

SeGI

Indicators and perspectives for services of general interest in territorial cohesion and development

ANNEXES

Applied Research 2013/1/16

ANNEXES for Inception Report



This report presents a more detailed overview of the analytical approach to be applied by the project. This Applied Research Project is 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.

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A1 Concepts, definitions and theories

A1.1 Theoretical and operational definitions of SGI

A scientific approach needs to detach itself from the policy concepts and discussions and establish a clear conceptual point of departure based on research and theory, which may serve as a fruitful analytical tool in the study of SGI in territorial policy and development in Europe. One of the purposes of the literature review to be conducted (cf. below) is to establish a sound scientific basis for this task.

In the Green Paper the Commission warns that SGI should not be confused with the ("less precise") term "public service". However, the term obviously in many ways relates to the concept of 'public goods' within economics. The simple fact of the judgment that some form of government action seem to be required to secure their provision according to EU goals and principles points to this relationship, drawing attention to circumstances where the private market alone falls short. From this arises also the discussion on trade-offs between efficiency and equity within Welfare Economics.

Following Joseph E. Stiglitz (1988) "pure" public goods have two critical properties; i) it is not *feasible* to ration their use and ii) it is not *desirable* to ration their use:

In the first case inter alia the "free rider problem" makes it necessary to support the supply of these goods through enforced taxation. Stiglitz' clearest examples are national defence, national health programmes (such as vaccination against epidemics), small local parks, lighthouses along the coast, and fire departments. In this case exclusion may sometimes be possible (feasible) but very costly. *In the second case* one individual's consumption of the good does not reduce the amount of the good available for others to consume; the marginal cost of supplying the good to an additional individual is zero.

Few public goods are "pure" in the sense that they have both properties (exclusion is neither feasible nor desirable), but many goods satisfy one or the other condition to varying degrees ("impure" public goods). And there will always be grounds for discussing (in each particular case) whether and to what degree a specific good should be rationed, for instance through the price mechanism, and whether it should be subject to private or public provision. The arguments will normally be a mix of provision-efficiency and normative (ethical, political) considerations of over-/underutilisation, equity etc. according to certain "standards"

Examples of normative considerations include the view taken by the **European Parliament in its Resolution of 13 January 2004 on the Green Paper on SGI (A5-0484/2003)** that certain SGIs "should be excluded from the scope of the competition rules, including health, education and social housing, as well as SGIs aiming to maintain or increase plurality of information and cultural diversity". The Resolution underlines the principles of "universality and equality of access, continuity, security and adaptability; quality, efficiency and affordability, transparency, protection of less well-off social groups, protection of users, consumers and the environment, and citizen participation".

The definition of private goods is residual to the definition of public goods stated above but could (and in many cases is) nevertheless publicly provided or supported due to normative considerations similar to those stated in the political definition of SGI ("*...being of general interest and subject to specific public service obligations*"). Typically, publicly provided private goods are goods "for which there is a large marginal cost associated with supplying additional

individuals" (Stiglitz 1988). The normative considerations may relate to distributive justice, equal opportunities etc., (for instance the provision of education, certain health services, water supply), although a mechanism for restricting consumption (preventing "overconsumption") may sometimes be judged necessary for different reasons (a rationing system, for instance prices/user charges). In many cases the same good is both publicly (in the form of basic supply, uniform/equal level) and privately provided.

The actual balance between public and private provision of the particular public and private good, as defined above, varies among countries and changes over time according to political "regimes", available technologies/technological level, standard of living and other aspects of society. Similarly the degree and mode of rationing differ and change (including location on the continuum market/pseudo-market – non-market) and so do the division of responsibility, financing and actual provision of the particular good (public goods and publicly provided private goods) among different tiers/levels of government. The actual territorial distribution/pattern of supply and availability is influenced by these and many other factors.

Applied to SGI the first step in the elaboration towards greater conceptual clarity and eventually an analytically fruitful definition and classification will be to examine (discuss) the particular SGI ("non-market and market services which the public authorities class as being of general interest and subject to specific public service obligations") according to the above-mentioned conceptual scheme, combined into a twelve-cell matrix. The matrix represents a typology of twelve theoretical "types", the dimensions collapsed into rough categories for simplicity reasons, some types (cells) being logically empty or less probable.

Table A1: Typology of SGI according to feasibility/desirability of rationing/exclusion and the most efficient mode of provision (public/private).

Rationing (exclusion):	Most efficient mode of provision:		
	Public (non-market)	Public/Private (mixed)	Private (market)
Neither feasible nor desirable ("pure" public goods)			
Feasible but not desirable ("impure" public goods)			
Desirable but not feasible ("impure" public goods)			
Both feasible and desirable (private goods)			

The keys to the selection of services for (theoretical) examination (potentially to be included in the operational concept of SGI) relate to the expression "being of *general interest* and subject to *specific public service obligations*". The commission Green Paper referred to above indicates – directly and indirectly – certain criteria, but fails to outline clear definitions of them thus leaving many questions open for discussion as to the intended interpretation.

The categorisation of SGI into "economic" and "non-economic" (or rather; of general economic interest and "only" of general interest) is not apparent in principle and in practice this division has become increasingly blurred over recent

decades – and to a rather varying degree among the member countries. This is clearly illustrated for instance in the response of the Council of European Municipalities and Regions to the Commission's Green Paper on Services of General Interest (CCRE/CEMR 2003).

The response of the CCRE/CEMR further indicates that the definition and classification of SGI in the framework of EU policies and regulation, and in particular the competition provisions of the Treaty, is even subject to more fundamental philosophical/ideological disagreement over the role of the public and private sector in the provision of services judged to be essential for achieving shared Community goals (especially what should be the case for public authorities' direct/"in-house" provision). These disagreements and their political connotations and potential implications underline the need for a more scientific approach detached from the policy concepts and discussions.

The conceptual exercise (definition and classification) will take a broad perspective, initially disregarding the apparent problems of a political and terminological nature. The universe of potential services thus covers a wide and heterogeneous field; including infrastructural, technical and network services (often related to the large network industries) as well as the very broad and diverse range of (social and other) services in other fields, usually associated with the welfare state and (still most) frequently provided as public – or publicly subsidised – services involving national, regional and local political and administrative level responsibility. The Green Paper identifies three categories of SGI according to "the need and intensity of Community action and the role of the Member States":

- *Services of general economic interest provided by large network industries* (such as telecommunications/electronic communications, postal services, electricity, gas, transport)
- *Other services of general economic interest* (such as waste management, water supply, public service broadcasting)
- *Non-economic services and services without effect on trade* (a very wide and heterogeneous range of services, cf. above, not or to a lesser degree subject to specific Community rules, competition and State aid rules etc.)

Obviously, as indicated above, the criteria used to draw the lines between the three categories are far from self-evident, and what specific services are or should be included in each category is subject to political debate as well as showing actual variation and change among the Member States. One important purpose of the conceptual exercise in Activity 1 then is to shed critical light on the politically based conceptualisation from a scientific point of view, in order to establish a more fruitful point of departure for analysing the territorial state, trends, perspectives and potentials regarding SGI in the "ESPON-Space".

A1.2 Classification of SGI

A number of efforts to classify services for analytical purposes (usually according to standard definitions of 'services' established in order to measure their production, as in ISIC Rev. 4 and CPC Rev.2) have been made and will be evaluated in Activity 1. Typical characteristics emphasised are i) their functions or product character (distributive, informational, reproductive, social, entertainment etc), ii) characteristics of their markets (consumer services, producer services, mixed, other), iii) type of provider/owner of production (public, private, sub-categories of these). A few classical examples are Gershuny and Miles (1983), Daniels (1985), Walker (1985), Marshall (1988), Illeris (1989).

A rather basic typology was presented by Richard M. Titmuss in 1974, intended for analysis of services "in kind" with the main purpose being to identify services with a discriminating, individualised function as opposed to the indiscriminate,

impersonalised function (warning that "...in an increasingly complex and specialised society, it becomes harder to draw the line between these functions"). The typology identifies four types of services; i) Services that are for the individual's benefit alone, and are provided irrespective of the individual's way of life and whether or not such services will benefit the community as a whole, ii) services which benefit the individual and also the community, iii) services intended to be beneficial to the community but that are not necessarily regarded as beneficial by the individual, and iv) services that are regarded as of benefit to the community, but whose benefits cannot be attributed to any one individual.

Integral to the task of defining and classifying SGI in theoretical and operational terms according to key qualities with regard to their functions, importance, beneficiaries, economic and social implications, (most efficient) mode of provision/supply, "rationing"/exclusion, and (EU-) policy relations and relevance, is the necessity to arrive at a classification which is also suitable for separating the different services according to key qualities of *territorial relevance*. By this is implied i) inherent location requirements in order to achieve sufficient supply/availability/coverage, and key factors of location (the necessity of local/regional supply, the determinants of the territorial location pattern), as well as ii) the importance of the particular service/service category for regional economic development, environmental quality and welfare/quality of life, i.e. in the context of territorial cohesion and development. The conceptual exercise will arrive at an analytically fruitful typology of SGI in territorial terms, where each type/class of service is theoretically discussed and evaluated according to the dimensions of table 1 above.

A crucial decision to be made here however concerns the choice of level of statistical detail. Standard classifications for measuring the production of services, such as ISIC Rev. 4 and CPC Rev.2, offer a very high level of detail. ISIC Rev.4 in principle covers all economic activities. They are sub-divided into a hierarchical order of 21 Sections (Alpha coded), 88 two-digit Divisions, 238 three-digit Groups and, at the greatest level of detail, 419 four-digit Classes. *The service industries* consist of 18 Sections, 56 Divisions, 141 Groups and 205 Classes (cf. Pariag 2009). In principle the most detailed level should be applied in classification and analysis but due to various statistical shortcomings and resource limitations it is necessary to make analytically qualified simplifications according to scientific purpose, based on the literature review and theoretical considerations.

A1.3 Literature review

The most important source for the above discussion and conceptual tasks will be a thorough literature review. The review will cover the relevant EU-documents related directly to SGI (some of them mentioned above), including all available documents produced during the broad public consultation launched on the basis of the Green Paper (cf. above). In addition, many other EU/European policies/documents are relevant, touching more or less directly on the role/importance of availability and of accessibility to SGI in territorial cohesion and development, such as for instance (examples):

- ✓ (Documents on) European Cohesion policy
- ✓ Territorial Agenda, May 2007 and later revised version
- ✓ Green Paper on SGI, (COM(2003) 270 (mentioned above)
- ✓ White Paper on SGI, COM (2004) 374 (mentioned above)
- ✓ Communication on SGI, COM (2007) 725
- ✓ Green book on territorial cohesion, COM (2008) 616
- ✓ Draft European Charter on access to essential goods and services in the context of spatial planning of the European continent, Council of Europe / CEMAT, 2008
- ✓ Alpine Convention

- ✓ Social Services of General Interest: At the heart of the European social model, Belgian Presidency of the European Union, 2010
- ✓ Policy papers and reports from the EU6FP-project Privatisation of Public services and the Impact on Quality, Employment and Productivity (pique)
- ✓ Selected national and regional policy documents and analysis (especially those dealing with the national definition and political/legal framework of SGI and related/similar concepts/policies, and territorial aspects of service provision/consumption)

However, the most important documentary source will be *scientific literature* dealing with the issues discussed above. There is a considerable body of research literature – especially from the 1980s and later within economics, sociology and geography – on the growth and functions of services in the economy and in the division of labour in society. Of particular relevance here are the works dealing with i) the conceptualisation and classification of services (products, industries and occupations) and the importance of different services ii) in industrial/economic development, iii) in regional/territorial development and iv) for the development and different shaping of the welfare states in Europe and other western countries. The study of SGI in territorial cohesion and development in Europe should relate explicitly to the state of the art within these research traditions.

Within the Welfare Economics and the Economics of the Public Sector literatures in particular, but even within the general political science literature, we will find the basis for discussing and elaborating the theories and controversies related to the basic philosophies and assumptions behind different positions in the debate on EU- and national level policies in the field of service production and provision, as manifested in the Commission approach (and alternative approaches) to SGI. Some examples of current controversies are related among others to the following questions;

- What should be the “rationale” behind the provision of different (types of) services?
- What is the most efficient mode of provision of different (types of) services for achievement/balancing of different EU- and national political goals (including territorial cohesion and development)?
- What are the expected socio-economic and territorial implications related to the provision of different (types of) services, of being exposed to specific EU policies and regulation, and in particular the competition provisions of the Treaty?
- What should be the case for public sector direct (“in-house”) provision of services (market-failure and/or other)?
- What are the effects of liberalisation and privatisation, including compulsory competitive tendering even for public sector providers (regarded as “undertakings”)?
- How does the classical postulated dilemma between efficiency and equity (or rather; the stated political goals and priorities underpinning Community action for developing SGI) manifest itself in relation to territorial cohesion and development in Europe?

Additional issues of relevance – and potential controversy – relate to the implications of different views on some other aspects of the mode of service provision/delivery (responsibility, financing, organisation, distributive justice/citizens’ rights, governance; the role of different levels of government and private market- and non-market actors).

The literature survey alone will not provide the answers but will help in establishing the state-of-the-art, and in formulating the problems in a more precise manner directly related to the scientific level within the relevant fields.

From this, specific questions and hypotheses can be generated. Some of the controversies have apparent political/ideological connotations and the literature survey may help in extracting the scientifically fruitful from the more normative positions.

The third body of research literature to be surveyed relates to the territorial dimension – both the location aspects and the (local/regional) implications for territorial cohesion and development – of service provision. Different types of services are marked by varying degrees of “inherent” location requirements for their fulfilment in terms of efficient supply and provision. Like other types of production they also differ with regard to key factors of location. Lastly they have diverse local and regional effects on aspects of importance to territorial cohesion and development. Effects will be related to the type of service produced, and more indirectly via employment and other factors.

Obviously the nature and implications of the three territorially relevant aspects differ between publicly (non-market, more influenced by political decisions) and privately (market, to a varying degree politically regulated) provided services, and among different types of services within the two main segments. But even among publicly provided services we find systematically uneven territorial distributions in terms of what kinds of services are produced, and a spatial division of labour that may produce systematically uneven effects (for instance regarding the territorial distribution of highly qualified jobs). Even predominantly public services are influenced by market conditions. In terms of indirect/secondary effects publicly and privately provided services may display many similarities.

Industrial location theory will apply to a varying degree to all types of services, like the classical “central place theory” (Christaller 1933, Lösch 1954) and more modern theory of agglomerations and other aspects (Marshall 1988). At a later stage of this project the development of theories related to the location of services, both supplementing and challenging the more classical approaches, will be discussed in relation to various themes in the literature. The literature review in this section will focus on more recent theoretical developments, particularly in relation to empirical studies and explanations of actual location patterns for different types of services. In addition a review of selected recent literature/studies on the local and regional effects and importance of services in relation to key aspects of territorial cohesion and development will be carried out.

