



**DART**  
Declining,  
Ageing and Regional  
Transformation



## ***Indikatoren und Standards des demographischen Wandels***

*Studie des Instituts für Angewandte  
Demographie (IFAD) im Rahmen des DART-Projektes*

### **Anhang 2 zum DART-Endbericht**

Zusammenfassung des Endberichtes in Englisch  
(Langfassung und Kurzfassung)

Berlin, September 2012

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**Zusammenfassung des Endberichtes in Englisch  
(Langfassung)**

## **Overview of the scientific discussion about demographic change**

For about 10 years, it is clear that Europe's demographic change as a "megatrend" of the 21st century is not a "normal" structural change, but includes all spheres of life of the affected societies and this will change in an as yet to be experienced way.

The decline in birth rates first began in European countries a hundred years ago, which then led through several stages, starting in the 1970's, when levels fell below the required reproduction level. This process is accompanied and increasingly reinforced by the continuing increase in life expectancy in almost all European countries. This increase in life expectancy continues unabated. In the 20th century alone, this amounted in Germany to about 30 years, and present trends in the improvement of the life expectancy for the elderly points to the conclusion of this development being 'the society of the centenarian'.

The complex process of demographic change covers four areas:

- the quantitative change of the total population, i.e. altogether territorially differentiated contraction of the population particularly in the area with embedded urban growth islands
- the change of the age structure of the population and shift of the proportions between the age groups, i.e. above all ageing of the population, increase of the average age, sinking of the youth quotient and growth of the elderly quotient; (Elderly quotient is the ratio of the population who are no longer of an employable age to the number of the population of an employable age (generally over 65 year olds/15-65 year olds). (Youth quotient is the ratio of the population who are not yet of an employable age to the number of the population of an employable age (generally 0-15 year olds/15-65 year olds)
- the change of the social structure, above all the family, and household structures, i.e. also the growing 'separation' and importance of the economic and political meaning of the older population age groups
- the change of the territorial distribution of the population by migration movements, i.e. in particular drift from rural areas and immigration into growth centres

The countries that have for a longer time been engaged in this process of a contracting and ageing society have permanently superseded countries with expanding populations in

Europe. Such changes between expansion and contraction in the population trend have always taken place, but not under the conditions of a modern industrial society. Also in a growing society, with large sections of the younger population, they are faced with major policy challenges. The difference is, however, that these issues in the past have been dealt with, while for the current situation experiences are only rudimentarily available. An important distinction about the phases of growth is still to see that adjustments in the population shrinkage and ageing phases require whatever adjustments and reductions in public services, and this is steeped in conflict rather than establishing new services.

This demographic challenge is thus unique in European history. There are therefore no tried and tested remedies, as European societies should respond appropriately to this development.

Worldwide, so far, only Japan has appropriate experiences on how to make the changes connected with demographic change. Therefore the European population faces new and very complex challenges. The irreversible ageing of the population and the increasing territorial disparities are at the core of this process of change, and will lead to major changes in society, politics and business.

Therefore, with assurance, the number of inhabitants in Europe will be reduced by the year 2050 to approximately 542 million. The slight rise in fertility numbers, although not presupposed, which can be found at present in the scientific discussion, is to be assumed as a statistical phenomenon (looking at fertility numbers by means of period analysis underestimates the fertility level, which settles with a halting or a reversal of this development in the total fertility rate reflected in a shift of the average childbearing age), which in no way leads to a stabilization or a growth in the population of Europe from its own energy. In addition this 'rise' is too small because today's average value of 1.5 children per woman would have to rise on a long-term basis to over 2, in order to reach the required reproduction level in the long term.

In addition, it comes that due to the inertia of the demographic processes (momentum) even such an very improbable increase would change almost nothing in the developments of the next 20-30 years (i.e. that the birth rates continue to remain low and the ageing of the population continues).

Theoretically, a stabilization would at least be possible by the numbers of immigrants coming in, as has been experienced in recent years in Europe. However, it is increasingly questionable from which source potential immigrants would come from as the traditional areas, especially in Eastern Europe, are now also affected by an extreme shrinking process. The demographically induced change of European societies is in full swing and will continue with increasing speed and lead to a similarly far-reaching change in social systems and organizational structures of life.

As it's essentially hard to change, the demographic core processes of this change (birth rate) or are desired in their development (increase in life expectancy) a differentiated approach in dealing with the ageing and shrinking process and their impact in the form of dynamic adjustment is necessary and also promising.

The current and future demographic developments are local and in particular regional. The main effects of the demographic change - contraction and ageing on the one side and increasing concentration and internationalization (connected with an increasing problem of integration, particularly in western, central and southern Europe) on the other side – extremely differentiated territories (they are not proportionally or linearly run in the countries, regions, cities and municipalities or along political or administrative borders). We are seeing a juxtaposition of the growth and contraction processes.

As a rough overview, a demographically conditioned division in two parts of Europe exists regarding this development. Apart from prosperous centres of dense development, which exercise an increasing attraction, distant parts of Europe (these areas account for approximately 75% of the regions ) experience themselves, particularly in the rural peripheries, the change as a contraction with increasingly emptying areas due to depopulation and a rapid increase in the ratio of the older population.

Through selective migration processes, the impact of change in these source areas still strengthens and in the target areas are at least occasionally moderated. At present, especially densely populated areas profit from migration gains at the expense of rural sources. This polarisation of the regions in Europe as a whole, but especially in the individual countries, will intensify further in the competition for human and financial resources. Thus, in the near future, some regions of Europe, will be hardly impacted upon by the demographic

change (ageing and contraction), whilst in other areas the impact will be faster and more profound.

From this the most varied problem configurations result. The decrease in population leads to the undermining of the sustainability of the general infrastructure. The maintenance of functional regional labour and supply markets is reflected in this. The strong increase of the proportion of elderly people, in particular in the surrounding countryside of the cities and in the rural regions, makes high demands on the local infrastructures. The migration processes leads to demographic and social disproportions in the age and gender structure. The proportion of men in an ageing population increases disproportionately. From this skewed social structure follows the increase of deviant behaviour and lifestyles such as alcohol dependency, extremist attitudes and violence. These problem areas work for their part as a catalyst in accelerating the demographic ageing process.

That is why flexible adaptation strategies are necessary, both on a national level, and also in view of the particularly affected regions. A condition for this is first the supply of regionally differentiated information and data, for which regional benchmarking can be used. The available information bases, in order to justify the requirements of the demographic change, at present are not sufficient. At this time the data and forecasts refer to the demographic change predominantly on higher levels, large regions or the countries as a whole. The data must be prepared however in such a way that they can be made usable for regional benchmarking.

Informed political decisions, in particular locally made ones, require in also small-scale, disaggregated population, forecasts divided into small sections on a regional and local level. Since forecast uncertainties usually increase, if the regarded area becomes smaller, such forecasts should regularly be examined at relatively short notice and if necessary updated. They can form a basis for the development of regionally differentiated strategies.

These above-mentioned changes don't concern all regions at the same time and to the same extent. In particular (selective) migration processes have created areas that today are very well advanced in demographic change and play, so to speak, a "pioneering role" (laboratory for strategies) in the confrontation of these changes.

It is to be assumed that these disparities will lead to permanent essential regional differences, to a tightening of the development differences between urban centres and rural-peripheral areas. A parallel co-existence of strong or slightly shrinking, stagnating and slight growth regions is emerging.

There cannot any more be uniform standards in view of the descriptive different developments. Especially in shrinking rural areas, minimum standards need to be defined, and also the development of territorially graded areas for social services and benefits.

The complexity of demographic changes demands therefore comprehensive and intelligent adaptation strategies which take into account all fields of activity in the context of a cross section politics.

## **Demographic change in the partner regions/Classification of partner regions**

The evaluation of the population data in the 13 DART surveyed regions in the period between 1990/1993 to 2008/09 was the basis for the formation of five clusters / classifications of the quantitative population trend. These were presented for the first time in April 2011 in Dresden at the DART conference 'Demographic Change in Europe – Solutions for the Economy'.

These clusters and each region are shown in detail in this chapter begins with a short form. The subsequent chapter 4.3 compares the main processes of demographic change in all regions at a glance and provides the individual demographic indicators compared graphically and in tabular form:

### **This classification of the population contraction is presented in detail as follows:**

**Cluster I:** Very strong decrease in population 1993 to 2009 (larger than 10%):

- ▶ Uckermark (-19.9%), Brandenburg, Germany (District)
- ▶ Görlitz (-19.2%), Saxony, Germany (District)
- ▶ Kainuu (-14.2%), Finland (Region)
- ▶ Klodzki (-10.4%), Lower Silesia, Poland (County)

**Cluster II:** Strong decrease in population 1991/1993 to 2009 (between 5 to 10%):

- ▶ Alba (-9.4%), Centru, Romania (County)
- ▶ North-Karelia (-6.8%), Finland (Region)

**Cluster III:** Decrease in population 1991/1998 to 2009 (smaller than 5%):

- ▶ Waldviertel (-4.7%), Lower Austria, Austria (Region)
- ▶ Ourense (-2.5%), Galicia, Spain (Province)
- ▶ Parkstad (-1.5%), Limburg, Netherlands (Conurbation)

**Cluster IV:** Population stagnation 1991 to 2009:

- ▶ Rovigo (-0.3%), Veneto, Italy (Province)

**Cluster V: Population growth 1991/1993 and 2009:**

- ▶ Roscommon (+13.2%), Connacht, Ireland (County)
- ▶ Gorenjska (+4.3%), Slovenia (Conurbation)
- ▶ Kutna-Hora (+0.2%), Central Bohemia, Czech Republic (District)

For 10 of the surveyed 13 regions substantial population losses were recorded in a relatively short period of time. In the other 3 regions an increase in the population was registered. In all regions it becomes clear, however, that with a differentiated age structure overview, the younger age groups (in particular the group up to 15 years of age) decreased substantially, while the older age groups and the elderly recorded increases. This development is a principle characteristic for the demographic change in the DART surveyed regions and presents itself in the individual regions as follows:

## Cluster I: Very strong decrease in population 1993 to 2009 (larger than 10%):

### Surveyed region: Uckermark/Brandenburg/Germany

❖ Population 1993/2009:	163,719/131,115
❖ Population density PT per km <sup>2</sup> 1993/2008:	54/43
❖ Population Decrease 1993 – 2009 in %:	Decrease by 19.9
❖ Decrease of age group 6 – 15 years 1993/2008 in %:	Decrease by 62.8
❖ Increase of age group over 65 years 1993/2008 in %:	Increase by 65.4
❖ Development of labour force 1995/2008 in %:	Decrease by 17.9
❖ Foreign population 1993/2009 (Total numbers):	3,178/3,693 (+16.2%)
❖ Population projection 2030 (Total numbers):	98,197 (-33.5%)
(Trend in relation to 2009)	

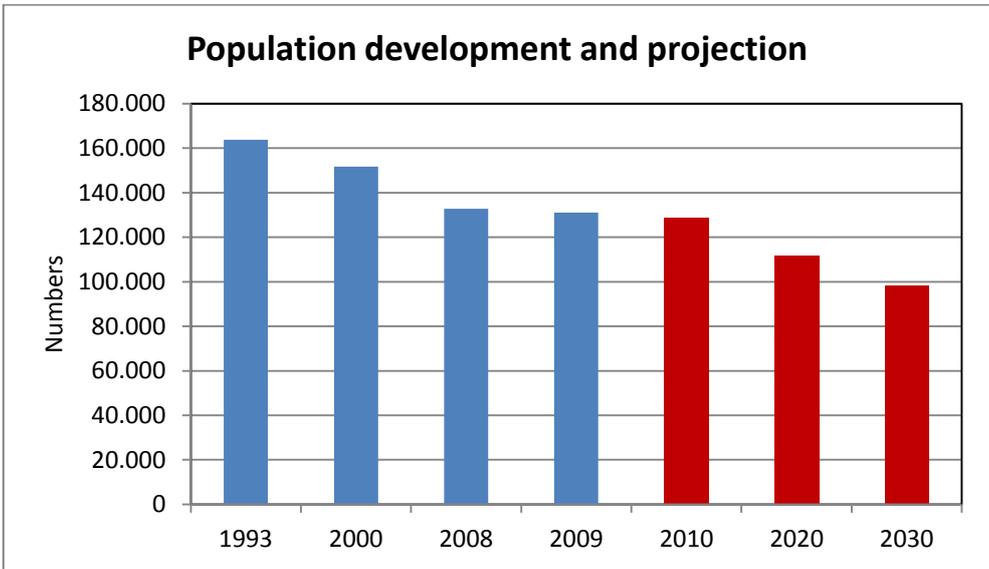
Uckermark is an administrative district in the northeastern part of the federal state of Brandenburg, bordering Poland. Covering an area of 3,058 km<sup>2</sup> it is the largest district in Germany. The district of Uckermark is a very wild and natural region of Germany. With its many lakes, meadows and forests, it attracts numerous tourists from the nearby surroundings looking for relaxation. However, the demographic change leaves clear marks on this East German district. The strong decrease in population has already been seen for many years. Many, in particular young people, have moved away since German reunification and the wall opening up the old Federal states of the Federal Republic, finding better vocational prospects and higher salaries there. In addition, there are substantially sinking birth rates and a higher life expectancy since 1990. As a consequence, the district of Uckermark can be regarded as a particularly striking example of the demographic ageing and contraction process in the context of the DART project.

The decrease in population can be determined both by the population density, and by the total population. In Uckermark the population density has sunk by twenty percent in the last 15 years to 43 inhabitants per square kilometre. That corresponds to a loss of nearly 30,000 inhabitants in that period. According to present population forecasts, it becomes clear that both the population density as well as the total population will continue to decrease considerably in the coming years. By 2030 the population of the district of Uckermark will shrink by a further 25 percent.

Due to this very sharp decline in population numbers, Uckermark was assigned to the Cluster I under the IFAD-analysis. Only the second East German region, the district of Görlitz, shows

a comparable decrease in population within the DART project. Similar values are generally to be found only in further parts and districts, which belonged to the territory of the former GDR.

A gender difference in population decline is not that clear. Usually it is said that more women than men left East German regions in order to be able to look for a better future. This will have dire consequences for any region with so many elderly people regarding the future fertility development. However, this trend will presumably be balanced in time by the natural birth surplus of boys.



Viewing the age structure of the population in the district of Uckermark, the trend towards an ageing society is very clear. In time, ever more drastically, the younger generation becomes fewer due to sinking birth figures, and equally the number of older people, which are then mostly in need of care, grows inexorably. The district of Uckermark is particularly affected by this trend, as well as the other East German region Görlitz. The number of 0 to 15 year olds fell here during the period 1993 to 2008 by about 57 percent. Similarly the number of over 65 year olds increased during the same period by 65 percent. This development poses special challenges for the political, economic and social systems and infrastructure in the region, as a shrinking working population has to provide more, and older age groups must be provided for by a still smaller younger generation to pensionable age. At the same time, in the analysis of the age structure a surplus of men in almost all age groups is to be noted.

This ageing process and the changed age structure can also be illustrated on the basis of the old-age-ratio and youth-ratio. In 1993, the ratio of young people aged under 15 was still a considerable 41.7 persons per 100 persons of working age in the 15-65 age range. 16 years later this value was only 23.8 youngsters per 100 persons. That is the lowest ever measured value in the region. The old-age-ratio has accordingly developed contrary to this, and has more than doubled since 1993 to 38.5 elderly inhabitants per 100 people aged 15 to 65. The forecasts show that the respective trends for the old-age-ratio and youth-ratio will continue to strengthen in the future.

The unusually strong rise of the old-age-ratio can be explained among other things with the life expectancy constantly rising since the reunification of Germany, particularly in the new Federal states. With the incorporation of the former GDR into the Federal Republic of Germany, the provision of medical care in these parts of the country also changed drastically. Life expectancy rose dramatically. In 2009 life expectancy for a man was about 76.4 years; for a woman it was 82.2 years. Thus Uckermark is placed in the centre zone of the examined regions of the DART project regarding life expectancy.

Not only has life expectancy risen since the reunification in 1990, but also the average age of a woman having her first child. In the district of Uckermark it has increased by five years since that time. The women in the district are now older by the time they give birth to their first child. Today women in this category are aged *over 30*.

With the increase of the average age of a woman having her first child, the total fertility rate (TFR) becomes aligned to this new development. It has declined very considerably within the last 20 years. The required reproduction level of 2.1 children per woman, has not been achieved for many years now. Today women in the district of Uckermark gave birth to an average of 1.44 children in the course of their life. Thus a slight rise of the integrated birth rate could be registered since 1997. In the Federal Republic alone, this is only 1.36 children per woman.

Uckermark has been losing inhabitants to migration for many years. Of the DART surveyed regions Uckermark, in addition to Görlitz, is most strongly affected by this. The negative migration balance and the migration itself are greatest here. More people emigrate than immigrate. The number of immigrants and associated integration problems are nevertheless an important factor for the policy and society. Altogether immigration as well as emigration and

the population loss linked with it has fallen since 2000. The still growing main age group of migrants living in Uckermark are those between 26-65 years of age. The number of the younger and the elderly migrants is decreasing and marginal, altogether the proportion of foreigners increased slightly within the 16 year period that was analysed. With 2.82 percent of the total population, however, it is at a relatively low level compared to the other DART surveyed regions.

Changing household structures are associated with demographic change also in this region. One person households are being increasingly established. The typical family ideal seems to diminish ever more strongly. The number of one person households in Uckermark rose up to almost 40 percent in 2008. Only the two Finnish regions Kainuu and North-Karelia show higher values within the range of the DART project. On the contrary the number of four person households is sinking. In 2008 only nine percent of all households in the district were of this size. The average household size was about 2.25 persons per household in 1994. This value sank to 1.95 persons in 2008.

This trend of a reduction in household size appears in all examined DART regions.

### Surveyed region: Görlitz/Saxony/Germany

❖ Population 1993/2009:	347,707/281,076
❖ Population density PT per km <sup>2</sup> 1993/2009:	165/133
❖ Population Decrease 1993 – 2009 in %:	Decrease by 19.2
❖ Decrease of age group 5 – 15 years 1993/2009 in %:	Decrease by 62.9
❖ Increase of age group over 65 years 1993/2009 in %:	Increase by 35.3
❖ Development of labour force 1995/2008 in %:	Decrease by 35.5
❖ Foreign population 1993/2009 (Total numbers):	5,010/5,975 (+19.3%)
❖ Population projection 2020 (Total numbers): (Trend in relation to 2009)	248,200 (-11.7%)

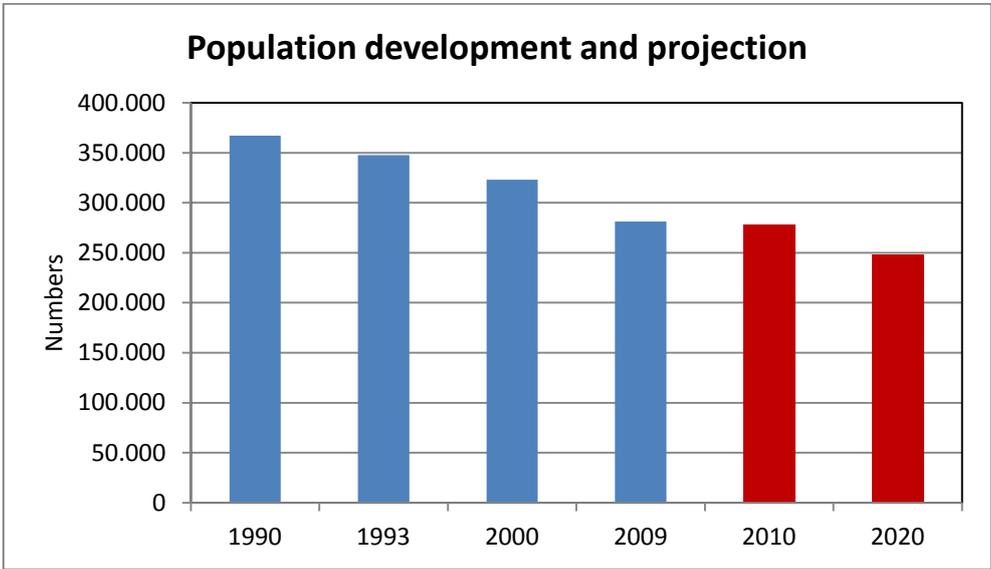
Görlitz is a district in the extreme east of the Federal Republic of Germany. The district is in the Free State of Saxony and borders directly onto Poland and the Czech Republic.

The inhabitants are spread over a surface of 2,106.07 square kilometres. Situated in the most northeasterly corner of Saxony, the district is particularly strongly affected by the demographic change. The district of Uckermark is another East German region in the DART project with very similar problems. The policy locally and in the Free State strives with new ideas, creativity and pilot projects to meet current requirements.

In 2009, the district of Görlitz had a population density of 133 inhabitants per square kilometre with a surface area of 2,106 km<sup>2</sup>, and thereby represents one of the most densely populated regions within the DART project. However, since 1993, the population density has decreased by around nearly 20 respectively 25 per cent. Since the reunification of Germany in 1990, the region has recorded continuously sinking numbers of inhabitants. Since then, a decrease in population of 23.4 per cent respectively since 1993-2009 of 19.2 per cent is evident. That corresponds to an unusually strong decrease in population, which appears in a similar way only in other parts of the former GDR. With this particularly strong decrease in population figures, the district of Görlitz has been assigned to Cluster 1 in the IFAD analysis. (Regions attributed with a very strong decrease in population in the context of data evaluation).

A difference between the sexes with the decrease in population is clearly recognizable. Since reunification, more women than men have left Görlitz, in order to seek a better future. This will have dire consequences for any region with so many elderly people regarding the future fertility development. With the analysis of the population trend and forecast it shows that

the numbers of inhabitants in the district of Görlitz will further strongly decline in the coming years. By the year 2020 the population will have decreased by around a further 11.7 per cent.



The development of an ageing society becomes very clear when regarding the age structure of the population of the district of Görlitz. The figure for the younger generation is reduced due to even more drastically sinking birth rates as well as the number of the elderly constantly increasing. The district of Görlitz is, just as the other East German district of Uckermark, particularly strongly affected by this tendency. The number of 5 to 15 year olds sank here within the period from 1993 to 2009 by around 62.9 %. Equally the numbers of over 65 year olds increased by around 35.2 % in the same period.

A clearly rising surplus of men in all age groups shows itself at the same time in comparison with the year 1993 (the exception being the over 65 age group). This development represents, as in other DART surveyed regions, special challenges for the political, economic and social systems and infrastructures in the region.

Also on the basis of the old-age-ratio and youth-ratio, one can illustrate the changing age structure in the district of Görlitz. Since 1993 the youth-ratio has sunk by around over 35 % to only 17.6 young people per 100 persons of working age. That is the lowest value that has ever been measured in the region. The old-age-ratio has accordingly developed contrary to this, and in the same period has dramatically risen by around more than 75 % to 42.8 elderly inhabitants per 100 persons aged 15 to 65. Forecasts indicate that the respective trends for

the old-age-ratio and youth-ratio will continue to strengthen in the future. It's a frightening prospect if, in the future, each employed person is replaced by more than one pensioner, and fewer young people are replaced by employed persons retiring.

The unusually strong rise of the old-age-ratio can be explained, by among other things, the constantly rising life expectancy since the reunification of Germany, particularly in the new Federal states. The provision of medical care in the former GDR has changed drastically. Life expectancy, consequently, increased extraordinarily rapidly. Unfortunately the district of Görlitz could not make data available for the life expectancy in the region, so that here no more exact numbers can be stated.

It was not only life expectancy that increased after reunification in 1990. In the district of Görlitz, a rise in the average age of a mother having her first child can also be seen for this time. In 1993 this figure was 26.4 years old. 16 years later this figure rose by around three years. Today, in this region of the Free State of Saxony, women are on average having their first child in the age of 30.

The total fertility rate (TFR) for the district of Görlitz shows some fluctuations since reunification in 1990. Regarding the numbers from the years 1993 and 2009, they are at approximately the same level of 1.57 children per woman. Meanwhile, a drop is very definite. At the turn of the century the TFR for the district was approximately 1.304 children per woman. Today the TFR clearly doesn't reach the required reproduction level of 2.1 children per woman, though its figure is above the average in Germany.

The region has, for years, lost inhabitants through migration. (A negative migration balance). Along with Uckermark, Görlitz is the most strongly affected, of all the DART surveyed regions, by population loss due to migration. The loss, however, was reduced between 2000 and 2008. The number of immigrants has risen since then, while the number of the migrations has declined slightly since 2000. The increasing number of the foreign citizens makes the problems of integration an important factor for the local and federal state policy. For the age structure of the migrants the region could unfortunately supply no usable data. The proportion of the foreign population to the total population of the district of Görlitz rose slightly within the period 2000 to 2009, to 2.13 %. Compared with the other DART surveyed regions (except Uckermark, Kainuu and North-Karelia) this is a relatively low level.

The demographic change in the Görlitz region can be further seen in changing household conditions. One person households are increasingly being established. The typical family ideal (mother, father, two children) seems to diminish ever more strongly. The number of one person households in the district of Görlitz has risen strongly since 1991 and, in 2009, stood at more than 37 % of all households. The proportion of four person household, in this time, has halved, and in 2009 stood at only 7.2%.

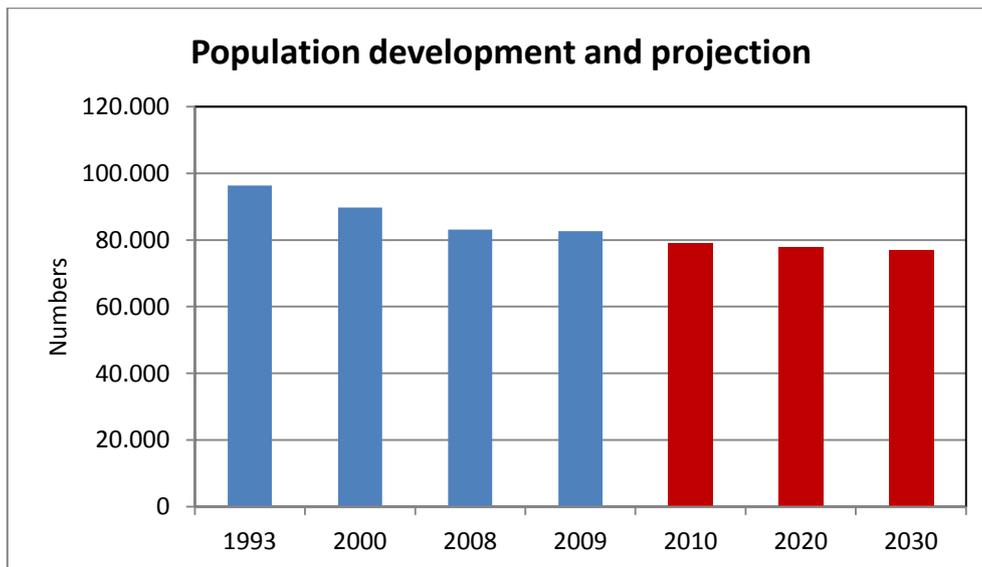
In 1991, the average household size was about 2.4 persons per household. In 2009 this number dropped to 1.9 persons per household. This trend of a reduction in household size is evident in all DART surveyed regions. If the households are viewed regarding family status, an increased proportion are divorced. Otherwise, there are no relevant changes.

### Surveyed region: Kainuu/Finland

❖ Population 1993/2009:	96,298/82,634
❖ Population density PT per km <sup>2</sup> 1993/2008:	4.5/3.9
❖ Population Decrease 1993 – 2008 in %:	Decrease by 14.2
❖ Decrease of age group 6 – 15 years 1993/2008 in %:	Decrease by 35.1
❖ Increase of age group over 65 years 1993/2008 in %:	Increase by 30.7
❖ Development of labour force 1995/2008 in %:	Increase by 1.4
❖ Foreign population 1993/2009 (Total numbers):	344/1,315 (+282.3%)
❖ Population projection 2030 (Total numbers): (Trend in relation to 2008)	76,961 (-7.5%)

In the sparsely populated region of Kainuu in the north east of Finland, demographic change and its lasting effects can be clearly recognized. The population density was reduced within 15 years by more than 13 % and stood in 2008 at 3.9 inhabitants per square kilometre. Therefore, this DART surveyed region shows the smallest population density in the DART project by some distance. Due to the strong decrease in population, Kainuu region was assigned to Cluster I in the IFAD analysis (Regions with very strong decrease in population in the context of data evaluation). Thus this region, within the DART project, is the most strongly affected by the decrease in population. Only the East German districts of Uckermark and Görlitz show larger negative developments. A gender difference in population decline is not that clear.

During the survey of the population development and forecast, it became clear that the trend of population contraction will continue. By the year 2030 the population of the Kainuu region will have declined by a further 7%. It turns out that all other DART surveyed regions expect increasingly lower population figures in the future, and with that comes the resulting associated problems of an ageing society. Only the region of Roscommon in Ireland expects an increase in its population.



When looking at the age structure of the population in this region, the trend is clearly towards that of an ageing society. The figure for the younger generation is reduced due to the birth rate declining by more than a third between 1993 and 2008, as well as the number of the elderly being cared for by helpers rising inexorably. However, this process is slightly slower than in two even more strongly affected regions – namely Uckermark and Görlitz in eastern Germany. At the same time, a surplus of men is evident.

Also, on the basis of the old-age-ratio and youth-ratio, one can illustrate the changing age structure in the region of Kainuu. In 1993, the ratio of young people aged under 15 was still a considerable 30.2 persons per 100 persons of working age in the 15-65 age range (youth-ratio of 30.2%) 16 years later, this value further dropped to more than 22%. The old-age-ratio has accordingly developed contrary to this, and has risen by nearly 60% since 1998 to 32.1 elderly inhabitants per 100 persons aged 15 to 65. Forecasts indicate that the respective trends for the old-age-ratio and youth-ratio will continue to strengthen in the future.

The average age of a mother having her first child has been constant at the relatively late age of 28.5 years of age. However Kainuu in this regard only has regional data at present starting from 2000. That's why a more extensive statement about the long-term development is not possible. Regarding the total fertility rate, a slight increase can be observed. However, this doesn't reach the required reproduction level of 2.1 children per woman, and in 2008 stood at just 1.99 children per woman.

The region has lost inhabitants through migration, showing a negative migration balance. However, the loss has been eased up to 2008. Since 2000, the number of immigrants has risen and the number of emigrants has dropped, only to a slight degree. The main group of migrants were the 25-64 year old age bracket, followed by the minors. Overall, the number of migrants continues to rise in all age groups. The proportion of the foreign population to the total population more than quadrupled within 16 years. However, standing at 1.59 %, this is the lowest level in all DART surveyed regions.

The demographic change in the Kainuu region can be further seen in changing household conditions. One person households are increasingly being established. The number of one person households in the region of Kainuu has risen, since 1994, to almost 40%, which is one of the highest figures in the DART surveyed regions. Against that, the typical four person household shows declining numbers. Their share, in the meantime, sank to less than 14%.

In 1994, the average household size stood at 2.36 persons per household. In 2008, this number dropped to 2.01 persons per household. This trend of a reduction in household size is evident in all DART surveyed.

