

TPM

Territorial Performance Monitoring

Annex
Synthesis tables of results of the qualitative analyses

Targeted Analysis 2013/02/13

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Author

Departement Architectuur Stedenbouw en Ruimtelijke Ordening (ASRO) - Katholieke Universiteit Leuven (KULeuven), Flanders, Belgium: Loris Servillo

Based on regional reports from

Departement Architectuur Stedenbouw en Ruimtelijke Ordening (ASRO) - Katholieke Universiteit Leuven (KULeuven), Flanders, Belgium: Els Lievois, Loris Servillo, Pieter Van den Broeck

Institut d'Estudis Territorials (IET), Catalonia, Spain: Joan López Redondo, Laura Capel Tatjer

Institut für Landes- und Stadtentwicklungsforschung (ILS), North Rhine-Westphalia, Germany: Isabel Ramos Lobato, Mario Reimer

National Institute for Regional and Spatial Analysis (NIRSA), Dublin, Ireland: Justin Gleeson

Navarra de Suelo Residencial (NASURSA), Navarre, Spain: Marian García, Guillermo Álvarez

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	Flexibility	Horizontal coordination	Vertical coordination	Participation and cooperation	Monitoring capacity
Catalonia	<ul style="list-style-type: none"> General vision, based on 3 guiding principles and 15 sub-principles/objectives (EU inspiration) Time frame of 25 years, without budget. Strong physical orientation, focused on spatial issues, and less comprehensive strategic capacity Limited focus and thus medium-low capacity to involve other departments and competences in the definition of the vision Effects of macro-challenges are most of all sectoral matters There are difficulties in coordinating shared visions at Catalan level 	<ul style="list-style-type: none"> Low capacity, and mainly related to physical issues. More specific coordination in sectoral policies 	<ul style="list-style-type: none"> General adoption of EU principles Improving cooperation with lower levels, in particular with the municipalities and local entities of the metropolitan region. Commission of Territorial Planning for the management of the PTMB 	<ul style="list-style-type: none"> Not specific tools for cooperation with private sector in regard of supra-local spatial planning (public priority) Top-down approach, with the consultation procedures ruled by law. 	<ul style="list-style-type: none"> There are more evaluation and assessment procedures to verify established criteria, then a real monitoring system.
Flanders	<ul style="list-style-type: none"> Spatial vision and well elaborated strategies through spatial structure plans Structure plan focuses on the spatial configuration, the VIA2020 is comprehensive and intrasectoral time frame of the Structure plan of 15 years, but no legal constrains for its renewal. The new under-preparation plan should have 2 time frameworks (10 and 40 years) The complete updating procedure is rigid, but the plan has been updated with partial but substantial changes It contains actions for its implementation that are well elaborated with different stakeholders there has been in the years a shift in its inspiring principles, from the protection of collective values to economic development (flexibility to political changes) , weakening the integrative function of space 	<ul style="list-style-type: none"> Good structural capacity of coordination in principle Deteriorated efficiency along the years, due to a weakening of planning in Flanders Predominance of sectoral approaches Difficulties in the cooperation with other Belgian regions due to a strong federalization of the State 	<ul style="list-style-type: none"> Good cooperation capacity with lower levels provided by a a top-down system regulated by law with a large participative capacity in the preparation of the plans No specific coordination with upper levels 	<ul style="list-style-type: none"> PPP widely used, in particular in urban design strategies. Shared vision with stakeholders Normal but also informal participatory processes 	<ul style="list-style-type: none"> Three types of monitoring and analysis: <ol style="list-style-type: none"> 1. impact analyses, in particular the ex-ante analyses, which are widely spread. 2. ‘Bookkeeping’ is an embryonic quantitative monitoring tool 3. Policy Centre, an interdisciplinary university cooperation with the task of monitoring structural spatial aspects.
Greater Dublin Area	<ul style="list-style-type: none"> Vision at national level, with a time frame of 20 years role as a key guidance tool for the allocation of EU funds open frame of reference on a negotiated bottom-up basis good consultation process that leads to a shared ownership about sub-visions GDA vision is a sub-vision of the national strategy and it is constituted by guidelines (RPG) with time frame of 12 years (partial updates every 6 years) Good flexibility and refreshment capacities about new challenges through a multi-scalar vision coherence local authorities have to provide based-evidence core strategy In the last years there has been a general shift toward economic development but also more environmental attention 	<ul style="list-style-type: none"> Key objective of the (National) spatial planning approach is to coordinate different sectors, and good capacity in mobilizing sectoral expertise There is a strong partnership ethos lead role in local authorities to mobilise and manage sectoral developments that are consistent with the broader NSS vision and regional sub-vision 	<ul style="list-style-type: none"> the regional planning system of RPGs was introduced to bridge the gap between the central and local government Planning and Development Act 2010 has strengthened the consistency and the integration between the three planning levels 	<ul style="list-style-type: none"> Participation in local government in Ireland have undergone change over recent years with the establishment of Strategic Policy Committees (SPCs) and County Development Boards (CDBs) no specific forms of participation in supra-local planning activities 	<ul style="list-style-type: none"> Ex-ante, ongoing and ex-post evaluation of NDP Annual assessment of RPG No specific monitoring tool for GDA However, there is a large inventory of indicators and ongoing research for the definition of a monitoring tool
Navarre	<ul style="list-style-type: none"> Vision capacity in the planning system, but implemented through sectoral plans. Some rigidity of the system impedes a quick answers to macro-challenges. However, due to the sectoral perspectives, it varies according to the challenge: e.g. good performances in renewable energy) Objectives and measures are defined through indicators in the ETN plan (but it has no binding role). Spatial plans have a different time frame, but no budget for the implementation, which is distributed on specific (and mostly sectoral) actions Participation processes are framed by legal procedures for consultation 	<ul style="list-style-type: none"> ETN is a good plan for fostering coordination However, the capacity is sensibly reduced by the strong sectoral approach Each macro-challenge and relative plans and measures present a different coordinative capacities 	<ul style="list-style-type: none"> Assumption of various directive from above (EU or Spain) Local awareness of the necessity of a multi-scale approach for macro-challenges In general, the relationships between administrative levels are regulated by hierarchical and administrative rules 	<ul style="list-style-type: none"> The participation of citizens is described by law and rules of consultation. Different intensity of involvement in the sectors: more in energy sector, less about climate change and demography) 	<ul style="list-style-type: none"> Different tools for the analysis (especially in sectoral areas), but not always implemented in the plan ETN: biannual evaluation, through data and interviews, with a separated body for the approval (Social Council of Territorial Policy).
North-Rhine Westphalia	<ul style="list-style-type: none"> State level is where requirements, principles and goals are drawn, while their implementations occur at regional and municipal level. The LEP is quite abstract. Therefore it provides regional planning with sufficient scope, allowing new possibilities to emerge on regional level targets are specified only through joint tasks of the Federal Government and the federal State (also as a reference for EU funds) The relative rigidity at State level is compensated with the flexibility of regional level, the interaction between formal and informal instruments (calls, etc.) define a flexible system 	<ul style="list-style-type: none"> Due to the department principle (every minister has the right to make decisions for his department) an overweight of sectoral planning towards the spatial planning has risen integration of state spatial planning into the state chancellery strengthens the coordination function of state spatial planning Role of principles as reference for coordination 	<ul style="list-style-type: none"> Mutual feedback principle: good reference strong need for coordination due to different political orientations between administrative levels EU: informal documents (ESDP, Europe 2020 etc.) not taken into consideration to any great extent; Directives, funds and incentives matter. 	<ul style="list-style-type: none"> Participation specified by statutory procedures for the drawing up of the plans Informal processes are growing and under consideration 	<ul style="list-style-type: none"> presence of monitoring instruments, but a lot of them are at regional or even lower levels (while indicators at State level are under discussion) Besides mainly natural-scientific topics on the state level, e.g. residential area monitoring on building land development at the regional level Problems of different criteria and standards, and cross-reference of data from other departments

