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Demographic and migratory flows affecting European regions and cities

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DEMIFER Case Studies

Introduction

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This report presents results of an Applied Research Project conducted within the framework of the ESPON 2013 Programme, partly financed by the European Regional Development Fund.

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This basic report exists only in an electronic version.

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Executive Summary

The case studies aim to improve the knowledge on and the understanding of demographic and migratory flows at the regional and local level. They focus on internal and international migration as the component with stronger links to the regional socio-economic situation and dynamics. In addition, in the case studies the output of the policy oriented activities of the DEMIFER project are translated into specific regional settings.
The specific research questions and the specific aims of the case studies are:

- How are demographic and migratory flows affecting the entire case study area, its regional subdivisions and its cities?
- How do demographic change and migratory movements bring about population change – growth or decline –, population ageing and ageing of the working age population?
- What are the factors of attraction or the causes of interregional and international migration at the regional level?
- Is information regarding the skill level of interregional, intra EU and international migrants available?
- What are the economic and social consequences of migratory flows in the case study area, or, more in general, what are the links between 'demography' and 'economy' in the case study areas?

The focus of the case studies is on the description of the socio-demographic structure, demographic and interregional and international migratory processes and their economic and social consequences. The sustainability of the demographic system and the migration process – migration gains and migration losses - at the sub-regional level are considered in all case studies. The interdependence in the urban areas and between the urban areas and their hinterland is highlighted.

The key findings of the case studies are the following:

- During the last decade international net migration is closely linked to the economic performance of the region: the economically most dynamic case study areas satisfied their labour force demand through immigration.
- Areas with low population density attract in general less interregional and international immigrants.
- Internal migration flows play in most cases a minor role, however, growth in Oberbayern is fuelled by interregional migration.
- Alternative forms of internal and international mobility – commuting – play an increasing role. These forms of mobility are hardly documented in official statistics.
- Low economic performance leads to an acceleration of population decline and demographic ageing.
- Economic effects of the ageing of the population and the working age population are hardly felt in the economic well-off areas.
- Areas with a well performing research and development sector of the economy attract more migrants. But the information available regarding the level of qualification and education of migrants is scarce.
- Immigrants are predominantly employed in low paying and menial jobs. This occurs independently from the level of education of the foreign employee.

- The observations at the local level indicate in some cases considerable geographic disparities regarding demographic and migratory structures and processes that are not only attributable to categories like urban/rural or central/peripheral, but refer to more complex patterns linked to historic trends and socio-economic differences.
- Demographic and migratory change has to be analysed in the context of the regional and local socio-economic structure and the situation set by the welfare state.
- Even if population ageing does not yet influence economic growth in the economically well-off case study regions, it is not certain that all regions can face up to the challenge of continuous ageing of the total and working age population.
- The results of the policy scenarios would create considerable challenges to the economic and social fabric: housing and integration of immigrants in the growing areas and adaptation to a shrinking population in the areas of population decline.

1. DEMIFER case studies

1.1. The selection of the case studies

The selection of the 12 case studies is based on the results of the DEMIFER regional typology of demographic status. From each of the types defined, with the exception of the type 'Overseas', at least one NUTS2 region or a combination of NUTS2 regions was selected. To be representative most case studies were chosen from the NUTS2 regions closest to the centre of the respective typology. Some adjustments to this selection process were made to accommodate specific regional situations. For example, in the case of Germany two NUTS2 regions 'Challenge of Decline' were chosen to represent the two realities of East and West Germany, and in the case of Sweden the NUTS2 region of Sydsverige instead Stockholm was included to allow the study of a cross-border region.

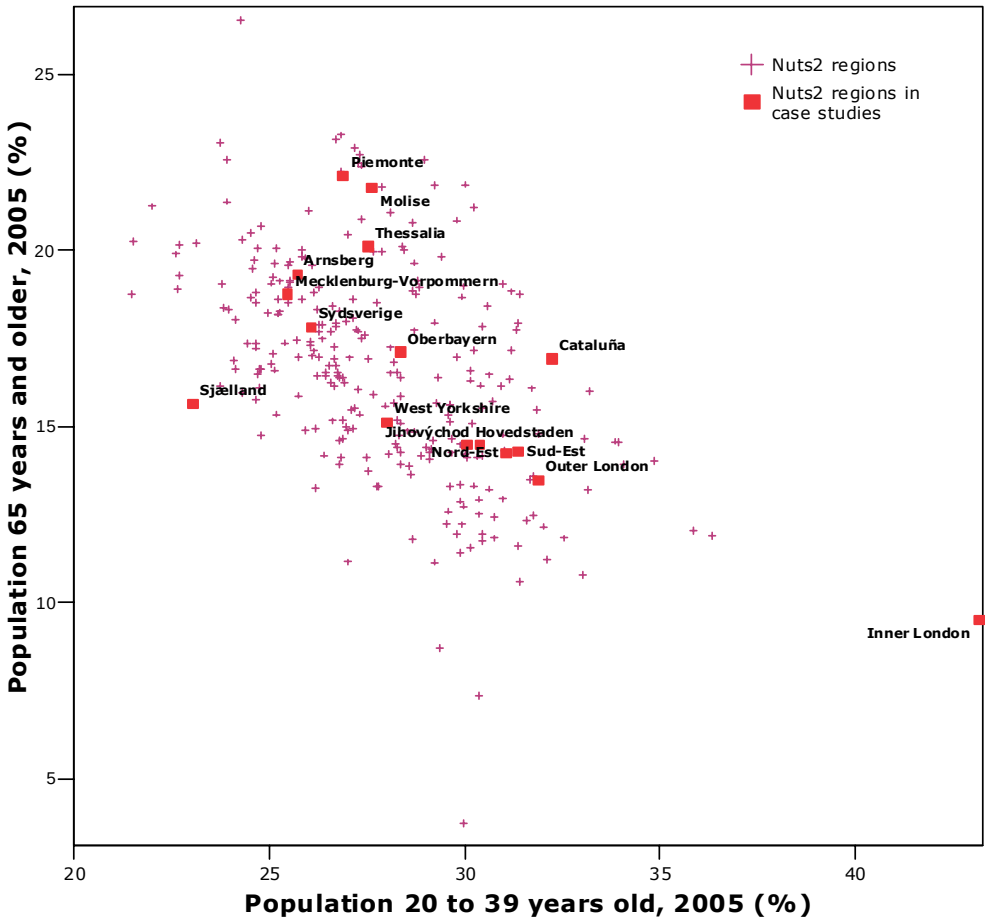
Table 1 Key information of the case study areas