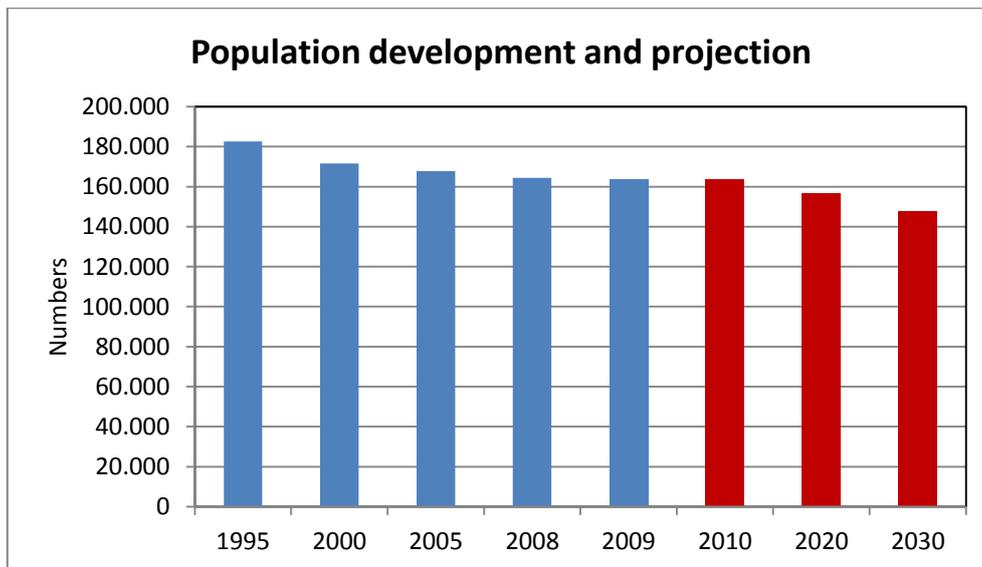
### Surveyed region: Klodzki/Lower Silesia/Poland

❖ Population 1995/2009:	182,667/163,648
❖ Population density PT per km <sup>2</sup> 1993/2008:	111.2/100
❖ Population Decrease 1993 – 2009 in %:	Decrease by 10.6
❖ Decrease of age group 6 – 15 years 1995/2008 in %:	Decrease by 45.7
❖ Increase of age group over 65 years 1995/2008 in %:	Increase by 8.5
❖ Development of labour force 1995/2008 in %:	Decrease by 20.7
❖ Foreign population 1993/2009 (Total numbers):	No data
❖ Population projection 2030 (Total numbers): (Trend in relation to 2005)	147,600 (-12%)

Klodzki is a county in the Lower Silesian Voivodeship in Poland. With an area covering 1,643.37 square kilometres the region covers the areas of the former districts of Glatz and Habelschwerdt. Klodzki is one of the poorest regions in South Poland, particularly in comparison with the Upper Silesian industrial area of Katowice.

The demographic change has already left clear traces in this Polish county. The decrease of the population can be demonstrated both by the sinking population density, and by the development of the absolute total population. In Klodzki the population density sank within 13 years (1995 to 2008) by 10% to 100 inhabitants per square kilometre. That corresponds to a loss of more than 19,000 inhabitants in this period. On the basis of a current population forecast, it becomes clear that both the population density as well as the total population in the following years will drop further. By the year 2030 the population of the county of Klodzki will decrease by approximately 10 per cent (basic year 2010).

Due to this decrease in population numbers the county of Klodzki has been assigned to Cluster 1 in the IFAD analysis. (Regions attributed with a very strong decrease in population in the context of data evaluation). It is shown that, as in all other surveyed DART regions, they must expect increasingly smaller population numbers and its associated problems of an ageing society. Only the regions West Irish Administrative district (WAS) and Gorenjska forecasts an increase in their population. A gender difference with the decrease in population is not that clear in the county of Klodzki. However, since 1995, a surplus of women is clearly evident.



The development of an increasingly ageing society becomes very clear when regarding the age structure of the population of the district Klodzki. The figure for the younger generation (age group 0-19) has reduced since 1995 due to even more drastically sinking birth rates as well as the number of the elderly constantly increasing. The number of 0 to 15 year olds sank within the period from 1995 to 2008 to approximately 42 %. Equally the numbers of over 45 year olds increased by 21% in the same period.

This development poses special challenges for the political, economic and social systems and infrastructure in the region, as a shrinking working population has to provide more, and older age groups must be provided for by a still smaller younger generation to pensionable age. With the analysis of the age structure a surplus of men shows itself at the new younger generation, but starting from the age group of the 45 year olds the women are in the majority. This shows up in particular in the age group of the 65 year olds and older. Here approximately twice as many women live such as men in the district. That becomes possibly explainable by the substantially higher life expectancy of women in South Poland (2009 approx. 9 years less for men 69.9 years than, women. 78.7, men) and by progress in medical and social support.

This ageing process and the changed age structure can be clarified also on the basis the old-age-ratio and youth-ratio. In 1995, the ratio of young people aged under 15 years amounted to 33.1 persons per 100 persons of working age in the 15 -64 age group. 14 years later this value was only 19.8 young people per 100 persons. The old-age-ratio has accordingly developed contrary to this, and rose in the same period from 18.7 to 21 elderly inhabitants per

100 persons aged 15 to 64. That is however the lowest measured value of all the DART project regions in 2009. The forecast shows that the respective trends for the old-age-ratio and youth-ratio will continue to strengthen in the future. The rise of the old-age-ratio can be explained among other things by the increase of life expectancy. A further aspect is the rise of the average age of a mother having her first child. More exact data was not available for the county of Klodzki.

The total fertility rate (TFR) is also aligned in the county of Klodzki to the new demographic developments. It does not reach the required reproduction level of 2.1 children per woman. Today women in Klodzki give birth to an average 1.3 children in the course of their lives. Thus Klodzki registers an increase of the integrated birth rate since 2002. Nevertheless the TFR from Klodzki still lies far away from the reproduction number of the DART regions Ourense, Rovigo and Alba, and has the lowest value of all DART surveyed regions.

Apart from the balance of the natural population movement being negative since 1995, Klodzki has for years lost inhabitants to migration. More people emigrate than immigrate. The number of immigrants and associated integration problems are nevertheless an important factor for the policy and society. Altogether immigration as well as emigration and the population loss linked with it has fallen since 1995.

Changing household structures are associated with demographic change also in this region. Klodzki shows the typical family ideal is still lived by most families (data conditions 2002). An analysis of more current data was not possible unfortunately, since only numbers were present from the year 2002. The number of smaller households (1 and 2 person households) in the county of Klodzki was scarcely less than the number of larger households (four person). Klodzki has an average household size of 2.52 persons. All examined DART regions in the year 2002 showed a decrease in the household size.

## Cluster II: Strong decrease in population 1991/1993 to 2009 (between 5 and 10 %):

### Surveyed region: Alba/Centru/Romania

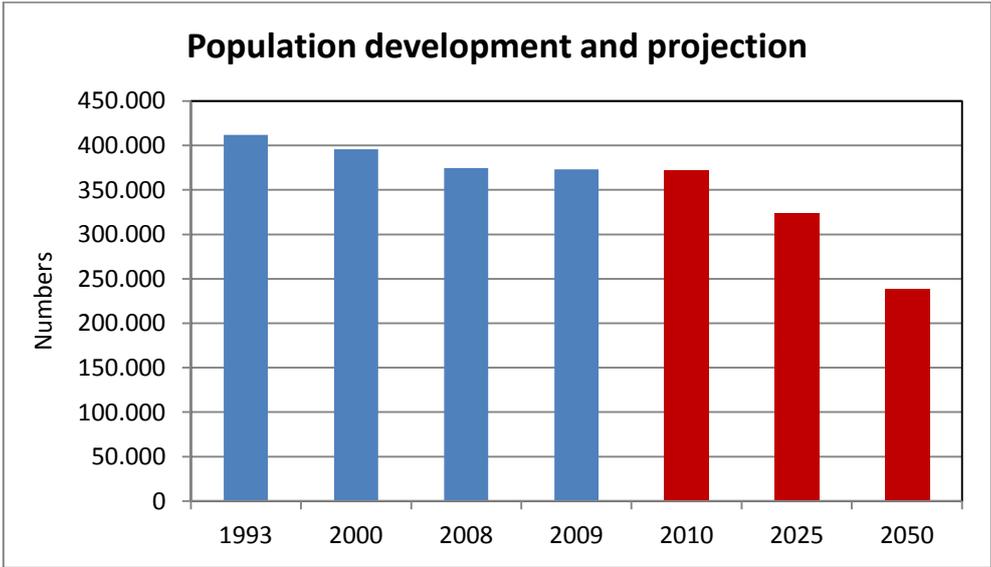
❖ Population 1993/2009:	412,038/373,134
❖ Population density PT per km <sup>2</sup> 1993/2008:	66/60
❖ Population Decrease 1993 – 2009 in %:	Decrease by 9.4
❖ Decrease of age group 5 – 14 years 1993/2008 in %:	Decrease by 40.0
❖ Increase of age group over 65 years 1993/2008 in %:	Increase by 16.9
❖ Development of labour force 1995/2008 in %:	Decrease by 14.4
❖ Foreign population 1993/2009 (Total numbers):	No data
❖ Population projection 2025 (Total numbers): (Trend in relation to 2008)	323,600 (-13.6%)

The DART area Alba is a Romanian county (Judet in Romanian) in Transylvania with the county capital Alba Iulia (formerly Karlsburg). Conveniently situated in the centre of Romania, Alba is one of 6 counties (Alba, Brasov, Covasna, Harghita, Mures and Sibiu), which belong to the region Centru. The county is shaped by its geography from the mountains, high plains and valleys, and covers the southeast of the Apuseni Mountains and the west through of the Transylvania basin.

The area in the southeast of the county of Alba lies in the Zekesch highlands, the south in Sureanu Mountains with the summit 'Varful lui Patru' (2130 m) and Sureanu (2059 m) as well as in the historic 'Unterwald'. The western territory of the county lies in the Transylvania Erz Mountains and to the northwest in the Bihor Mountains (in the historic 'Motzenland').

In the region Alba decreased the population density and total population since 1993 strongly. Within the DART project only Finnish and East German DART regions exhibit more negative developments. A difference between the sexes with the decrease in population is to be recognized only slightly. The number of men decreased somewhat more strongly than those of the women. Nevertheless also a surplus of men in nearly all age groups (until 44 years of life) shows itself. Only in the older generation live clearly more women than men in the region. This development in the different age groups leaves itself, as also in other DART regions among other things with the higher life expectancy of the women and the natural positive Birth Balance of the boys to also, explain.

During the investigation of the population trend and prognosis it becomes clear that the trend of the population contraction in Alba will still continue. Up to the year 2025 the population of the region Alba will have decreased since 1993 around more than 20 per cent (compared with 2009 over 13 per cent). Also all other DART regions with exception of the West Irish Administrative district (WAS) must count on increasingly smaller population numbers and the problems of an ageing and shrinking society accompanying from it.



During the view of the age structure of the population becomes also into the Romanian DART surveyed regions the development to an ageing society again clear. The younger generation becomes smaller due to sinking birth rates with the time ever more drastically and at the same time continues to rise the number of old and mostly cohort in need of care always. The number of 0 to 15 year olds sank here within the period between 1993 and 2008 around approximately 38 per cent. Equally the cohort increased over 65 year olds around approximately 17 per cent in the same period.

This development represents special challenges for the political, economic and social system of the region, if e.g. the shrinking population of acquisition (provision of medical care) has to supply ever more older humans and even in the pensionable age on a still smaller younger generation meets.

Also on the basis the old-age-ratio and youth-ratio the changed age structure in the region Alba can be clarified. Within the last 16 years the youth-ratio decreased around scarcely 40 per cent. 2009 amounted to the relationship of young people at the age of under 15 years

only 21 persons per 100 persons of working age of 15 to 65 years (1993 32.5). The old-age-ratio developed accordingly contrarily and around more than twenty per cent to 21.7 old inhabitants ever 100 persons at the age of 15 to 65 years rose. The forecast shows that the respective trends for the old and will still strengthen the youth-ratio in the future.

The rise of the old-age-ratio can be explained among other things with a rising life expectancy among other things also due to improved medical supply. In the year 2009 the life expectancy in the region Alba amounts to 70 years with men, with women 77 years. As in all examined regions the life expectancy for women is thus also here higher than for men. However the life expectancy is general, but particularly for women, in Alba one the lowest in the DART surveyed regions.

The sinking youth-ratio is to be explained among other things with the sinking fertility in the region. Unfortunately only data were supplied for the average age a mother having her first child starting from 2000. Since then the average age a mother having her first child rose by one and a half years.

The today's women are on the average 27 years old with the birth of their first child, which in the examined regions however still one is the lowest figures.

Equally those sank total fertility rate within the period from 1997 to 2008 further and reached clearly not the 2.1 children per woman, necessary for the reproduction, but lies 2008 with only on the average 1.3 children, average age a mother having her first child.

Apart from for years the negative natural population balance the region loses Alba besides since years inhabitants by migration (negative spatial balance). Move away more migrants than immigrants, yet the number of the immigrants and associated integration problems are an important factor for the policy and society. Altogether both the number, in addition, rose the migrations. The associated population loss since 1993 declining, the net migration however still negatively. Unfortunately no data could be evaluated to the age structure of the migrants as well as to the proportion of foreigners at the total population, since these were not available.

Additionally the changing household compositions document the demographic change in the region. With the demographic change increasingly one-person households (here could be evaluated however only comparison data 1992/2002) are established. In the year 2002 18.3

per cent of all households of the region was inhabited by only one person (1992 16.3%), while the total number of the households decreased/went back. The portion of the classical four-person budget decreased against it within ten years around scarcely six per cent and lies 2002 with only 33.8 per cent of all households. The DART growth region (cluster V) thereby Alba live still most humans in large families/households in the region. Unfortunately the region Alba does not supply more current data.

The strong increase of person budget of divorced ones in the region, whose portion doubled itself within ten years on 3,29 per cent, is remarkable. The average household size is likewise declining consequently and until 2002 on 2,71 persons for each household sank (1992 2.83).

This trend of the decrease of the household size is in all examined DART regions.

### Surveyed region: North-Karelia/Finland

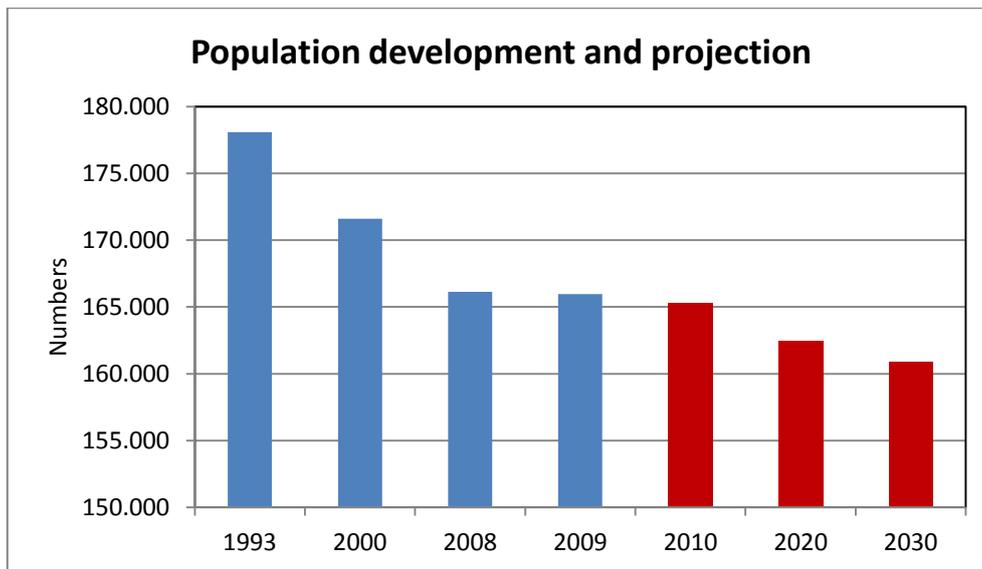
❖ Population 1993/2009:	178,076/165,962
❖ Population density PT per km <sup>2</sup> 1993/2008:	10/9.3
❖ Population Decrease 1993 – 2009 in %:	Decrease by 6.8
❖ Decrease of age group 6 – 15 years 1993/2008 in %:	Decrease by 23.4
❖ Increase of age group over 65 years 1993/2008 in %:	Increase by 19.4
❖ Development of labour force 1995/2008 in %:	Decrease by 3.9
❖ Foreign population 1993/2009 (Total numbers):	1,168/2,818 (+141.3%)
❖ Population projection 2030 (Total numbers): (Trend in relation to 2010)	160,874 (-3.1%)

North-Karelia is a region in the east of Finland and borders the regions of Kainuu, Northern Savonia, Southern Savonia, South Karelia and Russia. North-Karelia possesses impressive mountain landscapes, abundant conifer and wetland forests, innumerable seas and islands, as well as rivers with fast flowing currents. Thus this various landscape offers not only to possibilities for mountain climbing and hiking, but also for active kinds of sport such as rafting, canyoning (traversing in canyons) and kayaking.

In North-Karelia the demographic change and its lasting consequences are to be recognized. The population density was reduced within 15 years by 7 per cent and is in the year 2008 about 9,3 inhabitants for each square kilometre.

Thus this DART surveyed region, after the Finnish region Kainuu, exhibits the smallest population density of all DART regions by some distance. Due to the strong decrease of the population numbers the region North-Karelia (1993 to 2008 decrease around 7,0 per cent) was assigned to the cluster II in the context of the IFAD analysis. A strong difference in the sexes with the decrease in population is hardly determined and only minimally clear.

During the investigation of the population trend and forecast it shows up that the trend of the population contraction will still. Up to the year 2030 the population of the region North-Karelia will decrease around further three per cent. Also all other examined DART regions will have to count in the future on increasingly smaller population numbers and the problems exerted by it of an ageing society.



Of the decrease in population the DART regions Uckermark, Görlitz and Kainuu are particularly strongly concerned. Only the regions Roscommon, Gorenjska and Kutna-Hora can count on an increase of their population.

During the view of the age structure of the population of North-Karelia a similar picture shows up as with most DART surveyed regions. In this region an enormous rise of the older population (age groups starting from 45 years old) and an extreme decrease in population are to be constituted with the recent age groups (up to 15 years old) in the investigation period (1993 to 2008).

Thus it becomes clear that the younger generation becomes smaller with the time ever more drastically and equally rises the number of old and then mostly cohort also in need of care inexorably. This development places special challenges against the political, economic and social system of the region and the local infrastructures, since a shrinking population of acquisition has to supply ever more older classes and even in the pensionable age of a still smaller younger generation must be supplied. With the analysis of the age structure at the same time also a slighter surplus of men in the age groups up to 64 shows itself. Only with the population over 65 years it gives clearly to more women than men, which can be explained by the higher life expectancy with women compared with men.

Also on the basis the old-age-ratio and youth-ratio the changed age structure in the region North-Karelia can be clarified. In the year 1993 the relationship of young people at the age of

under 15 years amounted to still considerable 29.7 persons per 100 persons at the working age of 15 to 64 years. This value sank 16 years later around more than 22 per cent.

The old-age-ratio developed accordingly contrarily and since 1993 dramatically around more than thirty per cent to 29,7 old inhabitants ever 100 persons at the age of 15 to 64 years rose. This rise could be explained also here with improved medical supply. The forecast show that the respective trends for the old and will still strengthen the youth-ratio in the future.

A rise of the old-age-ratio can be explained among other things with the constantly rising life expectancy. With progress changed also the provision of medical care the life expectancy increased thereby extraordinarily rapidly. In the year 2008 the life expectancy was in North-Karelia with the men about 76.3 years. Women had to count in the same year on a life expectancy from 83 years. Thus this region lies concerning the life expectancy over the average of the examined regions of the DART project. Only in the regions Ourense and Rovigo the life expectancy is still higher with men and women.

The average age of a mother having her first child sank contrary to all other DART surveyed regions in North-Karelia within 15 years easily. In the year 1993 the women were on the average still 29 years old in this region with the birth of their first child. At present the women are on the average only 28.7 years old.

The total fertility rate (TFR) adapted to the new demographic developments. Although in the period from 2000 to 2008 easily risen, it does not reach any more for many years the 2.1 children per woman, necessary for the reproduction of the population. In North-Karelia the women bring on the average 1.85 children today in the course of their life to the world. This value is however one the highest in all DART surveyed regions. However in the region the number of the births decreased since 1993 (2.069) until 2008 continuously (1.517) and works thus on the altogether negative natural population balance (1993 still Positive Birth Balance of 42, 2008 death surplus of 388).

Since 2000 the region loses increasingly inhabitants by migration, shows the negative migration balance. The loss doubled itself to 2008 more than. The number of the immigrants and also the number of the migrations constantly rose since 1993. Whereby the number of the migrants grows clearly faster. The migration constantly increases in all age groups.

The main age group of the migrants are the 25-65 year olds. The portion of the foreign population of the total population doubled itself within 16 years more than and rose of 0,7 per cent in the year 1993 on 1,7 per cent in the year 2009. Thus North-Karelia has the smallest foreign population portion after Kainuu compared with the other regions of the DART project.

The demographic change in the region North-Karelia shows itself likewise as in most DART surveyed regions by the changed household conditions. The number of one-person households in this region rose since 1993 around nearly forty per cent and constitutes meanwhile the largest portion of all households. At the same time the portion of the three and four-person budget sank under 15 per cent. The average household size was in the year 1993 about 2,28 persons per household. Up to the year 2008 this number sank on 1,98 persons for each household and exhibits thereby after the East German regions Uckermark and Görlitz the smallest value compared with the other regions of the DART project. This trend of the decrease of the household size is in all examined DART regions.

### Cluster III: Decrease in population 1991/1993 to 2009 (under 5 %):

#### Surveyed region: Waldviertel/Lower Austria/Austria

❖ Population 1991/2009:	148,633/141.670
❖ Population density PT per km <sup>2</sup> 1991/2009:	41/39
❖ Population Decrease 1991 – 2009 in %:	Decrease by 4.7
❖ Decrease of age group 6 – 15 years 1991/2008 in %:	Decrease by 15.8
❖ Increase of age group over 66 years 1991/2008 in %:	Increase by 22.5
❖ Development of labour force 1991/2008 in %:	Increase by 5.7
❖ Foreign population 1993/2009 (Total numbers):	4,332/8,569 (+97.8%)
❖ Population projection 2030 (Total numbers): (Trend in relation to 2008)	134,433 (-5.4%)

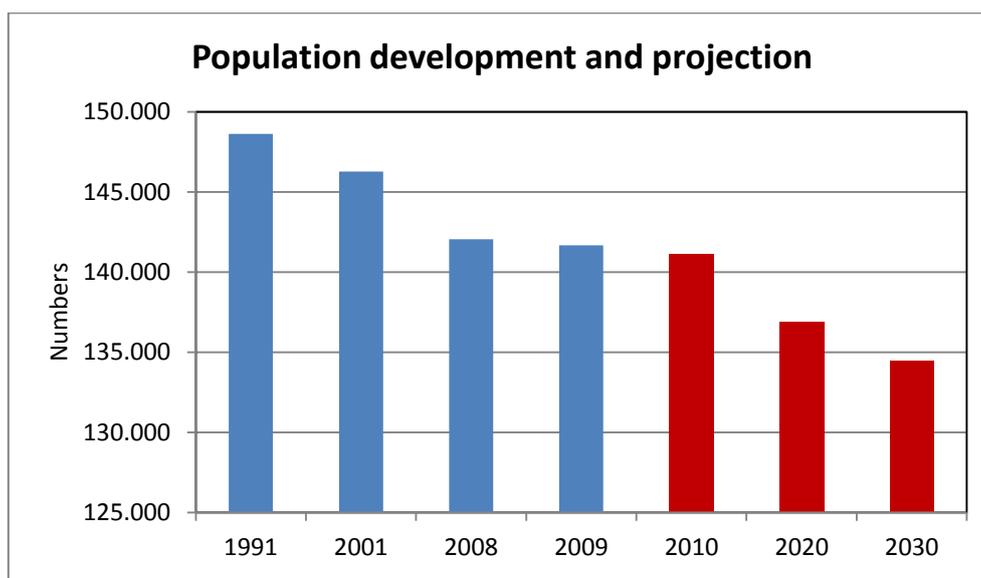
Waldviertel lies in the northwest part of Lower Austria. This region covers a surface of approximately 4,600 square kilometres, in the south by the Danube and in the north of the Republic of Czech Republic is limited. Waldviertel is rather an economically underdeveloped agriculture area, but by its wood wealth and numerous glassworks, which have today an economic and also cultural factor, developed for the existing quartz.

The region forest quarter registers, like most regions from the DART project, since 1991 altogether a decrease in population. This decrease in population shows up both in the sinking population density, and in the absolute total population. Here it becomes however also clear that the demographic contraction process in the DART region is not to be estimated Waldviertel yet so dramatically, like other regions (e.g. Germany and Finland). Within the last years the population density sank by five per cent and is 2009 about 39 persons per square kilometer. That corresponds to an absolute decrease in population of scarcely 7,000 inhabitants in this period (1991: 148,633 persons, 2009:141.670). On the basis present population prognoses it becomes clear that both the population density as well as the total population up to the year 2030 (around further approx. five per cent on then 134,433 persons) it will sink.

The region Waldviertel was assigned by the decrease of the population numbers to the cluster III in the framework „regions with decrease in population“. It is shown that also all other examined DART regions in the future with increasingly smaller population numbers (also in the growth regions of the cluster V in the recent age groups!) and the problems of an aging

and shrinking population accompanying from it to count must. The two East German regions Uckermark and Görlitz are particularly strongly affected by the decrease in population. Only the regions Roscommon/WRA, Kutna-Hora and Gorenjska can count altogether on an increase of their population.

A serious difference between the sexes with the decrease in population does not become clear in the region Waldviertel.



During the view the development comes to the development age structure of the population of the region forest quarter (period 1991 to 2008) to an ageing society also here (as in all examined DART regions) clearly to light. The younger generation becomes smaller with the time ever more drastically and equally rises the number of old and then often age classes also in need of care (cohorts) constantly. The number of 0 to 20-year old sank here within the period of 1991 to 2008 by twenty per cent. Equally the cohort increased over 65 years old by 22,5 per cent in the same period. This development will place in the future still more strongly special challenges against the political, economic and social system of the region, since a shrinking population of acquisition (provision of medical care) has to arise ever more member of older classes and even in the old/pensionable age by a still smaller younger generation must be supplied. With the analysis of the age structure leaves itself at the same time also a recognizable surplus of men in the age groups up to 45. In the older sections of the population, in particular starting from 66.years of age, outweigh partially the women. in orders of magnitude (as can be prove higher life expectancy around scarcely 6 years 2007/08!).

This ageing process and the changing age structure of the population in the Waldviertel can be clarified also on the basis the old and youth-ratio. In the year 1991 the relationship of young people at the age of under 15 years amounted to still 29.9 persons per 100 persons at the working age of 16 to 65 years. 18 years later came only 24.4 young people on 100 employable persons. The old-age-ratio developed accordingly contrarily and rose since 1991 (24,5) to now 32.1 old inhabitants (starting from 65 years old and older) ever 100 persons at the age of 15 to 65 years. In the forecast is to be assumed the respective trends for the old and will still strengthen the youth-ratio in the future.

Also the life expectancy as a sign of an ageing resident population in the Waldviertel increased, as in the remaining DART regions. In the year 2008 the life expectancy was with the men about 76.9 years. Women had in the same year with a life expectancy from 82.5 years (data for all of Lower Austria). Thus this region lies concerning the life expectancy in the middle zone of the examined regions of the DART project.

The highest life expectancy of all DART regions was the Spanish region of Ourense with 78 years of life with the men and 85 years with the women.

To the ageing of the population also the increase of the the average age of a mother having her first child in the Waldviertel contributes apart from a higher life expectancy. Meanwhile (year 2009 in the comparison with 1995) the women are good two years older with the birth of their first child and thus on the average already 30 years old in Lower Austria.

The total fertility rate since 1997 (TFR) shows a slight rise. It does not reach however for many years no more the 2.1 children per woman, necessary for the reproduction of the population. At present the women bring on the average 1.46 children in the course of their life to the world (data for Lower Austria). Thus more easily rise of the summarized birth rate could be registered around 0,5 since 1997. However the tendency points itself clearly to the population contraction and – aging in the region in the negative balances of the natural population movement in the years between 1993/95 to 2008. In the region die continuously more humans, than are born (balance 1995 -141, 2008 -411).

A loss by migration is no longer recognizable in the Waldviertel since 2008 (in the comparison with the year 2000). According to evaluated analysed data Waldviertel a minimum, but

positive migration movement of scarcely a per cent in favor of the region. Perhaps this process can still strengthen in the coming years or turn around nevertheless.

The associated integration problems are an important factor for the policy and society. In the context of the migration movements the portion of the foreign population in all examined DART regions increased, but in Waldviertel this rise is unusual. Altogether the proportion of foreigners of 3,6 per cent rose in the year 2008 (1991 2.9 per cent) to presently (2009) 6.1 per cent at the total population and thus also on the highest level compared with the other DART regions.

A demographic change can be clarified also in the region Waldviertel on the basis the changed household structures and - compositions. With the demographic change (ageing and contraction) increasingly smaller, in particular one or two person households are established. This shows the region Waldviertel, like also the predominant majority of the other examined DART regions. The typical family ideal is lived also here obviously on less and less families. Within 10 years (– other data were not to 1991 to 2001 at the disposal) the number of one or two person households took too (one-person households around 19,7 per cent), the numbers of the three and four-person budget exhibits against it a declining tendency.

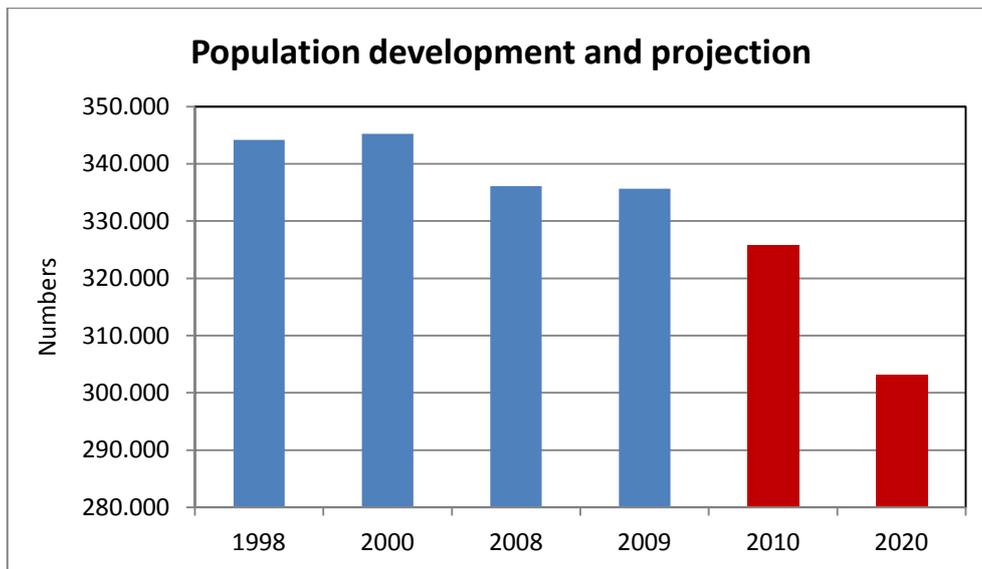
While 1991 still the four and more person household with barely 31 per cent the highest portion of all households in the Waldviertel shown, this 2001 was the one-person households. This trend of the decrease of the household size is in all examined DART regions.

### Surveyed region: Ourense/Galicia/Spain

❖ Population 1998/2009:	344,170/335,642
❖ Population density PT per km <sup>2</sup> 1998/2009:	47.3/46.1
❖ Population decrease 1998 – 2009 in %:	Decrease by 2.5
❖ Decrease of age group 6 – 14 years 1998/2008 in %:	Decrease by 26.8
❖ Increase of age group over 65 years 1998/2008 in %:	Increase by 7.6
❖ Development of labour force 1996/2008 in %:	Decrease by 5.1
❖ Share of the population that are foreigners 1998/2009 in % :	1.6/4.6
❖ Population project 2020 (Total numbers): (Trend in relation to 2008)	303,098 (-7.8 %)

Ourense is a lively province in Spain. It lies in the verdant galician inland about 100km east of Pontevedra. Galicia is an autonomous community in the northwestern part of Spain, and consists of the provinces of La Coruña, Lugo, Pontevedra and Ourense. Demographic change and its lasting effects in the Ourense region are not yet as strongly pronounced as in the other DART regions that have been surveyed. The population density has, in the last 10 years, decreased by around 2%, and in 2008 stood at 46.2 inhabitants per square kilometre. Due to the fairly minimal decline in population figures, the province of Ourense has been assigned to Cluster 3 in the IFAD analysis (Regions attributed with a decrease in population in the context of data evaluation).

