does not make possible to foster a unitary product in the country and abroad and the quality of services and information is low.

In recent years the volume of foreign investments registered an upward trend in the county. There are significant foreign capital investments from Italy (25.96%), Cyprus (24.51%), Germany (21.6%), Austria (15.7%) and Great Britain (5.85%).

Towards more competitive local economies

The main regional actors involved in the sustainable development of the area are: Regional Development Agency (RDA), Regional Development Council (CDR), County Council (ECJ), Local Councils (LC), mayors, prefect institution, decentralized public services, County Commission advisory associative structures of local government authorities (FALR, ACOR, AOR, AMR, UNCJR etc.), the Regional Committee on the regional development plan, County Chambers of Commerce, Industry and Agriculture (CCIA), business associations, Mass Media, December 1University of Alba Iulia, non-governmental organizations (NGOs), associations and foundations, economic agents operating in the area.

At regional level the following have been developed: the Regional Development Plan 2007-2013, the Regional Waste Management Plan (it proposes a sustainable waste management, in accordance with the European directives in this field), the Regional Environmental Action Plan 2007-2013 (proposes increased efficiency of the use of natural resource and decreased adverse impacts pollution has on population and ecosystems), Regional Action Plan for Employment 2006-2009 (for management of education and employment issues), Regional Action Plan for

Technical and Vocational Education (for development of local plans of action prepared by each school).

The strategic objective of the CENTER Region's Strategic Reference Framework 2007-2013 (Creating a competitive regional economic environment at European level which would result in decrease of intra and inter-regional disparities and increased living standards for the inhabitants of the region) is in harmony with the national and European strategies.

At county level, the development strategy for the period 2007-2013 for Alba County (Agriculture and rural development, cultural development, demography and public services, economic development, environment, spatial development) is consistent with the sustainable development principles promoted at European and national level (<http://www.cjalba.ro/rom/StrategiaAlba/Strategiadezv.html>).

Tourism Development Project and the development of skiing area in Arieseni, Alba County, will allow the implementation of infrastructure projects (establishment of a centralized system of water supply, a sewerage system and a wastewater treatment, modernization of local transportation infrastructure) and the horizontal development of industry and services, leading to maintenance of existing jobs and also generating new jobs. This will ultimately improve the lives of the inhabitants of Arieseni.

County Waste Management Plan - Alba county, having objectives with a political character aims at the implementation of an integrated sustainable management of wastes, following the EU regulations.

As conflicting interests and visions we can mention the Alburnus Maior Association and the Independent Association for the Development of Environmental Resources, currently being in dispute with the mining company Rosia Montana Gold Corporation regarding the gold mining in Rosia Montana.

- Rosia Montana Gold Corporation wants to exploit the largest gold deposit in Europe, the one from Rosia Montana, but also Bucium area, using the technique of separation of gold by cyanide.

Alburnus Maior Association considers that the RMGC project will directly affect 1600 ha of land and about 800 hectares of forest will be cleared, the lake of cyanide tailings from Corna Valley will spread over 600 hectares and will have a 185meter high dam. This will lead to destruction of: 5 mountains, a national treasure unique in the world, 10 churches, 12 cemeteries, the ruins of Roman city Alburnus Maior, 958 households, the people who do not want to move are threatened with expropriation. Overall, it is estimated that the project will generate 196 million tons of cyanide.

To gain access to land for the development of the mining project, Rosia Montana Gold Corporation began to buy properties in July 2002. To this date, 78% of private properties (farms) from the impact area of the project were purchased.

RMGC emphasizes that this project will have a positive impact, it will build a modern mine, will reinvigorate the local economy and will honor the cultural heritage, will respect the global standards in environmental protection and social protection.

More and more voices say that this area does not have to rely only on mining for a living, there are fantastic many other alternative sources of living, such as tourism. We have the example of Albac, a pearl of mountain agro-tourism, in which 50 hostels successfully operate. We have the example of Garda de Sus, from Scarisoara, which also operates dynamic tourism activities, which put in motion most of the local peasant households. Not to mention Arieseni, which is now an international winter resort.

The main structural barriers are: a) road and railway access only on certain corridors, because of the specific configuration of the relief; high slopes; restrictive climatic conditions; agricultural land low on nutrients; degradation of pastures b) Increased migration, which includes mainly young population; depopulation of isolated mountain villages; low levels of investment in human capital; difficulties in integration / social-professional reintegration of disadvantaged groups; lack of urban facilities, the risk of social segregation; very few county and communal modernized roads; low density of public roads; deficits and disparities recorded in health and education; poor quality of services, programs and information of general interest; decrease of tourism demand; low investment in environmental technologies; poor advisory services for development of marketing studies, project management, financial analysis, etc; underdeveloped relations of cooperation between university research and economic sector, small agricultural lands which do not allow efficient exploitation; the existence of unexploited areas; level of poverty and isolation causes depopulation of areas, which coupled with an aging population makes disappearance of localities possible; increased disparities between the urban centers receiving funding and small and medium towns (mono-industrial, with diminished urban functions, etc.) without access to financing; the EU's protectionist policies would lead to a reduced importance of local products, compared to those from other State Members; slow capacity of the enterprises to adapt to the changes that occur in the structure of markets; possibility of degradation of flora and fauna in protected areas; uncontrolled tourism; competition in global markets; global economic crisis and the congestion created by this crisis.

Improving the adaptation capacity of the region

To overcome the structural barriers and take advantage of development opportunities the following aspects are needed:

a) Development / creation of new investment opportunities, by creating industrial parks with mixed capital (public + private), by which to create new jobs and tax incentives for investors; building partnerships for integrated urban development of towns, by attracting foreign partners with expertise in integrated urban development; development of inter-municipal development plans, through direct connection to other metropolitan cities in the CENTER development area and the development of joint development strategies; development of village-city partnerships by creating wholesale markets in cities on the collection and capitalization of traditional products in rural areas; construction and modernization of road and railways infrastructure between cities and villages; using the natural heritage of the area, by turning the potential value of tourism and landscape into account and by promoting the organic natural products; boosting the small and medium enterprises through the creation of tax incentives and simpler possibilities of contracting credit and low interest rates; maintain and develop traditional and handicraft industries, through participation and promotion of these products in various international fairs; European programs for the rehabilitation of social infrastructure and education, through projects that can access the funds provided by EU; harmonization of national and European social policies, for this purpose is necessary to review all legal acts that are not in accordance with European legislation; increase the interest of public administration for tourism development;

b) protection of natural and built heritage; promotion of European models increasing innovation; possible development of partnerships in the field of research and technological innovation with institutions from EU's Member States; direct presentation of agricultural ecological products by promoting organic products in fairs and exhibitions and through their direct sales; promoting the farmers, supporting the establishment and operation of associative forms; reducing pollution in the Apuseni Mountains, by applying environmentally friendly technologies and modernization of existing polluting installations; re-forestation of degraded lands; loans available for agriculture and rural tourism development; economic incentives for disadvantaged mountain areas; access to services for the residents of remote areas; the conversion program for unemployed and socially vulnerable people, by encouraging their participation in vocational training; support of young population in the depopulated areas, by providing tax incentives and grants for starting a business in rural areas; the removal of isolation of villages, by improving the technical equipment of the area and integrating the area in the network of major infrastructure.

2.Suceava (Romania)

The territorial context

Suceava county is situated in North East of Romania, sharing a border with Ukraine and close to Republic of Moldova. Large parts of its agricultural countryside experiences major development challenges. Extensive subsistence and semi-subsistence agriculture, poor access to services such as waste collection, unsatisfactory water and energy supply and the absence of basic infrastructure implies that the living standards are well below general European standards. With over 50% of the region's population working in agriculture and forestry, the social and economic structures of Suceava stand out in a European perspective.

Suceava county is part of the northeastern region of Romania, along with the counties: Botosani, Bacau, Iasi, Neamt and Vaslui. It has borders with Ukraine in the north and east, with Mures and Neamt counties in south, with the counties of Maramures and Bistrita in west. The county has an area of 8553.50 square kilometers (representing 3.6% of the country), being the second largest in the country. Suceava county has about 700,000 inhabitants, including 250,000 in urban areas and 450,000 people in rural areas. Under the impact of the land law enforcement, privatization and restructuring of the economic units within the county of Suceava, in the employed population structure occurred important processes of redistribution of labor. Thus, there are 250,900 people working, out of which 50.3% are in agriculture and forestry, 18.6% in industry, 8.48% in trade, 2.86% in construction, etc. Active population is 273,000 persons, out of which 141,400 are men and 131,600 are women.

The mountain area comprises Calimani mountains (the most impressive volcanic mountains in Romania, with Pietrosu peak, at an altitude of 2100 meters), Suhard Mountains, Giurnalău-Rarău mountains, Mestecăniș long mountain range, Feredeului long mountain range, Stânișoarei mountains, Dorna and Câmpulung depression.

Given the predominance of high relief at the county level, predominant is the forest vegetation, which is an important natural resource of the county. The most common species are spruce, fir and beech. The forests host a rich fauna and we can mention the Carpathian stag, the brown bear, the wild boars and the grouse.

Mountain areas are covered with forests, mainly pine (over 77% of the total area occupied by forests). At the upper limit of the forest there is the sub-alpine floor composed of shrubs (Mountain Pine, juniper, bilberry, etc.). On the highest peaks there are alpine meadows consisting of small herbs.

The total area of forests in the county is about 49.2% of the county's total. Suceava County has 22 natural reservations (flora, forests, geological and mixed),

including the first National Park and Călimani Rodna Park. It also has various species of flora, endemic and rare. On the territory of Suceava county, there are various rare plants declared as monuments of nature: silver forest lily, lady's slippers, the dew of heaven, Spring bird's-eye, iris, edelweiss.

At the same time this is an area of exceptional beauty, with varied landscapes offering spectacular views, some exceptionally well preserved natural areas and opportunities for year-round tourism that are already attracting some 100 000 visitors annually. These are also attracted by Suceava's rich cultural heritage. The county is indeed part of the historic region of Bucovina, which extends into Chernivtsi Oblast on the other side of the Ukrainian border.

Embracing territorial diversity

When considering Suceava in the wider context of the Romanian North-East region, mountainousness does not appear as a particularly significant factor for social and economic performance. Whereas there are significant East-West gradients, those are rather in favour of the mountainous West and in disfavour of Eastern lowland regions along the border to Ukraine. Even if the Western part of the region is going through a difficult economic reconversion process, as many production plants inherited from a period of forced industrialisation in the 1960s and 1970s have been closed down, the economic situation remains most precarious in the traditionally underdeveloped Eastern lowlands.

In addition, the hilly parts of the North-East regions are those with the greatest potential for tourism development. Beyond their scenic qualities, these regions concentrate tourism opportunities, with well-preserved natural qualities. Sports tourism can be based on numerous activities such as skiing, fishing, hiking, paragliding and rafting, which create possibilities for year-round frequentation of many facilities. The presence of natural reserves such as the Calimani National Park adds to the attractivity of the region. The region is furthermore among the most attractive in Romania for cultural tourism with its numerous 15th and 16th century monasteries famous for their exterior frescoes, seven of which are included on the UNESCO World Heritage List. Finally, there is a long tradition for spa-tourism, e.g. in Vatra Dornei where it has also made it possible to develop a Casino activity.

A mountainous county such as Suceava also has better potentials for developing high quality food products than surrounding lowland areas. These high value added products could both be produced by organic agriculture and from picking in the natural forest environment (e.g. berries, mushrooms and herbs). The general quality of the natural environment and the small size of many agricultural exploitations would facilitate the implementation of a strategy seeking to position the region in this type of niche activities. One could also build on long standing local traditions for the production of high quality foodstuff, e.g. dairy products.

Corresponding measures would however need to be implemented before the current degradation of pastures and hayfields, mainly due to the reduction in livestock holdings in some mountain areas, renders them unexploitable. In parallel, the mismanagement of some forest areas has a direct impact on biodiversity and on water quality. These two types of trends threaten the ecological quality of the concerned areas.

More strategic thinking needed for developing mountain areas

The only mention of mountain area in the Romanian National Strategic Plan focuses on such weaknesses and threats. This document also mentions other negative aspects such as out-migration of young people, increasing poverty rates in the highlands (i.e. in areas at least 800 m above sea-level), poor levels of infrastructure endowment and the lack of mechanisation in agriculture. However, approaching small-scale production and ecological quality as an economic and social development opportunity rather than as a weakness or threat would create a greater impetus for funding and implementing forceful measures to deal with these issues. This however presupposes establishing governance structures in which actors that could draw economic advantages from a more ecologically balanced development are given a prominent role. Such structures could usefully be built on the basis of internal and external branding strategies using the notion of "high quality mountain environments".

If the notion of "mountain" could be useful to promote an ecologically responsible local economic development in rural mountain areas, the capacity of such a strategy to promote social cohesion remains uncertain. Considering the frequent absence of basic public and private services and the relative isolation of many localities due to deficiencies in the transport infrastructure, the risk is that such growth strategies focusing on the notion of "mountain" could create only small pockets of growth in deprived areas. If implemented, they would therefore certainly need to be combined with wider regional strategies creating more coherent infrastructure and transport structures and overcoming institutional obstacles to the appropriate coordination of action of public and private actors.

Hunting is a very important resource of the county, which has high value trophies, capitalized through the hunting sessions organized by the National Forest Administration. These hunting resources are not only a factor bringing considerable revenues, but also a factor helping tourism development.

In the rural area of Suceava county there are favorable conditions for animal breeding, not only because of the presence of large areas of natural pastures and meadows, but also the existence of local traditions on cheese-making and cattle breeding (fresh cheese, cacciocavallo, Swiss cheese).

