ESPON

TPM
Territorial Performance Monitoring
Annexes

Practices in stakeholder regions

Targeted Analysis 2013/02/13

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

The partnership behind the ESPON Programme consists of the EU Commission and the Member States of the EU27, plus Iceland, Liechtenstein, Norway and Switzerland. Each partner is represented in the ESPON Monitoring Committee.

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

Information on the ESPON Programme and projects can be found on www.espon.eu

The web site provides the possibility to download and examine the most recent documents produced by finalised and ongoing ESPON projects.

This basic report exists only in an electronic version.

List of authors

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 y Vivienda S.A. (NASUVINSA), Navarre, Spain: Marian García, Guillermo Álvarez

Institut de Gestion de l'Environnement et d'Aménagement du Territoire (IGEAT) – Université Libre de Bruxelles (ULB), Belgium: Moritz Lennert (compilation)

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1 Introduction

One of the aims of this project was the exchange of ideas and practices between regions in order to provide mutual inspiration in the search for solutions and responses to the four macro-challenges. It is difficult, or even impossible, to provide an evaluation or ranking of practices, and thus to decide which might be better than others. This is due both to the very diverse characteristics of regions and their political systems, but also to the fact that policy evaluation as such is a difficult endeavour since no control group is available allowing to test what would have happened without the policy.

We, therefore, decided to simply collect practices from our five stakeholder regions in order to give the reader the opportunity to discover different responses that have been or are being experimented elsewhere. For many examples web links or at least titles of documents are provided that should allow going further in understanding what was done.

The tables below list examples for three elements:

- indicators and indicator systems
- policies
- processes, notably the integration of monitoring into policy-making

As we have five regions, three elements and four macro-challenges, many different ways of organising this information exists. We estimated, however, that most readers would come from a thematic perspective and have, thus, decided to organise the information by macro-challenge. The same tables have also been provided to the ESPON Coordination Unit in the form of spreadsheets by regions.

2 Climate change

	Indicators	Policies	Processes (monitoring)
Greater Dublin Area	The Environmental Protection Agency (EPA) provide a very simple monitoring tool for climate change indicators. This is not available at a regional level and provides national level data only. As climate change policy is dealt with at a national level in Ireland it is seen to be suitable for national level monitoring. This details on this site can be viewed here: http://www.epa.ie/environmentinfocus/climatechange/ or a more detailed dashboard can be accessed here http://www.epa.ie/environmentinfocus/environmentalindicatorsdashboard/#d.en.29386	The policy response to climate change emission targets in Ireland has been primarily through the publication of the National Climate Change Strategy 2007-2012 (2007) . Coordination and implementation of this strategy is the responsibility of the Department of the Environment, Community and Local Government (DECLG).The strategy also provides support and some guidance on adaptation measures at the regional and local level and also outlines the requirement for the development of a National Adaptation Strategy, although this has yet to be published. Although the strategy has outlined a series of recommendations and actions it is seen by some climate change experts as being purely aspirational and is limited in its scope due to the lack of any legal enforcement. Increased liklihood of flooding is one of the main climate change challenges within Ireland and the GDA. The 2004 report by the Flood Policy Review Group outlined the need to devise a comprehensive approach to flooding nationally, following on from this report the DEHLG appointed the Office of Public Works (OPW) to implement flooding policy in Ireland. The OPW has developed, and is currently pilot testing, Catchment Flood Risk Assessment and Management Studies (CFRAM Studies) in a number of locations both nationally and within the GDA. Current works in the GDA include the FEM-FRAM (Fingal East Meath, and Dodder CFRAM studies. This work, which includes hydrological assessments that factor in	Annual monitoring reports (based on quantitative analysis) are now required by all regional authorities. These reports aim to measure the implementation of the objectives as set out within the Regional Planning Guidelines. The reports are policy linked and currently focus on population and housing (demographics), energy and communications, water, waste-water and transport. Results from these reports will be discussed and debated by the regional authority elected members, steering committee and the technical working group.It is also hoped that the tools developed through the ESPON TPM project will contribute to this debate and allow a more user friendly and interactive dissemination of the key indicators relating to all challenges and objectives.

	Indicators	Policies	Processes (monitoring)
		changes in the climate, aims to identify and map existing and future flood risk areas, build a strategic information base required for accurate flood risk management and identify viable structural and non-structural measures and options for managing flood risks (OPW). Additional work is also being carried out by the OPW in developing different flood relief schemes throughout the region such as deepening and widening of channels and building of flood barriers such as walls and embankments. In 2009 the DEHLG also published two key documents, The Planning System and Flood Risk Management and the Coastal Protection Strategy Study , aimed at providing Local Authorities with important guidance on how to address these issues including potential climate change impacts. A detailed study on drainage in the GDA was also produced in 2005, The Greater Dublin Strategic Drainage Study (GDSDS), and provides coherent guidance on adaptation measures relating to climate change and the likely effects on drainage, particularly in new developments.	
Catalonia	The Catalan Office for Climate Change has updated the Practical Guide to calculate the greenhouse gases emissions and the Calculator. This Guide includes the last disposable factors of emission and it is used to know the emissions derived from the energetic consumption and transport of any organization, as public administrations, town councils and	In the Framework Plan for Mitigating Climate Change in Catalonia 2008-2012 the Government of Catalonia decided to promote measures to reduce emissions of greenhouse gases in Catalonia, using Catalane executive powers. Specifically, the Plan established a reduction in emissions of 5.33 million tonnes of CO2 between 2008 and 2012 ; Currently (May 2012), the Catalan Government is about to pass the new Energy	Monitor the progress of the actions referred to Framework Plan for Climate Change Mitigation in Catalonia 2008-2011 (PMMCC) has been doing since its entry into force and has been reflected in the development of three monitoring reports of PMMCC: - The implementation 2008 - 2009 is the first qualitative assessment of development PMMCC. As its name