During the survey of the population development and forecast, it became clear that the trend of population contraction will continue. By the year 2020, the population of the province of Ourense will have declined by a further 8%. It turns out that all other DART surveyed regions expect increasingly lower population figures in the future, and with that comes the resulting associated problems of an ageing society. Only the region of Roscommon in Ireland expects an increase in its population.



When looking at the age structure of the population in this region, the trend is clearly towards that of an ageing society. The figure for the younger generation is reduced due to the birth rate declining by more than a quarter between 1998 and 2008, as well as the number of the elderly being cared for by helpers rising inexorably. However, this process is slightly slower than in two even more strongly affected regions – namely Uckermark and Görlitz in eastern Germany. At the same time, one can see a surplus of men in the age group up to 44 years of age. In the age group from 45 years of age onwards however, the number of women undoubtedly dominates. This can be explained by the higher life expectancy of 85.1 years for women in the Ourense region.

Also, on the basis of the old-age-ratio and youth-ratio, one can illustrate the changing age structure in the province of Ourense. In 1998, the ratio of young people aged under 15 was still only 18.1 persons per 100 persons of working age in the 15-65 age range (youth-ratio of 18.1%). 11 years later, this value further dropped to 15.3. The old-age-ratio has accordingly developed contrary to this, and has risen by almost 12% since 1998 to 46.2 elderly inhabitants per 100 persons aged 15 to 65. This increase could be explained by improvements in medical care. Forecasts indicate that the respective trends for the old-age-ratio and youth-ratio will continue to strengthen in the future.

In 1998, the average age of a mother having her first child was at the relatively late age of 29.9 years but, by 2008, this had increased to 31.2 years of age. Regarding the total fertility rate, a slight increase can be observed. However, this doesn't reach the required reproduc-

tion level of 2.1 children per woman, and in 2008 stood at just 1.0 children (1 child) per woman.

The region has gained inhabitants through migration. All other DART surveyed regions show a negative migration balance in contrast to the Ourense region. The positive migration balance was 766 in 1993 and 1,851 in 2008. The number of emigrants rises, as does the number of immigrants, only to a minor degree. The main group of migrants were the 25-65 year old age bracket, followed by the 16-25 year old age group. Overall, the number of migrants continues to rise in all age groups. The proportion of the foreign population to the total population in the province of Ourense has increased from 1.6% in 1998 to 4.4% in 2008. Therefore, with population figures sinking slightly, the significance of this population group has increased accordingly in recent years.

The demographic change in the Ourense region can be further seen in changing household conditions. One person households are increasingly being established. The number of one person households in the province of Ourense has risen, within 9 years, by almost 30% to 37,000. That's 28% of all households in the Ourense region. Against that, the typical four person household shows declining numbers. The proportion of 3-4 person households sank to less than 30%. However, this is considerably higher in comparison to other regions surveyed in the DART project.

In 1999, the average household size stood at 2.57 persons per household. In 2008, this number dropped to 2.35 persons per household. This trend of a reduction in household size is evident in all DART surveyed regions.

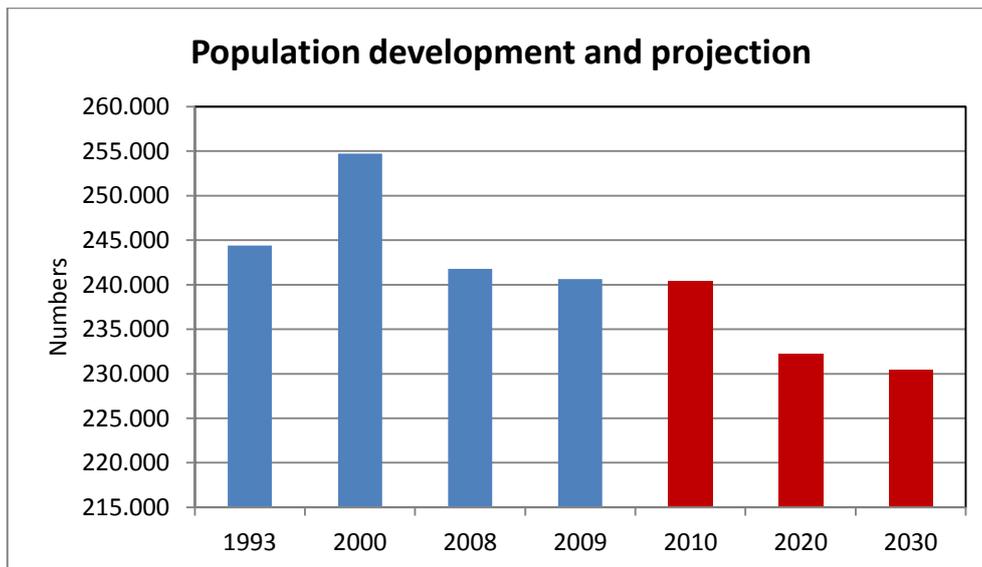
### Surveyed region: Parkstad/Limburg/Netherlands

❖ Population 1993/2009:	244,387/240,634
❖ Population density PT per km <sup>2</sup> 1995/2008:	1253/1184
❖ Population Decrease 1993 – 2009 in %:	Decrease by 1.5
❖ Decrease of age group 0 – 19 years 1993/2008 in %:	Decrease by 14.1
❖ Increase of age group over 65 years 1993/2008 in %:	Increase by 21.2
❖ Development of labour force 2004/2008 in %:	Increase by 1.8
❖ Foreign population 1996/2009 (Total numbers):	18,646/13,199 (+29.2%)
❖ Population projection 2030 (Total numbers): (Trend in relation to 2010)	230.451 (-4.2%)

Parkstad is a conurbation (an urban agglomeration of 7 municipalities) in the southwest of the province of Limburg in the Netherlands. This region is a local federation of the former mining industry municipalities in the southeast Netherlands coal-mining region. After the closing down of the mines in the sixties Parkstad got a rejuvenation course. The industry yielded „the green“. Forests, river valleys and high plains distinguish this region. Also many education and public health services give a new life to Parkstad. Likewise the area has a good infrastructure and lies in close proximity to economical centres.

The demographic change and its lasting consequences are to be recognized in this region less clearly. The population density was reduced within 13 years by 5,5 per cent and is in the year 2008 about 1184 inhabitants for each square kilometre. Thus this DART surveyed region shows the highest population density of all DART regions by some distance. Due to the rather small decrease of the population numbers the Parkstad region was assigned to Cluster III „regions with decrease in population“. Nevertheless also this region is affected by the decrease in population. Thereby the difference becomes remarkable between the sexes. There was 1993 still a surplus of men of nearly 18 per cent, then 2009 the women. The men is in terms of figures superior. With scarcely three per cent the difference between the sexes is however rather minimal.

During the investigation of the population trend and forecast it becomes clear that the trend of the population contraction will still continue. Up to the year 2030 the population of the Parkstad region will have decreased around further 4%. It is shown that also all other DART surveyed regions must count in the future on increasingly smaller population numbers and the problems of an ageing society related to that.



During the view of the age structure of the population the trend becomes an ageing society clear also in this region. The younger generation became smaller due to sinking birth rates from 1993 to 2008 by 14 and equally rose the number of old and Alterskohorte (peer group) tending to the care by 21 per cent. However this process runs somewhat more slowly starting from than in the two East German still more strongly concerned regions Uckermark and Görlitz. Also a surplus of men in nearly all age groups shows itself at the same time. Only in the age group starting from 65, shows up a woman surplus, which can be explained by a higher life expectancy for women.

Also on the basis the old-age-ratio and youth-ratio the changed age structure in the Parkstad region (data only for region Limburg) can be clarified. In the year 2000 the relationship amounted to of young people at the age of under 15 years still 36.4 persons per 100 persons at the working age of 20 to 65 years. This value sank 10 years later around four per cent. The old-age-ratio developed accordingly contrarily and since 2000 over 20 per cent on 29.6 old inhabitants ever 100 persons at the age of 20 to 65 years rose. This rise could be explained also here with the improved provision of medical care. The forecast shows that the respective trends for the old and youth-ratio will still strengthen in the future.

Data for the average age of a mother having her first child are not available for the Parkstad region. With that the total fertility rate can be seen as a slight decrease. Thus it reaches not the 2.1 children per woman, necessary for the reproduction, but lies 2008 also with only 1.56 children per woman.

The region loses besides for years inhabitants by migration, shows the negative migration balance. The loss increased between 2003-2005. The number of the immigrants, in addition, the number of the migrations rose in this time. The main age group of the migrants are in this time the age groups of 20 to 40 years. The portion of the foreign population of the total population was reduced since 2000 to 2009 from 6,8 to 5,5 per cent. After the regions of Rovigo and Waldviertel this is the third-highest value compared with all examined regions of the DART project.

The demographic change in the Parkstad region shows itself additionally by the changed household conditions. Increasingly two and one-person households are established. The number of two person households in the Parkstad region has risen since 2001 by around only two per cent to 43,2 per cent and those of the one person households around more than nine per cent to 41,3 per cent. The typical four-person household shows extremely declining numbers. Their portion sank meanwhile on 17 per cent.

The average household size was in the year 2001 about 2.17 persons per household. In the year 2008 this number sank on 2.08 persons for each household. This trend of the reduction of household sizes shows up in all examined DART regions.

#### Cluster IV: Population stagnation 1991 to 2009:

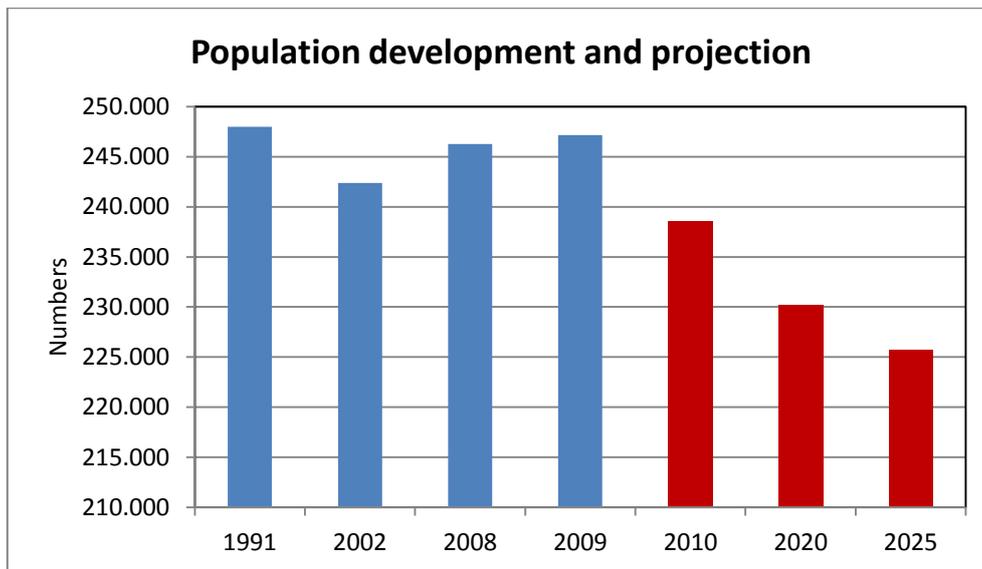
##### Surveyed region: Rovigo/Veneto/Italy

❖ Population 1991/2009:	248,004/247,164
❖ Population density PT per km <sup>2</sup> 1991/2009:	138.6/138.1
❖ Population Decrease 1991 – 2009 in %:	Decrease by 0.3
❖ Decrease of age group 6 – 14 years 1991/2009 in %:	Decrease by 52,4
❖ Increase of age group over 65 years 1991/2009 in %:	Increase by 27,8
❖ Development of labour force 1993/2009 in %:	Consistent
❖ Foreign population 1991/2009 (Total numbers):	529/15,470 (+2,824.4%)
❖ Population projection 2030 (Total numbers): (Trend in relation to 2009)	225,722. (-8.7%)

The Italian province of Rovigo has shown a population density of 138,1 inhabitants per square kilometre in 2009. In 1991 there were 138.6 inhabitants per square kilometre. The population density changed thus within the surveyed 18 years only marginally, and sank in the meantime to only 135.4 inhabitants per square kilometre.

Due to the altogether smaller decrease of the population numbers the Rovigo region was assigned to the Cluster IV „regions with population stagnation“. Thus this region is all in all only comparatively lightly affected by the decrease in population within the DART project, while other regions exhibit clearly more negative developments. During the view of the population after women and men only marginal note of differences becomes clearly differentiated. Altogether the relationship between the sexes remains like also the total population almost invariably.

During the investigation of the population trend until 2030 it becomes recognizable that in the examined regions the total population will strongly sink and the problems of an ageing society accompanying from it will arise or to already be present. Also in the Rovigo region the population will sink by 2025 by nearly nine per cent.



During the view of the age structure of the population of the Rovigo region the tendencies of an ageing society become clear. The younger generation becomes smaller ever more drastically in the course of time since 1991, at the same time increases also here the classes of the old and then mostly cohort also in need of care substantially. Within the period of 1991 to 2009 the cohort grew over 65year old by more than 27 per cent. An increase of the population shows up however likewise in the age group of the 20-44 year olds. The cohort of the 0-14year olds shows in contrast to many other DART surveyed regions it only one marginal note increase (fro, 2002 to 2009), which is exceeded clearly by the increase in the cohort the older one. If the trend should strengthen and continue, this development represents as in all other DART regions special challenges for the political, economic and social system of the region (shrinking population of acquisition, supply of older classes etc.)

With the age differentiated analysis a surplus of men in nearly all age groups shows itself. Only in the older generation live clearly more women than men in the region. This development can be explained among other things with the higher life expectancy of the women and the natural positive Birth Balance for the male sex. In the Rovigo region is to be already recognized the ageing of the society therefore, however she does not run yet as dramatically as for example in the East German regions Uckermark and Görlitz.

Also on the basis the old-age-ratio and youth-ratio the changed age structure shows up quite clearly in the province of Rovigo. In the year 1991 the relationship of young people at the age of under 15 years amounted to still 19.6 persons per 100 persons at the working age of 15 to 65 years. 18 years later this value sank around nearly 14%. The old-age-ratio developed

accordingly contrarily and since 1993 dramatically around more than 33 per cent to 34 old inhabitants ever 100 persons at the age of 15 to 65 years rose. The forecast show that the respective trends for the old-age-ratio and youth-ratio will still strengthen in the future.

The rise of the old-age-ratio can be explained among other things with the high life expectancy by improved provision of medical care.

In the year 2007 the life expectancy in Rovigo amounts to 77.6 years with men, with women 83.5 years. As in all examined regions the life expectancy for women is thus higher than for men. Altogether Rovigo has to show one of the highest life expectancies in the examined regions.

Unfortunately the Rovigo region supplied only data, for the average age of a mother having her first child, for 2008. Statements about the temporal development are thus not possible. 2008 got the women in the region with on the average 31 years their first child, which one is the highest average age of a mother having her first child in the surveyed regions. Also straight once on the average 1.3 children per woman exhibits the Rovigo region besides with the lowest total fertility rate in the surveyed regions. The value is since 1997 easily risen, reached however for a long time not the 2.1 children per woman, necessary for the reproduction, but lies 2008 with only on the average 1.24 children.

The Rovigo region (only data for region Veneto) experiences an increase in the population, apart from Ourense and Roscommon, as only of the examined regions by migration. The number of immigrants exceeds those of the migrations by far and associated integration problems is an important factor for the policy and society. Altogether continue to increase both and the drift and the associated increase in the population always. The portion of the migrants of the total population rose since 1991 of less as 0.2 per cent rapid to more than six per cent and is thereby one the highest in all surveyed regions.

Unfortunately the Rovigo region does not supply data for the development of the households differentiated by the number of people. The households of the region Rovigo can be arranged however regarding the family status again. Since 1991, the structure of households are dominated by single households and especially by married. Here no drastic changes are visible in this time.

**Cluster V: Population growth 1991 or/and 1993 to 2009 :**

**Surveyed region: Roscommon/Connacht/Ireland**

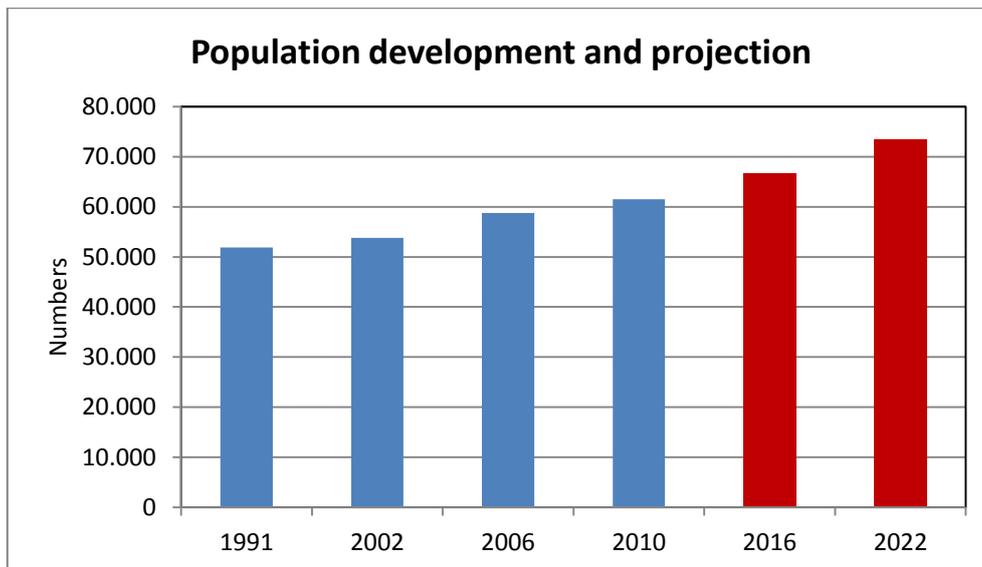
*(still here only County Roscommon must be changed for WRA because of late data supplies)*

❖ Population 1991/2006:	51,897/58,768
❖ Population density PT per km <sup>2</sup> 1996/2006:	20.4/23.1
❖ Population growth 1991 – 2006 in %:	Increase by 13.2
❖ Decrease of age group 5– 14 years 1996/2006 in %:	Decrease by 11.3
❖ Increase of age group over 65 years 1996/2006 in %:	Increase by 1.8
❖ Development of labour force 1996/2006 in %:	Increase by 41.8
❖ Foreign population 1993/2009 (Total numbers):	No data
❖ Population projection 2022 (Total numbers): (Trend in relation to 2006)	73,400 (+24.9%)

The county of Roscommon is in the governmental district West Ireland. For this DART surveyed region only data for the years 1996 (population 1991) until 2006 was available.

Within this short time interval the population density went up to by 13 per cent of 20.4 on 23.1 inhabitants per square kilometre (in total around 6.871 inhabitants). Due to increase of the population numbers the Roscommon region was assigned to the Cluster V (DART regions with population growth). Thus it is concerned within the DART project the most strongly increasing region (apart from Roscommon only two further regions grew in total population) and not like the predominant majority of the other DART surveyed regions of a decrease in population (up to the year 2022 a further growth is forecast to be approximately 73,000 inhabitants).

During the view of the population numbers differentiated by gender no considerable differences are to be recognized. During the view of the population trend until 2030 it becomes recognizable that of all DART regions only the Roscommon region can count on a further increase of its population. In accordance with the data the population by 2022 will further strongly increase. In all other examined regions the total population will partially sink.



With the analysis of the age structure of the population of the Roscommon region however the development beginning becomes an ageing society clear, although the population still continues to grow. The number of 0 to 14 year olds sank here within the period of 1996 to 2006 by 2,68 per cent. In the same period the cohort grew over 65 year olds by 1,78 per cent, at the same time easily decreased their proportional portion of the total population. On the basis the data a surplus of men in nearly all age groups with exception shows itself over 65 year olds, what can be explained also here among other things with the higher life expectancy of the women.

Also on the basis the old-age-ratio and youth-ratio the change of the age structure in the Roscommon region shows up. Despite increasing population the decrease of the youth-ratio is recognizable in the Roscommon region. In the year 1996 the relationship of young people at the age of under 15 years amounted to still 39.5 persons per 100 persons of working age of 15 to 65 years of age. 10 years later this value sank dramatically to more than twenty per cent. However also the old-age-ratio sank since 1996 by 17 per cent on 22,8 per cent old inhabitants per 100 persons at the age of 15 to 65.

In the year 2006 the life expectancy in the region Roscommon amounts to 76.8 years with men, with women 81.6 years.

As in all other examined DART regions the life expectancy for women is thus higher than for men. Altogether the life expectancy is in Roscommon one of the highest all examined regions.

Unfortunately the Roscommon region supplies only data for the average age of a mother having her first child and for the total fertility rate starting from the year 2002, which limits statements about the temporal development. In the year 2002 the women of the region got their first child only with on the average 31.1 years. Until 2008 this figure still continued to rise. The women are on average 31.5 years old in the region with the birth of their first child, which represents the highest figure in the examined regions. However the Roscommon region shows the highest value in the examined DART regions with on the average 2.01 children per woman.

For the Roscommon region only data for net migration could be evaluated, which almost doubled itself within ten years until 2006. How these balances develop, does not show itself from it however. Thus Roscommon, apart from the Spanish region of Ourense and the Italian region of Rovigo belongs to the only examined regions, which experience an increase in the population by migration. The 25-65 year olds constitutes the main age group of the migrants. Altogether the number of the migrants in all age groups increased. The proportion of foreigners is, with 10 per cent in the year 2006, by some distance the highest all DART regions (1991 6,5%).

Also in the West Irish region Roscommon shows itself the demographic change additionally by the changed household conditions. With the demographic change also here increasingly smaller households are established. The number one to three-person households increased in the region within the period of 1996 to 2006 partially (highest growth rate with two-person households). The portion of the typical four person household remained pretty constant within the 10 years despite population growth. The average household size was in the year 1996 about 2.65 persons per household. In the year 2008 this number sank to 2.53 persons for each household. This trend of the decrease of the household size shows up in all examined regions. The households of the region Roscommon can be arranged further regarding the family status again. Here it's remarkable the strong increase of the single households and the increase of households, who are divorced. Their portion doubled itself within 10 years more than. Otherwise no drastic changes are visible.

### Surveyed region: Gorenjska/Kranj/Slovenia

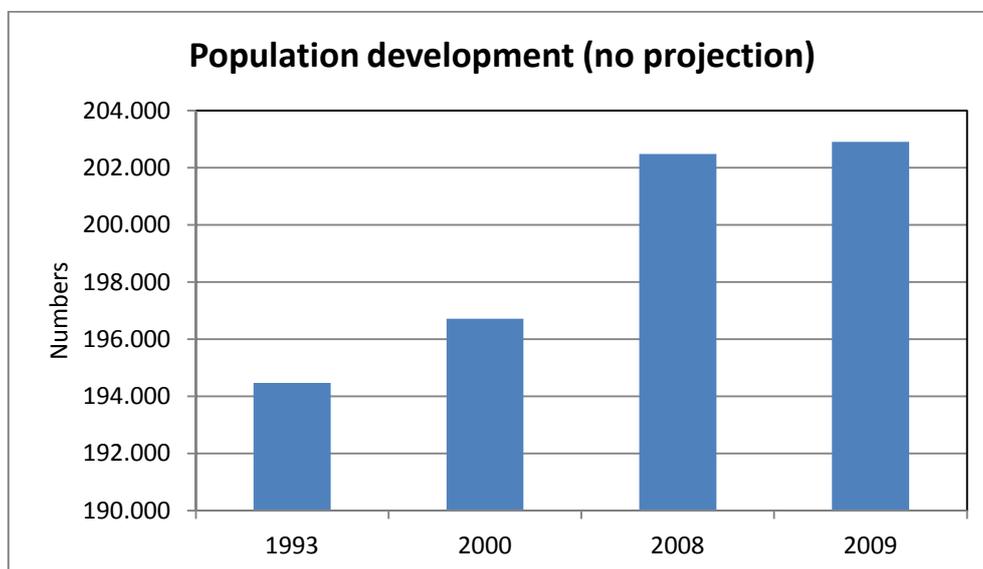
❖ Population 1993/2010:	194,472/202,903
❖ Population density PT per km <sup>2</sup> 1993/2010:	91.1/94.9
❖ Population growth 1993 – 2010 in %:	Increase by 4.3
❖ Decrease of age group 5 – 14 years 1993/2008 in %:	Decrease by 30.9
❖ Increase of age group over 65 years 1993/2008 in %:	Increase by 56.6
❖ Development of labour force 1995/2009 in %:	Decrease by 14.1
❖ Foreign population 2008/2009 (Total numbers):	3.425/7,134 (+108.3%)
❖ Population projection 2030 (Total numbers): (Trend in relation to 2009)	No data

The former duchy Gorenjska is since end of the Second World War 1918 a part of the Republic of Slovenia. This conurbation (urban agglomeration), also known as Oberkrain in Germany, is 2,137 square kilometers in size and consists of a total of 18 municipalities. The former capital Ljubljana (Laibach in German) is today the capital of Slovenia. Gorenjska borders in the north on Carinthia (Kärnten in German) and in the east on the Untersteiermark (Lower Styria). In the north of the region the Karawankenkamm is, on that the border to Austria runs and in the northwest has Gorenjska a portion of the Julian Alps. Due to the high mountains, the valleys and ravines this region leads to mountain climbing, hiking, skiing and hang-gliding. In addition, the landscape offers possibilities for rafting, canyoning (traversing canyons), kayaking, cycling and riding.

The region Gorenjska is one of three regions from the DART project, which have to register an increase in population. For the other DART surveyed regions nearly constantly decreases in population point themselves. Of the decrease in population the regions Uckermark, Görlitz and Kainuu are particularly strongly concerned. The increase in population in Gorenjska can be pointed out both on the basis the population density, and at the change of the total population. Within the years since 1993 the population density rose by approximately 4% and is 2010 about 94.9 persons per square kilometre. That corresponds to an absolute increase in the population of nearly 8,500 inhabitants in this period. Presently there are no data for the region Gorenjska to population forecasts, however the population projection for total Slovenia goes up by 2020 to approximately 35,000 persons. Presumably this DART surveyed region will profit from this.

The region Gorenjska is assigned by past growing of the population numbers to the cluster V „DART-regions with population growth” in the context of the IFAD analysis, beside the regions Roscommon/WAR and Kutna-Hora/Niederschlesien“. However also this region despite a altogether positive population growth the demographically relevant processes of change of aging (substantial decrease of the recent age groups and increase of the older classes) and their consequences show up, e.g. on the job market.

A sex difference with the increase in the population is to be constituted only to that extent, that the proportion adapted itself between men and women since 1993 and the gender correlation is approximately balanced in the year 2010. A serious sex difference with the increase in the population becomes however hardly clear.



During the view of the age structure and the age groups of the population of Gorenjska a similar picture points itself as to all other DART surveyed areas. There is an extreme decrease in population also here with the recent age groups. The age group of the 5 to 14 year olds shrank within 15 years (1993 to 2008) by approximately. a third (31 per cent), equally in both sexes. The age group of the 45 to 65 year olds grew against it by approx. 20 per cent, 65 year olds and older by scarcely 57 per cent.

Thus it becomes clear that itself also here the younger generation with the time ever more drastically reduced smaller and equally the old and then mostly age cohorts (peer group) also in need of care rises inexorably. This development places special challenges against the political, economic and social system of the region Gorenjska, since also a shrinking popula-

tion of acquisition accompanying with it has to supply ever more older classes and even in the pensionable age by a still younger generation must be supplied. With the analysis of the age structure at the same time also a slighter surplus of men in the age groups up to the 44 shows itself. Only with the population 45 years it gives clearly to more women than men (in particular at the hochaltrigen (older age group), which can be explained, above all, by the higher life expectancy with women compared with men.

This ageing process and the changed age structure can be clarified with all other DART surveyed regions also on the basis the old-age-ratio and youth-ratio. Also in the DART region Gorenjska shows up that the relationship of young people at the age from under 15 years to the persons of working age of 15 to 65 years smaller and the old-age-ratio develops and rises accordingly contrarily. A rise of the old-age-ratio can be explained also by a constantly rising life expectancy, in particular accompanying with progress in the provision of medical care. This points itself likewise to Gorenjska. In the year 2009 the life expectancy was here with the men about 70.4 years (2007 68.8). Women had in the same year with a life expectancy from 78.5 years (2007 79.1). Thus this region lies concerning the life expectancy of the population however below the average of the examined regions in the DART project. Only in the region Alba in Romania is still lower the life expectancy with men and women.

Ageing in the region has also contributed to the average age of a mother having her first child being changed. Within seven years (2002 to 2009) this is around one year grown the women in Gorenjska is at present old with the birth of their first child on the average already 30 years. Although the total fertility rate (TFR) rose however also at the same time slightly, she does not reach no more for many years the 2.1 children per woman, necessary for the reproduction of the population. In Gorenjska the women bring on the average 1.64 children today in the course of their life to the world. Thus more easily rise of the summarized birth rate could be registered since 2002 (1,34). Thus this DART surveyed regions in the upper third of all regions (the Spanish region Ourense has the lowest birth rate) moves with 1,0. For the ambivalent population trend of the last years in the region it must be noticed apart from the increase of the TFR that also the natural balance of the population trend (positive Birth Balance) positively developed in the years since 1995 (1995= 284, 2009= 631). These processes contributed in the past years to the growth of the total population in the region Gorenjska.

However a negative development in the spatial population balance opposes that.

The region loses for years inhabitants by migration, shows the negative migration balance. Since the year 1993 the loss became larger until 2008 it's nearly two thirds. The number of immigrants and also the number of the migrations are declining since 2000. The main age group of the migrants are the 25-65 years. The number of the migrants in the recent age groups up to 25. Year of life constantly decreases in the same period. It is remarkable regarding the spatial population movement that the portion of the foreign population of the total population Gorenjska doubled itself to more than within only 2 years (2008 to 2010) (2008 3,421 persons, 2010 7,134).

The demographic change in the region Gorenjska shows itself as in many other DART surveyed regions also by the changed household structures, although only data for the secondary area between 1991 and 2002 are present here. The number of small households rose (in of person budget in Gorenjska since 1992 over 22 per cent, two person households over 13 per cent). At the same time the number of four person budget sank slightly. The portion of the large four person households was nevertheless in this region until 2002 still the largest, based on all households. The average household size lay in the year 1992 with 2.6 persons per household, in the year 2002 it slightly increased to 2.7 persons and exhibits themselves thereby one the highest value compared with the other regions of the DART project.

This trend of the decrease of the household size is in all examined DART regions. The number of one person households particularly strongly in the DART regions Uckermark, Kainuu and North-Karelia rose. The number of four person households is declining.

### Surveyed region: Kutna-Hora/Central Bohemia/Czech Republic

❖ Population 1993/2009:	74,774/74,939
❖ Population density PT per km <sup>2</sup> 1993/2009:	81.5/81.8
❖ Population growth 1993 – 2009 in %:	Increase by 0.2
❖ Decrease of age group 5 – 14 years 1993/2008 in %:	Decrease by 33.4
❖ Increase of age group over 65 years 1993/2008 in %:	Increase by 10.5
❖ Development of labour force 1995/2008 in %:	No data
❖ Share of the population that are foreigners 1996/2009 in %:	0.9/2.1
❖ Population projection 2030 (Total numbers): (Trend in relation to 2009)	No data

In the Czech region Kutna-Hora changed and is the population density in the course of time only marginally in the year 2009 about 81,8 inhabitants for each square kilometre. Due to the slight increase of the population numbers the region Kutna-Hora was assigned to the Cluster V „DART-regions with increase in the population“. Thus this region is affected within the DART project as one of three regions not yet by the decrease in population.

The population in Kutna-Hora changed altogether only little, with which view of the sex-differentiated numbers becomes however clearly the fact that the number of the men easily risen who the women easily decreased, which can have substantial consequences for the development of the birth rates, if this trend continues or strengthens. An analysis of the future population trend is unfortunately not possible due to the data situation for the region Kutna-Hora.

During the view of the age structure of the population of the region Kutna-Hora the development becomes an ageing society clear. The younger generation is reduced also here and equally rises the number of older classes of the population. The cohort of the 0 to 14 year olds sank here within the period of 1993 to 2008 by approximately 29 per cent. Equally the cohort increased over 65 year olds by 10.5 per cent in the same period. With solidification of these trends in the demographic development develop also into these DART surveyed regions new challenges for the social and local government policy.