In order to revitalize the regional economy and to enable the region to overcome its structural obstacles to development, key initiatives should be taken with regards to transport infrastructure (Modernization, expansion and rehabilitation of road infrastructure; Implementation of infrastructure projects in the Upper Prut river Euroregion...), business environment (construction of industrial parks and business incubators; Development of SMEs in services...), environmental infrastructure (International co-financed programs directly aimed at environment protection and nature (LIFE EcoLinks, REC, GEF and others)...), or tourism development (Establishment of Regional National Park of the monasteries in Bukovina; Restoration of historical monuments, monasteries, restoration of tourism attractions of great interest (Vatra Dornei Casino)...).

3. Gozo (Malta)

The territorial context: An Island within an Island

The Island Region of Gozo is the smaller inhabited island of the Maltese archipelago. It has an area of 70km² and its total population in 2007 amounted to 31,289 persons, corresponding to 7.6% of the national population. The Island is only 5km north of Malta, a mere 25 minutes away by ferry, and yet it exists on a different plane in the economic and social context. As a whole, the Maltese islands possess a number of strengths in terms of the environment, cultural assets, strategic location, political stability, quality of the labour base and a generally high level of education. However, the Island Region of Gozo has not been benefitting proportionately from the socio-economic development that is being enjoyed by Malta. The per capita GDP of the population living in Gozo for 2007 is estimated at 74.5% of the national average, and at 57.1% of the EU average. As the country progresses and grows, the disparity between Malta and Gozo is gradually becoming more pronounced. The geographical specificities of the territory are usually used to explain the differences between the islands and the resulting differences in performance.

There are two central characteristics of the Island that merit special attention, the first is the size, and the second is something we refer to as double insularity. The smallness of the Island imposes restrictions on a number of levels. The size of the Island is a limiting factor on land available as a resource for production and the small number of inhabitants implies a small market, which is unattractive to retailers and distributors as well as to producers, resulting in a lower level of commercial activity. The cost of doing business in Gozo, like in many other small states, is relatively high and this is due mostly to the problem of indivisibilities in overhead costs, a limited ability to exploit economies of scale in production, relatively high transport costs and high dependence on imported industrial supplies. Being the smaller of the two islands implies that most commercial activities choose Malta as their location and this results in fewer job opportunities in Gozo and a much lower concentration of economic activity. The size of the Island means that markets in Malta are often characterised by the emergence of monopolies, especially in industries requiring large and costly infrastructural investment such as port and airport services and energy production.

The second characteristic is what we call double insularity. Gozo is an island within an island nation of Malta, and therefore suffers doubly from the isolation and peripherality considerations that Malta suffers from as an island that is detached from mainland Europe and therefore has reduced contact and limited connections with the mainland. The costs of insularity are manifested in higher transport costs,

since goods and people need to be transported by sea and air and land transportation is not an option. When growth is motivated from the expansion in mainstream manufacturing industry this becomes an increased burden since the islands rely heavily on imports as inputs to production, as well as to service their consumption needs. In addition, when this is coupled with smallness of the Island which implies smaller volumes of demand, this results in fragmented cargoes leading to higher per unit costs. A second way that insularity is manifested is through additional problems such as time delays and infrequent transport services, reducing the flexibility of companies based in the island to respond to changes in demand or increasing the burden of keeping large supplies of stocks which both imply higher costs to businesses. The region also suffers more severely from economic vulnerability which entails significant exposure to exogenous shocks which are beyond the control of the Region itself.

These inherent characteristics of the Island Region of Gozo imply the need for specific interventions in order to rectify failures of market based solutions and barriers which inhibit its development on a level playing field with the rest of the national and EU economy. These interventions could take the form of:

- improved physical accessibility, in particular the creation of an airstrip that could cater for light aircrafts, development of the harbour to cater for small cruise liners and increased berthing spaces for yachts - all three of these initiatives are conducive to promote tourism at the higher-end of the tourist segment, but would also create synergies with other potential areas of development such as international real estate activity and the creation of niche financial and IT services hubs;
- improved virtual accessibility, mainly through enhanced fibre-optic links with Malta to improve the quality and consistency of high-speed internet links – these are required to support business infrastructure in general but also to exploit the potential for IT services hubs in particular.
- enhanced niche educational facilities, particularly to service and synergise with sectors with high growth potential in Gozo such as agro-tourism, and to link such educational provision with other regions and develop centres of excellence in these areas and link with R&D initiatives.

The engagement of these key leverages for the development of the Island Region of Gozo is premised on the fact that Gozo possesses distinctive environmental and cultural assets whose sustainable exploitation could be productively used for the development of the Island Region as well as the national economy. Its landscape, climate and cultural assets, some of which go back around 6,000 years in history, could serve as a significant attraction to higher value added tourism activity. Furthermore, the Island could benefit from the introduction of ICT-based services which are not significantly negatively affected by smallness and insularity. This is

partly based on the attraction of the Island as a good place to live in, but also on the fact that larger outfits based in Malta or elsewhere in the Mediterranean region would often need remote nodes of activity, especially where to house certain key staff with specialised knowledge and which would ideally not intermingle with other staff. Other potential areas for growth include niche agriculture and fishing activities, which have been traditional mainstays of the Gozitan economy, but which cannot in this day and age compete sustainably on a cost basis, but which have the opportunity to restructure and develop mainly thanks to EU funding under the LEADER programme.

Overcoming the Barriers of Peripherality and Exploiting Territorial Distinctiveness

One of the principal trends which is having a serious impact on Gozo is the widening disparity between the GDP levels in Gozo and that of Malta. Gozo has been gradually losing economic significance and is not contributing to and benefitting from the economic growth that is happening in the main Island in a proportionate manner. This is due to the failure of Gozo to tap into the markets and drivers which have propelled the national economy in recent years such as internet gaming, and other IT-related services, pharmaceuticals and financial services. This may have been a result of the geographical specificities of the island, such as the peripherality and smallness. In addition, the dependence on public sector employment has severely limited the growth opportunities for the economy in Gozo. It may also reflect an attitude in public policy and investment promotion whereby Gozo is often given the surplus activity from Malta – if no such surplus exists, then Gozo would get relatively little by way of new development.

A tailored development policy for Gozo, designed and implemented on a regional level, would allow Gozo to identify which growing national and regional industries it can feasibly tap into, and which other industries, that it has a comparative advantage in, it may wish to focus on, even if this is not necessarily coming as an outcome of developments at the national level.

Another strong trend impacting Gozo is lower population density and shrinking working age population out of the total population. The ratio of the working age population (aged 15 – 64 years) to the total population in Gozo stands at 65.2%, while that in Malta amounts to 67.9%. Due to demographic trends such as internal migration and return elderly migrants, Gozo has a disproportionately larger share of elderly people and young people below the age of 15 years compared to Malta.

In turn, this may be in part ascribed to the lack of sufficient educational and career opportunities in Gozo. At present, the population in Gozo is also growing at a

smaller rate than the population in Malta. The growth in the population of the Main Island stood at 1.3% during the period 2005 – 2007, while that of Gozo stood at 0.9%.

The region suffers from an ageing population and a declining birth rate in line with most European trends. This demographic reality is both an opportunity, in terms of the lower population density being a characteristic that allows the expansion of agri-tourism and a threat which results in a shortage of labour. These specificities require that any regional development plan to tackle the brain-drain and loss of resources from Gozo to Malta. A number of policies have already been put in place. The existence of a direct bus link from the ferry terminal in Cirkewwa (Malta) to the University and the extra student supplementary grants given to Gozitan students (regardless of whether they remain based in Gozo or not) are two structures that have been created to support Gozitan students in their pursuit of tertiary education. However these schemes have had limited success in encouraging students to remain in Gozo during their studies. This in particular could be tackled by improved availability of educational opportunities within Gozo itself in addition to the current availability of vocational training in tourism, computing and construction offered by the Gozo Malta College for Arts, Science and Technology (MCAST) centre and the limited number of courses offered by the University of Malta- Gozo Centre. These policies are only a partial solution to the problem, as the number of career opportunities for the working age population must also increase in order to effectively counter this brain-drain.

The employment characteristics of Gozo also present a challenge to development. The lower employment level and female participation rate as well as the lower level of productivity of workers in Gozo pose significant obstacles to development of the island. However there are two sectors in which Gozo has registered higher productivity levels than Malta, namely that comprising real estate activities, and in agriculture and fisheries. Gozo should exploit inherent competitive advantages in these sectors, and has been to an extent successful in this regard. The levels of employment in Gozo which are larger than those in the main island are concentrated in the agriculture, manufacturing and construction industries, while it has a lower proportion of people employed in, quite paradoxically, the tourism industry. The sectors in which Gozo is relatively "heavy" in employment have been decreasing in importance in the Maltese economy, which is reflected in national policy documents with the shift moving towards a more service based economy. Therefore the comparative advantage held by Gozo in these areas is not being looked into as a potential source of development for the island. The opportunities presented by this advantage, and the potential to link this to specialised education in agriculture R&D and agri-tourism are identified by stakeholders and the Gozo Regional Committee consultation process, but has not yet featured in national policy documents about Gozo.

With a limited amount of land and a significantly high population density ratio, land planning considerations are essential across the Maltese islands. The demands for economic growth have placed significant strain on natural processes and resources. Housing, transport, energy generation and tourism are among the sectors with the highest impacts. Indeed over a third of employment in Malta is linked to sectors which made direct use of the environment. While the environmental performance of the island of Gozo outperforms that of the main island, there is increasing pressure for urban development and environmental exploitation, even though the population is growing at a smaller rate.

The economic vulnerability of the region, which is magnified by its physical characteristics, is a significant challenge resulting in amplified fluctuations, especially in the downward direction. The fragmentation of industry in Gozo, in good part arising from the smallness of the territory, contributes to this vulnerability as does the seasonality of some of Gozo's strongest markets, such as tourism and agriculture and fisheries. Gozo has also failed to take full advantage of the opportunities offered by EU accession and to penetrate national and global markets. There have been attempts to export specialised food products from the island to Malta and European markets. These products have successfully integrated into the Maltese market but they have not been entirely successful on the international scene. However similar attempts, with improved branding, execution and marketing channels, have the potential to succeed.

The region also suffers from economic and social isolation due to poor infrastructure, both internal, with respect to road access, as well and inter-island, in terms of sea and air transport.

In terms of governance, there is a specific Ministry dealing with Gozo in Malta's Government, whereas there are no similar ministries for other regions in the country. This situation has developed as a consequence of historical relations between the two islands, with Gozo for many years having had an element of self-governance. The Ministry of Gozo has a limited remit over issues affecting the development of the region, which includes the provision of public education and health services, which are provided for free to the entire population of the Maltese Islands, together with other administrative services. Other needs of the island of Gozo, such as those related to investment and tourism promotion, are dealt with at a national level by the relevant public institutions on which Gozo will usually have a minority representation. There is a feeling that national institutions are not sensitive enough to the servicing of the special needs and the exploitation of the distinctive competitive advantages which are typically associated with Gozo. Local councils emerged in the 90's and are therefore much younger institutions and have yet to become as relevant to regional policy in Gozo as the Ministry in terms of political clout. However they are in a better position to ensure that regional policy is adequately tailored to suit the needs of the region.

Social Partnership Within a Small Community: Adapting to the European Model

In the case of Gozo, there is a need for focus to be directed on enhancing the distinctiveness of the island of Gozo rather than replicating activity which is currently being undertaken in Malta. This will develop Gozo's contribution to the national economy rather than engendering its dependence on it. Indeed there are a number of opportunities to be exploited including exploiting potential in agri-tourism, sports and health related tourism. In terms of agri-tourism, Gozo clearly has an as yet unexploited potential whereby the development of agri-tourism in Gozo can serve as a model for Malta.

There are a number of regional stakeholders which have been contributing to the development of the island;

Central Government

The Government of Malta has recognised the specific needs of the region of Gozo, this is manifested in the attempt to introduce an element of tailored policy by allocating the region its own ministry and minister. The Ministry for Gozo is the entity which coordinates most of the policy targeted at the region.

Local Councils

Gozo has fourteen local councils, out of the total of 68 present nationally, whose main aim is to fine tune central government policies and adapt them to their local scenario. Local councils participate on regional development councils, such as the Gozo Regional Committee, and play a vital role in contributing to and the implementation of new policies.

Gozo Business Chamber

The Gozo Business Chamber represents its members on various boards, collaborates with the Gozo Tourism Association and the Malta Chamber of Commerce and in general supports enterprises in Gozo. In particular it helps address issues particularly those associated with the regionality and insularity of Gozo, which can hinder the smooth running of business concerns in Gozo, and promotes and assists in the process of improving the commercial opportunities in Gozo.

Trade Unions

A number of trade unions have representatives that focus on and work with the region specifically. Trade unions support the region through knowledge sharing, awareness raising and tailored support.

Malta Council for Economic and Social Development (MCESD)

The MCESD is an advisory council that issues opinions and recommendations to the Maltese government on matters of economic and social relevance. It has established a Gozo Regional Committee which gathers together regional stakeholders and is used as a forum for formulation of policy recommendations.

In addition there are a number of other organisations such as the Gozo University Group, the Gozo Tourism Association, the Gozo NGOs Association and others that are also crucial in bringing regional issues to the front in national fora.

There are a number of development opportunities that have been identified by the various stakeholders with the aim of tailoring development policy to the Island's specific needs over the years. The key areas which have been targeted are improving the region's competitiveness, increasing the level of employment and easing the pressure on the environment. A number of key stakeholders in Gozo have, for the first time, joined together under the auspices of the MCESD Gozo Regional Committee, in order to attempt to influence national policy by bringing forward the needs of the region. This consultation process, which was the first of its kind in the country, was deemed extremely successful and has since been replicated in Malta. However, unless local governance bodies, such as the Ministry for Gozo and the Local Councils, are given greater responsibility and power to take these visions and implement them in a tailored approach for the region, there is a real risk that lack of action will undermine this consultation process and that the development of the island will remain a mirage.