	Indicators	Policies	Processes (monitoring)
	individuals. It also includes an appendix to calculate the emissions associated with the celebration of events, and an example of emissions estimation in public organizations. The Calculator allows obtaining the emissions automatedly from the factors of emission recommended in the Guide. Both tools will be updated each 1 March of the valid year with the last available datum.Moreover, this Guide is used in the Voluntary Agreement Programme as a calculation basis for the reduction in GHG emissions that the Catalan Office for Climate Change promotes. (further information: http://www20.gencat.cat/portal/site/canviclimatic/)	and Climate Change Plan (2012-2020). The document, now in the phase of public consultation, foresees to acomplish in 2020 the objective 20-20-20 fixed by the EU: 20% reduction in emissions, 20% renewable energies and 20% improvement in energy efficiency. (further information: http://www20.gencat.cat/portal/site/icaen/)	suggests, covers the period 2008-2009 and it does based on information available in 2010. Includes set of actions that the various government departments have implemented, and assessed the progress of each. Also includes a list of grants associated actions. Also appreciates the anti-crisis measures with regard to potential impact on GHG emissions. Finally, evaluate the actions taken by the Government respond to the proposals in the framework of the Catalan Convention on Climate Change and identifies the next developments in the application of PMMCC. - The Action Plan 2010 is the second document tracking and an evaluation of the quantitative development of PMMCC. Includes actions that are planned in 2010. The quantitative assessment of the actions include, depending on data availability, the budget, avoided greenhouse gas emissions and activity data for specific actions. - The implementation 2008 - 2011, third consignment, carried out a qualitative evaluation of the actions and reports their continued years 2010 and 2011 based on 2012 information. Stresses that, despite the economic crisis, in some cases has made progress in the intensity of the performances has been reduced, most actions have continued doing it.

	Indicators	Policies	Processes (monitoring)
			(http://www20.gencat.cat/portal/site/canviclimatic)
Flanders	The most important indicator system in Flanders, related to climate change, is an initiative of the VMM, www.milieurapport.be. One of the related environmental themes in this monitor is climate change, and provides data on greenhouse gas emissions, evolution of temperature and temperature extremes, precipitation and precipitation extremes (storms and floods), sea level, health effects of climate change, and effects of climate change on the natural environment. The monitor uses the DPSIR approach, and labels each indicator based on this model (driving force? Pressure? State? Impact? Response?). It also adds information on the evolution with different color symbols (red, yellow, green, question mark respectively for the categories " negative and alarming ; target not within reach"/"evolution not clear, but not acceptable, (eventual) target not within reach yet"/"positive evolution; acceptable situation, (eventual) target within reach"/"not enough data available".	In Flanders no legislative procedures exist yet concerning climate change, but Pact 2020 (Vlaanderen in Actie), which is a pact made by the Flemish government and stakeholders, states that European mitigation directives have to be followed and reached. The Klimaatbeleidsplan follows a set of of sectoral and a process dimensions of strategy making: 5 sectoral objectives with targets for "sustainable and climate friendly mobility", "rational energy use", sustainable and low-carbon energy provision, industry and sustainable agriculture and forestry. 5 horizontal, supporting objectives are research and innovation, sensibilization, flexibility mechanisms, the exemplary role of the government, and adaptation strategies to climate change. One concrete example of operational policies partly related to climate change is "The Watertoets": The "watertoets" is an instrument for the government to gives advice and decide upon a permit, plan or program which assesses the impact on water. The result of the "watertoets" is a mandatory paragraph in the permit or approval of the plan or program. Since 1 march 2012, it is mandatory to perform a "watertoets".It is not clear yet whether this policy is explicitly linked to climate policy. VITO (Vlaams Instituut voor Technologisch Onderzoek) develops an inventory of concrete measures related to mitigation strategy (Nationaal Klimaatplan), which can be consulted at	The two most important and central-coordinative plans (policy bundles) related to climate change, are the "Klimaatbeleidsplan" which deals with mitigation, and the "Vlaams Adapatieplan", concerned with adaptation strategies. The latter is in its development and negotiation stage (due 2012), the former is a cyclical policy plan, submitted for the periods 200-2005, 2006-2012 and 2013-2020 (the last being in its development phase and due 2012). Both plans are constructed in an intese stakeholder process. The department LNE has a coordinating role in formulating objectives for the sectoral themes and also providing research (effectuated by VITO) to propose reduction paths per sector, with a concrete time frame of reduction achievements. Also forecasts are developed within the department in conformity with European standards calculating greenhouse emissions. The forecast activity is embedded in a cyclic monitoring activity, as far as mitigation is concerned (VITO). "Milieuverkenning 2030 (MIRA)" is another monitoring and forecasting tool effectuated in an intensive sharing process with stakeholders. It is based on international models such as IPCC. Those projections and future exploration are used by