A1.4 Main aspects of overall research design

The research topic addressed in the project is both huge and complex. The overall research design deals *inter alia* with the basic concepts (cf. above), the main research questions, the methodological approach, and not least the overall structure, logic and “logistics” of the project (providing the “glue” that holds the elements of the project together). This section seeks to clarify some aspects of the latter.

An important item here is the purposes and roles of different sets of indicators within the more *basic empirical tasks* of the project plan (fundamental to dealing with all the other tasks). Indicators are tools for measuring phenomena, so the important questions are: What are we going to measure and why? The “why” is usually related to two different types of research questions: i) What is going on? (descriptive), and ii) Why is it going on? (explanatory).

A1.4.1 Main descriptive tasks

Provided that a well-founded operational definition and classification of SGI is established (cf. above), three distinctive *descriptive tasks* have to be carried out according to the project's key research questions:

1. Description of the *territorial distribution and situation* of different (types of) SGI at different territorial levels throughout the European territory, with sub-tasks:
 - a. Description of the *territorial pattern of specialisation and concentration* of different (types of) SGI, according to type of territory
 - b. Identification of the (types of) *territories with a significantly weak and strong basic level of SGI*, respectively
 - c. Description of the *territorial variation according to mix/profile of SGI functions* (service products/types of services)
 - d. Description of the *territorial variation according to SGI beneficiaries/target groups*
2. Description of national variation in policy approaches towards different (types of) SGI, *inter alia* with regard to:
 - a. Basic philosophy/ideology behind SGI-provision
 - b. Balance market/non-market, economic/non-economic
 - c. Balance public ("in-house")/private provision
 - d. Mode of financing of different types of SGI
 - e. Responsibility for SGI-provision (national, regional, local)
 - f. Degree of liberalisation/privatisation
 - g. Legislation/regulation (*inter alia* use of compulsory competitive tendering)
 - h. Rationale for public("in-house") provision (market-failure, other)
3. Description of territorial development trends, regarding:
 - a. Economy/performance, global competitiveness
 - b. Demography (particularly in/out migration)
 - c. Labour market; number of jobs, level of employment
 - d. Level of living/quality of life
 - e. Environmental aspects
 - f. Other....

By the carrying out of these three tasks (of which the first is the most basic) *the question "what is going on?" (the descriptive part)* is covered within the limit of currently available knowledge and accessible information/data.

The basic methodological approach to the tasks will be twofold; i) a European-wide quantitative analysis based on carefully selected sets of indicators for each task, and ii) case-studies (also including a more detailed statistical analysis of the case areas). The sources of information/data for task 2 will differ from those of tasks 1 and 3. Task 2 will rely heavily on document/literature studies and information provided by the project partners (*inter alia* in the case-studies) and in some cases even interviewees in some of the countries. Tasks 1 and 3 will be based on available statistical data. Under i) standard statistical measures for the analysis of territorial variance, concentration, specialisation etc., will be employed.

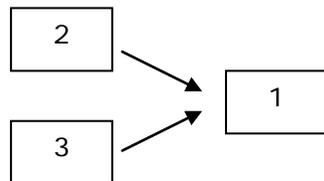
A1.4.2 Main explanatory tasks

The question "why is it going on?" (the explanatory part) assigns different roles to the sets of indicators for the three tasks, according to research problem A, B):

- A. In explaining the patterns of territorial variation revealed under task 1, the indicators for tasks 2 and 3 assume the role of *explanatory variables*

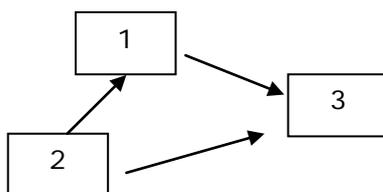
alongside selected indicators on territorial characteristics extracted from other/previous ESPON-projects (for instance by applying the basic set of ESPON territorial typologies). The selection of explanatory variables presupposes the elaboration of tentative explanatory/causal theories/hypothesis.

Figure A1: A simplified “structure” for analysis of research problem A



B. In the analysis of how and to what extent different types/levels of SGI influence territorial cohesion and development (including global competitiveness, economic performance, job growth, in/out migration), the territorial variation to be explained will be revealed in task 3 and the set of indicators for task 1 assume the role of *explanatory variables* (alongside a carefully selected set of supplementary/alternative explanatory variables, or “control variables”). To the extent that indicators for task 2 are shown to have explanatory power for the patterns of territorial variation revealed under task 1, even this set of indicators may be regarded as explanatory in this context (directly or indirectly influencing territorial cohesion and development), depending on theoretical assumptions.

Figure A2: A simplified “structure” for analysis of research problem B



Examples of relevant indicator themes for descriptive task 1

Descriptive task 1 (description of the *territorial distribution and situation* of different types of SGI at different territorial levels throughout the European territory) requires, at minimum, the measurement of;

- The *presence/availability* of particular services/types of services within a given territory, for instance:
 - *Density* of the particular service (number of provider units/firms per km², number of inhabitants; number of employed in the particular service/type of service per inhabitant; number of customers/recipients per inhabitant)

- *Range* of services/number of different services present/available (count of for instance ISIC- divisions, -groups or -classes of service industries represented in the area or within a reasonable distance from the main population centres of the area)
- *The accessibility* of particular services/types of services to potential users within a given territory, according to:
 - *Physical* distance (length of transport by available means of transport)
 - *Temporal* distance (time of transport by available means of transport)
 - *Monetary* distance (cost of transport, time, acquisition/purchase)

The efficient supply of a particular service presupposes accessibility to potential users as well as the presence/availability of the service. Ideally the group of potential users (target groups of different services) should be differentiated according to indicators of their (relative) need/demand for certain services and their (relative) command over resources for overcoming accessibility barriers.

Tarja Cronborg (1986) denotes the two dimensions relevant to the actions necessary for accessing different located resources; “power of action” and “spatial range of action.” Obviously a wide range of combinations will exist in accordance with these dimensions; according to personal characteristics (age, gender, life-cycle stage/family situation, health/physical ability), socio-economic characteristics (education, employment, income, car-ownership) and external factors (type of settlement, location pattern, transport infrastructure).

Another conceptual point of view (“scheme”) which may be fruitful in the analysis of territorial aspects of SGI, is to conceptualise the different service areas or types, as “arenas of action” where resources are converted into new/different resources (Coleman 1971). The recourse-arena perspective has been widely applied in standard-of-living studies since the early 1970s. One research implication would be to decide – *and define indicators for* – the resources required for efficient access to and resource-conversion on the different arenas of SGI-provision, and how these resources are distributed among different segments of potential users in different types of territories. Moreover, a reasonable hypothesis here would be that the resources required as well as their distribution, and the balance of resource input and output, will be contingent on SGI-philosophy and policies, including mode (market/non-market) and organisation (for instance level of government) of provision, system of financing etc.

Examples of relevant indicator themes for descriptive task 2

The indicator themes for *descriptive task 2* are difficult to translate into a comprehensive set of easily measurable operative indicators for use as variables in European-wide quantitative/statistical analyses. A more qualitative typological approach based on quantitative and qualitative information will therefore be added for use as an explanatory variable. The typology will reflect variation among countries (and in some cases even among larger regions) in more basic policy “models” of SGI provision.

A model for this approach may be the concept of different *welfare (state) “models” or “regimes”*, originating from Titmuss (1974), and lately (the last two decades) elaborated and nuanced in different ways by several authors; most of whom explicitly relate to the work of Titmuss, and not least to the later work of Esping-Andersen (1990), cf. for instance Jones ed. (1993), Hicks and Kenworthy (2003). This was briefly elaborated further in the SeGI application.

Titmuss distinguished between three contrasting “models” of social policy in a Weberian “ideal-type” manner;

- *The Residual Welfare Model of Social Policy* (based on the premise that only two channels exist for meeting individual welfare service needs; the market and the family; and only when these channels fail may public/social welfare institutions come into play)
- *The Industrial Achievement-Performance Model of Social Policy* (which holds that social needs should be met on the basis of merit, work performance and productivity, but still adds a significant role for public/social welfare institutions)
- *The Institutional Redistribution Model of Social Policy* (where social welfare is regarded a major integrated institution in society, providing universalist services outside the market, in part based on the principle of social equality)

The author underlines that his "models" should be seen as broad approximations in need of sophistication and nuance based i.e. on empirical investigation.

In his book "*The Three Worlds of Welfare Capitalism*" Esping-Andersen (1990) maintains, on the basis of his comparative research findings, that contemporary welfare states "cluster into three distinct regime-types" characterised *inter alia* by different institutional frameworks of social policy; namely

- *'the liberal regimes'*
- *'the socialist (social-democratic) "regimes"'*
- *'the conservative regimes'.*

The socialist/social democratic regimes consist of the nations whose social insurance programmes are most universalistic in coverage and homogeneous in the level of benefits.

The liberal regimes consist of the nations where means testing and private health and retirement insurance are most common. *The conservative regimes* consist of the nations where social insurance programmes are most differentiated according to occupational status.

The degree to which modern welfare states fit into one or other of the three 'regimes' is shown to vary but according to Esping-Andersen three clusters of states stand out as more typical "representatives" of each of the three types. Other states represent different mixes of the dimensions included. The actual situation is of course rather more discontinuous and heterogeneous.

The project will take these two basic conceptual approaches – with later refinements and variants – as points of departure in an effort to construct a more nuanced, empirically based, typology of present-day (national) modes of SGI-provision, employing i.e. empirical evidence related to the themes a.-h. under *descriptive task 2*.

A2 Presentation of case study areas

East Austrian Periphery. The Austrian region of Southern Lower Austria and Southern and Middle Burgenland comprises areas which are mountainous, rural but close to a city and to a transnational border. It is a functional region of the southern periphery of NUTS1 region Eastern Austria (AT1), named "East Austrian Periphery.

The **Ruhrgebiet** is the largest urban agglomeration in Germany comprising a post-industrial area going through structural change after the coal crisis. It lies in the core of the European Megalopolis in North-Rhine-Westphalia and is densely populated and covered by dense transport networks of highways, fast railways and airports.

The Hungarian **South Great Plain Region** (Dél-Alföld – HU33) possesses the lowest density of municipalities in the country. It is a flat rural area and rich in diverse natural assets and landscape. This border region is experiencing an intense period of industrial structural change with industrial branches losing importance and decreasing population.

Map 1 Case study selection

Case study selection




EUROPEAN UNION
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Regional level NUTS 0, NUTS 2 and NUTS 3
 Source: ESPON SeGI, 2011
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Case study selection

-  COUNTRY
-  Region

The **Northeast region of Iceland** is the most densely populated area besides the capital region, it is however, primarily, a rural peripheral area. It is a functional region experiencing the growing importance of services in the economy, notably for the use of the abundant geothermal energetic potential of the region.

Finmark county in Norway lies between the borders with Russia and Finland and the Norwegian Sea. It is sparsely populated and suffers from a marginal population loss. The region has the fifth lowest GDP *per capita* of the country, and is well below the national average. It has the highest unemployment growth in Norway.

The **Mazowieckie region** in Poland is the seat of the capital city of Warsaw. It is a region with significant intra-regional disparities. While Warsaw contains the highest GDP *per capita*, income and density of population in the whole country, the rural area of Mazowieckie is one of the poorest areas in the country. Besides the polycentric development strategy of focusing on middle-sized towns, the majority of services and jobs are concentrated in the capital city and its metropolitan area.

The Romanian case-study of **Bucharest-Ilfov** is a metropolitan area, therefore urbanised and with a high density of inhabitants. Fast-paced changes are currently taking place in the capital of this new EU Member State, which is experiencing increasing regional disparities. The metropolitan capital area has levels of connectivity, income and development considerably higher than the rest of the country and a level of services that is also significantly differentiated.

The region of **Navarre** in Spain is a mountainous area located on the border with France and with the Basque autonomous region. It is a highly diverse region as regards geographical and human features. It has the second lowest unemployment level in Spain, and registers the highest indicator of social well-being in the country. Its GDP is growing considerably faster than the national average.

South Gloucester in the UK is a peri-urban region in South West of England. It is a major transport hub of motorways and major railways connections. Although industrialised, economically it is still dependent on the local authority as the biggest employer in the region.

A3 Scenarios

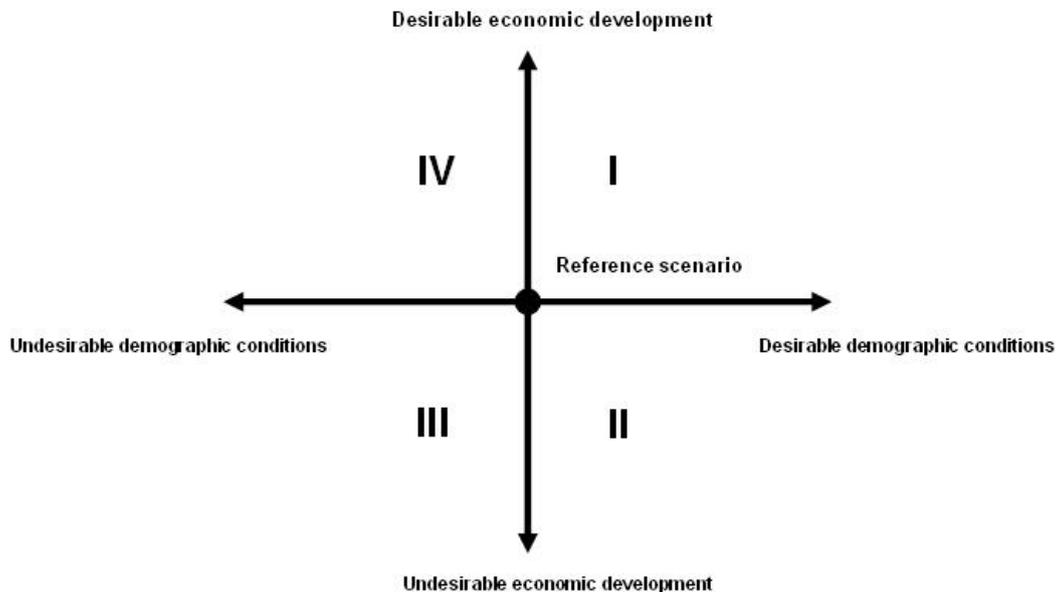
The demographic trends might be classified according to the typologies of population development developed in ESPON 1.1.4 and in the EDORA-project (ESPO 1.1.4, Copus *et al*, 2006; Johansson, 2009, EDORA 2010, Copus and Johansson, 2010). On the one hand, demography is disposed towards a desirable sustainable development, which means positive total population development resulting from both positive net-migration and positive natural population development. On the other hand, an undesirable and non-sustainable population development will be the result of negative net-migration as well as negative natural population change.

