

SERVICES OF GENERAL INTEREST: EMPIRICAL EVIDENCE FROM CASE STUDIES OF THE SEGI PROJECT¹

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Abstract: The paper presents an analysis of an overview of services of general interest in 9 European countries (Austria, Germany, Spain, Hungary, Iceland, Norway, Poland, Romania and the UK) which carried out the overview on both national and regional levels. An empirically grounded analysis describes the level of services of general interests in various geographical scales. The methodology used for individual cases to investigate SGI at two levels (national and regional) in nine countries followed a cumulative-circular method with clear phases, intending to show the regional diversity but also ensuring comparability and a crosscut analysis. The Authors conclude their study with a crosscut analysis, focusing on selected features of services of general interests: availability, accessibility, affordability and quality.

Key words: services of general interest, case studies, national and regional level, ESPON.

1. INTRODUCTION

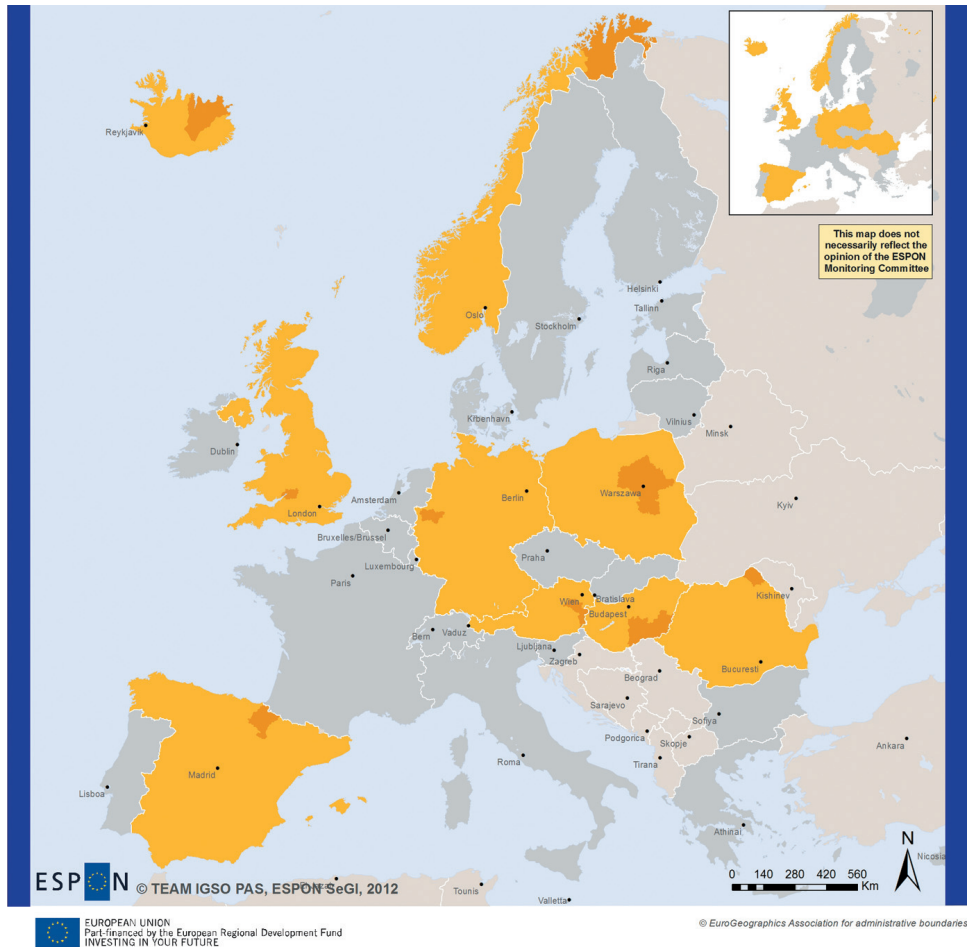
This paper is the result of an analysis of case studies carried out within the SeGI project, and it aims to provide an empirically grounded analysis of the level of services of general interests in various geographical scales, covering two (transnational/national, regional/local) of the three-levels (European, transnational/national, regional/local) commonly used in the ESPON applied research projects.

The realisation of case-studies in nine countries has revealed the territorial distribution and situation of services of general interest (SGI) in certain European regions. The paper analyses, in a multi-scalar form, the potential and the constraints of territorial development regarding SGI within different types of territories, including rural, urban, peri-urban, mountainous, island, coastal and outermost regions (cf. Table 1) vis-à-vis their national contexts and SGI situation at the national level.

This paper summarises the results of the nine researches conducted for the case study exercise, providing an overview of the situation of SGI, both on national and regional levels, and concluding with a crosscut analysis focusing on selected features: availability, accessibility, affordability and

¹ This paper is part of the applied research project *Indicators and Perspectives for Services of General Interest in Territorial Cohesion and Development* (SeGI), led by the Royal Institute of Technology (KTH), Sweden. It has been financed by the ESPON 2013 Programme and this financial support is gratefully acknowledged. Texts, maps and conclusions stemming from research projects under the ESPON programme presented in this report do not necessarily reflect the opinion of the ESPON Monitoring Committee. © ESPON, 2013.

quality of SGI. The detailed description of SGI in the studied countries and regions can be found in the case-studies reports of the project.



Case Study areas

Austria	– Eastern Austria
Germany	– Ruhrgebiet
Hungary	– Dél-Alföld
Iceland	– Northeast
Norway	– Finnmark
Poland	– Mazowsze
Romania	– Northeast
Spain	– Navarre
U.K.	– South Gloucestershire

Figure 1. Case study areas

Table 1. Project case-studies

	Country	Region	Territorial Aspects of the Region*
1	Austria	Eastern Austria	Border, Mountainous, Urban/Rural
2	Germany	Ruhrgebiet	Urban, Metropolitan
3	Hungary	Dél-Alföld	Rural, Border
4	Iceland	Northeast	Island, Coastal, Remote, Rural, Sparsely
5	Norway	Finnmark	Remote, Border, Sparsely, Mountainous, Coastal
6	Poland	Mazowsze	Urban/Rural, Metropolitan, Intermediate
7	Romania	Northeast	Border, Rural, Intermediate
8	Spain	Navarre	Mountainous, Metropolitan, Border, Coastal, Intermediate
9	U.K.	South Gloucestershire	Coastal, Intermediate

* Types of regions according to the ESPON Typology Compilation (on NUTS 3 level).

The analyses of services, both at the national and regional levels, followed a division services into two types: “services of general economic interest”, which include: energy supply, water supply, communication infrastructures, transport infrastructure, sewage facilities, and similar services; and “social services of general interest”, which include: schools and other educational facilities, health care institutions, care services, and so forth.

2. METHODOLOGY

The methodology applied in individual cases for investigating SGI at two levels (national and regional) in nine countries consisted in a cumulative-circular method with clear phases, intending to show the regional diversity, but also ensuring comparability and a crosscut analysis. Each phase had a research objective and was guided to guarantee the maximum possible standardisation and comparability, without hindering the creative forms of showing the specificities of each country and region. The research phases were the following:

1. National data collection and contextualisation: analysis of the national welfare context and governance of SGI in the nine studied countries.
2. National analyses. Analysis and organisation of research findings with an overview of all the chosen services (initially grouped in four categories, later divided in SEGI and SSGI).
3. Regional empirical research: regional description, contextualisation, data collection, questionnaire survey and in-depth interviews (with experts/stakeholders in the regions).
4. Regional analysis: joint assessment of data collected in the regions.
5. Crosscut analysis and conclusions.

Five (policy and research) questions established in the SeGI project proposal guided the work. These questions were: What is the territorial distribution of the services of general interest throughout the European territory and how can this be measured? How and to what extent do the various levels of services of general interest contribute to the global competitiveness, economic development and job growth of cities, urban agglomerations and other territories? What are good indicators to measure the level of services of general interest? What is the current territorial situation of services of general interest throughout the European territory? What territorial development potential and constraints do different types of territories in Europe have?

More information concerning the definition of SGI and indicators can be found in articles by Marques da Costa et al. (2012) and Breuer and Milbert (2012) which are presented in this volume.

The use of structuring features was imperative to draw robust conclusions from very diverse regions, and using distinct and extensive research procedures in each case study. In this sense, the case studies have aimed at analysing the spatial distribution of services of general interest in selected countries, as well as their impact on the development conditions in territories of diverse kind that have been examined. This has allowed the authors to perform a multi-faceted analysis of SGIs in Europe, taking fully into consideration the variety of its territory.

3. SGI IN THE STUDIED COUNTRIES (NATIONAL LEVEL OF ANALYSIS)

3.1. SERVICES OF GENERAL ECONOMIC INTEREST (SGEI) AT THE NATIONAL LEVEL

3.1.1. Traditional infrastructure services (gas, water, waste and sewage, electricity and transport)

In **Austria**, gas is under the responsibility of the national level, and therefore regulated in national law. Formerly a state monopoly, since 2002 this economic sector has been liberalised in compliance with the EU directives. Waste management is a duty of the local level, based on national and on Bundesländer laws. In practice, municipalities often co-operate in this matter. Public-private partnerships are common organisation structures, meaning that mostly private companies take care of waste management, based on contracts with the municipalities. 13% of Austrian households are not connected to public water pipelines but get their water from private springs or fountains.