	Indicators	Policies	Processes (monitoring)
		http://wwwb.vito.be/klimaatplan/database/database.aspx?lang=EN#. It is possible to select on regional policy level (federal, Flanders, Wallony, Brussels), whether measures are related to specific groups of green house gases, on taret group (households, industry, mobility,....) and relationship with European directives. The database also consists of indicators to follow-up progress related to the policy goals.	several environment related policy competences (Adaptation Plan, Klimaatbeleidsplan, Milieuplan,….)
Navarre	Territorial Indicators System of Navarra (SIOTN)http://www.nasursa.es/es/ObservatorioTerritorialNavarra/sistema_indicadores.asp Indicators refered to Climate Change are: Biochemical oxygen demand, Particulate emission, Emission of greenhouse gases, Population exposed to noise, Critical load of nutrient, Number of homes in flood-prone areas, Area burned in forest fires, Degree of alteration of landscapes, Dependence of the agricultural sector, Production of renewable energy as energy source.	Strategy against Climate Change of Navarre: Emission restriction. Improve the infrastructures of the electric transport. Promote energy efficiency criteria and sustainable urban mobility through advertising campaigns, school campaigns, specific plans for the public sector, aid to improve the elements insulating (windows) and heating of houses, aid to improve the fleet of more polluting cars.	Strategy against Climate Change of Navarre foresees an assessment every year based on monitoring indicators.The objective is to assess the degree of success of the measures and define new actions to enable compliance with the goals and objectives.
North Rhine-Westphalia	Examples for monitoring tools in terms of climate change are the Climate Impact Monitoring and Dynaklim. The former analyzes the changes of precipitation and temperature as well as their consequences for nature and envi-ronment to identify the effects of climate change at an early stage. 14 indicators which represent the	A central element of the climate policy in NRW is the climate protection law, which is still in parliamentary procedure. The law contains (1) the climate protection plan which shall set out specific measures to protect the climate as well as (2) the climate protection council which shall ensure the fulfilment of the climate protection objectives. For more information see	The climate protection plan which is part of the planned climate protection law in NRW shall be installed in 2012 and be updated every five years to better react on future climate developments. Based on a monitoring concept, the climate protection plan will contain the climate protection goals of NRW and the necessary measures to achieve them. It

	Indicators	Policies	Processes (monitoring)
	following six fields of environment are part of the monitoring: (1) atmosphere and climate (e.g. temperature), (2) water, (3) biodiversity (e.g. change of climate sensitive biotype types), (4) land, (5) agriculture (e.g. beginning of the apple blossom) and (6) forestry. The second example is Dynaklim which monitors and evaluates the regional adaption capacity of the Emscher-Lippe-Region to climate change. The aim of the project is to support the region on its way to a proactive and sustainable agglomeration with an improved adaption and innovation capacity. For more information to both systems see: http://www.lanuv.nrw.de/kfm-indikatoren/index.php and http://dynaklim.ahu.de/dynaklim/index/dynaklim/projekt.html	http://www.umwelt.nrw.de/klima/klimaschutzgesetz-nrw/index.php	provides a legally anchoring of climate protection goals and thus influences different policy processes, e.g. spatial planning in NRW.

3 Energy

	Indicators	Policies	Processes (monitoring)
Greater Dublin Area	At present there are no specific energy related monitoring tools available with in the GDA. As part of the ESPON TPM project the GDA research team has developed a series of policy relevant energy indicatorsand embedded within the All-Island Research Observatory website (www.airo.ie). Data and indicators have been made available for 7 different energy related indicators such as 'energy saving behaviour', 'water leakage', 'less use of unsustainable transport' and 'recycling' etc. See the following link for an example of monitoring 'Water Leakage' at Local Authority level http://www.airo.ie/spatial-indicators/view/932	In general, Energy policy is implemented at the national level in Ireland and as such there are no specific energy policies for the Greater Dublin Region. There are two main energy policies in Ireland; The National Renewable Energy Action Plan (2009) (NREAP) and The National Energy Efficieny Action Plan 2009-2020 (NEEAP). The NREAP outlines 38 individual measures to promote the use of energy from renewable sources . These include legislative, fiscal, regulatory, infrastructural, technical and soft measures that are aimed at a wide targeted group including all sectors (agriculture, industrial, transport etc), Local Authorities, general public, homeowners, developers of renewable energy and generators and suppliers of electricity from renewable sources. The NEEAP contains 90 measures aimed at securing a more sustainable energy future for Ireland . Specific measures are targeted at energy efficiency in the public sector, business, residential sector, transport, energy supply, research and development and also through a series of cross sectoral measures.	Annual monitoring reports (based on quantitative analysis) are now required by all regional authorities. These reports aim to measure the implementation of the objectives as set out within the Regional Planning Guidelines. The reports are policy linked and currently focus on population and housing (demographics), energy and communications, water, waste-water and transport. Results from these reports will be discussed and debated by the regional authority elected members, steering committee and the technical working group.It is also hoped that the tools developed through the ESPON TPM project will contribute to this debate and allow a more user friendly and interactive dissemination of the key indicators relating to all challenges and objectives.