Table 1: Comparative table - Resilience of spatial planning system

	Regional articulation of the challenge	Capacity of the policy bundle to address the challenge	Sectoral / integrated approach	EU role	Threats	Opportunities
Catalonia	<ul style="list-style-type: none"> Strong internationalised economy (3,500 manufacturing companies with a minimum of 50% foreign capital). Since the late nineties and until 2007 (outbreak of the financial crisis), strong economic growth. Afterword, decrease in GDP growth and high unemployment. Strong role of building sector in employment and GDP growth extensive impact of the building sector in the region after the bursting of the house price bubble. The economic crisis affected also the country's industrial base (e.g. relocation of multinationals and large-scale redundancies): Employment contraction: 33% in building sector and 22% in industry between 2008 and 2010. Important sub-sector: tourism (10% of GDP and employment) Territorial concentration of foreign investment in the Metropolitan Area of Barcelona 	<ul style="list-style-type: none"> The challenge of globalization is addressed in an explicit way with specific policy strategies developed by the Catalan Ministry of Enterprise and Labour and the Catalan Ministry of Economy and Knowledge, which also makes growth forecasts with short time horizon. Several policies and programs to help the internationalization, among which studies on industrial clusters and consequent policy measures, and <i>Territorial Innovation Plans</i> (since 2004). Main strategic document: <i>Strategic Agreement for Internationalisation, Quality of Employment and Competitiveness of the Catalan Economy</i> (2008) It has has seven seven objectives: innovation and knowledge, training and education, infrastructure, business competitiveness, economic activity and the environment, quality of employment, and social cohesion. The objectives and lines are well articulated , with the different lines of actions and goals to achieve, and related timeframe and budget. 	<ul style="list-style-type: none"> sectoral lead strategy, with a coherent approach and well divided tasks among different policies and programs since 2005 there has been an effort to unify the different initiatives in the single “umbrella” of the agency named ACCIÓ, specifically created with coordinative role. not clear whether the different departments cooperate or they simply implement their own measures, though. Possible synergy with climate change policies. there is a certain interest in including spatial and social dimensions involving responsible authorities. No evidence of integration / cooperation with upper levels in the implementation of this Strategic Agreement. There is, instead, a certain form of cooperation with lower levels 	<ul style="list-style-type: none"> the Catalan Government follows European Union directives and guidelines 	<ul style="list-style-type: none"> High concentration of economic activities in the metropolitan area of Barcelona and 'centralising' tendency of foreign companies that invest in Catalonia Limiting factors for internationalization: preponderance of road transport systems (saturated) and low use of railways Despite being a quality product, Catalan tourism has been developed for many years with quantitative before qualitative priorities. This model of tourism makes the sector vulnerable to other competitors' offers. advanced business services (financial services, data centres, business consulting and legal services) are not very internationalised, which could reduce their level of competitiveness. 	<ul style="list-style-type: none"> how to achieve territorial equilibrium between Barcelona and the rest of Catalonia. Spatial planning could help in this respect. The next revision of the General Territorial Plan of Catalonia is an opportunity for the inclusion of strategic factors: definition of spatial productive specialisation; location of activities and infrastructure; structuration of cooperation among neighbouring regions, especially about transport infrastructure; coordination other ministries, e.g. stronger relationship between territorial innovation plans and strategic plans.
Flanders	<ul style="list-style-type: none"> Economy based on the creation of added value Wage costs very high in Flanders (Belgium) Emergence of new types of companies not fancied to traditional activities and locations (business parks) Rise of the service economy (e.g. health, care) Professionalised real estate's decisions on locations are difficult to steer Private sector expropriates government tasks Stress on spaces of flows and location relative to international hubs Strong debate in Flanders of economic positioning within a globalised world Specific spatial planning challenges related to economic development: multi-functionality, specific sectors, etc. 	<ul style="list-style-type: none"> Pact 2020 Flemish strategy is also an economic strategy, focussing on creative and knowledge economy, unlocking entrepreneurial capacities, joint opportunities for prioritised categories Very strong scattering of competences between policy competences (even within economic sectors) Joint economical-spatial strategy not present for the moment Not all policy competences feel as involved with Pact 2020. A pleiade of strategies and accents, but no accordant budgeting. Forecast activities: yes, but methodologies are questioned within spatial planning and economic policy 	<ul style="list-style-type: none"> Fragmentation not only on Flemish government, but also on lower levels Competitiveness between cities Spatial planning convinced of the need of Flanders-encompassing scale levels 	<ul style="list-style-type: none"> Reaction on Europe 2020 with Pact 2020 and Vlaams Hervormingsprogramma 	<ul style="list-style-type: none"> Lack of sense of urgency, aggravated by the crisis and absence of a federal government. Lack of a joint policy of the different competences Scattering of budgets among a vast array of strategic objectives Dealing with the professionalisation of economic sectors and real estate developers 	<ul style="list-style-type: none"> Adopting a spatial economic policy which is less focused on providing hectares for economic developments but on innovative strategies (joint use) Adopting a spatial economic policy which stress a liveable environment as important asset Working out a joint strategy with economic sectors and cities, municipalities, etc. for the promotion of Flanders as an economic region