In Austria, public transport is another liberalised service of general interest. While local transport systems are mostly run by public-private partnerships between municipalities and private bus and tram companies, the rail transport at national level is characterised by a quasi-public market. However, it is in the process of change. The Austrian Federal Railways (ÖBB) are officially private companies (separated into several corporations, e.g., for transport of people and goods, and for rail-infrastructure) which, however, are supported by the state.

Germany is poor in natural resources and it is dependent on imports. In 2007, 85% of gas demand in Germany was fulfilled by import, mainly from Russia (37%), Norway (28%), and the Netherlands (20%) - exclusively by pipelines. Natural gas has a demand for primary energy by 23% and comes second in German energy mix, after mineral oil. In the sector of private households, gas has the share of 40% and is the most important energy source on the heat market. Almost half of houses/apartments in Germany are provided with gas, especially in cities with more than 100,000 inhabitants. Historically, the municipalities are the operator for water as well as for sewage. The public water supply network extends to 500,000 kilometres, and nearly 99% of the population have access to it. Institutionally, the sewage disposal is separated from water supply, and the number of private providers is marginal. 96% of German population is connected to a public sewerage system. Germany's waste volume totals about 380 million tonnes per year. Building and demolition material account for the majority of this volume (60%). The energy market in Germany was liberalised in 1998. There are 1,100 companies operating in power generation, carrier, distribution, trade and marketing. In 2007, the industry employed 122,000 persons. The German power generation is built upon three pillars: brown coal (24%), black coal (22%), and nuclear power (22%). The share of natural gas is 12% (2007). 27 million people in Germany use various types of public transport (subway, bus) every day, thus saving 19 million car drives per day. The federal government supports the development and

maintenance of this sector with 8.5 billion € per year. Only a few federal states define the provision of public transport legally as a duty, in the majority of cases public transport is an optional business.

Amongst the EU Member States, **Hungary** has one of the highest shares of natural gas in its energy mix (around 40%), and the majority of Hungarian households use gas for heating. Hungary imports around 80% of its natural gas consumption from Russia. All non-household customers represent approximately 67% of total demand. Households and electricity generators account for approximately 33% and 25% of gas consumption, respectively. In Hungary, as a result of decentralisation, the water sector became fragmented: 377 water companies operated in 2001 of which five regional companies were still state-owned. The sizes of the water companies vary significantly, which is represented by the fact that 92 companies provided 96% of total water supply in 1998. The gap between the level of drinking water and the sewage service in Hungary is one of the greatest within OECD countries. New investments in wastewater are necessary.

Hungary has a dense transport network, with transport providing 7-9% of the Hungarian GDP. The financing of public transport, however, is often described as a ‘bottomless well’. Since 2011, public transport services have been scattered across a number of companies: MÁV (Hungarian State Railways), Volán (bus), BKV (Transport Company of Budapest), and BKK (Budapest Transport Centre). Their operation, which has been basically uneconomical, is weighed further down by enormous burdens and incurred losses resulting in the negative impact on public debt.

Gas is not used for heating in **Iceland**. Instead, geothermal water is used to heat around 95% of buildings. Hot water is distributed through district heating systems. In most cases, these heating systems are owned and operated by municipalities or by companies owned by municipalities. In some parts of Iceland, located far from the main geothermal fields, electricity or oil is used for heating. Electrical heating and of course oil is more expensive than geothermal heating, thus it is subsidised by the government. Water for homes is usually paid for as a water tax at a flat rate, based on the market value of house or apartment.

Since 2005, the production and distribution of electricity have been separated in Iceland. Despite of the fact that Iceland is an island, nearly all domestic transport of goods has been carried out by trucks since 2004. Five ferries for transporting goods and people are operated in Iceland, connecting islands to the mainland. This service is organised by the Roads Administration, but it is operated by private companies and subsidised by the state.

Gas is not used extensively by households (and businesses) in **Norway**, since most appliances use electricity and electricity is produced by hydro power. Therefore, no infrastructure network for gas exists. However, Norway produces gas, most of which is exported to Europe via pipelines and tank ships. The Norwegian water supply is mainly surface water, which is used for drinking (and other uses). The water quality is good in general. Water is supplied by the municipalities, which are also responsible for the pipelines. The costs of infrastructure are covered by the municipalities, supported by user fees (the so called “water tax”). Individual user fees generally do not depend on the quantity consumed.

Electricity in Norway is mainly based on hydro power. This implies that there are large networks of high voltage electricity lines in Norway, used for transporting the power from the place of production (the mountains) to the place of consumption (where people live and work). Large networks are operated by the government. In addition, there are local networks, supplying energy to consumers in a given area. These local networks are owned by municipalities, but some of them have been privatised. The municipalities are responsible for waste (collecting, transporting and disposing of). However, waste collection and transport have been privatised in many municipalities. In some cases, user fees

finance this part of waste handling, and in other cases combinations of municipal and user fees are applied. Traditionally, in Norway the transport infrastructure is public. This is changing, however, and today the growing share of infrastructure costs are covered by the users. For instance, around 50% of road investments are covered by road tolls. The public sector, on the other hand, pays for maintaining the roads. Local public transportation is the responsibility of the county councils, which normally buy these services from private or public companies. User fees (ticket costs) are paid by the users, but public transportation is also subsidised by the county councils. This included ferries.

In **Poland**, 52.6% of the population have access to gas pipelines. However, the provision of this service differs between rural and urban areas². In urban areas, 73.1% of the population have access to gas supply, while in rural areas the corresponding figure is as low as 20.6%. In 2004, 64% of the gas distribution network was located in cities. Water and sewage are also better provided for in urban areas. 95.2% of the population in urban areas, and 74.7% in rural areas, have access to water services. Nevertheless, the gap between rural and urban areas in the provision of services of general interest has been reduced over the last 20 years. Concerning sewage, the figures are 85.8% of population with access in urban areas, and 23.5% in rural areas. The electricity industry was privatised at the end of the 1990s. Since then the quality of services, which at that time covered the whole national territory, has been increasing, but the network remains deficient. The density of road network in Poland is higher in the south and much lower in the north of the country, which somewhat follows the population density. The role of public transport has been observed in the largest cities, but significantly decreased in peripheral areas (with a mass motorisation).

In **Romania**, in the context of the radical reforms that have characterised the structural and institutional Romanian economy after 1989, aiming to decentralise services to increase their quality and efficiency, the energy market in Romania has gradually opened to competition as part of the concept of national economic liberalisation and free movement of goods and services. Both gas and electricity are entirely open (in theory), which should give customers the option of choosing the provider. However, in practice only 56.5% of gas market, and 58% of electricity market, is actually free. At the moment, Romanian consumers pay the lowest prices for gas in the EU. Prices for regulatory consumers connected to distribution grids are set between €215 and €230 per 1,000 m³. Romania faces bottlenecks in the provision of water, with over 29% of households not owning any water source. 53% Romanian households have running water inside the house (mostly from public network).

In **Spain**, the gas market is fully liberalised. Currently, natural gas reaches more than seven million households in Spain, and it is becoming one of main energy sources for power generation. However, Spain is a country that produces a very low share of its consumption, being highly dependent on imports. Municipalities and local entities provide services to final users, e.g. water supply and sewer and wastewater treatment services. Currently, a growing tendency has been observed of the private sector to participate in these services through administrative licenses, keeping the regulatory function of municipality. In some cities, water supply is the responsibility of a company, while sanitation services are provided directly by the municipality. Approximately 98% of the urban population, and 93% of the rural population, is connected to the sewage system, while the remainder is served by on-site sanitation systems, such as septic tanks. According to Eurostat, municipal waste generated in Spain in 2009 was 547 kg per person; 52% of it was landfilled, 9% incinerated, 15% recycled, and 24% composted.

² Methodology of distinction communes for urban and rural areas in Poland is different than in OECD. That is why the readers should be aware that some of the suburban communes are classified as a rural areas.

The electricity market is also fully liberalised in Spain. The Spanish market is fixing one of the lowest prices among similar European markets. The producers of electricity are of two types: those in ordinary regime, producing electricity in nuclear plants or coal plants, and those in special regime, producing electricity from renewable sources or from waste. In Spain, distribution and transport are carried out by the Electric Network of Spain (*Red Eléctrica de España*– REE), a partially state-controlled enterprise. REE owns almost 100% of the high voltage transport network, being responsible for its development, extension, maintenance and operation, as well as for managing the traffic between external and Spanish systems.

More than 65% of the current total high-capacity transport infrastructure of Spain has been built in the last ten years. The Spanish state road network consists of national roads, state motorways and dual carriageways of exclusive competence of the national state.

Gas is an essential part of the UK's energy mix, providing 50% of the country's primary energy (excluding transport). In 2009, two thirds of the UK's net annual gas demand was met from gas produced domestically. Retail gas prices for both household and industrial customers have, in general, tended to be the lowest in the EU. Currently, 22 commercial gas storage projects are planned, which could quadruple the UK's gas storage capacity by around 2020.