	Indicators	Policies	Processes (monitoring)
Catalonia		The main policy document dealing with the energy challenge in Catalonia is the Catalan Energy Plan (2006-2015), passed in 2005 and revised in 2009. This is a very extensive plan that includes a prospective analysis of Catalonia for the 2030 horizon. This envisages six prospective scenarios with different sensibility for different issues (as nuclear energy) . The analysis includes the definition of a "Framework Scenario" and the visualization of the Catalan contribution to the Spanish and European compromises in energy and climate change. The scenarios range from a very energy-consuming one to a more sustainable one. ; Currently (May 2012), the Catalan Government is about to pass the new Energy and Climate Change Plan (2012-2020). The document, now in the phase of public consultation, foresees to acomplish in 2020 the objective 20-20-20 fixed by the EU: 20% reduction in emissions, 20% renewable energies and 20% improvement in energy efficiency. (further information: http://www20.gencat.cat/portal/site/icaen/)	In 2008 the Catalonia Institute for Energy Research was created to contribute to the objective of creating a more sustainable future for energy usage and consumption, keeping in mind the economic competitivity and providing society with the maximum level of energy security. This contribution will be done through scientific and technological development. The research requires a long-term vision which allows the identification of future challenges in energy. The Institute also works with practical research which allows businesses to implement innovative solutions immediately. (further information: http://www.irec.cat/index.php/en)

	Indicators	Policies	Processes (monitoring)
Flanders	www.milieurapport.be contains a chapter on energy and energy related themes. The themes are: energy consumption, energy and carbon intensity of the economy, total transport, production and distribution of energy, green energy, emissions caused by the energy sector, waste productions of the energy sector, nuclear energy and exposure of the population to radiation, environmental cost of energy production, eco efficiency of the energy sector. Indicators are classified according the DPSIR model, but the evolution of the indicators are not evaluated in the same way as for the climate change theme. Most data are produced by VITO, who also develops a monitoring system, the "Energiebalans" (http://www.emis.vito.be/energiebalans-vlaanderen). Every year a rapport is created depicting and contextualizing evolutions regarding energy consumption and consumption in Flanders.	An example related to energy efficiency is the energy performance certificate ("energieprestatiecertificaat"). This "test" gives a EPC-score to a building related to the energetic quality (based on used materials, isolation, and installations for heating, water and ventilation). This certificate is mandatory for new housing estate, and in the case of the purchase of a housing unit. This certificate and the score determines the amount of subsidies to be obtained, for example a reduction of property tax. As far as renewable energy is concerned, the federal government is preparing a policy bundle for the construction of an off-shore wind Energy park in the North Sea.	As far as energy efficiency is concerned, a Flemish benchmark for energy reduction has been determined: 9% of the final domestic energy use, this means in concrete: 16958 GWh final. For the determination of the intermediate aim in 2010, one opted for a proportional distribution over the years, during the term of the directive. Concretely this means an energy saving of 1% per year, and 5653 GWh final (Vlaams Energie-efficiëntieplan 2008-2010, p. 3). The planning process is evidence based in the sense that the evolutions in some very important indicators are closely followed (cf. http://www.emis.vito.be/energiebalans-vlaanderen), also in the sense that new trends are closely followed, and that a lot of attention is been given to the relationship between monitoring and forecasting. The Energie-efficiëntieplan Vlaanderen, a 3-4yearly process is using the monitoring and forecasts to assess the progress towards the EU 2020-targets. The development of the plans asks for a continuous stakeholder consultation process, although, since the energy efficiency plan monitors the results

	Indicators	Policies	Processes (monitoring)
			of already established policies in relation to the forecasts, stakeholder consultation is less necessary (or less extensive). For this, consultation with representative boards like the SERV (Sociaal-economische Raad van Vlaanderen) together with MINAraad (environment and nature)is effectuated, in which all important federations are already included. In the context of the plan for renewable energy, the consultation process is broader, since here the renewable sectors are also important stakeholders.
Navarre	Territorial Indicators System of Navarra (SIOTN)http://www.nasursa.es/es/ObservatorioTerritorialNavarra/sistema_indicadores.asp Indicators refered to Energy are: Energy dependency, Electricity from renewable energy sources, Production of renewable energy as energy source, Primary energy intensity, Energy consumption by sector, Electricity consumption of households, Visual basins of energy infrastructure, Urban waste generated per habitant, Percentage of recycled urban waste, Intensity average daily circulation, Motorization rate.	Energy Plans: Energy audits and implementation of the standard UNE-EN 16001. Promotion of sustainable energy technologies. Industrial energy efficiency investments. VEN Plan (electric vehicle in Navarre). Energy rehabilitation: improvement of thermal insulation through economic subvention. Public lighting audits. Promotion of public transport by road. Construction of the Ecocity of Sarriguren: a sustainable city which is entirely dedicated to minimising required inputs (energy, water, food) and its waste output (heat, air and water pollution) and the objetive to create the smallest possible	Energy Plans foresees an assessment every year based on monitoring energy indicators.The objective is to assess the degree of success of the measures and define new actions to enable compliance with the goals and objectives.