	Regional articulation of the challenge	Capacity of the policy bundle to address the challenge	Sectoral / integrated approach	EU role	Threats	Opportunities
Greater Dublin Area	<ul style="list-style-type: none"> Ernst & Young Globalisation Index 2010, ranks Ireland as the 2nd most globalised economy in the world By 90's, free-market and neoliberal principles and aggressively courted foreign direct investment (FDI) Intensive economic expansion in the 90's accompanied by low interest rates, expansion of the workforce, low unemployment rate, and growth in population (return migration, immigrants, and natural increase). Slowing growth process in the last decade. Now, deep effects of global crisis: burst of the Irish property bubble, and the vast overexposure of Irish banks to toxic property loans Strong repercussion on employment (among the higher unemployment rate in EU) GDA is in a relatively better position than the rest of Ireland 	<ul style="list-style-type: none"> All strategies are done at national level by different agencies, and independent advisory groups The key national strategy sets out an ambitious set of actions to reorganise the economy with an aim of building a 'Smart Economy' with a thriving enterprise sector, high quality employment, secure energy supplies, an attractive environment and first class infrastructure. At GDA level, there is no specific policy plan, although national strategies are implemented in the Regional guidelines. No forecasts available in relation to economic data Coherent approach, updated and aligned to visions. Strategic capacity but sectoral implementation 	<ul style="list-style-type: none"> The linking of the NSS and NDP in 2007 was a major step in introducing multi-level governance allied to multi-scale spatial planning. NNS represents a spatial framework for more integrated and sustainable settlement structure. Coherency with the policy objectives coming from the national and regional levels - the key focus being on improvements in cost competitiveness, infrastructure, innovation and skills. Implementation of objectives is the responsibility of a wide number of different stakeholders and government departments, many dependent on central funding streams through the NDP. Some tensions between the balanced development approach of NSS and the Competitive City approach of Dublin City Region. 	<ul style="list-style-type: none"> Globalisation vulnerability index of regions in Europe (EU regions 2020) ranked Ireland amongst the 10th least vulnerable in Europe. New proposals aligned with EU 2020 strategy, in particular smart growth targets. 	<ul style="list-style-type: none"> high levels of private debt and increasing levels of public debt a potential increase in the current 12.5 per cent corporate tax rate could affect FDI Growth of new global markets in developing regions two speed economy where the export economy is growing and the domestic economy is stagnant. Levels of unemployment, falling levels of labour force participation rates and increasing levels of out migration. On the one hand necessity to improve physical, educational and research infrastructure, on the other hand current fiscal cutbacks. 	<ul style="list-style-type: none"> GDA is better placed to take advantage of the globalised world than other regions in Ireland with specific advantages being critical mass (population, workforce), enterprise, communications and the education/skills base within the region. Strong internationally traded sector GDA currently has 424 FDI companies in the area, 54 per cent of all national FDI (which is 5 times greater than OECD average) Ireland's cost competitiveness has decreased in recent years. Ireland and in particular the GDA have a youngest population in Europe (35% under 25) and a young, educated and English speaking workforce at its disposal. move towards a more 'entrepreneurial' approach to governance rather than the traditional 'managerial' approach.
Navarre	<ul style="list-style-type: none"> According to the Regions 2020 Report of the European Union, Navarre is an exception to the high vulnerability index on globalization that characterizes the Mediterranean States. It is in a position of competitive advantage: perceived as a suitable territory for Foreign Investments, improving productivity, employment and education. Most significant territorial impacts of globalization are the relocation of industries and location of the most powerful economic sectors in specific areas, which may increase the problem of territorial imbalances. 	<ul style="list-style-type: none"> Globalization is dealt in particular by 2 recent planning documents, which are complementary: International Plan of Navarre (PIN, 2008) and the Moderna Plan (MP, 2010). Also other sectoral documents contribute to a coherent approach. PIN defines the internationalization strategy. It coordinates education, business internationalization, international alliances, capturing investments and participation in international projects and contracts. It is intended as a single document, a road map ensuring coherence and determining synergies. It has specific and quantifiable objectives (58 actions) with time-frames and specific indicators. MP defines the economic model for Navarre for the upcoming years and serves as an umbrella instrument for all the Plans of the Government of Navarre. Extensive participation processes, with citizens, stakeholders and experts. 	<ul style="list-style-type: none"> Coherent and coordinated processes. The functioning of the PIN includes a Council that meets annually to update the measures that were adopted according to the needs that are being suggested. Concerning PM, there are a 'Moderna Teams' for horizontal and vertical coordination: interdisciplinary working groups formed by stakeholders (public administration and policy area, private enterprise and social agents, educational system, universities and technological centers) and the Moderna Foundation. 	<ul style="list-style-type: none"> Various international (mainly European) Plans and rankings systems were used as model for the strategies, as well for the analysis of strengths and weaknesses in the international context. The comparison with other EU regions is monitored. MP was presented in Brussels to the European Commission and it follows the European Directive 2020 	<ul style="list-style-type: none"> Depopulation of rural areas and tensions on the territorial development model due to change of migration patterns. Globalization has a close relationship with the demographic challenge (depopulation of vulnerable areas and spatial tensions) alteration in the urban system (strength of the Metropolitan Area of Pamplona in contrast to other territories such as the Pyrenees). Concentration of the population could provoke the deterioration of the welfare system through the lack of facilities. Loss of competitiveness and companies and investments relocation. 	<ul style="list-style-type: none"> Well-positioning in the international ranking could lead to stronger attraction of investments Learning and mobility opportunity for the population. Adaptation and strengthening of the urban system, encouraging inter-regional cooperation and coordination between Navarre and neighboring regions. Take advantage of the "Fiestas de San Fermin" (Pamplona), well known all over the world, for the globalization and internationalization of Navarre as a brand.
North Rhine Westphalia	<ul style="list-style-type: none"> Impact made clear by the strongly export-oriented economy in NRW (number one in export sector in Germany) Importance of NRW as a transit region, intensive external relations, traffic levels in conurbation: as a consequence, high demands are made on transport infrastructure and organization 	<ul style="list-style-type: none"> Challenge is addressed directly in official documents and political discussion Creation of the so called 'environmental economic strategy': several objectives are being articulated, most of them concerning the maintenance and expansion of the position of NRW in the market of environmental technologies Cluster strategy: concentrating on lead markets; provide companies with optimum assistance: providing infrastructure, support mechanisms, available platforms for networking and cooperation Forecasts do exist; methodological, time and financial issues impede partly the use of monitoring systems 	<ul style="list-style-type: none"> Cross-sectoral handling of the challenges globalization, climate change and energy supply within the environmental economic strategy due to involvement of state government and different departments Implementation of different institutions: cluster environmental technology. NRW; NRW Efficiency Agency; elector-mobility master plan etc. Contextual linkage with other challenges (climate change, energy supply) Cross-sectoral nature of strategy 	<ul style="list-style-type: none"> Informal documents (ESDP, Europe 2020 etc.) are looked after, but have only minor influence on drawing up of planning objectives Incentive-oriented approaches (e.g. ERDF) do influence national policy to a far more significant extent Strong influence through EU Directives 	<ul style="list-style-type: none"> Shortage of skilled personnel due to changes in number and structure of labour force in NRW. It represents already an obstacle especially for small and medium-sized enterprises Further development of processing and manufacturing industry is viewed with concern Risks arise for the traffic situation resulting from increasing economic integration ('suffocating in a permanent traffic jam' in view of the forecasts for goods traffic) 	<ul style="list-style-type: none"> Frequent emphasis of opportunities Outsourcing and relocation processes are slowly coming to a halt Globalization as an opportunity insofar as a great deal of companies are now taking on international perspective. It could create jobs in the region On account of its favourable location regarding transport NRW has been able to benefit from globalization Benefits from cooperation with other important globalization players (close relations with the USA, Japan and China)