The economic dimension is affected by many factors that have a differential regional impact depending on the vulnerability and diversity of the economy. In somewhat simplified form; two kinds of effects can be distinguished depending on internal and external factors which differ a lot internally with regard to economic and social structure, productivity and income levels, phases in the spatial product life cycles, complementarities, openness, the size of the welfare sector, employment and unemployment rates, female labour force participation rates, etc. Different combinations of these variables will thus result in various preconditions regarding long-term sustainable economic development.

The demographic and economic dimensions will be combined, creating four different explorative scenarios. Figure 2 in the Inception Report shows the disposition of the 5 scenarios: Reference scenario; Scenario I (desirable economic development & desirable demographic conditions); Scenario II (undesirable economic development & desirable demographic conditions); Scenario III (undesirable economic development & undesirable demographic conditions) and

Scenario IV (desirable economic development & undesirable demographic conditions).

Figure A3: Scenario dimensions - economic and demographic conditions



Combining predictive and explorative scenarios bring to the analysis some possibilities. First, the sustainable management of services of general interest requires a long term perspective. There is often an inherent conflict between short and long term development – what is good in the short term is not necessary good in the long term. With regard to sustainable development the long term perspective is much preferable. Second, the future development of factors which influence the provision and consumption of services are uncertain and are often also dependent on each other. It thus essential to localise factors that are dependent on each other and outline in what way they reinforce or counteract each other. Third, services of general interest cover many aspects of social and economic systems which are interdependent with complex interactions and fourth. A variety of actors are involved thus scenarios might be helpful in identifying synergies and conflicts between different interests that can enhance and/or counteract basic access and competitiveness with regard to SGI's.

In addition to Activities 1, 3 and 4, already mentioned, the Scenario Activity is also linked to Activity 5 (Typology). The typologies will aid in 'placing' the 9 case studies within the scenario framework. Therefore, it will be possible to acknowledge how different regions are performing with regard to the provision and consumption of services of general interest. A backcasting approach will be used to construct a normative scenario for the region that presents the worst conditions in respect of SGI's, termed the 'red scenario'. The scenarios will be developed following four basic stages (Dreborg, 2004):

1) Scope and target setting

Issues that pressure services of general interest will be indicated and analysed in this phase. For example, future demand for different kinds of services will be estimated based on demographic development including a changing demographic structure and human capital endowment. Economic development based on the

economic structure and diverse stages of development will be another point of departure which is central to long term development. The compilation of this data will set the quantitative limits for the scenarios. Qualitative inputs, consisting of semi-structured interviews, will be undertaken with some experts and segments of society. It is expected that the interviews will provide valuable inputs to the scenario generation process.

2) Scenario generation:

Alternative scenarios for sustainable services of general interest in the year 2030 will be developed based on the outputs from the previous phases (target settings, interviews, external factors, etc). Services of general interest strategies that meet sustainable targets such as social justice, competitiveness, attractiveness, amenities, well-being, good living conditions and quality of life, will be explored. Afterwards, storyline scenarios will be described aiming at assisting external communication and participation. During this stage, it is expected that common and incompatible interests between global/national criteria and regional/local reality will be highlighted.

3) Evaluation of the scenarios:

The evaluation of alternative scenarios will indicate to what extent they are sustainable especially by pointing out how they offset the most challenging trends and how they support the favourable ones. Primarily the scenarios will be evaluated according to global/national targets defined in the first stage of the process. National images will be compared with local images. The scenarios will then be further assessed through the holding of workshops with local stakeholders.

4) Paths towards future sustainable SGI's:

The necessary procedures will be identified in order to achieve the envisaged future. Discussion with local groups and experts about important issues such as: planning and governance, local production, distribution of resources, etc are expected to shed light on the potential development paths to the future. This image of the future will be described in relation to both short and long term policies at the regional and national levels.

Finally the Scenario Activity is expected to provide inputs to Activity 6 (Policy and Governance). The scenario combinations sketched in Figure 2 will indicate the implications of the differing scenarios at the national, regional and local levels from various points of view.

A4 Data appraisal and review

A4.1 Indicator proposal from previous ESPON projects

A4.1.1 ESPON project 1.2.2 – Telecommunication Services and Networks: Territorial Trends and Basic Supply of Infrastructure for Territorial Cohesion

The final report highlights the difficulties involved in ensuring that comparable and harmonised data on the indicators is used at the sub-national level. The data on supply side indicators is mainly held by telecommunications providers and is perceived as being commercially sensitive. It is suggested that some key information could be collected from the regulators; the examples envisage the proportion of exchanges that have been DSL-enabled and the number of homes connected by digital cable.

The report supports the idea that future research should, however, concentrate on the demand side, as a mixture of "individual, household and business uptake and usage indicators" (p. 29). The list of suggested indicators for future data collection (at NUTS 0, 1, 2 and 3) includes (p. 29):

A) Uptake and use of TN&S:

- Telephone subscribers per 100 inhabitants (i.e. fixed and mobile)
- Percentage of households with a telephone
- Percentage of households with PCs
- Installed PCs with broadband access to the Internet
- Cellular subscribers per 100 inhabitants
- Proportion of households subscribing to Cable services
- ISDN subscribers per 100 inhabitants
- ADSL subscribers per 10,000 inhabitants
- Proportion of households with Internet access
- Proportion of households with broadband Internet access
- Internet users per 1000 inhabitants (at work, at school or at home)

B) Uptake and use by business

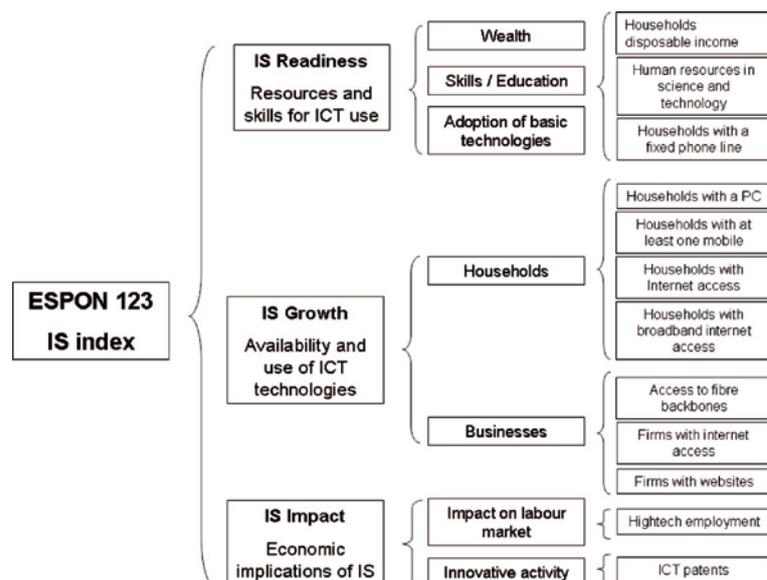
- Proportion of firms with access to the Internet
- Proportion of firms with own website
- Proportion of firms making sales via e-commerce
- Proportion of firms making purchases using e-commerce
- Value of sales by businesses made via the Internet
- Value of purchases made by businesses via the Internet
- Use of broadband to access the internet by size of business
- Level of business activity by type of internet access

The data in this respect is currently collected at the EU15 level, with some limitations. This data is now being collected at the EU15 level, but from an ESPON perspective it has limitations which point to two key tasks, as follows: 1) to extend the INRA or similar surveys to the EU27+2 (EU27 plus Norway and Switzerland); 2) to harmonise the survey at an agreed NUTS level.

A4.1.2 ESPON project 1.2.3 - Spatially relevant aspects of the information society

This project based its empirical work mainly on the eEurope 2005 index and the Networked Readiness Index of the Weforum 2004. Despite difficulties in collecting regional data the project team was able to establish an Information Society (IS) index of 12 indicators on NUTS 0 and on NUTS 2 level:

Figure A4: ESPON 1.2.3 Information Society index



Source: ESPON 1.2.3 Final report 2007, p. 109

The main data sources for these indicators are the Eurostat database and data collected by the ESPON project 1.2.2 on Telecoms. But the team also made extended use of estimation and disaggregation techniques to fill data gaps. Therefore and in view of the importance of IS for European cohesion the recommendation of the research team is that Eurostat should supply more regional data on access and use of information technology. Surveys on regional representative samples could help to fill this gap.

A4.1.3 ESPON project 1.4.2 - Social aspects of EU territorial development

This project focused on four pre-defined key fields, namely social services, services of general economic interest and public transfers, employment and income distribution, housing and education and training. Migration and segregation tendencies or poverty were also considered.

In order to improve the level of knowledge available on the relationship between social aspects and territorial development, two further research projects were proposed, concentrating on (1) The impact of education and child care on regional employment, migration and territorial cohesion and (2) The relationship of the social aspects of territorial development in theory and to the practice in typical regional territorial settings. The former project is based on a vertical approach aiming to analyse the cause-effect relations for a certain sector at all scales, whereas the latter project employs a horizontal approach, focusing on the cause-effect relations and patterns of the investigated components in specific spatial settings at the regional scale.

In terms of indicator proposals, Project Proposal 1 reveals that “the data situation picturing interrelationships between employment and education is rather poor” and “data about the territorial accessibility of educational institutions are missing at regional levels” (p.293). It points to the need to improve the data situation and of using a creative approach for the elaboration of indicators in order to contribute to the creation of functional chains. Accordingly, the indicators will have to concentrate on: the investigation and visualising of the territorial accessibility of educational institutions; cross-impact analyses on the relationship between the population’s educational status and employment rates and the analysis of education and employment data from a gender perspective.

Project Proposal 2 shows that there are several indicators which describe the employment facts in EU 27+2 at NUTS 3 or at least NUTS 2 level. There are also available indicators at the same levels for migration trends. The data situation is, however, rather poor with regard to the interrelations between different social issues.

Hence, the project highlights the existing indicators for various segments of social territorial issues (e.g. social services, housing, employment, education) but also remarks that “data about the territorial accessibility of educational and social institutions are missing at regional level” and “in those terms the improvement of the data-situation and a creative approach concerning the elaboration on indicators will be essential in order to be able to construct functional chains” (p. 304).

A4.1.4 ESPON project 1.4.3 - Urban Functions

Services are not equally spread over all regions. Urban regions and cities play an important role in the supply of higher level services and have an impact far beyond their own borders. Therefore it is worth looking into the results of this project regarding hierarchies of regional service supply. Data restrictions lead to a concentration on MEGA's (functional urban areas with 1 million inhabitants).

In connection with the notion of MEGAs the following indicators and characteristics were assumed:

A. Size of the MEGA

- a) population of the MEGA's FUA (or of all FUAs of polycentric MEGAs);
- b) total GDP of the FUA, on the basis of GDP/inhab. values at NUTS-3 level and of the FUA's population or of the FUAs assigned to the NUTS levels making up the MEGA.

B. MEGA classification by

- a) a dimension that reflects economic integration.
 - the weight of the MEGA in terms of advanced services, office location and their worldwide connectivity;
 - location of headquarters of the main world firms, weighted by their turnover (those having their offices in Europe among the biggest 2000 world firms listed by *Forbes*), with a distinction between the financial, industrial, logistics and building, services and trade sectors;
 - the weight of cities in national command. Indeed, the geographical command structure of the firms of national scope might differ from those of worldwide scope. Cities without any significance from the point of view of international integration could inversely prove rather important in terms of the hierarchical organisation of the national economy.
- b) a dimension reflecting accessibility.
 - Airspace opening. The work of F. Dobruszkes (ULB, IGEAT) allows us to log the number of regular direct connections (outside charter flights) between one city and all the others, as much at intra-European as worldwide level (both have to be distinguished, because worldwide hubs have a different meaning for the most transnational firms);
 - The gateway role of cities compared to the world's economy of transports, measured in first approximation by the importance of cities in term of container transport;
 - Another index could not yet be calculated: it should measure the number of cities (weighted by their importance and the number of daily connections) accessible by rail within a determined duration of time (for example a two hour journey, an acceptable duration for business trips).

c) a dimension reflecting the patrimonial heritage and the quality of cultural supply.

- The importance of the MEGA's patrimonial heritage (number of stars and quotations in the European *Michelin* Guides; importance of museums). These measurements can still be marred by some biases, notably due to the choice of a French source exclusively for tourist attractions. They will have to be refined, but already provide a first satisfying approximation of the reality;
- One could also add the number of hotel nights. Within the framework of this report, a temporary image of these classifications was provided through characterising each MEGA, on each of the dimensions and sub-dimensions, by an index varying from 100 (the best position) to 0.

C. MEGA's structure in view of today's competitive economy and the development of a knowledge economy

- assessment (from value added statistics calculated by IGEAT on the basis of regional statistical data from EUROSTAT and national sources) of the share of the manufacturing sector in the FUA's economy (excl. agriculture);
- assessment of the share of light industry (textiles and clothing, food industry, wood and furniture, paper and publishing, diverse industries) in the industrial economy;
- assessment of the share of financial and business services in the FUA's economy;
- assessment of the share of public services (incl. health and education services) within the tertiary sector;
- assessment of the share of hotels and restaurants in the FUA's economy;
- assessment of the share of transport and communications in the FUA's economy;
- assessment of the share of research and development activities in the FUA's economy;
- one could add the number of quotations by authors working in the FUA in the international scientific literature.

D. Assessment of performance. This analysis has not been conducted yet, but according to the authors it should include the following dimensions:

- assessment of social performances (unemployment rate, share of inhabitants with university degrees; available income by inhabitant; ideally, scattering of incomes);
- assessment of environmental performance. This point refers to a more in depth examination of the urban audit's data.
- Assessment of economic performances (relative growth rate, either compared to the European mean or compared to the national average).

This work has been hampered by the lack of data. In particular there is a need for data or indices on industry and therefore Eurostat should provide detailed information on production structures or at least a detailed repartition of the employment, possibly beyond the NUTS-3 level. It would also be interesting to have a demographic indicator, for instance data on migration that would distinguish between MUAs and FUAs. There is also need for environmental indices more appropriate than those of the Urban Audit which has a lot of missing data and does not use clearly delimited areas. It might perhaps be interesting somehow also to establish a collaboration between ESPON and the Urban Audit.

A4.2 Check of Eurostat and ESPON databases regarding the six areas of SGI

A4.2.1 Transport and infrastructure

Data on motorways and roads as well on railways is available at least for the most recent years 2008, 2007 or 2006 except CH (2005), GR (1995) and LV (2004). Many countries provide time series that date from 1993 (or 1995) to 2008. Data completely missing on all attributes are only for AL, BA, IS and MK. Eurostat (GISCO) provides geographical information from which some of the missing aggregate statistics on roads and railways can be re-calculated using GIS instruments. The GISCO net coverage was also the basis for building the indicators on road distances and road net efficiency in the ESPON project 1.2.1.