	Indicators	Policies	Processes (monitoring)
		ecological footprint.	
North Rhine-Westphalia	In terms of energy, there is no single monitoring tool available, but rather official statistics by e.g. the state office for information and technology NRW. In addition, the EnergyAgency NRW collects data about electricity consumption, regenerative energy, energy prices, etc. since 1970.	To achieve the climate protection goals of NRW, the share of wind energy shall be increased to at least 15% by 2020. Therefore, a wind energy decree was published in 2011. The main task of this decree is to clarify the possibilities of spatial planning on different administrative levels to enable the expansion of wind energy use, for example to specify priority areas for the use of wind energy or to privilege wind energy plants in the outskirts. Furthermore, the wind energy decree shall render assistance for case-by-case reviews. For more information see http://www.umwelt.nrw.de/klima/pdf/windenergie_erlass.pdf	

4 Globalisation

	Indicators	Policies	Processes (monitoring)
Greater Dublin Area	There are a wide variety of city based globalisation indicators that are used by the GDA and particularly Dublin City Council for the monitoring of the development and competitiveness of the city and region. International indices and forecasting tools such as 'Prices and Earnings' by UBS, 'European Compeitiveness Index' by Huggins, 'European Cities Monitor' by Cushman & Wakefiled, 'Cost of Living Index' by Mercer, 'Urban World: Mapping the economic power of cities' by McKinsey Global. As part of the ESPON TPM the GDA research team has included a Cusman and Wakefield indicator on the 'Most Expensive Central Business District', data is available for 2010 and 2011 and provides the relative change in rank on a year by year basis. This can be viewed in the AIRO Espon TPM tool here: http://www.airo.ie/spatial-indicators/view/945 Forfás has also produced a series of forecasting measures. This is not necessarily quantitative but provides a forecast of eleven key forces of change that will impact on Ireland up to 2025. The document focuses on: demographics; technology/innovation/entrepreneurship; education and skills; quality of life; globalisation; infrastructure; governance and regulation; energy supply and security; climate change; natural resources; and conflict. The document is called Sharing Our Future: Ireland 2025 .	Within the GDA the challenge of addressing globalisation and competitiveness is primarily dealt with through recommendations set out within the Economic Development Strategy in the Regional Planning Guidelines (RPGs). The regional policies are draw from key national policies and a series of region specific economic strategies and action plans. National Policies currently include - • The National Recovery Plan 2011-2014 • Building Ireland's Smart Economy: A Framework for Sustainable Economic Renewal, 2008 • Sharing Our Future: Ireland 2025 – Strategic Policy Requirements for Enterprise Developments • Annual Competitiveness Report 2010 – Volume 1: Benchmarking Ireland's Performance • Annual Competitiveness Report 2010 – Volume 2: Ireland's Competitiveness Challenges • Making it happen: Growing Enterprise for Ireland 2010 • Our Cities: Drivers of National Competitiveness, 2009 • Getting Fit Again: Short Term Priorities to Restore Competitiveness, 2009 The main regional reports are: • Economic Development Action Plan for the Dublin City Region, July 2009	Annual monitoring reports (based on quantitative analysis) are now required by all regional authorities. These reports aim to measure the implementation of the objectives as set out within the Regional Planning Guidelines. The reports are policy linked and currently focus on population and housing (demographics), energy and communications, water, waste-water and transport. Results from these reports will be discussed and debated by the regional authority elected members, steering committee and the technical working group.It is also hoped that the tools developed through the ESPON TPM project will contribute to this debate and allow a more user friendly and interactive dissemination of the key indicators relating to all challenges and objectives.

	Indicators	Policies	Processes (monitoring)
		• Regional Competitiveness Agenda for the East, 2009 • Developing an Enterprise Strategy for the Dublin Region, 2009 • An employment and skills strategy for the Dublin Region, 2009 • Mid East Regional Authority Economic Development Strategy	
Catalonia			
Flanders	No single "globalization monitoring system" exists, since a variety of societal themes are related to the globalization theme. However, some thematic related monitoring systems are interesting and worth mentioning. The "Pact 2020" monitor (http://www4dar.vlaanderen.be/sites/svr/Monitoring/Pages/2008-06-pvv.aspx) proposes a core indicator set related to European 2020 ambitions. The system provides a contextual description of the monitor, data source and methodology, and a time line chart per indicator, compared to the 2020 benchmark. No European comparisons are made. Some other initiatives are the Global Entrepeneurschip Monitor, developed by Vlerick Entrepeneurial School (http://www.vlerick.be/nl/media/pers/persberichten/14754-VLK.html). The Flemish Research Organization for Entrepreneurship and International Entrepreneurship (STOIO) has as its objective to support the Flemish Government with research and data gathering on several pillars of entrepreneurship: (1) the creation of companies; (2) the growth of companies; and (3) exit and take-over of companies. To this purpose, it relies	One of the strategies of the Flemish Reform Programme, related towars Europe 2020, is to make breakthroughs in research and innovation by focusing on innovation strategies and combining forces for spearhead domains. Past practice was to pursue and stress economic development in specific sectors and activities. This is less the case nowadays, but on account of the location of Flanders and the European emphasis on a knowledge-driven and innovative economy, these sectors are now being mentioned frequently in policy memorandums. In innovative economies the VIA plan suggests pursuing mainly: logistics and transport; ICT in healthcare; food and health; new materials and nanotechnology; energy and the environment.	In the document « Vlaamse Lissabonrapportering 2009", statements are made on how to deal with globalization challenges in Flemish context. This means in concretu that Focus is laid upon the development of creative and knowledge economies, and Economic growth and employment are important benchmarks. More concrete strategies are: 1. Investments in creative and knowledge economy; 2. Unlocking entrepreneurial capacities; 3. Job opportunities for the precedential categories; 3. European energy policy (cf. supra). The principle are also included in Pact 2020 (VIA), a vision for the development of Flanders, which also centres upon innovation and economic growth. Related monitor systems are the Benchmark Pact 2020, "Vlaanderen Internationaal", but it