Case study (main city)	Demographic type	Population			Natural population change 2001-2005 ‰	Net migration 2001-2005 ‰	GDP per inhabitant, PPS 2007
		Total in 1,000	20 to 39 years 2005 (%)	65 years and older 2005 (%)			
1 Jihovýchod-CZ06 (Brno)	Challenge of Labour Force	1,640	30.4	14.5	-1.2	-0.6	17,900
2 Oberbayern-DE21 (München)	Euro Standard	4,211	28.4	17.1	0.7	4.8	41,000
3 Mecklenburg-Vorpommern-DE80 – North-Eastern Germany (Rostock)	Challenge of Decline	1,720	25.5	18.7	-2.7	-4.5	20,200
4 Arnsberg-DEA5 – South-eastern Ruhr agglomeration (Dortmund and Bochum)	Challenge of Decline	3,777	25.7	19.3	-2.5	-1.0	26,500
5 Cataluña-ES51 (Barcelona)	Young Potentials	6,784	32.2	16.9	2.0	17.7	30,700
6 Thessalia-GR14 (Larissa)	Challenge of Decline	738	27.5	20.1	-1.3	0.4	17,000
7 Piemonte-ITC1 (Torino)	Challenge of Ageing	4,330	26.9	22.1	-2.7	8.8	28,300
8 Molise-ITF2 (Campobasso)	Challenge of Decline	322	27.6	21.8	-3.0	2.1	19,400
9 Nord-Est-RO21 and Sud-Est-RO22 – Macroregion2 of Romania (Iaşi and Constanţa)	Challenge of Labour Force	6,585	31.2	14.3	-0.3	-1.3	7,400
10 Sydsverige-SE04 with reference to Hovedstaden-DK01 and Sjælland-DK02 (Malmö, Lund and København)	Euro Standard (Sydsverige)	3,749	27.2	15.9	0.9	3.3	30,800
11 West Yorkshire-UKE4 (Bradford and Leeds)	Family Potentials	2,128	28.0	15.1	2.4	1.4	25,800
12 London-UKI, UKI1 and UKI2	Family Potentials - World cities	7,435	36.3	11.9	6.7	-0.8	49,100
ESPON space – EU27+4		503,362	27.8	16.6	0.3	3.2	24,900

Source: Elaborations on ESPON Database

A total of 12 case studies were selected to cover the diversity of European regions regarding the demographic and migratory flows. Figure 1 shows the coverage of the case study areas regarding the regional age structure disparities in Europe. To describe the age structure the share of the two age groups '20 to

39 years old' and '65 years and older' are taken, as it was done in the DEMIFER typology[1].
Obviously, the case studies cannot cover the entire socio-economic diversity of the European regions, since the regional types of demographic status are not homogeneous regarding socio-economic situation. However, the case studies cover the entire disparities in the economic regional disparities: the case study London includes the region Inner London with the highest GDP per inhabitant (in PPS) in 2006; also Oberbayern (München and its region) is a very prosperous region; while the Romanian Macroregion 2 case study includes the region Nord-Est with the lowest GDP per inhabitant (in PPS).
The case studies refer for the most part to the NUTS3 level and a more detailed regional scale, where data are available. Depending on the case study, geographic homogeneity and heterogeneity regarding the demographic and migratory flows are observed. The 12 case study areas and their sub-divisions are listed in Annex I.



Source: elaborations on ESPON Database

Figure 1 Elements of the age structure in the case study areas, 2005

[1] See DEMIFER Deliverable 3 'Typology of regions'

1.2. Existing literature

In each case study report a concise review of the existing literature dealing with population, migration and its interrelation with economic and social change in the region is included. Regional demographic structure and change are obviously important characteristics of a region. However, their impact on the economic and social situation is not straight forward, but depends on the regional situation and the historic context. Among the most discussed aspects are the ageing of the population and the working age population. Many studies seem to indicate a strong link between the economy and interregional and international immigration, setting in motion a virtuous circle of creating a relative less old and sometimes more qualified working age population.

1.3. Synopsis of the case studies

The synopsis of the case studies (Table 2) summarises the case studies regarding the major topics. The synopsis gives only general introduction and summary of the case studies to put them in a general context. Detailed analysis and results, including key findings, are reported in the respective case study chapters.

Table 2 Case studies synopsis

	Case Study (Main city)	Demographic type	Recent demographic trends	Socio-economic features and trends	Internal demographic and socio-economic diversity	Future prospects	DEMIFER 'policy' scenarios
1	**Jihovýchod-CZ06 (Brno)**	Challenge of Labour Force	Slight population growth (2004-09) due to positive natural population and especially international migration balance. Net internal migration negative. Slow population aging.	Former agriculture region with one industrial centre (Brno). Economic transition after 1990 – towards service economy. University and research and development sector in Brno.	Brno metropolitan area with significant importance. Small towns in rural areas. Demographic differentiation between metropolitan (urban) and rural areas.	Population ageing does not yet influence economic growth. Economic recession strong reduce international immigration.	Population decrease. Continuous ageing of the total and working age population.
2	**Oberbayern-DE21 (München)**	Euro Standard	Since 1990 population grew by 12.7%. Natural growth is low, but positive. Low fertility. Relative high life expectancy. Interregional migration flows are more important than international migration gains. In 2005 8.4% are foreign citizens: Turks 18.1% and Austrians 13.7%.	The study area combines economic growth for several decades with a very attractive landscape of lakes and mountains. Economic growth is driven by petrol refineries, advanced manufacturing (cars), services, an advanced agricultural sector and tourism. High GDP and low unemployment.	Munich, the centre of the study area and state capital, is one of the German industrial and service centres with many jobs in research and development, and attracts especially young adults. Elderly migration to the Pre-Alps and Alps. Regional disparities in TFR are low, but high in mortality.	Oberbayern is able to balance labour force shortages through migration. BBSR population projection indicates a continuation of the sub-urbanisation process around Munich.	Continuous population increase in the case of EME (+30.0% by 2050) and GSE (+25.3%), in the case of CME and LSE population increase until 2025-2030 and decline thereafter. Limited population ageing (30%).
3	**Mecklenburg-Vorpommern-DE80 – North-Eastern Germany (Rostock)**	Challenge of Decline	Since 1990 population declined by 13.0% due to rapid decline of fertility and a negative internal migration balance. Low fertility. Life expectancy at birth of women increased after unification, but men are relatively lagging. Net interregional migration (mostly young adults) negative and slightly positive net international migration. In 2005 only 1.2% foreign citizens.	MVP is characterised by agriculture and some industry in the coastal areas. Also some tourism. Largely rural with a population density of 72 inhabitants per km^2. As the entire former GDR, the area went through considerable economic, social and demographic upheavals and changes after the fall of the iron curtain and German unification. Unemployment is very high.	Regional disparities of economic and social change in the study area. Several smaller towns were able to attract investments and/or universities or public institutes were established. After unification the process of sub-urbanisation invested also the Eastern German Länder. Regional disparities in TFR are low, but relative high in the case of life expectancy at birth of men.	Depending on the ability of the region to attract investments. This might be possible in certain areas through the improvement of infrastructure. But most rural areas will continue to loose population through out-migration.	By 2050 the more pessimistic policy scenarios indicate a steep decline: CME (-31.3%) and LSE (-27.9%). The EME and GSE scenarios limit decline to 19.8 and 14.0%. Extreme population ageing exceeding 40% in 2050.
4	**Arnsberg-DEA5 – South-eastern Ruhr agglomeration (Dortmund and Bochum)**	Challenge of Decline	Over the last decades the population remained stable at 3.7 million. Low fertility. Relative low life expectancy at birth. In the first half of the 2000s interregional and international migration flows balanced each other, whereas in the second half internal losses were not any more compensated by international gains. In 2005 9.3% foreign citizens and 25% have a migratory background.	The economy of the study area is very heterogeneous: part was characterised by its coal based industrialisation and other by manufacturing. The process of economic restructuring was only partly successful and today unemployment continuous to be high. Public investment in universities and other initiatives do not manage to change the image of the region.	The North-eastern Kreise are part of the Ruhr agglomeration and have a high population density. The South-eastern part restructured successfully, whereas the South-western part is rural. Regional disparities in TFR and life expectancy at birth are low. The city of Dortmund is the only NUTS3 area with positive net migration in 2005-2007, and, as Bochum, attracting young adults.	The future depends on the outcome of the restructuring process of the economy. After traditional economic policies showed limits, investments in cultural events. Need of investment in human capital and improving educational level of population.	By 2050 the more pessimistic policy scenarios indicate a steep loss and population ageing: CME (-26.4%) and LSE (-21.4%). EME and GSE scenarios limit decline: 10.8 and 8.1%. BBSR projections are positioned close to GSE results with slightly divergent internal trends.