In England and Wales, water and sewerage services are provided by 10 private, regional water and sewerage companies and 16, mostly smaller, private „water only” companies. In Scotland, water and sewerage services are provided by a single public company, Scottish Water. In Northern Ireland, water and sewerage services are also provided by a single public entity, namely Northern Ireland Water. The British electricity industry was privatised in 1990. Much of the grid was built in the 1950-60s, when it was deemed efficient to build large coal-fired plants, usually close to mines. The net flow of electricity is from North to South. By contrast, in many areas there are no high voltage transmission lines suitable for renewable electricity generation (like North West Scotland where wind speeds are high, or Mid-Wales). Nuclear stations generated a fifth of total electricity produced. However, the majority of the UK nuclear plants are due to close in the next decade.

3.1.2. New infrastructure services (electronic communications and ICT)

Basically, every **Austrian** household has the phone access, which is part of the state's obligation to provide the universal telecommunication service. In some Alpine areas, mobile phone connection is limited. As regards the internet, the Ministry of Transport, Innovation and Technology is implementing a strategy for expanding the broadband net throughout the country, where rural peripheral areas are still disfavoured in comparison to the urban centres. The objective is for every household to gain potential access to high speed internet (min. 25 Mbit/sec) by 2013.

In **Germany**, despite the liberalisation of the telecoms market, the former monopoly company, Deutsche Telekom AG, will stay dominant for a long time. In 2010, it had 123,200 employees of the total 176,400 employed in the telecommunication sector. 80% of private households in Germany have their own computer (Western Germany 81%, Eastern Germany and Berlin 77%). 77% have access to the internet, and 70% have a broadband connection.

Hungary is a regional leader in terms of ICT potential (the sector accounts for some 8% of GDP), with a large amount of foreign direct investment driving growth. Hungary is ranked 38th out of 104 countries, in the 2004-2005 Networked Readiness Index (NRI), which is designed to measure the degree of preparation of a nation or community to participate in and benefit from ICT developments.

In **Iceland**, as data compiled by the OECD show, 83.2% of households had broadband internet access in 2009 (2nd out of 34 countries); 99.5% of businesses used the internet in 2009-2010 (2nd out of 31); 91.5% of the broadband access was provided by DSL in 2010; and 8% of broadband connections used optical fibre in 2010.

Traditionally, the **Norwegian** telecom company (Telenor) was a part of the public sector on national level. In the 1990s, Telenor was transferred into a public company, and then it was partly privatised. Modern information technology (broadband) is provided partly by the old fixed telecom network, partly by mobile networks, and partly by “new” cable networks. The broadband network infrastructure was built by private companies (including Telenor), starting in central parts of the country and covering an increasing part of the country. Today, almost all Norwegian households (99.7%) have access to broadband (more than 640 kbit/sec), and only 7,000 households lack this access.

In 2008, there were 44.9 million of mobile users in **Poland**. By 2004, the number of active SIM cards has grown larger than the number of traditional phone subscribers (which started to decline), and in 2007 exceeded the total number of the population, and became similar to that in most other European countries. In December 2007, 52% of Polish households had at least one computer (EU average 57%), which represents a growth of 6% compared to the previous survey of EUROBAROMETER on the subject (January 2006).

In **Romania**, until 2003 the former state company Romtelecom had monopoly in providing fixed line phone services. In 2010, the market was shared between 3 private enterprises, respectively Romtelecom (66%), RCS&RDS (33%), and UPC Romania (4%). In 1998, private suppliers of mobile phone services also appeared. In 2010, the mobile phone services were utilized by 82% of the households in Romania, through subscriptions or prepaid cards, Orange being the main supplier, with a 50% market share. In 2010, the number of households connected to the internet increased by 4% compared to 2009, reaching the level of 42%, out of which 47% benefited from the broadband connection. According to a study of the European Commission conducted in 2010, the penetration rate of the wired internet in Romania was only of 13.7%, placing it on the last place in the European Union.

In **Spain**, fixed telephony is a mature market. Despite reaching more than 98% of households nowadays, it has followed a path of slow decline in recent years in favour of mobile lines. On the other hand, the number of mobile phones surpasses the number of population, reaching 51 million of lines in 2009, 109.3% of the population. In 2010, broadband increased due particularly to the great growth of mobile broadband, reaching 75 broadband access cards per 100 inhabitants, the eighth country in the EU.

The telephone service in the **United Kingdom** was privatised in 1984 with the Telecommunications Act. On mobiles, the consumers sent a record number of texts (over 100 billion) in 2009, equivalent to 1700 for every person in the UK (compared to 1200 in 2008). The UK consumers who have internet-enabled phones are also spending almost as much time surfing the net on their mobiles (1.3 hours per month) as they do texting (1.5 hours per month). As regards television, 24% of homes no longer receive the analogue signal, and over the next 12 months a further 4.5 million homes will complete the switch, bringing the programme to 40% completion.

3.2. SOCIAL SERVICES OF GENERAL INTEREST (SSGI) AT THE NATIONAL LEVEL

3.2.1. Education, labour market, public administration and cultural services

Education at all levels (primary, secondary and tertiary education) in Austria is responsibility of the state. While the organisation and financing of obligatory schools (in total, 9 grades of primary and secondary schools) and its teaching staff is a duty of the nine *Bundesländer* and their municipalities, for the higher education schools (gymnasium up to universities) the national level is in charge. Private schools exist but play only a minor role. For obligatory schools, municipalities are obliged to offer a school place – and its transport accessibility – for every inhabitant. Schools of higher education follow the structure of central places, and are located primarily in district and *Bundesländer* capitals. The central agency for organising the labour market services is the so-called *Arbeitsmarktservice* (AMS).

In **Germany**, the whole public and private school system is under federal supervision, as defined by the German Constitution. The organisation of public school system, however, is the responsibility of federal states. Compared to 1992, Germany has currently fewer pupils in comprehensive schools. The situation in vocational schools is different; they have a slightly greater number of pupils nowadays. Each child in Germany is covered by compulsory education in a public or private school for nine or ten years. The secondary school system is tripartite, with three different types of secondary schools: “*Gymnasium*”, “*Hauptschule*”, and “*Realschule*”. There are currently 418 colleges (universities, art colleges, universities of applied science, educational and theological colleges) in Germany.

Labour market services in Germany are publicly organised by the “*Bundesagentur für Arbeit*” and “jobcentres”. These institutions are the contact points for the unemployed and welfare recipients. They give advice and support regarding the placement and financial support coming from the state. The Federal Employment Office is managed in self-administration and has 178 agencies and 610 offices. The jobcentres are located in the municipalities. Private placement officers are active as well, and some of them get financial support from the Federal Employment Office.

In **Hungary**, the majority of universities and colleges are financed by the state. A smaller number are controlled by various churches, and there are also several private colleges operating in Hungary, as well as some foreign higher education institutions. In total, there are 77 universities and colleges in Hungary (18 state universities, 14 state colleges, 25 religious colleges/universities, 14 private and foundation schools, and 6 colleges of foreign countries established in Hungary). In the 1990s, several higher education institutions merged.

Employment services in Hungary are organised in a three-level administrative structure: (1) the national body deals with global issues (Employment Office); (2) regional Labour Centres function in the 19 counties; and (3) local Employment Offices provide services for placement, as well as function as paying authorities for the unemployment benefit. Employment services are financed by contributions. The Labour Market Fund is the central financing body, providing the county Labour Centres with the necessary financial means. Employment services are provided either by the state administration or by private service providers.

In **Iceland**, the education system is divided between the municipalities, which provide pre-primary education and the compulsory education. The state is responsible for upper secondary schools (gymnasiums) and for most of university education. Parents pay only partly for the pre-school service which is subsidised. The majority of municipalities charge less for this service than is allowed by law. Since 1996, there has been considerable change in locations of compulsory schools - this has been associated with changes in the municipal structure, the cost to run the service, and changes in

the population size in municipalities. Many municipalities have been merged in recent years, and because of that and of the shrinking population in rural areas and a better road network, schools are continuously fewer and they serve larger areas. In recent years, upper secondary schools have been established in a few relatively remote locations, where students previously had to move away from their homes during the winter to pursue studies. The largest school has around 2,500 students, but many have 1,000-1,500 students. Remote teaching is available in many of these schools. Regarding tertiary education, three of the seven universities in Iceland are run by private companies but all of them get the same basic funding from the state, in compliance with a specific finance model.

In **Norway**, the municipalities are responsible for providing child care services (kindergartens), but such services are offered by both by private and public entities. Traditionally, these services have been partly financed by the national government (earmarked grants), partly by the municipalities (their free income), and partly by user fees.

Primary education is the responsibility of the municipalities, which offer this service and finance it from the municipal free income. Secondary education is not compulsory in Norway, although it is free and almost everyone today starts their secondary education at the age of 16. Secondary education is the responsibility of the county councils, since there are different paths to choose, and since a certain amount of centralisation is necessary to reduce the costs. There are more private alternatives on the secondary than on the primary level of education, although the number of public schools is substantially higher. Tertiary, or higher, education is the responsibility of the national government. This level includes university level education (up to doctoral and post doctoral level) as well as other forms of higher education. Most of the higher education institutions are public, and they are free for the user.