	Indicators	Policies	Processes (monitoring)
	on a wide array of databases that, together,help it to realize its objectives. It compares Flanders with Belgium, and a set of reference countries. Reference countries are: France, Denmark, Germany, Spain, The Netherlands and the United Kingdom. Another example is the monitoring system "Vlaanderen Internationaal" (http://www4dar.vlaanderen.be/sites/svr/Monitoring/Pages/2008-06-vlaanderen-vergeleken.aspx), a yearly benchmark to asses the economic and innovative potential of Flanders yearly towards the 2020 benchmark of VIA (Vlaanderen in Actie): being one of the European top regions. The benchmarking consists of indicators related to economy, labour market and innovation, and compares Flanders with a selection of 15 European regions who are considered to be exemplary. More related towards the sociocultural consequences of globalization, it is worhtwhile to mention the Armoedemonitor, a report created by the Studiedienst van de Vlaamse Regering (SVR). The indicators set provides data on the following thems: poverty related to income and income distribution; debts; allowances; employment and unemployment, housing, education, health care, social participation, child poverty and poverty of the elderly. Some		is not clear yet how this monitor is implemented and used in the different policy competences and in the policy process.
Navarre	Territorial Indicators System of Navarra (SIOTN)http://www.nasursa.es/es/ObservatorioTerritorialNavarra/sistema_indicadores.asp Indicators refered to Globalization are: GDP per capita, Employment in services, R&D expenditure per sector, R&D employment, Workers affiliated to social security per sector, Export and import, Unemployment per sex, Employment, Active	Moderna Plan and Internationalization Plan of Navarre: Formal and continuous training adaptation to the quantitative and qualitative demands of clusters. Create a brand "Navarre" as a talent magnet, associated with the image of a region of knowledge, open and innovative. Programme for	Internationalization Plan of Navarre foresees an assessment every year based on monitoring internazionalization indicators.The objective is to assess the degree of success of the measures and define new actions to enable compliance with the goals and

	Indicators	Policies	Processes (monitoring)
	population, Active population per sex, Students per teacher, Early school dropout rate, People in work with higher education, Registration evolution per educational level, Number of schools, Registered student in university education, Registered student per educational levels, Poverty risk rate.	the promotion of business and social entrepreneurship, and design of measures specific support to talented entrepreneurs through advise, follow-up and financial aid. Design of models for management and evaluation of educational centres aimed at excellence. Creation of scholarships for master's degrees abroad.	objectives. Two bodies created: Coordination Committee and Internazionalization Council of Navarre. The Moderna Plan forees a permanent assessment based on monitoring indicators.
North Rhine-Westphalia	In terms of globalisation, most of the information are not based on single monitoring tools, but rather on official statistics. One example for a monitoring tool is the regional monitoring of skilled personnel which is based on coherent indicators divided in four areas: employment, labour participation, demography and eduction. The monitoring is part of the Special Program Qualification and Innovation for Securing Skilled Personnel. Indicators are for example: share of employment of 55 years and older people/of people without qualification/of highly qualified people; unemployment rate, employment rate of migrants/women/older people etc. For more information see http://fachkraefteinitiative-nrw.de/	As a response to global competition on the labour market as well as demographic development the state government of NRW launched the Special Program Qualification and Innovation for Securing Skilled Personnel. Whereas the management of the programm is conducted on state level, the regions have to develop action plans to illustrate and reveal their current situation as well as concrete steps for improvement. For more information see http://www.arbeit.nrw.de/arbeit/fachkraefte_sichern/index.php	The action plans conducted by the regions within the Special Program Qualification and Innovation for Securing Skilled Personnel are based on the information gained by the monitoring tools. During the lifetime of the program (until 2015) the monitoring tools have to be updated regularly. The results of the monitoring are used to check continuously the need for adaption of the action plans to labour market and economic circumstances.