	Case Study (Main city)	Demogra-phic type	Recent demographic trends	Socio-economic features and trends	Internal demographic and socio-economic diversity	Future prospects	DEMIFER 'policy' scenarios
5	**Cataluña-ES51 (Barcelona)**	Young Potentials	Population growth due to highly positive international net migration. Significant contribution of immigrants to the increase in TFR and to the rejuvenation of age structure. Immigration of young foreign labour force and EU elders. Sub-urbanization in the metropolitan area of Barcelona.	One of the richest and most industrialised regions of Spain with a strong economic diversification (services, manufacturing, agriculture, tourism). Fast development from '90 until current crisis. Insertion of foreign labour in low-skilled jobs.	Central role of Barcelona and its wide metropolitan area, tourist coastal area, broad inner rural area. In the province of Barcelona high incidence of working age immigrants; in coastal provinces immigration of elderly.	Effects of the Spanish and global recession: increase of unemployment rate, particularly among young people and foreigners, decrease of international immigration. In prospect: ageing and decrease of young population.	Population growth due to international immigration: strong increase in high scenarios and moderate in low scenarios. Decrease of 20 to 34 years old labour force.
6	**Thessalia-GR14 (Larissa)**	Challenge of Decline	Population slightly decreasing. Decreasing fertility rate and accelerated ageing of the Greek natives, partly now opposed by foreign immigration. Migrants mainly settle in the bigger cities and the tourist coastal areas. Population decline in rural areas mainly in the mountains, shift to the bigger cities.	Foreign migrants accepting menial and low paying jobs, contributed to the delay in the decline of agriculture and industry and the development of tourism, construction and low-level services.	Growth of big cities in low-level services and construction, development of tourism in coastal areas, economic decline in rural areas mainly in the mountainous ones.	Decrease of international immigration, increase of unemployment rate. Uncertainty of economic future may limit strongly the permanent settlement of migrants and the related positive demographic effects.	Slight increase sustained by immigration, only in two of the policy scenarios; considerable decrease and ageing in other scenarios.
7	**Piemonte-ITC1 (Torino)**	Challenge of Ageing	Long-term ageing, in part now opposed by foreign immigration. Lowest-low fertility, now in slight increase, also because of migrants' contribution. Migrants mainly settle in Torino or other towns' outskirts.	Long (1970s-2000s) transition from Fordist manufacturing to service economy. Still important share of manual workers, comparatively low educational levels.	Torino prevails, but other towns have their own vitality. Important economic diversity per area and time-cycles.	Global recession is hitting the remaining industrial setting hard. The economic future rests on the shift to new technologies and R&D, and the fostering of local opportunities. Only the integration of significant numbers of immigrants can offset the ageing process.	Strong increase sustained by immigration in optimistic policy scenarios. Steady population in low scenarios. Important ageing in both cases.
8	**Molise-ITF2 (Campobasso)**	Challenge of Decline	Demographic stagnation and ageing. Very low fertility and very high life expectancy. Negative net internal migration. Positive net international immigration is a new experience for Molise. The incidence of foreign population is still low. Strong temporary emigration of young labour force.	Weak economy with low diversification of activities. Infrastructures are inadequate. Economic and social marginality. Important role of agriculture. Brain drain. Share of women among foreigners is high: «female way» of foreign immigration is tied to demand for care of the elderly.	Territory equally divided between mountainous and hilly areas. The more populated areas are the two provincial capitals and the coastal area. Numerous small and very small rural towns	Persistent population decline and ageing. Continuous decrease of young population. Foreign immigration could delay this trend.	Strong population decrease (low scenarios) or stagnation (high scenarios). Particularly severe decline in the working-age population under 45 years of age. Important population ageing.