Data on age-differentiated analysis of population figures by sex show in the age groups up to 44 years in each case a surplus of men. In the older age groups (45 +) there is a surplus of women, which has intensified especially in the 65 years and older significantly since 1993, including due to the higher life expectancy of women in the region.

Also the old and youth-ratio leave the changed age structure in the region Kutna-Hora become clear. In the year 1993 the relationship of young people at the age of under 15 years amounted to still 29 persons per 100 persons at the working age of 15 to 65 years. 16 years later this value sank dramatically around nearly 33 per cent. The old-age-ratio developed accordingly contrarily and in the same period by seven per cent to 23,1 old persons ever 100 employees rose. The rise of the old-age-ratio can be explained among other things with a rising life expectancy by improved provisions for medical care. In the region Kutna-Hora amounted to the life expectancy 2005 72.9 years with men, with women 79.2 years. As in all examined regions the life expectancy for women is thus higher than for men. However the life expectancy is in Kutna-Hora one the lowest in the examined regions.

The average age of a mother having her first child in the region since 1991 around more than five years and dramatically in all examined DART project regions risen. Today women are on the average 27 years old with the birth of their first child, which in the examined regions however still one is the lowest figures. On the other hand those rose total fertility rate within the period of 1997 to 2008 slightly, reached however clearly not the 2.1 children per woman, necessary for the reproduction, but lies 2008 with only on the average 1.41 children per woman.

The region can show 2000 rising numbers of immigrants for the year and experiences 2008 an increase in the population by migration. The proportion of foreigners at the total population doubled itself within 13 years (1996 to 2009) more than and is appropriate with 2.1 per cent on middle to low level compared with the other examined regions. For the age structure of the migrants the region unfortunately supplied no data.

The demographic change in the region shows up in the changed household structures. The number of one person households in the region changed within the period of 1991 to 2001 (other data are not available) only small and lies with approx. 28 per cent percentage of all households, the typical four person household exhibits however declining numbers as in the other DART-regions. Their portion is 2001 with less than a quarter of all households (23,9%). Unfortunately the region Kutna-Hora of more current data does not supply. The average household size was in the year 1994 about 2.46 persons per household. In the year 2001 this number sank on 2.38 persons for each household. This trend of the decrease of the household size is in all examined regions.

## Comparison of demographic change in the partner regions

This chapter analyses the basic demographic development processes that characterize demographic change in the DART surveyed regions, and with reconstructed data of the individual regions, these are analyzed comparatively. All DART partners selected a region to survey from their countries or regions where, according to the demographic processes of the ageing of the population and the contraction of it, show up particularly concisely. The following table shows an overview of the individually surveyed regions, all of which have been dealt with in detail already in the previous chapter:

### Project partner/Country/Region

Selected surveyed regions



Country	Federal state / Region / Population	Investigation area / administrative district / Population
1. Germany	Brandenburg / 2.5 M	Uckermark / 131.1 THSD
2. Germany	Saxony / 4.2 M	Görlitz / 292.8 THSD
3. Finland	North-Karelia	North-Karelia / 165.9 THSD
4. Finland	Kainuu	Kainuu / 85.3 THSD
5. Czech Republic	Central Bohemia / 1.2 M	Kutna Hora / 74.6 THSD
6. Romania	Centru / 2.5 M	Alba / 374.5 THSD
7. Poland	Lower Silesia / 2.9 M	Powiat Klodzki / 163.6 THSD
8. Slovenia	Gorenjska	Gorenjska / 202.9 THSD
9. Italia	Venetia / 4.9 M	Provincz Rovigo / 247.2 THSD
10. Spain	Galicja / 2.8 M	Provincz Qurense / 335.6 THSD
11. Ireland	West Region Irland / 380.1 THSD	County Roscommon / 58.8 THSD
12. Austria	Lower Austria / 1.6 M	Waldviertel / 141.7 THSD
13. Netherlands	Limburg / 1.1 M	Parkstadt / 238.7 THSD

Population  
growth!

The subsequent analysis and short profiles of the individual regions presented in the previous chapter, show clearly that three of the project partners (Central Bohemia, Slovenia and Ireland) selected investigation regions, which have registered a population growth in recent years. Although here, as previously mentioned, proof of demographic ageing and contraction is possible with a detailed view of the individual age groups. 12 of the most important indicators of the demographic change in the DART surveyed regions are represented. In detail these are:

- Population density
- Population change according to Clusters (see in addition also chapter 4.2)
- Population project
- Age structure
- Old-age-ratio
- Youth-ratio
- Average age of a mother having her first child
- Population change by sex
- Life expectancy
- Household size
- Household size by family status
- Migration

The selection of the indicators, on which the ageing and contraction of the population allows documentation and whose structure and position, is included in Chapter 6.

### 1. Current population density (2008/09)

The surveyed DART regions differ considerably according to their population density. The Dutch region of Parkstad is extremely densely populated, whereas the two Finnish regions have a very low population density. All other regions have a comparable population density with 40 to 150 inhabitants per km<sup>2</sup>.

Region	Population per km <sup>2</sup>
Kainuu	3,90
North-Karelia	9,30
Waldviertel	40,00
Uckermark	43,00
Ourense	46,20
Alba	60,00
Kutna-Hora	81,70
Gorenjska	92,10
Klodzki	100,00
Görlitz	133,00
Rovigo	137,60
Parkstad	1.184,00
Roscommon	No data

Percentage variation in population density in 15 years (1993-2008/09 or 2000-2008):

Region	$\Delta$ population density (%)	
Uckermark	-20,37	
Görlitz	-19,55	
Kainuu	-13,33	
Alba	-9,09	
Klodzki	-8,76	(8 years)
North-Karelia	-7,00	
Parkstad	-4,36	(8 years)
Ourense	-2,74	(8 years)
Kutna-Hora	0,25	

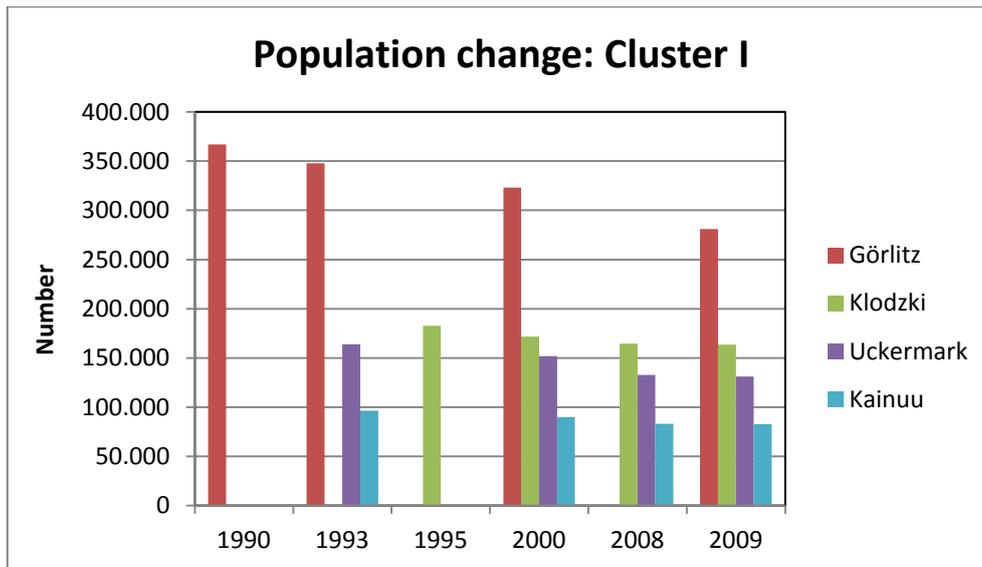
Unfortunately not all regions could supply data on the change in population density. For this reason only the regions where the necessary data was present were specified here. It is clearly visible that in nearly all regions a decrease in the population density has been registered in the last years. The region of the Uckermark is particularly affected. Here the number of inhabitants per square kilometre decreased by 20 per cent. Even the heavily populated Dutch region of Parkstad has seen a decline in its population by almost five percent in the last 8 years. Only the Czech region Kutna Hora has shown a slight rise in its population density with +0,25 per cent. In the graphical representation, it should be noted that the change in population density in some regions covers a period of 15/16 years or more and in others only 8 years.

## 2. Population change: Period: 1993-2009 or 1990/1991-2009

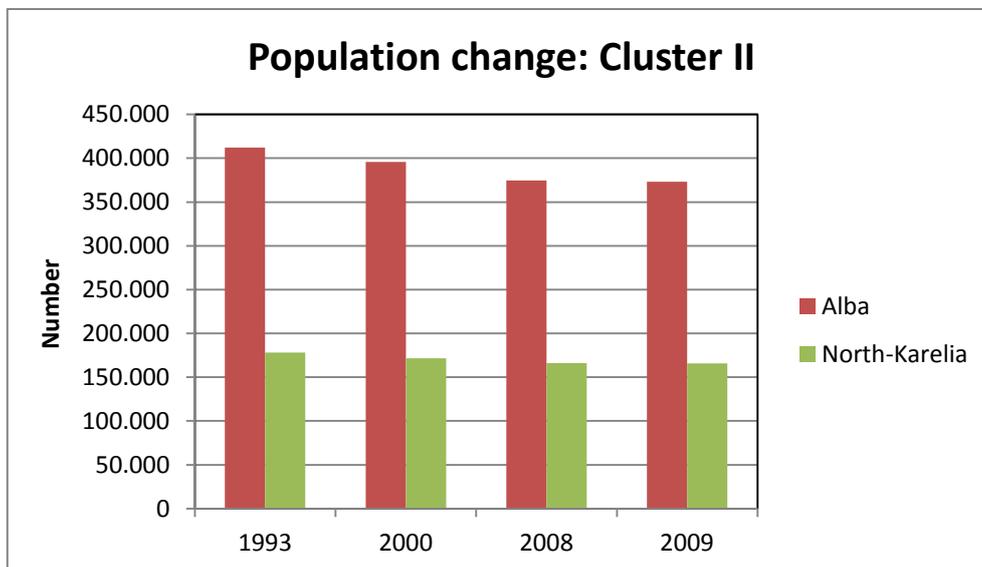
Region	Population change in %	
Uckermark	-19,9	Cluster I
Görlitz	-19,2	
Kainuu	-14,2	
Klodzki	-10,4	
Alba	-9,4	Cluster II
North-Karelia	-6,8	
Waldviertel	-4,7	Cluster III
Ourense	-2,5	
Parkstad	-1,5	
Rovigo	-0,3	Cluster IV
Kutna-Hora	0,2	Cluster V
Gorenjska	4,3	
Roscommon	13,2	

The population change in the regions can be arranged, as described in chapter 4.2, in five different clusters. The regions of Kutna-Hora, Gorenjska and Roscommon saw an increase in population over the last 15 years. Whilst in Kutna-Hora and Gorenjska the population rose only slightly, the Irish region of Roscommon has registered a considerable rise in its population of over 13 per cent. The remaining regions have all to fight against the problems of a decline in population. The two German regions with a population decline of about 20 per cent are particularly affected.

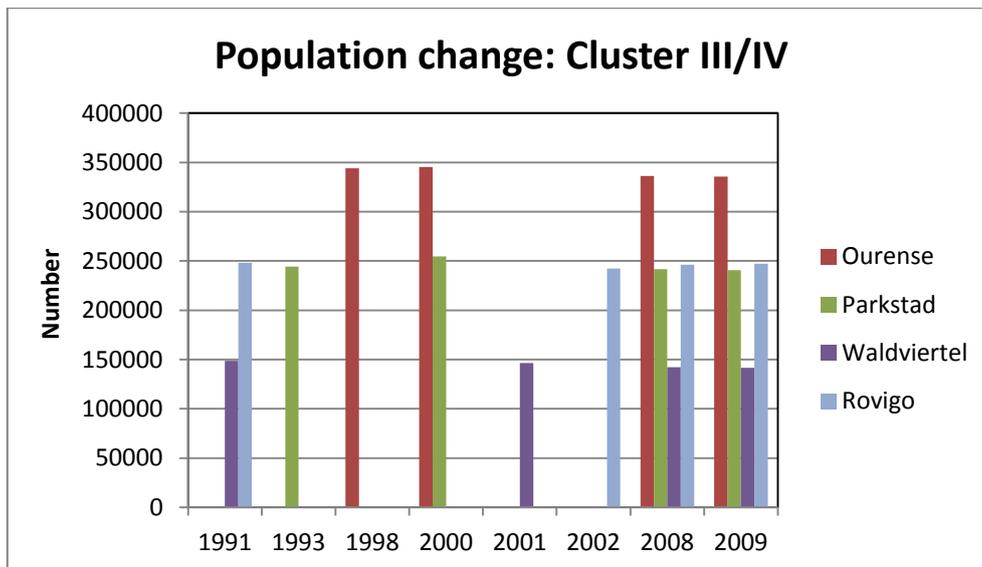
## Total population change by clusters



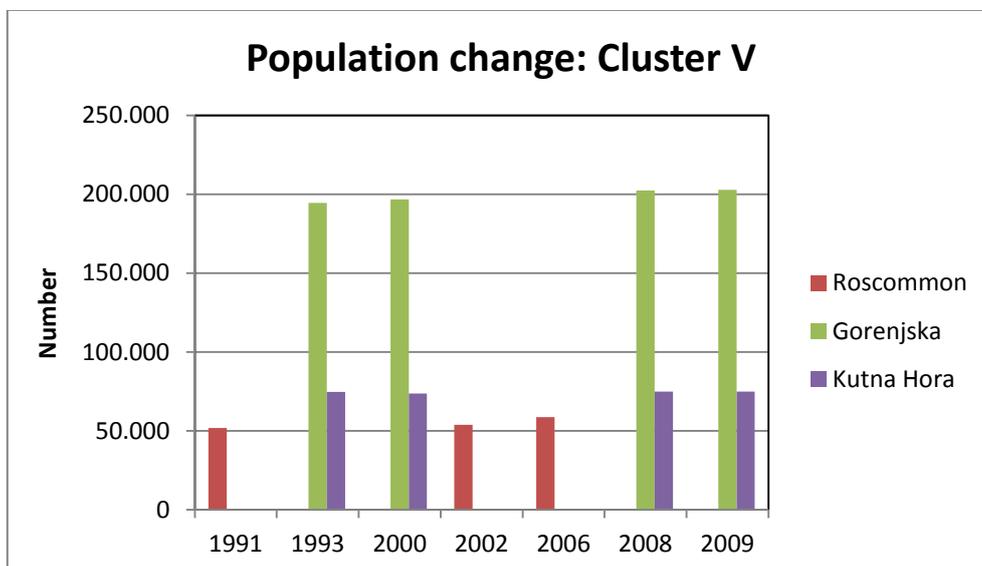
Cluster I	1990	1993	1995	2000	2008	2009
Görlitz	367.115	347.707		323.025		281.076
Klodzki			182.667	171.621	164.434	163.648
Uckermark		163.719		151.740	132.837	131.115
Kainuu		96.298		89.777	83.160	82.634



Cluster II	1993	2000	2008	2009
Alba	412.038	395.653	374.535	373.134
North-Karelia	178.076	171.609	166.129	165.962



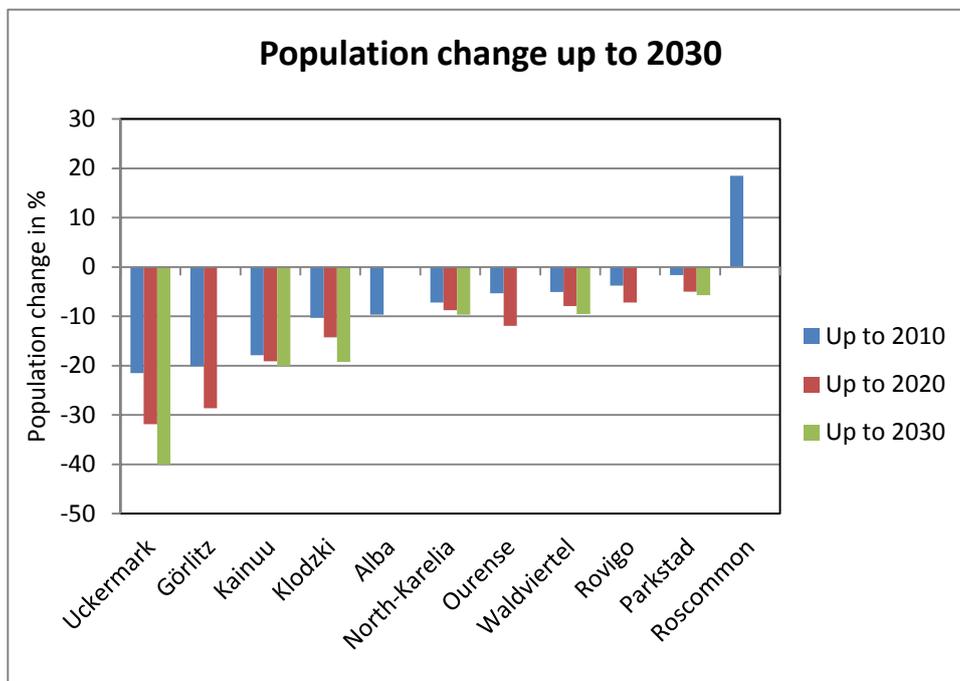
Cluster III	1991	1993	1998	2000	2001	2002	2008	2009
Ourense			344.170	345.241			336.099	335.642
Parkstad		244.387		254.715			241.792	240.634
Waldviertel	148.633				146.282		142.042	141.670
Cluster IV								
Rovigo	248.004					242.385	246.255	247.164



Cluster V	1991	1993	2000	2002	2006	2008	2009
Roscommon	51.897			53.774	58.768		
Gorenjska		194.472	196.716			202.485	202.903
Kutna-Hora		74.774	73.582			74.850	74.939

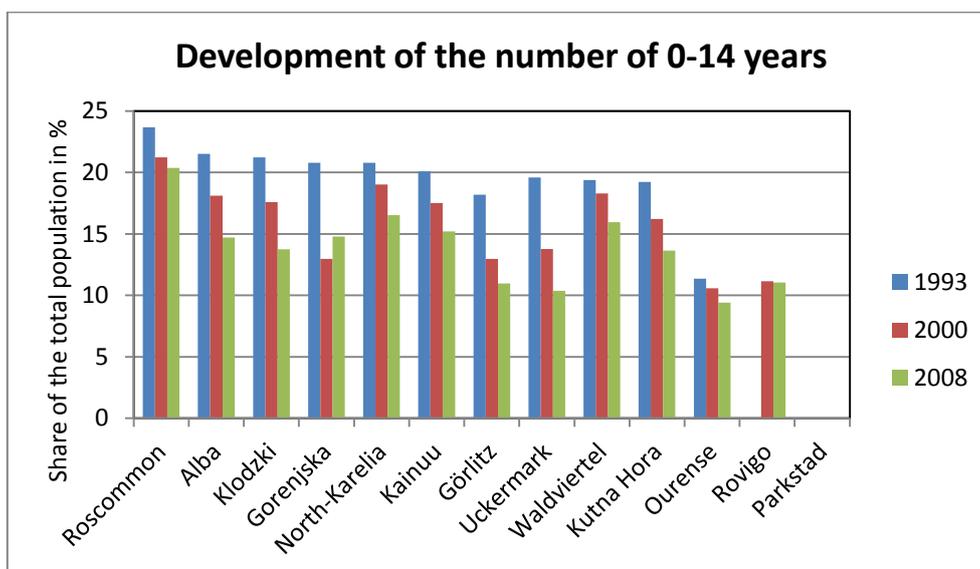
### 3. Population projection (since 1993 in %):

During the investigation of the population trend up to 2020/2030 (basic year 1993), it is evident that in the surveyed regions the population will fall heavily. The decline in the population shows up particularly clearly in the two East German regions. They will be confronted soonest with the problems of demographic change and can therefore assume a certain model role. It is also evident that all other surveyed regions in the future can expect increasingly lower population numbers, and with that comes the resulting associated problems of an ageing society. Only the region of Roscommon can expect a further increase in its population. By 2010, the population will grow by a further five per cent. Kutna-Hora and Gorenjska fall outside the analysis, because there was not sufficient existing data.



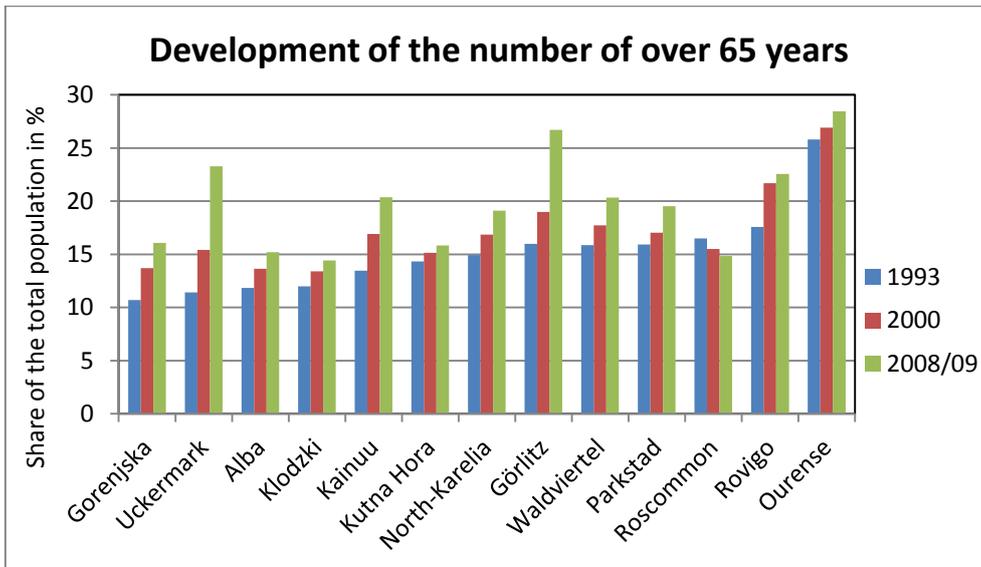
#### 4. Age structure

Region	1993			2000			2008/2009		
	total	0-14/15	65+	total	0-14/15	65+	total	0-14/15	65+
Uckermark	163.719	32.070	18.689	151.740	20.893	23.378	132.837	13.776	30.919
Görlitz	347.707	63.299	55.530	323.025	41.902	61.310	281.076	30.803	75.047
North-Karelia	178.076	37.012	26.595	171.609	32.650	28.895	166.129	27.465	31.751
Kainuu	96.298	19.352	12.953	89.777	15.733	15.184	83.160	12.637	16.939
Klodzki	182.667	38.761	21.865	171.621	30.189	22.963	164.434	22.632	23.717
Kutna-Hora	74.774	14.385	10.726	73.582	11.926	11.136	74.850	10.215	11.849
Alba	412.038	88.659	48.719	395.653	71.661	53.928	374.535	55.089	56.957
Waldviertel	148.633	28.820	23.563	146.282	26.762	25.915	142.042	22.673	28.861
Gorenjska	194.472	40.437	20.762	196.716	22.623	26.936	202.485	29.931	32.516
Rovigo	248.004		43.602	242.385	27.010	52.542	246.255	27.224	55.567
Ourense	344.170	39.084	88.783	345.241	36.562	92.889	336.099	31.608	95.541
Parkstad	244.387		38.937	254.715		43.350	241.792		47.208
Roscommon	51.975	12.307	8.563	53.774	11.417	8.328	58.768	11.977	8.715



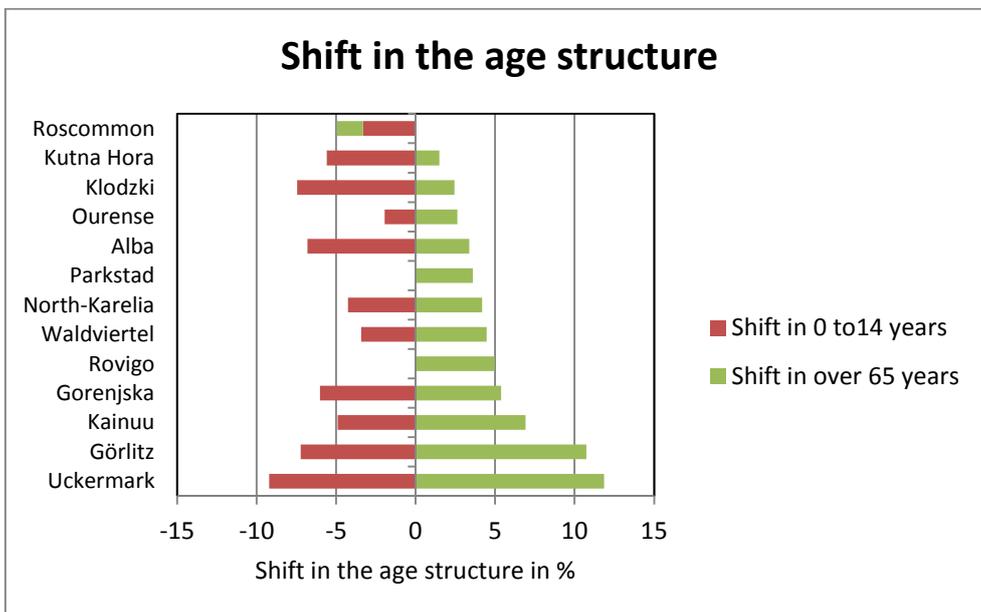
A clear decrease in the younger generation becomes visible in all surveyed regions. Most noticeably the declining birth rates can be seen in the regions of Uckermark, Klodzki, Görlitz and Alba.

It is evident that the regions of cluster I are again most strongly affected by the decrease in population also in this age group. The number of 0 to 14 years fell here in the years from 1993 to 2008/09 by more than seven per cent. In addition, the growing population in the region of Roscommon has shown a clear decrease in the birth rate in the last 15 years.



In all regions, an increase of over 65 year olds becomes clear over time. The change in the population structure becomes particularly visible again in the two German regions. Only in the region of Roscommon does the number of over 65 year olds decreases slightly.

Combined: Shift in the age structure (by clusters)



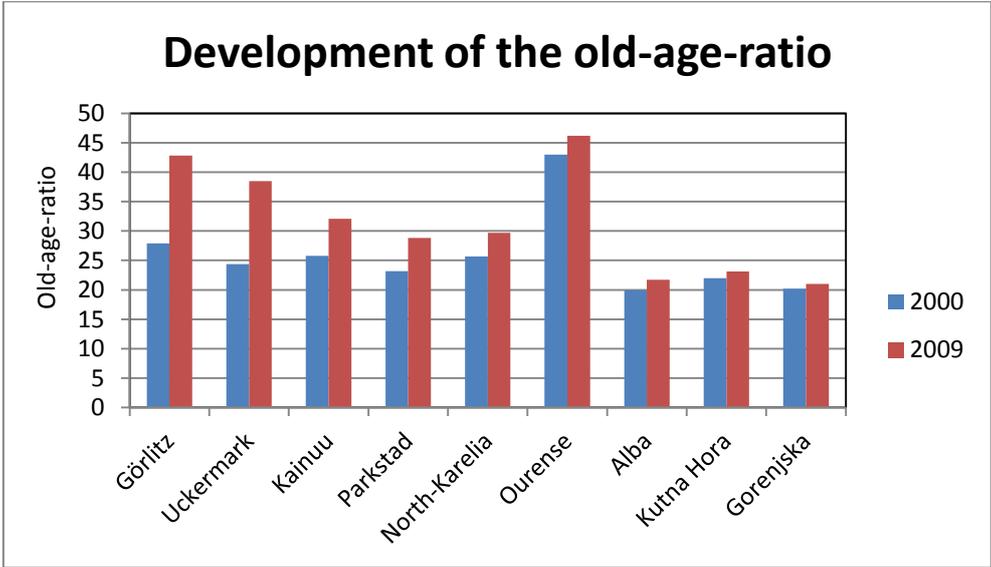
Region	Population change in %		
	Total	0 to14	Over 65
Uckermark	-19,9	-9,22	11,86
Görlitz	-19,2	-7,24	10,73
Kainuu	-14,2	-4,90	6,92
Klodzki	-10,4	-7,46	2,45
Alba	-9,4	-6,81	3,38
North-Karelia	-6,8	-4,25	4,18
Waldviertel	-4,7	-3,43	4,47
Ourense	-2,5	-1,95	2,63
Parkstad	-1,5		3,59
Rovigo	-0,3		4,98
Kutna-Hora	0,2	-5,59	1,49
Gorenjska	4,3	-6,01	5,38
Roscommon	13,2	-3,30	-1,65

## 5. The old-age-ratio

Region	Old-age-ratio			
	1993	2000	2008	2009
Ourense		43,00	45,70	46,20
Görlitz	24,26	27,90		42,80
Uckermark	18,30	24,40	37,90	38,50
Rovigo			34,00	34,00
Kainuu	20,20	25,80	31,60	32,10
Waldviertel			31,90	32,10
North-Karelia	22,80	25,70	29,10	29,70
Parkstad		23,20	28,10	28,80
Kutna-Hora	21,60	22,00	22,50	23,10
Alba	17,90	19,90	21,80	21,70
Klodzki		20,20	21,00	21,00
Gorenjska	No data			
Roscommon	No data			

The Spanish region of Ourense currently has the highest old-age-ratio. Here there are approximately 46 non working age persons aged over 65 per 100 persons of working age. In addition, in all other regions a continuously rising old-age-ratio becomes evident over the course of time. The rapid development in the two German regions becomes particularly clear. In the district of Görlitz, for example, in 2000 for every 100 employed people there were only about 28 pensioners. Nine years later the old-age-ratio was already up to 42,80. The region of Roscommon could supply no data for this. This is particularly annoying regarding the increasing population in the Irish region.

The regions of Rovigo, Waldviertel, Gorenjska and Roscommen supplied no usable data for this, so could not be further regarded.



In the German regions the strong increase in the old-age-ratio is particularly visible. In the last nine years the old-age-ratio rose here by more than 14 people. In no other region can such a strong increase be seen. The Spanish region of Ourense has, for a long time, had a very high old-age-ratio. The increase is therefore not so significant. In the Eastern European regions of Klodzki, Kutna-Hora and Alba the rise in the old-age-ratio is rather restrained. This could be due to their medical progress not being as far developed as in the Western European regions. Probably the life expectancy is altogether lower in these regions. In the coming years, progress will show in this area and thus the old-age-ratio will increasingly rise. The old-age-ratio shows that in the regions which have seen a positive population growth, the number of elderly people increases accordingly.

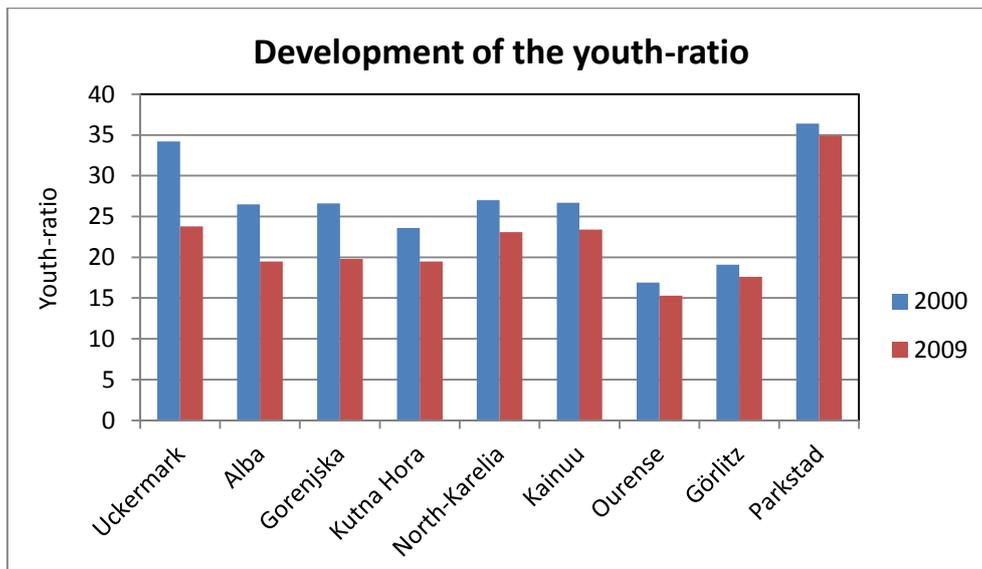
## 6. The youth-ratio

Region	Youth-ratio			
	1993	2000	2008	2009
Ourense		16,90	15,10	15,30
Görlitz	27,66	19,10		17,60
Kutna-Hora	29,00	23,60	19,40	19,50
Alba	32,50	26,50	19,40	19,50
Klodzki		26,60	20,00	19,80
Rovigo			16,70	19,90
North-Karelia	29,70	27,00	23,30	23,10
Kainuu	30,20	26,70	23,60	23,40
Uckermark	41,70	34,20	24,90	23,80
Waldviertel			25,10	24,40
Parkstad		36,40	35,40	34,90
Gorenjska	No data			
Roscommon	No data			

The Spanish region of Ourense possesses the lowest youth-ratio of all surveyed regions.