5 Demography

	Indicators	Policies	Processes (monitoring)
Greater Dublin Area	All-Island Research Observatory (AIRO) Greater Dublin Area Census Mapping Tool: This mapping tool provides users (stakeholders, elected members and public) with access to over 350 demographic related variables for 2002, 2006 and 2011. The data within the system is available at LAU2 level and is sourced from the Central Statistics Office (CSO). Variables are available for population, marital status, religion, economy, housing, households, transport, education etc. The GDA stakeholder has been recently using this tool as a means of mapping population change and population density within the GDA territory (see page 29 of GDA regional report). You can access the site here: http://www.airo.ie/mapping-module/atlas/regional/AIRO_IA---NUTS%2B111_Greater%2BDublin%2BArea	In terms of demographics the main policy that is being implemented and followed at the moment is the 'Core Strategy'. This is a big change in Ireland and from now on all zoning for residential development must be evidence driven and clearly linked to the over regional and national population targets and also aligned with the development of accompanying infrastructure such as schools, waste-water, transport etc. Therefore, the key policy for demographic growth and the sustainable distribution of such within the GDA comes in the form of the Regional Planning Guidelines (RPGs) and the Regional Planning Guidelines Review - Gateway and Hub Population Targets. Both of these aim to ensure the implementation of the overall national planning strategy - the National Spatial Strategy (NSS). The Planning and Development (Amendment) Act 2010 introduced a series of legislative changes to the role of the RPGs and it is now a requirement for all CDPs to produce an evidence based 'core strategy' demonstrating how their housing and settlement strategies are compliant with those of the RPGs and NSS. Prior to the introduction of this new legislation, Local Authorities were only required to "have regard to" the RPG guidelines and recommendations. This is a major step in the right direction for spatial planning in	Annual monitoring reports (based on quantitative analysis) are now required by all regional authorities. These reports aim to measure the implementation of the objectives as set out within the Regional Planning Guidelines. The reports are policy linked and currently focus on population and housing (demographics), energy and communications, water, waste-water and transport. Results from these reports will be discussed and debated by the regional authority elected members, steering committee and the technical working group.It is also hoped that the tools developed through the ESPON TPM project will contribute to this debate and allow a more user friendly and interactive dissemination of the key indicators relating to all challenges and objectives.

	Indicators	Policies	Processes (monitoring)
		Ireland, however it is as yet unclear as to how success this new 'core strategy' approach will be. Another interesting demographic/housing policy that is being implemented is in relation to rural housing and demographic growth. The Sustainable Rural Housing Guidelines seek to 1) ensure that the needs of rural communities are identified in the development plan process and that policies are put in place to ensure that the type and scale of residential and other development in rural areas, at appropriate locations, necessary to ensure rural communities is accommodated; 2) manage pressure for overspill development from urban areas in rural areas closest to the main cities and towns such as gateways and hubs and other large towns.	
Catalonia	Based on the most recent demographic data (population census, natural movements and migratory movements), and in accordance with the different demographic hypotheses, Catalan Statistics Institute developed a series of statistical products that fall within the category of population projections. The purpose of population projections is to describe the possible future evolution of the population, both its total numbers and its classification by different variables: sex and age, place of residence, household, composition, relationship with the activity.The currently valid set of population		Idescat updates population projections in five-year cycles. The first population projections to be updated are sex and age ones, followed by school-aged population projections and finally the projections on the active population. The current population projections, school-aged population projections and the active population projections are 2008-based and represent an update of the previous 2002-based population projections.

	Indicators	Policies	Processes (monitoring)
	projections is made up of:- Population projections for Catalonia 2021-2041 (base 2008)- School-aged population projections 2021 (base 2010)- Active population projections 2021-2041 (base 2010)The population projections have been generated using the components method, and they consist of 3 scenarios of population evolution:, low, medium and high.The medium scenario seeks to reflect the evolution considered the most probable for the demographic growth and structure of Catalonia, in accordance with recent data.		(http://www.idescat.cat/en/poblacio/projeccions)
Flanders	Flanders has some interesting examples of established monitoring systems on demography. Next to census data per municipality available at the website of the "Studiedienst van de Vlaamse Regering" (number of inhabitants, age structure and indicators on ageing, dependency ratio, number of households,….) the web portal www.lokalestatistieken.be gives the possibility to download a pdf document per municipality with a vast array of indicators, related to demography (population, population forecasts, foreigners, migration, households and househood projections, single households). The document also provides a set of indicators related to quality of life (education, cultural facilities, child care, criminality, traffic accidents). The website also gives the opportunity to make cartographic representations per theme. Other interesting initiatives are the Stadsmonitor	One of the Visions of the "Ruimtelijk Structuurplan Vlaanderen" was "Vlaanderen Open en Stedelijk" (Flanders open and urban). An implementation of this vision was a delineation of settlement areas which were designated as areas for residential and centrum based functions (such as housing, commercial structure,, services of general interest). However, opinions are divided considering the successfulness of the policy. No overarching plan exists dealing with demography, but it is treated as a crosscutting theme in which any policy competence is responsible for the necessary measures. Spatial Planning and Urban Policy are to be considered as transversal policy domains, since their obligation to synthesize thematic policies within a spatial context. Regarding spatial planning, the "Beleidsplan Ruimte Vlaanderen" is a very important flagship	On this moment, the demography challlenge is not based on a monitoring system, but it is more based a reaction of different policy competences upon the concrete population forecasts of Flanders. Different policy competences base their policy plans (and are updating it) on the most recent population projections, This means that policy is evidence based, but based on a business a usual scenario, and the sense of urgency is not clear in all policy domains. No monitoring or evidence based system exists, yet, to assess urban sprawl and the location of services in relation to designated areas for urban growth. Some examples can be found in www.ruimtemonitor.be. This monitoring system is in its kick-off stage and not yet integrated in the