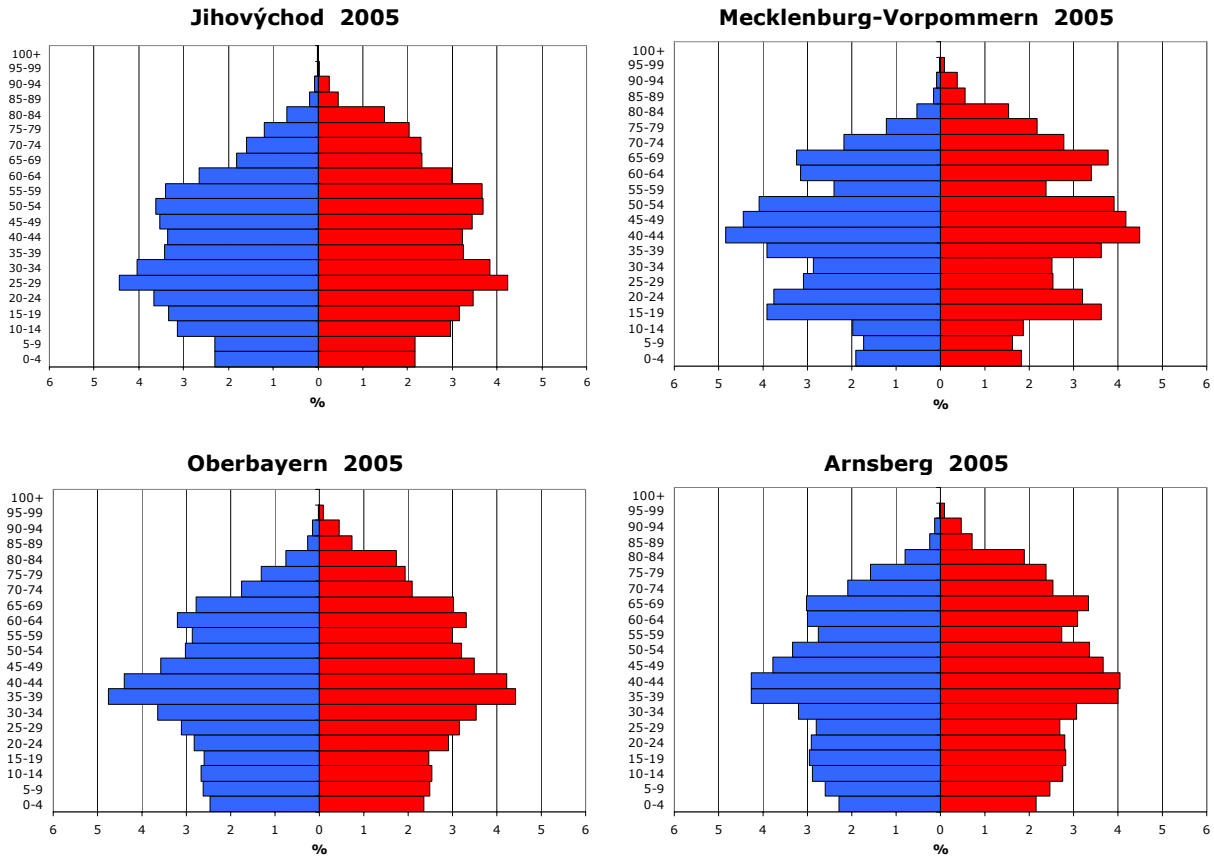
	Case Study (Main city)	Demogra-phic type	Recent demographic trends	Socio-economic features and trends	Internal demographic and socio-economic diversity	Future prospects	DEMIFER 'policy' scenarios
9	**Nord-Est-RO21 and Sud-Est-RO22 – Macroregion2 of Romania (Iaşi and Constanţa)**	Challenge of Labour Force	Population decrease and ageing. High infant mortality rate mainly in the rural area. Internal migration reversed from rural-urban to urban-rural. Emigration is mainly temporary work motivated migration, especially to Italy and Spain. After Romania joining the EU immigration becoming important for Nord-Est region (Republic of Moldova).	4 of the most populous 10 Romanian cities. Nord-Est region has the lowest level of GDP per capita in Romania and the EU. Unemployment is high. Major economic activities are wood processing and tourism in the mountain area. Sud-Est region has economic potential in tourism and agriculture (often limited to subsistence agriculture).	Nord-Est is facing economic difficulties (over 50% rural), while Sud-Est has a more balanced economic structure. Black Sea and Danube river allow port activities and tourism. 4 economic free zones exist in the Sud-Est region offering customs and commercial facilities.	Emigration will create a labour force shortage, e.g. as today in Sud-Est region in naval construction and building industries. Ageing is observed since 2005 when less numerous generations, born after 1990, entered the working age population.	The population is declining especially due to the negative natural growth, rather than population loss due to migration. Migration will decrease continuously until 2050. The old dependency ratio and of the economic old age dependency will increase.
10	**Sydsverige-SE04 with reference to Hovedstaden-DK01 and Sjælland-DK02 (Malmö, Lund and København)**	Euro Standard (Sydsverige)	Fast increasing population, especially in Skåne län, driven by international net migration coming partly from the Danish regions in the Öresund, partly from third countries. Important internal moves. Natural change higher in immigration areas. Ageing higher in peripheral or less developed areas.	The traditionally agriculturally rich study area has passed through industrialisation and developed important points of excellence in the knowledge economy, in food sciences and in biotechnologies. The opening of the Öresund Link between the to shores of the Sund encouraged Danes to settle in Skåne län.	Important demographic and socio-economic differences between Skåne län and Blakinge län, as well as within Skåne län; Danish immigration to Great Malmö and Southeastern shore of the Sund; immigrants from non-EU countries to Malmö and Karlskrona.	Future developments are depending on increasing integration of economy, taxation, welfare and migration policy in the cross-border Öresund area. Possible ethnic conflicts and social problems in overcrowded areas in recession times.	The population in the Öresund area is expected to increase in all the policy scenarios by 2050: 14% in the low ones and 30 to 40% in the highs. The future growth in population of Sydsverige would be only challenged in the case of no migration.
11	**West Yorkshire-UKE4 (Bradford and Leeds)**	Family Potentials	Since 2001 the population of West Yorkshire grew by 6% reaching 2.2 million in 2008. About half of this increase was due to natural growth, mainly fertility. Net migration has two contrasting components: negative internal migration, overcompensated by international migration gains.	West Yorkshire is an important commercial hub serving Northern England. West Yorkshire was characterised by textile manufacturing, metal works and coal mining, all declining in the 20th century. The economic restructuring of the area was only partly successful. The area is suffering the highest UK unemployment rates.	Leeds and Bradford provide two very contrasting sub-areas within West Yorkshire. Whereas the city centre redevelopment in Leeds succeeded. Leeds is today a financial and retail centre, and home to other service industries and a well-known university. Bradford has one of the largest concentrations of minority ethnic populations in the country.	West Yorkshire has a huge attraction for students in higher education. Its future will depend on the capacity of the region to retain this population. International migration flows and their ethnic composition will play a further role.	All DEMIFER scenarios indicate a growing population. In the EME and GSE scenarios West Yorkshire could surpass the 3.5 million inhabitants mark in 2050. This growth would be fuelled largely by a consistent natural increase.
12	**London-UKI, UKI1 and UKI2**	Family Potentials - World cities	Since 2001 the population of Inner and Outer London has increased considerably. Whereas the natural balance is positive, net internal migration remains negative for Inner and Outer London. The later trend is in contrast to the net gains from international migration. However, in 2008 these gains are not any longer offsetting losses from internal migration. 1/3 of residents born outside the UK.	London is a global economic hub and a magnet for international tourism, business and migration. It represents about 21% of the country's GVA and is the engine of economic development for the UK.has a sound economic base. The organisation of the Summer Olympics in 2012 will draw investments in a specific deprived area of the city.	Demographic and migratory indices vary considerably. Fertility is low in Inner-London West, an area of immigration of young professionals. Mortality is high in Inner London boroughs and low in the affluent areas. Through migration most Inner London boroughs lose population to Outer London (in turn loosing to the rest of the UK). International migration gains vary greatly. Ethnically diversity.	Future demographic change in London depends on the ability to recover migration flows that diminished over the last two years due to the economic crisis. The functioning of the economic and demographic system of London depends on the successful integration of immigrants.	The alterative scenarios foresee a challenging picture of growth, regardless of the degree of competitiveness or cohesiveness. The EME and GSE scenarios suggest 14 million inhabitants in London in 2050, a significant growth in an already overcrowded metropolitan area.

Note: the scenarios are abbreviated EME – 'Expanding Market Europe', CME – 'Challenged market Europe', LSE – 'Limited Social Europe', GSE – 'Growing Social Europe'