Labour market services in Norway are the responsibility of the NAV (the labour and welfare department), which is a public body covering both the municipal and national levels. This is a social service aiming to provide the needling with social services. At the same time, NAV tries to get people “back to work”, so that their need for using different support schemes is reduced.

In **Poland**, after the administrative reforms of 1990 and 1999, the division of tasks in the field of education is as follows: kindergartens, primary schools and junior secondary schools are in the competence of municipalities; the *poviats* (lower regional governments) supervise secondary schools and special education. Voivodships (provinces/regional governments) are responsible for the so called “atypical schools” (e.g. arts schools) and colleges, while the national government competencies in responsible for universities. In general, education at all levels is free. In the case of kindergartens, fees are relatively low at around 100 Euros per month.

Tertiary education in Poland has been through a process of privatisation and territorial dispersal in the last 20 years. In 1970, there were only 23 cities with institutions of tertiary education in Poland. 13 other cities had branches of universities located in one of these 23 cities - these were all public institutions. The situation remained the same until the end of 1980's (beginning of transition). In 2002, there were 133 cities in Poland in which there was at least one institution of tertiary education. The new institutions were opened initially in academic centres as competition for the existing public universities, and later they were launched in smaller towns in a response to the growing demand for services of tertiary education. Several of them were private institutions.

In **Romania**, the demographic decline in the last 20 years has led to a decrease in the school population (as shown in the figure below). An exception is the accentuated increase of students in the tertiary system. From 192,000 students registered in superior education institutions in 1990/1991, in 2007/2008 the level reached 907,000 students, and faced a decrease in the last couple of years, down to 775,000 students. The explanation of this exponential increase comes from the fact that: i) the

phenomenon of integration of the superior education system, especially through the Bologna system has been recently observed; ii) there emerged a private superior education system – most of the times, of extremely low quality and with fewer admission conditions; iii) there have been severe reductions in the number of places in the late 1980s.

The Romanian labour market is characterised by a very high level of emigration of persons in search for economic and social opportunities outside the national borders, which represents an important socio-economic phenomenon. In recent years, Spain and Italy are the most important receiving countries of temporary emigration from Romania.

In **Spain**, the state has the exclusive regulatory function concerning homogeneity and equality of education system. Labour services are also centralised. The National Employment System is a territorial network, based on the Public Employment Service (*Servicio Público de Empleo Estatal*). This Public Service manages unemployment benefits, develops active policies and coordinates the regional network, which provides services for improvement of job conditions for the unemployed and employed, as well as services for the companies needing workers. The network also cooperates with partner institutions, such as local administration, labour unions and business organisations. This is currently a crucial service in Spain, since the economic crisis has manifested itself in its most extreme form in unemployment. In concrete terms, the unemployment rate reaches 20.89% (jumping from less than 8% in 2007) and 4.3 million unemployed during the first trimester of 2011. The number of people receiving unemployment benefits has increased up to 3.2 million, and youth unemployment is now higher than 40%. The unemployment costs for the State and Administrations have grown from 1.4% of the GDP in 2007 to 3.2% in 2009. Contributions to unemployment ceased to be enough to finance this expenditure in 2008, and taxes have to provide the rest.

3.2.2. Care services (healthcare, childcare, social care), social housing and compulsory social security

The **Austrian** system of care services is a shared competence of the national and the *Bundesländer* level. For every inhabitant, there is an obligation for insurance. This obligatory insurance is seen as the corner stone for a care system based on solidarity and affordability. In 2006, 10.5% of the GDP was used for health expenditure (EU27 average: 8.3%). The territorial location of hospitals is decided by the *Bundesländer* and normally follows the central place structures of the *Bundesland*. The distribution of physician's and doctor's surgeries is planned in co-operation between insurance agencies and the chamber of doctors. Child care is a decentralised task with *Bundesländer* laws and municipalities having main responsibility for providing the service.

Social protection in Austria is a main part of public expenditures and a task of the national level. Nearly 30% of GDP is used for transfers like pensions, unemployment benefits, family benefits or poverty protection. Social housing, seen as a part of social protection system, is provided autonomously by municipalities. In quantity, Vienna has the by far strongest instrument of social housing; with a trend of outsourcing the management of it to non profit cooperatives.

German health care system is based on three infrastructural pillars: the ambulant treatment by general practitioners and medical specialists, inpatient treatment by hospitals, and activities of the National Health Service. The core of the system is the compulsory health insurance, complemented by the private health insurance which has only a small share in the health insurance market. Currently, 2,100 hospitals are run in the country. They are managed by public (municipalities), non-profit as well as private organisations. Privately run hospitals have increased their share in the market. In the eastern federal states the rate of hospital beds in private hospitals predominates. In the last years,

local hospitals were transformed into private organisations to save expenses. The rate of expenditure of health care to the gross domestic product kept increasing in the last years, as illustrated on the map below. 11.6% of the GDP belongs to the health care in 2009.

The good provision of social housing in Germany is attributed to cooperation between market and politics. The general regulatory framework for the housing market is supported by social housing coverage instruments, subsidies for creation of residential property and retirement housing, and also improvement of ecological balance of housing. One aspect of the social coverage is the housing subsidy which is given to low-income households to guarantee an adequate and family friendly accommodation.

Hungarian health services are based on contributions paid by both the employer (11%) and the employee (4%). If the contributions do not cover expenditures, the central budget provides supplementary coverage. In general, health services do not require co-payment, with the exception of medicines, where co-payment can range between 0-100%, and of certain dental and orthodontic treatments. Health services financed by the national, regional and local health insurance funds are mainly provided by local and county government institutions, that is state institutions.

In Hungary, pension expenditure as percentage of GDP is high and rising. The expenditure (old age, disability, family-related, early retirement) rose from 8.5% of GDP in 2000 to 10.9% in 2008. Between 2000 and 2008, the proportion of the 65+ population increased relative to the entire population of Hungary, of the Visegrád countries, and of the EU-27. This figure rose during the last 9 years from 15% in 2000 to 16.4% in 2009, and in the meantime it was always above the rate of the Visegrád countries.

In **Iceland**, there are two hospitals (classified as such) - in Reykjavík and Akureyri (the case study region). There are also 12 smaller hospitals/health institutes in 12 locations in the country. There has been pressure by the state to merge health care institutes in the country and enlarge their service areas in order to save public funds. Social care is primarily managed by the municipalities, same as social housing, while compulsory social security is mainly provided by the state.

In **Norway**, health care services are a part of the NWS (Norwegian Welfare System) and constitute a large part of the government's budget (the most important sector, in this sense). The different types of services are, however, organised differently. Some health care services require user fees. Primary health care is the responsibility of the municipalities, although a national scheme allocates a doctor to each person in Norway (the so called "permanent doctor"). Care for the elderly is the responsibility of the municipalities. There are different ways of caring for the elderly (old people's homes, treatment at home) which represent very different costs for the municipality. Hospital services were the responsibility of the county councils until 2002. Then, these services were taken over by the central government; they are quite autonomous in the sense that they are run in the same way as private companies, but with national financing. Hospital care is, in general, free of user fees. Compulsory social security is provided by the national government, and is financed by a specific employers' tax, payable on all wages (14.1%). This tax, however, is lower in the periphery (0% in the case study area of Finnmark). In addition, each employee pays a specific tax of 7.9% to the social security fund.

In **Poland** in 2010 there were 16,600 health care centres, but only every 6th was public. Within the last few years, there has been, nevertheless, an increase in number of health care centres (30% in the period 2004-2010), due is mainly to the establishment of new private centres. The largest raise has been recorded in the urban areas. The medical assistance is connected with employment, however, the unemployed persons registered as such have the right to basic assistance.

The healthcare system in **Romania** has its units geographically distributed in a not necessarily uniform manner, but there are very well-equipped medical units with both professional staff and medical equipment, especially in university centres with tradition in medical higher education in Bucharest, Iasi, Cluj-Napoca, Timisoara, Targu Mures, and Craiova. In 2009, there were 263,000 children with special educational needs (8.2% in preschool level, 62% in primary schools and gymnasiums, 21.3% in apprentice education, 7.8% in high schools, and 0.7% in postsecondary level). In 2010, child care system provided prevention activities for 493,000 children at risk. In the same year, 424,000 children were temporary cared by family, while 231,000 were registered in placement centres. The state monthly allowance for children aged under 2 is of 200 lei (46.50€), while for those between 2 and 18 years, it is of 42 lei (9.77€). In 2010, the total amount needed for these allowances was 2.92 billion lei (692.88 million €) representing about 0.57% of the GDP. The total amount granted for rights and care for non-institutionalised persons with disabilities was of 3.55 billion lei (844.25 million €) – 0.69% of the GDP. In 2009, in adults care centres (assistance, integration through occupational therapy, recovery and rehabilitation, elderly persons care) the assistance was provided for 242,000 persons.