	Indicators	Policies	Processes (monitoring)
	(http://www4dar.vlaanderen.be/sites/svr/Monitoring/Pages/2008-06-stadsmonitor.aspx). The "Stadsmonitor" describes trends in 13 Flemish cities, which are the center of attention of Flemish urban policy. IIn the fourth and last edition, 160 indicators are included which are selected in participatory processes. The indicators cover different themes, such as cultural amenities, education, perception on safety, residential environment, mobility related issues, care, social principles (including ethnicity), nature and environmental management,…	project of Flemish policy since it is strongly related to the implementation of one important VIA-breakthrough: "Vlaanderen Groen Stedengewest". In the Groenboek Ruimte, visions for the development of Flanders are put forward and the Witboek (2013) will provide for policy guidelines. It can be expected that those guidelines will be discussed in a participatory process with the relevant policy domains. In the present situation, Spatial Planning sets out guidelines for the location of services of general interest. In some cases, however, this spatial policy get in conflict with location policies of other policy competences (eg. Wellbeing, the location of rest homes and hospitals).	Flemish policy making process.
Navarre	Territorial Indicators System of Navarra (SIOTN)http://www.nasursa.es/es/ObservatorioTerritorialNavarra/sistema_indicadores.asp Indicators refered to Demography are: Position of the Pamplona metropolitan area in the environment, Distribution of population according to size of the settlement, Distribution of population according to degree of structuring of the settlement, Evolution of the population in relation to the Regional Spatial Planning Programmes (POT) prospective, Age dependency ratio, Index of fertility, Percentage of foreign residents, Risk of poverty rate, Female activity rate, Female unemployment rate. Other indicators from official statistics are: Total population, Total population by	Territorial Strategy of Navarra (ETN) and Regional Spatial Planning Programmes (POT) defines the demographic development model for Navarre. Integration of the inmigration population. Conversion of the rural depopulation areas in more attractive areas for the establishment of the population. Strategic Development Plan of the Pyrenees: Conversion of the rural depopulation areas in more attractive areas for the establishment of the population. Economic activities development in rural areas. Accessibility improvement in rural areas. Services for elder people.	The Territorial Strategy of Navarra (ETN) foresees an assessment every 2 years based on the Territorial Indicators System of Navarra (SIOTN) indicators. The results of this assessment are then used for a revision of the strategy which then has to be approved by the regional parliament and by the Social Council of Territorial Policy of Navarre (CSPT). The Strategic Development Plan of the Pyrenees foresees every year an Annual Report about the implementation.

	Indicators	Policies	Processes (monitoring)
	age groups and sex, Live Births, Deaths, Internal migrations, National migrations, International migrations, Life expectancy.		
North Rhine-Westphalia	The used indicators in NRW refer to the population structure as well as its spatial distribution and related topics like the structure of households. Particular indicators are: number of inhabitants, birth rate, life expectancy, number of people with migration background, median age, share of different age groups,household structure (number of households, household size) and land consumption. The indicators are part of official statistics and monitoring systems: (1) The residential area monitoring records and observes municipal land use development in the light of the objective of sustainable residential and transport area development. It is carried out by each regional planning authority. (2) The residential market monitoring provides an information base of the housing market especially information about stock, rent levels, vacancy etc. for decision makers in politics, administration and housing industry. It exists on state, regional as well as municipal level. For more information see http://www.nrwbank.de/de/corporate/Publikationen/Publikationsinhaltsseiten/publikationen_wohnungsmarktbeobachtung.html (3) The monitoring within the evaluation of the program "Soziale Stadt" gives deeper insights and knowledge about program results as well as cause-effect relationships in deprived urban neighbourhoods. The tool	In order to reduce land consumption and to attain the objective of area and open space protection, a formal and legally binding measure is the 'economically and needs-based handling of settlement areas' which is part of the regional spatial structure plans. New settlement areas are only allowed under specific conditions. In addition, there are some initiatives to reduce land consumption in NRW like the Area Alliance which shall establish a dialogue between the different political, social, economical and private actors who have influence on land consumption (for more information see http://www.allianz-fuer-die-flaeche.de/). In order to face problems in deprived urban areas the program 'Soziale Stadt' was implemented to initiate sustainble change processes.	The regularly updated residential area monitoring indicates area potentials or residential area reserves. Based on these information, the results of the monitoring are used to inform municipalities about the necessity to designate new (e.g. settlement) areas and influence land-use policies on regional and municipal level.

	Indicators	Policies	Processes (monitoring)
	uses indicators like: population structure (age distribution, birth and death rate, non-German population etc.), transition rate of secondary school, land-use structure, subsidized housing, period of residence, children care offers etc. For more information see http://www.soziale-stadt.nrw.de/ and http://www.sozialestadt.de/veroeffentlichungen/evaluationsberichte/		

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