The need for policies that address Gozo's regional distinctiveness and unique challenges including impacts from double insularity, the island's small size, and peripherality, have been identified. Although this need has long been felt, the policies to date that have attempted to tackle this through subsidies in order to encourage the same type of development in Gozo that has been occurring in Malta. These policies did not find long-term success and new, innovative approaches to age-old challenges need to be found.

It is finally to be commented that social dialogue and interactions in Gozo are typically characterised by those of a small insular community, This brings advantages, in terms of the possibility of building close networks, as well as disadvantages, mainly in the form of a continued dominance of long-established groups, lack of social dynamism and rivalries. A pattern of social dialogue based on

the EU model is only recently emerging, mainly thanks to the efforts of the Gozo regional committee at the Malta Council for Economic and Social Development.

Employment & education

The promotion of enterprise is also mentioned as a tool which seeks to diversify the dependence of the Gozitan economy on the manufacturing sector which is currently characterized by low value added production. Initiatives are needed that encourage entrepreneurial activities and that promote and support enterprise.

A focus is also made on the development of human capital and skills which seeks to improve the quality of the labour force as well as to increase the Gozitan activity rate. In this respect, the reform of the compulsory education system, particularly to better cater for vocational training needs, is to be commended. However, the need for more emphasis on the need for tertiary education to be responsive to the needs of industries has been identified. There is also the need for more emphasis on re-skilling and multi-skilling as well as further investment in training and lifelong learning as well as investment in knowledge and innovation with specific emphasis on research and development.

The shift away from manufacturing into the services sector will help mitigate the seasonal effects and increase employment and income levels by moving from low value added sectors to higher value added sectors. The shift in industry into service sector and new economy activities is outlined as a way of increasing productivity. The relevant new economy industries are the Pharmaceutical industry, online gaming, financial services and ICT industries. This is considered as an important means to enhance the Island's competitiveness.

Infrastructure & transport

An often mentioned priority is accessibility and inter-island transport which is considered important for the Island of Gozo not only as a means to enhance the quality of life of the Gozitan population but also a means to tap into economic opportunities which require an efficient and effective transport system. This can be achieved through infrastructural developments targeted at easing the accessibility of the Island from the main island of Malta, through improved air and sea links, as well as improving mobility within the island of Gozo itself, with special emphasis on the use of clean transport technology.

Agriculture & tourism

Despite the decline in agriculture, it has been suggested that there is the potential for the sector to contribute to the economy through high value market niches such as specialised tourism and environmental management. This is relevant to the

region given its comparative advantage in the productivity of these activities compared to Malta. The need for the further promotion of industries that contribute to both the agriculture and tourism sectors such as crafts and cottage industries has been identified. There is a focus on improvement of the tourism product of Gozo through better cultural and environmental asset management. The development of niche tourism, such as diving tourism and rural tourism is proposed as a tool to address the fragmentation and seasonality of tourism activity.

Environment

Since the environmental performance of the island of Gozo outperforms that of the main island, there has been considerable focus on the development opportunity that lies within this area. This strength has been nurtured through the development of the eco-Gozo initiative, which envisages Gozo as being an ecological island. Recommended strategy includes improvements in transport efficiency, increased energy efficiency, a series of educational campaigns and policies to protect the national environment. The focus is on using the distinctive environmental and cultural assets whose sustainable exploitation could be productively used for the development of the national economy. There is also the need of the easing of the pressure on the environment resulting from increased tourism, development of industry and increasing demand for land for development.

Land use

There are also opportunities linked to the regeneration of urban areas particularly historical areas, which the Island is clearly abundant of. Other opportunities include the regeneration and redevelopment of real estate for sale to high-net worth individuals not only in Malta but also in Gozo where there are a number of vacant properties. The regeneration of these properties in a sustainable manner could serve as an important determinant of economy activity.

Structural obstacles to overcome

Physical characteristics

The features of the region, the insularity, smallness and peripherality impair the achievement of the policy objectives. Infrastructural investment is very costly, especially considering the figures on a per capita basis.

Social, political and institutional characteristics

The significantly lower productivity levels in the region and the high reliance on public sector employment jeopardise the strategies aimed at the promotion of enterprise. A poor level of infrastructure undermines investment in industry and tourism. A poorly educated and isolated population discourages initiatives aimed at taking advantage of new economy activities. The low level of female participation reflects economic structures and social attitudes that are inhibiting the labour force from reaching its full potential. In addition the fragility of the environment and the loss of biodiversity increases the sensitivity of policies aimed at promoting tourism and industry. The promotion of enterprise in the region is costly to the Government since the added cost to business of operating in the region is typically offset by tax credits or state support of investment.

There are also significant social issues at play. Gozitans often debate the idea that their children and youths should be given specific training which would lead them to find employment and pursue careers in Gozo. It is however to be considered that it may unduly limit career choices and opportunities to Gozitan students, who might well be disposed to seek opportunities as well. The pressures put by parents on their children is however reflected in the disproportionate number of Gozitan University graduates from the Faculty of Education, particularly women. It is believed that teachers can easily find employment in Gozo, or in areas of Malta which would still allow them to return to Gozo every day.

In need for a renewed governance approach

Perennial Policies

The achievement of the visions and strategies that are proposed for the improvement of the region require the development of coordinated policies. The fragility of the environment in the region requires that sustainability is embedded in each development strategy, not only environmental ones.

Environmentally, there are significant challenges in relation to energy and climate change. While investments in renewable sources of investment are to be commended, there is the need for greater awareness on energy efficiency. Furthermore there is also the need for campaigns to highlight the negative externalities associated with carbon emissions particularly given the level of traffic congestion in Malta. This links in with the structural reform regarding a more efficient substitute to private transport. Furthermore there is also the need for more emphasis on the conservation of water and waste management practices.

The support for enterprises, particularly the small and medium sized ones, needs to be consolidated. Investment and advisory support structures need to be in place to aid enterprises in their struggle to take advantage of the opportunities provided by EU membership and the globalisation process and to overcome the added difficulties of operating in the region.

The educational attainment of the working age population is characterised by lower proportions of the Gozo population completing compulsory schooling and lower levels of educational attainment, particularly within the intermediate levels involving the attainment of a certificate or diploma. The increased participation in new economy activities can only be sustained with greater synergies between education and industry. This will also contain unpredictable labour market shifts which result in skills shortages in certain economic sectors.

In addition, to effectively increase labour supply and productivity there is the need for an increased female participation rate, and for the reduction of the portion of persons employed by the public sector. This calls for greater flexibility at the work place and more family friendly measures aimed at enticing inactive individuals to enter the labour force or else to return to employment. In particular, regional employment in the island of Gozo needs to continue to be emphasized as the regional economy continues to face challenges and opportunities as identified above.

Structural reforms

Changes are needed in the political and institutional structure, with the region being represented in the various national administrative bodies, is a change that many social partners have been promoting. Having representatives not only in parliament but also in individual government, regulatory and parastatal bodies will guarantee a holistic approach to tackling regional issues, rather than the current, ad-hoc one.

There is the need for enhanced access and mobility to the island including an extensive and affordable system of green public transport system which is also in line with the concept of eco-Gozo. This is expected to be partly tackled through the transport reform which is to take place within the next few months. In addition to fulfil Gozo's touristic potential, the access to the island by air and sea must be improved and diversified.

For the sustainable exploitation of the natural and cultural assets there is the need for a policy aimed at designating areas so as to eliminate potential areas of conflict. This needs to emanate from the highest levels and be allocated adequate enforcement authority.

4. North Calotte (Nordic Countries)



The territorial context: Sparsity & Cold Mountain

The North Calotte is a crossborder cooperation area established by the Nordic Council of Ministers in 1967. It comprises the northernmost regions of Norway (Nordland, Troms & Finnmark), Sweden (Norrbotten) and Finland (Lappi / Lapland). These sub-arctic regions are all characterised by extremely population densities ranging from 1,5 inh/km² in Finnish Lapland to 6,2 inh/km² in Nordland. The abundance of natural resources is another shared feature. Fish, minerals, forests, waterfalls and fossil energy sources provide the basis for extensive extractive activities. This partly explains why the GDP values of these regions are around European average levels. However, processing industries are weakly developed. The employment opportunities generated by the natural resources are therefore less numerous than one could expect. Average per capita income levels are nonetheless in line with those of comparable areas in other parts of each country. This is largely due to Nordic welfare traditions, with a wide offer of public services in small and peripheral communities and redistribution and state support

systems that provide municipalities with relatively homogenous per capita budgets.

The North Calotte is therefore not a poor region, especially not from European standards. It is however facing substantial development challenges, especially due to constant population decline in the small and peripheral municipalities, accompanied by gender imbalances (under-representation of women) and ageing.

Facing up to the demographic challenge

The main challenge of the North Calotte is to stabilise the demographic situation, creating more balanced and harmonious local communities with a young and educated population. The lack of available workforce with appropriate competencies has indeed been identified as a main limiting factor of economic development.

The North Calotte possesses major assets to attract new inhabitants, not least in terms of high quality natural living environment. This attractiveness is confirmed by the large number of persons moving to these areas, even if the net migration figures remains negative. The objective is therefore not to prevent out-migration, but to encourage a more balanced circulation of the population. This requires a detailed understanding of the different types of flows, e.g. out-migration of youth seeking higher education, in-migration of families with young children and return migration of young retirees.

Such a strategy however does not necessarily imply that policies should target demographic growth in all local communities. In some areas, demographic decline or even depopulation may be a necessary adaptation to a changing economic context. Controlled decline would in these areas be the main ambition, ensuring a sufficient supply of services to the remaining inhabitants and limiting the ecological impact of abandoned infrastructures. The key question is however how to differentiate economically and socially viable areas from other spaces. At what level should these decisions be taken, with what type of stakeholder involvement and on the basis of which criteria?

When analysing development potentials in the North Calotte, it is important to note that urban nodes experiencing moderate to strong demographic growth can be observed in all regions. Even if the overall population of the regions is declining, the demographic challenge the North Calotte is facing is polarisation, and not population decline.

Shaping the North: cities, infrastructure and regional enlargement

Main issues on the regional development agenda are therefore both to stabilise population figures in a larger number of smaller, peripheral communities and to accommodate the rapid, steady growth in a small number of cities. The urban nodes play an obvious and important role in the overall regional development, but rather as purveyors of services than as “growth motors” in the traditional sense. Access to the wide range of private and public services needed to enjoy a “contemporary modern lifestyle” is indeed an increasingly important prerequisite for local development. The only isolated local communities that manage to grow in spite of low access to such services are those with well-developed tourism activities.

This is one of the reasons why internal regional coherence is a key element in North Calotte transport strategies. Investments in transport infrastructure should help creating wider functional regions, expanding the potential catchment areas for service providers and generating wider, more diversified and more robust labour market areas. Such ambitious objectives require massive infrastructure investments, whose cost/benefit ratios would be unsatisfactory if one considers them from territorial development perspective only. However, major infrastructure improvements are also initiated to make the exploitation of natural resources possible and to export its outputs. If these investments are carefully designed, they may also contribute to a more balanced and harmonious territorial development.

Such a strategy entails obvious risks, as it may lead to greater imbalances between areas that may benefit from such positive externalities of natural resource exploitation, and those that will not. It however appears as the most promising way forward to gather the preconditions for economically, socially and ecologically sustainable development in a wider range of North Calotte areas. Considering multiple types of natural resource exports, as well as transport needs linked to industries in North West Russia, one may on the long run create a mesh of axes with high quality transport infrastructures.

Towards integrated territorial planning for the North Calotte

The latter however requires new forms of cross-sectoral dialogue between private and public actors of the North Calotte. Incorporating positive territorial externalities in transport infrastructure investments that are initiated to meet the needs of exporting industries requires pro-active, often visionary, action from local and regional stakeholders. Such projects indeed challenge well-anchored

preconceptions on the limited feasibility of development initiatives in these sparsely populated Arctic regions. Furthermore, whereas good accessibility is a necessary condition for sustainable development, it is not a sufficient one. One also needs to rethink the identity and functions of the local communities that are integrated in more tightly knit regional networks.

While the traditional focus has been on developing processing industries, allowing North Calotte regions to draw greater economic benefits from the raw materials they are extracting, priority is increasingly being given to knowledge intensive activities. These are indeed less capital and labour intensive, and can therefore more easily be developed in small communities. Developing leading R&D activities within well-developed niches also substantially contributes to modernise the internal and external perception of the concerned local community. The main obstacle to be overcome in this respect is to demonstrate that small scale R&D in peripheral locations may provide a useful added value to corresponding activities in the large institutions of metropolitan regions.

Bolstering regional dynamism

A European perspective can provide useful inputs in this process of rethinking the identity and possibilities of the North Calotte. While the national contexts tend to reproduce traditional perceptions of these regions, linked to low value added extractive or industrial activities, decades of demographic decline and cyclical economic crises, the European context may offer a favourable context for designing and implementing new types of strategies. North Calotte local communities are in a favourable position in terms of economic possibilities, social cohesion and governance structures; an external recognition of their qualities, through a well-targeted support of the initiatives of local actors, may provide a sufficient impetus to achieve socially and economically sustainable communities in the North Calotte.

5. North Iceland



The territorial context: Sparsity above the arctic circle

North Iceland is divided into four sub-regions, based on administrative apportionment (from west to east): Húnavatnssýsla, Skagafjörður, Eyjafjörður, Þingeyjarsýslur. The traditional apportionment is however into the two former constituencies; Norðurland vestra (north-west) and Norðurland eystra (north east), which means that Húnavatnssýsla og Skagafjörður are the west and Eyjafjörður and Þingeyjarsýslur the east. The boundary between east and west lie through the middle of the mountainous Tröllaskagi peninsula. In general, north Iceland can be classified as mountainous area. As the biggest part of north Iceland and almost all of the populated area, lies north of the 66° N the region has cold winters with snow, especially in the mountains. This means that some parts of the region are isolated during that period due to communication problems through mountain roads.