Table 2: Comparative table - Globalisation

	Regional articulation of the challenge	Capacity of the policy bundle to address the challenge	Sectoral / integrated approach	EU role	Threats	Opportunities
Catalonia	<ul style="list-style-type: none"> • Main demographic challenges: ageing population and the traditional dependence on immigration. • in recent years there has been a sharp decline in fertility • over-training of Catalan population, with failure of the indigenous population to meet the labour demand of low-training activities, and consequent need of immigrant working forces • needs for care services and facilities for elder population, which is in-homogeneously distributed (in particular low-density areas, with additional problem of accessibility) • Problem of integration for immigrants and risk of spatial segregation, albeit strong tradition in integration policies 	<ul style="list-style-type: none"> • Strong sectoral approach, with limited measures: • Reform of the pensions system by the Spanish Government. • Policies to stimulate the birth rate. • Several bodies report on the evolution of the main demographic variables and their possible effects, but no evidences about correlation with policies. • Extensive integrated policy framework about integration of immigrants (with involvement of local inhabitants and facilitating processes for the access to services and resources) • Plan for Citizenship and Immigration 2009-2012 develops a series of measures and programs to be undertaken by all Catalan Government departments. • The Plan defines annual sets of actions and related budgets articulated in three main lines: a) Management of migratory flows and access to labour market ; b) Adaptation of public services to a diverse society; Integration in a shared public culture. 	<ul style="list-style-type: none"> • The approach is very sectoral. Policies are defined by the department of Social Welfare and Family. • The approach to immigration is better integrated (from social to employment or legal-related policies) • Plan for Citizenship and Immigration 2009-2012 specifies the responsible departments for each project and the cooperation with other public institutes and administrations. • Municipalities are crucial: they have responsibilities in service supply (elderly and immigrants) and integration strategies. • Municipalities are represented in the Citizenship and Immigration Board (organ for consultation and participation in migration management policies) 	<ul style="list-style-type: none"> • No evidence of use of supra-regional forecasting analysis regarding population or other demographic variables. 	<ul style="list-style-type: none"> • Increasing difficulty in capacity of integration. • traditionally, the arrival of each new migrant group has allowed the upward mobility of previous one. Now, people coming from Eastern Europe and from South America tends to achieve better jobs and life conditions than Moroccans and Africans, who constituted the previous wave of immigration, which are still the largest group of foreigners in Catalonia (presence of a "glass ceiling"). • budget restrictions may affect service supply and integration policies. • new presence of a xenophobe party in some municipalities and effects on integration policies. 	<ul style="list-style-type: none"> • increasing integration capacity through spatial planning • new forms of tackling social and spatial segregation and facilitate creation of urban environments accessible for elderly.
Flanders	<ul style="list-style-type: none"> • No problem of population decline (with exception of some municipalities and cities) • Continuing ageing process • External migration firstly focussed on big cities, subsequently suburbanizing • Growing trends of households, and in particular the amount of single households will increase considerably • Retirement migration to the coast, but also migration wave of 40-60 y.o. • Continuing demand for housing, but with a smaller average plot size • Persisting trend of suburbanization • Need for care facilities for the elderly and education needs in big cities (e.g. Antwerp), based upon population forecasts • Hypothesis of a “greening “ process in Flanders 	<ul style="list-style-type: none"> • All policy competences make use of population forecasts in the implementation of policy (housing, transport policy, health and well-being, etc.) • No overarching plan dealing with demography • Synthesis has to be effectuated in more spatial government competencies such as spatial planning, urban policy,...) • Coherence should be discussed in the VIA breakthrough “Vlaanderen Groen Stedengewest” • Many initiatives and discussions between policy competences • No clear dominant policy competence; Studiedienst Vlaamse Regering discusses with policy competences about the policy implications of new forecasts. 	<ul style="list-style-type: none"> • Spatial planning gives directions to lower subsidiary levels on the implementation quota of housing in urban / rural areas • Provincial levels implement these quota and translates them into municipal quota • Grond- en Pandendecreet sets out instruments for local housing policy (eg related to social housing, affordability, average house size,...) • Similar methodology is used for rest houses and elderly care 	<ul style="list-style-type: none"> • None (only indirect strategies such as poverty reduction, employment, quality of life, etc.) 	<ul style="list-style-type: none"> • Underestimation of migration flows and spatial consequences • Lack of schools in urban regions and of care provisions for the elderly in specific regions (e.g. coast) • Certain municipalities experience limits of possible population growth • Residential segregation problematic and problems of integration as a whole • Focus on a business as usual scenario and lack of vision for spatial development of the settlement system • Lack of urgency in certain policy fields (e.g. education) and absence of coordination 	<ul style="list-style-type: none"> • Migration as an extra workforce • Finding opportunities of joint use of buildings (combination of care, education,...) • Positive impulse of private initiatives for housing-care-provisions complexes, which also serve the neighboring population • VIA as an encompassing strategy and BRV for the implementation of the Flemish settlement system

	Regional articulation of the challenge	Capacity of the policy bundle to address the challenge	Sectoral / integrated approach	EU role	Threats	Opportunities
Greater Dublin Area	<ul style="list-style-type: none"> Demographic patterns in Ireland have recently changed: migration levels switched from net migration to increasing levels of emigration. Ireland is currently estimated to have the highest birth rate in Europe trends of dispersion of settlements and peri-urban growth, in particular during the growth patterns and the Celtic Tiger property “boom” period Problems of service delivery to improve the quality of life of extra-metropolitan settlements needs of increased investment for education facilities GDA has become a more ethnically diverse region with challenges for service delivery, education and integration. 	<ul style="list-style-type: none"> All strategies and forecasting activities (by agencies and research groups) are done at national level. At GDA level, Settlement strategy to implement National guidance. Delivery of services is addressed through regional strategic recommendations. Coherent approach, updated and aligned to visions. Housing growth and development is primarily market driven and the current targets set out within the RPGs have been based on ‘boom-time’ growth rates On the one hand, the increasing population and housing is properly directed by NSS (consolidation of metropolitan areas, reduction of long-commuting distances, etc); on the other hand, population growth patterns through the Celtic Tiger property “boom” period went on opposite direction. Contradiction between national strategy (consolidation of urban settlements) and rural guidelines (dwelling permissions for rural population) there is no specific monitoring system in GDA. However, the RPGs have outlined a number of key indicators that can be used to measure the successful implementation of population and housing targets 	<ul style="list-style-type: none"> The key new objective to ensure that the guidance outlined at regional level is adhered to at the Local Authority level is through the “Core Strategy” requirement. The requirement for upgrading key regional physical infrastructure is seen as a potential problem in delivering proposed population and housing growth in alignment with the RPG strategy. Local Authority spatial strategies are predicated on the delivery of infrastructure, particularly water and waste water treatment. Critical infrastructure is required to ensure that growth can take place in the appropriate locations, if this is not delivered, and the demand for housing is there, then growth may be diverted to hinterland areas counter to the recommendations within the RPGs. 	<ul style="list-style-type: none"> ESPON DEMIFER project indicated GDA as ‘Young potential regions’. Using DEMIFER methodology, a follow on study has sub-divided Ireland into six distinct demographic profiles, in which GDA appears as affected by aging population in the core urban areas (Dublin city) and peri-urban rapid growth. 	<ul style="list-style-type: none"> Lack of key infrastructural investment in priority locations can counter-affect RPGs and NNS. Limited fiscal autonomy of Local Authorities Ageing suburbs in some parts of the GDA and drop off in services – schools, buses, etc Need for the provision of adequate community facilities in areas of recent population growth. High level of housing vacancy and Unfinished Estates in parts of the GDA Increasing level of emigration forecast as a result of economic crisis and high level of unemployment 	<ul style="list-style-type: none"> Current situation offers a clear moment to rethink and reform the system and reformulate spatial planning objectives and targets with a more realistic and sustainable future vision Current moment requires evidence-informed spatial planning more than ever. Increased levels of vertical and horizontal integration Slow down in housing development and drop in land prices can provide an opportunity to plan for and develop better community services Competitive advantages in terms of economic development and international competitiveness in the future due to the demographic profile
Navarre	<ul style="list-style-type: none"> Main challenges: immigration and ageing population. Reduction of birth rates and increasing of life expectancy. Excessive concentration of population in urban areas and depopulation of rural areas. Birth rate has increased due to immigration from 8,47 to 10,80 (2001-10). Net migration has increased from 1.294 to 6.257 (2003-04). However, there is current decrease due to the economic crisis. Allocation of more public resources to health care, education and social services due to arrival of immigration. Forecasts indicate Pamplona as a growing area, while other areas (Pyrenees, Atlantic and Middle area) are under ageing and depopulation risk. 	<ul style="list-style-type: none"> A general perspective on the challenge in planning documents is missing. Presence of forecasting studies although they are not taken in consideration in planning strategies and there is no debate about this relationship. Various documents mention the challenge (ETN, POT, Strategic Development Plan of Pyrenees, etc.) but they do not go beyond the analysis and diagnosis of the situation. Broad debates on specific consequences (e.g. lack of resources for pensions), but no integrated perspective. Sectoral problems are predominant. The ETN defines the demographic development model for Navarre, but does not define specific actions to implement it. it defines monitoring indicators that evaluate the situation of the region in this area; however, these are not capable of evaluating the evolution of the results obtained by specific actions. At municipal level superficial demographic analyses are conducted and the objectives to achieve are not matching with the real measures, with social consequences, e.g. risks of ghetto's of immigrants. 	<ul style="list-style-type: none"> Division of competences between various departments. Despite being coherent with each other and with the plans, most of the policies have a sectoral nature. However, measures aiming at territorial and population balance do not work properly in a convulsive economic context. 	<ul style="list-style-type: none"> No evidence of use of supra-regional forecasting analysis regarding population or other demographic variables. 	<ul style="list-style-type: none"> Risks related to immigration and ageing population: Ageing population implies difficulties in service delivery to the elderly, besides lacks of working population able to support pension system. Abandon of the rural areas, disappearing of traditional works, traditions, and cultures, change of pasture and agricultural landscapes. Increased immigrant population could create tensions concerning integration and education. Territorial imbalances, lack of infrastructures and mismatches in the labour market could cause changes in urban system and territorial cohesion. 	<ul style="list-style-type: none"> Take advantage of the knowledge on demographic patterns by addressing integrated territorial policies. Increased fertility due to immigrant population can avoid negative natural growth. Immigrant population could facilitate the dissemination of Navarre abroad, becoming a bridge to external markets, in both investments and human capital. Ageing population could lead to a better use of the “senior” human capital, mitigating the decrease of productive capacity of the region.