1.4. Demographic stocks and flows

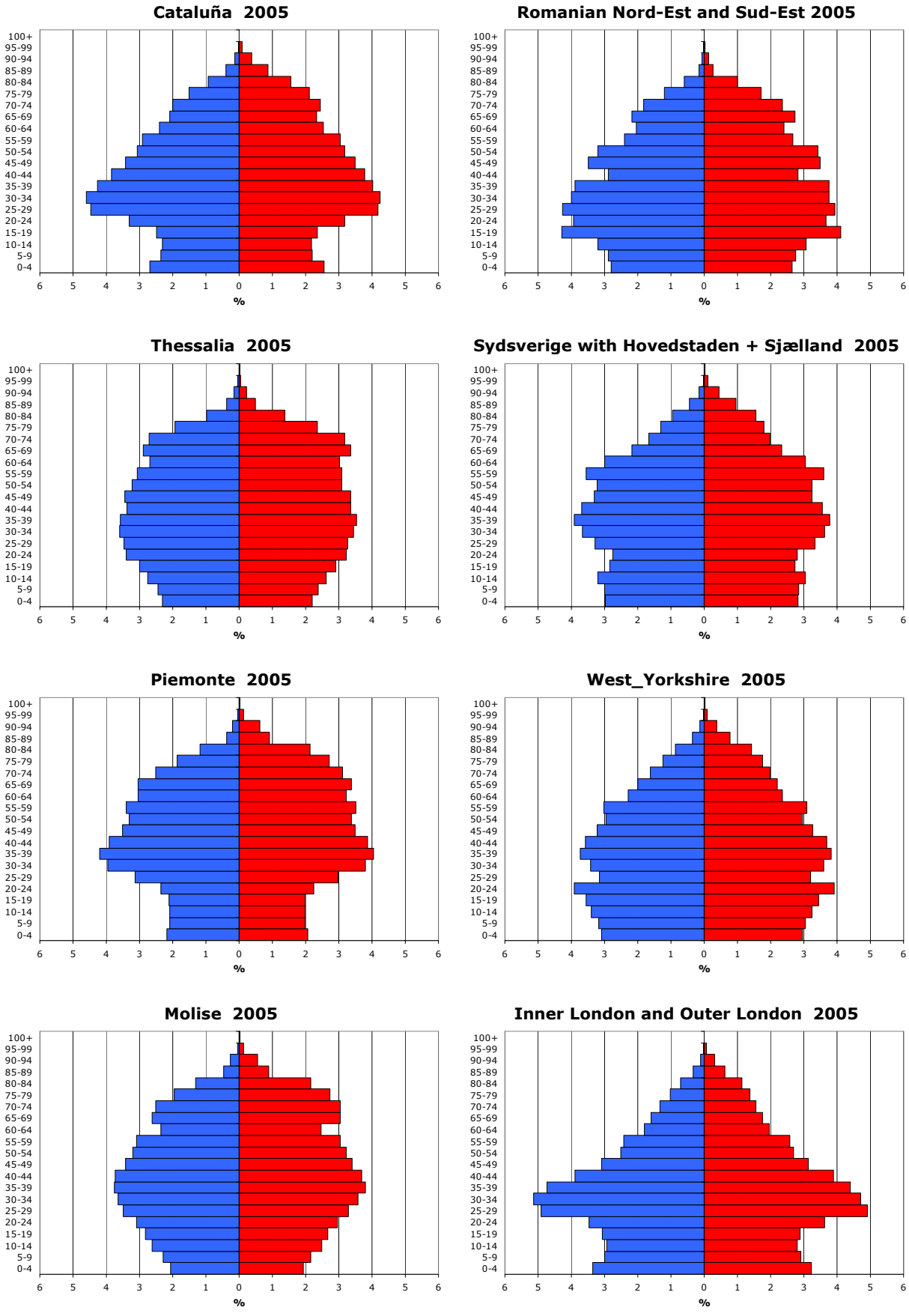
The age structure is the basic information regarding the demographic stocks. A substantial part of the demographic future of a region is written in the age structure. A relative young population, represented by a larger base of its age pyramid, will have a stronger natural population change in the future. An older population with a wider top of its age pyramid has the inherent tendency to a slow or negative growth. All the age pyramids of the case study areas are presented in Figure 2.

The demographic ageing process touches all case study areas, with the Piemonte region, representing the 'Challenge of Ageing' type, as the vanguard with 22.1 % of inhabitants 65 years and older, followed by the case study areas representing the 'Challenge of Decline' type. The share of the young working age population is highest in Cataluña as a representative of the Young Potentials type and the two Eastern European case studies (the Czech region of Jihovýchod and the Romanian Macroregion 2).



Source: elaborations on ESPON Database

Figure 2 Age structure of the population of the case study areas, 2005

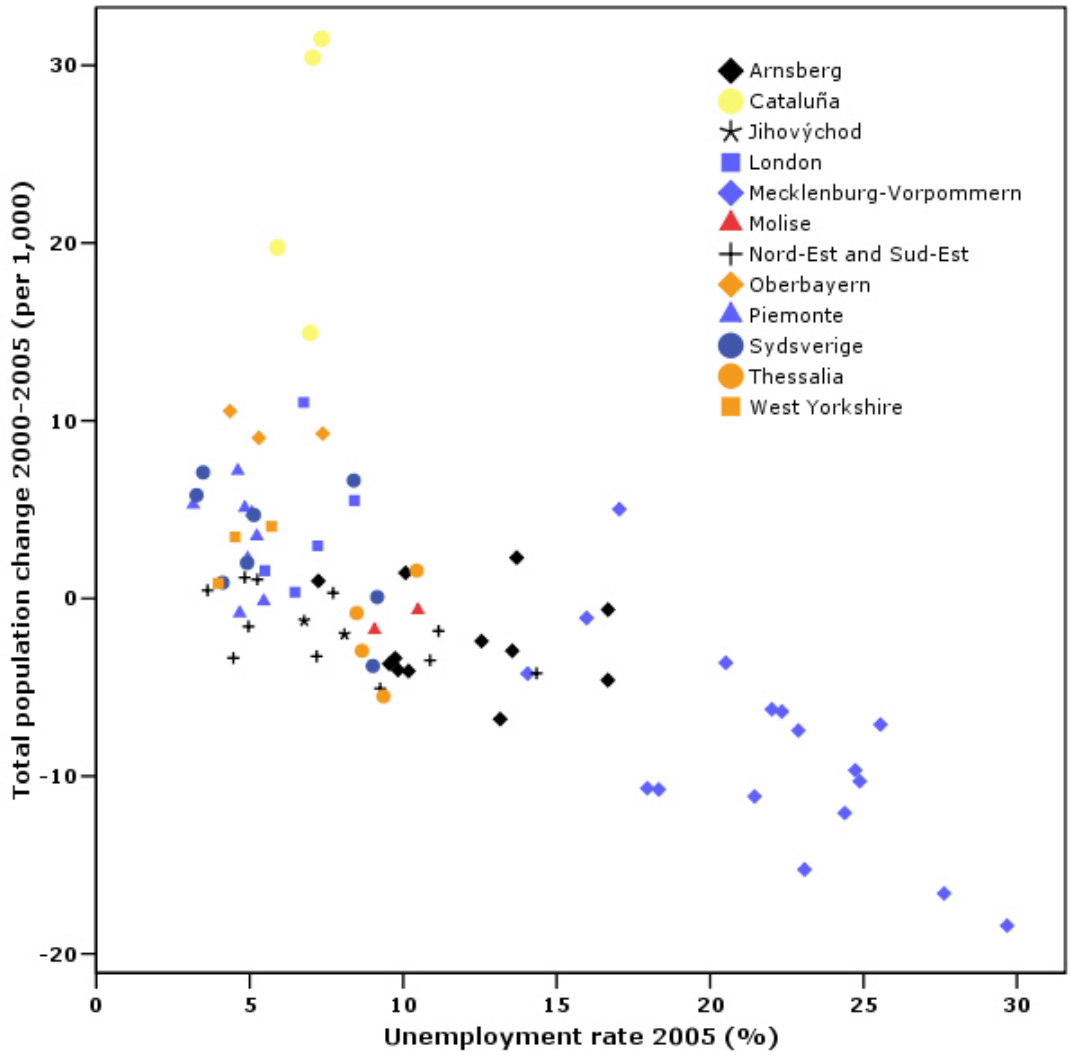


Source: elaborations on ESPON Database

Figure 2 Age structure of the population of the case study areas, 2005 (cont.)