The data situation on transport is therefore very different in the countries but with some adjustments (see below) satisfactory (see table A5.6).

A4.2.2 ICT and Telecommunication

As for ICT, there is a balanced situation with regard to data availability at different levels such as NUT0 and NUT2. Data is mainly available from 2007 to 2010 at NUTS2 level and from 2004 to 2010 at NUTS0 level. Regarding the geographical extent at NUTS0, data is available for the EU countries, Norway and even candidate countries such as Croatia, Macedonia and Turkey in the time frame 2007-2010. As regards data at the NUTS2 level, there are some gaps for Bulgaria and France, and no data at all for Turkey and other candidate countries except for Croatia and Iceland. For detailed information see table A5.2

A4.2.3 Labour market

Data on employment (by sex, age, professional status, economic activity, and level of education) is available at NUTS2 for the years 2007-2009 in all the countries with the exception of MK, BA, RS, ME, AL, XK. For the majority of the countries data is provided for the last decade since 1995 respectively. Namely, from 1999 to 2009.

The data situation for other employment indicators like commuters is not so good. Data on commuters for NUTS level 2 regions is not available for MK, BA, RS, ME, AL, XK, GR, IS, TR, CY. Despite the incompleteness of the data, there is information for the most recent years, 2008 and 2009 with the exception of PT(2000) and NW(2005).

For the indicators concerning unemployment the major problem is the lack of data for MK, BA, RS, ME, AL, XK. As regards unemployment differentiated by age and sex there is information for these countries at least on the NUTS0 level. For all other countries data is available at least for the most recent years 2007, 2008 and 2009.

The activity rate by sex and age is also available for the most recent years (2007-2009) for all countries except MK, BA, RS, ME, AL, XK, which only have information for NUTS0. The attribute that cross information regarding active population and internal or international migrations is just available to 22 countries (no data available for: BE, BG, MT, RO, SE) of the 27 European countries, and for NW and SW.

The Labour Costs Surveys from 1996, 2000, 2004 and 2008 provide some interesting indicators. However, due to the existence of many data gaps the surveys are not a good source of information. For more detailed information see table A5.5.

A4.2.4 Education

Data on students by educational level is available for most EU and EFTA/EEA countries as well as candidate countries on NUTS2 level, exceptions here include Germany, the United Kingdom and Switzerland who provide data only on NUTS1 or even the NUTS0 level. The data is available in general as time series, mainly from the beginning of 2000 until 2009 with only a few exceptions like Turkey or Greece. Specifications of educational level like post-secondary schools with general or (pre-) vocational programmes are not common for all countries so that indicators should refer to the main ISCED97 classifications. For more detailed information see table A5.3.

If one looks to expenditure statistics, staff on public and private education institutions and/or teacher-pupil relations then data is only available on NUTS0 level. A more detailed check of data availability in respect of the extended statistics by Eurostat on this topic will be done later when the indicators have been finalised.

A4.2.5 Care services

On Care Services data is not easy to establish a timeframe where the data required is available. Information gaps exist for some years and for some countries. The previous decade is the timeframe with the most data, however, the information available for 2009 and 2008 has a lot of gaps. The countries with less data available are the candidate countries such as TR, ME, CR, MK, AL, BA, RS, XK. In addition, some data such as that for hospital discharges remains very incomplete and is available primarily at the NUTS0 level. For more detailed information see table A5.4.

A4.2.6 Social housing

Data on housing is mostly available for the timeframe 2005-2009. Apart from two indicators at the NUTS2 level covering the year 2001 and full geographic extent for EU countries plus Norway and Switzerland, data is otherwise related to the NUTS0 level thus making it difficult to use existing sources to study this variable at the regional level. Regarding the geographic extent, data at the NUTS0 level is available for all EU countries, Norway and Iceland but not so for Switzerland and candidate countries such as Turkey, Montenegro, Croatia and Macedonia. For more detailed information see table provided in table A5.1

A4.3 Missing data

a) Some data gaps are apparent: where NUTS2 and NUTS1 regions are equal but have different codes then data gaps can appear on the NUTS2 level if the coding of the data was not done properly. This is the case with selective data gaps on the NUTS2 level for example on vehicles for UKN0, FI20 or on railways for ES30, PT20 and PT30. This problem can however be solved rather easily by simply recoding the data.

b) Disaggregation from a higher level: In some cases the time series do not cover the most recent year. Especially when the data on the NUTS1 level is more recent than that on the NUTS2 level the regional diversity of former years can be used to re-calculate NUTS2 data with the equation (1):

$$Y_{2t_0} = Y_{1t_0} * Y_{2t-i} / Y_{1t-i} \quad (1)$$

Y2 = variable at NUTS2,

Y1 = variable at NUTS1

t0 = year of interest,

t-i = t0 minus i with i = number of years

Example: motorways in DE. The time series on NUTS 1 level is complete for 1993 to 2009. The gaps on NUTS 2 level are very specific and vary in the years.

c) If data is available on NUTS1 level but not on NUTS 2 level a transmitter variable can also be use for the disaggregation with the equation (2)

$$Y_{2t_0} = Y_{1t_0} * X_{2t_0} / X_{1t_0} \quad (2)$$

Y2 = variable at NUTS2,
Y1 = variable at NUTS1,
X2 = transmitter variable at NUTS2,
X1 = transmitter Variable at NUTS1,
t0 = year of interest

Example: Given a strong correlation between nurses and hospital beds as most probably the majority of nurses are engaged in hospitals the transmitter variable is "hospital beds" to estimate the number of nurses and midwives. This might be a feasible approach in respect of Bulgaria for example where time series data on hospital beds at NUTS 2 level is available but data on nurses is not.

The relationship between variable and transmitter variable has to be strong. The transmitter variable should not be a variable which is used to build an indicator. If this was the case it would be highly likely that tautological results would be produced.

d) Interpolation over time: if the time series is incomplete and the gap between two dates does not cover too many years, then the missing data can be re-calculated by interpolation with equation (3):

$$Y_{2t_0} = (Y_{2t_0-a} * b / (a+b) + Y_{2t_0+b} * a / (a+b)) / (a+b) \quad (3)$$

Y2 = variable at NUTS2,
t0 = year of interest,
a and b = number of years

Example: navigable canals in PT, the data covers the period 1993-2004 and the period 2007-2008. The missing data 2005 and 2006 can be interpolated if necessary.

A4.4 Harmonisation of data

Statistics in Europe are often not harmonised and therefore may indicate a different status or level in respect of the subject. For example, in the Eurostat database physicians and doctors are treated as one variable together as are nurses and midwives. Who is counted as a nurse or a midwife in the different countries and are both statistics collected in each country? The definition and after that the statistical register of physicians and doctors may not be comparable between countries. Therefore it is expedient that physicians and doctors are collected together as well as nurses and midwives. Summarising two or more variables to one is the first adjustment to level statistical differences as Eurostat already does. But nonetheless there may remain differences in the regional/national level e. g. of doctors and physicians *per capita*.

In these cases a harmonisation of the data can be done via transmitter variables or by levelling the national averages if possible. Equation (2) will be extended and changed to equation (4):

$$Y_{2t_0} = (Y_{0t_0} - X_{0t_0}) * Y_{2t_0} / Y_{0t_0} \quad (4)$$

Y2 = variable at NUTS2,
Y0 = variable at NUTS0,
X0 = transmitter variable at NUTS0,
t0 = year of interest

It is important here that the regional differences within a country are not affected by this transmission. Example: in every pharmacy in Italy one doctor has also to be engaged. The number of doctors (Y0) will be reduced by the number of pharmacies (X0) at national level while the number of pharmacies is not available at NUTS2 level. The corrected national number of doctors is disaggregated to the NUTS2 level according to their initial regional share.

A4.5 Dealing with data gaps and incomplete information on the regional level

In respect of the results of previous research from the ESPON 2006 programme and from the preliminary data check the project has to deal with a) data non-availability on the regional level and b) data gaps by countries and/or regions. Compared to the data situation pertaining in relation to the ESPON 2006 programme some enhancement of the Eurostat database has already taken place. This refers to data on candidate states for the most recent years and/or for additional variables. Nonetheless the data situation is somewhat imbalanced between the different fields of services. While data on transport and basic information on telecommunications as well as on labour markets and education is rather good for the most recent years and on the NUTS2 level, data on social housing and care services is rather bad and mostly only provided on the NUTS0 level. Difficulties increase when seeking to build development indicators as a common or longer time series for most attributes is not available on the sub-national level.

The project must therefore pay great attention to the creation of balanced choice of representative indicators:

- what are the main aspects of services of general interest to be considered in the overall approach of this project?
- what indicator(s) for each theme are represented in its specific aspect - in the meaning of importance for development and cohesion and of the level/state of disparities?
- what indicators are needed for an overall picture to be given of the ESPON space and what indicators are needed in the case studies?

Being aware of these restrictions in respect of data availability and reflecting the possible capabilities to exploit data sources directly at national statistical offices and/or indicators from geobasis data it is important to develop the indicator scheme as early as possible in the project stage. This preliminary exploration of possible indicators and data check issues has the function only to trace the cross section restrictions and to highlight complications on the one hand and for solvable problems on the other. All concrete indicators and data examinations have to follow the theoretical constraints imposed upon them while 'second best solutions' where necessary and appropriate due to data restrictions should also be given.

A5 Data availability overview

The data availability overview conducted thus far by SeGI is listed in the six tables A4.5.1-A.4.5.6 below.

A5.1 Social Housing

Table A5.1: Social Housing

data available at http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
Dwellings by indicator of conventional character, occupancy status and type of buildings (cens_rdh)	2001	NUT2	
Dwellings by number of rooms, of persons, type of building (cens_rdbuild)	2001	NUT2	
Access to basic services and housing (med_ps32)	2000-2008	NUT0	Algeria, Egypt, Morocco, Tunisia, Israel, Jordan, Palestinian territory, Syria
Number of living quarters, private households and occupants by type of living quarters (cens_ndquart)	2001	NUT0	
Occupied conventional dwellings by number of rooms and type of ownership (cens_ndown)	2001	NUT0	
Occupied conventional dwellings by number of rooms and number of occupants and total number of persons (cens_ndnborn)	2001	NUT0	
Occupied conventional dwellings by presence of comfort characteristics (cens_ndcomf)	2001	NUT0	
Dwellings by type of ownership, type of building and period of construction of the building (cens_ndpercons)	2001	NUT0	
Dwellings by type of ownership, type of building and total occupants and total number of person (cens_ndbuild)	2001	NUT0	
Dwellings by indicator of conventional character, occupancy status and type of buildings (cens_rdh)	2001	NUT0	
Dwellings by number of rooms, of persons, type of building (cens_rdbuild)	2001	NUT0	
Living quarters, private households and occupants by type of living quarters (cens_91dtyp)	1991	NUT0	
Occupied conventional dwellings by number of persons in dwelling, number of rooms (cens_91down)	1991	NUT0	
Occupied conventional dwellings by tenure status : number of dwellings, persons, rooms (cens_91dind)	1991	NUT0	
Occupied conventional dwellings by tenure status and period of construction (cens_91dper)	1991	NUT0	
Occupied conventional dwellings by tenure status and amenities (cens_91dame)	1991	NUT0	

Distribution of population by degree of urbanisation, dwelling type and income group (Source: SILC) (ilc_lvho01)	2004-2009	NUT0	
Distribution of population by tenure status, type of household and income group (Source: SILC) (ilc_lvho02)	1998-2009	NUT0	
Average number of rooms per person by tenure status and dwelling type from 2003 (Source: SILC) (ilc_lvho03)	2004-2009	NUT0	
Average number of rooms per person by tenure status and dwelling type until 2001 (Source: ECHP) (ilc_lvho03h)	1994-2001	NUT0	
Average number of rooms per person by type of household and income group from 2003 (Source: SILC) (ilc_lvho04)	2004-2009	NUT0	
Average number of rooms per person by type of household and income group until 2001 (Source: ECHP) (ilc_lvho04h)	1994-2001	NUT0	
Overcrowding rate by age, gender and poverty status - Total population (Source: SILC)	2004-2009	NUT0	
Overcrowding rate by household type - Total population (Source: SILC) (ilc_lvho05b)	2003-2009	NUT0	
Overcrowding rate by tenure status - Total population (Source: SILC)	2004-2009	NUT0	
Overcrowding rate by degree of urbanisation - Total population (Source: SILC)	2004-2009	NUT0	
Overcrowding rate by age, gender and poverty status - Population without single-person households (Source: SILC)	2004-2009	NUT0	
Housing cost overburden rate by age, gender and poverty status (Source: SILC)	2004-2009	NUT0	
Housing cost overburden rate by income quintile (Source: SILC)	2004-2009	NUT0	
Housing cost overburden rate by tenure status (Source: SILC)	2004-2009	NUT0	
Housing cost overburden rate by degree of urbanisation (Source: SILC)	2004-2009	NUT0	
Housing cost overburden rate by household type (Source: SILC)	2003-2009	NUT0	
Median of the housing cost burden distribution by age, gender and poverty status (Source: SILC)	2004-2009	NUT0	
Median of the housing cost burden distribution by degree of urbanisation (Source: SILC)	2004-2009	NUT0	
Severe housing deprivation rate by age, gender and poverty status (Source: SILC) (ilc_mdho06a)	2004-2009	NUT0	
Severe housing deprivation rate by household type (Source: SILC) (ilc_mdho06b)	2003-2009	NUT0	
Severe housing deprivation rate by tenure status (Source: SILC) (ilc_mdho06c)	2004-2009	NUT0	