	Regional articulation of the challenge	Capacity of the policy bundle to address the challenge	Sectoral / integrated approach	EU role	Threats	Opportunities
North Rhine Westphalia	<ul style="list-style-type: none"> By 2050 total population will decrease from almost 18 million to 15.9 million (population decline of 11.5%) Population structure, age pyramid and number and structure of households will also change But: very heterogeneous structure in NRW; shrinking and still growing municipalities can be found in direct vicinity Different topics of demographic change represent a central element in state spatial planning 	<ul style="list-style-type: none"> Topic is addressed in a number of official documents, but is only dealt with intensively in the specially designated documents Existence of numerous population projections and foreseen activities that will be incorporated into further planning . Existing monitoring systems on all administrative levels (e.g. residential area monitoring, residential market monitoring, permanent evaluation system of the program 'social city', etc. Number of goals and intentions are put forward and explained in the documents, but worded in quite vague terms Measures are being formulated, degree of definition of which differs very considerably in parts Very concrete articulation of objectives for area protection (lower land consumption to five hectares per day in NRW by the year 2020) only in a few cases 	<ul style="list-style-type: none"> Demographic issues are attended in documents and political discussions of different departments and the state government Cooperation especially in the area of skilled labour requirements: to counter emerging shortage of skilled personnel, an overall cross-departmental concept is planned Special program is being considered with the cooperation of municipalities, regions, companies and trade associations as well as the Ministry of Labour, Integration and Social Affairs (MAIS) 'area alliance' introduced by the Ministry of the Environment: interdisciplinary approach by political, social, economic and private forces to tackle the problem of land consumption 	<ul style="list-style-type: none"> Informal documents (ESDP, Europe 2020 etc.) are looked after, but have only minor influence on drawing up of planning objectives 	<ul style="list-style-type: none"> Declining population development involves dangers relating to the provision of basic services for the population, as well as for local supply and housing function Demands on social infrastructure facilities are changing, hospital planning has to be adjusted due to rising number of older people Danger exists in high level of land consumption 	<ul style="list-style-type: none"> High proportion of people with a migratory background perceived as being a particularly good opportunity for economic development Shrinking gaps caused by clearance measures being used to create urban open spaces: the creation of cold air corridors