International and long-distance interregional migration flows are usually driven by economic (work) motives. In addition, the case studies demonstrate the importance of the location of institutions of higher education (university towns) for the migration patterns of young adults and the existence of attractive areas (mountainous areas, coastal areas etc.) for the migration patterns of retired persons or the elderly in general. Oberbayern and Cataluña serve as examples.
Several case studies highlight the interdependence between the urban areas and their hinterland, through short-distance migration flows with young adults and single households migrating towards the urban centres and the other age groups, especially young families, towards suburban zones. As a consequence of these changes in residence commuter flows gain considerable importance.

1.5. Economic change and population



Source: elaborations on ESPON Database

Figure 3 Unemployment and population change in the NUTS3 regions of the case studies, 2000-2005

The relation between economic structure and demographic change is not always evident in the case study areas. Combining the areas, the economic disparities,

here measured through the unemployment rate, are negatively correlated with demographic change: the lower the unemployment rate the higher is population change and in case study area with high unemployment population decline is observed (see Figure 3). In areas with low unemployment rates not only net migration is positive, but also natural growth contributes positively to total population change.

Economic and demographic change meet most predominantly on the labour market. The economic well-being and unemployment can vary considerably in the case study areas. Whereas the socio-economic situation influences the level and timing of fertility and the timing of mortality, the labour market and the economic situation acts upon the demographic situation through interregional and international migration processes. The analyses of most case studies show the predominance of international migration flows in recent years. The study areas with a well performing labour market (and high levels of GDP) are characterised by relative high positive net-migration, whereas, for example, Eastern Romania with a high share of working age population and few economic opportunities experiences a high temporary or permanent out-migration.

The case studies indicate a general inverse relationship between unemployment and population change. The high values of population growth are observed in the Catalan provinces Gerona and Tarragona (high international immigration) and negative population change and very high unemployment rates are observed in the counties of North-Eastern Germany (high internal out-migration).

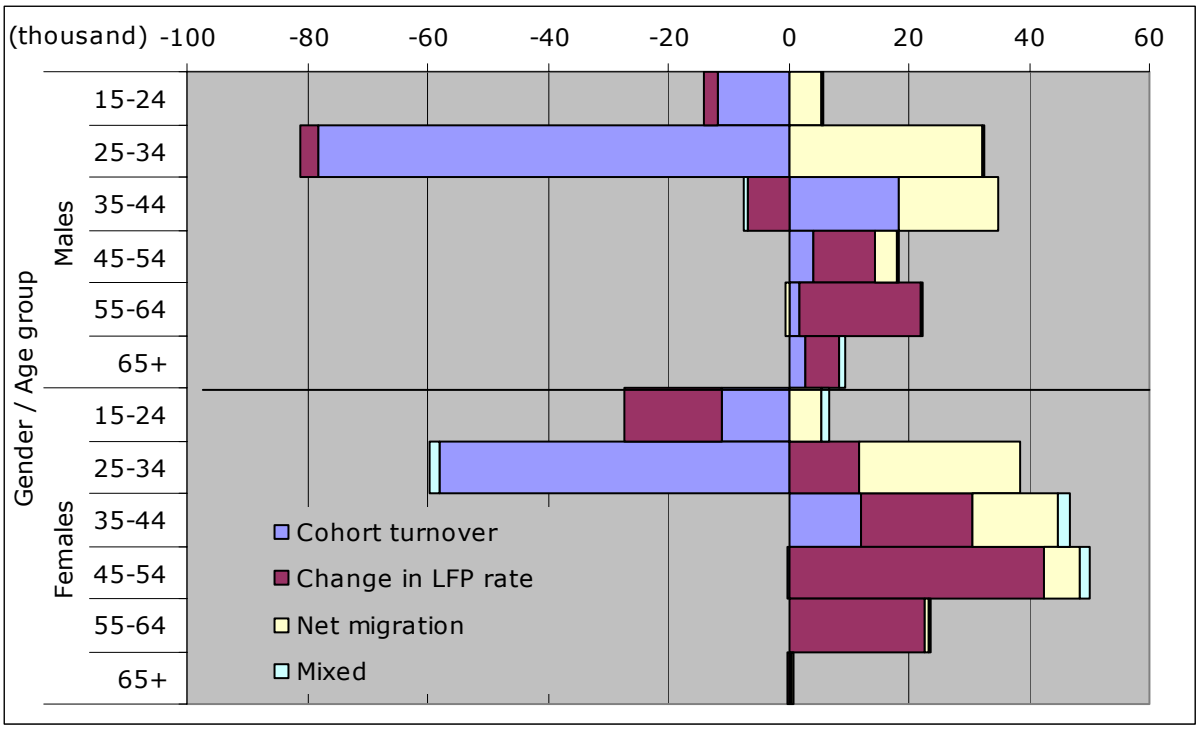
A detailed analysis of demographic flows for the working age population in Piemonte shows a sharp reduction in the number of younger employees due to smaller cohorts entering the labour market and an increase in the number of older workers due to cohort turnover, positive net-migration and an increase in labour force participation rates, especially for women.

The case studies with a post-industrial employment structure with a high share of employment in research and the financial sector invest in institutions of higher education and attract highly qualified immigrants.

The case studies in Eastern Europe show that changes in the political and economic system around 1990 had a considerable impact on demographic change there – lower fertility, lower mortality and an increase in sub-urbanisation and interregional and international in- and out-migration flows.

Important great events like the Olympic games and important infrastructure projects like the Öresund Link seem to have an impact on regional development ensuing demographic change, mainly through immigration.

Not only the Cataluña and Piemonte case studies stress the importance of a long-term perspective in analysing the regional situation. In these regions, an alternation of phases of economic growth, economic slowdown and economic restructuring are observed. These long economic cycles, as well as the short economic cycles, are linked to processes of emigration and immigration. The economic system encounters a demographic system that is very slow to react through natural growth. So it is obvious that the economic system tends to call for migration as a way to satisfy the demand for labour. In fact, most case studies showed the ability of major cities and agglomerations to attract working age population and to counterbalance a shrinking and ageing working age population.



Source: elaborations on ISTAT population register and labour force survey data

Figure 4 An example of changes in the labour force: the Piemonte region 2001-2008

The economic and social changes of the last decade and the issuing demographic and migratory flows seem to be very favourable fin the case of the global city of London: interregional and international migration flows lead to a relative young age structure and a highly qualified labour force creating a enormous potential for the future.

1.6. Economic and social consequences of demographic change

The case studies do not allow identifying demographic change per se as an important driver of social and economic change. It seems that a well-off region is able to face demographic challenges or changes in the size and structure of the population. Regions with less economic potentials are prone to the negative effects of population change. However, this result is based on the present situation that is characterised by relative moderate demographic and migratory changes. The case studies can not offer a reply to the question how regions will be able to face intense population ageing and immigration, as DEMIFER scenarios delineate for coming decades.

It is important to underline that the more rapidly changing migratory flows show immediate economic and social consequences. For example, the boroughs of London are the most ethnically diverse in the UK and the ESPON space. One third of all London residents were born outside the UK and this share increases to over 50% for Brent and Westminster. Adding the second generation of immigrants the impact of ethnic diversity increases.