Severe housing deprivation rate by degree of urbanisation (Source: SILC) (ilc_mdho06d)	2004-2009	NUT0	
Share of total population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames of floor (Source: SILC) (ilc_mdho01)	2004-2009	NUT0	
Share of total population having neither a bath, nor a shower in their dwelling (Source: SILC) (ilc_mdho02)	2004-2009	NUT0	
Share of total population not having indoor flushing toilet for the sole use of their household (Source: SILC) (ilc_mdho03)	2004-2009	NUT0	
Share of total population considering their dwelling as too dark (Source: SILC) (ilc_mdho04)	2004-2009	NUT0	
Share of total population having neither a bath, nor a shower, nor indoor flushing toilet in their household (Source: SILC) (ilc_mdho05)	2004-2009	NUT0	
Noise from neighbours or from the street (Source: SILC) (ilc_mddw01)	2004-2009	NUT0	
HICP - housing (teicp040)	2010-2010	NUT0	By months. From 04/2010 to 02/2011
Overcrowding rate by gender (Source: SILC)	2004-2009	NUT 0	
Overcrowding rate by age group (Source: SILC)	2004-2009	NUT 0	
Overcrowding rate by poverty group (Source: SILC)	2004-2009	NUT 0	
Overcrowding rate by tenure status (Source: SILC)	2004-2009	NUT 0	
Overcrowding rate by degree of urbanisation (Source: SILC)	2004-2009	NUT 0	
Overcrowding rate by household type (Source: SILC)	2003-2009	NUT 0	
Overcrowding rate by gender - Population without single-person households (Source: SILC)	2004-2009	NUT 0	
Overcrowding rate by age group - Population without single-person households (Source: SILC)	2004-2009	NUT 0	
Overcrowding rate by poverty status - Population without single-person households (Source: SILC)	2004-2009	NUT 0	
Housing cost overburden rate by gender (Source: SILC)	2004-2009	NUT 0	
Housing cost overburden rate by age group (Source: SILC)	2004-2009	NUT 0	
Housing cost overburden rate by income quintile (Source: SILC)	2004-2009	NUT 0	
Housing cost overburden rate by poverty status (Source: SILC)	2004-2009	NUT 0	
Housing cost overburden rate by tenure status (Source: SILC)	2004-2009	NUT 0	
Housing cost overburden rate by degree of urbanisation (Source: SILC)	2004-2009	NUT 0	
Housing cost overburden rate by household type (Source: SILC)	2003-2009	NUT 0	

Median of the housing cost burden distribution by gender (Source: SILC)	2004-2009	NUT 0	
Median of the housing cost burden distribution by age group (Source: SILC)	2004-2009	NUT 0	
Median of the housing cost burden distribution by poverty status (Source: SILC)	2004-2009	NUT 0	
Median of the housing cost burden distribution by degree of urbanisation (Source: SILC)	2004-2009	NUT 0	
Proportion of population living in households considering that they suffer from noise (tsdph390)	2004-2009	NUT 0	
Housing deprivation rate by number of item (Source: SILC) (tessi291)	2004-2009	NUT 0	
Share of total population living in a dwelling with a leaking roof, damp walls, floors or foundation, or rot in window frames of floor (Source: SILC) (tessi292)	2004-2009	NUT 0	
Share of total population having neither a bath, nor a shower in their dwelling (Source: SILC) (tessi293)	2004-2009	NUT 0	
Share of total population not having indoor flushing toilet for the sole use of their household (Source: SILC) (tessi294)	2004-2009	NUT 0	
Share of total population considering their dwelling as too dark (Source: SILC) (tessi295)	2004-2009	NUT 0	
Median of the housing cost burden distribution by gender (Source: SILC) (tessi300)	2004-2009	NUT 0	
Median of the housing cost burden distribution by age group (Source: SILC) (tessi301)	2004-2009	NUT 0	
Median of the housing cost burden distribution by poverty status (Source: SILC) (tessi302)	2004-2009	NUT 0	
Median of the housing cost burden distribution by degree of urbanisation (Source: SILC) (tessi303)	2004-2009	NUT 0	

A5.2. ICT

Table A5.2: ICT

data available at http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
Households with access to the Internet at home (isoc_r_iacc_h)	2006-2010	NUT2	
Households with broadband access (isoc_r_broad_h)	2006-2010	NUT2	
Individuals regularly using the Internet (isoc_r_iuse_i)	2006-2010	NUT2	
Individuals who have never used a computer (isoc_r_cux_i)	2006-2010	NUT2	

Individuals who ordered goods or services over the Internet for private use (isoc_r_blt12_i)	2006-2010	NUT2	
Candidate countries and potential candidates: information society statistics (cpc_inisoc)	2004-2009	NUT0	Croatia, Macedonia, Turkey, Albania, Bosnia and Herzegovina, Kosovo, Montenegro, Serbia
ENP countries: information society statistics	2004-2009	NUT0	Belarus, Moldova, Ukraine, Armenia, Azerbaijan, Georgia
Broadband penetration rate (isoc_si_broad)	2004-2010	NUT0	By months. From 01/2005 to 01/2010
E-government usage by enterprises (demand side) (NACE Rev. 1.1) (isoc_si_egov)	2003-2009	NUT0	
E-government usage by enterprises (demand side) (NACE Rev. 2) (isoc_si_egovn2)	2003-2010	NUT0	
E-government usage by individuals (demand side) in the last 3 months, total and by gender (isoc_si_igov)	2002-2010	NUT0	
E-government availability (supply side) (isoc_si_sseg)	2001-2010	NUT0	
E-commerce (NACE Rev. 1.1) (isoc_si_ec)	2002-2007	NUT0	
Level of Internet access (%) (isoc_si_lia)	2002-2010	NUT0	
Information technology expenditure in millions of euro and as a percentage of GDP (isoc_si_ite)	2006-2009	NUT0	
Prices of telecommunication (isoc_si_tprc)	1998-2008	NUT0	
Market shares in telecommunication (isoc_si_msht)	2006-2009	NUT0	
Households with access to the Internet at home, by NUTS 2 regions (tgs00047)	2006-2010	NUT2	Percentage of households with at least one member aged 16 to 74.
Households with broadband access, by NUTS 2 regions (tgs00048)	2006-2010	NUT2	Percentage of households with at least one member aged 16 to 74.
Households with broadband access and Internet access at home, by NUTS 2 regions (tgs00049)	2006-2010	NUT2	Percentage of households with at least one member aged 16 to 74.
Individuals regularly using the Internet, by NUTS 2 regions (tgs00050)	2006-2010	NUT2	Percentage of households with at least one member aged 16 to 74.
Individuals who have never used a computer, by NUTS 2 regions (tgs00051)	2006-2010	NUT2	Percentage of households with at least one member aged 16 to 74.
Individuals who ordered goods or services over the Internet for private use in the last year, by NUTS 2 regions (tgs00052)	2006-2010	NUT2	Percentage of households with at least one member aged 16 to 74.
Enterprises having access to the Internet, by size classes (tin00062)	2003-2009	NUT0	
Individuals using the Internet for interacting with public authorities (tin00064)	2002-2010	NUT0	
Enterprises using the Internet for interacting with public authorities (tin00065)	2003-2009	NUT0	
Individuals having ordered/bought goods or services for private use over the Internet in the last three months (tin00067)	2002-2010	NUT0	
Enterprises having received orders on-line (tin00068)	2003-2009	NUT0	
Enterprises having a broadband connection (tin00063)	2003-2009	NUT0	

Households having a broadband connection (tin00066)	2003-2009	NUT0	
E-government usage by enterprises (tsiir140)	2003-2009	NUT0	
E-government usage by individuals by gender (tsiir130)	2002-2010	NUT0	
Broadband penetration rate (tsiir150)	2002-2010	NUT0	
E-Commerce via Internet (tsiir100)	2002-2007	NUT0	
E-government on-line availability (tsiir120)	2001-2010	NUT0	
Level of Internet access - households (tsiir040)	2002-2010	NUT0	
ICT expenditure by type of product (tsiir090)	2006-2009	NUT0	
Price of telecommunications by type of call (tsier030)	1998-2008	NUT0	
Market share of the incumbent in fixed telecommunications by types of call (tsier070)	2001-2008	NUT0	
Market share of the leading operator in mobile telecommunication (tsier080)	2001-2009	NUT0	
Number of mobile phone subscriptions (1000) (tin00059)	2002-2009	NUT0	
Mobile phone subscriptions (per 100 inhabitants) (tin00060)	1998-2009	NUT0	
Individuals regularly using the Internet, by gender and type of connection (tin00061)	2003-2010	NUT0	
Individuals frequently using the Internet (tin00092)	2003-2010	NUT0	
Individuals who have never used the Internet (tin00093)	2005-2010	NUT0	
Individuals using the Internet, by place of use (tin00075)	2002-2010	NUT0	
Households having access to the Internet, by type of connection (tin00073)	2003-2010	NUT0	
Individuals using a mobile phone via UMTS (3G) to access the Internet (tin00117)	2006-2010	NUT0	
Individuals using a laptop to access the Internet (tin00118)	2007-2010	NUT0	
Individuals using the Internet for seeking health-related information (tin00101)	2003-2010	NUT0	
Individuals using the Internet for looking for a job or sending a job application (tin00102)	2003-2010	NUT0	
Individuals using the Internet for selling goods or services (tin00098)	2002-2010	NUT0	
Enterprises having remote employed persons who connect to the enterprise's IT systems from home, 2006 (tin00082)	2006	NUT0	
Individuals using the Internet for uploading self-created content to any website to be shared (tin00119)	2008	NUT0	
Individuals using the Internet for downloading computer or video games or their updates (tin00120)	2008	NUT0	

Individuals using the Internet for downloading/listening to/watching music and/or films (tin00121)	2008	NUT0	
Individuals paying for online audiovisual content (tin00122)	2008	NUT0	
Households with access to the Internet at home, by NUTS 2 regions (tgs00047)	2006-2010	NUT2	
Households with broadband access, by NUTS 2 regions (tgs00048)	2006-2010	NUT2	
Households with broadband access and Internet access at home, by NUTS 2 regions (tgs00049)	2006-2010	NUT2	
Individuals regularly using the Internet, by NUTS 2 regions (tgs00050)	2006-2010	NUT2	
Individuals who have never used a computer, by NUTS 2 regions (tgs00051)	2006-2010	NUT2	
Individuals who ordered goods or services over the Internet for private use in the last year, by NUTS 2 regions (tgs00052)	2006-2010	NUT2	

A5.3. Education

Table A5.3: Education

a) Pre-primary schools, child care			
Subject:	children in pre-primary schools (ISCED97)		
source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
students/children	1998-2009		data completely missing for AL, BA, IS and MK,
		NUTS 2	AT: 1999, 2002-2009, BE: 1999-2009, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009, DK: 1999-2009, EE: 1009-2008, ES: 1998-2009 without ES63, ES64, FI: 2003-2009, FR: 1999-2009 without oversee, GR: 1999, 2004/05, 2007/08, HR: 2008/09, HU: 2001-2009, IE: 2000, 2002-2009, IT: 2003-2009, 1998-2002 without ITD1, ITD2, ITF6, LT: 1998-2009, LU: 1998-2008, LV: 1998-2009, MT: 1999-2009, NL: 2000-2009, NO: 2006-2009, PL: 2001-2009, PT: 2002-2009, RO: 2000-2009, SE: 1998-2009, SI: 2007-2009, SK: 2000-2009, TR: 2008/09
		NUTS 1 (if not NUTS 2)	DE: 2003-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2008

b) education by ISCED97 nomenclature			
Subject:	students		
source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
primary and secondary school (ISCED97 1 - 3)	1998-2009		data completely missing for AL, BA, IS and MK,
		NUTS 2	AT: 1999, 2002-2009, BE: 1999-2009, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009, DK: 1999-2009, EE: 1009-2008, ES: 1998-2009 without ES63, ES64, FI: 2003-2009, FR: 1999-2009 without oversee, GR: 1999, 2004/05, 2007/08, HR: 2008/09, HU: 2001-2009, IE: 2000, 2002-2009, IT: 2003-2009, 1998-2002 without ITD1, ITD2, ITF6, LT: 1998-2009, LU: 1998-2008, LV: 1998-2009, MT: 1999-2009, NL: 2000-2009, NO: 2006-2009, PL: 2001-2009, PT: 2002-2009, RO: 2000-2009, SE: 1998-2009, SI: 2007-2009, SK: 2000-2009, TR: 2008/09
		NUTS 1 (if not NUTS 2)	DE: 2003-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2008
primary school, first stage (ISCED97 1)	1998-2009		data completely missing for AL, BA, IS and MK,
		NUTS 2	AT: 1999, 2002-2009, BE: 1999-2009, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009, DK: 1999-2009, EE: 1009-2008, ES: 1998-2009 without ES63, ES64, FI: 2003-2009, FR: 1999-2009 without oversee, GR: 1999, 2004/05, 2007/08, HR: 2008/09, HU: 2001-2009, IE: 2000, 2002-2009, IT: 2003-2009, 1998-2002 without ITD1, ITD2, ITF6, LT: 1998-2009, LU: 1998-2008, LV: 1998-2009, MT: 1999-2009, NL: 2000-2009, NO: 2006-2009, PL: 2001-2009, PT: 2002-2009, RO: 2000-2009, SE: 1998-2009, SI: 2007-2009, SK: 2000-2009, TR: 2008/09
		NUTS 1 (if not NUTS 2)	DE: 2003-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2008
lower secondary school (ISCED97 2)	1998-2009		data completely missing for AL, BA, IS, MK and TR
		NUTS 2	AT: 1999, 2002-2009, BE: 1999-2009, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009, DK: 1999-2009, EE: 1009-2008, ES: 1998-2009 without ES63, ES64, FI: 2003-2009, FR: 1999-2009 without oversee, GR: 1999, 2004/05, 2007/08, HR: 2008/09, HU: 2001-2009, IE: 2000, 2002-2009, IT: 2003-2009, 1998-2002 without ITD1, ITD2, ITF6, LT: 1998-2009, LU: 1998-2008, LV: 1998-2009, MT: 1999-2009, NL: 2000-2009, NO: 2006-2009, PL: 2001-2009, PT: 2002-2009, RO: 2000-2009, SE: 1998-2009, SI: 2007-2009, SK: 2000-2009
		NUTS 1 (if not NUTS 2)	DE: 2003-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2008