In 2007 the municipalities in north Iceland were 23, but the number has already gone down to 21 due to municipal merging. The total population was 36 387 in 2009, 28966 in the North east part (79,6%) and only 7 421 in the west (20,4%). The largest municipality in population is, by far, Akureyri with it's about 17 500 inhabitants. The second largest municipality is Skagafjörður in the west with just above 4 100 (www.hagstofa.is).

In the years after 2000 (and actually after 1990), North Iceland has experienced declining or stagnant population levels due to out-migration and lower birth rates (which is a national trend). The age pyramid has been transformed with fewer cohorts of young adults and gender imbalance as the number of men is higher than the number of women; the latter being due to higher out-migration of young women. In addition, North Iceland has followed the national trends of aging population and smaller family sizes. The population characteristics of the biggest town, Akureyri is in line with the national ones, while the description above applies better to the rural parts of North Iceland (Nýsir & UARI, 2006).

In general, the economy is deemed mono-sectoral. Fish and agriculture are dominant in almost every town, village or countryside except for Akureyri. The economic structure is very much alike in both the west and east region, however the west region has more agricultural activities than fishing ones. Akureyri, often called the capital of the north, is in this context an exception for north Iceland, resembling more the capital region of Reykjavik, i.e. with a well-developed tertiary sector. The dramatic changes on the international scene in 1993 caused great changes for the town of Akureyri. A lot of the industries which had been established, especially the textile industry, but also shipbuilding and fish processing went through a great decline (Dahlstöm et. al., 2006).

Challenges to regional development

Almost every municipality in north Iceland has had negative population trends for the last 5 years (2004-2009). The exception is Akureyri and three other neighbouring municipalities. The economic collapse in Iceland in 2008, has however, at least temporarily, caused people to move back to the periphery – due to the weak labour opportunities in Reykjavik area. In Iceland in general, depopulation has been most rapid in the rural and agricultural areas, mostly due to constant decline of agriculture.

For those who see the future possibilities in economic development in heavy industries, the lack of energy resources in north Iceland is a matter of great concern. Earlier plans such as the Aluminium smelter plant near the town of Húsavík in the north east are now on hold, both due to the economic situation in the country as well as the situation in the world economy. Energy production for the plant was planned to come mainly from geothermal plants in the nearby area, but even that process is going slowly partly due to the resistance of the left-green party who is taking part in the majority coalition state government.

Despite the long ongoing negative trend in the rural areas, the activities related to the fishing industry in the whole country have become stronger after the devaluation of the Icelandic króna. This has both increased job opportunities and wages in the branch.

But not only are the challenges social and economic in nature: they are also in many ways structural. One challenge to the development of the rural areas is clearly persisting poor standard internet connections and accessibility in the almost all sparsely populated areas. The distribution network was privatised in 2005 and sold to private company as well as the national phone company, but is probably returning to public ownership as a consequence of the economic crisis.

Further building up of the road system, especially in the mountainous areas will be necessary to strengthen the economic and social sustainability of north Iceland by

connecting regions and sub-regions better together. A road tunnel connecting two towns in the north part of Tröllaskagi peninsula will be finished in 2010, but still improvements will have to be done west and east of Akureyri in order to make the north Iceland more functional – the connections to Akureyri will have to be improved.

What is being done to meet the challenges?

The establishing of the University of Akureyri in 1987 is probably the most efficient measure ever taken in Icelandic regional policy. It has strengthened the economic life in Akureyri and surroundings and is now a strong and stable University which plays one of the key roles for economic development in north Iceland. Not only as a contribution to the economic life, but this has helped to redynamise the educational structure of the region as a whole.

Several measures have been taken in recent years to build up a structure for the tourism all over the region. The most important is probably the establishing of The North Iceland Tourist Board (Markaðsskrifstofa Ferðamála á Norðurlandi) which organises all kinds of tourism in the whole north Iceland. By coordinating these businesses in all regions of the whole north this has strengthened the tourism, which still seems to be one of the main growth branches.

The strength of Akureyri as the biggest town outside capital area is more or less beyond discussion. Akureyri is in many ways the service centre of the north Iceland and partly for the east as well. The strength lies partly in having diverse labour market with the University, a hospital and several other state institutions. In 2004, Akureyri and the rest of the Eyjafjörður region had 1.153 state jobs compared with Reykjavík with 12 000 (AFE, 2004). The relative diversity of the Akureyri labour market and the relative high education level because of the University has strengthened the possibilities of Akureyri to be the hometown of still more jobs from the state administration. A growth in this would of course have positive impact on Akureyri neighbouring areas and regions and thereby strengthen the sustainable development of north Iceland.



Structural and political obstacles to development

The infrastructural obstacles to the development in north Iceland have already been mentioned. Further improvements of the road system in the mountain areas and improvements of the IT infrastructure in the rural areas seem to be the most emerging tasks for the development of north Iceland. Cold winters, isolation and long distances are in some cases serious obstacles.

A political and administrative obstacle has for a long time been the great number of small municipalities. Many of the municipalities, especially in the more sparsely populated areas outside the capital area, are too small and lack capacity to provide necessary and modern services to their inhabitants (Eythórsson, 2009). However after two nationwide referenda on municipal merging, in 1993 and in 2005, the total number of municipalities has gone down from 196 to 77. Yet as many as 44 (57%) out of the 77 have a population of less than 1000 and 21 (27%) have less than 500. The situation in north Iceland is even worse. Out of 21 municipality in the whole area 14 (67%) have less than 1000 inhabitants and 10 (48%) have less than 500. So the fact is that in north Iceland 2 out of every 3 municipalities lack more or less the capacity to provide services that people in the 21st century are expecting. These municipalities are also running into more and more economic problems trying to manage various tasks put on them. This also weakens their ability to be significant actors in the regional development.

The economic crisis in Iceland has pressed the state government into serious cutbacks in the state budget for the next years at least. Cut down of expenditure in expensive projects such as road and tunnel construction has been dramatic.

This, of course, means that many infrastructure improvements which will benefit the development in north Iceland will have to wait. At the times of heavy lack of money the state government, however is trying to initiate a forced structural reform in the local government area by reducing the number of municipalities down to 19. These are just ideas at the moment and the results of this are by far clear in the beginning of 2010. But such a dramatic change would probably strengthen the regional development in north Iceland, at least in the long run.

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6. Marathasa & Tylliria (Cyprus)

Cyprus

The case study area chosen for Cyprus consists of two neighbouring rural territories, Marathasa and Tylliria, which are characterised by different constraints and challenges, but also share a number of common features. They are not densely populated and suffer from various negative trends, such as demographic shrinkage and abandonment of traditional economic activity. As such they provide good illustrations of the territorial state and perspectives that characterise significant parts of the island-nation's rural hinterland. Both areas, especially Marathasa, possess important historical, cultural and natural resources. At the same time, they also face significant structural problems related to ageing and declining populations, lack of efficient social and transport infrastructures and the low competitiveness of the local economy. Moreover, the mountainous character of Marathasa and the low accessibility of Tylliria are considered as major obstacles to the development of their respective economies.

It should be noted that the two territories do not form a single administrative entity nor do they possess, at present, fully operational local governance structures. As such they are dependent on a number of central government structures and, as will be seen in the following analysis, have chosen similar but different visions for their future development. What's more, no complete statistical series exist for the two areas under examination, except for census years, generally carried out at ten-year intervals for various thematic areas (e.g. population, agriculture, enterprises etc.) at LAU1 level; this has made it necessary for the case study to compare the latest available official data and use more recent field estimates, where possible.

Governance initiatives supporting development opportunities

Regarding the planning system, the government's stated objective is to gradually replace the *Policy Statement for the Countryside* (PSC), which covers most rural areas irrespective of their territorial and geographic specificities, with sub-regional spatial plans, on the same basis as has been done in urban areas through *Local Plans*, a type of spatial plan which provides for a more comprehensive and integrated area-specific development framework and much more coherent and transparent governance processes than the PSC, allowing meaningful citizen participation. This in part stems from the recognition that a document as general as the PSC has shortcomings in terms of responsiveness to specific local circumstances and characteristics, as well as the need to provide the most appropriate governance framework for rural areas to fully develop their potentials

in a sustainable manner, which should not be limited to agricultural uses, nature management or “dormitory” activities. At the same time, the intention is to promote the reform of the planning system to allow for the creation of integrated planning authorities at sub-regional level to implement these spatial plans, each comprising several local authorities. Although the PSC has proven its use and merits in the sense that, since its implementation it has provided the general policy framework and development guidelines in mostly rural areas where planning considerations could not previously be taken into account in the development decision-making process, the validity of this differentiation between urban and rural areas has been questioned and Cyprus is embarking on an effort to resolve this discrepancy.

Within the period 2008-2010, a number of pilot sub-regional Local Plans for groupings of rural entities has therefore been initiated, including the Marathasa Local Plan. The competent authority for the preparation of these Local Plans is the Planning Board, an independent body with advisory power over large areas of planning policy. The relevant procedure is initiated by a report analysing the territorial state and perspectives of each area under study, within which the vision for the future is incorporated, in consultation with the local authorities involved, as well as a relevant set of strategic objectives. The Planning Board is then obliged to consult a Joint Board (a consultative body specifically set up for authorities and local stakeholder groups to express their views during the preparation of each spatial plan through a report submitted to the Planning Board), as well as the wider public, first through transparent open calls for the submission of opinions and suggestions on each area under study by any interested individual or body, then through structured public hearings, where a representative sample of expressed opinions and suggestions must be heard. After acquiring an informed opinion, the Planning Board elaborates and publishes the Local Plan in all its detail and makes it available for inspection to all interested parties. The public then has the opportunity to file objections on any of the plan’s provisions, which must be examined through a prescribed process, before the Planning Board deposits the plan with or without amendments based on the objections examined, through the Minister of the Interior, to the Council of Ministers for approval. Approved Local Plans will then be monitored and reviewed by the Planning Board for possible amendments at regular intervals through a repetition of the procedures described above.

At a more localised level, most rural communities, including those of the TeDi case study areas, will gradually be covered by Community Action Plans, which will provide an additional systematic and coherent framework for the development of rural communities through more detailed proposals for defined areas. These will essentially form the blueprint on the basis of which various development projects will be implemented, according to the objectives of higher order plans.

At the strategic level, the national framework includes the *Strategic Development Plan 2007-2013*, the *Rural Development Programme 2007-2013* and the *Tourist*

Development Strategy 2003-2010. All these documents are highly complementary both with one another and with the NSRF and two OP's (*Sustainable Development and Competitiveness 2007-2013* and *Employment, Human Capital and Social Cohesion 2007-2013*). Based on the national framework in general and the Rural Development Programme in particular, several Strategic Development Plans (SDP's) have recently been prepared for rural areas, including the *Troodos SDP*, of which the Marathasa case study area forms part, and the *Tylliria SDP*.

To conclude, all spatial plans are elaborated in synergy with the national strategic framework, including the latter mentioned SDP's. The two case study areas are described to greater detail below, providing an account of the persistent challenges to their development, as well as the ways in which they plan to overcome structural obstacles and diversify their economies.

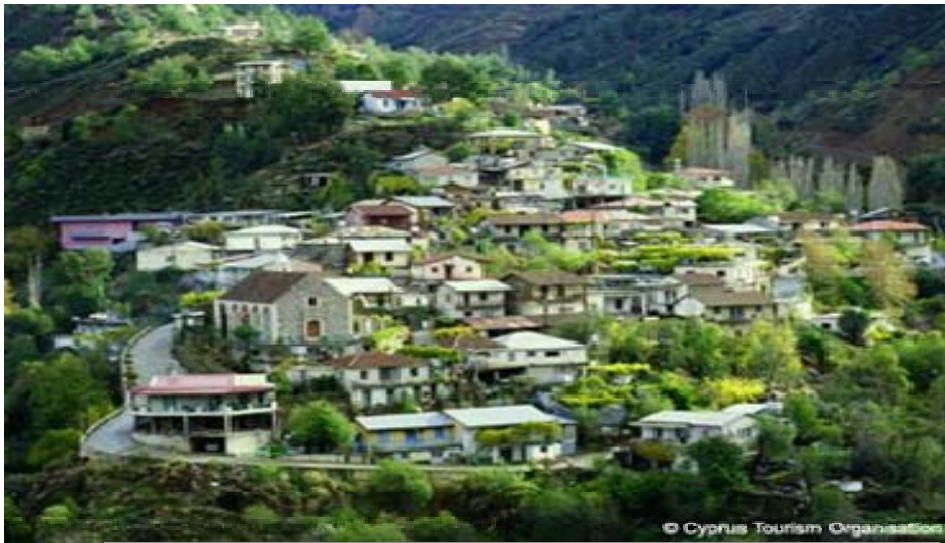
Marathasa

Marathasa is a historic group of villages, located in central Cyprus, straddling the higher reaches of the Troodos Mountains and extending along their north-western slopes. It is therefore a mountainous territory, made up of three main groupings: the northern Marathasa,³³ consisting of four villages within the upper valley of the river Setrachos, flowing northward, and a fifth village in a tributary valley; the southern Marathasa,³⁴ consisting of five more villages within a valley system formed by tributaries of the river Diarizos, flowing southward; the central village of Prodromos, the highest settlement in Cyprus closest to the peak of Chionistra (1952 m); as well as three more isolated villages³⁵ located in enclaves within the Paphos State Forest, the largest contiguous forest area in Cyprus. Combining breathtaking mountain scenery and a temperate climate, Marathasa is famous for its cherries and other deciduous fruit, while its forests are popular weekend attractions for recreation walks and picnics. The area's numerous historic churches and pilgrimage sites also attract visitors from all over Cyprus and around the world.