Table 3: Comparative table - Demography

	Regional articulation of the challenge	Capacity of the policy bundle to address the challenge	Sectoral / integrated approach	EU role	Threats	Opportunities
Catalonia	<ul style="list-style-type: none"> • Increment in temperature and altered rainfall patterns. • Effects will concern: <ul style="list-style-type: none"> • physical structure of the territory (soil erosion for river and the sea coasts, deterioration of beaches, regression of deltas); • natural areas with changes in flora and fauna; • agricultural activity (threats to traditional crops such as vineyards and fruit); • tourism economy; and water supply 	<ul style="list-style-type: none"> • Explicit attention to the issues through detailed and comprehensive analyses and reports, with forecasting scenarios • formation of 2 institutions to tackle climate change: Catalan Office for Climate Change, which provides technical support to the Interdepartmental Commission on Climate Change, in charge of coordinating Catalan actions. • coherent and coordinated strategy in respect of Kyoto Protocol (reduction in emissions in diffuse sectors; emission trading, action for mitigation) but not on spatial planning issues • The financial plan is general and leaves to each department the responsibility for the implementation according to its budget • the new government has mentioned in its Plan the intention to create a new plan for mitigation of emissions for the 2013-2020 	<ul style="list-style-type: none"> • Predominance of sectoral competences. • The Interdepartmental Commission on Climate Change guarantees horizontal coordination: chaired by the Regional Minister of Environment, it has one representative for each governmental department (health, education, public works, etc). • Uncertainty on its future after the new Government. • Cooperation and mutual influences with the energy Plan. • Vertical coordination with lower territorial levels (provinces and municipality) on a voluntary base: important initiatives to tackle climatic change challenges. 	<ul style="list-style-type: none"> • Adaptation to Kyoto Protocol and signed agreement with EU institutions • Use of examples from other EU countries to define Voluntary Agreements Program with entities and institutions that want to reduce greenhouse gas emissions. • There is a national commitment to Kyoto Protocol but no division among Spanish regions. Efforts in this sense are entirely voluntary. 	<ul style="list-style-type: none"> • strict budgetary adjustment that the new Catalan Government has implemented for the 2011-12. It will probably affect some of the ongoing policies and programmes. • lack of capacity of the spatial planning system to actually develop measures in the field of adaptation to climate change. 	<ul style="list-style-type: none"> • closer cooperation with the Catalan Energy Institute in order the implementation of the actions and measures • Ongoing policies to reduce energy consumption and thus emissions.
Flanders	<ul style="list-style-type: none"> • Notable temperature rise in Flanders during the last decades • Flanders: rise in sea level and possible inundations • Wallonia: risk of drought and diminution of biodiversity • Level of green house gases need to be decreased, but some related sectors are difficult to steer (e.g. International traffic: Flanders is a logistics and transit region) • Use of forecasts (on short and long term) 	<ul style="list-style-type: none"> • Explicit attention in Pact 2020 (general Flemish development strategy) for European 2020 goals • Explicit attention in two separate (but mutually cooperating) Policy plans: Klimaatbeleidsplan (mitigation – a cyclical plan) and Vlaams Adaptatieplan (first due 2012). Also federal attention. • Coherent and coordinated strategy and support to other policy areas with forecasts, research and instruments to implement climate strategy in their respective domains. • For some problems (e.g. flooding risks) reference is made to spatial planning, • Spatial planning intends to implement the theme in the “Beleidsplan Ruimte Vlaanderen” (BRV, 2014) under elaboration. 	<ul style="list-style-type: none"> • Coordination by the department of LNE (environmental issues and energy), but policy choices are made by the sectoral competences • Long term strategy (also attention for European Roadmaps 2050), but short term implantation (legislatures) • Cooperation with the energy plan, but this could be improved • Cooperation between mitigation and adaptation plan, but use of a different methodology and course. • Mitigation initiatives mostly top down, adaptation initiatives bottom up 	<ul style="list-style-type: none"> • Signed agreement with EU institutions and within the Flemish government • Following of European methodologies for monitoring and calculations of (reduction in) greenhouse gas emissions • Following-up of Road Map 2050 policies 	<ul style="list-style-type: none"> • Loss of biodiversity • Flooding caused by extraordinary weather conditions and sea level rise • Consequences of dispersed spatial structure • Mitigation: difficulty to deal with external forces, which are outside of policy competences (e.g. transit traffic), and lack of power of coordinating policy competence to impose onto other policy levels. • Adaptation: lack of sense of urgency in upper policy levels – problematic of housing in flooded areas. • Tensions between need of long term planning and short term political agenda 	<ul style="list-style-type: none"> • Better climatic conditions favor tourism • Joining forces between adaptation and mitigation policy, in order to anchor the climate challenge firmly in the political agenda • Closer cooperation between climate policy and energy policy. • Enthusiasm of stakeholders to tackle the challenge from bottom-up
Greatest Dublin Area	<ul style="list-style-type: none"> • Level of greenhouse gases are rising, together with the temperature records. • The emission profile has changed, with contribution from transport more than doubling in the last 2 decades • Prediction of changing of rainfall patterns and rising of sea levels, with impact in agriculture and ecosystems and inland/coastal flooding and erosion. • Weak water supply system. • Need to decoupling economic growth from emissions of GHGs 	<ul style="list-style-type: none"> • All strategies and forecasting activities (by agencies and research groups) are done at national level. • At GDA level, there is no specific approach, although national strategies are implemented in the Regional guidelines. • Coherent approach, updated and aligned to visions. • Strategic capacity and implementation through cross-sectoral policies. • Lack of any legal enforcement in the recommendations and strategic guidelines, though (less emphasis on developing adaptation measures) • National Climate Change Strategy and regional implementations have been widely discussed and shared with stakeholders. • In the Regional guidelines, a list of potential indicators for monitoring the implementation is present. • No prioritization of acts or measures. 	<ul style="list-style-type: none"> • The linking of the NSS and NDP in 2007 was a major step in introducing multi-level governance allied to multi-scale spatial planning. • Climate changes is dealt through several sectoral competences: energy, transport, residential, industry, agriculture, waste, and public sector. • Horizontal coordination between the DECLG (responsible for the National Climate Change Strategy) and other government departments (e.g. Transport, Energy and Agriculture). • There is an Inter-Departmental Committee on Climate Change comprising the above mentioned key sectors (unclear the sucessfulness of this relationship). 	<ul style="list-style-type: none"> • European Commission report (Regions 2020) and its index of climate change vulnerability ranked Irish regions amongst the lowest 5 per cent vulnerable to climate change. • Series of strategies have been developed to deal with international and EU mitigation targets, through guidance and policies for all relevant sectors (energy, transport, residential, agriculture). 	<ul style="list-style-type: none"> • More intense storms and rainfall events will lead to increased likelihood and magnitude of flooding of rivers and coastal areas. • Drier summers in the East will result in water shortages and a need for irrigation of crops. • Adaptation measures are required to combat such water resource management threats • Future threats for agriculture will primarily come from wetter winters and drier summer soils, and increased temperatures • significant threat to the water supply 	<ul style="list-style-type: none"> • Potentialities for agriculture (different crops), while farmers could adjust management and pasture practices • Opportunity for different tourism patterns • Changes in residential sectors and heating systems • Stronger evidences for a more consolidated and sustainable pattern of growth, with reduction of long distance commuting, emissions and imported energy, and increasing energy efficiencies. • Possible introduction of clear leadership and commitment to climate change at Government level • Introduction of a proposed Climate Change Bill