The current situation concerning health and social care in **Spain** is complex. Not because of the quality or the lack of services provided, as their universal coverage in Spain is one of the most advanced in the world and one of the best examples of the Welfare State in the Europe, but because of the fact that the maintenance of the quality of the system is being questioned due to its lack of sustainability in the current economic context. There are many differences among regions in health expenditure per capita, ranging from 1563.68 € in the Basque Country (1623.08€ the previous year) to 1003.32€ in the Balearic region (1066.37 € the previous year), and in human resources in primary health care per 1,000 inhabitants, with differences ranging from 2.31 in Castile and Leon against 1.38 in the Balearic region.

The **UK** National Health Service (NHS) was set up in 1948 to provide free healthcare. For its founders, its most important feature was being free at the point of need. Health services in the UK are divided into primary and secondary: Primary care covers everyday health services, such as GPs surgeries, dentists and opticians, and these are delivered by primary care trusts. Secondary care refers to specialised services such as hospitals, ambulances and mental health provision, and these are delivered by a range of other NHS trusts. Social housing is housing that is let at low rents and on a secure basis to people in housing need (for England only). It is generally provided by councils and not-for-profit organisations, such as housing associations. In the UK, the Department for Work and Pensions is responsible for welfare and pension policy, and is a key player in tackling child poverty. It is the biggest public service delivery department in the UK and serves over 20 million customers. In the period May to July 2011, the employment rate was 70.5% with 29.17 million people employed.

4. SGI IN THE STUDIED REGIONS (REGIONAL LEVEL OF ANALYSIS)

4.1. SERVICES OF GENERAL ECONOMIC INTEREST (SGEI) AT THE REGIONAL LEVEL

The region of Navarre is located in northern Spain, at the western end of the Pyrenees, sharing 163 km border with France. The regional provision of water and waste and sewage is done primarily through commonwealths of municipalities, under the supervision of the regional Administration. With regard to road transport infrastructure, Navarre has over 3.900 km of roads, more than 300 km pertaining to the category of motorways and dual carriageways, 258 km to the general interest network, 1.034 km to the regional interest network, and 2.251 km to local or district interest. Railway infrastructure

presents a radial network, with direct trains daily to the main Spanish cities. The region also counts on an airport located in Noain (near Pamplona), aiming at the provision of services to the whole region. Public transport is developed mainly in the capital, Pamplona and its metropolitan area, through the services of public urban bus transport. There also exists urban bus transport in the second biggest city of the region, Tudela. The most acute shortages in infrastructure are observed in rural areas where access to ICT and electronic communications services is limited.

The population of the UK region of South Gloucestershire, as recorded in the 2001 census, was 245,000 (260,000 as per 2007 estimate), much of it living in the northern and eastern suburbs of Bristol, although there also exist other large population centres. 'Bristol Water' supplies water to over 1.1 million people and businesses in the Bristol area. The company is a regulated business and subject to economic regulation by the Water Services Regulation Authority ("Ofwat") through a price cap mechanism. Wessex Water is the regional water and sewage treatment business serving a 10,000 square kilometres area in the south west England.

South Gloucestershire landfilled 138,472 tonnes of waste (56%), the 8th highest amount in the South West. An average of 4.363 kWh was used per customer in South Gloucestershire in 2008, lower than the regional average of 4.481 kWh and higher than the national average of 4.198 kWh. There was an average of just over 106,000 domestic electricity meter points in South Gloucestershire in 2008, 4.5% of the regional total of 2.3 million. The private sector broadband market will be providing superfast broadband to around two-thirds of communities over the next few years. The government has set up a scheme to provide £530 million of public sector funds to improve the broadband provision in mostly rural communities which are not covered by the private market plan.

The Austrian regional case-study has revealed that the alpine and the rural parts of the region are importing energy from international (fossil energy) as well as national sources from the low lands – including electricity from water power stations at the Danube and wind power stations between Vienna and Bratislava. While the alpine part is supplying the metropolitan areas of East Austria with fresh water, the rural part is contributing innovative renewable energy (e.g. best practice municipality of Güssing). In terms of transport and accessibility, the alpine part shows a bad intra-regional connectivity. The transport network is directed towards the metropolitan centres outside the region. In the rural part of the region the network is also of low ranked hierarchy but better connectivity within the region can be observed. Digital TV and radio availability, fixed phone as well as mobile phone coverage are very well supplied throughout the region. In this predominantly mountainous and rural region the access to internet, and especially broadband, is lagging behind in national comparison.

One of the greatest problems of agricultural and peripheral region of Dél-Alföld (South Great Plain) in Hungary is the gaps in infrastructure and in public utilities. In contrast with the 88% houses with water connection, only 39% were connected to a sewage system; both figures are below the national average (93% and 59%, respectively). Waste water systems are available only in town centres, however, in 67 municipalities representing three quarters of regional population and in which sewage connection is available only 50% of households may discharge into the drainage network.

The quality of the road network of Dél-Alföld is worse than the national average. Transport facilities are split unevenly among the counties and areas of the region. Waterway transport is an unexploited opportunity. The ICT infrastructure of the region is poor, compared to other Hungarian regions. PC availability (24%) is next to the last in the rank of regions. Despite an increase, the lagging position has not changed. The internet access shows significant territorial differences: in the county centre 13% of PC users have internet access at home. In the towns and cities this ratio is only 10%, while in the villages it amounts to 6%.

In Poland, the region of Mazowsze is the seat of the capital city of Warsaw, and is a core region with urban and rural areas. Gas system in Mazowsze is better provided in urban than in rural areas. 47% of communes have no gas distribution network, and in 15% of communes one in ten inhabitants has access to a gas network. Only 18% of communes have gas networks that provide service to more than 50% of inhabitants. As regards the water supply system, only 3 communes do not have water provision. In 2.5% of communes the water pipelines serve less than 20% of the population. In 87% of communes above 50% of households are connected to a water system. Water supply is the responsibility of municipalities, and the length of pipelines has greatly increased over the last 20 years. Waste water network is also built and maintained by municipalities. In Mazowsze, 25% of communes do not have the waste water service. In 21.7% communes over 50% of households have sewage connection. There are different types of roads in the region, according to the institution which has built and maintains them: municipal, county, regional and national (respective lengths 31,900 km, 15,100 km, 3,000 km, 2,400 km; total length 50,400 km). It is a relatively well connected region, with the density of roads higher than the national average, although it lacks motorways.

The Romanian north-eastern region has the biggest surface and the biggest population after Bucharest-Ilfov – 3.7 million people (17.25% of Romania's population). It has mountains – 30%, Sub-Carpathians – 30%, and plains – 40%. 56.6% of the total population lives in rural areas. The public utility networks (water, sewage, natural gas) are underdeveloped. For example, the share of localities with potable water networks is only 54.8%, and only 13.8% of localities are connected to a gas distribution network. Despite the existence of many European corridors crossing the region, the density of modernised roads is very low, and there are severe accessibility problems.

The north-eastern region of Iceland has a relatively high degree of services, compared to other regions other than capital region. This is mainly due to the fact that the population of the Northeast Iceland region (around 30,000) and of the regional centre Akureyri (18,000) is relatively high, compared to other regions. Furthermore, due to the distance to the capital region, this region has to rely on various services within its own boundaries instead of relying on services in the capital region, as its adjacent regions are able to do to a certain degree. On the subject of waste management, recycling has increased very much and paper, cardboard, plastic, metals and other types of waste are being exported for cycling. There is a large composting station for Akureyri and neighbouring municipalities which has a large impact on lessening amount of waste. An incinerator located in the town Húsavík burns a part of the waste such as non recyclable plastics; the heat energy is used for electricity production.

In this region of Iceland, postal services have been closed in rural areas. In urban centres the access to high speed internet (XDSL) is very good but further away from main nodes in the telephone system this is not accessible. Cost and limited access to high speed internet has, however, been complained about in rural areas. Some rural areas still have parts with no GSM connections.

The German Ruhrgebiet has 4,657 km (2007) of regional roads - one of the densest nets of roads in Europe. The region shows a rate of motorways of 12.9%, which is higher than in the rest of Germany (5%). Regarding the passengers rail-traffic the Ruhrgebiet has a net of 1 600 kilometres of tracks for regional traffic as well as for long-distance traffic. Over 70 railway stations are in operation, which is very important for the commuter's stream. In 1982, the first municipal waste combustor of the Ruhrgebiet was put in operation. In the last 40 years, over 50 million tons of waste was disposed of and the waste management company gained a sales volume of 157 million € in 2008.

As the Ruhrgebiet is a densely populated area with a marginal rate of rural areas, broadband internet access is very common. The rate of households which have access to a 16 Mbit/s broadband internet connection (2011) is between 95 and 100% in the cities Bochum, Essen and Duisburg.

Surprisingly, the biggest city in the Ruhrgebiet, Dortmund, only has a rate of 50 to 95%. The rural areas in the north-western part of the region show the lowest rate of broadband internet access with only 10 to 50% of households.