³³ These are the villages of Pedoulas, Moutoullas, Kalopanagiotis, Oikos and Gerakies.

³⁴ These are Lemithou, Palaiomylos, Agios Dimitrios, Treis Elies and Kaminaria.

³⁵ These are Mylikouri, Tsakistra and Kampos.



Marathasa is the most remote grouping of villages in the Troodos Mountains, slightly exceeding the “comfortable” commuting distance to either of the two main urban centres, Nicosia on the central plain (70 minutes average time-distance), or Limassol on the southern coast (55 minutes average time-distance). Demographically, this case study area is characterised by a virtual population collapse, due to exceeding the critical balance where the provision of community services is still sustainable. In an effort to reverse these negative effects and promote the revitalisation of the area, the Marathasa Development Agency was founded at about the time of the accession of Cyprus to the EU. As a non-profit local association, it commissioned the elaboration of the Marathasa Strategic Development Plan, based on LEADER guidelines, which was delivered in 2007. It soon became apparent however, that the area could not by itself fulfil EU criteria for setting up accredited local action groups (LAG’s). An effort was therefore made to pull together the resources of a much enlarged area, comprising 62 communities with a total population of about 16,000, spread over a territory of common geographic, environmental, historic, social and cultural characteristics, as well as more or less similar territorial constraints and prospects. Procedures for the approval of the enlarged Troodos Development Agency were therefore initiated and the Marathasa Development Agency’s latest contribution was the commissioning of the *Troodos Strategic Development Plan* (Troodos SDP), delivered in 2008.

With a methodology based on goal-oriented project planning, through wide public participation and an effort to construct a concrete spatial-territorial unit (*territoire*) out of a loose historic socio-political grouping with no administrative status, the Troodos SDP has identified the following main problems for the region:

- The very low population levels with severe ageing characteristics create a grave uncertainty for the future; some elderly residents only stay there out of love for their villages
- The relative isolation and large time-distances to the main urban centres, coupled with the lack of services of general interest significantly affect the quality of life, especially with regard to health care for the elderly and recreation opportunities for youth
- The inadequacy of public infrastructure and services to foster population growth, as well as the lack of incentives and measures to promote private investments have greatly contributed to the area's vicious demographic cycle
- The low level of tourism infrastructure and services provided, combined with the lack of marketing the area's tourist product do not provide a basis for quality tourism development
- The abandonment of extensive agricultural areas consisting of vineyards and fruit orchards, significantly downgrades the area's natural environment; the low return of the primary sector, which does not allow local residents to practice agriculture as a main source of income further exacerbates the situation

The Troodos SDP observes that Marathasa has experienced the gravest depopulation within the region, reaching a staggering 73% demographic loss between 1960 and 2001, compared to a 55% reduction for the entire surrounding Troodos Mountains and in sharp contrast to the 20% increase recorded at national level. Another interesting observation of the SDP concerning Marathasa is that, out of a total population of 2,145 documented in the 2001 census, the following field work estimates were made in 2008:

- Permanent population 1,856
- Weekend population 2,558
- Christmas/ Easter population 3,220
- Summer population 8,665

This indicates the high pull factor of the area, mostly related to temporarily returning migrants and their offspring, who tend to visit grandparents or keep a second home in their village of origin, where they can relax or seasonally tend the family orchards.

The Troodos SDP also highlights the precarious demographic situation of Marathasa, which in 2001 had the lowest proportion of children under 15 in the region (10%) and, at the same time, the highest proportion of elderly over 65 (42%). Marathasa was also found to have the lowest population density with 6.8 inhabitants per km², vis-à-vis the regional figure of 20.0 and the national average of 116.9. Concerning the case study area population's education levels, approximately 73% had completed the basic 9-year cycle, 20% the full 12-year cycle, while only less than 8% had tertiary education. The corresponding regional averages were 61-28-11 %, while at national level the relevant figures stood at

44-33-22 %. In 2008 it was estimated that in Marathasa 10 children attended kindergarten and 89 were enrolled in primary schools; 28 and 45 pupils respectively followed the gymnasium (ages 13-15) and lyceum (ages 16-18) cycles of secondary education, while 64 were tertiary level students, presumably some of the latter attending the local Forestry College at Prodromos and others studying outside the area.

In 2001, the sectoral distribution of employment in Marathasa was about 14% in the primary sector, 23% in the secondary sector and 62% in the tertiary sector. These figures compare to 35-24-41 % for all rural areas of Cyprus and 8-21-71 % at national level. It is notable that, in the same year, employment opportunities in the secondary sector slightly exceeded the number of employed in that sector in Marathasa, indicating a small influx of workers, in sharp contrast to other neighbouring areas, where there is a larger supply of labour than jobs, indicating outward commuting trends for each area, considering the generally low levels of unemployment. The same pattern can be observed in the tertiary sector, though to an even greater extent, indicating that Marathasa provided 150 service jobs more than its local employees in that sector. Although no sub-regional GDP data are collected in Cyprus, the SDP study has estimated the region's GDP to stand at about 89% of the national average, through disaggregation of national data, noting however that the figure is possibly lower due to the great concentration of pensioners, the absence of major industries and the lower contribution of the robust construction and service sectors to the local economy than is the case with the national average. Based on these observations, as well as the demographic and employment figures noted for Marathasa in comparison to the whole of the Troodos region, it would not be unrealistic to suspect that the income generated in Marathasa is possibly much below 89% of the national average.

The Troodos SDP also identified the two main strengths of the area, as well as several opportunities or potential comparative advantages:

- An outstanding comparative advantage related to natural heritage, with some of the most important natural assets of Cyprus, notably forests and water resources, located in the region
- A first-class concentration of Byzantine cultural heritage, compared to anywhere in Cyprus, including seven World Heritage Listed painted churches³⁶ located within the region
- The already established high protection and visibility of this rich natural and cultural heritage could be linked to the tourist product
- The preservation of traditional agriculture, often seen as a sign of underdevelopment, could become a basis for quality/ health food products
- The attractive natural and built environment, in combination with good basic infrastructure, could be capitalised for the attraction of second homes or even permanent residents seeking a high quality of life³⁷

³⁶ Three of these are located in Marathasa; these are the painted churches of Archangel Michael in Pedoulas, Our Lady in Moutoullas and St John Lampadistis in Kalopanagiotis.

In response to the problems analysed earlier and the opportunities identified above, the SDP proposes a vision for the Troodos region based on its "reconstitution as an integral development entity and its promotion as an attractive place to live with a distinguished local economy based on its heritage." The main goal of the SDP is to construct the region as a development-oriented spatial-territorial unit, based on efficiency, effective administration, citizen participation, inter-community cooperation, a common identity, the sustainable use of natural and cultural heritage, the establishment of cultural routes, the strengthening of attractiveness, the articulation of a "Troodos territorial product," as well as the introduction of new forms of partnership with respect to local governance and networks.

Based on this concept, the SDP proposes the following strategic objectives:

- Promotion of the competitiveness of the territory's economy through the assurance of the quality and identity of local products and services, and the development of economic inter-sectoral linkages based on the integration of natural and cultural heritage in the region's tourist product
- Protection of the region's natural and cultural heritage and its promotion as a usable resource through the sustainable management of natural resources and the multi-functionality of forestry and agriculture, and the promotion of elements of cultural heritage and their integration in infrastructure networks
- Improvement of the quality of life and assurance of social and territorial cohesion through securing the provision of basic social mechanisms and infrastructures within a multi-functional framework and the improvement of the organisational environment of local agencies for the development of local governance

The Troodos SDP was approved at the national level in 2009 and already forms part of the strategic framework for the elaboration of the Marathasa Local Plan, a statutory spatial development plan under preparation according to the provisions of the Town and Country Planning legislation, as described in the introductory section.

³⁷ It must be clarified here that the attraction of permanent residents would mostly apply to less isolated areas of the Troodos Mountains, such as the Pitsilia villages (within commuting distance of Nicosia) and the Wine Villages (within commuting distance of Limassol); some employment opportunities in the tourism, health, recreation and quality food production industries could be created within the region, including Marathasa, attracting permanent residents, although the attraction of second homes might be a far more likely option for the Marathasa case study area itself, due to its lower accessibility.

Tylliria

Tylliria is another historic group of villages, located along the north-western coast of Cyprus, on the "hump" formed where the Troodos *ophiolite* geological structure meets the Mediterranean Sea. It is therefore a more or less hilly to mountainous territory, with intensely undulating, at places precipitous terrain, limited extents of arable land and generally poorer soils, more suited for extensive rather than intensive cultivation. Combining seaside and mountain landscapes, Tylliria has a unique natural beauty, while part of the Paphos State Forest, the largest contiguous forest area in Cyprus, is located within the region's southern reaches.

Tylliria is classified as a very remote rural area, isolated as it is from the island's main urban areas due to the presence of the UN Buffer Zone, a result of the 1974 Turkish invasion and continued military occupation of a large part of Cyprus. Indicatively, average time-distances from the area's largest settlement, Kato Pyrgos, to the main regional hubs are as follows:

- Paphos, local market town 1:20 hrs.
- Paphos International Airport 1:30 hrs.
- Nicosia, capital city 2:15 hrs.
- Limassol, a main city and seaport 2:30 hrs.
- Larnaca International Airport 3:00 hrs.

The case study area comprises seven inhabited communities besides a number of abandoned settlements. Four of these communities have less than a hundred inhabitants each, while only one village has a population of over one thousand:

- Kato Pyrgos 1,120
- Pomos 595
- Pigenia 123
- Pano Pyrgos, Agios Theodoros, Pachyammos and Nea Dimmata, taken together 224
- Study area total population 2,062

Historically, the area's economic apogee was reached in the 1960's and early 1970's, with very successful irrigated cultivations of lemons, figs and peaches, for which Kato Pyrgos is still renowned, especially for its unique white small dried figs, labelled "Tyllirissima." At that time, much of the area's population also found employment in the Morphou citrus plantations and, to a lesser extent, at the Skouriotissa copper mines, both now located beyond the UN Buffer Zone, in areas under Turkish military occupation. After 1974, the local economy was kept afloat by the production of lemons, peaches and charcoal. However, trade liberalisation in the 1990's dealt a serious blow to these local products and the five eastern Tylliria villages witnessed serious population declines in the following decade, ranging, between 1992 and 2001, from -3.03% in Kato Pyrgos to -36.92% in Pigenia. On the contrary, the two westernmost villages of Pomos and Nea

Dimmata experienced some population growth (3.66% and 42.86%, respectively, during the same period) due to their better accessibility from the nearby growing region of northern Paphos District, around the small market town of Polis, where ample employment opportunities in the tourism and construction sectors were to be found.



With the main objective of analysing the prospects of the area's integrated rural development within the national strategic reference framework, the *Tylliria Strategic Development Plan* (Tylliria SDP, 2009) has identified the following main problems for the area:

- Geographic isolation and low accessibility
- Inter-community inequities between the eastern part of Tylliria (Nicosia District) and its western part (Paphos District), where the former is more isolated and shrinking, while the latter has a healthier outlook
- Insufficient technical, social and business infrastructure
- Low levels of standardisation and processing of local primary resources
- Abandonment of agriculture due to the low attractiveness of agricultural employment for both economic and social reasons
- Limited permeation of new technologies and innovation in current production processes
- Crisis in a number of traditional economic activities (e.g. charcoal production)
- Low quality of tourism infrastructure

- Low levels of horizontal and inter-sectoral actions to promote synergies and economies of scale, untapped opportunities
- Low entrepreneurship indicators and low investment initiatives (ageing population, low accessibility, absence of financial incentives)
- Low levels of training and specialisation of human resources
- Demographic shrinkage and abandonment of a number of villages
- Low participation of women in the labour force
- Increasing unemployment and decreasing employment opportunities
- Untapped natural resources (missing the “Riviera” potential of the area)

The Tylliria SDP also identified a number of existing opportunities:

- The prospect of the Turkish occupation forces opening access through check point Limnitis (reducing the time distance to Nicosia by 58% to just an hour)
- The potential for closer cooperation with three robust, growing communities³⁸ located along the coastal strip immediately to the west of Tylliria proper within the framework of the enlarged Tylliria Development Agency
- The possibility to promote early-season agricultural production, as well as high quality agricultural products, including organic produce and area branding within a delimited geographic cluster
- The potential of the local microclimate, landscapes and cultural resources with respect to the promotion of alternative forms of tourism
- The accession of Cyprus into the EU and the availability of integrated funding mechanisms for a truly sustainable development framework

In response to these problems and opportunities, the SDP proposes a vision based on tapping the authenticity of Tylliria for its future growth, turning around the negative effects of underdevelopment, which have in fact preserved a truly unique identity, a pristine natural environment, a living tradition of hospitality and friendliness, a pervading aura of authenticity; all of which are to be considered as highly competitive elements. This seems to be the local version of the motto “turning territorial diversity into strength.” Based on this concept, the SDP proposes the following strategic objectives:

- Improvement of the competitiveness and increase of the added value of local agricultural products
- Provision of the conditions for the development of sustainable communities
- Promotion of the area’s environmental wealth and cultural identity
- Support and encouragement of entrepreneurship and diversification of the local economy
- Development of human resources and empowerment of the population

It may be true that no bottom down approach would have come up with such a vision, although it must be said that the objectives themselves, as well as the corresponding measures and actions proposed through this local action initiative

³⁸ These are the villages of Agia Marina, Gialia and Argaka in north-eastern Paphos District.

are more or less within the mainstream spirit of integrated sustainable rural diversification planning. The Tylliria SDP was approved at the national level in the autumn of 2009 and will now form part of the framework for the future planning of the area.