However, also rural areas are increasingly affected by foreign immigration. In some rural or peripheral areas like Thessalia, Molise or the province of Lleida in Cataluña, foreign citizens residents contribute to demographic change directly because of their relative young age structure, and indirectly through the founding

of families and resulting births. Their contribution extends to the economy, because they accept low paying menial jobs, and to the social sphere, because they provide social services to the family caring for children and elderly (especially in the Mediterranean family based welfare system). Immigrants and their contribution allow rural areas to continue the, sometimes, inefficient way of production.
All case studies with a significant presence of foreign immigrants underline the importance to integrate the foreign population, including the 2nd and 3rd generations, and to prepare for the ageing of these foreign citizens.
Case studies showed that the direct and indirect rejuvenation effects of migration gains are not permanent. In the case migration inflow stop the momentum of the population structure retakes its predominant role and the demographic ageing process resumes.

1.7. Data issues

In each case study the characteristics and the quality of the data used are discussed. Whereas population, birth and death data are easily comparable, migration data pose a special challenge. The source and quality of interregional and international migration data vary considerably between countries where the case studies are located. Especially international out-migration – in the case of in-migration countries, as well as in countries with considerable outflows over the last years, like Romania – is measured with difficulties and is usually underestimated. The various forms of temporary migration contribute to the difficulties measuring migration flows.
The quantity and quality of statistical information varies considerably not only between countries. The case studies show that in some situations regional organisations, like for example the Greater London Authority, or trans-national ones, for example Ørestat, can provide additional statistical information. So even intra-nation differences in the availability and quality of statistical information exist.
The case studies further underlined the importance of geographical scale in studying the demographic and migratory flows. It is well known that migration flows gain in importance for population change the smaller the areas of analysis is. For example, the London case study employing statistical information for the 32 boroughs (LAU2) offers a very differentiated view compared to a study at the level of 5 NUTS3 regions.

1.8. The results of DEMIFER scenarios in the case study areas

The case studies cover a wide range of possible demographic futures of the European regions with London as a fast growing global city and eastern Romania and the Italian region of Molise as regions facing population decline.
Apart from the changes in the number of inhabitants, the DEMIFER scenarios indicate a continuous trend towards the ageing of total and working age population. Obviously, this ageing process is slower in the case study areas with population growth. The differences in the ageing process do not vary considerably between the different scenarios. The case study areas of the 'Euro Standard', 'Young Potentials' and 'Family Potentials' types seem to be more prone to future growth. The scenario results for London indicate the possibility of a significant population growth in an already today overcrowded metropolitan area, which raises the question of sustainability of this growth path.

Table 3 Population change in the case study areas 1993-2025 for different policy scenarios (Population 1993=100)

Case study (main city)	2005	2025			
		Limited Social Europe	Growing Social Europe	Chal-lenged Market Europe	Ex-panding Market Europe
1 Jihovýchod-CZ06 (Brno)	98.7	84.0	84.8	81.5	82.8
2 Oberbayern-DE21 (München)	107.5	121.1	124.1	120.3	125.5
3 Mecklenburg-Vorpommern-DE80 – North-Eastern Germany (Rostock)	92.2	81.3	84.1	80.4	82.9
4 Arnsberg-DEA5 – South-eastern Ruhr agglomeration (Dortmund and Bochum)	99.7	90.0	93.0	88.7	92.4
5 Cataluña-ES51 (Barcelona)	111.4	117.8	124.2	118.5	125.3
6 Thessalia-GR14 (Larissa)	100.3	95.0	98.9	94.2	98.9
7 Piemonte-ITC1 (Torino)	101.0	107.1	115.9	108.0	117.1
8 Molise-ITF2 (Campobasso)	97.6	91.5	94.4	92.2	94.9
9 Nord-Est-RO21 and Sud-Est-RO22 (Iaşi and Constanţa)	97.8	73.6	72.1	70.1	69.1
10 Sydsverige-SE04 with reference to Hovedstaden-DK01 and Sjælland-DK02 (Malmö, Lund and København)	105.6	114.2	119.3	115.2	121.2
11 West Yorkshire-UKE4 (Bradford and Leeds)	101.5	119.8	127.0	120.2	128.8
12 London-UKI (UKI1 and UKI2)	107.6	128.1	140.0	132.6	146.1

Source: DEMIFER Scenarios

1.9. Policy issues as conclusions of the case studies

The case studies could not contribute in detail to policy issues of DEMIFER. The policies regarding demographic change at the regional level are in most cases soft policies and linked more often to the aim of furthering socio-economic development in the region. Regarding the demographic change the policy domains of greatest interest are policies towards the elderly and towards immigrants.

Well-off regions can deal, adapt and cope with demographic challenges more easily, only because of the fact that they have more resources, not only financial, at hand to devise and to actuate policies in the areas of population ageing, immigration and the family. Also contextual aspects, like politico-institutional and cultural traditions, are relevant features of a territory and elements of differentiation between the single local cases that interact with the other local resources to define and to explain the economic performance and the demographic trends.

During the years analysed in the case study areas important demographic change took place, however, the direct social and economic consequences could be observed only in a limited way. In the demographic realm long-term trends are more important, whereas short-term trends are often covered by social and economic changes. The case studies confirm an underlying preoccupation with the consequences of the changes in numbers – population growth and population decline, the process of population ageing and of immigration.

Case study 1: Jihovýchod (CZ06)

Eva Janská and Zdeněk Čermák

Case study report:

DEMIFER_Deliverable12_1_CZ06Jihovychod.pdf

Case study 2: Euro Standard in München and its region – Oberbayern (DE21)

Frank Heins and Hansjörg Bucher

Case study report:

DEMIFER_Deliverable12_2_DE21Oberbayern.pdf

and a separate file with data:

DEMIFER_Deliverable12_2_DE21Oberbayern_Data.xls

Case study 3: Challenge of decline in Eastern Germany – Mecklenburg-Vorpommern (DE80)

Frank Heins and Hansjörg Bucher

Case study report:

DEMIFER_Deliverable12_3_DE80Mecklenburg-Vorpommern.pdf

and a separate file with data:

DEMIFER_Deliverable12_3_DE80Mecklenburg-Vorpommern_Data.xls

Case study 4: Challenge of decline in the Southern Ruhr area – Arnsberg (DEA5)

Frank Heins and Hansjörg Bucher

Case study report:

DEMIFER_Deliverable12_4_DEA5Arnsberg.pdf

and a separate file with data:

DEMIFER_Deliverable12_4_DEA5Arnsberg_Data.xls

Case study 5: Cataluña (ES51)

Corrado Bonifazi and Massimiliano Crisci

Case study report:

DEMIFER_Deliverable12_5_ES51Cataluna.pdf

Case study 6: Thessalia – 'Challenge of decline' poorly faced by immigration (GR14)

Minas Angelidis and Gabriella Karka

Case study report:

DEMIFER_Deliverable12_6_GR14Thessalia.pdf

and a separate file with data:

DEMIFER_Deliverable12_6_GR14Thessalia _Data.xls

Case study 7: The Piemonte Region – 'Challenge of ageing' and immigration (ITC1)

Giuseppe Gesano

Case study report:

DEMIFER_Deliverable12_7_ITC1Piemonte.pdf

and separate files with data for figures and maps:

DEMIFER_Deliverable12_7_ITC1Piemonte _Figures.xls
DEMIFER_Deliverable12_7_ITC1Piemonte _Maps.xls