upper secondary school (ISCED97 3)	1998-2009		data completely missing for AL, BA, IS and MK,
		NUTS 2	AT: 1999, 2002-2009, BE: 1999-2009, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009, DK: 1999-2009, EE: 1009-2008, ES: 1998-2009 without ES63, ES64, FI: 2003-2009, FR: 1999-2009 without oversee, GR: 1999, 2004/05, 2007/08, HR: 2008/09, HU: 2001-2009, IE: 2000, 2002-2009, IT: 2003-2009, 1998-2002 without ITD1, ITD2, ITF6, LT: 1998-2009, LU: 1998-2008, LV: 1998-2009, MT: 1999-2009, NL: 2000-2009, NO: 2006-2009, PL: 2001-2009, PT: 2002-2009, RO: 2000-2009, SE: 1998-2009, SI: 2007-2009, SK: 2000-2009, TR: 2008/09
		NUTS 1 (if not NUTS 2)	DE: 2003-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2008
post-secondary education (ISCED97 4)	1998-2009		data completely missing for AL, BA, IS, HR, MK and TR
		NUTS 2	AT: 1999, 2002-2009, BE: 1999-2009, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009, DK: 1999-2009, EE: 1009-2008, ES: 1998-2009 without ES63, ES64, FI: 2003-2009, FR: 1999-2009 without oversee, GR: 1999, 2004/05, 2007/08, HU: 2001-2009, IE: 2000, 2002-2009, IT: 2003-2009, 1998-2002 without ITD1, ITD2, ITF6, LT: 1998-2009, LU: 1998-2008, LV: 1998-2009, MT: 1999-2009, NL: 2000-2009, NO: 2006-2009, PL: 2001-2009, PT: 2002-2009, RO: 2000-2009, SE: 1998-2009, SI: 2007-2009, SK: 2000-2009
		NUTS 1 (if not NUTS 2)	DE: 2003-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2008
tertiary education (ISCED97 5)	1998-2009		data completely missing for AL, BA, IS and MK,
		NUTS 2	AT: 1999, 2002-2009, BE: 1999-2009, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009, DK: 1999-2009, EE: 1009-2008, ES: 1998-2009 without ES63, ES64, FI: 2003-2009, FR: 1999-2009 without oversee, GR: 1999, 2004/05, 2007/08, HR: 2008/09, HU: 2001-2009, IE: 2000, 2002-2009, IT: 1999-2009, LT: 1998-2009, LU: 1998-2008, LV: 1998-2009, MT: 1999-2009, NL: 1999-2009, NO: 2006-2009, PL: 2001-2009, PT: 2002-2009, RO: 2000-2009, SE: 1998-2009, SI: 2007-2009, SK: 2000-2009, TR: 2008/09
		NUTS 1 (if not NUTS 2)	DE: 2003-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2008
tertiary education with academic orientation (ISCED97 5A)	1998-2009		data completely missing for AL, BA, IS and MK,
		NUTS 2	AT: 1999, 2002-2009, BE: 1999-2009, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009, DK: 1999-2009, EE: 1009-2008, ES: 1998-2009 without ES63, ES64, FI: 2003-2009, FR: 1999-2009 without oversee, GR: 1999, 2004, 2007/08, HR: 2008/09, HU: 2001-2009, IE: 2000, 2002-2005, IT: 1999-2009, LT: 1998-2009, LU: 1998-2008, LV: 1998-2009, MT: 1999-2009, NL: 1999-2009, NO: 2006-2009, PL: 2001-2009, PT: 2002-2009, RO: 2000-2009, SE: 1998-2009, SI: 2007-2009, SK: 2000-2009, TR: 2008/09

		NUTS 1 (if not NUTS 2)	DE: 2003-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2008
tertiary education with occupational orientation (ISCED97 5B)	1998-2009		data completely missing for AL, BA, IS and MK,
		NUTS 2	AT: 1999, 2002-2009, BE: 1999-2009, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009, DK: 1999-2009, EE: 1009-2008, ES: 1998-2009 without ES63, ES64, FI: 2003-2006, FR: 1999-2009 without oversee, GR: 1999, 2004/05, 2007/08, HR: 2008/09, HU: 2001-2009, IE: 2000, 2002-2009, IT: 2005, 2007-2009, LT: 1998-2009, LU: 1998-2008, LV: 1998-2009, MT: 1999-2009, NL: 1999-2002, 2009, NO: 2006-2009, PL: 2001-2009, PT: 2002-2009, RO: 2000-2009, SE: 1998-2009, SI: 2007-2009, SK: 2000-2009, TR: 2008/09
		NUTS 1 (if not NUTS 2)	DE: 2003-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2008
tertiary education second stage (ISCED97 6)	1998-2009		data completely missing for AL, BA, DE, IS and MK,
		NUTS 2	AT: 1999, 2002-2009 without AT11, AT12, AT34, BE: 1999-2009 without BE10, BE25, BE34, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009 without CZ02, DK: 1999-2009, EE: 1009-2008, ES: 1998-2009 without ES 30, ES63, ES64, ES70, FI: 2003-2009, FR: 1999-2009 without oversee and FR93, GR: 1999, 2004/05, 2007/08, HR: 2008/09, HU: 2001-2009, IE: 2000, 2002-2009, IT: 2003-2009, 1998-2002 without ITD1, ITD2, ITF6, LT: 1998-2009, LU: 1998-2008, LV: 1998-2009, MT: 1999-2009, NL: 1999-2001, 2003-2009 without NL11, NL12, NL23, NL34, NO: 2006-2009, PL: 2001-2009, PT: 2002-2009, RO: 2000-2009, SE: 1998-2009, SI: 2007-2009, SK: 2000-2009, TR: 2008/09 without TR10, TR82, TRC3
		NUTS 1 (if not NUTS 2)	UK: 2004-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2008
upper secondary school, general programme	2004-2009	NUTS 2	This is a special differentiation which is not part of the education system in all member states, therefore the data situation is very heterogenous and with many gaps pver EU 27 and neighbourhood
upper secondary school, (pre)-vocational programme	2004-2009		
post-secondary school, general programme	2004-2009		
post-secondary school, (pre)-vocational programme	2004-2009		
c) Students by age			
Subject:	students		

source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
by age: below 3 years, 3 years, 4 years ... 29 years	1998-2009		data completely missing for AL, BA, IS and MK,
		NUTS 2	AT: 1999 except 25, 26, 27, 28 and 29 years, 2002, 2003, 2007-2009, BE: 1999, 2000, 2001, 2007, BG: 2006-2009, CY: 1999-2009, 25 years up to 29 years only for 2001-2009, CZ: 2001-2009, DK: 2008-2009, 2006-2007 only 15 years up to 29 years, EE: 1998-2009, ES: 1998-2009 except ES63, ES64, FI: 2003-2009 but only 3 years up to 7 years and 16 years up to 29 years, except FI20, FR: 1999-2009 except oversea, GR: 1999, HU: 2001-2009, IE: 3 years up to 24 years for 2000-2009, below 3 years only for 2002 and 2003, 25 years up to 29 years for 2002, 2003 and 2005 to 2008, IT: 2003-2009, LT: 1999-2009 except below 3 years, LU: 1999-2008, LV: 1998-2009, MT: 1999-2009, NL: 1999-2003, NO: 2006-2009, PL: 2001-2009, PT 2002-2009 except below 3 years, RO: 2000-2009 except below 3 years, SE: 1998-2009, below 3 years only for 1998, 1999, 2001, 2002, 2006, 2007, SI: 2007-2009 except below 3 years, SK: 2001-2009, TR: 2009
		NUTS 1 (if not NUTS 2)	DE: 2003-2009, below 3 years only for 2006-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2007, 2008, DK: 1998-2009, GR: 1998-2007 (1999 and 2002 except below 3 years and 3 years), HR: 2007-2009 (2009 except below 3 years)
by age groups: 30 to 34 years, 35 to 39 years 40 years and older	1998-2009		data completely missing for AL, BA, IS and MK,
		NUTS 2	AT: 2002, 2003, 2007-2009, BE: 2000, 2001, BG: 2006-2009, CY: 1999-2009, CZ: 2001-2009, DK: 2006-2009, 2006-2007, EE: 1998-2009, 40 years and older only 2005-2009, ES: 1998-2009 except ES63, ES64, FI: 2003-2009 except FI20, FR: 2000-2003, 2007 except oversea, GR: 1999, HU: 2001-2009, IE: 2002-2009, IT: 2003-2009 (40 years and older only 2003, 2007, 2009), LT: 1999-2009 except below 3 years, LU: 1999-2008, LV: 1998-2009, MT: 2004-2009, NL: 1999-2003, NO: 2006-2009, PL: only 30 to 34 years 2001-2009, PT 2002-2009, RO: 2000-2009 (40 years and older only 2007 and 2008), SE: 1998-2009, SI: 2007-2009, SK: 2001-2009, TR: 2009
		NUTS 1 (if not NUTS 2)	DE: 2003-2009, UK: 1999-2009
		NUTS 0 (if not NUTS2 or NUTS 1)	CH: 2007, 2008, DK: 1998-2009, GR: 1998-2007, HR: 2007-2009

d) Proposed indicators by EUROSTAT

source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Indicator	Time	Geo.Unit	Comment

Students at ISCED level 3 (GEN) - as % of all students at ISCED level 3 at regional level	2000-2009	NUTS 2	The proposed indicators base on the data shown below; availability of these indicators reflects the availability of basic data shown above
Students at ISCED levels 5-6 - as % of all pupils and students at regional level	2000-2009	NUTS 2	The proposed indicators base on the data shown below; availability of these indicators reflects the availability of basic data shown above
Students in tertiary education (ISCED 5-6) - as % of the population aged 20-24 years at regional level	2000-2009	NUTS 2	The proposed indicators base on the data shown below; availability of these indicators reflects the availability of basic data shown above
Ratio of the proportion of students (ISCED 5-6) over the proportion of the population by NUTS 1 and NUTS 2 regions	2000-2009	NUTS 2	The proposed indicators base on the data shown below; availability of these indicators reflects the availability of basic data shown above
Students (ISCED 5-6) at regional level - as % of total country level students (ISCED 5-6)	2000-2009	NUTS 2	The proposed indicators base on the data shown below; availability of these indicators reflects the availability of basic data shown above
Students (all ISCED levels) aged 17 at regional level - as % of corresponding age population	2000-2009	NUTS 2	The proposed indicators base on the data shown below; availability of these indicators reflects the availability of basic data shown above
Pupils and Students in all levels of education (ISCED 0-6) - as % of total population at regional level	2000-2009	NUTS 2	The proposed indicators base on the data shown below; availability of these indicators reflects the availability of basic data shown above
Participation rates of 4-years-olds in education at regional level	2000-2009	NUTS 2	The proposed indicators base on the data shown below; availability of these indicators reflects the availability of basic data shown above
Pupils and Students in upper secondary and post-secondary non-tertiary education (ISCED 3-4) - as % of the population aged 15-24 years at regional ...	2000-2009	NUTS 2	The proposed indicators base on the data shown below; availability of these indicators reflects the availability of basic data shown above
Pupils in primary and lower secondary education (ISCED 1-2) - as % of total population at regional level	2000-2009	NUTS 2	The proposed indicators base on the data shown below; availability of these indicators reflects the availability of basic data shown above
e) population 15 years and older by highest level of education attained			
Subject:	students		

source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
pre-primary, primary and lower secondary education	1999-2009		data completely missing for AL, BA and MK
upper secondary, post-secondary and non-tertiary education			
tertiary education levels 5 and 6			
		NUTS 2	complete time series 1999-2009 except: BG 2003-2009, CH 2001-2009, DE: 1999-2009 except DEE0, 1999-2004 except DE41, DE42, DEE0, 1999-2003 except DE41, DE42, DEB1, DEB2, DEB3, DED1, DED2, DED3, DEE0, DK 2007-2009, FR 2007-2009, 1999-2006 except FR91, FR92, FR93, FR94, HR 2007-2009, TR 2006-2009, UK 2001-2009
f) Population 15 years and older participating in life-long-learning			
Subject:	students		
source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
participating/not participating	1999-2009		data completely missing for AL, BA and MK
		NUTS 2	complete time series 1999-2009 except: BG 2003-2009, CH 2001-2009, CZ 2002-2009, DE: 1999-2009 except DEE0, 1999-2004 except DE41, DE42, DEE0, 1999-2003 except DE41, DE42, DEB1, DEB2, DEB3, DED1, DED2, DED3, DEE0, DK 2007-2009, HR 2007-2009, IE: 2002-2009, LV 2002-2009, MT 2000-2009, NO 2000-2009, PL 2001-2009, RO 2007-2009, SE 2007-2009, SI 2001-2009, TR 2006-2009, UK 2001-2009
g) Statistics on NUTS0 level, pre-selected choice			
source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
Financial indicators/expenditures			
Annual expenditure on public (or on public and private) educational institutions per pupil/student in EUR PPS, for all levels of education combined, based on full-time equivalent...	1995-2007	NUTS0	EU, EFTA/EEA, CC

Annual expenditure on public (or on public and private) educational institutions per pupil in EUR PPS, at primary level of education (ISCED 1), based on full-time equivalents	1995-2007	NUTS0	EU, EFTA/EEA, CC
Annual expenditure on public (or on public and private) educational institutions per pupil in EUR PPS, at secondary level of education (ISCED 2-4), based on full-time equival...	1995-2007	NUTS0	EU, EFTA/EEA, CC
Annual expenditure on public (or on public and private) educational institutions per student in EUR PPS, at tertiary level of education (ISCED 56), based on full-time equival...	1995-2007	NUTS0	EU, EFTA/EEA, CC
Ratio of annual expenditure per student at the tertiary level of education to the annual expenditure per pupil at primary level, in public (or in public and private) educatio...	1995-2007	NUTS0	EU, EFTA/EEA, CC
Annual expenditure on public (or on public and private) educational institutions per pupil/student compared to GDP per capita, for all levels of education combined, based on ...	1995-2007	NUTS0	EU, EFTA/EEA, CC
Annual expenditure on public (or on public and private) educational institutions per pupil compared to GDP per capita, at primary level of education (ISCED 1), based on full-...	1995-2007	NUTS0	EU, EFTA/EEA, CC
Annual expenditure on public (or on public and private) educational institutions per pupil compared to GDP per capita, at secondary level of education (ISCED 2-4), based on f...	1995-2007	NUTS0	EU, EFTA/EEA, CC

Annual expenditure on public (or on public and private) educational institutions per student compared to GDP per capita, at tertiary level of education (ISCED 56), based on f...	1995-2007	NUTS0	EU, EFTA/EEA, CC
Current expenditure as % of total expenditure in public (or in public and private) educational institutions, for all levels of education combined	1995-2007	NUTS0	EU, EFTA/EEA, CC
Capital expenditure as % of total expenditure in public (or in public and private) educational institutions, for all levels of education combined	1995-2007	NUTS0	EU, EFTA/EEA, CC
Personnel expenditure as % of current expenditure in public (or in public and private) educational institutions, for all levels of education combined	1995-2007	NUTS0	EU, EFTA/EEA, CC
Other current expenditure as % of current expenditure in public (or in public and private) educational institutions, for all levels of education combined	1995-2007	NUTS0	EU, EFTA/EEA, CC
Financial aid to pupils and students as % of total public expenditure on education, for all levels of education combined	1995-2007	NUTS0	EU, EFTA/EEA, CC
Financial aid to pupils as % of total public expenditure on education, at primary and secondary level of education (ISCED 1-4)	1995-2007	NUTS0	EU, EFTA/EEA, CC
Financial aid to students as % of total public expenditure on education, at tertiary level of education (ISCED 56)	1995-2007	NUTS0	EU, EFTA/EEA, CC
Initial funds provided by the central level of government as % of initial funds provided by all levels of government combined	1995-2007	NUTS0	EU, EFTA/EEA, CC