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7.Jura (Switzerland)



The territorial context: a glimpse into the challenges of medium altitude mountains

The Canton of Jura is a French-speaking enclave in northwest Switzerland. It is located in its entirety in the Jura Mountains, which range at medium heights as a result of limestone's fluted terrain. The physical morphology is characterized by series of anticline and syncline that carve parallel edges and deep valleys. Indeed the resulting topography is not favorable to rapid travel. As a result, the canton has always been considered as remote territory with difficulties for access.

The area is characterized by its low density of population, its limited financial resources and its deficient integration to urban networks. The canton is lying at the periphery of different functional economic systems or, in a positive sense, at their crossroad:

- French-speaking Switzerland
- French-speaking part of the canton Bern
- North-western German Switzerland (Basel-Solheurturm metropolitan area)
- East-France (Doubs, Territory of Belfort)
- High-Rhine transnational region (Germany, France, Switzerland)

Morphological specificities makes case study of Jura relevant for other medium altitude mountain territories. On one side, those territories present most disadvantages linked to mountain topography like remoteness, difficult accessibility, and related to tough socio-economic conditions like stagnant demography, weak economy and small individualist municipalities. Furthermore, it seems that historical routes (ie. flows of goods, people and capital as well as a constant update of transport infrastructures through ages) have by-passed such regions in most cases. Besides, medium altitude mountain do not allow for massive development of ski industry or major hydroelectric projects and their related spin-off effects. As a result, there are only few headquarters in the canton and most part of economic pattern is made of subcontracting SME with less than 40 FTE. On the other side, the industrial heritage, the preserved environment, the crossroads situation among various systems, the ongoing projects to improve connectivity and the availability of land at favorable prices make Jura rich in potentials.

If we except Delémont a FUA of 20'500 habitant, Jura is lacking a regional centre that could strengthen its surroundings. In addition, the population of the canton is only about 70'000 inhabitants. The lack of internal critical mass and the fear to raise counterproductive regionalism influences the territorial development strategy. Indeed, the whole canton is considered as a single region. In that perspective regional development is primarily thought as the integration/articulation of the canton with surrounding systems.

In this context, the proximity of the Basel agglomeration, to which commute 1'000 habitants from Jura, is seen as the main opportunity. However, the difference of language and the inherited suspicion toward German culture appear as a break down factor for major development in that direction. This spots what seems to be a long lasting and acknowledged duality between the "need to open" on the outside and the "reflex to become withdrawn" to forge identity. This "trait" goes on to enterprise's culture where firms are performing pretty well, but badly connected with external economy. In regard of globalization, such a trait becomes penalizing.

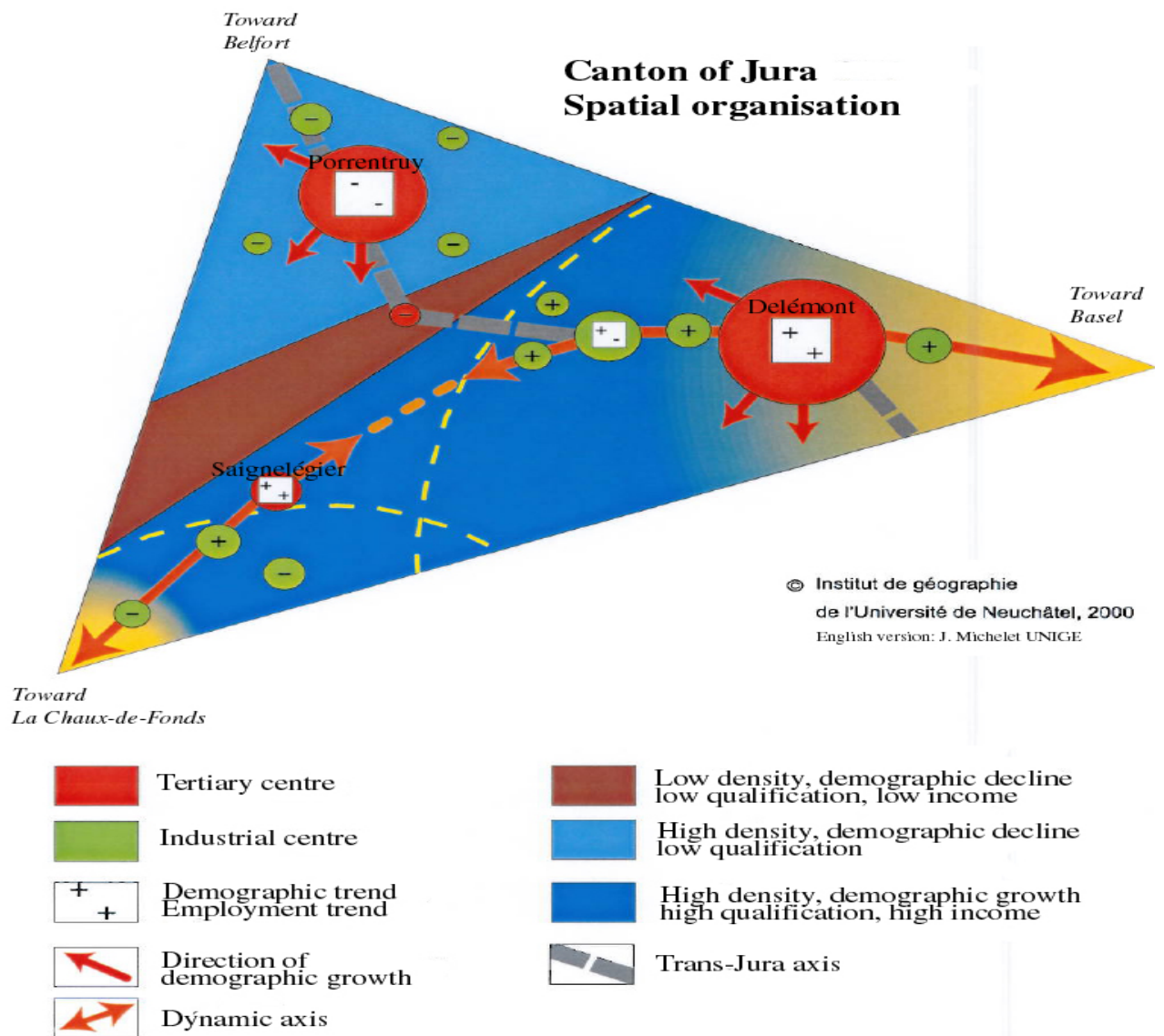
Challenges: unequal & lagging socio-economic base

The internal structure of canton Jura shows the predominance of two main centers: Delémont and Porrentruy. They polarize activities, demography as well as capital and highly skilled workforce. Their influence extends to surrounding areas via commuting flows creating suburbanization processes spatially limited by topography. The comparison stops here. While Delémont has growing demography and economy, Porrentruy stays lagging as does the entire northern part of Jura. In between these two functional systems stands the strip called "Clos du Doubs-Barroche". Indeed, it is the most peripheral and rural region, cumulating lagging factors. It acts also as a morphological barrier, delimiting the two subsystems.

The canton of Jura is structured on 2 main axes and the capital (Delémont) stands at the intersection. "Trans-Jura axe" links Delémont to Porrentruy by a highway under construction. In the future, it should open toward Belfort-Montbéliar (FR) and the Swiss plateau. "Inter-Jura axe" links Basel region to French-speaking Switzerland, passing through Delémont and numerous sub-centers of the Jura Mountains (among them: Saignelégier, La Chaux-de-Fonds, Neuchâtel ...).

Demographic challenges can be summarized by the fact that population of the canton Jura is not growing anymore since 1995 (while average Swiss rate was +0.5% per year). Decline is however not general, the southern part of the canton being less affected.

The young population is still overrepresented, but this advantage is slowly disappearing due to their steady and definitive exodus. Despite excellent and numerous professional formation opportunities available in Jura, young people nowadays aspire for higher degree of education. To the exception of technical school in Porrentruy, there is no such possibility in the canton. As a result, Jura is threatened by demographic decline with the risk of a fast ageing population. In addition and unlike the young generation, the older active population is not always well trained. Many workers have learned their skill *on-the-job* and are vulnerable in times of recession. A recent study shows that during the 2008/09 crisis, 72% of unemployed persons had no professional formation. Such trends may provoke potential pressure on public finances in the future. Ageing also raise questions about mobility in the case of a rural canton where private transport is often the only rational solution for moving around.



If in reality only few people choose to settle in Jura, selective migrations take there a very particular form. The canton's economy has always counted on a massive "cross-border commuting" workforce from France. Until 1995 the number of commuters evolved inversely to unemployment rate. Since, it grew independently of the conjuncture. Moreover, the opening of Switzerland to EU work market has given a kick to this type of workforce migration: the process leading to an increasing inadequacy between supply and demand for employment in local labour market. Adding the risk of pressure on the wages (dumping), in times of recession this massive cross-border workforce can also drive to social tensions.

Though services (mostly local & public) account to 51% of total employment, secondary industry, with 39% share in employment, remains the major traits of Jura export economy. It has developed out of two origins early in the industrial

age: watch-making and metallurgy. Since those times it has evolved to tools production, tools-machinery and electronic, showing a certain convergence between the two types of industrial heritage. The numerous SMEs that form the backbone of Jura industry are essentially acting as subcontractors, which leads to:

1. tiny economic margin / low performance
2. high dependency on global economy trends

Long-term development of industry shows signs of stagnation. In that context, globalization may bring positive perspectives in terms of new markets where Jura goods could benefit from the positive image linked to the milieu. On the other hand, everything could become worse under direct competition with emerging countries from Eastern Europe and Asia. In order to bring potential into strength, the industries have to undergo structural changes. This means, increase added-value in production, widen networks and get in touch with final markets.

Agriculture plays an important role in regional economy (8% of active population) and contributes to a decentralized settlement of the territory. Out of 1'000 farms, 60% are specialized in dairy production, others in cereal production. Altogether, the primary sector maintains 51'000 hectares of landscape (49% of the territory) and constitutes the main economic activity in 50% of the communes of the canton. Despite the facts that forest another 44% of the surface, wood industry is not equally developed. In the future however, synergies with building and local renewable energies promotion should help the branch to expand.

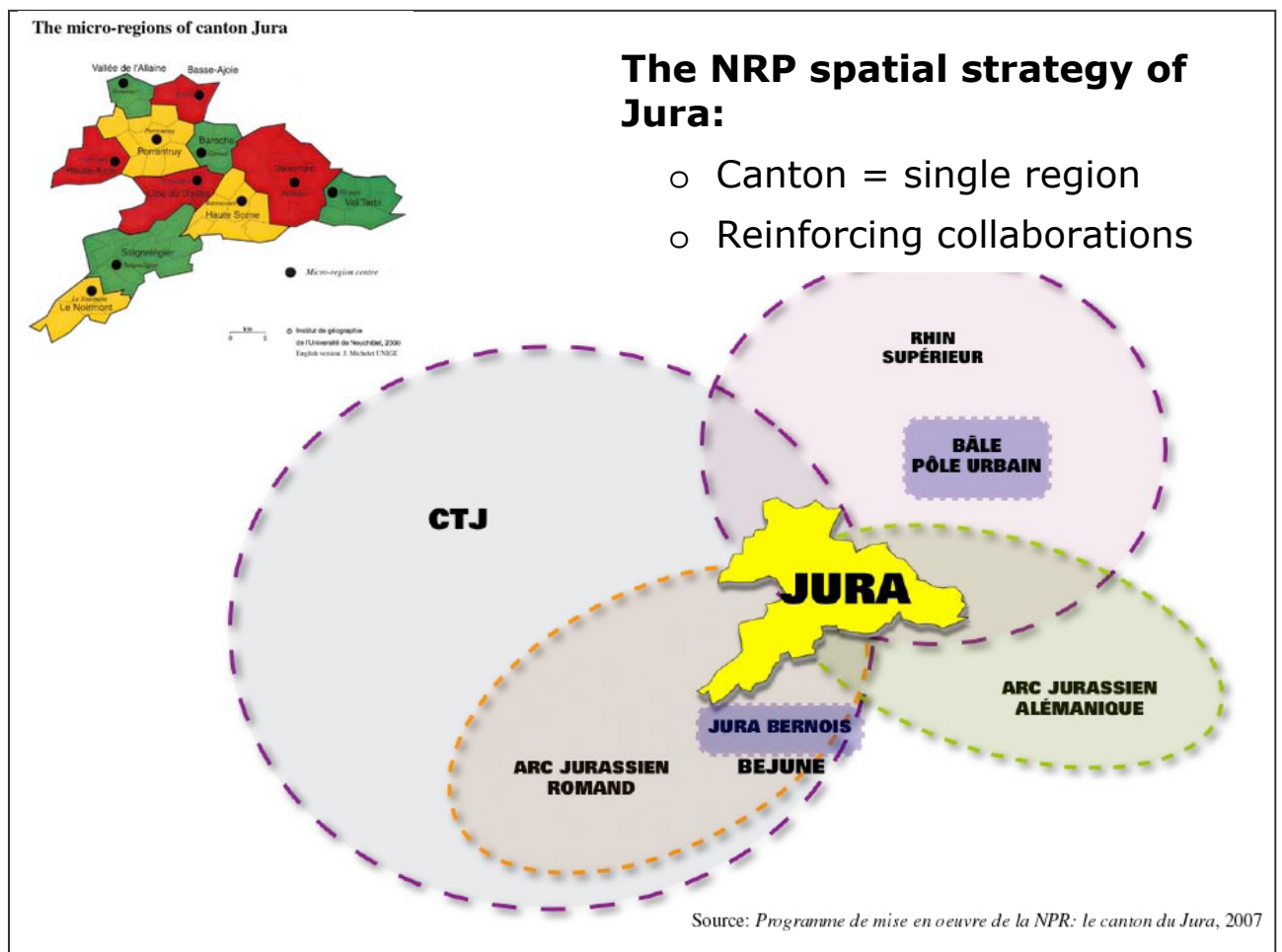
The services have taken advantage on industrial employment, but the opportunities for further development are not obvious. Recent growth in services is mostly linked to the late independence of the canton (1979: administrative structures had to be set up) and to tourism development in a smaller proportion. High value services like bank, insurance, finance, real estate, consulting etc. are not much developed over local needs, which is a trait of territories lacking urban centre.