4.2. SOCIAL SERVICES OF GENERAL INTEREST (SSGI) AT THE REGIONAL LEVEL

The educational system in Navarre is adjusted to meet school demand, from child education to graduate courses, including all conventional educational stages plus special education, language schools, arts and music training, and social guarantee programmes. As regards university education, Navarre, even though its population is low, has 3 universities, which attract students from the whole region as well as from other regions to their two locations - Pamplona and Tudela. Two of those universities are public, the Navarre Public University and the National University for Distance Learning, both in Pamplona and Tudela, and one is private, the Navarre University. The Employment Service offers mainly information and orientation services concerning employability, focusing as well on groups with special difficulties, such as people at risk of social exclusion, the disabled, immigrants, and others, offering also training for both the employed and the unemployed.

The most important health care facilities in Navarre are located in the capital, Pamplona, namely: Clínica Universidad de Navarra, Hospital Virgen del Camino and Hospital de Navarra. Social care is provided primarily by a commonwealth of municipalities, and consists of services for the elderly, disabled, dependent and/or socially excluded individuals and families. Child care consists mainly of kindergarten services, with municipalities in charge of the provision of education services, such as nursery schools, addressed to children aged 16 weeks to 3 years.

In Germany, 561,000 pupils were registered in primary and secondary schools in the Ruhrgebiet in October 2009. In the last ten years, the number of pupils has decreased by 9.9% which is above the average of the regions of North Rhine-Westphalia (-4.8%). Regarding the different types of secondary schools, the "Hauptschule" (degree for vocational training not for tertiary education) had registered the highest loss of pupils (-30.8%) since 1999. Only the "Gymnasium" (degree for tertiary education) shows a positive value of 6.1%. In 2009, 55,199 pupils left school of which 31.8% are eligible for tertiary education. 3.8% left school without any degree. The region Ruhrgebiet has the densest infrastructure of higher education in Europe (six universities, 13 universities of applied sciences, and one art college). In 2009/2010, approximately 178,000 students were registered at a university or university of applied science in the Ruhrgebiet. Compared to 1989/1990, the number of students increased by 31.4%.

The Ruhrgebiet region has the highest density of hospitals in Germany. Over 9,000 practice-based doctors and 127 hospitals are available for 5.3 million inhabitants. The region's average is 19.9 doctors per 10,000 inhabitants. In the 1970s, the government social housing programme reached the cities of the Ruhrgebiet, and many new quarters were offered, with over 1,000 new flats for more than 3,000 inhabitants. Today, these houses are in the possession of housing societies and most of them should be renovated.

Generally, the social services of general interest in the North-East Romanian region are in a very poor condition. The number of education units counts for only 10.2% and the medical units for 12.1%, with depreciated technical endowments. In the North-East, on average, one doctor was responsible for 561 patients (compared to the national average of 411), a dentist was responsible for 2,325 patients (compared to 1,650 nationally), a pharmacist was responsible for 2,033 people (compared to 1,573 nationally) and a persons with medium qualification in healthcare was responsible for 186 people (compared to 169 nationally).

The employment rate is 33.8%, close to the national average, with 42.7% employment in agriculture and only 19.4% in services. The unemployment rate is 8.2%, which is above the national average. The region is confronted with a large work migration phenomenon, the labour outflows being mainly directed to Bucharest, western part of Romania, western Europe and Israel. The share of FDI in the North-East region is as low as 1.3% of total Romania.

In 2010, the Mazowsze region (Poland) had 68 nurseries, with capacity for 5,300 children, highly concentrated in the capital city Warsaw (78% of the total number of total nurseries). The number of primary schools has decreased in the last 10 years, as well as the number of pupils (10% decline). Primary schools are the responsibility of communes, and thus every commune in the region has at least one primary school, and the whole regional territory is covered. In Mazowsze, there are almost 900 secondary schools. 41% of them are comprehensive, 24% - technical, 17% - professional, 11% - vocational, 5% - artistic, and 2% - other kinds. However, every third secondary school is located in Warsaw. Higher education is also concentrated in Warsaw. The Mazowsze region has the lowest share of communes with tourist functions in Poland. Tourism provides work for 30,000 people in the region, 2/3 of them in Warsaw.

Healthcare in Mazowsze: in 2010, there were 1,990 medical centres, of which one in four was public. There are 85 hospitals in the region, with 776 different medical specialisations, with the total number of beds almost 30,000. However, 35 hospitals with 14,000 beds are concentrated in Warsaw. The rest are located in the largest towns of the region (particularly, in the 'powiat' centres). In the central part of the region, the average time to access a hospital is low, in general below 20 minutes (road access). The worst situation in this respect is observed in the border areas of the counties outside the metropolitan counties, where the time of access ranges from 30 to 50 minutes.

Finmark is considered to be a Norwegian periphery. This means that national regional policies can be applied to Finmark at the highest legal rates. This includes employer paid social security benefits and investment support for businesses. Finmark (and Nord-Troms) is defined as a special Action Zone, where specific measures are considered necessary to contribute to the national aims of regional policy. Such measures include student loans of up to 10 percent of the original amount, maximum NOK 25,000 per year. Other benefits are: exemption from electricity tax on consumption; reduction in personal taxation; increase in family allowance – the so-called "Finmark supplement"; and wage subsidies for pre-school teachers. The criteria for transferring ("free") income to municipalities favour municipalities in the periphery, e.g. in Finmark. These municipalities are compensated for a low municipal income as well as for their location and the costs of producing services.

In the mountainous area of eastern Austria, educational services and institutions of tertiary education are lacking. Besides a few high schools (e.g. FH Pinkafeld), there is no university situated in the region. People commute or migrate to metropolitan areas for consuming higher education. Similar situation is true for high skilled jobs. A big percentage of regional labour force, therefore, has to commute to work outside of the region. Defence and security is a special issue, especially in the rural border region which used to be the Schengen border for many years. The Austrian military supports with many hundred soldiers the work of the police. The accommodation and supply of those soldiers turned out to become a significant factor for local economy and service demand. Neighbourhoods and settlements take also care of fire brigade and Red Cross stations as well as other voluntary work which is an important contribution to some SGI and can enhance high social inclusion.

Regarding the region studied in the United Kingdom, 60% of the population of South Gloucestershire live in the suburban areas adjoining Bristol. There are 38,692 pupils attending South Gloucestershire schools of whom 21,306 attend primary schools and 17,386 secondary schools. In terms of

schools, there is 1 academy, 15 secondary schools, 94 primary schools, 2 pupil referral units and 3 special schools. South Gloucestershire has one of the fastest growing economies in the country with an estimated 30,000 jobs being created between 1996 and 2006, predominantly in the Bristol North Fringe area. Of the total economically active population, a total of 131,500 people (77.4%) were employed in South Gloucestershire in March 2010.

In Dél-Alföld, Hungary, in the 2005/2006 school year, there were 606 registered nurseries (13.4% of the total number in the country). One in ten nurseries was closed down since 1990, a decrease which far outstrips the national trend (4.2%). There are only 12 municipalities without nurseries. A relatively large proportion of nurseries are operating at above 100% capacity. The biggest location of educational institutes in the region is Szeged (27,000 students in the 2002/03 school year). The second biggest student centre is Kecskemét (over 4,000 students in higher education institutions). The Colleges at Békéscsaba, Szarvas, Baja and Hódmezővásárhely are frequented by slightly more students altogether than the Kecskemét facilities. The region's middle-sized towns (Gyula, Orosháza) also have upper level education.

The number of medical doctors per inhabitant is lower in the Dél-Alföld region than the national average (which is, nevertheless, higher in Budapest, but lower in the regions). In the South Great Plain in 2003, there was 31 active doctors per 10,000 residents, while the national average was 38, but without the capital city it was only 29. In 2003, in the counties of the South Great Plain, there were 209 senior clubs and community centres, offering all-day activities, various programmes, cultural entertainment as well as subsidised meals. Almost 7,800 people used these services in that year.

5. CONCLUSIONS: TERRITORIAL DISTRIBUTION OF THE AVAILABILITY, ACCESSIBILITY, AFFORDABILITY AND QUALITY OF SGI IN EUROPE; A CROSS-CUT ANALYSIS

5.1. CONTEXTUALISING THE DEVELOPMENT AND PROVISION OF SGI IN EUROPEAN REGIONS

The current situation in the domain of services of general interest in Europe is very dynamic and undergoes vivid and regionally-varied changes. This diversity is a consequence of various processes that determine the pace of these dynamics.

These processes include – among other factors:

- Demographic changes: the aging of the population (e.g. in Austria, Spain) and the imbalance of gender structure (Poland), the increase in the number of peripheral areas suffering from depopulation;
- Changes in transport needs and behaviours, and an increasing role of individual transport (in an inverse correlation with the quality of public transport). This process is especially observed in the new Member States, where growth of the number of individual journeys is not only a consequence of the rapid motorisation, but perhaps mostly of the de-concentration of jobs that were previously supported by public transport (Poland, Romania);
- The changing family model, resulting in the need of care for children (kindergartens) and for the elderly (nursing homes);
- Recent financial crises and economic downfalls as well as deregulatory and liberalisation processes (promoted by the EU) which partially provide solutions for service provision in changing circumstances.

Investments were reduced with the economic crisis. This concerns primarily central investments (Spain, Poland) but expands also to the local level. Major road projects and transport accessibility were more affected than local undertakings in the sphere of social infrastructure.