	Regional articulation of the challenge	Capacity of the policy bundle to address the challenge	Sectoral / integrated approach	EU role	Threats	Opportunities
Navarre	<ul style="list-style-type: none"> Changes in temperature and rain parameters producing already now perceptible impacts in biological and physical systems. Adverse climatic phenomena, such as floods, fires and higher temperatures lead to changes concerning agricultural quality and productivity. Despite all those facts, climatic change is not by now an important issue for society Foreseen impacts are the increase of temperatures and changes in frequency and intensity of rains, and less availability of hydrological resources. 	<ul style="list-style-type: none"> No concerns about climate change in spatial planning strategies. Documents: the Strategy against Climatic Change and the Action Plan for the Climate. Lack of awareness on the issue in Government of Navarre's Departments and in the society While Territorial Strategy of Navarre includes a 20 years view time-horizon (2005-2025), Strategy for climatic change involves a 10 years view. Strategy based on numerous research studies The objectives are articulated in 124 actions and 11 areas of activity, each measure counting on its own budget and monitoring indicators. Necessity to tackle climate change as a priority challenge, in order to define a general policy framework., with vision on the specific objectives to achieve. At the same time, the introduction of the climate change problems in the Spatial Planning instruments is required. Despite the general criticism on the (lack) effectiveness of the measures, there are also successful cases (Canal of Navarre for irrigation or the renewable energy policies) 	<ul style="list-style-type: none"> Efficiency and effectiveness of policy bundles are affected by lack of consensus and cooperation. Lack of scientific methodology of risk assessment and use of the climate change studies The approach is rather sectoral. However, the Regional Strategy developed interesting cooperation among sectors. 	<ul style="list-style-type: none"> The Territorial Strategy of Navarre tries to apply the criteria of the European Territorial Strategy concerning climatic change (more mitigation than adaptation). 	<ul style="list-style-type: none"> Vulnerability of the natural heritage. Greenhouse effects: droughts, floods, fires risks,. Moreover, tensions between rural and urban systems. Problems in crops due to the loss of soil fertility and the increase of pests and diseases. Increase of risk of diseases on human health Increase of the water demand, contextual to a lower availability of hydrological resources. Possible migrations from the most vulnerable areas, leading to a loss of competitiveness and cohesion. 	<ul style="list-style-type: none"> Opportunities in existing areas of excellence: savings and efficient energy, sustainable tourism, renewable energy, waste management, efficient housing.
North Rhine Westphalia	<ul style="list-style-type: none"> Corresponding to approx. one third (317 m. tons of CO₂ equivalents/2005) of entire emissions in Germany, NRW has strong involvement in climate change Spatial effects already noticeable (change in temperature extremes) Foreseen evolution: rising temperatures, longer-term decline in number of days of ice and frost, more extreme weather events with precipitation, increased frequency of hurricanes. However, there are/will be regional differences Increasing importance of cold air corridors and 'green lungs' as well as regional networked open-space development extensive use of climate predictions and projections; incorporation into further planning 	<ul style="list-style-type: none"> Climate policy can be divided into two parts: protection and adaption Concrete objectives; e.g. CO₂ emissions of NRW to be reduced by at least 25% of 1990 levels by 2020 to support attaining of national climate protection targets Implementation through various measures: e.g. adaption strategy Central element of future climate policy will be the planned climate protection law Existing small-scale climate projections; climate impact monitoring system is planned; monitoring systems on state and lower administrative levels; numerous scientific studies in cooperation with university institutes: broad database on climate change 	<ul style="list-style-type: none"> Integrated approach within the environmental economic strategy: Cooperation with other departments; Contextual linkage with other challenges (globalization; energy supply) Cross-departmental climate protection plan is to be drafted in 2011 Cross-departmental climate impact strategy shall be implemented 	<ul style="list-style-type: none"> Climate policy follows international discussion on synergies and interactions between adaption and mitigation strategy Strong influence through EU Directives (e.g. Water Framework Directive) Strong influence of the European Energy policy (mainly in the area of reducing the EU's contribution to global warming) Indicators of the planned climate impact monitoring follows the European Environmental Agency 	<ul style="list-style-type: none"> Serious impact on biological diversity, on composition of symbiotic communities and propagation areas of species Effects on people due to medium to very high increase in susceptibility to heat – especially in densely populated areas From economic perspective: dangers for areas of water management (flood protection, sewage disposal and drinking water supplies), forestry sector and winter sport tourism 	<ul style="list-style-type: none"> compared to other European regions consequences can be classified more as moderate Effects on agriculture can be seen as being more positive; warmer temperatures and resulting lengthening of vegetation period will lead more to higher yields. However, it depends strongly on soil properties and water supply. Strong differences between sub-parts of NRW

Table 4: Comparative table - Climate change

	Regional articulation of the challenge	Capacity of the policy bundle to address the challenge	Sectoral / integrated approach	EU role	Threats	Opportunities
Catalonia	<ul style="list-style-type: none"> Excessive dependence on fossil fuels, oil and gas. Total consumption of energy from renewable sources is 3.8% and the remaining 96.2% came from non-renewable sources (fossil fuels and nuclear power, particularly diesel fuel (31%) and imported electricity). The use of solar energy is very low. Consuming sectors: transport (40%), industry (31.6%) Due to historical reasons, production sites are in the south (region of Tarragona), while most of the demand comes from Ben Region. Increasing demand of energy, but not increasing internal production (¾ parts from nuclear energy). Thus, strong dependence from external sources 	<ul style="list-style-type: none"> The lack of comprehensive planning in the energy sector in Catalonia has a long history. presence of a multitude of suppliers with different interests and areas of activity, no obligation toward spatial planning activities, but only toward sectoral provisions and requirements. Lack of coordination and efficiency in production, transport and distribution, with inability to anticipate future needs. Sectoral elaboration of a comprehensive energy plan for the period 2006-2015 Interesting forecasting exercise, with 6 scenario with GDP and population as variables, and participation of different experts. It is a tool for policy measures. Focus of the plan on moderating the energy consumption, the promotion of renewable energy, and the reduction of combustion fuels. Top-down approach, and doubts on the sharing capacity of the strategy with other stakeholders. 	<ul style="list-style-type: none"> Sectoral competences. Institute for dealing with energy issues, the ICAEN (Institut Català de l'Energia), has drawn the Comprehensive Energy Plan. The collaboration of other government Departments is needed for the implementation of specific measures (Dept. Environment and Housing - for soil contamination - and Catalan Office for Climatic Change). The recent changes in the government structure, with the unification of the Departments of Public Works, Environment and Housing in a single one Department might facilitate the cooperation. No specific cooperation with lower levels, but some of the measures regarding climate change challenge may be related to energy topic. 	<ul style="list-style-type: none"> regulations of the energy sector are determined, firstly, by EU sectoral directives and secondly, by Spanish law (regulating the electricity sector and hydrocarbons). 	<ul style="list-style-type: none"> about electricity: few foreign network connections, because of a lack of physical infrastructure and interest in maintaining a level of protectionism. However, renewable energy, with necessarily greater oscillations in production, requires a greater level of interconnectivity to compensate them. about fossil fuels: great dependence on foreign supply the strong dependence from external sources demands more infrastructures for transportation, with a greater environmental impact. Strong opposition from environmentalists and local groups about localizations of infrastructures 	<ul style="list-style-type: none"> Greater integration of energy sector planning in regional plans would make possible the integration of the three main stages of the energy process (generation, transportation and distribution) in a wider perspective. Synergies with Climate change issues Strong possibility to use solar energy and other forms of renewable energy.
Flanders	<ul style="list-style-type: none"> Big dependence on fossil fuels Limited potential for renewable energy : off shore energy could be an alternative, but federal matter Problem of affordability of energy for households and companies Additional energy use caused by inefficient spatial structure Big share of energy use and emission caused by transit traffic, which makes it difficult to formulate concrete measures uses of forecasts in establishing trends. 	<ul style="list-style-type: none"> Explicit attention in Pact 2020 (general Flemish development strategy) for European 2020 goals Explicit attention in two separate Policy plans: energy efficiency plan (Flemish) and plan renewable energy (only federal) sectoral responsibility: minister of Energy and VEA (Vlaams Energie-agentschap), with some discrepancies in vision between Flemish and federal government Sectoral policy competences are formulating policy measures to reduce energy use and simulate green energy (e.g. housing, mobility, agriculture,...) Lack of clear policy statement related to nuclear energy (Federal competences) Spatial planning plans try to tackle settlement systems constellations in relationship to their energy use. Lack of consensus regarding necessary and most urgent policy measures 	<ul style="list-style-type: none"> Sectoral competences, coordinated on Flemish level and with federal level Federal and regional integrated approach is very necessary (some energy competences are federal), but lacking, due to national political problems in Belgium Cooperation with spatial planning not elaborated 	<ul style="list-style-type: none"> Signed agreement with EU institutions and within the Flemish government. EU methods for monitoring and calculations Following-up of Road Map 2050 policies EU level is setting up policies for emissions trading (not by Flemish government) 	<ul style="list-style-type: none"> Flanders does not have enough space nor the climate for a large scale development of renewable energy resources (wind, biomass, solar energy) Inability to deal with consequences of dispersed spatial structure (inheritance from the past) difficulty to deal with external forces, which are outside of sectoral policy competences (e.g. transit traffic) energy affordability as an extra problem and effects of policy measures regarding renewable energy on the energy bill 	<ul style="list-style-type: none"> Off shore wind energy an co-generation Improving the power grid in order to make better use of existing renewable Striking a balance between renewable and non-renewable energy resources Cooperation between energy and climate planning could be improved
Greatest Dublin Area	<ul style="list-style-type: none"> Small energy market, peripherality and dependence on imported fuel resources (90% against 55 EU average). Energy usage and supply trends increased by some 70% over the last 2 decades in every sector of the economy Used energy: 95% of Fossil fuels, 5% of peat, renewable sources, and imported electricity Evident link between decreasing energy use and the current economic downturn 	<ul style="list-style-type: none"> All strategies and forecasting activities (by agencies and research groups) are done at national level. investment programmes on strategic energy infrastructure, sustainable energy and state energy companies are outlined by the main strategic documents (e.g. National Renewable Energy Action Plan). At GDA level, there is no specific policy plan, although national strategies are implemented in the Regional guidelines. Energy is seen as a key planning and development challenge for the GDA Coherent approach, updated and aligned to visions. Strategic capacity but sectoral implementation National budget for the implementation of the plan. No monitoring system 	<ul style="list-style-type: none"> The linking of the NSS and NDP in 2007 was a major step in introducing multi-level governance allied to multi-scale spatial planning. horizontal coordination between the DECNR (responsible for the main national policies on energy efficiency and use of renewable sources) and a number of other government departments such as Environment, Transport, Housing and Agriculture Priority to different sectoral competencies. NNS represents a spatial framework for more integrated and sustainable settlement structure. 	<ul style="list-style-type: none"> In the EU Regions 2020 Report both of Ireland's regions are ranked in the top 10 most vulnerable regions in EU (energy import dependence and consumption) strategies and measures are aware and consistent with EU energy policy 	<ul style="list-style-type: none"> Extreme vulnerability due to imported fuel resources the proposed single European electricity market in 2014 poses difficulties for adaptation costs. Increasing demand for energy Highest demand for energy in GDA but lack of renewable generation potential Continuation of a dispersed and unconsolidated pattern of population and housing growth Existing energy infrastructure is at risk from climate change because mainly located on the coast. 	<ul style="list-style-type: none"> renewable energy Directive target (16 per cent by 2020) is a clear opportunity in reducing Ireland security supply issues. Ireland (to a lesser extent the GDA) is relatively rich in wind, wave and tidal resources. At the GDA level all Local Authorities have now produced Wind Energy Strategies Possibility in updating and enforcing mandatory regulations in relation to the building sector. Promotion of sustainable settlements and fight against dispersion and urban sprawl.