Strategy: innovation, cooperation and coordination

The analysis of territorial specificities developed above leads to three outcomes in term of socio-economic performance and development opportunities. First, industry, in particular the one that requires high precision and know-how, is the main activity in Jura. In present state, it is presumed to be a weakness, mainly due to their "sub-contractor" characteristics in the context of globalization. Then, considering services, best potentials are identified in the development of (rural) tourism. Otherwise the lack of potential for high-added value services is related to the fact that Jura does not have a sufficient urban network. Finally, as a result of

lagging socio-economic factors and insufficient critical mass, it is illusive to overcome development's obstacles with endogenous forces only. In consequence, the federal development strategy (NRP) must synergize internal restructuring and external collaborations.

External cooperation determines therefore the spatial strategy of NRP in Jura. As the canton has always been considered as a single economic region, the policy does not identify sub-regions in terms of territorial strategies. As a result, regional development is primarily connected to the positioning of the Canton outward: the objective is to reinforce cooperation with adjacent metropolitan areas or Jura Mountains economies in order to gain critical mass.



Internally, the NRP implementation program of Jura seeks to raise the performance of economy. This goal should be reached by accelerating the rhythm of innovation, creating high qualified employment, stimulating high-tech and tourist activities and, finally, by strengthening factors of competitiveness (workforce, tax system, transport infrastructures and tourism). It is subdivided into three operational objectives.

Objectives of the NRP's strategy of Jura			
	High Tech	Tourism	Optimization
Objective of Jura's NRP	Stimulate the creation of innovative micro-technic activities	Propel regional tourist offer (Jura, Bern Jura) to the qualitative level of Neuchâtel canton in order to make up a global Jura tourist destination	Identify similar regions for benchmarking
	Develop entrepreneurship's spirit		Identify the most pertinent factors for competitiveness
	Facilitate acquisition of technologies and competences		Start benchmarking and exploit results
	Promote identity and image of regional micro-technic		Elaborate an on-going benchmarking system

“Isolation” and associated obstacles

Territorially, isolation has to do with the tiny development of urban network as result of the relative difficulties to access and exchange. The weak endogenous development leads to lack of high-standard services and related work places. The resulting economic pattern is the main cause for negative demographic trends like ageing, and brain drain. Those in return set public finances under pressure. Finally, it appears that all negative trends sum in a vicious circle, hampering development's potentials.

Isolation has to do with political and ideological dimensions of the territory as well. Sometimes it acts as a causal factor, other times as a result. As a cause, territorial isolation over the ages has raised a feeling of mistrust toward foreign factors. It has practical implications in corporate culture when it comes to get acquainted with competitors, or get integrated into global networks. In a few cases, it can go as far as firms refusing external (in its geographic meaning) capitalization, while it

would be of absolute necessity for their development. It has a similar effect on the actual potential for attracting new resident. Urban culture and difference of language do not facilitate their integration and therefore the affect the attractiveness of the canton. As a result now, isolation has to be understood by the recent political heritage in relation to the fight for independence that was going on in the 70's and 80's. Following from secession movements, the building up of an identity has often in opposition to the surrounding German-speaking regions.

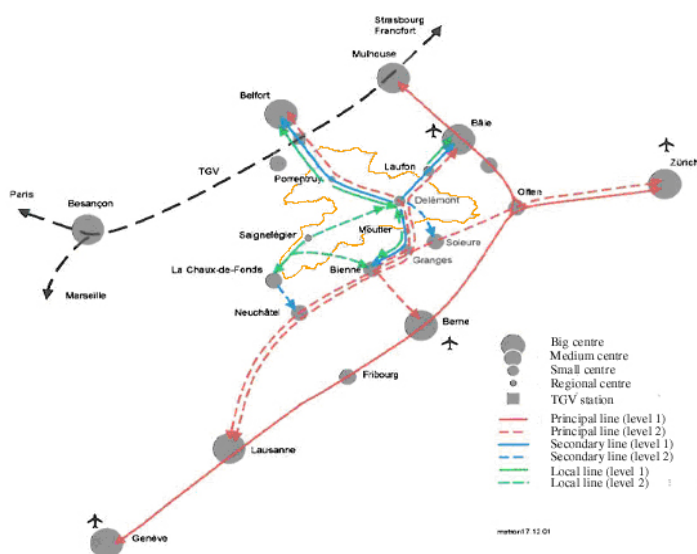
Cause or result, material or ideological, isolation brings complex outcomes for the canton. It is therefore logical that spatial extension of the regional policy in Jura is intended to break isolation and get critical mass, building bridges with surrounding actors and regions.

Overcoming isolation in wide sense

There is a total contradiction between the reflex to "become withdrawn" and the real need of "openness" among individual and collective entities in Jura. This is the reason why Jura strategy for regional development intends to implement a strong and multilateral external dimension.

Main strategic opportunity is the "German-speaking area" where little effort has been made until recently. Reasons are to be found in political heritage and regionalism. The functional economic space of Jura extends however naturally in that direction. There is therefore a contradiction between inherited reticence on one side and actual economic necessity on the other. The dominant position in bio-techniques of the Basel metropolis is however an opportunity for the micro-technique industry of Jura. The latter could find a way of diversifying and adding value to its production by specializing into medical machinery.

Polycentric spatial strategy for improved connectivity



Improved integration with surrounding regions requires also infrastructures coordination in the case of Jura. While the transport infrastructures are not part of NRP action's field, they must still be coordinated with economic strategy in order to obtain best synergies. Coordinating connectivity via collaboration is however difficult. The differences in economic potential, in

demographical weight, in political priorities and in financial possibilities make the integration of Jura difficult. In order to overcome such difficulties, the tools offered by NRP encompass interregional and European programs like INTERREG.

In the scope of overcoming structural deficiencies, Jura implements also an internal strategy. It is aimed at grouping regional economic actors in order to ease the development of their activities and their integration in surrounding networks. The core of this strategy is CREAPOLE, a public-private incubator organised around three main structures. With 1 million annual budget (75% public, 25% private), its mandate is to promote economic structural change to improve regional competitiveness.

Addressing isolation's recurring effects, the strategy of CREAPOLE is not to diffuse growth through the canton, but rather to concentrate it in 3 poles (Delémont = Life technologies, Porrentruy = diversification, Noiremont = ICT) to gain attractive places and critical mass, at the scale of the canton. In order to counter the fragmentation of the economic pattern, it regroups SME and entrepreneurs into a dynamic network. To ease the subcontracting characteristic, it develops entrepreneurship spirit and technology transfers. In order to settle in new activities, it coaches project manager and offers infrastructures like *technopoles*.

The strategies presented above target most issues linked to spatial and economic issues. In that sense the implementation seems relevant for the specific problematic of Jura in the perspective of Lisbon. However, the idea that led to the former initiative "Jura, pays ouvert"³⁹ gives a glimpse to what is needed to go one step further. Indeed, besides economic preoccupations, the grassroots problem of Jura is demographic decline. Many people leave the region, but only few newcomers come to settle in. It shows a persisting trend that has to do with poor attractiveness as a result of "isolation". Therefore, one can propose that future implementation programs of regional policy put an equal accent at understanding and overcoming the social and ideological factors that import for attractiveness.

³⁹ Jura, open country

8. Valais (Switzerland)



The Territorial Context: an alpine system in the Pentagon

The canton of Valais seats in the south-western corner of Switzerland, along the Rhône river valley from its source (Rhône Glacier) to the Geneva Lake. This geographical situation implies that the canton is almost totally embedded in the High Alps: mountain chains over 4000m "lock" the case study area from the northern Italian cities as well as from the dynamic Swiss Plateau. On one hand the Valais is a typical periphery of Switzerland. On the other, it is located in and well connected to the central parts of Europe. Consequently Valais, a regional system of 300'000 inhabitants, is physically but not economically disconnected from surrounding core metropolitan area of Europe.

Environmentally, the geographical specificities provide Valais with a dry-sunny "Mediterranean-alpine" climate and a mosaic of ecosystems depending on the altitude and the orientation. This inner diversity favours specific economic potentials. For example, climate and landscapes play an important role for the development of Valais as a tourist destination. Best resorts like Saas-Fee, Zermatt, Crans-Montana or Verbier are world-famous. In addition, the height of its ski resorts will prevent (at medium term at least...) the negative effect of global warming on ski industry. The great variety of agricultural and livestock productions are also to be put in relation with the topography. Great variations of altitudes between icy mountain and Rhône River valley have allowed the development of

massive hydroelectricity production that, in turn, has favoured the development of industries (chemistry, metallurgy ...). Nevertheless, physical specificities hamper connectivity and economic development in such a network of valleys and side-valleys.

This leads naturally to some shaping element of economical background. In term of workforce, the economy of Valais has been dominated by agriculture until WW2, showing late diversification. Since the end of 19th century, the construction of railroad, the embanking of the Rhône River and the development of road network has created generations of "farmer/building" workers. This movement has continued through the 20th century with the edification of hydroelectric infrastructures and, later on, building for winter tourism. Apart from this major trait, the economy of the Valais has been diversified through industrialisation and the development of basic services. From 1970 on, service's sector expands and becomes more diversified, while industrial sector retracts gently. At the turn of the 21st century, chemical groups turned to biotechnologies, private banking backed up settlement of new "tourist-residents" and ICT firms found their place in global economy, showing this way restructuring of the production system. The resulting economy is quite diversified today.

Socially and politically, the geographical specificities have given their stamp too, resulting in strong local identities. If small milieus are facilitating contacts, they can also promote a narrow-minded "steeple's spirit" that hampers development opportunities, especially when stakes are of regional nature. This leads for example to a lack of coordination in economic strategy or in problems regarding coherent spatial planning. In addition to the juxtaposition of strong local communities, the Valais is divided by its languages: approximately 27% of its population speaking German, the majority being French-speaking. If this characteristic leads to interesting skills in languages, it sometimes raises problems of misunderstanding and political tensions between the two parts. On top of those local and regional identities, the climatic, economic and infrastructural conditions have favoured the superposition of new populations. On one hand, there is the immigration of people that settle in their former secondary residence (partly due to the climate and favourable inheritance or tax policies). On the other, it exist an important economic immigration that fills up mainly low qualified job, but also some (few) opportunities in R&D.

Long-lasting structural constraints in an urbanised Alpine system

A quick glimpse at demography and employment 20 years evolution in Valais gives an overview of the main socio-economic challenges. While the total population

grew by over 20%, the regional economy “stagnated” with a GDP growth of barely 4%.

Pronounced ageing and demographic growths hide some underlying selective processes like the emigration of young qualified people, along with the immigration of retired and low-qualified workers (agriculture, building, tourism). Those antagonist demographic trends lead to increasing structural deficiencies in the socio-economic structure. Indeed, the growth is not geographically even and polarisation is perceptible at all scales:

- Valais and surrounding metropolitan areas, drawing a longitudinal gradient from the Chablais (embedded in Geneva Lake metropolis) to the upper part of the valley (high degree of periphery, low critical mass);
- French and the German parts (especially falling behind the past decade);
- Mountain (except tourist resorts) and Rhône river valley.

The latter constraint leads to unevenness in geographical distribution of the population: 70% of the people living on only 6% of the territory (urban centres, peri-urban areas & multifunctional space in the Rhône River valley). The high concentration of settlement's structures puts a real pressure on the most arable land. Polarisation and its counterpart – abandonment - lead to the loss of arable land in a double movement: in the plain and in tourist resorts, it disappears for construction; while in the rest of the canton, it turns back into forest or unproductive land. Similar but even greater polarizing trends affect the employment opportunities. The high polarisation of workplaces, along with the sprawling of housing onto peri-urban areas, pledge for a regionalised way of life and, therefore, for regional planning.

The predominant sectors in term of employment like “tourism”, “building”, “retail” “agriculture” etc. share similar characteristics: they rank among the economic sectors that bring the weakest added-value per capita. As a result, the canton shows a lack of economic sectors with high added-value and innovation potential (IT or financial services), weakening the performance of the whole economy. Oppositely, the branches that present the best potentials in term of added-value and development are: hydroelectric energy (production and commercialization), chemistry and metallurgy. However their jobs are concentrated in a few large enterprises which headquarters are located outside. In the canton however, for each of those majors, one may count ± 100 active SME. The economy of the Valais is thus extremely dependent of planning strategies from these international companies and, therefore, of criteria of global competitiveness.