Liberalisation and deregulation in various areas of services of general interests have taken place as a result of the EU directives (e.g., in Poland - energy market and postal services; in South Gloucestershire - energy market and buses). This has led to the establishment of various forms of public-private partnerships. Examples are found in Austria (railways, energy, postal services); Poland (regional railways, road infrastructure as motorways); Norway (more than 50% of road investments are covered by road tolls; the public sector pays for maintaining the roads). Although ICT and telecommunication were liberalised in Germany in the 1990's, Deutsche Telekom is still the biggest provider, despite many international companies that have appeared in the sector in the last years.

Nevertheless, liberalisation and market deregulation does not mean an immediate change in the territorial dimension. The change in choosing system operators (Austria, Poland) is lower than expected. Recipients remain „faithful” to operators functioning in the region. However, this applies mainly to traditional services (e.g. electricity supply), and not to the telecommunications services.

5.1.1 Governance and institutions of SGI provision

Some of the studied areas revealed a centralisation of services in various dimensions. Legal and financial centralisation in Norway included shifting a hospital from county to government financing. Central planning in the UK led the National Infrastructure Plan to comprise a new governmental strategy to meet the country's infrastructure needs. In Iceland, centralisation was physical and mostly focused on the high level services (e.g. specialised medical services) in the capital region, making use of agglomeration effect.

The approach of local authorities to the development of SGI varied in the studied regions, being conditioned by peculiarities of a given country. Not without significance, however, are regional and local factors. In countries where services of general interests are generally well developed in peripheral areas, the access to services is seen as part of the existing quality of life, and thereby a good which requires state protection (Austria, Germany, Iceland). In countries with lower quality of services, on the other hand, their development is often attributed to security features which do not include protection of the quality of life. It is assumed that SGI can affect the overall economic development, growth of tourism, etc. (Romania).

Among the social services of general interest, the demand for care services (both for the elderly and for children) is rising while the provision of such care by the family is decreasing. Public institutions are taking over the traditional care function of the family (Austria, Poland), mainly due to change of family structure (atomic families). The raised demand for care services creates constraints in their financing from public money, especially during financial crises.

Regarding the type of provider, the achievement of complementarity between public and private entities seems to be an important issue, conditioning the adequate access to services. This is achieved in some countries (Norway, Iceland), while in others, the two types of entities are rather competing in some services (Poland, Romania). Cooperation between various service providers is observed in South Gloucestershire, where the Wessex Water company (water and sewage treatment) actively cooperates with highway authorities (surface drainage) and local authorities (plans of urban growth). Also, in South Gloucestershire cooperation between private and public providers is achieved in secondary schooling; the latter attain a multi-scalar collaboration with community, local and state governments maintaining, financing and running schools.

The small size of local government units is a challenge for the provision of services (depopulation processes, weakening of service recipients mass level), requiring cooperation (or fusion) of the units (Iceland, England). Last but not least, cooperation is recorded between countries at the local level in remote rural border areas. Austrian children, for example, are attending Hungarian schools (in Sopron), and Hungarian children are commuting to Austrian schools.

The changes in the traditional distinction between public and private spheres of service provision are often most visible at the regional level, as they are conditioned by local factors. Public support is needed for services performed by the private sector, such as small shops in remote depopulated villages. In peripheral areas in Austria, shared call taxi services complement the existing public transport. Also in other sectors the importance of the private sector is growing as a result of liberalisation and market deregulation processes (e.g. energy supply in the UK, Austria, Poland, and Spain). The case-studies show that public services are increasingly being delivered by public, social (non-profit) and private entities, not only in sectoral but also in spatial dimension.

Poorly professionalised bureaucracy and frequent changes in the law (Romania, Poland) negatively impact the provision of services. Different measures are taken regarding the reduced demand for various services. In Hungary's public transport, decreasing traffic is not accompanied by a shortening of the lines, thus increasing the costs for providers of services that, at certain point, need support from public resources. In other regions, the reaction is cancellation of connections (Poland). There is a need for (inter-branches/services) long term planning (Iceland road system; Poland education, internet, care services).

5.2. MULTISCALAR TERRITORIAL PATTERNS OF SGI

The rich material gathered from individual case studies allows making an overview of territorial SGI patterns the European regions, using crosscut analysis with selected features: availability, accessibility, affordability and quality of SGI.

5.2.1. Availability

The analysis of the case studies has revealed a division between the west and the east of Europe. In western EU countries (Germany, Austria, Spain) services of general economic interest (especially network-based services, like water supply or sewage systems) usually achieve a high supply rate (near 100%), which is not the case in the eastern EU countries (Poland, Hungary, Romania – principally in the rural areas).

Undersupply and oversupply are observed at the same time. In general, agglomerations show a good level of provision of services of general interest, while peripheral regions that experience population decline are having problems to keep the standard or to finance such services. This creates a considerable uncertainty as to the maintenance of services in these areas (schools and health care services in Iceland and in Poland). In North-East Romania, the problem of deficient availability of secondary and tertiary education in remote and rural areas is reflected in the country's low rates of people with higher education.

New investments in services (especially infrastructurally based services: water pipelines, sewage systems, etc.) are made thanks to the EU funds. A considerable part of the infrastructure has been developed within the last few decades (Austria, Spain) or within the past few years, or is still under development (Romania, Hungary, Poland).

Nevertheless, significant gaps still exist. The regions of Mazowsze (Poland), Dél-Alföld (Hungary) and North-East (Romania) remain without any provision of gas supply. These three regions also

face deficiencies in the provision of public transport services, such as uncovered areas, faulty time tables, etc., and the solutions fostered are generally based on private cars, without innovative solutions as shared or electric cars, instead of improving the public transport.

Climate change and changing weather patterns are provoking a need to improve the technical infrastructure. In Poland (Mazowsze) and in the UK (South Gloucestershire) the capacity of drainage systems must be improved, since they are not sufficient.

5.2.2. Accessibility³

Demography seems to impact greatly the provision of SGI. Territorial aspects, as mountainous or remote areas, influence the distribution of SGI, which are concentrated in areas with high demographic density. Services are often centralised in agglomerations and in centres of counties and of towns (e.g. education, health services, as in Poland, Romania and Iceland). Economies of scale privilege large towns – small towns/villages find it hard to maintain high quality services (e.g. Iceland- Akureyri). Therefore, it is imperative to territorially coordinate the various types of services, particularly in the field of education, health and public transport. In addition, unfavourable demographic processes have clearly begun to affect the demand for certain services in Europe. The decreasing population greatly affects the demand and provision of educational services in Romania.

The type of territory generally determines accessibility; e.g. in mountain areas snow on the roads can cast out access to service centres. Road infrastructure shapes other services. Transport is the most challenging service to be provided in mountainous areas. In the north-east region of Iceland, the quality of roads is poor. Also the public transport in mountainous areas is not satisfactory in Austria. Nevertheless, health care in mountainous areas in Austria is satisfactory.

A strong polarisation between rural and urban areas remains. Examples of such tension are the internet and social services in Iceland, and technical infrastructure in Romania and Poland, especially sewage treatment in rural areas – although this has improved immensely after the EU accession. This polarisation, however, weakens the closer the rural areas are located to city borders, which also shows that strict rural-urban division is getting obsolete.

Some services conditioned by the available infrastructure (e.g. roads or ICT networks) grow relatively quickly, especially in the new accession countries. Accessibility can be reduced by a charge (toll roads) or physically, by reducing the investment costs (the density of motorway exit and entrance points, as in Poland and Hungary; the density of mobile phone masts, as in Austria). Despite the expectations for alternative development of transport networks and telecommunications, the disadvantaged areas in terms of transportation often also have poor access to ICT (peripheral areas in Iceland, Poland and Romania).

Accessibility in border regions (especially along the former Iron Curtain) can be improved; Austria still lacks train connections with its eastern neighbours. However, the access to railway stations in the analysed regions is good, for travels above 30 minutes are very rare. The average travel time is lower than 15 minutes – apart from Navarra where this time is doubled due to the mountainous character of the region (the maximum travel time of 111 minutes was recorded in Navarra).

Airports are fewer than, and thus not as accessible as, the railways stations. The maximum travel time to the airport is 191 minutes (Mazowsze, Poland); but in Hungary 60% of population lives within one hour travel time to airports. In East Austria and in Dél-Alföld in Hungary this service is not

³ Issue of accessibility of services of general interest was more profoundly analysed in paper by Stępnia, Rosik et. al. An Accessibility Analysis of SGI the SeGI Case Study Regions.

located in the region but airports located nearby provide this service and on average less than one hour in East Austria and a little bit more than two hours in Dél-Alföld is needed to get to the airport.

Regarding hospitals, one has to note that spatial accessibility to the service does not always equals availability (queues, etc. in hospitals); however, in emergencies, travel time affects the availability of service. Hospitals are quite evenly spread in terms of space, with good accessibility. The highest average travel time was observed in Navarra (30 minutes) and the lowest in Ruhrgebiet (6 minutes). In all regions, except Navarra, the travelling time to the hospital is for at least 80% of the population lower than 30 minutes. Very few people travels more than 50 minutes (less than 3% of the population in each studied region).