Initial funds provided by the regional level of government as % of initial funds provided by all levels of government combined	1995-2007	NUTS0	EU, EFTA/EEA, CC
Initial funds provided by the local level of government as % of initial funds provided by all levels of government combined	1995-2007	NUTS0	EU, EFTA/EEA, CC
Final funds provided by the central level of government as % of final funds provided by all levels of government combined	1995-2007	NUTS0	EU, EFTA/EEA, CC
Final funds provided by the regional level of government as % of final funds provided by all levels of government combined	1995-2007	NUTS0	EU, EFTA/EEA, CC
Final funds provided by the local level of government as % of final funds provided by all levels of government combined	1995-2007	NUTS0	EU, EFTA/EEA, CC
Expenditure of public sources of funds of educational institutions as % of expenditure of public and private sources of funds on educational instit...	1995-2007	NUTS0	EU, EFTA/EEA, CC
Expenditure of private sources of funds of educational institutions as % of expenditure of public and private sources of funds on educational insti...	1995-2007	NUTS0	EU, EFTA/EEA, CC
Teachers and academic staff			
Pre-primary education - level 0 (ISCED 1997)	1998-2008	NUTS0	EU, EFTA/EEA, CC
Primary education or first stage of basic education - level 1 (ISCED 1997)	1998-2008	NUTS0	EU, EFTA/EEA, CC
Primary and secondary education - levels 1-3 (ISCED 1997)	1998-2008	NUTS0	EU, EFTA/EEA, CC
Lower secondary or second stage of basic education - level 2 (ISCED 1997)	1998-2008	NUTS0	EU, EFTA/EEA, CC
Upper secondary education - level	1998-2008	NUTS0	EU, EFTA/EEA, CC

3 (ISCED 1997)			
Post-secondary non-tertiary education - level 4 (ISCED 1997)	1998-2008	NUTS0	EU, EFTA/EEA, CC
Tertiary education - levels 5-6 (ISCED 1997)	1998-2008	NUTS0	EU, EFTA/EEA, CC
Ratio of Students to teachers (ISCED 1-3)	1998-2008	NUTS0	EU, EFTA/EEA, CC
Ratio of Students to teachers (ISCED 1)	1998-2008	NUTS0	EU, EFTA/EEA, CC
Ratio of Students to teachers (ISCED 2)	1998-2008	NUTS0	EU, EFTA/EEA, CC
Ratio of Students to teachers (ISCED 3)	1998-2008	NUTS0	EU, EFTA/EEA, CC
Average class size at ISCED 1	1998-2008	NUTS0	EU, EFTA/EEA, CC
Average class size at ISCED 2	1998-2008	NUTS0	EU, EFTA/EEA, CC

A5.4 Care services

Table A5.4: Care services

source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database

Indicators and attributes:	Time:	Geo.Unit	Comment:
Health personnel by region - Absolute numbers and rate per 100,000 inhabitants	1993 - 2008	NUTII	Data completely missing for AL, BA, ME, RS, XK
			CZ: 2004 - 2008, DK: 2004 - 2008, GR: 1993 - 2007, MT: 2009, NL: 1999 - 2007, PL: 1999 - 2008, SL: 2003 - 2008, SK: 1994 - 2008, SE: 1995 - 2006, UK: 2000 - 2009, NW: 2002 - 2008, CH: 2003 - 2009, TR: 1993 - 2003, 2006 - 2008, LU: 1993 - 2008
	NUT0 (if not NUTII)	IE: 2000 - 2008, FI: 1993 - 2002, CR: 1993 - 2008, MK: 1993 - 2006	
Hospital beds (HP.1) by region, unit and facility	1993 - 2008	NUTII	Data completely missing for ME, MK, XK CZ: 2007,2008, DK: 2007,2008, EE: 1993 - 2006, IE: 2003 - 2007, FR: 1997 - 2008, NL: 1993 - 2008, PL: 1999 - 2008, PT: 1999 - 2008, SK: 1996 - 2006, FI: 1993 - 2007, CH: 2000, 2008, UK: 2000 - 2008, IS: 1993 - 1996, 2007, NW: 2002 - 2008, SE: 1993, 2000 - 2006, TR: 2000 - 2008, AL: 1993 - 2000, BA: 1998 - 2001, RS: 1993 - 2001, LU: 2004 - 2008

Hospital discharges by diagnosis (ISHMT) and region, in-patients, causes of disease and age - Total	2000 - 2009	NUTII	Data completely missing for AL, BA, CY, ES, FI, GR, IE, LU, LV, ME, RS, SE, TR, XK
			CZ: 2002 - 2007, DE: 2006, 2007, FR: 2000 - 2008, AT: 2007, 2008, MT: 2009,
		NUT0 (if not NUTII)	BE: 2003 - 2007, BG: 2000 - 2008, DK: 2000 - 2007, EE: 2000 - 2008, IT: 2003 - 2008, LI: 2001 - 2009, HU: 2004 - 2008, NL: 2002 - 2008, PL: 2003 - 2007, PT: 2005, RO: 2000 - 2008, SI: 2006 - 2008, SK: 2000 - 2006, 2008, UK: 2000 - 2003, 2005 - 2007, IS: 2000 - 2006, NW: 2004 - 2008, CH: 2002 - 2008, CR: 2000 - 2006, 2008, MK: 2000 - 2005

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Pensions	1990 - 2008	NUT0	Data completely missing: TR, MK, ME, XK, BA, XK, RS, AL, CR
			BE: 1994 - 2008, BG: 2000 - 2008, CZ: 1995 - 2008, DE: 1991 - 2008, EE: 1999 - 2008, IE: 1995 - 2008, GR: 2000 - 2008, FR: 1999 - 2008, CY: 2000 - 2008, LV: 1997 - 2008, LI: 1996 - 2008, LU: 1995 - 2008, HU: 1999 - 2008, MT: 2000 - 2008, PL: 2000 - 2008, PT: 1995 - 2008, RO: 2000 - 2008, SI: 1996 - 2008, SK: 1995 - 2008, SE: 1993 - 2008,
Expenditure: Tables by benefits	1990 - 2008	NUT0	Data completely missing: TR, MK, ME, XK, BA, XK, RS, AL, CR
			BE: 1994 - 2008, BG: 2000 - 2008, CZ: 1995 - 2008, DE: 1991 - 2008, EE: 1999 - 2008, IE: 1995 - 2008, GR: 2000 - 2008, FR: 1999 - 2008, CY: 2000 - 2008, LV: 1997 - 2008, LI: 1996 - 2008, LU: 1995 - 2008, HU: 1999 - 2008, MT: 2000 - 2008, PL: 2000 - 2008, PT: 1995 - 2008, RO: 2000 - 2008, SI: 1996 - 2008, SK: 1995 - 2008, SE: 1993 - 2008,
Expenditure: Tables by functions, aggregated benefits and grouped schemes	1990 - 2008	NUT0	Data completely missing: TR, MK, ME, XK, BA
			Social protection expenditure excluding administrative costs as a share of GDP (%): CR: 1999 - 2003, AL: 1999 - 2005, RS: 2001 - 2008
			BE: 1994 - 2008, BG: 2000 - 2008, CZ: 1995 - 2008, DE: 1991 - 2008, EE: 1999 - 2008, IE: 1995 - 2008, GR: 2000 - 2008, FR: 1999 - 2008, CY: 2000 - 2008, LV: 1997 - 2008, LI: 1996 - 2008, LU: 1995 - 2008, HU: 1999 - 2008, MT: 2000 - 2008, PL: 2000 - 2008, PT: 1995 - 2008, RO: 2000 - 2008, SI: 1996 - 2008, SK: 1995 - 2008, SE: 1993 - 2008,
Receipts: by type	1990 - 2008	NUT0	Data completely missing: TR, MK, ME, XK, BA, XK, RS, AL, CR BG: 2000 - 2008, CZ: 1995 - 2008, DE: 1991 - 2008, EE: 1999 - 2008, FR: 1999 - 2008, CY: 2000 - 2008, LV: 1997 - 2008, LI: 1996 - 2008, HU: 1999 - 2008, MT: 2000 - 2008, PL: 2000 - 2008, RO: 2000 - 2008, SI: 1996 - 2008, SK: 1995 - 2008, SE: 1993 - 2008,

Receipts: by sector of origin	1990 - 2008	NUT0	Data completely missing: TR, MK, ME, XK, BA, XK, RS, AL, CR
			BG: 2000 - 2008, CZ: 1995 - 2008, DE: 1991 - 2008, EE: 1999 - 2008, FR: 1999 - 2008, CY: 2000 - 2008, LV: 1997 - 2008, LI: 1996 - 2008, HU: 1999 - 2008, MT: 2000 - 2008, PL: 2000 - 2008, RO: 2000 - 2008, SI: 1996 - 2008, SK: 1995 - 2008, SE: 1993 - 2008,

A5.5 Labour Market

Table A5.5: Labour market

source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database

Indicators and attributes:	Time:	Geo.Unit	Comment:
Employment by economic activity	1999 - 2009	NUTII	Data completely missing: MK, BA, RS, ME, AL, XK
Employment by professional status	1995 - 2009	NUTII	Data completely missing: MK, BA, RS, ME, AL, XK BG: 2003 - 2009, DK: 2007 - 2009, CH: 2001 - 2009, CR: 2007 - 2009, TR: 2006 - 2009
Employment by sex, age and highest level of education attained	1999 - 2009	NUTII	Data completely missing: MK, BA, RS, ME, AL, XK BG - 2003 - 2009, DK: 2007 - 2009, RO: 2007 - 2009, SE: 2007 - 2009, CH: 2001 - 2009, CR: 2007 - 2009, TR: 2006 - 2009
Employment and commuting among NUTS level 2 regions (1000)	1999 - 2009	NUTII	Data completely missing: MK, BA, RS, ME, AL, XK, GR, IS, TR, CY. BG: 2003 - 2009, DK:2007 - 2009, IE: 2003, 2008, 2009, HU: 1999, 2003 - 2009, PL: 2004 - 2009, PT: 1999, 2000, RO: 2007-2009, SE: 2007 - 2009, NW: 1999 - 2005, CH: 2006 - 2009, CR: 2007 - 2009
Number of employees, hours actually worked and paid	1996, 2000, 2004	NUTI	Data completely missing for BG, CZ, DK, EE, IE, IT, CY, LV, LT, LU, HU, MT, PL, RO, SI, SK, SE, CR, TR, IS, CH, NW, MK, BA, RS, ME, AL, XK BE: 1996, DE: 1996, GR: 1996, 2000, ES: 1996, 2000, FR: 1996, AT: 1996, NL: 1996, 2000, PT: 1996, FI: 1996, UK: 2000
Unemployment by sex and age	1999 - 2009	NUTIII	BE: 1999 - 2006, BG: 1999 - 2008, DK: 2007 - 2009, CY: 2000 - 2009, PT: 1999 - 2007, SI: 2001 - 2009, IE - 1999 - 2006, 2009.

		NUTII (if not nutIII)	BE: 2006 - 2009, BG: 2009, IE: 2007,2008, FR: 1999 - 2009, PT: 2008 , 2009, IS: 1999 - 2009, CH: 2001 - 2009, CR: 2007 - 2009, TR: 2006 - 2009
		NUT0 (if not nutIII OR NUTII)	MK: 1998 - 2009, BA: 1999,2009, RS: 1998 - 2009, ME: 1998 - 2009, AL: 1999 - 2009, XK: 2001 - 2009
Long-term (12 months and more)	1987 - 2009	NUTII	Data completely missing: MK, BA, RS, ME, AL, XK BG: 2003 - 2009, DK: 2007 - 2009, CY: 2000 - 2009, MT: 2000 - 2009, NL: 1999, 2001 - 2009, RO: 1999 - 2004, 2007 - 2009, SE: 1999 - 2004, 2007 - 2009, CH: 2001 - 2009, CR: 2007 - 2009, TR: 2006 - 2009
Economic activity rates by sex and age	1977 - 2009	NUTII	BG: 2003 - 2009, DK: 2007 - 2009, MT: 2000 - 2009, RO: 1999 - 2004, 2007 - 2009, SI: 2001 - 2009, SE: 1999 - 2004, 2007 - 2009, CH: 2001 - 2009, TR: 2006 - 2009
	1998 - 2009	NUT0 (if not nutII)	MK: 1998 - 2009, BA: 2006 - 2009, RS: 1998 - 2009, ME: 1998 - 2009, AL: 1999 - 2009, XK: 2001 - 2009
Total population and active population by sex, age and indicator of internal or international migration	2001	NUTIII	Data available to - CZ, DK, GE, EE, IE, GR, ES, FR, IT, CY, LV, LI, LU, HU, NL, AT, PL, PT, SI, SK, FI, UK, NW, CH
Labour cost, wages and salaries, direct remuneration	2000, 2004, 2008	NUTI	Data completely missing for CZ, DK, EE, IE, CY, LV, LT, LU, HU, MT, IS, NW, CH, SI, SK, FI, MK, BA, RS, ME, AL, XK
			GR: 2004,2008, NL: 204, 2008, UK: 2004,2008, BE: 2008, BG: 2008, DE: 2008, GR: 2008, ES: 2008, FR: 2008, IT: 2008, AT: 2008, PT: 2008, PL: 2008, PT: 2008, RO: 2008, SE: 2008.
Number of hours actually worked and paid per employee	2000,2004,2008	NUTI	Data completely missing for CR, TR, IS, CH, NW, MK, BA, RS, ME, AL, XK, CZ, DK, EE, IE, CY, LV, LT, LU, MT, SI, SK, FI.
			BE: 2008, BG: 2008, DE: 2008, GR: 2008, ES: 2008, FR: 2008, IT: 2008, HU: 2008, NL: 2008, AT: 2008, PL: 2008, PT: 2008, RO: 2008, SE: 2008, UK: 2008.
Coefficient of variation of labour cost - Regional data	1996	NUTI	Data available to - BE, DE, GR, ES, FR, NL, AT, PT, FL.