Currently there are only 15 young people aged under 15 per 100 working age persons aged between 15 and 65 years. The German region of Görlitz also has a very low youth-ratio standing at 17,60 in 2009. The Dutch region of Parkstad has the highest youth-ratio by some distance. Here there are 35 young people aged under 15 per 100 employees. The decrease in the youth-ratio is recognizable in all surveyed regions. Even the growing region of Roscommon - which here unfortunately cannot be specified, as their data corresponded to a different period of time - had a decrease to register. The regions of Rovigo, Waldviertel, Gorenjska and Roscommen supplied no usable data for this, so that could not be further regarded.

The strong decrease in the youth-ratio becomes particularly clear in the region of Uckermark. Here the youth-ratio has fallen in the last nine years by more than ten people. The Eastern European regions of Alba, Klodzki and Kutna-Hora have also registered a stable decline in the youth-ratio.

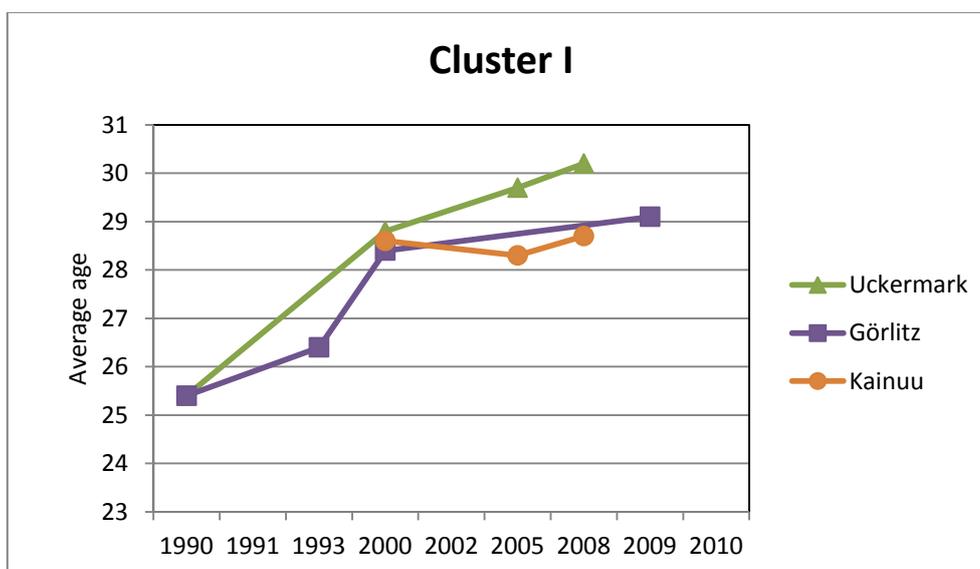


As a result of demographic changes the old-age-ratio rises and the youth-ratio steadily falls. All surveyed regions of the DART project have to deal accordingly with these problems.

## 7. The average age of a mother having her first child

Region	Average age of a mother having her first child							
	1990	1991	1993	2000	2002	2005	2008	2009
Uckermark	25,40			28,80		29,70	30,20	
Görlitz	25,40		26,40	28,40				29,10
North-Karelia			29,00	29,20		28,70	28,70	
Kainuu				28,60		28,30	28,70	
Klodzki	No data							
Kutna-Hora		21,70		24,50		26,50	27,00	
Alba				25,50		26,70	27,00	
Waldviertel				28,80		29,50		30,00
Gorenjska					29,00	29,30		30,00
Rovigo							31,00	
Ourense				30,40		31,10	31,20	
Parkstad	No data							
Roscommon					31,10	31,40	31,50	

In all regions a rise in the average age of a mother having her first child is to be found. However in the region of North-Karelia this decreases slightly. In Roscommon the rise in the average age of a mother having her first child is minimal. However, these numbers have only been given since the 2002 for Roscommon. For a comparative view the region of Roscommon is therefore hardly suitable. The strongest rise in the average age of a mother having her first child is to be registered in the Czech region of Kutna-Hora. In a 17 year time period the average age of a mother having her first child rose here by 5,3 years. Altogether the average age of a mother having her first child in all surveyed regions tends to be around the age of 30.



The example in the regions of Uckermark and Görlitz clearly shows, since 1990, a substantial rise in the average age of a mother having her first child. The region of Kainuu could only supply data starting from 2000. Long term developments are thus difficult to recognize.

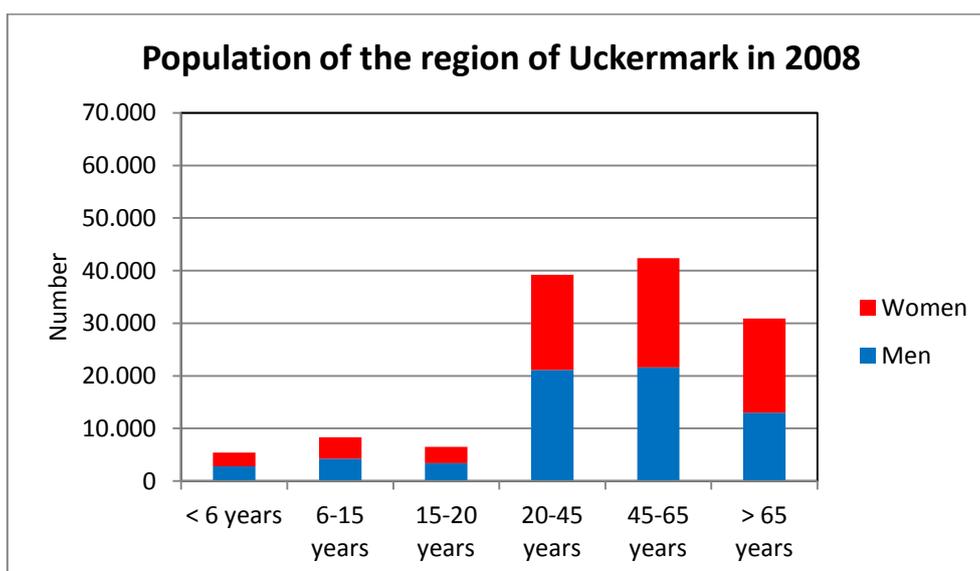
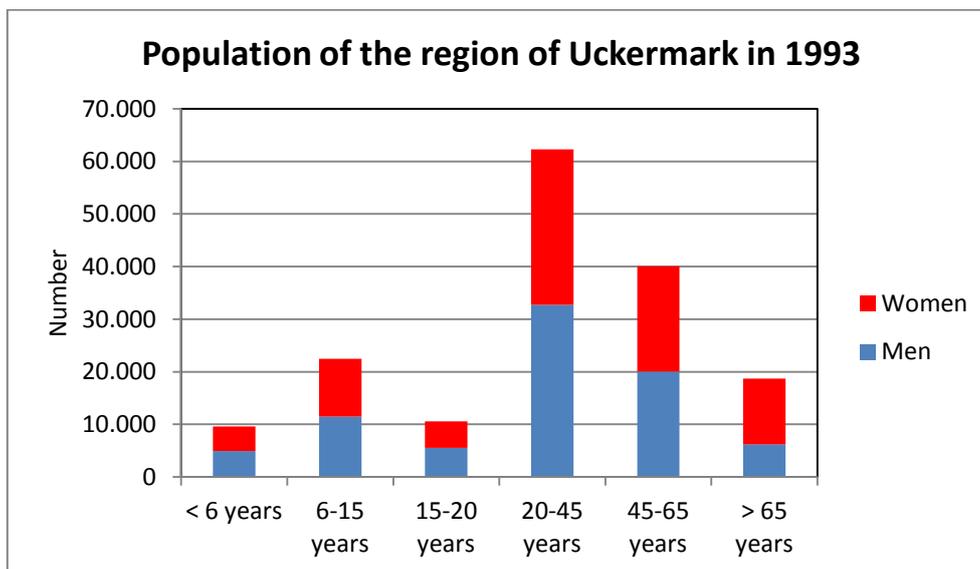
## 8. Population change by sex

Region	Population change in %		
	Total	Men	Women
Uckermark	-19,9	-19,12	-20,69
Görlitz	-19,2	-17,11	-21,10
Kainuu	-14,2	-14,33	-14,05
Klodzki	-10,4	-5,38	-9,84
Alba	-9,4	-10,38	-8,51
North-Karelia	-6,8	-6,37	-7,23
Waldviertel	-4,7	-3,20	-6,09
Ourense	-2,5	-2,27	-2,67
Parkstad	-1,5	12,13	39,75
Rovigo	-0,3	-0,29	-0,39
Kutna-Hora	0,2	2,06	-1,52
Gorenjska	4,3	6,48	2,33
Roscommon	13,2	13,05	13,44

Period: 1993-2009 or 1990/1991-2009

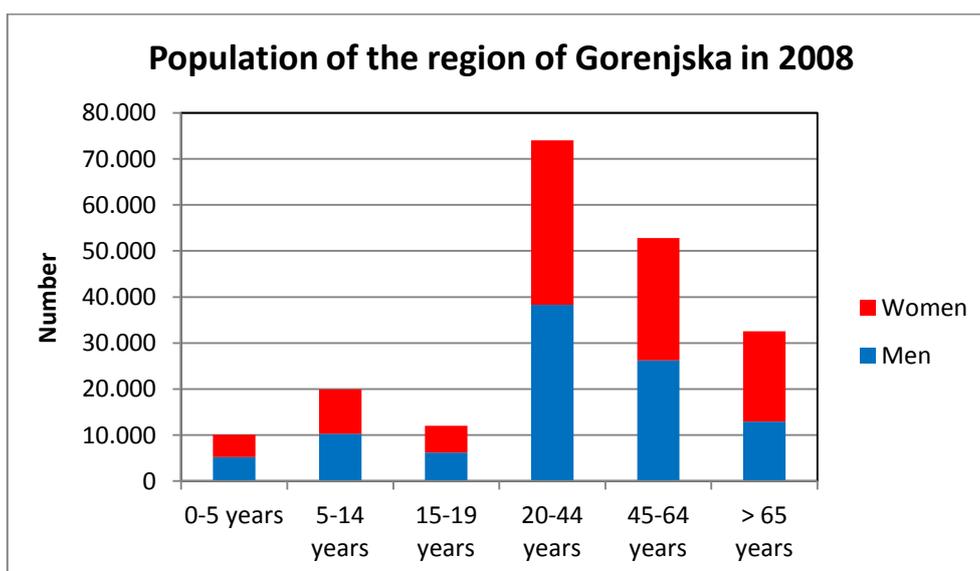
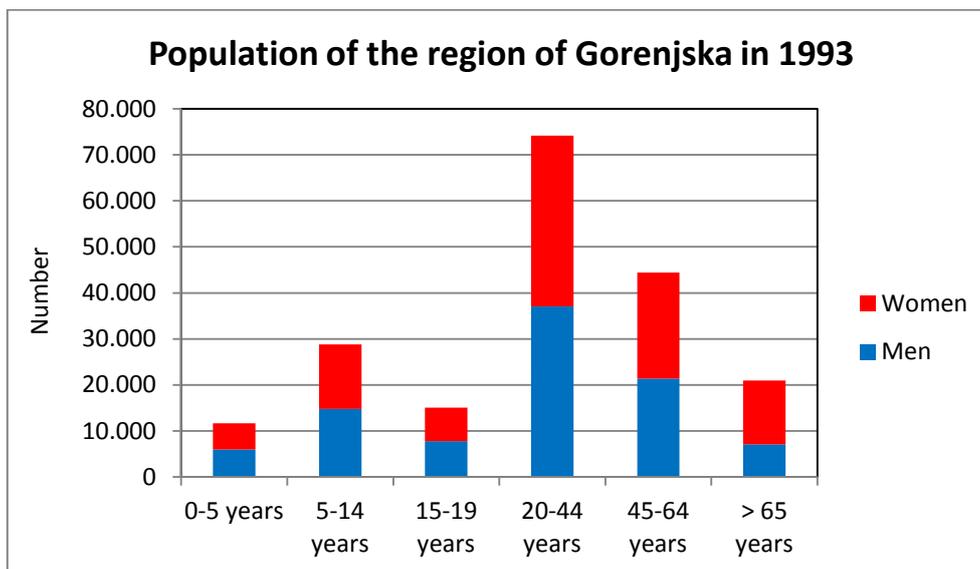
As an example, in particular the following population structures of two regions can be differentiated by age groups and gender over time and commented on briefly. The region of Uckermark was selected because it has seen a strong decline in the population and the region of Gorenjska can be listed as a counter example. This region in the DART project has a growing population and can best illustrate the differences. Although the Irish region of Roscommon represents the fastest growing population by far, the supplied data was too uncertain to be represented.

Shift in the population by age group and by sex in the example of Uckermark (Cluster I):



Age	1993			2008		
	Total	Men	Women	Total	Men	Women
< 6 years	9.611	4.905	4.706	5.432	2.791	2.641
6-15 years	22.459	11.499	10.960	8.344	4.247	4.097
15-20 years	10.578	5.529	5.049	6.518	3.394	3.124
20-45 years	62.285	32.735	29.550	39.235	21.149	18.086
45-65 years	40.097	20.029	20.068	42.389	21.598	20.791
> 65 years	18.689	6.172	12.517	30.919	13.007	17.912

Shift in the population by age group and by sex in the example of Gorenjska (Cluster V):



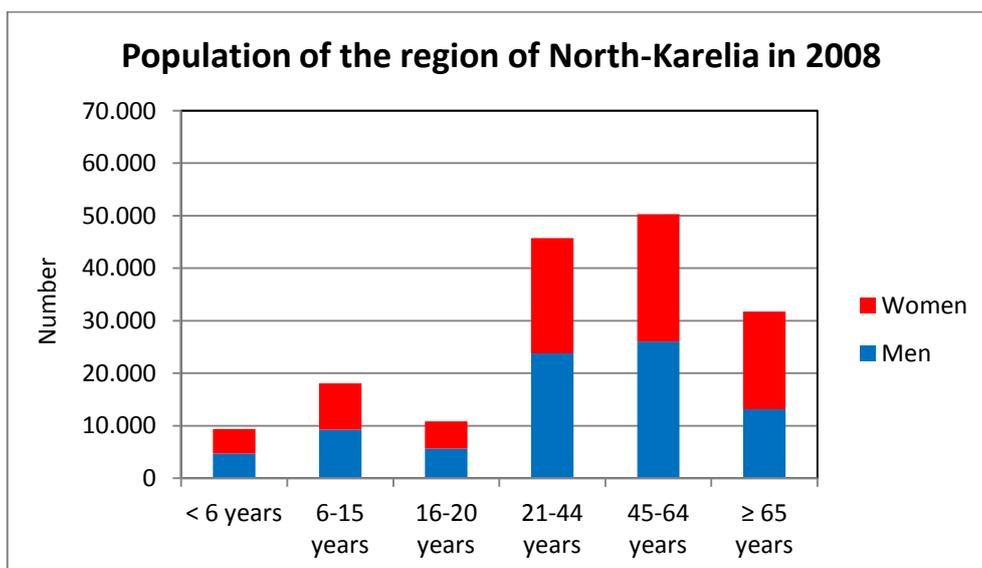
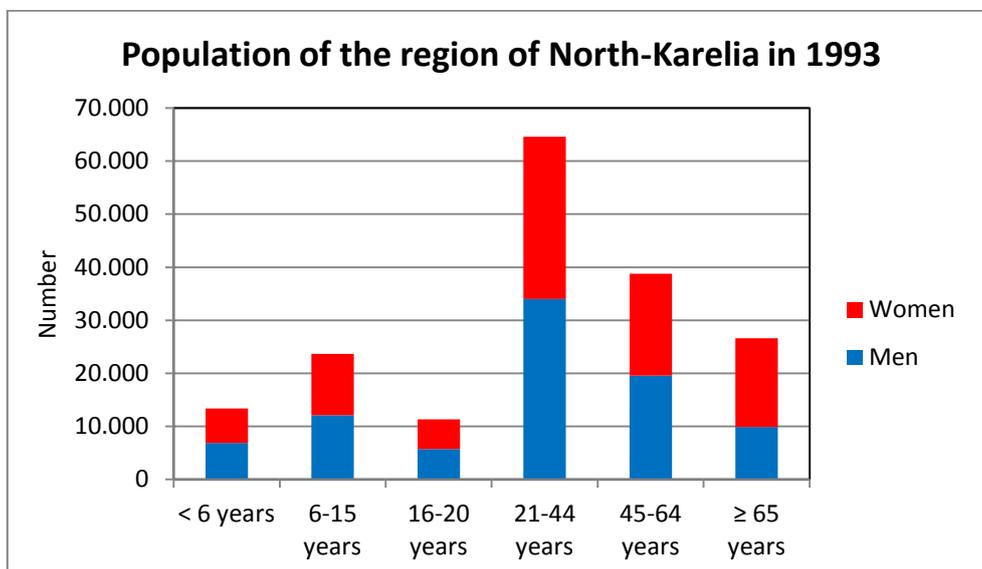
Age	1993			2008		
	Total	Men	Women	Total	Men	Women
0-5 years	11.659	5.994	5.665	10.042	5.196	4.846
5-14 years	28.778	14.775	14.003	19.889	10.254	9.635
15-19 years	15.035	7.782	7.253	11.981	6.163	5.818
20-44 years	74.138	37.041	37.097	74.014	38.284	35.730
45-64 years	44.015	21.406	22.969	52.812	26.233	26.579
> 65 years	20.762	7.080	13.882	32.516	12.908	19.608

It becomes clear that the recent population decreases crucially also in the Slovenian region. The population growth of the elderly groups can be explained, by amongst other things, the improving medical conditions and the consequent rising life expectancy. In the diagram it

becomes apparent that the number of elderly people greatly increased in the last 15 years. The extent of demographic change that the region of Uckermark is experiencing at present, could probably be documented in the Slovenian region in a few years time. Trends for this here are also clearly recognizable.

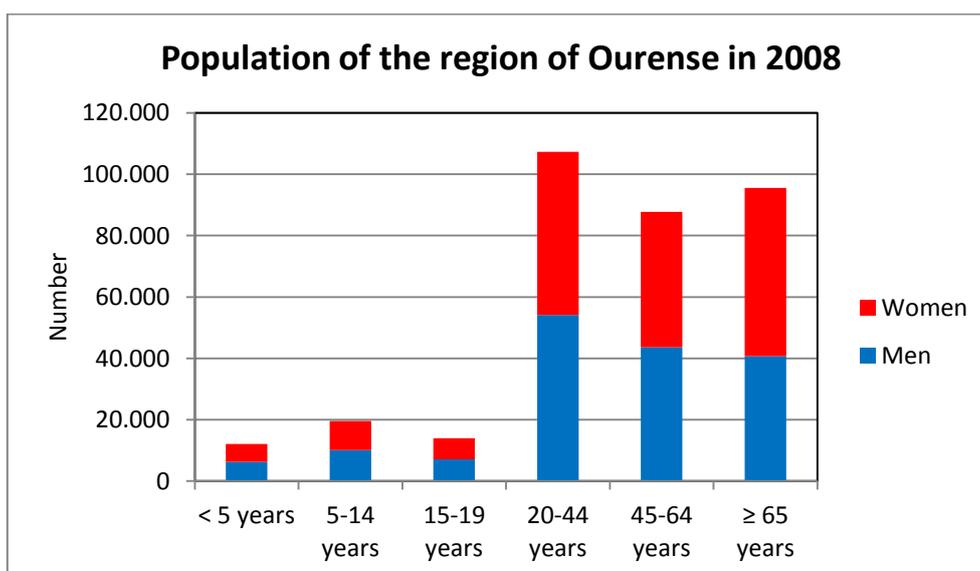
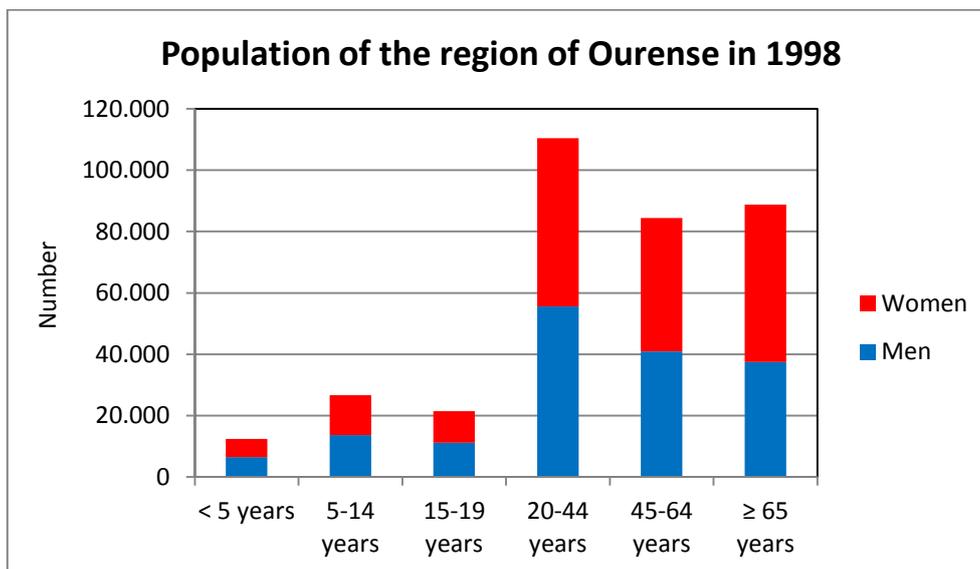
Further DART regions (Cluster II – IV) in graphical representation:

Shift in the population by age group and by sex in the region of North-Karelia (Cluster II):



Age	1993			2008		
	Total	Men	Women	Total	Men	Women
< 6 years	13.375	6.853	6.522	9.367	4.699	4.668
6-15 years	23.637	12.110	11.527	18.098	9.258	8.840
16-20 years	11.142	5.679	5.643	10.846	5.649	5.197
21-44 years	64.587	34.008	30.579	45.751	23.765	21.986
45-64 years	38.740	19.584	19.156	50.316	26.033	24.283
≥ 65 years	26.595	9.874	16.721	31.751	13.153	18.598

Shift in the population by age group and by sex in the region of Ourense (Cluster III):



Age	1998			2008		
	Total	Men	Women	Total	Men	Women
< 5 years	12.389	6.450	5.940	12.073	6.208	5.865
5-14 years	26.695	13.614	13.085	19.535	10.111	9.424
15-19 years	21.479	11.099	10.380	13.925	7.137	6.788
20-44 years	110.421	55.608	54.810	107.300	54.094	53.206
45-64 years	84.399	40.944	43.454	87.725	43.582	44.143
≥ 65 years	88.783	37.491	51.290	95.541	40.716	54.825

## 9. Life expectancy

It would be analytically useful if the modified life expectancy was represented over a period of about 15 years. Unfortunately the information collected for this purpose is not sufficient: this should be evaluated in a further survey. The following summary has been prepared from the life expectancy data, which was made by the DART partners. For a sound analysis this is not sufficient, but they should appear however for the sake of completeness.

Even if no changes in the course of time are to be represented here, this data shows very clearly that in all regions (where the data was made available) the average life expectancy of women is significantly higher than men. This higher life expectancy can be regarded as a fundamental demographic trend in different European regions.

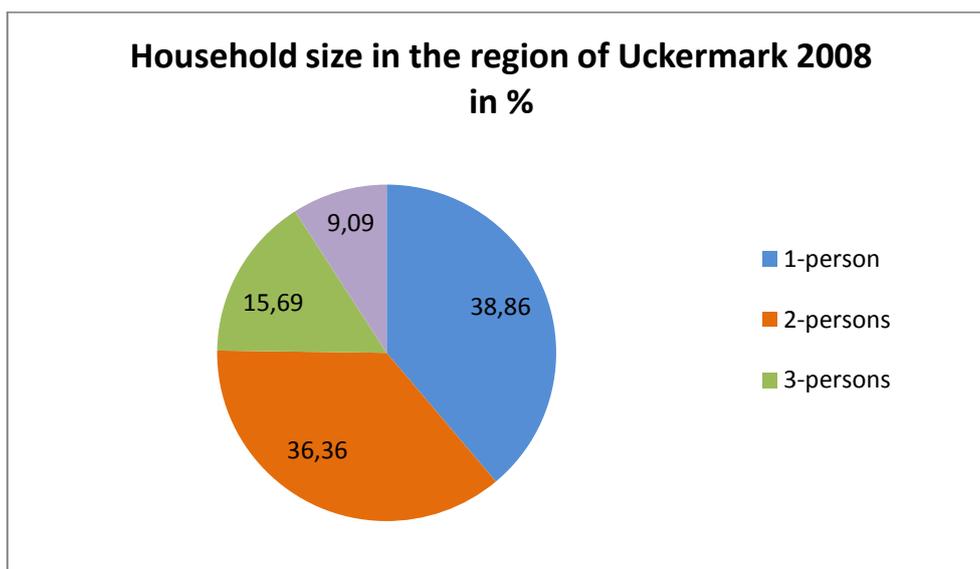
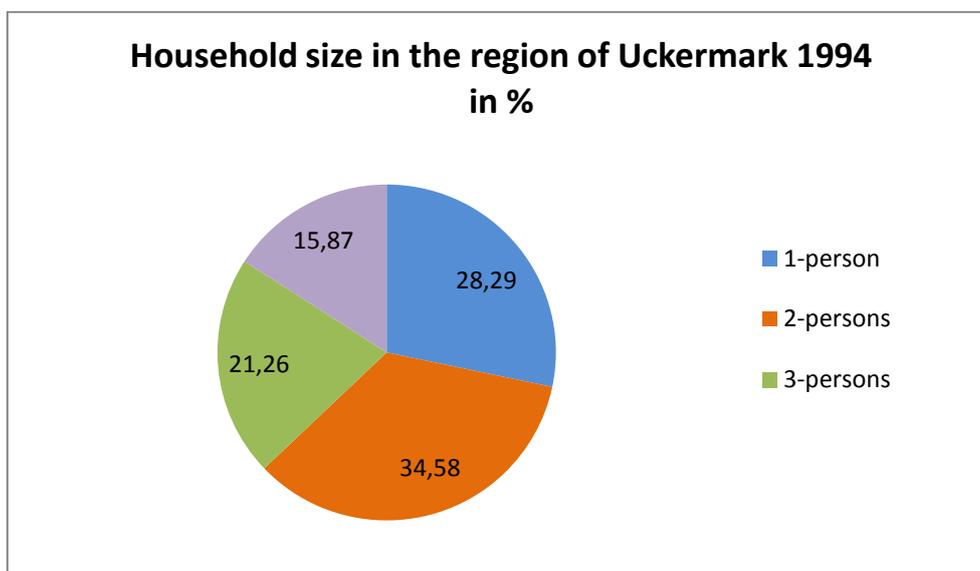
Region	2000		2005		2006		2007		2008		2009		2010	
	Men	Woman	Men	Woman	Men	Woman	Men	Woman	Men	Woman	Men	Woman	Men	Woman
Uckermark											76,40	82,20		
Görlitz	No data													
North-Karelia	74,10	81,00							76,30	83,00				
Kainuu	No data													
Klodzki	No data													
Kutna-Hora			72,90	79,20										
Alba											70,00	77,00		
Waldviertel									76,90	82,50				
Gorenjska							68,80	79,10			70,40	78,50		
Rovigo					77,10	83,90	77,60	83,50						
Ourense									78,00	85,10				
Parkstad													76,00	81,00
Roscommon					76,80	81,60								

## 10. Household size

It is increasingly one person households that are being established. The typical family ideal seems to diminish further. The typical 4 person households is particularly widespread in the Eastern European regions (Romania, Slovenia, Czech Republic). However, there are also significant changes there.

As an example, the following three regions can be displayed, where the differences are clear.

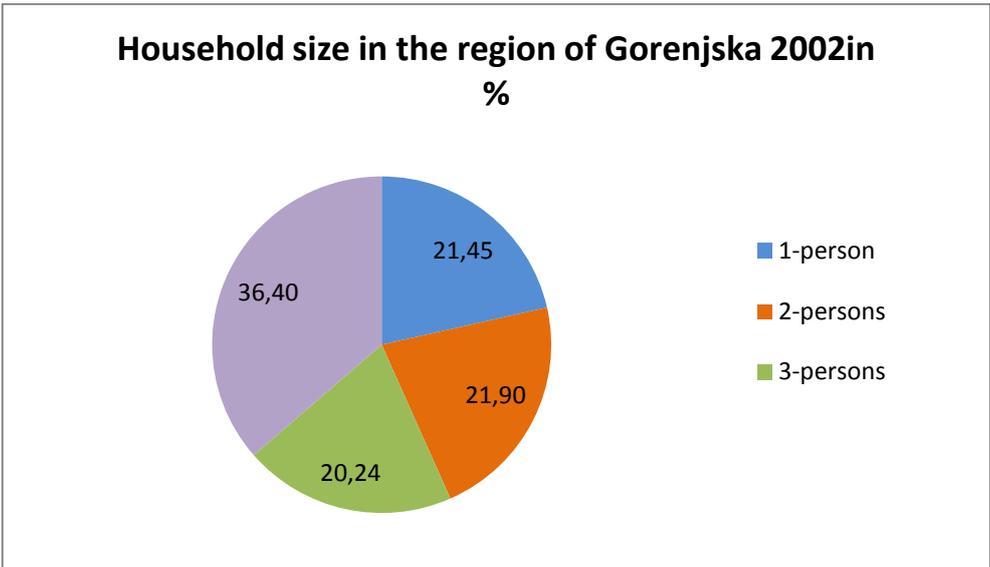
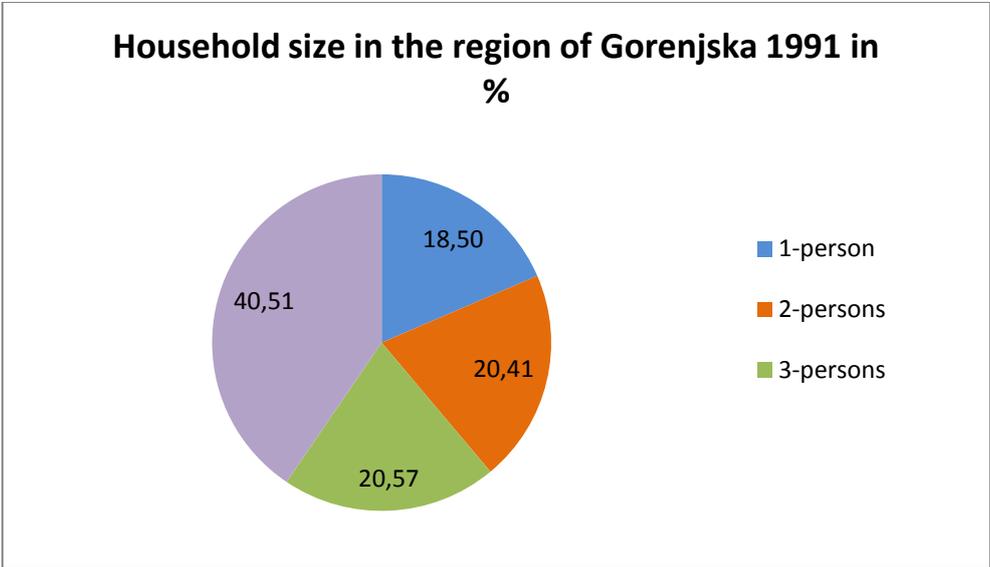
Distribution of the household size by the example of Uckermark:



The number of single person households has increased strongly over the last 14 years in this region. In the year 2008 38,86% of the population in the district of Uckermark lived alone.