Navarre	<ul style="list-style-type: none"> • Different characteristics than the rest of Europe and Spain due to the early investments on renewable energy measures. • Pioneer since 90's: nowadays more than 80% of the electrical energy comes from renewable energy. (above Spanish and EU average). • First development of mini-hydraulic plants and wind farms in 1994 • It has a supply level of only 13%, (mostly oil and natural gas). • Nowadays, energy consumption is higher than the production, with risks for growing strategies. 	<ul style="list-style-type: none"> • Sectoral planning instruments (energy plans) since several years (first Plan in 1996). • Actual energetic plans with a 20 years perspective. • Forecasts taken into account for the design of the measures, as well as the analysis of good practices in other countries and regions. • Creation in 1989 of EHN, company aimed at explore renewable energies. • Actual plan: the Energy Plan II of Navarre Horizon 2020: general objective is to maximize the contribution of the production, transformation and energy consumption for the sustainability in their social, economic and environmental aspects. • The long term tradition has shown efficiency and effectiveness capacities. • However, it would be more efficient the activation of synergies between Energy Plans and territorial planning, to ensure compatibility of energy planning with sustainable development. 	<ul style="list-style-type: none"> • The Energy Plans are cross-sectoral plans and promote coherence between the different documents, strategies and policies. • However, some possible contradictions arise in terms of territorial policy, e.g. the relationship between sustainable aim and some promoted spatial configurations that may increase the energy consumption. • Successful involvement of renewable-energy firms in the construction and maintenance of electrical installations, in the research, development and export of renewable technologies and the management of production facilities abroad. 	<ul style="list-style-type: none"> • Policies at European level, such as the European Directive 2020, are not an issue, since its accomplishment has been already reached. 	<ul style="list-style-type: none"> • Lack of territorial planning, and coordinated policies, e.g. with public transport and the implementation of public transports. • Continuous efforts and investments in the implementation of its leading position in the Energy sector. • Environmental and landscape impact of the energy sector could raise the need of reconsider the integration of infrastructures and networks in the environment. 	<ul style="list-style-type: none"> • Implantation of political and business leadership concerning energy sector, creating specialised enterprises. • Government is promoting the creation of renewable energy clusters to improve position as a global benchmark of renewable energy, to encourage collaboration among enterprises, to create employment and to increase competitiveness. • Energy challenge could improve the internal cohesion of the territory, being among the dynamic factors of new rural dimension of the region. • Construction of new more energy-efficient areas, e.g. the Ecocity of Sarriuren or the industrial park in Venta de Judas.
North Rhine Westphalia	<ul style="list-style-type: none"> • Highest emissions result from use of fossil fuels in energy sector • 90% of energy generation originates from fossil energy sources (one of the highest proportions in Germany); 10% from renewable energies • Final report published by German 'Ethics Committee on a safe and secure energy supply' at the end of May 2011 recommends abandonment of nuclear energy by 2020 (nuclear power stations in NRW were shut down more than ten years ago). Imminent abandonment also influences energy policy in NRW: push ahead with renewable energies • Coal-mining is to be supported by 2018 	<ul style="list-style-type: none"> • Topic is discussed widely on all administrative levels • Aim to make NRW one of the pioneering region for use of renewable energies • Very concrete objectives concerning future energy supply (e.g. increase of wind energy share of electricity supply (3%) up to 15% by 2020; reduction of electricity consumption by 20% by 2020) • Implementation of the Energie-Agentur. NRW as a state service provider for energy questions; area of competence: research support, technical development, energy consultancy etc. • Manages the Cluster 'EnergieRegion.NRW' as well as the cluster energy research • Degree of detail of formulated measures differs widely 	<ul style="list-style-type: none"> • Integrated approach within the environmental economic strategy Cooperation between state government and different departments Contextual linkage with other challenges (globalization; climate change) • multi-level cooperation: <ul style="list-style-type: none"> • plans for an energy efficiency fund in cooperation with municipalities • priority areas for the use of wind energy in regional structure plans (cooperation with regional spatial planning authorities needed) 	<ul style="list-style-type: none"> • Strong influence of the European Energy policy (mainly in the area of reducing the EU's contribution to global warming) 	<ul style="list-style-type: none"> • Questions of acceptance of the local population should not be pushed to one side (particularly relevant for the designation of areas for wind energy which are often controversial not only due to optical aspects) – besides potential analyses, restrictive analyses should not be forgotten 	<ul style="list-style-type: none"> • Promotion and expansion of renewable energies – market for green technologies where NRW is well positioned • Renewable energies could serve as a new source of revenue on municipal level due to trade tax

Table 5: Comparative table - Energy

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