A5.6 Infrastructure

Table A5.6: Infrastructure

a) Transport			
Subject:	roads/lines in km		
source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
navigable canals	1993-2008		data completely missing for AL, AT, BA, BG, CH, CY, ES, IS, MK, MT, SI and TR
		NUTS 2	BE: 1993-1994, CZ: 2005-2008, EE: 1997, FI: 1993-2006, FR: 1993-2008 but oversea only 2005-2006, GR: 1993-2008, HU: 2001-2008, IE: 1993-2005, IT: 1993-95, LT: 1993-2008, LU: 1992-2004, LV: 1993-1996, NL: 1993-1994 and 2005-2008, NO: 2005-2008, RO: 1993-2008, SE: 1993-2006, SK: 1993-2008
		NUTS 1 (if not NUTS 2)	DE 1993-2009, DK: 1993-2003, HR: 1993-2006, FI: 1993-2006, UK 2008 except UKM and UKN
		NUTS 0 (if not NUTS2 or NUTS 1)	PL: 1993-2008, PT: 1994,
navigable rivers	1993-2008		data completely missing for AL, BA, CH, CY, ES, IS, MK, MT, SE, SI, SK and TR
		NUTS 2	AT: 1997-98, BE: 1993-1994, BG: 2007-2008, CZ: 2005-2008, DE: 1993-2009 but specific data gaps, DK: 1993-2003, EE: 1993-2008, FI: 1993-2006, FR: 1993-2008, GR: 1993-2008, HU: 2001-2008, HR 1993-2008 but only HR01 and HR02, IE: 1993-2005, IT: 1993-95, LT: 1993-2004 and 2007-2008, LU: 1992-2005, LV: 1993-1996, NL: 1993-1994 and 2005-2008, NO: 2005-2008, PT: 1993-95 only PT11 and PT15, RO: 1993-2008, SK: 1997-2008
		NUTS 1 (if not NUTS 2)	data on NUTS1-level: DE 1993-2009, DK: 1993-2003, HR: 1993-2008, PT: 1993-1995, UK 1995-2007 but only UKC, UKD, UKE, UKF, UKJ, UKK, UKL, UKM and 2008 complete
		NUTS 0 (if not NUTS2 or NUTS 1)	data on NUTS0-level: AT: 1997-2008, PL: 1993-2008, PT: 1994-1995,

motorways	1993-2008		data completely missing for AL, BA, IS, MK and MT
		NUTS 2	AT: 1993-2008, BE: 1993-94 and 2000-01, BG: 1995-2006 but different actuality of grid, CY: 1993-2008, CZ: 1993-2008, DE: 1993-2009 but specific data gaps, DK: 2007-2008, EE: 1993-2008, ES: 1993-2008, FI: 1998-2008, FR: 1993-2008, GR: 1993-2006, HR: 2007-2008, HU: 2003-2008, IE: 1998-2008, LT: 1993-2008, LU: 1993-2008, LV: 1993-1995, NL: 1999-2008, NO: 2004-2008, PL: 2006-2008, PT: 2003-04, RO: 1993-2008 but different actuality of grid, SE: 1993-2008, SI: 2007, SK: 1995-2008, TR: 1993-2008, UK: 1993-2008
		NUTS 1 (if not NUTS 2)	BE: 1993-2003, BG: 1993-2008, CH: 1993-2005, DE 1993-2008, DK: 1993-2008, FI: 1993-2008, HR: 1993-2008, IE: 2004-2008, IT: 2001-2007, PT: 1993-2003, SI: 1993-2008
other roads	1993-2008		data completely missing for AL, BA, IS and MK
		NUTS 2	AT: 1993-2008, BE: 1993-2003 BG: 1995-2008, CH: 1993-2005, CY: 1993-2008, CZ: 1993-2008, DE: 1997-1998, 1993-2009 but specific data gaps, DK: 1993-2008, EE: 1993-2008, ES: 1993-2008, FI: 2000-2008, FR: 1993-2008 but 2007-08 without oversea, GR: 1993-1995, HR: 2007-2008, HU: 1996-2008, IE: 1998-2003 and 2007-2008, IT: 2001-2007, LT: 1993-2008, LU: 1993-2007, LV: 1993-2008, MT: 1998-2008, NL: 1996-1997 and 2001-2008, NO: 2004-2008, PL: 1995-2008, RO: 1993-2008, SE: 1999-2008, SI: 2007, SK: 1997-2008, TR: 1993-2008, UK: 1993-2008
		NUTS 1 (if not NUTS 2)	BE: 2007-08, DE 1993-2008, SI: 1993-2008
railroads	1993-2008		data completely missing for AL, BA, CY, IS, MK and MT
		NUTS 2	AT: 1993-1997, BE: 1993-1994 BG: 2000-2008, CH: 1996-1997, CZ: 1999-2008, DK: 1993-2008, EE: 1993-2008, ES: 2006-2008 (1993-2005 without ES30), FI: 1996-2008 but FI20 only 2006, FR: 1993-2008 but oversea only 1997-2006, GR: 1993-2004, HR: 1993-2008, HU: 1998-2008, IT: 1993-2008, LI: 2005-2008, LT: 1993-2008, LU: 1993-2008, LV: 1993-2008, NL: 1996 and 2005-2008, NO: 2005-2008, PL: 1998-2008, PT: 2003-2007 but without PT20 and PT30, RO: 1993-2008, SE: 2007-2008, SK: 2000-2008, TR: 1993-2008
		NUTS 1 (if not NUTS 2)	DE 1993-1994 and 2005-2008, IE: 2002-2008, PT: 1993-2004, SI: 1993-2008
		NUTS 0 (if not NUTS 2 or NUTS 1)	UK: 1993-2008
electrified railways	1993-2008		data completely missing for AL, BA, CY, IS, MK and MT

		NUTS 2	AT: 1993-1997, BE: 1993-1994 BG: 2000-2008, CH: 1996-1997, DK: 1993-2008, EE: 1993-2008, ES: 2006-2008 (1993-2005 without ES30), FI: 1996-2008 but FI20 only 2006, FR: 1993-2008 but oversea only 1997-2006, GR: 1993-2004, HR: 1993-2008, HU: 1998-2008, IT: 1993-2008, LT: 1993-2008, LU: 1993-2008, LV: 1993-2008, NL: 2005-2008, NO: 2005-2008, PL: 1998-2008, PT: 2003-2007 but without PT20 and PT30, RO: 1993-2008, SE: 2007-2008, SK: 2000-2008, TR: 2004-2008
		NUTS 1 (if not NUTS 2)	CZ: 2003-2008, DE 1994 and 2005, IE: 2002-2008, PT: 1993-2004, SI: 1993-2008
		NUTS 0 (if not NUTS 2 or NUTS 1)	UK: 1993-2008
railroads, two tracks and more	1993-2008		data completely missing for AL, BA, CY, IS, MK, MT and UK
		NUTS 2	AT: 1993-1997, BE: 1993-1994 BG: 2000-2008, CZ: 2008, DK: 1993-2004, EE: 1993-2008, ES: 2006-2008 (1993-2005 without ES30), FI: 1996-2008 but FI20 only 2006, FR: 1993-2008 but oversea only 1997-2006, GR: 1993-2004, HR: 1993-2008, HU: 1998-2008, IT: 1993-2008, LT: 1993-2008, LU: 1993-2008, LV: 1993-2008, NL: 1995 and 2005-2008, NO: 2005-2008, PL: 1998-2008, PT: 2003-2004 but without PT20 and PT30, RO: 1993-2008, SE: 2007-2008, SK: 2002-2008, TR: 2004-2008
		NUTS 1 (if not NUTS 2)	CH: 1993-2004, DE 2005, IE: 2002-2008, PT: 1993-2004, SI: 1993-2008
Subject: roads and ports			
source: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
ferry links	1991-1997	GIS coverage, lines	Europe, update in progress
location of ports	1990-1997, 2009	GIS coverage, points	Europe
roads	1991-1997	GIS coverage, lines	Europe, update in progress
railways	1991-1997	GIS coverage, lines	Europe, update in progress
airports	2006	GIS coverage, points	Europe
Subject: accessibility indicators			

source: ESPON 2013 Database project			
Attribute	Time	Geo.Unit	Comment
road distance (maximum, average, sum) in m	2009	LAU2	Europe
euclidean distance (maximum, average, sum) in m	2009	LAU2	Europe
road network efficiency (maximum, average, sum)	2009	LAU2	Europe
Subject:	vehicles		
source: EUROSTAT: http://epp.eurostat.ec.europa.eu/portal/page/portal/region_cities/regional_statistics/data/database			
Attribute	Time	Geo.Unit	Comment
motorcoaches, busses and trolley busses	1993-2009		data completely missing for AL, BA, IS and MK
		NUTS 2	AT: 1993-2009, BE: 1993-2009, BG: 1996-2009, CH: 1993-2006, CY: 1993-2009, DE: 1997-2006 except DE41 and DE42, DK: 1993-2008, EE: 1993-2009, ES: 2005-2009, FI: 2005-2009, 1995-2005 except FI20, FR: 1993-2009 except oversea regions, GR: 2005-2009, 1993-2004 except GR30, HR: 1996-2009, HU: 1996-2009, IE: 1998, IT: 1999-2009, LI: 2005-2009, LT: 1993-2009, LU: 1993-2009, LV: 1993-2009, MT: 1993-2009, NL: 1993-2009, NO: 2004-2009, PL: 1995-2009, PT: RO: 1993-1996 and 2002-2009, SE: 1993-2009, SI: 2007-2009, SK: 1997-2009, TR: 2004-2009, 1993-2003 except TR10, UK: 2005-2007, 2008-2009 except UKNO
		NUTS 1 (if not NUTS 2)	DE: 1994-2009, IE: 2005-2009, PT: 1993-2003
Passanger cars	1993-2009		data completely missing for AL, BA, IS and MK
		NUTS 2	AT: 1993-2009, BE: 1993-2009, BG: 1996-2009, CH: 1993-2006, CY: 1993-2009, DE: 1997-2006 except DE41 and DE42, DK: 1993-2008, EE: 1993-2009, ES: 2005-2009, FI: 2005-2009, 1995-2005 except FI20, FR: 1993-2009 except oversea regions, GR: 2005-2009, 1993-2004 except GR30, HR: 1996-2009, HU: 1996-2009, IE: 1998, IT: 1999-2009, LI: 2005-2009, LT: 1993-2009, LU: 1993-2009, LV: 1993-2009, MT: 1993-2009, NL: 1993-2009, NO: 2004-2009, PL: 1995-2009, PT: RO: 1993-1996 and 2002-2009, SE: 1993-2009, SI: 2007-2009, SK: 1997-2009, TR: 2004-2009, 1993-2003 except TR10, UK: 2005-2007, 2008-2009 except UKNO
		NUTS 1 (if not NUTS 2)	DE: 1994-2009, IE: 2005-2009, PT: 1993-2003

A6 Use of existing ESPON results relevant for SeGI

A6.1 Results from the projects in the ESPON 2006 Programme

A6.1.1 ESPON projects 1.1.1 and 1.4.3

Project 1.1.1 provides typologies of urban areas, based on a number of variables that might be re-used to describe the presence of services of general interest e.g. ports, universities, public administration, whereas access to and costs of such services do not play any role. Services of higher specialisation and level can be researched in conjunction with the typologies of MEGAs and FUAs. The elaborated concept of polycentricity can serve as a theoretical frame for the project. The policy analysis of governance structures and co-operations on and between various tiers need to be integrated into SeGI. Project 1.4.3 later updates and details the findings of Project 1.1.1 regarding the form of polycentric areas.

A6.1.2 ESPON project 1.1.2.

Project 1.1.2 elaborated a stepped typology from high urban to high rural areas based on simple variables e.g. population density and land cover. "Services" appear in the study in relation to business sectors and gross economy whereas social aspects remain in the background. A more detailed research focussed on services of general interest may be developed that builds on the urban-rural typology, the "territorial interdependencies", service and consumption, i.e. supply and demand linkages, and the identified key-drivers for changes in urban-rural relationships.

A6.1.3 ESPON project 1.1.4

Project 1.1.4 gives a detailed picture of demographic regimes of Europe at a regional scale. As population structures and dynamics, including age, sex, education, family structures, must be considered as key factors in terms of demand for services of general interest in respect of e.g. health, education, culture, mobility. SeGI will build on the demographic typologies and scenarios developed under 1.1.4. Evidence about demographic developments in different types of territories, including urban/rural distinctions and especially depopulating regions – that should provide a sound basis for analysis. Updated data from the ESPON Territorial Observer Nr. 1 and later from DEMIFER will also be used.

A6.1.4 ESPON project 1.2.2

Project 1.2.2 analyses a very specific feature of infrastructure that is highly relevant for SeGI. Access to ICT and broadband/ fibreoptic communications clearly goes hand in hand with access to a huge variety of (on-line) services for households, and is a decisive location factor for firms, and more generally must be seen as a prerequisite of today's society. 1.2.2 concludes that the hierarchy of connections favours urban and central regions as nodes of the backbone, while penetration of high speed internet connection to peripheral areas indicates the potential for enhancement for lagging regions. The data set of 1.2.2 is rather incomplete for sub-national levels.

A6.1.5 ESPON project 1.2.3.

Project 1.2.3 offers a very relevant connecting point for SeGI by differentiating three dimensions of the information society: technological (ICT), economic (knowledge intensive businesses) and social (education, e-government). The availability and theoretical access to information based services was identified as non-linear in respect to their actual usage. Consequently, further supporting actions are needed to foster the development of information societies. Due to very limited access to data, Project 1.2.3 operated mainly on the basis of case studies, and there are no useful data for the entire EU27.

A6.1.6 ESPON project 1.3.3

Project 1.3.3 identifies a genuine differentiation in national and regional policies regarding the provision of cultural services to inhabitants. The variables used to display cultural infrastructure included: theatres, cinemas and libraries per 1000 inhabitant. (NUTS III/II). Cultural institutions are clearly identified as services of general interest.

A6.1.7 ESPON project 1.4.2

Project 1.4.2 explicitly analyses the presence and access to social services under the premises of social cohesion. Four indicators have been developed and applied at NUTS II level: hospitals, doctors, telecommunication and internet. Project 1.4.2 also provides a large number of variables to quality and affordability of housing as well as education and training. The theoretical background presented by the project on the European Social Model can be used by SeGI; as well as the elaboration on interrelations between social services and corresponding factors such as education, housing and employment.

A6.1.8 ESPON project 3.2

Project 3.2 worked out various thematic as well as policy oriented scenarios for the horizon 2030. Due to lack of data at the small-scale, services of general interest are not included in the scenarios, even though, services of general interest are frequently discussed e.g. concerning small-and medium sized towns and different types of territories. A case study of La Grande Région in respect of access to maternity hospitals at LAU level was also conducted, and demonstrates the likely impact of cohesion versus competitiveness oriented future development for a specific social service.

A6.1.9 ESPON project 3.4.2.

Project 3.4.2 focuses on the economic performance of Europe. A typology was created by means of NACE A-31 subdivisions (Nomenclature générale des activités économiques), based on NUTS II/III. Out of those 31 categories, several describe services of general (economic) interest in a specific sense: such as electricity/gas/water supply, transport/storage/communication, public administration, health and social work, other social/personal services.

A6.2 Links to other ESPON 2013 Projects

In addition the current ESPON 2013 projects may provide an important source and node of collaboration (FOCI, EDORA, DEMIFER; as well as the projects on accessibility and attractiveness together with relevant Priority 2 projects that are finalised or ongoing). Furthermore, special attention will be given to the outcomes of the Priority 3 Project Typology Compilation.

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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.

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