Thus the number of one-person households has grown by more than ten per cent. In contrast, the typical four person households are declining rapidly. In 2008 only 9,09 per cent of the households in the region were of this size.

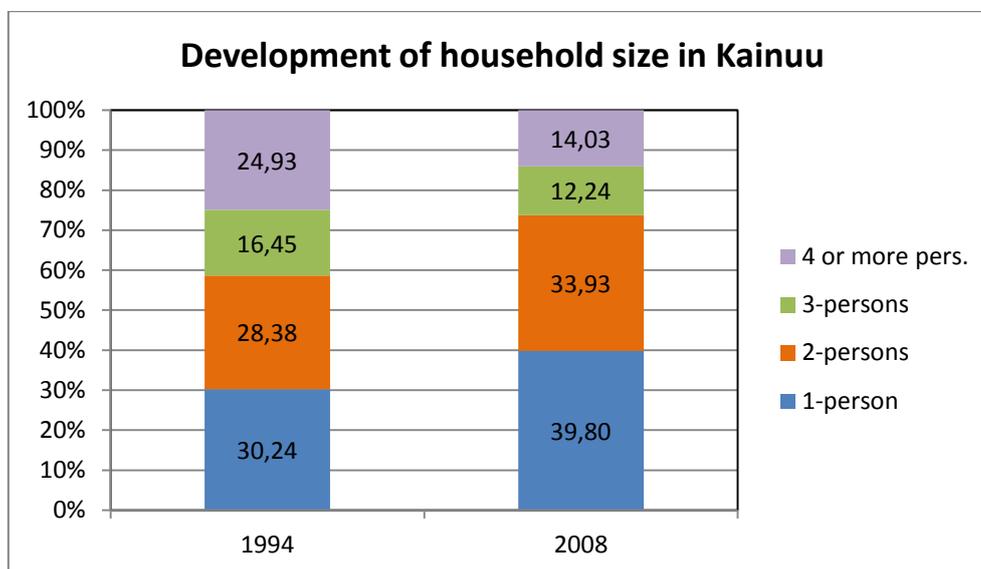
Distribution of the household size by the example of Gorenjska:



Also in the Slovenian region of Gorenjska, the number of one person households rises. However, the increase is very slow. For eleven years the number of households of this size rose by only approximately three percent. However, in 2002 in this region, there still lived 36,40 per cent of the population in households with four or more persons. This figure is truly remarkable when regarding the household size distribution in the German regions, but is nevertheless here also declining considerably. Unfortunately no current numbers are present for

the household size in Gorenjska for 2008, so that without a present representation of the distribution it must be omitted.

Distribution of the household size by the example of Kainuu:

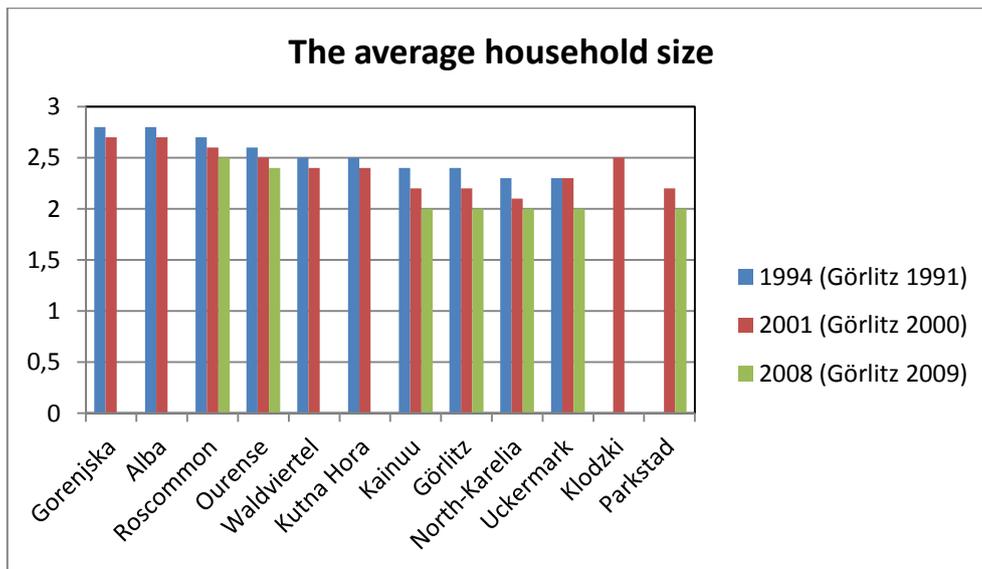


With the region Kainuu, another type of graphic representation was selected. Instead of being represented by a pie chart, the household size is presented here within a stacked bar chart. Regarding the temporal change of the household structures of some DART regions this stacked variant seems clearer.

The average household size:

Region	Average household size		
	1994	2001	2008
Gorenjska	2,8	2,7	
Alba	2,8	2,7	
Roscommon	2,7	2,6	2,5
Ourense	2,6	2,5	2,4
Waldviertel	2,5	2,4	
Kutna-Hora	2,5	2,4	
Kainuu	2,4	2,2	2,0
Görlitz	2,4 (1991)	2,2 (2000)	2,0 (2009)
North-Karelia	2,3	2,1	2,0
Uckermark	2,3	2,3	2,0
Klodzki		2,5	
Parkstad		2,2	2,0

A decline in the average household size can be seen in all the regions concerned.



## 11. Households by family status

Region	1993					
	Total (persons)	Single (%)	Married (%)	Divorced (%)	Widowed (%)	
Uckermark	162.700	36,75	48,37	8,54	6,33	
Görlitz	335.000	36,35	51,34	3,88	8,35	
Kainuu	96.300	47,56	40,29	5,19	6,96	
Alba	412.900	40,57	50,18	1,79	7,46	1992
Waldviertel	148.600	39,77	48,38	9,49	2,36	1991
Rovigo	247.900	38,00	52,08	1,05	8,87	1991
Roscommon	52.000	52,69	39,04	1,35	6,92	1996
Region	2000					
	Total (persons)	Single (%)	Married (%)	Divorced (%)	Widowed (%)	
Uckermark	153.900	39,70	46,39	6,95	6,95	
Görlitz	328.100	36,45	49,31	5,57	8,59	
North-Karelia	171.712	46,41	38,20	7,81	7,57	
Kainuu	89.600	46,43	39,29	7,03	7,25	
Alba	382.700	39,30	48,31	3,29	9,09	2002
Waldviertel	146.200	40,22	47,54	8,55	3,69	2001
Rovigo	242.400	36,63	52,89	0,99	9,49	2002
Roscommon	53.800	50,37	40,52	2,60	6,51	2002
Region	2008					
	Total (persons)	Single (%)	Married (%)	Divorced (%)	Widowed (%)	
Uckermark	134.400	36,09	46,50	9,15	8,26	
Görlitz	279.600	35,58	49,96	6,40	8,01	
North-Karelia	166.209	46,09	37,66	9,15	7,10	
Kainuu	83.100	45,01	39,11	8,54	7,34	
Rovigo	246.300	37,92	51,32	1,54	9,22	
Roscommon	58.800	50,17	40,48	3,40	5,95	2006

The transition from a marital to a non-marital cohabitation as a demographic change is not seen here. With declining population numbers (during the last 15 years), however, also shows a stable trend for 1-person (single)-household.

## 12. Migration

Share of the foreign population as part of the total population in %:

Region	1993	2000	2008	2009
Uckermark	1,94	2,31	2,7	2,82
Görlitz		1,78		2,13
North-Karelia	0,66	0,99	1,54	1,7
Kainuu	0,36	0,68	1,44	1,59
Klodzki	No data			
Kutna-Hora	No data			
Alba	No data			
Waldviertel			3,59	6,05
Gorenjska			1,69	3,52
Rovigo			5,38	6,26
Ourense		1,92	4,17	4,64
Parkstad		6,8	5,46	5,49
Roscommon	No data			

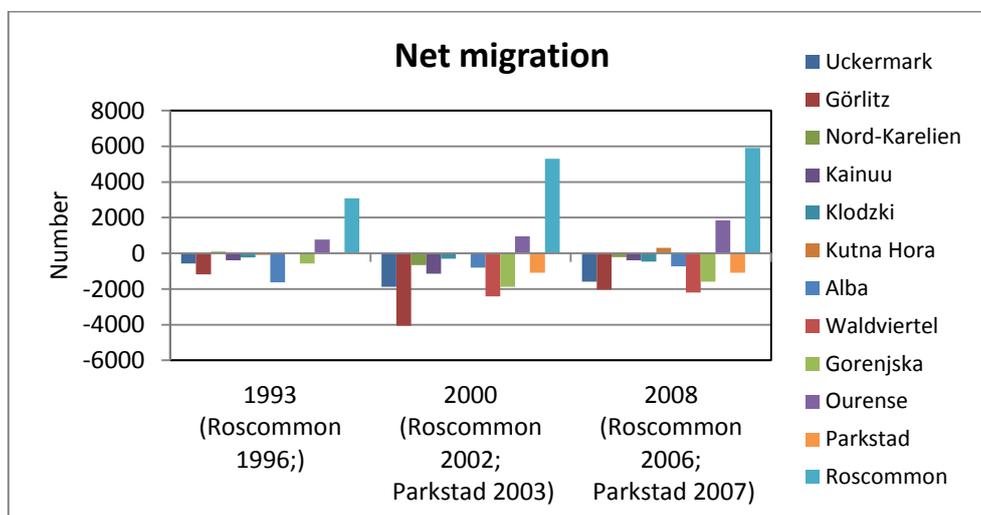
It is clear that in all DART regions, where it was possible to view the data provided, the rise in immigration increasing the share of the foreign population within the total population in the surveyed regions was characterized in demographic change over the last few years.

This seems also meaningful for the population composition and the consequences for regional job markets and national social security systems etc., that this trend is to be estimated as steady, and is in all regions against the background of the population contraction and ageing in the analyzed DART regions.

The following figures illustrate a fundamental demographic transformation trend that, apart from a few exceptions (Kutna-Hora, Ourense, Roscommon, Rovigo – where the data is to be doubted), demonstrate the past 15 years in the DART surveyed regions. This refers partly to some significant population losses to migration. Beside the natural population loss, population losses due to migration characterize basic demographic changes in the single European regions as a spatial component.

## Migration/net migration:

Region		1993	2000	2008
Uckermark	arrival - total	7026	7105	4767
	departures - total	7598	8981	6355
	<b>net migration</b>	<b>-572</b>	<b>-1876</b>	<b>-1588</b>
Görlitz	arrival - total	5420	5183	5900
	departures - total	6606	9238	7935
	<b>net migration</b>	<b>-1186</b>	<b>-4055</b>	<b>-2035</b>
North-Karelia	arrival - total	2767	3870	4464
	departures - total	2673	4528	4679
	<b>net migration</b>	<b>94</b>	<b>-658</b>	<b>-215</b>
Kainuu	arrival - total	2204	3061	3569
	departures - total	2590	4208	3964
	<b>net migration</b>	<b>-386</b>	<b>-1147</b>	<b>-395</b>
Klodzki	arrival - total	2077	1730	1592
	departures - total	2308	2039	2055
	<b>net migration</b>	<b>-231</b>	<b>-309</b>	<b>-463</b>
Kutna-Hora	arrival - total	952	724	1 547
	departures - total	1049	750	1235
	<b>net migration</b>	<b>-97</b>	<b>-26</b>	<b>312</b>
Alba	arrival - total	2672	3701	5754
	departures - total	4302	4501	6485
	<b>net migration</b>	<b>-1630</b>	<b>-800</b>	<b>-731</b>
Waldviertel	arrival - total		2239	4648
	departures - total		2410	4603
	<b>net migration</b>		<b>-2409</b>	<b>-2193</b>
Gorenjska	arrival - total	7026	7105	4767
	departures - total	7598	8981	6355
	<b>net migration</b>	<b>-572</b>	<b>-1876</b>	<b>-1588</b>
Rovigo	arrival - total	7303(1995)	20991	54145(2007)
	departures - total	556(1995)	1194	2766(2007)
	<b>net migration</b>	<b>x</b>	<b>x</b>	<b>x</b>
Ourense	arrival - total	6134	10670	14364
	departures - total	5368	9722	12513
	<b>net migration</b>	<b>766</b>	<b>948</b>	<b>1851</b>
Parkstad	arrival - total		10764(2003)	11546(2005)
	departures - total		11848(2003)	12643(2005)
	<b>net migration</b>		<b>-1084</b>	<b>-1097</b>
Roscommon	arrival - total	x	x	x
	departures - total	x	x	x
	<b>net migration</b>	<b>3087(1996)</b>	<b>5291(2002)</b>	<b>5903(2006)</b>



## **Standards and indicators**

### ***Indicators for the measurement of demographic change***

#### **Goal of the IFAD indicator study - general introduction:**

Fundamental and long-term demographic transformation and change processes in the countries of the European Union are, as in the preceding chapters (in particular chapters 3 and 4), clearly shown on the basis of the DART partner regions, above all

- by a decrease in fertility levels,
- sinking birth rates,
- rising ratio of old and very elderly people in the total population,
- changes and shifts between the age groups,
- increased life expectancy,
- migration of certain population groups, only partially characterized by immigration.

On the level of the member states of the European Union agreed by the European Statistic (Eurostat) and permitted accessible data however only very limited statements regarding the demographic change on a regional level within the countries can be made. Only the less detailed statements about the actual developments (in certain regions, districts, regional administrative bodies, municipalities etc.) are possible. Therefore it was urgently necessary in the context of the DART project to record and analyze the demographic developments data supported on these different levels in European countries. That was the necessary duty for the IFAD project, as these changes have on the one hand direct effect on a small-scale level at present and in the future will substantially influence the direct quality of life in the respective resident populations. Secondly, very different developments within the member states of the European Union will have to be carried out. At the same time certain typical samples of the development in different regions of Europe are to be recognized.<sup>1</sup> With this approach, data acquisition and data evaluation in the context of a European community project, sociologically new ground was entered in such a way that demographic single representations and comparisons available between regions of European countries on a regional level could be made. Representation of the demographic change – in particular the elucidation of sub-

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<sup>1</sup> See also: European Union, committee of the regions, 7th meeting of the commission (2 February 2007), discussion paper of the commission for economic and social policy 'THE DEMOGRAPHIC FUTURE of EUROPE – FROM THE CHALLENGE TO THE CHANCE', correspondents: Gerd Harms (DE/SPE), S. 2f.

stantial ageing and contraction processes – in selected countries of Europe is not given here. **Comparing collected and analysed demographic and relevant social data was the most important component of the IFAD project share. The development of a practicable and application orientated set of tested demographic and social indicators** in problem –loaded regions of European countries allows us to apply these tools to compare other regions of Europe who are in similar demographic and social situations (decrease in population, migration, ageing, contraction). With this indicator set contradictions can be shown. During the basic demographic processes, developments on the regional level of participants of European Union countries adapt themselves, and the appropriate data bases, for an evaluation of these developments. This set can be created in a basic form using, on the one hand existing indicators <sup>2</sup> to examine and indicator systems on their usefulness, and on the other hand to develop “a socio - demographic monitoring” to view of the demographic change in the respective regions. But the IFAD compiled the DART monitor “collection and description modules for the demographic change”. With this approach also the fact that the calculation was amounted to using the past methodical way, as in the European Union action requirements of the demographic change, only from the development on a national level can it be derived as up-to-date, and perspective the fundamental change regionally specifically and differentiated is not met. **The heterogeneity of the demographic development <sup>3</sup> is shown today in the co-existence of the growth and contraction processes**, whose simultaneousness and spatial proximity require a differentiated and small-scale analysis. With the view of regionally specific running developments in the individual European Union member countries, it is urgently necessary to regard in particular the consequences of the demographic processes of change on the different levels (municipalities and districts, planning regions and their groups, cities and their regional integration area etc.) as within the member states very different developments are carried out. At the same time it can be clarified and illustrated that

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<sup>2</sup> eg. ‘the Demography vulnerability index’ – ‘the vulnerability index for demographic change’. See also: ‘regions 2020 – evaluation of the future challenges of the regions’, Brussels, November 2008, S.9-13.

<sup>3</sup> ‘**The committee of the regions** states that the general trends of the demography on the European level experiences a highly specific regional formation. These developments overlap and lead to the fact that there are winners (e.g. the regions of London and Munich) and losers (e.g. East Germany or the west Polish regions) in the regions of Europe and that the territorial coherence is endangered. Beside the demographic changes migration movements affect the development of the population from outside the community. The internal migration within the European Union strengthens the large scale trends, whereby in particular prosperous urban population centres exert an increasing attraction. We experience thus a juxtaposition of the growth and contraction process. European Union, committee of the regions, 7th meeting of the commission (2 February 2007), discussion paper of the commission for economic and social policy ‘THE DEMOGRAPHIC FUTURE OF EUROPE – FROM THE CHALLENGE TO THE CHANCE’, correspondents: Gerd Harms (DE/SPE), S. 1.

certain comparable and typical samples of the development in different regions of Europe can be recognized.

**Examination of the data supply for the IFAD indicator study by the official statistics (EUROSTAT)**

In order to examine and prepare the selection of the indicators for the IFAD indicator study and the possibilities of the data supply on small-scale level in the DART partner regions, **a work discussion took place in September 2010 at EUROSTAT in Luxembourg**. At this discussion were representatives of EUROSTAT regional statistics (Directorate E 4: Regional statistics and geographical information), IFAD, the counties of Brandenburg and Saxony, as well as three colleagues from Finland and a colleague from Holland took part. After evaluation of first data supplies for population from the DART partner regions by IFAD, the result of the workshop referred to the following:

On certain regional levels of the European Union member countries (above all NUTS I and II there are search possibilities on the homepage of EUROSTAT) EUROSTAT regional statistics can provide data for population, for health, for the level of education and training, for employment etc. **However these levels are not relevant because of their territorial and population size for the DART project and the investigation areas designated by the regions.**

It was found that EUROSTAT on the NUTS III level (and these or still smaller spatial units it acted in the IFAD analysis) only certain population data, **i.e. with EUROSTAT no data collection for population, social, labor market below the NUTS III level for individual member countries**. Also the LAU levels of the regional EUROSTAT statistics are not usable for the project, since this in regular intervals are divided again and thus the formation of longer statistic series necessary for the DART project is not possible. Thus the DART partner regions selected in each case for its investigation areas were dependent on the appropriate national statistics and regional statistics, and had to investigate the necessary data locally. In addition, the quality of the necessary annual segments were very problematic, and appropriate consequences of the content and scheduled treatment of projects by the IFAD were noted. (Refer to the appropriate places in chapters 3 and 4).

The following is an overview of the state of the data supplied. It must be pointed out that it came during the data retrieval (particularly to the indicators of labour market, education and health) with nearly all DART surveyed areas experiencing substantial temporal delays. The indicator complexes (aggregates) in the various European countries taking part in the DART project (the following to be presented in detail), were tested by the IFAD. However, despite substantial national specifics (e.g. different statistic logging systems on small-scale level, differences in the indicator definitions, data acquisition only on a county level etc.) , nearly all DART partners could handle the majority of the indicators well. ***Only in this way was it possible to represent comparatively demographic processes of change in 13 European investigation regions from 11 countries.***

**Dates and conditions data supply by the DART surveyed areas**

<b>Deadline</b>		<b>25.01.2011</b>	<b>18.02.2011</b>	<b>13.04.2011</b>
<b>Region</b>	<b>Demography</b>	<b>Job Market</b>	<b>Education</b>	<b>Health</b>
<b>1.Uckermark /State of Brandenburg / DE</b>	✓ (IFAD)	✓	✓	✓
<b>2.Görlitz/ Free State of Saxony / DE</b>	✓	✓	✓	✓
<b>3.Roscommon/ West Region of Ireland / IE</b>	✓	✓ (West Region)	✓ (West Region)	✓ (West Region)
<b>4.Kutna-Hora/ Central Bohemia / CZ</b>	✓	✓	✓	✓
<b>5. North-Karelia / FI</b>	✓	✓	✓	✓
<b>6. Kainuu Region / FI</b>	✓	✓	✓	✓
<b>7.Ourense/ Galicia / ES</b>	✓	✓	✓	✓
<b>8.Parkstad/ Province of Limburg / NL</b>	✓	✓	<b>Info/ Not supplied</b>	<b>Info/ Not supplied</b>
<b>9.Rovigo/Veneto Region/ IT</b>	✓	✓	<b>Not supplied</b>	<b>Not supplied</b>
<b>10.Waldviertel/ Lower Austria / AT</b>	✓	✓	✓	✓
<b>11.Upper Carniola/Slovenia /SI</b>	✓	✓	✓	✓
<b>12.Klodzko/Lower Silesia/ PL</b>	✓	✓	✓	✓
<b>13.Alba/ Centru Region / RO</b>	✓	✓	✓	✓

**Tick** = Data receive (only entrance proof, no statement for the quality of the data)

**Info** = Information about delay in the data supply and inquiries (without data supply)

**DEAD LINE for all subsequent deliveries: 31.05.2011**

**Last data supplies: 13.07.2011 (Waldviertel Education), 14.10.2011 (Rovigo Job Market), 07.11.2011 (Kutna-Hora Health), 17.01.2012 (WRA Demography, Roscommon has changed its region, now WRA is taken as a whole)**

**Data for 'Rovigo' 14.10.11 (job market), 'Kutna-Hora' 07.11.11 (health) and WRA 17.01.12 (demography) were not yet incorporated into the 'portraits'!**

## **Indicator selection - theoretical and rational breakdown**

### ***Theoretical background of the indicators:***

In order to be able to depict, describe and measure evaluated data for the demographic changes in the DART surveyed regions involved in the context of the IFAD indicator study, the DART project data records were evaluated. These were made available by each individual DART partner region (see dates and conditions DART investigation regions) in the period between August 2010 and January 2012. This data usually referred to the years 1993/95, 2000, 2008/09/10 and could be compared to some extent to their development. They contained data/statistics in the following groups of indicators <sup>4</sup>:

- **Demography** (including population levels, density, gender, age groups, youth and elderly quotients, births and deaths, households and families, migration, forecasts),
- **Job market** (including active employees for each industry, jobs, employment ratio, women in employment, older workers, unemployment),
- **Education** (including child care, after school care, training and students, education of the population, participants in vocational and further education training),
- **Health** (including mortality, hospital cases, workers employed in the health service, causes of death).

Each DART partner country designated a county region for this analysis (usually smaller territorial units, like e.g. districts, the below NUTS III level )<sup>5</sup>, which are particularly affected by population contraction and ageing processes in the opinion of the project partners involved. The selection of the indicators was based on the current conditions of scientific discussion and coverage of basic processes of demographic change in Europe. ***Sociologically, the following theoretical framework was the basis of the indicator study:***

**Indicators** convey or indicate certain information. **Parameters** are primarily used to describe the condition of circumstances (**Indikandum**) or complex systems or processes. For the range of the demographic change, IFAD analyses the following **indicator definition:**

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<sup>4</sup> See also section ' IFAD demographic and social indicator set – statistic-empirical basis of the description of contraction and ageing processes in the DART regions'

<sup>5</sup> NUTS (fr. Nomenclature unités territoriales statistiques; ' nomenclature of territorial units for statistics') refers to the hierarchical scheme for the clear identification and classification of the spatial units of the official statistics in the member states of the European union.

**Demographic indicators** are statistically measured or calculated, i.e. ultimately observable, quantified population indices, that allow purpose-orientated **indicator system** statements about the condition and development of a population in a regionally definable unit during a certain period of time.

**Data produced by quantitative measurements at specific time intervals**, and measured by such indicators that is in relevant to theories or hypotheses, (e.g. the demographic change in a certain region) are to be examined. **Social and demographic indicators, which were analyzed in the DART project, are in this sense statistic instruments**, which make it possible to measure **the level and the temporal development** of fundamental social circumstances, problems and process of change (e.g. demographic change processes by ageing and contraction of the population numbers, changes in the employed labour force, the unemployment ratio, the mortality rate etc.). Simply, precisely, clearly and meaningfully these indicators must always correspond to a stable definition, and are usually related and spatially limited to a time course (e.g. country as a whole or based on municipal administrative units, such as federal states, districts, boroughs, administrative districts). **Demography and social indicators** should permit both a summarized representation of the fundamental data, which underlines their significance, and allows a detailed presentation (e.g. after gender, age or origin), which bears witness to their refinement and increases the quality of the available information. The ranges, like their definitions, are determined by social indicators, and are different in the individual European countries. In Germany, such dimensions are recorded, like the population trend, social structures, income, the job market, the education system, the transport system, the housing conditions, health, various forms of activity in social life, environmental conditions, public safety, living conditions within the leisure range etc. It describes both the objective conditions and the subjectively experienced quality of the life of the inhabitants. Currently, about 260 indicators (approx. 900 time course), which go back in some cases into the 1950's.

**EUROSTAT, as the statistic authority of the European Union**, recognizes these and other indicators for each member country on the county level (on the levels NUTS I to III) and certain definitions based on these indicators. These definitions found in the IFAD indicator set, were tested in the DART project, such as demography and social indicator definitions from the German social and regional reporting and observation of regions. However, with EURO-

STAT, generally neither demographic nor social data are available for smaller regional units (below the NUTS III level), so that appropriate indicator systems (population, job market, education, health) could be described only on the basis of selective national data (only, if they were available in the respective national statistics)<sup>6</sup>

***Social indicators (or demographic indicators) are thus measuring instruments of the social sciences or the demography***, with which quality of life, overall health and development operations in certain territorial units of a country (in demographics, above all, natural and spatial population trend) can be quantitatively compared with other countries and areas. ***Application of social reporting and socio-demographic observation of regions*** and, derived from that, the establishment and enhancement in the political area, municipal planning, and general public interest, exists in different regional levels.

Accordingly for the DART project (indicator study) ***only such indicators*** in the following specified groups of indicators were selected, examined and tested. These were ***available, usable and comparable*** for the demographic processes of change in the 13 DART surveyed areas.

***Substantive background of the indicators:***

***Content is based the IFAD indicator study particularly on the following considerations:***

- Decrease in population, ageing, shift of the age structures and the age distribution of the population; changes in household composition; separation and internationalization mark the future demographic development of Europe. Each of these trends and demographic development perspectives presents different social challenges, whose dimensions are closely related. Ageing in the European states very significantly affect the economic competitive ability and the quality of the public services for existence on regional, and in particular, on small-scale level<sup>7</sup>
- The ageing of the population, i.e. the absolute increase of the number and the ratio of elderly and senior people in the population and thus a shift between the age groups can be observed

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<sup>6</sup> This includes among other things: European Commission, Eurostat, statistics, statistics by topic, meta data, concepts and terms, glossaries and thesaurus: [eurostat.ec.europa.eu/portal/page/portal/statistics/themes](http://eurostat.ec.europa.eu/portal/page/portal/statistics/themes); European Commission: Sustainable development in the European Union — 2011 monitorings report of the European Union sustainable development strategy, Luxembourg: Publications Office OF the European Union 2011

<sup>7</sup> The regionalised population predetermination of Eurostat for the period of 2010 to 2030 is evidence of the spatial heterogeneity and diversity of the demographic change in the member countries of the European Union. It is judged on a European level as absolutely necessary to observe demographic processes of change exactly and on the basis of an accurately analyzing comparable and co-ordinated data bases. It is necessary to arrange the European statistics for demography to focus and adapt to the current and future requirements. See also: Proposal for a regulation of the European Parliament concerning European statistics on the Demography (text of importance for the EWR), EUROPEAN COMMISSION, Brussels, the 20.12.2011, KOM (2011) 903 finally, 2011/0440 (COD).

everywhere. This is reflected in the age pyramid (particularly as consequence of the continued increase in life expectancy) as well as due to the sinking birth rate under the natural reproduction level, reducing at the same time. The elderly quotient, the number of (at least) 60 year olds relative to 100 persons between 20 and under 60, achieved high ratings in recent years in many European countries and regions.

- All available, including small-scale population forecasts, which could be evaluated in the context of the DART project, show that ageing in all regions will continue. Their growth depends on various combinations of the birth rate, mortalities, as well as the age-specific selectivity and migration. Thus above all young people move away, e.g. from economically underdeveloped, particularly rurally affected regions, in search of training or jobs. Thereby, in fast growing and economically attractive areas, ageing is absorbed and can positively affect the number of births. There exist differences in the intensity of ageing between conurbation areas, urban densely populated areas and rural areas, and also between regions with comparable settlement structures. However, the ageing process in the migration areas accelerates in each case.
- Regional contraction of the population numbers and ageing of the population reduce the existing workforce, in particular the younger adults. Besides ageing in areas with low population density endangers the quality of life of the people, since in rurally structured areas (as in urban densely populated areas and cities) the sustainability has been reduced in among other things: technical, social and cultural infrastructures, systems for public as well as private services. Besides problems arise to existing services as a result of the larger distances between the different locations.
- All available reputable findings and successful examples from different countries in the European Union show that the challenges for demographic change vary for regions with completely different economic, settlement and also geographical structures, and that general recommendations for action can be difficult to formulate and provide ('demography catalogues which can be processed ' for local-politically responsible people.). ***A goal should be primarily, realistic, statistically accurate, updateable, small-scale demographic survey and be a gradual regional co-operation and co-ordination.***

***In addition the following be used:***

- Creation of an awareness at regional level with all participants from politics, administration, economics and free working groups as well as with the native population;

- Building and development of communication structures, which allow for information experience exchange to be possible and for information between the different participants over the regional strengths, weaknesses and development potentials;
- With co-ordinated aims for future regional development (in accordance with fundamental demographic perspectives) then concrete action concepts can be derived and in different forms be institutionalized as 'good' or 'best' practice examples, and 'pilot projects' can be successfully examined to communicate and generalize.

### **Indicator selection – fundamental methodical remarks**

Before the following, tested indicators in the DART surveyed regions are represented, some fundamental methodical remarks are necessary.

Various **demographic observation and monitoring systems** for cities, green belt regions or regions in Germany (e.g. Berlin, the environs of Berlin-Brandenburg, Cologne, Dresden, the environs of Dresden) work today with a variety of indicators to describe the demographic and social situation in the observed small-scale areas and national regions, and strive for a core indicator set to classify and use. Here significant problems are not overlooked with the sifting, supply and standardization of the necessary demography and social data, in order to be able to describe fundamental demographic development processes, in particular processes of demographic change, (like population contraction and ageing of the population age group, gender specific in their time period and perspective). **One does not have to explain more about what challenges were spreading a national comparative pilot project (one located in the indicator-based analysis of the demographic change in 13 regions from 11 countries of the European Union).**

In the course of the project, and in the treatment of projects by the IFAD, it was confirmed once more that with the DART part of the project 'indicators demographic change' **new ground was entered, in particular by its total sociological and international scale.** IFAD could not rely on any corresponding scientific or evaluable statistics in advance. There were no reference projects using the European yardstick for application indicators brought and examined for the description of fundamental processes of the population trend in highly different regional structures. Also not for corresponding particulars 'spreading' demography indicators (for instance in the form of a formula, that sums up the key criteria). In addition, that the **comparative aspect** between the most different DART surveyed regions, which

were involved in this project represented one of ***the most important basic building blocks*** of the indicator study and the regional portraits which are based on it. Therefore the criteria that data must be available from all regions involved and evaluable, was absolutely relevant for the project's implementation.

The process of the data evaluation showed ***that the real processes of statistically detectable ageing and contraction are differentiated in the individual European regions which took part in DART project*** in such a manner (there are different types of contraction and ageing processes in different combinations - also the triggering causes) that it would be not scientifically justifiable to illustrate with only few, simple, meaningful indicators, the degree of the demographic change. Therefore it was vital to IFAD in the project to select relevant group indicators (-sets, -complex) to set up and test, which made it possible to measure the demographic change comparatively in European surveyed regions (in the period between 1993 to 2008/9) and to classify (clusterings, represented in chapter 4). ***For this the IFAD compiled amongst other things:***

- ***Indicator sets for the ranges of demography, regional job market, education and health***
- ***Regional data bases for the interpretation of small - scale data,***
- ***Updateable demographic 'early warning system' in form of the DART monitor for each region,***
- ***Region portrait for the demographic change in each region (see 4.2)***
- ***Comparison of demographic changes between the DART regions (see 4.3)***

From a scientific point of view and in evaluation of national research projects on the demographic change and different adaptation strategies to this is in different countries in Europe and in the Federal Republic, it allow ***a multivaried approach locally***, a qualitative and quantitative estimate of the situation to make the causes and the future course of the demographically induced changes in the individual regions and compare these European-wide.