Case study 8: Molise (ITF2)

Massimiliano Crisci

Case study report:

DEMIFER_Deliverable12_8_ITF2Molise.pdf

Case study 9: The Romanian Macroregion 2 – A Challenge for the European Regional Development (Nord-Est RO21 and Sud-Est RO22 Regions)

Carmen Beatrice Păuna

Case study report:

DEMIFER_Deliverable12_9_RO21_RO22Nord-Est_Sud-Est.pdf

Case study 10: Sydsverige – 'Euro standard' in a cross-border region (SE22)

Giuseppe Gesano

Case study report:

DEMIFER_Deliverable12_10_SE22Sydsverige.pdf

and separate files with data for figures and maps:

DEMIFER_Deliverable12_10_SE22Sydsverige _Figures.xls
DEMIFER_Deliverable12_10_SE22Sydsverige _Maps.xls

Case study 11: West Yorkshire (UKE4)

Phil Rees, John Stillwell, Peter Boden, Adam Dennett

Case study report:

DEMIFER_Deliverable12_11_UKE4West_Yorkshire.pdf

Case study 12: Inner and Outer London (UKI1, UKI2)

Phil Rees, John Stillwell, Peter Boden, Adam Dennett

Case study report:

DEMIFER_Deliverable12_12_UKI1_UKI2Inner_and_Outer_London.pdf

Annex I – The case study areas (NUTS2 regions) and their NUTS3 regions and/or more detailed sub-divisions

Case study	Code	Name
	CZ	Ceska Republika
1	**CZ06**	**Jihovýchod**
	CZ061	Vysocina
		Havlíčkův
		Jihlava
		Pelhřimov
		Třebíč
		Žďár
		Havlíčkův
	CZ062	Jihomoravsky kraj
		Blansko
		Břeclav
		Brno
		Brno-venkov
		Hodonín
		Vyškov
		Znojmo
	DE	Deutschland
	DE2	Bayern
2	**DE21**	**Oberbayern**
	DE211	Ingolstadt, Kreisfreie Stadt
	DE212	München, Kreisfreie Stadt
	DE213	Rosenheim, Kreisfreie Stadt
	DE214	Altötting
	DE215	Berchtesgadener Land
	DE216	Bad Tölz-Wolfratshausen
	DE217	Dachau
	DE218	Ebersberg
	DE219	Eichstätt
	DE21A	Erding
	DE21B	Freising
	DE21C	Fürstenfeldbruck
	DE21D	Garmisch-Partenkirchen
	DE21E	Landsberg a. Lech
	DE21F	Miesbach
	DE21G	Mühldorf a. Inn
	DE21H	München, Landkreis
	DE21I	Neuburg-Schrobenhausen
	DE21J	Pfaffenhofen a. d. Ilm
	DE21K	Rosenheim, Landkreis
	DE21L	Starnberg
	DE21M	Traunstein
	DE21N	Weilheim-Schongau
	DE2	Mecklenburg-Vorpommern
3	**DE80**	**Mecklenburg-Vorpommern**
	DE801	Greifswald, Kreisfreie Stadt
	DE802	Neubrandenburg, Kreisfreie Stadt
	DE803	Rostock, Kreisfreie Stadt
	DE804	Schwerin, Kreisfreie Stadt
	DE805	Stralsund, Kreisfreie Stadt
	DE806	Wismar, Kreisfreie Stadt
	DE807	Bad Doberan
	DE808	Demmin
	DE809	Güstrow
	DE80A	Ludwigslust
	DE80B	Mecklenburg-Strelitz
	DE80C	Müritz
	DE80D	Nordvorpommern
	DE80E	Nordwestmecklenburg
	DE80F	Ostvorpommern
	DE80G	Parchim
	DE80H	Rügen
	DE80I	Uecker-Randow
	DEA	Nordrhein-Westfalen
4	**DEA5**	**Arnsberg**
	DEA51	Bochum, Kreisfreie Stadt
	DEA52	Dortmund, Kreisfreie Stadt
	DEA53	Hagen, Kreisfreie Stadt
	DEA54	Hamm, Kreisfreie Stadt
	DEA55	Herne, Kreisfreie Stadt
	DEA56	Ennepe-Ruhr-Kreis
	DEA57	Hochsauerlandkreis
	DEA58	Märkischer Kreis
	DEA59	Olpe
	DEA5A	Siegen-Wittgenstein
	DEA5B	Soest
	DEA5C	Unna
	GR	Ellada
	GR1	Voreia Ellada
5	**GR14**	**Thessalia**
	GR141	Karditsa
	GR142	Larisa
	GR143	Magnisia
	GR144	Trikala
	ES	Espana
	ES5	Este
6	**ES51**	**Cataluña**
	ES511	Barcelona
	ES512	Girona
	ES513	Lleida
	ES514	Tarragona
	IT	Italia
	ITC	Nord-Ovest
7	**ITC1**	**Piemonte**
	ITC11	Torino
	ITC12	Vercelli
	ITC13	Biella
	ITC14	Verbano-Cusio-Ossola
	ITC15	Novara
	ITC16	Cuneo
	ITC17	Asti
	ITC18	Alessandria
	ITF	Sud
8	**ITF2**	**Molise**

Case study	Code	Name
	ITF21	Isernia
	ITF22	Campobasso
	RO	Romania
	RO2	Macroregiunea doi
9	**RO21**	**Nord-Est**
	RO211	Bacău
	RO212	Botoşani
	RO213	Iaşi
	RO214	Neamţ
	RO215	Suceava
	RO216	Vaslui
	RO22	**Sud-Est**
	RO221	Brăila
	RO222	Buzău
	RO223	Constanţa
	RO224	Galaţi
	RO225	Tulcea
	RO226	Vrancea
	SE	Sverige
	SE2	Södra Sverige
	and	
	DK	Danmark
10	**SE22**	**Sydsverige**
	SE221	Blekinge län
	SE224	Skåne län
	DK01	**Hovedstaden**
	DK011	Byen København
	DK012	Københavns omegn
	DK013	Nordsjælland
	DK013	Bornholm
	DK02	**Sjælland**
	DK021	Østsjælland
	DK022	Vest- og Sydsjælland
	UK	United Kingdom
	UKE	Yorkshire and the Humber
11	**UKE4**	**West Yorkshire**
	UKE41	Bradford
	UKE42	Leeds
	UKE43	Calderdale, Kirklees and Wakefield
		Calderdale
		Kirklees
		Wakefield
12	**UKI**	**London**
	UKI1	**Inner London**
	UKI11	Inner London - West
		Camden
		City of London
		Hammersmith and Fulham
		Kensington and Chelsea
		Wandsworth
		Westminster
	UKI12	Inner London - East
		Hackney
		Haringey
		Islington
		Lambeth
		Newham
		Southwark
		Lewisham
		Tower Hamlets
	UKI2	**Outer London**
	UKI21	Outer London - East and North East
		Barking and Dagenham
		Bexley
		Enfield
		Greenwich
		Havering
		Redbridge
		Waltham Forest
	UKI22	Outer London - South
		Bromley
		Croydon
		Kingston upon Thames
		Merton
		Sutton
	UKI23	Outer London - West and North West
		Barnet
		Brent
		Ealing
		Harrow
		Hillingdon
		Hounslow
		Richmond upon Thames