Recent structural changes of economy in term of innovation and value-added potential are not enthusiastic in Valais. While the cantons of Western Switzerland

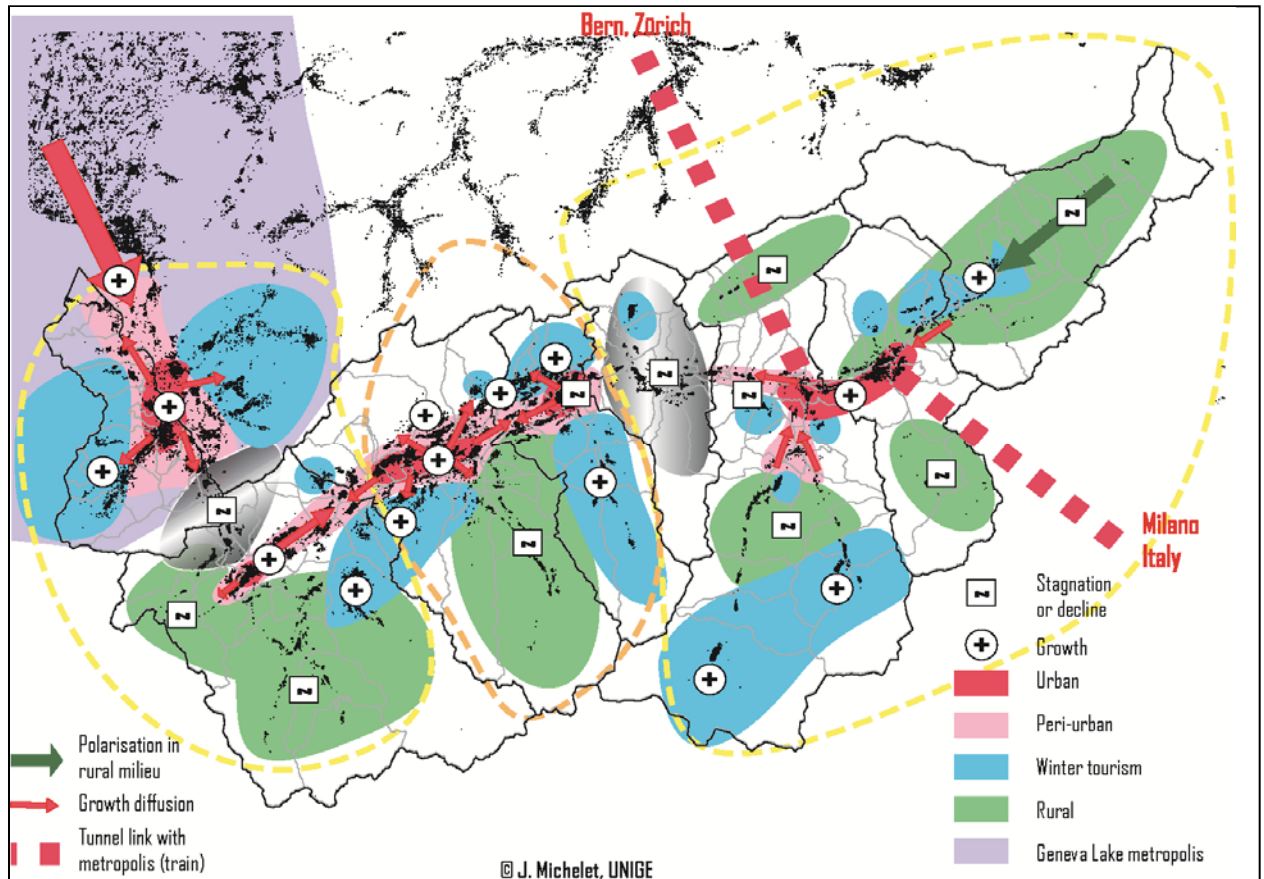
had an average 16.3 % growth of employment (1995 to 2005) in the economic branches with strong potential for innovation, Valais showed at the same time a 2.1 % decline. In parallel, he lost during the same period almost as many jobs in sectors of low potential for innovation. The gain in employment was therefore due to the development of (para) governmental activities (administration, health ...) and did not create much exportable products & services. Polarization, selective migration and low added value per capita: this underlines the long term structural constraints for development that face peripheral systems, even when located within the Pentagon and deserved with international connections.

Strategy: creating added-value by functional regions

The "Message relative to the Confederation's multiannual program concerning the implementation and the financing of the new regional policy (NRP)" stresses the utmost need to improve exportation's base. In this national context, the canton of Valais has identified two thematic priorities within its cantonal policy: industry and tourism. Besides, other actions are in the wake of NRP and target:

- Institutional reforms (reorganization of regional structures, promotion of cooperation among communes...);
- Training and health (international school, private clinics);
- Increased added value from natural resources (forestry, water, geothermic, solar);
- Reinforced collaboration with the cantons of Western Switzerland (clustering, marketing, technology transfers);
- Cross-border collaboration (INTERREG, bi or multi lateral partnerships developed in the 80's under the Madrid convention).

Spatially, regional policy in Valais takes account of the constraints and interactions resulting of the diverse types of economies/territories found within the canton. In this renewed vision, regional agglomerations (red/pink) are designed to play the role of "driving force" for surrounding spaces. In the mountain, tourist resorts (blue) with their infrastructures are to take a similar role at subsidiary level. For rural spaces (green), the agricultural policy combines a mix between action oriented toward agriculture and toward regional structural adaptation to agro-tourism. Finally, specific initiatives for municipalities showing "problems typical of the mountain region" are to be mentioned. They comprise former regional policy tools to promote basic infrastructures and new types of intervention targeting reinforcement of economic bases. Such problematic are mostly found in rural mountain communities. Sectoral policies will back up the regional policy.



I

In brief, the implementation program of NRP in the canton Valais proposes a mix of strategies: grouping forces, specializing productions, getting critical mass in various activities and creating competitive framework's conditions. Altogether, actions promote a structural change designed to address the issues of cohesion, complementarities and economic competitiveness in a global economy. Spatially, NRP bases on specific local potentials. The strength of this strategy is of two kinds. First, it gains a wide support as each part of the canton receives specific means to develop according to its territorial potential. Then, it is backed up on the long term by sustainable political will, as the political forces in Valais are pretty stable. The result gives a long term perspective for the implementation of the NRP's vision in a context of stability.

	Industry Technology Big firms	Intensive tourism	Agriculture Alternative tourism Habitat / Craft Natural parks
Territorial action's field	Towns and agglomerations in	Tourist centers in the mountain	Rural and periurban areas

	the plain		
Policy framework	Law on economic policy	Law on tourism	Law on agriculture and rural development
Instruments	The Ark (technology and know-how transfer in industry)	Technology and know-how transfer in tourism	Technology and know-how transfer in rural areas – Public management
NRP and transnational cooperation are implemented in all the above situations			

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Regarding the objectives of Lisbon, the NRP's strategy of the canton Valais shows no contradiction as it passes from a redistributive policy to a promotion one. The objectives of Gothenburg are to be applied within sectoral policies first. However, the spatial design of the NRP fits also in Gothenburg, as it is clearly designed to promote a decentralized settlement of the canton and, in that perspective, fights against the abandon of mountain agricultural ecosystems.

Obstacles related to inherited habits and representations

Likewise stated by the theory that underlies TeDi project, physical characteristics of Valais have for long been (and still are) designated as the reason for weak economic development. Among them, one can find in official documents:

- Lack of critical mass in the socio-economic systems as result of topography and languages;
- Dominance of economic sectors with low added-value and lowest net income per capita;

- Structural deficiencies in tourism;
- Weak industrial base and dependence on a few large companies;
- A constellation of SME that need to be articulated in order to reach critical masses;
- Lack of qualified workplaces leading to selective migrations;
- Reduced services in some mountain communities in consequence of liberalization;
- Incomplete transport network;

Besides this, interviews have raised up a certain number of politico-ideological characteristics that, along with the physical constraints, may help to highlight the real nature of the challenges that faces Valais. They share as a common characteristic, the difficulty of local actors to abandon some of local prerogatives toward a consensual vision that would bring greater benefit for the society.

Spatial planning among neighboring communes, as it has been done until now, is a threat for the quality of life/environment and, thus, for whole tourist economy. Local jurisdictions used a maximum their prerogatives, resulting to juxtaposition of incoherent planning. A real vision leading to coherent territorial development will not be separable from financial equalization tools to preserve general interest. They would allow redistributing benefits fairly from those who get the right to develop to those who choose not to do so. Only few actors however have understood the benefits of such regional compromise for the moment.

Another example is to be found in the inherited institutional structures and the way of thinking that goes along with. Until NRP, one of the goals of regional policy was to maintain political units (i.e. NUTS 4 & 5). As shows previous map, former socio-economic regions (black) were designed in a scheme of hierarchical political construction. Communes (grey) where encouraged to preserve their independency by massive transfer of funds necessary to maintain their basic infrastructures and carry out their tasks. Without such funding, one could argue that the weakest structures would have had to cooperate more or to fusion, instead of cherishing the false idea of total independency.

In the functional paradigm of NRP, when the goal comes to promote economical regions, the inherited system shows its limits. Functional regions are interrupted from all parts administrative limits. It is therefore difficult to promote economic governance without rearranging decisional structures. As mentioned by one of the regional stakeholders, structural challenges to be overcome consist in:

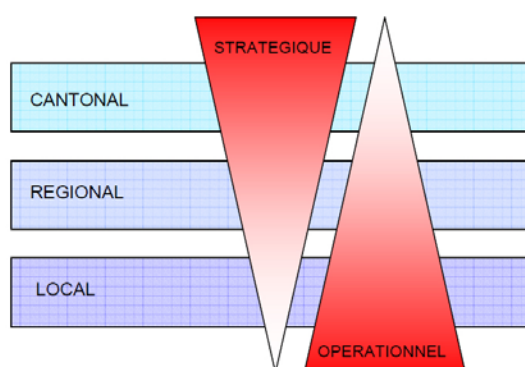
1. Integration of the Valais into the metropolitan areas (Geneva, Bern, Milano);

2. Re-examination of the districts and socio-economic regions according to new territorial functionality;
3. Integration/valorization of regional potentials in the context of agglomeration as strong interface with global;
4. New governance to be found between the plain and the mountain in a sense of complementarities.

In order to achieve this task, more will be needed than just “redefining regions”. It will be necessary to change the mentalities, among political as well as private actors, in order to surpass “steeple spirit” and definitely turn diversities into strength.

NRP’s duty in Valais: to raise consciousness, collaborations & articulations

In the perspective developed above, it seems evident that the strategy to group and articulate local forces according to functional areas will be the core of the first stage of NRP implementation.



Indeed the policy being very new and “revolutionary”, the era is of structural reforms to be carried out. Valais like other cantons must apply a change in paradigm from redistribution to proactive tools. In turn, this change in paradigm calls for innovative regional architecture according to the goal of territorial competitiveness. In reason of the

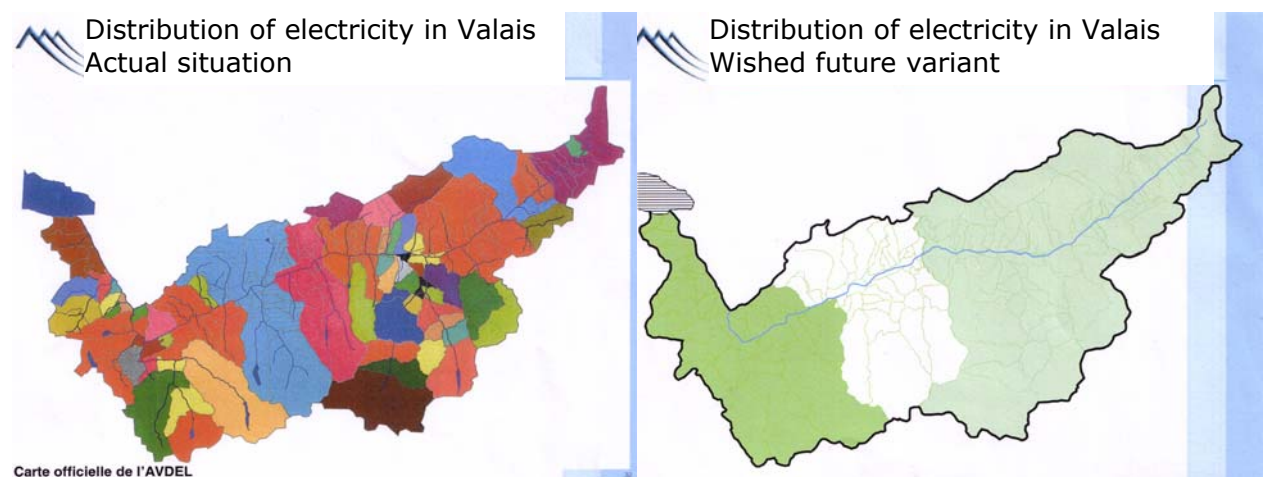
innovative character of the task, the implementation of NRP is mostly in the stage of “strategy”, meaning that most actions are for the moment top-down.

Regarding structural reforms, the major strategic achievement is the grouping of the 8 former socio-economic regions into 3 “functional” NRP-regions (previous map: yellow/orange). Functional being into brackets because politico-ideological factors (districts & related electoral circumscription) have played a stronger role than pure economic functionality in the apportionment of the French-speaking part of the canton. Parallel adaptations have taken place in the administration, but need still to be pursued.

The grouping of forces to obtain a critical mass is however not limited to public entities. Private or semi-public actors (lifts, energy, transport ...) have to adapt to the renewed market condition. As shows the example of electricity distribution,

reorganisation becomes urgent in the liberalized European electricity market. In order to get attractive prices, distributors must reach a critical mass and therefore regionalize their structures. Furthermore, the example highlights the need for reinforcing public-private partnerships and for articulating the problematic at different scales. One can admit that this reform will mobilize 3 levels of action:

1. Canton: delineate and politically defend the hydroelectricity strategy
2. NRP regions: reorganize the distribution of electricity
3. Watershed (valleys): manage water and save energy in a perspective of solidarity. This means sharing energy and associated economical spin-off effects in the perspective of concession turn back.



In summary, it is possible to foretell that the new generation of policy tools (comfortable funding for regional development projects) and the know-how in matter of regional policy will allow the Valais to contribute to Lisbon and Gothenburg objectives. There is however a factor that the policies can address only from side: the understanding of the need and the willingness to collaborate among local actors. In that sense, ICT related projects like regional television, unique ski card for the whole canton or "regional" websites offer interesting outcomes. This becomes more and more important in times of globalization where Valais and its substructures must become worldwide visible in a coherent manner. If NRP and related policies can offer "carrot on a stick", thinking and acting regionally depends before all of soft factors. Those cannot be simply "implemented" but will rise through common development projects, education, experience of other places, and recognition of common interests and ... financial imperatives.