***A function beyond this description, analysis and forecast possibilities of the indicator set, i.e. an analysis of the effects of political actions and measures on developments of these indicators*** may not be represented scientifically in the context of this project. Statements about the impact and sustainability of political influences on the demographic change in different European countries, generally require the attention of normative requirements and benchmarks of each policy. That was however not the subject of the IFAD indicator project, but the development of an indicator set for the description, analysis and forecast of the bur-

dens of population shrinking and ageing small-scale regions in Europe. For such a requirement beyond ***that interval (panel), analysis would be necessary***, which requires at least two investigative processes with a sufficiently long time (2-5 years) in order to make empirically reliable statements. This was not achieved in the DART project part of IFAD, but should receive attention in resuming analyses and investigations.

***The groups of region indicators, like those in the brief portraits of the individual DART regions for application, were on the basis of individual regions supplied with the evaluated data (see chapter 4), are a scientific and empirical core of the IFAD portion of the overall project*** and serve as the indispensable basis for all further (possible) analysis steps, so the evaluation ‘ of the good practice of projects ‘ regarding their relevance for the respective region and their final assessment of these in the light of the determined standards of the public services for existence in population shrinking and ageing regions.

***It is also emphasized*** that it is in the edited primary data which was evaluated in ***a European demography project for the first time in this way. In this sense it represents a new approach in the analysis of demographics in Europe represent a new approach in the region portraits and in the comparison of the regions underlying the demographic and social change in its form and compactness of analysing the demographic change in Europe:***

## **Indicators of demographic change**

### **IFAD demographic and social indicator movement - statistical empirical basis for the description of contraction - and ageing processes in the DART regions**

#### ***Demographic ageing:***

Demographic ageing occurs when there is a rising proportion of older people to a declining proportion of the younger population. The median age of the population increases. The reasons for this development are: fertility, increased life expectancy or the migration of younger people. Demographic indicators that help to measure these processes, to describe and predict, characterize the demographic change in a specific regional unit - under the DART project in the respective investigation of the partners involved (see this especially the chapters 4.2 and 4.3).

#### ***Population decline or shrinkage:***

Basic process of population decline is the change that reduces the population size between two dates (or between other relevant units of time) as a result of births, deaths as well as migration. Demographic indicators that are designed to measure these processes of spatial and natural population dynamics, to describe and predict, characterize the demographic change in a specific regional unit - under the DART project in the respective investigation of the partners involved (see this especially the chapters 4.2 and 4.3). Usually population shrinkage entails the ageing of the population.

#### ***In General:***

Only the small-scale, complex and specific time intervals (Panel surveys) full application and evaluation of indicators of both the demographic ageing and decline in population (as well as selected indicators of social participation and quality of life) guarantee a largely accurate description of demographic change in a particular region, and can lead to practical and effective local political measures to cope with the consequences of change and proactive policy planning.

**Indicators for the measurement of demographic change (this only makes sense as a panel survey in the course of time)**

- **Total population:** This indicator provides information on the fall or rise of the absolute population over a given period of time, *i.e. shrinkage or growth trend of the population level on a micro level.*
- **Population by gender:** This indicator provides information on the shift in the gender ratio in a given period, particularly relevant in the elderly sector, as there's a surplus of women due to higher life expectancy, *i.e. the tendency of an ageing population level on a micro level.*
- **Number of foreigners / proportion of foreigners in the population:** This indicator provides information on the changing of the ethnic composition of the population as well as the change to the absolute population of a region, *i.e. shrinkage or growth trend of the population level on a micro level.*
- **Population density / population per square kilometre:** This indicator refers to the change in its values of *a shrinking trend or a growth trend in the population.* The population density is the number of residents per unit area (usually the number of inhabitants per square kilometre). For specific calculations (such as land area only), certain parts of the ground surface can be excluded from the calculation. Thus, only the actually used and populated areas are taken into account.
- **Gender age structure of the population:**

This indicator describes the age or gender structure of a population, i.e. the number or the percentage of males and females in the age groups as well as the share of individual age groups in the population. It is the result of the sum of the demographic events (such as births, deaths and migration - see also the indicator for spatial population movement) in the previous years. The observation of the age and gender structure of a population is important for the current description, as well as for forecasting demographic trends and thus to represent the demographic change (the change in the gender structure, such as the increase in the share of women in older age groups, points towards a gender-specific ageing, whereas a higher proportion of men in younger age groups refers to gender-specific migration). This indicator provides a total of statements referring to the change in the age structure of gender / age groups of the population and of the relationship between the age groups, i.e. the structures between the individual age groups of the population at specific time intervals. The demographic changes it shows include:

- **The "thinning"** or the reduction/ increase of the proportion of young/ reproductive age groups in the population,
- **The increase or reduction** of the old / the elderly / non-reproductive age groups in the population,
- **The decline** in the number of pupils / the number of trainees / the change in the proportion of older workers in the workforce in a region
- **The development of the youth quotient** (generally the number of persons under the age of 15 to 100 persons of working age (15-65 years) and **the elderly quotient** (generally the number of persons over 65 years of age to 100 persons of working age). The youth and elderly quotient is **the total dependency ratio** (including the dependency ratio, the ratio of economically dependent age groups, i.e. people who do not or are no longer of working age, to the population of working age) indicates the shift in **ageing**.

The data **for the gender-specific age structure of the population** forms the basis for the indicator: **speed or duration of demographic decline/ contraction of the total in the region and by age group and gender in the region:**

**Requirements for this indicator:**

- Relevant age groups must be comparable to present: eg, age groups under 6, 6 to 15, 15 to 20, 20 to 45, 45 to 65, 65 and older,
- Consistent year sectors for each region must be present: eg, 1993/95, 2000, 2007/8, 2010 (or latest data).

**If these conditions are met, they can be as calculated and compared:**

- Absolute and percentage decline in population numbers in the **individual age groups** between the individual year sectors and the total (**age-related shrinkage**)
- Absolute and percentage decline in population numbers **by gender** between the individual year sectors and the total (**gender-based shrinkage**)
- Reduction of the different population figures between the year sectors or **selected time intervals (shrinkage rate)**.

- **Migration:** This indicator (also migration and spatial population movement) measures the spatial mobility and spatial relocation of people over a certain minimum distance and for a certain minimum period to establish a new permanent or temporary residence. Depending on the considered spatial unit (country, city, region, municipality), a distinction is made between internal and external migration. While internal (domestic) migration within the regional unit takes place (eg moving within a city, within a district, within a province) external (international) migration beyond the limits of the considered unit also occurs. This indicator refers to the **net balance of the spatial population dynamics of mobility and stability in migration behaviour. This means a population growth or shrinkage trend.** The most important components of this indicator are internal (domestic) migration, external (international) migration, age and gender structure of migrants, net migration (migration balance).

**Indicators to predict demographic changes (only useful as a panel survey in the course of time and can not be separated from the indicators to measure the demographic change)**

- **Population projections** (including population projections and population estimate)  
  
The indicator for population projections represents an age and gender demographic method in which, based on a known structure, uses assumptions about the known future development of fertility, mortality and migration in a population. In most cases the calculations use a cohort component method. The calculations are performed for various scenarios or options (depending on whether a high, medium or low 3 value for the observed demographic indicators is assumed). This indicator points to anticipated shrinkage trends at a regional level, **decrease in population and growth trends, population growth now** and also other listed indicators relevant for urban planning and objectives in certain periods, for infrastructure and economic projects and conversions, etc.)
- **Fertility:** This indicator measures **the number of actually realized births** (birth rate) a woman, a couple, a group or an entire population. A general demographic dimension of fertility and age-specific fertility rates, as well as the total fertility rate (TFR) can be calculated. An increase or reduction in the TFR can be explained by quantitative population changes (shrinkage trends or growth trends), where always such indicators, such as **the age of the mother having her first child** (increase in age = deferral of starting a family = lower birth rate in the reproductive age group = **reduction of the younger generation** = shrinking population), but also mortality and migration are considered.
- **Mortality:** This indicator puts the number of deaths in relation to quantitative population size in a given period and measures the mortality rate as the number of death per year per

1,000 persons or 10,000 of a population. Reduced mortality / death rates has an influence on the increase in the average age of a population or the average life expectancy (**Ageing** of the population in demographic change).

- **Net balance of the natural population dynamics** (including a surplus of live births or deaths): This indicator shows the relationship between fertility (number of births) and mortality (number of deaths), of a population surplus of births or deaths in a time interval in a surveyed region. **A constant death surplus** over longer periods of time (usually in combination with an increase in the age of mothers having their first child and a negative balance of spatial population movement) adds to the **shrinkage** of each analyzed population.
- **Life expectancy:** The average number of expected years of life of a person is measured by this indicator under the assumption that the current age-specific mortality rates remain constant. Increased life expectancy is in addition to the traditional lifestyle (e.g. nutrition, geographical location etc) mostly an expression of the development of high-quality living conditions, in particular in the social and health care, but also in medical progress. The life expectancy is given either for the newborn (life expectancy at birth) or for a certain age (remaining life expectancy, the number of expected years of life yet). The shift in the age structures of the population in the respective surveyed regions in the DART project leads to an increase in the proportion of old and elderly people in the population in the period under review, and clearly shows the **ageing of the population** in addition to improving life expectancy in several European countries as a fundamental process of demographic change.

### **Indicators for the classification/clustering of the regions in demographic change**

- **Quantitative data – Total population:** An indicator for measuring the decrease or increase in the absolute number of the population at specific time intervals (annually, etc.).
- **Cluster: Using cluster analysis** (also urban analysis) are **similar structures** in large databases searched and found. The found groups of similar objects (in the context of the DART analysis similar regions in terms of the size of population decline or population growth) are referred to as a cluster (the same group associated objects or regions should have a high similarity). This indicator describes the quantitative extent of change in population size (e.g. very sharp decline, strong decline, decline, stagnation, growth, etc.) in a given period. **The clustering (i.e. in the DART project the group is defined by types / sizes of contraction / or growth regions of the population)**, the formation of order in the region, the comparison of individual regions from different clusters can all be used.

### **Indicators to measure social participation and quality of life in an ageing regions**

- **Household structure / size of household:** This indicator shows the quantitative changes in the composition of households over time and points to tendencies of **loneliness, separation and social isolation** due to the decrease in multiple person households and the increasing dominance of single person households.
- **Marital status of persons in private households** (single, married, widowed, divorced): In combination with the change in the household size this indicator may also show "separation and isolation tendencies", with a growing proportion of singles ("single households") to multiple person households. A growing proportion of widowed women (generally in all DART study regions there was a higher life expectancy for women) is an expression of gender ageing (see also indicator gender ageing) and entails appropriate consequences in terms of quality of life of these people in the old age (loneliness, social isolation, maintenance and support costs etc).
- **Education, training by age group:**
  - **Education/educational structure by age group:** This social indicator may among other things may indicate needs and opportunities for age-specific education / training / qualifications / further education. It shows also the current use of the educational potential of older workers and refers to its development in an ageing society.

- ***Student numbers and number of trainees:*** This indicator refers to changes in fertility and the declining birth rate, and also on the school and educational consequences in the municipalities / regions.
- ***Participation in the labour market:***
  - ***Percentage of employees/workforce per sector of the economy:*** This indicator provides information on the employment structure and changes in the respective municipality / region of investigation, and on new areas of employment for an ageing working population by economic structural changes, ***including future opportunities for the employment of older people.***
  - ***Job development in recent years:*** Job gains and job losses shows ***economic dynamism*** and growing insignificance of individual sectors in the study area, eg. agriculture).
  - ***Workforce / employment rate, labour force participation, economically active population, employed workers, self-employed persons:*** These indicators document the development of the ***participation of the population in the labour market*** and the regional economy as an essential basis of social participation and quality of life
  - ***Female participation rate:*** The state of women's employment and the ratio of the employment rate for men and women give important insights into the ***integration of women in the labour market and the reconciliation of work / family / parenting.***
  - ***Employment rate of older workers:*** This is an important indicator of social participation in ageing societies. It shows the ***opportunities for older people in employment or in the regional labour markets*** and thus the use of relevant experience and education potential of older people able to work.
  - ***Unemployment:*** The labour market indicator, in particular the exclusion from the labour market of certain age groups and ***is illustrated thus by the need for social benefits or supports for the under 25s and over 50s.*** In this context, the indicator of ***long-term unemployment illustrates the long-term exclusion from the regional labour market and thus sustainable wear and tear of human capital in the age groups*** that have a special relevance for demographic change.

- **Health:**
  - ***Number of deaths by gender / causes of death:*** The development of gender-specific deaths relies in particular on advances in public health and age-related health care and nursing. The analysis of the causes of death among other things indicates problematic living conditions and deviant behaviour in the regions of shrinkage, ie alcoholism.
  - ***Human resources development in the healthcare sector:*** This health indicator shows the acceptance of a health policy in a demographically changing society / region, and the personal consequences in the healthcare sector due to a higher life expectancy in ageing regions

### **Indicators of demographic change – conclusions**

Demographic change is not a "normal" structural change, but includes all aspects of life of the affected societies and is thus also **comprehensively policy-relevant**. The examination of the analysis and predictive capability of the selected indicators in the context of which, in sections 4.2 and 4.3 presented portraits of the European regions in the DART study, leads to some policy recommendations for the design of demographic change, **in particular the need for a continuous data-driven regional examination and action**. Already in various places of the IFAD analyses in the DART project (for example, see Chapter 3, section 3.1) it was pointed out that a regionally differentiated approach to the complex processes of ageing and shrinking, and their impact in the demographic change, is absolutely necessary in responses for the policies on demographic change (State and local government). In addition, it was made aware that currently there are barely sufficiently available EU statistics related information and data bases for the regionally specific processes and requirements of demographic change to meet or to reproduce them. Eurostat, its data and forecasts for the demographic change, mainly refers to higher levels, as large regions or countries as a whole. However, IFAD data processing of provided statistical material from the DART study regions shows that demographic, labour market and social data on the ground, in the regions, should be prepared so that they allow a realistic assessment of the current and perspective situation in the respective study area. The following questions may help here:

- How does the demographic change and the current demographic situation affect the region / municipality / district, etc.?

#### ***Continuous inventory!***

- On which issues of demographic change must the region / municipality / district, etc. focus and concentrate?

#### ***Realistic focusing!***

- Which instruments / measures / projects should be used in the active design of basic demographic processes in the region / municipality / district, etc.?

#### ***Practical feasibility and relevant measures!***

- Which partners, networks, partnerships must work together in shaping the demographic future in the region / municipality / district ?

### ***Concentrate management competence and join forces!***

- How will the region / municipality / district look in the future and what should the measure of demographic change be?

### ***Visions of the future venture!***

The aim is to strive for a uniform regional reporting based on a demographic indicator set that gives the possibility of comparing territories, areas (such as parts of the country, districts, municipal units) and regions of the country, generally. This is one of the most essential basic conditions (and basic findings from the empirical part of the DART project), both at state level, as well as views of the affected regions to test flexible adaptation of demographic developments in pilot projects and to generalize.

The prerequisite for this is the deployment, testing, and continuous updating of the differentiated statistical information and data that can be used for regional benchmarking and monitoring. The following is to be recommended to the regions:

- ***Development and maintenance of small-scale demographic databases*** (such as the IFAD indicators presented in the chapters 4.2, 4.3, 6),
- ***Maintain and update a data monitor*** which makes visible demographic development processes at specific time intervals (see IFAD DART monitor/data matrix, which all partners were provided with in December 2011),.
- Because informed political and communal decisions (for example, economic, educational, social, infrastructural and health policies) require also ***small-scale, disaggregated population projections*** (divided into small areas) on a regional, municipal or district level, inaccuracies usually increase in the forecast if the considered space is small, so it is to be recommended to continue such forecasts at regular intervals and check. They can provide a basis for the development of regionally differentiated strategies.

***Regional benchmarking and monitoring provides the basis for some basic policy recommendations and conclusions in dealing with the demographic change in their respective regions and in dealing with its consequences and use of his opportunities. Some are mentioned here:***

***Change of policy understanding necessary***

The current understanding of politics oriented mainly to growth shall be supplemented by a paradigm of the shrinkage and rebuilding. The controls aimed mainly at the distribution of growth no longer meet the challenges of the demographic shrinking process. Rather processes of decommissioning, stabilization, revitalization and quality of development should be designed. It is necessary to check this still one-sided orientation of regions and local authorities for growth. Regions with a declining and ageing population must adapt to changing development concepts, infrastructure must remain affordable and available for a numerically diminishing population, and regional development plans must take into account appropriate needs of a smaller number of people. This does not mean to invest less, but differently. The questions of the development of economy and local communities with shrinking population and strong regional disparities are of a qualitative nature and not primarily quantitative issues.

***New models and plans***

Policies and plans should focus on demographic change. The coexistence of growth, rebuilding and shrinking processes calls for flexible solutions tailored to each region. This has the effect that appropriate policies at regional and local level must be revised or newly formulated, as an integrated regional adaptation and development strategies on the requirements of demographic change to align them. Many of these plans had been created at the time when the problems of demographic change (shrinkage) had still not penetrated enough into the public consciousness.

***Regional-oriented strategies and scenarios of future development possibilities***

Due to the spatially differentiated effects of demographic change, strategies based on regional characteristics and spatial differentiations are required.

The economically dynamic centres must be carriers of the transformation. These centres are to assist in their development according to their functional significance in the region and the accessibility for the residents of the surrounding rural areas in these areas is to improve. Economic centres should form a viable network in terms of their supply role in the area. Realistic potential for development in less-favoured areas (strengths and weaknesses analysis) should be identified and supported. Flexible solutions require tailoring to regional, inter-agency funding policy and regional budgets (e.g. for infrastructure) also from the EU. New, integrated adaptation and development strategies for regions and local authorities should, starting from an analysis of the situation (see above regional benchmarking / monitoring), develop and reveal scenarios of future opportunities. Besides, the desired objectives, as well as the necessary measures, must be determined and supervised continuously by a monitoring system.

***Demographic change is a cross-section theme – a range of protagonists necessary***

In the horizontal and vertical political structures of the countries and regions, the view must prevail and harden the demographic development and the fundamental changes that are a cross-section issue of the respective regional politics. Only then can the long-term risks of demographic change be counteracted in time, and the inherent opportunities be recognized and used. For this purpose, it is necessary to provide also uncomfortable truths and to take all the facts and reliable data on the different levels of state and local politics into the public debate. Only when politicians, the general public and citizens accept as an irreversible structural fact that the diverse processes of the shrinking of the population and the ageing of the population have an impact on regional employment markets, communal and social infrastructure or on important areas of the municipal services of general interest (such as water / sewage, technical infrastructure on energy and communications, public transport, customized design of primary care and social services, social infrastructure with particular reference to the citizenship, generational design of important living conditions, requirements for maintenance, changes in employment and corporate structures, new demands on education, including education and training.), only then can appropriate responses be developed. Adaptation and action strategies in the demographic change, strengthening especially shrinking regions in rural areas, as well as the maintenance of solidarity between generations, etc., test the existing structures are just and can cope throughout society, regardless of adminis-

trative boundaries and legislatures. This is a targeted communication and coordination of a widest range of activities, and protagonists from national, local politics and administration, as well as socially relevant groups and volunteers are needed, which is accompanied by an expansion of existing networks.

### ***Identify opportunities and positive driving forces of demographic change***

At the same time it is to be emphasised that the challenges of demographic change are no justification for a unilateral negative view. Also opportunities and positive driving forces exist, which is a matter to recognize and promote (e.g. through pilot schemes in the context of DART "best practice"). Thus while fewer children are born or the allocation of the young age groups drops, a necessity for the simple reproduction of the population in most of the studied regions in DART, the structures move between the age groups. At the same time, although the population is older, life expectancy increases and elderly people stay healthy and productive for a longer time. Furthermore, prosperous conurbations, regions and growth centres continue to benefit from immigration movements, which can compensate for the low birth rate there.

### ***Special responsibility of regional authorities***

The investigations in the DART project point to the specific responsibility of regional and local authorities in dealing with the demographic challenges, in whose responsibility also regional benchmarking/ monitoring should be (as has been mentioned before). The towns and villages are particularly affected by the consequences of demographic change. Social problem groups, which increasingly tend to socially deviant behaviour and are receptive to political radicalism, are concentrated in areas with a special demo-social structures (such as above-average high proportion of elderly, surplus of men, lower levels of training and education, high levels of unemployment and social need). A major problem is that shrinking regions lose not only population, they lose particularly the young (especially in the age group of 20-55) and the female population (therefore also expectant mothers) and they lose generally educated people. Growing regions gain young and female population and people with an immigrant background. However, increasing integration requirements also arise from it. Shrinking regions, however, are not a target of migration, anymore so than growing regions. Here attention must be made to another, related problem for local and state politics: the future of care. Shrinking regions lose an active population disproportionately. The "old age

dependency" is not evenly increasing. Rather, the problem of the emigration of young people exacerbated the problems of the future support of domestic care for elderly - especially in the light of the private services in the home care sector. Thus the importance of the public sector will grow in shrinking regions.

***No competition between regions in demographic change - joint action is needed***

Certain political framework conditions are necessary for the successful management of the long-term challenges of demographic change in the individual countries as well as on the borders. These should relate in particular that there must be no "competition" in the demographic field. The promotion of unproductive competition between cities, towns and regions to more people, young people and professionals is counter-productive and must be avoided. So, such as so-called return actions are related to reject on young and fertile age groups or professionals from diverse economic and occupations, who have left the country or particular region in search for work and training places, better earning potential or for the realization of individual life plans a 'targeted' work or skill poaching from other regions. This is in particular because, as experience shows, the actual migration and reasons for leaving (like unemployment, lack of training places, problematic future prospects, "exodus (depopulation)" and so forth) can be influenced by such "actions" not sustainably positive or vice versa. Rather it must be objective, not only superficially or with "spectacular" actions to stop the brain drain, but by young people with good career prospects, attractive and affordable housing, interesting and continuing training opportunities, a reasonable child care, high-quality conditions for the compatibility of work and family life, to keep permanent modern social services, etc in the country and in the region. Young people need to have a clear professional and individual perspective.

**Larger and economically stronger regions and cities already attract more people with their advantages.**

This is done mostly at the expense of other cities and regions (especially rural ones), where the demographic situation there can still develop negatively. The higher levels of government should be involved very early on in the search for solutions and adaptation strategies. More than ever certain parts of the country, regions, districts and municipal associations will need to develop together and overlap, and cooperation to develop will be based on strategies. The whole of society is needed to be involved at an early stage in providing information

on the effects and consequences of demographic change in the design process, ensuring that all protagonists can tailor their action to this change in the territories of the living citizens.

### ***Countries or cross-regional cooperation is necessary***

Today, indisputably almost all countries in western and eastern Europe record demographic change with corresponding state and municipal strategies, work scientifically to accompany the change, implement model projects, and test economic, infrastructural, social and other measures. Also measures to counteract the effects and consequences of ageing and the shrinkage of the population and tracking on a spatial level in a timely and effective manner (see DART "best practice").

Because no country or any region perspective will manage these processes and developments alone, we assume that it should become part of a country - or cross-regional cooperation adaptation strategy in terms of dealing with the consequences of shrinkage of migration and the ageing of the population (especially in the rural areas outside of urban areas). A close cooperation between neighbouring countries or regions would be desirable. The cooperation between the regions in the DART project offers innovative, sensible, meaningful and useful starting points for this and should find in this or in similar forms a continuation.

### ***Organize state or regional associations or agencies for demographic change***

The basic task of such associations or agencies should be to give active, detailed citizen-based co-operation in dealing with the various issues, problems, consequences and implications of demographic change, and at the same time make use and propagate the potential and the opportunities of this profound structural changes in the various municipal structures of each region in the EU (where they do not exist yet - in some German Federal States such different agencies or government staff or departments of chancelleries work already). These forms should inform, advise, demonstrate skills, represent, support and enable protagonists in civic engagement.

***The objectives in the work*** can be formulated as follows:

- Engaged citizens on the ground, protagonists and decision makers at local and regional level for demographic changes in the respective regions and territories raise awareness and support guide,
- Structures, networks and detailed cooperation between politics, administration, economy, municipal services and care generate among other things to areas,
- Solutions for problems to propagate effectively as publicity, interaction with similar agencies in other countries, organize and build corresponding interest groups,
- To be in general a demographic service provider for politics, economics and society at the different levels.

***As permanent tasks*** arise from this:

- Concrete and serious data and information collection and configuration with regard to demographic change in the different parts of the country and representation of their consequences on the most important fields of activity.
- Scientifically guided development of reporting, analysis and trend assessments to the demographic change in the respective regions and in small-scale consideration,
- Consultations of the provincial government, individual communities, social and local service providers and providers of business enterprises, social associations and organizations, non-profit organizations and others about issues of demographic change, responding to emerging requests, driving force in problem areas,
- Organization and support for a comprehensive exchange of experience between countries, communities, policy, administration and economy including through communal platforms of demography, demography forums, demography related conferences (see DART conferences) and others. Of great importance for the successful work of such pressure groups or agencies would be to build and integrate social work (e.g. by a permanent space monitoring and appropriate small-scale forecasts) into the network. To do this, it seems useful and appropriate to access national, bilateral and multilateral experience in the construction of indicator systems, databases, population projections and other demographic analyses (e.g. in the context of a socio-demographic portrait of different territorial units, such as municipalities, counties, regional associations, towns etc.) and to integrate.

## **Online-Survey: DART Standards of public services in the demographic change**

### **– Explanation: What is the survey intended to serve for?**

#### **First: Demographic change and public services – what is it about?**

Demographic change and its consequences, population losses and shrinking regions, less young, more older people, depopulation of regions, reduction or abandonment of technical and social infrastructure and other utilities in rural areas - these and other catchwords determined the discussions for the development perspective of many regions in Europe (DART). Incontestable and population-statistically provable fact is: The population not only in the Federal Republic, but in many European countries will continue to shrink and quantitatively thin out in the coming decades and become at the same time ever older, as also the data evaluation in contexts of DART clearly shows - this has various social and economic effects on the respective society.

The change does not only take place in rural and mostly structure-weak areas although its consequences occur primarily and partially drastically there. Also cities and their surrounding areas have to deal with the changes. Accordingly spatial disparities (shrinkage and growth regions) must be distinguished. Causes and consequences must be evaluated on all planning levels and ***standards (guidelines, regulations, standards, law defaults) of the social and local public services for the purposes of ensuring and securing basic living conditions*** for the respective population must be checked. These standards have to be fixed again if necessary and/or be re-introduced and enforced. Existing standards at EU and regional level in each country have presumably little or only limited use for the selected DART study regions with a shrinking and an aging population, since they are mostly based on population growth and usually not tailored for small areas (such as DART regions). Thus they can hardly meet the changed demographic situation in the regions.

In this sense, the possibilities and necessities for the maintenance or adaptation of comprehensive social and technical infrastructure as well as supplying the population with goods and services of general interest and daily necessities are significant aspects that go along with the demographic change in European regions. The following problem is this manner on the agenda:

***How can services of general interest and the preservation of the quality of life be ensured and be adapted to the demographic change considering the conditions of population decline and aging as well as the limited or reducing financial provision of the municipalities?***

The answer and comparative analysis of the issues listed in the questionnaire should provide new insights to.

***Second: Demographic change and public services - how are standards connected with evaluated indicators (selected examples for illustration)?***

***Indicators: Decline in birth rates / fertility change / less children and adolescents:***

***E.g. standards of...?***

- Care (children, students, young people),
- Education (learning, school, occupation, further training).

***Indicators: Aging/ older working-age population/ age-groups of very old/ medical supply/ nursing care:***

***E.g. standards of...?***

- Health care (doctors, hospitals, emergency services, rehabilitation),
- Elderly care (disabled, elderly, caregivers and facilities),
- Adjustment to changed regional job markets (qualification and further training, purposeful employment and promotion of older employees).

***Indicators: Ageing/ shrinking/ depopulation of territories and consequences for technical and social infrastructure:***

***E.g. standards of...?***

- Supply of goods of daily use (sale site density)
- Energy supply (environmental protection, alternative raw materials, sustainability)
- Financial services (social welfare assistance, basic social care, unemployment benefit, child benefit, housing benefit)
- Culture promotion (equipment, facilities, offers)

- Post, telecommunications, media
- Accessibility and transport (availability of central places, public transport, railway, road),
- Supply and disposal (long-distance heating, water, garbage),
- Living conditions (social housing, homes for elderly people and handicapped, multi-generational houses)

***Third: DART Standards of public services in the demographic change in the Federal Republic respectively in the state of Brandenburg – what we are talking about? (Examples for illustration)***

***Child care: Legal claim*** to a nursery place from the age of 3 until school entry age (§ 24 Social Code, Book VIII); Regulations in individual states partly beyond that, for example in Brandenburg: Children from the age of two years old to transfer to the fifth grade, children under the age of two years old and in fifth and sixth grade in case of employment or education of the parents (§ 1 Kita Law Brandenburg). The local youth welfare institutions for the public (district, urban district) set up the requirements schedule for child daily support in agreement with the non-public youth services and communities and update it. The requirements schedule identifies the need for facilities that are required to meet the legal claim (§ 12 paragraph 3 Kita Law Brandenburg). In the day-care centre laws of individual states also ***support ratios*** may be defined. Thus, in the state of Brandenburg one educator is to be provided for six children of the zero-to three-year-old and for twelve children of the three-to six-year-old (§ 10 Kita Law Brandenburg).

**Health care:** Health insurance companies and associations of statutory health insurance (SHI) physicians are responsible for **supply of doctors in private practice and emergency services** (*SHI physicians supply service guarantee, § 72 et seq of the Social Code (SGB), Book V*); an appropriate supply (inhabitant physician relation) is regulated in accordance with § 99 Social Code, Book V by the “requirement planning guideline physicians” according to the population density and the number of general practitioners or medical specialists in 10 different planning areas according to the systematics of the districts in the Federal Republic (Example: relation of general practitioners to inhabitants in rural districts of rural regions: 1 to 1.474; over supply > 110% = 1 to 1.340; under supply < 75% = 1 to 1,965, with specialists < 50%). Existing undersupplies are to be eliminated on the remuneration of the physicians. I.e. since 2009 the adjustment of the fees of the doctors in private practice takes place in the new countries (former GDR, East Germany). Since 2010 doctors in under-supplied areas receive higher payments than in the general case, whereas in over-supplied areas they receive lower payments. There also restrictions of permission are possible both against under supply in other areas and against over supply (§§ 100 and 103 Social Code, Book V).

It is the responsibility of the country, the districts and district-free cities (self-administration task) to **guarantee the hospital supply**. This is codified in the *hospital laws of the countries*. Primarily non-profit providers of private welfare organizations and private agencies serve as hospital operators. Districts and district-free cities can carry out the supply subsidiarily. This means they shall serve as hospital operators only in case of failure of free-non-profit and private hospital offerers (§ 1 exp. 2 hospital law country Brandenburg).

The emergency rescue within an appropriate period is task of the **emergency service**, all the same whether 5, 50 or 500 injured or acutely to supplying have to be treated. The response time amounts to 15 minutes (in 95% of the cases, if place of action is located on a public road). The districts (provider) plan and organize the land-based emergency service, with the implementation usually delegated. The provider makes rescue guards, rescue vehicles and other operational funds available to the assigned. The assigned one places the necessary personnel. The providers of the rescue service in the state of Brandenburg have also responsibility for the emergency medical care; hospitals have to provide medical professionals. In other countries of the Federal Republic the association of SHI physicians is in charge of this task. In order to be able to concentrate informations in case of large damage situations, the providers establish and maintain a fire-brigade, a rescue and a disaster control directing center as an integrated directing center. The directing center cooperates with the authorities competent for the contract-medical on-call service (out-of-hours service) (§ 75 para 1 sentence 2 Social Code Book V). In Brandenburg there are 5 regional directing centers at the locations of the professional fire-brigades in the four district-free cities of the country as well as in the city Eberswalde.