5.2.3. Affordability

A disperse settlement structure (Poland, Hungary), resulting in low densities, makes the installation of network infrastructure challenging, especially in terms of financing. This may cause difficulties to develop a proper technical infrastructure (water supply, sewer, high speed internet), and – to some extent – also an adequate social infrastructure (basic health care, school commuting system). Individual supply does take place, especially in remote settlement areas (sewage, heating and water supply). Social services of general interest are usually concentrated in central locations. Regarding education services, primary schools (with a low range) are available in almost every municipality (still being mainly situated in central and well accessible locations), secondary schools are usually located in bigger towns or settlements, and universities are located in big central agglomerations.

Demography plays a role in affordability as well. A shrinking population size for most services of general interest means the higher costs per remaining inhabitant. Therefore, especially the services organised at the lower governmental level, may overburden the budgets of municipalities.

There are tensions concerning the territorial distribution of services between the capital region (or regional centre) and the rest of the country/region (e.g. Iceland, Reykjavík region - Akureyri; Poland – Warsaw, Mazowsze, especially as regards higher education). The capitals concentrate services, which functions as a factor attracting people. Tertiary education seems to be a push factor for migration, which is fostered by the will to obtain good higher education, and is related to the lack of qualified jobs at the migrant's home place for those holding a university degree, as observed in the Austrian and Polish case studies.

Transport services in less profitable areas are subsidised by local municipalities, although this is the case of large urban areas and its surroundings rather than of rural and remote areas (Warsaw public transport; Gloucestershire bus operators subsidised by budget of local authority). In South Gloucestershire (UK), a program for affordability helps the disadvantaged segments of the community to use public transport, providing tickets within a privatised system.

Transport is a SGI that also provides connectivity to social services of general interests. Outside of agglomerations, where public transport is a very important, its organisation and financing is rather difficult. The transportation by car (on the individual level) is of high importance and in some rural areas (Austria, Poland, Iceland, Spain, Hungary), no integrated system of busses and/or trains or complementary transport solutions (e.g. car sharing) exist or they are rare. The lack of alternatives to cars is described as one of the biggest challenges for peripheral regions in general.

The recent credit crisis and economic downfall have directly influenced the functioning of various services. In Iceland, it provoked some major cuts in maintenance of the road network and in health care services. In Spain, a need to develop new ways of housing emerged. While families still preferred to own a house than rent it in the market, fewer could actually afford it. Innovations in the

provision of dwellings have now emerged in the form of cooperatives, renting systems, municipal housing, and others.

Alas, liberalisation has also its layoffs, especially in terms of price and availability of services (e.g. in Iceland – postal and Internet services; in Poland and Austria – postal services). Some of these layoffs are mitigated with innovative answers, such as organising ‘post partner offices’ institutions which provide postal services in places where the post office was closed (Austria).

Geothermal energy allows cheaper access to energy (hot water, electric energy, heating systems, cooking etc.) for those living within a certain range from a relevant facility. Geothermal energy is an environmentally clean energy source; however, it is conditioned by the location of the geothermal grid, making its affordability territorially sensitive (Hungary and Iceland). Provision of hot water encounters the same accessibility barrier for those living far from the grid. However, in Iceland hot water is distributed up to 63 km, a relatively long distance.

5.2.4. Quality

Areas with lower population density in general present a trade-off between quality and availability of services. In order to improve the quality, the provision of services is often centralised (e.g. education, health service, as in the examples of Poland, Romania and Iceland).

Moreover, the global economic crisis had also influence in the quality of SGI, by forcing a change in the management, to take into account major factors, such as demographic decline and shortage of public resources for investment and improvement. A new pattern should be adopted by the local public administration. This could include discussing and introducing new standards (e.g., the minimum values for provision of SGI, as in Austria), or general guidelines and regulations on the provision of services (in several of the studied countries, e.g. Austria, Poland, Romania).

Deficiencies in transport infrastructure are characteristic of less developed regions (new accession countries, Poland, Romania) or remote areas (Iceland, Norway). In these countries, the lack of social infrastructure is largely of a qualitative, rather than quantitative and spatial dimension. However, there are regions where the interventions seem to be needed in all the above mentioned spheres (north-eastern Romania, north-eastern part of Mazowsze region in Poland).

The principles of sustainable development for energy, sanitation, and environment are taken into account in service provision. This paradigm is followed in various areas, like transport (sustainable solutions, such as electric mobility as a transport alternative in Austria, the use of alternative sources of energy in Iceland and Hungary, but also the improvement of sanitation of rural and remotely located areas in Poland and in Romania). Inefficient public transport is improved by alternative solutions offered to inhabitants by local or regional authorities (e.g. car-sharing in the UK; electro-cars and bikes in local and regional hub centres in Austria as an alternative for transport in less populated areas). Innovation in financing is also observed: costs of service are shared by few interested partners (in Austria, a local bus line is organised by five municipalities in an area with low population density).

5.3. LESSONS LEARNED AND THE NEED FOR FURTHER RESEARCH

The analysis of territorial patterns within the selected case studies made it evident that the main challenges for a universalized provision of services of general interest are related to economic conditions and dependent of demographic settings. To clarify: areas with concentrated demand benefit from higher availability of SGI, which are in such areas more accessible, with higher quality and more affordable due to economies of scale. Remote, mountainous, rural, and other regions with

lower population density have fewer services available. Often a declining demand is a result of depopulation (especially of young people) and aging, processes common in all European countries. Generally, unfavourable demographic processes have clearly begun to affect the demand for certain essential services in Europe.

Financing SGI emerged as a main challenge, as confirmed by the interviews with experts. The main obstacle is the trade-off between cost and profitability: provision of services in mountainous or remote areas is simultaneously less profitable and more costly, whilst it is the opposite in agglomerations. From this derives the main problem of the role assumed by the public authorities in a market economy, namely, on one hand, that they have to monitor the proper functioning of the market, and on the other hand, to guarantee the general interest by satisfying the primary necessities of the citizens and preservation of the public goods when the market fails to do so. Market-based companies seek profitable areas, while the financial crisis limits the investment capacity of governments more and more. Thus, another crucial issue conditioning the proper access to services appears to be the achievement of a complementarity between services provided by public and private entities. This happens in some countries (Scandinavia), while in others, the two types of entities are rather competing instead of complementing each other (Poland, Romania, Hungary). Liberalisation is another challenge threatening the social justice of the system. Privatization is imminent in Romania, and the resulting availability and quality of services remains a question mark.

Such trade-offs of availability and profitability of services on dense areas versus attending public interests in small, less dense and less accessible areas is very well exemplified in the contrasts between regional and national levels in Austrian, Romanian and German case studies. While Austria enjoys a very high level of services provision, the mountainous and dispersedly settled area of East-Austria (case-study region) faces lacks in provision. Ruhrgebiet, largely densely populated presents advantages due to concentration of demand. Romania, while having large gaps throughout the whole country, shows important divergences in the level of provision in Bucharest and the case study North-East region (which is the second most populated in the country).

In many countries, especially those with lower population density, the dilemma of quality versus availability of services is clearly revealed. In order to improve the quality, it is often aimed at centralising services' provision (e.g. education, health service, examples of Poland and Iceland). However, in doing so, the risk that services will be distanced away from the people in a geographical sense is increased. This leads to the conclusion (and policy recommendation) of the need for coordination of the various types of services, particularly such as education policy and public transport.

The disparities at the level of provision of SGI in the studied countries and regions present a challenge for cohesion in the European Union. The use of contextualized local specific factors seems to be more appropriate than the implementation of universal solutions for overcoming constraints in the provision of SGIs in Europe and thus achieving a more cohesive picture throughout the EU.

Despite the diversity of regions, contexts and situation of SGIs in the studied regions, the institutional system does not determine the quality of or accessibility to SGIs. However there are different scenarios which show how to fulfil needs in SGI aspects. There is expectation of high quality services among EU citizens (Iceland, UK, Austria). Also an impact of European laws and traditions (Iceland) and adjustments of national laws to EU regulations (new EU countries as Romania, Hungary, Poland but also 'old EU members' as Spain and Austria) is observed.

Poor access to public services, as well as a low quality, can be conditioned by accessibility or affordability. By definition, accessibility has a regional dimension; affordability, not always but often. At the regional level an overlapping of these phenomena may occur. Moreover, poor accessibility may

be due to deficiencies in social infrastructure (too small network of specified institutions or establishments providing a certain quality of services, such as medical services), transport infrastructure (or ICT, bad possibility of reaching, or inexistence) as well as the organisation of public transport (the ability to reach of specific social groups). This is determining (territorializing) recommendations for social policy and other related sectoral policies.

It is then crucial to overcome two visible bottlenecks of SGI; the provision in dense versus remotes areas and the respective governance system for SGI that will provide proper regulation and financing. These two issues challenge SGI in all studied countries, and seem to, therefore, challenge the whole Europe. Nevertheless, despite the similar continental pattern, the use of contextualized local specific factors seems to be more appropriate than the implementation of universal solutions for overcoming constraints in the provision of SGIs in Europe.

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