**Care/eldercare:** The home care and stationary care of elderly and disabled people is currently as follows (legally regulated in the Social Code, Book XI and XII): Of that at present approx. 2.25 million ones in need of care in the Federal Republic of Germany, about 68% are cared for at home, 1.03 million of them exclusively by family members and 504,000 by one the approx. 11,500 ambulatory hospital services. 709.000 ones in need of care (32%) live stationarily in one of the approx. 11,000 nursing homes. While in the group of 70 - to 75-year-olds each twentieth one (5%) is in need of care, the ratio amounts to 62% for the group of 90-year-olds and older. In particular due to the rising life expectancy the number of those in need of care is increasing not only in the Federal Republic. Life expectancy in Germany is currently 82.3 years for women and 76.9 years for men. It rises in both sexes by about 3 months per year, i.e. in four years for a further year. Countries, municipalities, nursing facilities and nursing care insurance funds are cooperating closely with participation of the medical service in order to execute the public tasks in the range of care and the standards of care.

**Labour market policy, employment promotion:** Apprenticeship (affirmative action), Second Labour Market: Targeted incentives for the unemployed, such as job creation schemes (ABM) of the Federal Employment Agency (BA), job opportunities with additional expenses (MAE), structural adjustment measures (§ 1 of the Social Code, Book III), Federal program for older unemployed ("*Perspective 50plus - Employment Pacts in the regions*"), recruitment of older workers to industry stimulated by BA with wage subsidies, training, retraining, further training, targeted integration measures for older workers to regional labour markets, promoted organized and funded by the regional government agencies for work or job center, etc.

**Further Training:** Further training laws and -regulations of the countries, e.g. further training regulation of the country Brandenburg. In accordance with § 1 of this regulation, the annually basic supply which is to be guaranteed by the districts and district-free cities of the country Brandenburg amounts up to 2,400 lessons per 30,000 inhabitants of their area.

**Public libraries** serve the further training. 30 percent of the German citizens use libraries. To establish and maintain libraries is a voluntary task of public services of municipalities and districts in the Federal Republic. Means of the local financial adjustment between the countries are to be used also for this. In addition each country provides funding depending upon its budgetary situation, e.g. also for driving libraries. These provide the people in peri-urban and rural regions.

## **Standards of general public services**

### **Expert opinions of the DART partners from the DART sub-regions**

**(Summarized results of the online consultation)**

**Poland / Lower Silesia / Klodzko County, Netherlands / Limburg / Parkstad, Finland / Kainuu, Italy / Veneto / Rovigo and Slovenia / Upper Carniola / Kranj could be not included in the evaluation because no opinions were expressed in these sub-regions)**

**Areas of general public services, which are important for the respective DART sub-regions in terms of demographic change.**

#### **Ireland/WAR**

Listed below:

**Road network:** Minor local road system in many remote, peripheral areas in the region by a diminishing population.

**Public transport:** Reduction of the population leads to reduced services in local public transport.

**Post offices:** Smaller post offices will be closed and services, such as in the larger urban centres, reduced for the people in rural areas.

**Police stations:** Police station will be closed and replaced by mobile monitoring (from the larger police stations located in cities).

**Health centres:** Decreased number of public health centres in the entire region, centres are combined and consolidated for the rural population.

**Schools:** The demographic change has an impact on rural schools. Young people attend school in the major urban centres, leading to closures of sites.

**Provisions:** Shops in many small rural villages close or curtail their services.

### Germany/Brandenburg/Uckermark

Future challenges are the key themes (Source: 3rd demography report of the state of Brandenburg):

***Mobility,***

***Medical and nursing care,***

***Education and professionals,***

***Public services - security and management,***

***Spatial development and (social) infrastructure,***

***Quality of life and social cohesion***

### Germany/Saxony/Görlitz

Strategic objectives of the demographic commercial concept of the Saxon state government:

***Improve conditions and income for work*** (keywords: reconciliation of work and family, human resources security, industry, craft, knowledge-based services, health, tourism etc),

***Promote lifelong learning and innovation*** (keywords: early childhood education, school development, qualifications, education and training, social and intercultural education expertise, research and development and so forth).

***Regional general interest back up*** (keywords: securing a good quality nationwide, accessible and diversified education system, ensuring a needs-based medical care, care for the elderly, nursing services, disability support, fire protection and emergency medical services, public order and safety, administrative services, high-speed internet access, transport links and public transport, transportation availability as a prerequisite for social participation, cultural infrastructure etc.),

***Promotion and strengthening of intergenerational collaboration*** (keywords: volunteering, public participation, intergenerational dialogue, funding and sustainability & so on.).

***Continue restructuring the settlement and supply structure*** (keywords: town and village reconstruction, eliminating the loss of function of buildings, assisted housing, security of supply and disposal, such as drinking water and sanitation etc.),

***Exploiting the opportunities of active ageing*** (keywords: retirement income, ageing in health, senior scouts, senior management, citizenship etc.),

***Create modern, sustainable management*** (keywords: implementing a comprehensive taskforce, expenditure and structural critique, focus on core tasks, increasing digitization etc.)

### **Romania/Centru/Alba**

Listed below:

***Health services,***

***Social services,***

***Education (initial training, education and lifelong learning)***

### **Czech Republic/Central Bohemia/Kutna-Hora**

Emphasis on:

the area of ***availability of services*** due to changes in the population structure (e.g. by ageing "from below and from above"),

***the area of education*** and its changes in relation to the demands of demographic change and

the ***area of availability of social and health services,***

### **Finland/North-Karelia**

Focus on:

***Services for the elderly,***

***Development of home care and outpatient services,***

***Minimizing institutional care,***

***Increase the efficiency of primary health care*** and the resulting reduction of demand for specialized medical care,

***Public transport services,***

***Information and networking solutions for sparsely populated areas and the development of online services.***

### **Spain/Galicia/Ourense**

These are:

***Education,***

***Health,***

***Social services and their availability and accessibility,***

***Energy supply,***

***Water supply,***

***Services***

### **Austria/Lower Austria/Waldviertel**

Areas are:

***Care facilities*** for the elderly, in particular mobile services,

***Day care and play facilities for children,***

Improvement of the "work-life balance" in particular for women,

***Public transport,***

***Retailers*** for everyday needs in small villages.

***Areas in the respective DART-region, in which the existing minimum standards of general public services are to be revised because of the consequences and effects of demographic change (ageing and shrinking of the population).***

#### **Ireland/WRA**

This in turn affects existing minimum standards such as ***roads, public transport, postal services, police, health and education***. All of these are affected due to the declining population in the rural areas of the region. Many rural post offices and police stations and their services were closed or moved into the nearby urban areas. Plans are under way to close many of the ***outlying health centres*** close and centralize them into larger sites.

#### **Germany/Brandenburg/Uckermark**

Basically, new approaches and methods in the organization of the ***infrastructure of public services*** and the development of social life in areas with demographic changes must be developed. The decision as to which statutory provisions can be adapted to a specific area, and the scope (e.g. opening and experimental clauses and waiving detailed regulations) as well as the rule of law perspective (what's appropriate and feasible), will in the future be a particular challenge for legislators (see 3rd demography report of the state of Brandenburg, page 49). ***The conditions have been created with the law of 09.01.2012 to strengthen municipal services***. The ***standard test act*** opens up more room for manoeuvre.

#### **Germany/Saxony/Görlitz**

In setting education standards one must look at the trending in the different processes (further decrease in numbers of pupils in rural areas; increase in the regional centres) and make them flexible to allow a proper response in individual cases (flexibility of structures with stated objectives). The regions themselves do not set standards. It is therefore only the ***question of whether federal or nationally applicable standards should be "regional" or could be opened*** (in the sense of exemptions). However, this requires a defined area setting (such as "peripheral rural areas").

Identified areas are:

**Public transport** (such as regulations for passenger transport),  
**Road construction** (construction standards, street lighting),  
**Budget / finance** (regional budget, competitive spirit in promotion, legal framework to enable private capital, cost transparency in public investments by dynamic cost calculation, including operating costs and depreciation),  
**Legal and financial aspects of creating or strengthening civic engagement.**

#### Romania/Centru/Alba

All areas.

#### Czech Republic/Central Bohemia/Kutna-Hora

Especially the **area of social services and health care** is the focus, particularly in relation to the availability of the respective services, networking services and their **focus on an ageing population**. Also the **education system** needs to be reviewed in terms of the changes and needs of the region (keyword: flexibility).

#### Finland/North-Karelia

**The allocation of the fixed statutory state (financial) contributions** must be reviewed and redefined (this has a great influence). It is also necessary to carefully examine the **joint organization of health care and other public services** in each region.

#### Spain/Galicia/Ourense

During the 1970s, there was an "exodus" of the working population in the rural areas of Galicia (migration from rural to urban areas and the rest of Europe). As a consequence, **services in rural areas were again reorganized, but there was not sufficient strategic vision**. Schools were closed and rationalized. Health and social services were concentrated in the main sites of the region or in the capital. **The debate is open on the question** of whether this concentration of services is only a consequence or a cause of the shrinking of the population.

#### Austria/Lower Austria/Waldviertel

**A revision of the definition of the approved minimum standards will not solve every dimension of the problem**. Measures must be taken to maintain a **minimum** (a bad word in this case) in living standards, by means of standards in the various regions, in order to meet the

*educational needs of young people, and meet the work and leisure needs of all people*, as well as the *care needs of children and the elderly*. *A range of very different standards* must exist in a region like Lower Austria, where prosperous organizational units and densely populated areas, in addition to sparsely populated Alpine regions, exist. Here local authorities face difficult competitive situations.

***Necessary and required standards of general public services in dealing with the effects of demographic change in the respective DART sub-regions from the point of view of experts***

**Ireland/WRA**

The ***loss of any public service in a rural area*** with a shrinking population has an "escalating" effect. First the closure of the police station followed by the post office, then retail facilities, health care institutions, and finally the local school. Once the population has reached the level of a "certain critical point", ***public services are restricted*** and younger people see themselves as being forced to leave the region. As far as it concerned the West Region (WRA), there are a ***number of important services, centrally located in small villages***, which have often served to ***provide for a large rural hinterland***, with a post office, a local store, a local school, a health centre and possibly even a police station.

**Germany/Brandenburg/Uckermark**

No opinion expressed.

**Germany/Saxony/Görlitz**

***Education:*** regionally differentiated minimum pupil numbers and rapidly completed classes, maximum school travel times; human resources,

***Medicine:*** greater use of telemedicine

***Full coverage high-speed internet access*** as a prerequisite for social participation and use of e-solutions (such as telemedicine, e-learning, e-government).

***Public transport:*** connection to upper or middle resource centres, clocking, networking between different modes of transport (according to "benchmark action plan demographics" the nearest Saxon very central and medium central workplace locations (> 20,000 jobs and > 400 employees per 1,000 inhabitants) should be able to be reached within 60 minutes by transport from rural areas),

***Rescue/fire:*** "12 minutes rule" (arrival at the place of use) saves lives.

### Romania/Centru/Alba

Standards for:

*Health services,*  
*Social services,*  
*Lifelong learning.*

### Czech Republic/Central Bohemia/Kutna-Hora

Standards for:

*Social norms,*  
*Health*  
*Education.*

### Finland/North-Karelia

As necessary and required, the *North-Karelia "welfare programme"* and its priorities of the implementation plan will be considered, in which a *regional approach to knowledge acquisition and learning among older people* is included. Furthermore, focus on projects to *promote the effective production in the services sector* are seen as issues concerning *the use in domestic services and services that are provided by doctors.*

### Spain/Galicia/Ourense

Since 2008, the departments of social services in the government of Galicia have started a process of discussion and planning for a *system of social services that is, in terms of demographic change, organizationally and personally adapted.* In fact, this system has a kind of "compensatory function" in relation to all public services such as it is aimed at a similar *fundamental improvement in the quality of life regardless of where people live.* Territorial exclusion should minimize this. The basic territorial organizational unit for the "community of social services" is the council to which a professional team is assigned. The team is dimensioned in relation to certain demographic parameters. Standards and personnel organization forms were introduced by specialists (e.g. social workers, social psychologists, sociologists, administrative assistant) referring to the type of area, the people, the occupational profiles,

the division of the population in urban areas districts (10,000 to 50,000 inhabitants) and the rural population.

**Austria/Lower Austria/Waldviertel**

Reference is made to minimum standards that need to be revised (see complex 2) and is found in the eyes of a statistician and a geographer that everything turns "in the first step" on ***empirical research. In the second step, the people themselves*** should be able to communicate their needs, which vary depending on age and region. ***Then, something like a tool box of measures in the community should be made available***, so that they themselves can decide which of these measures is best suited to their particular situation.

**Should the 'best practice' examples of a DART sub-region form the basis for these standards?**

#### **Ireland/WRA**

The examples of good practices in the region are generally "pilot actions", which must be tried out in different places and at different locations that have different problems. In almost all cases, the public sector and the local authorities in collaboration with local development agencies is the most successful model to achieve results. **Successful best practice examples should be included in national and regional policies.**

#### **Germany/Brandenburg/Uckermark**

Provided that they are suitable, the **best of all practice examples** could become a basis for changes.

#### **Germany/Saxony/Görlitz**

The design of "**successful transition**" between the various educational programmes, as in the example from the district of Görlitz which was presented during the DART conference of June 2011 in Prague, should be gradually adapted on a regional level and be gradually organized and realized in all regions in the state of Saxony.

The quality mark awarded by the Trade Association of Saxony "**Generational-friendly shopping**" was presented at the DART conference in Dresden in April 2011 as an example. Among others services, access facilities for the premises and the service behaviour of retailers were rewarded by this. Both parents with prams, people in wheelchairs or senior citizens should find increasingly just conditions for themselves when shopping. Such initiatives have the character of "best practice."

#### **Romania/Centru/Alba**

It can be seen that "maybe" some **programmes in the field of social services**, which are realized by certain organizations and institutions from the region of Centru (such as Caritas) or **some projects in the field of lifelong learning** that are "good enough", can be applied in other regions.

#### **Czech Republic/Central Bohemia/Kutna-Hora**

Here it is pointed out merely to the fact that such good examples could represent an advance implementation to the development of standards.

**Finland/North-Karelia**

No opinion expressed.

**Spain/Galicia/Ourense**

Since 1988 "the system" has been improved, in particular through the "sharing of experiences", through teamwork and by planning and training sessions in various forms. Also professional organizations that implement projects with public support are included. The best practical solutions have been generalized and are included in rules and regulations.

**Austria/Lower Austria/Waldviertel**

The standards of a region can not be transferred in detail to another region. Perhaps a regional guideline could be useful for other regions. Thus, the knowledge in dealing with the problems in a region can be adapted to the specific needs of each region.

## **Summary:**

The question of the ***importance of individual sectors of general public services with regard to the demographic change will be answered*** by the respective DART sub-regions ***to different degrees***. While WAR (Ireland) and Görlitz (Germany) explain the complex areas in more detail, Alba (Romania) and Ourense (Spain) do so without detailed information.

In almost all sub-regions the following are ***unanimously deemed to be the priority areas***:

- Development of infrastructure (transport, housing and healthcare structures, social services, Internet and online services),
- Development of the education sector (schools, skills training, promoting innovation, lifelong learning)
- Development of medical and nursing care (health centres, the availability of social and health services, home care and mobile services, efficiency of primary health care).

In addition, there's also

- Opportunities for active ageing (retirement income, senior management, civic engagement), as well as
- the creation of a modern administration (Görlitz) selected as a central theme.

In the context of improving the conditions for employment and income there are

- Measures to reconcile work and family life (Görlitz),
- Day care and play facilities for children (Waldviertel) as well as to see a favourable creation of the 'work-life balance', especially for women (Waldviertel).

The need for ***the revision of existing minimum standards*** of general public services is emphasized ***in all sub-regions***, albeit with differing emphasis. In all other sub-regions, apart from Alba (Romania), specific areas were identified and concrete measures for establishing standards were discussed. ***Thus minimum standards, especially in the infrastructure sector*** (transport, postal services, police), as well as ***in the areas of health and education***, were seen to be significant. Flexibility should be shown, particularly in the field of education standards, so that the statements from Görlitz and Kutna-Hora, can be tailored to respond to

particular cases. Another aspect is the **creation and consolidation of the financial framework** (Görlitz, North-Karelia). **Social security and organization of health care**, in particular with a focus on an ageing population (Kutna-Hora, North-Karelia) and the overall **concentration of services** in larger bases of the regions (WAR, Ourense), provide further discussion points. That not every problem can be solved through a revision of standards can be seen in the survey from Austria (Waldviertel). It is, given different densely populated regions, **scale-differentiated standards** that are needed to meet the work-leisure ratio and care needs of the people. New approaches and ways to **organize the infrastructure of the general public services**, factoring in demographic changes, represent a **special challenge for the state legislature**. This is exemplified with the law to strengthen the municipal services of the general public and the standard testing law in the state of Brandenburg.

With regard to **necessary and required standards of general public services, differentiated proposals** from the various sub-regions will be discussed. Only in Uckermark was no opinion expressed. **The following priority areas for the application of standards** arise here

- Health
- Education sector as well as
- the efficient provision of public services to improve the social infrastructure (transport, postal service, police, communication/Internet)

The relevant level of experience and the different approach in the **individual sub-regions** are illustrated through **different strategies and conceptual approaches**. So, in the **West region of Ireland (WRA)**, important services are centrally located (Post offices, local shops, schools, health centres, police) to cover a large rural hinterland. The **sub-region of North-Karelia** developed a regional learning and knowledge appropriation concept with the "welfare" program for the elderly, and promotes effective services in the domestic sector. In **Spain (Ourense)**, the process of discussion and planning of a system of social services in the region of Galicia, with the aim of improving the lives of people, runs independently of where people live. Here, standards and human organization (social workers, social educationalists, sociologists and others) were introduced, relating to area, people, profiles, and classification of the population in urban and rural areas. The proposals from **Austria (Waldviertel)** relate to providing a catalogue of measures for local authorities, which must take into account the spe-

cific situation of people on the basis of empirically secured minimum standards according to age and region.

All sub-regions have responded to questioning ("best practice and standards") with the exception of North-Karelia (Finland). The **overall tenor of the statements** based thereon is that "best practice" examples should either be taken into account in the **design of national and regional policies** (WRA), - and **should refer to rules and regulations input** (Ourense), - or at least represent **conditions for the development of standards** (Kutna-Hora) or should **apply in other regions** (Alba). Although the sub-region Waldviertel (Austria) emphasizes that you can not transfer the individual standards of a region onto other regions, it does allow the possibility to create guidelines to adapt to the specific needs of a particular region. Forms of exchange of experience and training serve the generalization of the best practical solution (Ourense). The sub-region of Görlitz points out that with the example from education based on a "best practice policy", this was gradually adapted and implemented in all regions of the state of Saxony.

**Zusammenfassung des Endberichtes in Englisch**  
**(Kurzfassung)**

## **Demographic change in Europe (incl. political discussion)**

For about 10 years, it is clear that Europe's demographic change as a "megatrend" of the 21st century is not a "normal" structural change, but includes all spheres of life of the affected societies and this will change in an as yet to be experienced way.

The decline in birth rates first began in European countries a hundred years ago, which then led through several stages, starting in the 1970's, when levels fell below the required reproduction level. This process is accompanied and increasingly reinforced by the continuing increase in life expectancy in almost all European countries. This increase in life expectancy continues unabated. In the 20th century alone, this amounted in Germany to about 30 years, and present trends in the improvement of the life expectancy for the elderly point to the conclusion of this development being 'the society of the centenarian'.

The complex process of demographic change covers four areas:

*the quantitative change of the total population, i.e. altogether territorially differentiated contraction of the population particularly in the area with embedded urban growth islands;*

*the change of the age structure of the population and shift of the proportions between the age groups, i.e. above all ageing of the population, increase of the average age, sinking of the youth quotient and growth of the elderly quotient;*

*the change of the social structure, above all the family, and household structures, i.e. also the growing 'separation' and importance of the economic and political meaning of the older population age groups;*

*the change of the territorial distribution of the population by migration movements, i.e. in particular drift from rural areas and immigration into growth centres;*

The countries that have for a longer time been engaged in this process of a contracting and ageing society have permanently superseded countries with expanding populations in Europe. Such changes between expansion and contraction in the population trend have always taken place, but not under the conditions of a modern industrial society. Also in a growing society, with large sections of the younger population, they are faced with major policy challenges. The difference is, however, that these issues in the past have been dealt with, *while for the current situation experiences are only rudimentarily available.* An impor-

tant distinction about the phases of growth is still to see that adjustments in the population shrinkage and ageing phases require whatever adjustments and reductions in public services, and this is steeped in conflict, rather than establishing new services.

This demographic challenge is thus unique in European history. There are therefore no tried and tested remedies, so European societies should respond appropriately to this development. Therefore the European population faces new and very complex challenges. *The irreversible ageing of the population and the increasing territorial disparities are at the core of this process of change, and will lead to major changes in society, politics and business.*

Therefore, with assurance, the number of inhabitants in Europe will be reduced by the year 2050 to approximately 542 million. The slight rise in fertility numbers, which can be found at present in the scientific discussion, in no way leads to a stabilisation or a growth in the population of Europe from within itself. This 'rise' is too small because today's average value of 1.5 children per woman would have to rise on a long-term basis to over 2, in order to reach the required reproduction level in the long term. In addition, it comes that due to the inertia of the demographic processes even such a very improbable increase would change almost nothing in the developments of the next 20-30 years (i.e. that the birth rates continue to remain low and the ageing of the population continues). Theoretically, a stabilisation would at least be possible by the numbers of immigrants coming in, as has been experienced in recent years in Europe. However, it is increasingly questionable from which source potential immigrants would come from as the traditional areas, especially in Eastern Europe, are now also affected by an extreme shrinking process. The demographically induced change of European societies is in full swing and will continue with increasing speed and lead to a similarly far-reaching change in social systems and organizational structures of life. As it's essentially hard to change the demographic core processes of this change (birth rate) or the desired development (increase in life expectancy), a differentiated approach in dealing with the ageing and shrinking process and their impact in the form of dynamic adjustment is necessary and also promising.

*The current and future demographic developments are local, and in particular regional. The main effects of the demographic change: 1. contraction and ageing on the one side and increasing concentration and internationalization (connected with an increasing problem of integration, particularly in western, central and southern Europe) on the other side. 2. ex-*

tremely differentiated territories (they are not proportionally or linearly run in the countries, regions, cities and municipalities or run along political or administrative borders). We are seeing a juxtaposition of the growth and contraction processes.

As a rough overview, a demographically conditioned division in two parts of Europe exists regarding this development. Apart from prosperous centres of dense development, which exercise an increasing attraction, distant parts of Europe experience themselves, particularly in the rural peripheries, the change as a contraction with increasingly emptying areas due to depopulation and a rapid increase in the ratio of the older population.

From this, the most varied problem configurations result. The decrease in population leads to the undermining of the sustainability of the general infrastructure. The maintenance of functional regional labour and supply markets is reflected in this. The strong increase in the proportion of elderly people, in particular in the surrounding countryside of the cities and in the rural regions, makes high demands on the local infrastructures. The migration processes lead to demographic and social disproportions in the age and gender structure. The proportion of men in an ageing population increases disproportionately. From this skewed social structure follows the increase of deviant behaviour and lifestyles such as alcohol dependency, extremist attitudes and violence. These problem areas work for their part as a catalyst in accelerating the demographic ageing process. That is why flexible adaptation strategies are necessary, both on a national level, and also in view of the particularly affected regions.

*A prerequisite for this is first the supply of regionally differentiated information and data, for which regional benchmarking can be used (see section 6.5).* At this time the data and forecasts refer to the demographic change predominantly on higher levels, large regions or the countries as a whole. Informed political decisions, especially locally made ones, require the inspection and monitoring of small-scale municipal units (such as districts, cities, city area regions, and so on), because here demographic change with its effects and consequences for a citizen-based municipal and infrastructure policy show most directly.

These above-mentioned changes don't concern all regions at the same time and to the same extent. In particular (selective) migration processes have created areas that today are very well advanced in demographic change and play, so to speak, a "pioneering role" (laboratory for strategies) in the confrontation of these changes.

There can no longer be uniform standards in view of the descriptive different developments. Especially in shrinking rural areas, minimum standards need to be defined, and also the development of territorially graded areas for social services and benefits. The complexity of demographic changes therefore demand comprehensive and intelligent adaptation strategies, which take into account all fields of activity in the context of a cross section policy.

**Comparison of demographic change in the sub-regions (the period of time depending on the evidence, 1990/1991/1993 to 2008/09)**

All DART partners chose a region for the DART project from their countries or regions of the country where, according to their demographic processes of ageing of the population and the population shrinkage, are particularly concise. On the basis of 13 of the most important indicators of demographic change, these processes in the DART sub-regions were represented and allowed for comparison. In detail, these are: *population density, population change to clusters, population forecast, age structure, elderly quotient, youth quotient, average age of a mother giving birth to her first child, birth/fertility, population change by gender, life expectancy, household size, marital status*. The most significant demographic changes in the sub-regions can be summarised as follows on the basis of these indicators:

The surveyed DART sub-regions differ considerably in their population. The Dutch region of Parkstad is extremely densely populated in comparison with the two Finnish regions who have a very low population density. All other regions have a comparable population. It is clearly visible *that almost everywhere there is a decline in the population* in the last few years. Only the Czech region of Kutna-Hora has a minimal increase.

*The population change in the sub-regions can be divided into five clusters.* The sub-regions saw an increase in the population in Kutna-Hora, Gorenjska and Roscommon in the period under review. The remaining sub-regions have to counter all the problems of a decline in population. The two German sub-regions, with a population decline of about 20 per cent, are particularly affected.

<b>Land/Region/Subregion</b>	<b>Population change in %</b>	
Germany/Brandenburg/Uckermark	-19,9	Cluster I (very intense decrease)
Germany/Sachsen/Görlitz	-19,2	
Finland/Kainuu	-14,2	
Poland/Lower Silesian/Klodzki	-10,4	
Romania/Centru/Alba	-9,4	Cluster II (intense decrease)
Finland/North-Karelia	-6,8	
Austria/ Lower Austria /Waldviertel	-4,7	Cluster III (Decrease)
Spain/Galicia/Ourense	-2,5	
Netherlands/Limburg/Parkstad	-1,5	
Italy/Verona/Rovigo	-0,3	Cluster IV (Stagnation)
Czech Rep/ Central Bohemian/ Kutna-Hora	0,2	Cluster V (Growth)
Slovenia/Kranj/Gorenjska	4,3	
Ireland/WRA/Roscommon	13,2	

With regard to population growth by 2020/2030, it is evident that in the studied sub-regions, which provided data, *the population will fall heavily*. The decline of the population shows particularly clearly in the two Eastern German regions. They are most likely to face the problems of demographic change and can therefore assume a certain role. Because it turns out that, in the future, all other examined areas *expect increasingly lower population* and the resulting associated problems of an ageing society. Only the region of Roscommon can expect a further increase in its population.

*A clear reduction in the younger generation* (typically 0-15 years) is visible in all sub-regions. The consequences of declining birth rate in Uckermark, Klodzki, the district of Görlitz, the Romanian region of Alba are most visible. Parallel to this, *an increase in the population of over 65 year olds* is clear in the course of time. This change in population structure is particularly visible, in turn, in the two German sub-regions. Only in the region of Roscommon are the number of over 65 year olds in slight decline. In connection with this, *a decline in the youth quotient* in all surveyed regions is identified, as a result of the demographic change of an increasing elderly quotient.

*An increase in the average age of a mother giving birth to her first child, and thus a time shift of the first-born to a higher age, is happening in almost all sub-regions*. Only in the North-Karelia sub-region does the average age of a mother giving birth to her first child decline slightly. All together, the average age of a mother giving birth to her first child in all the sub-regions moved towards the age of 30.

Even if the data on life expectancy in the sub-regions doesn't allow a representation over time (data available), it does show very clearly that in all sub-regions that *the average life expectancy for women is significantly above that of men*. This longer life expectancy for females can be regarded therefore as another fundamental demographic trend in different European sub-regions.

It can be seen, when looking at the sub-regions, that *increasingly one-person households* are being established, that the household structure changes, and that the average household size is decreasing.

The "classic" ideal of families is subject to structural changes. The large households (4 people and more) are particularly widespread still in the Eastern European sub-regions (Romania,

Slovenia, Czech Republic). But significant changes are also visible. With declining populations, *a stable trend (over the period of 15 years) towards the 1-person or "single" household is shown* in most of the sub-regions.

It is clear that in all DART sub-regions where a view was possible using the data provided, the migration of foreign people and the increase in the proportion of the foreign population within the population of the surveyed areas, was characterised by demographic change. This seems important also in respect of the composition of the population and the consequences for regional labour markets and national social security systems, as this trend is stable and takes place in all sub-regions in the light of the population shrinkage and ageing. Migration is a fundamental demographic trend which appears clearly in all surveyed with only a few exceptions (Kutna-Hora, Ourense, Roscommon, Rovigo). This refers to some *significant population loss through migration* and is characterized as a spatial component in addition to the natural loss of population and basic demographic changes in the various European sub-regions.

*Summary:* European regions are in a radical process of demographic change. This can be proved by small scale (below the Eurostat NUTS III level) population and social statistics with the tested indicators (see section 5).

It turns out that *this process of change is irreversible and long-term. Regionally differentiated changes can be demonstrated, reproduced, and continue to be predicted, if the data bases exist.* On the basis of the evaluated data from the 13 DART sub-regions, the demographic conversion and change processes show especially in the following:

*Continuous population decline (contraction apart from Cluster V, in perspective negative demographic projections in all sub-regions);*

*Continuous ageing of the population (shrinkage of the youth, particularly under 20 year olds, growth in the elderly, in particular those requiring constant nursing care - all clusters );*

*Sinking of the population density (except Cluster V);*

*Increase in the share of the foreign population;*

*Increase in the age of a mother giving birth to her first child;*

*Increase in life expectancy;*

Negative balance in the natural population growth (births/deaths);

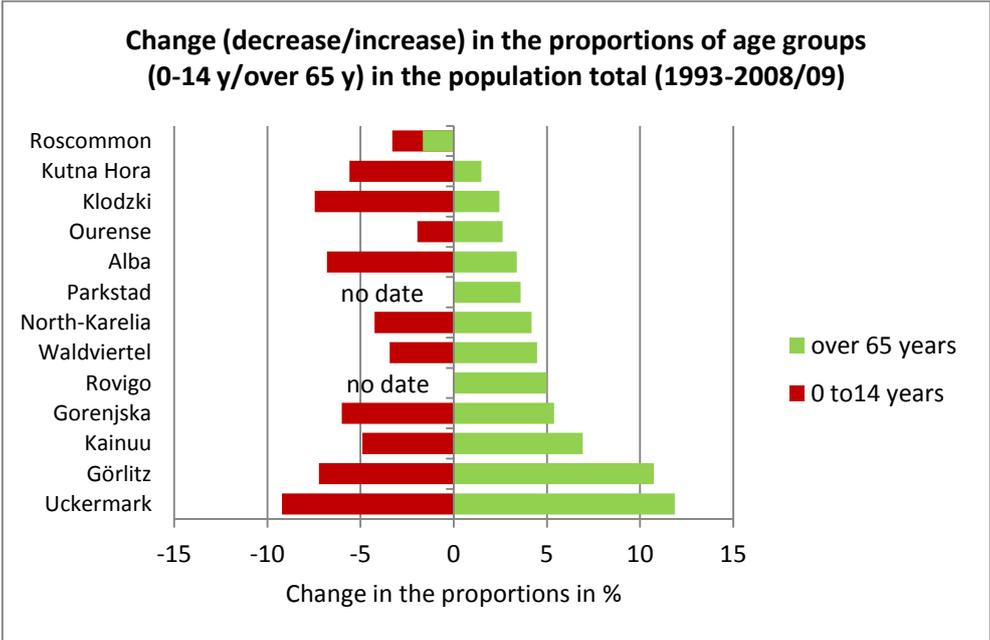
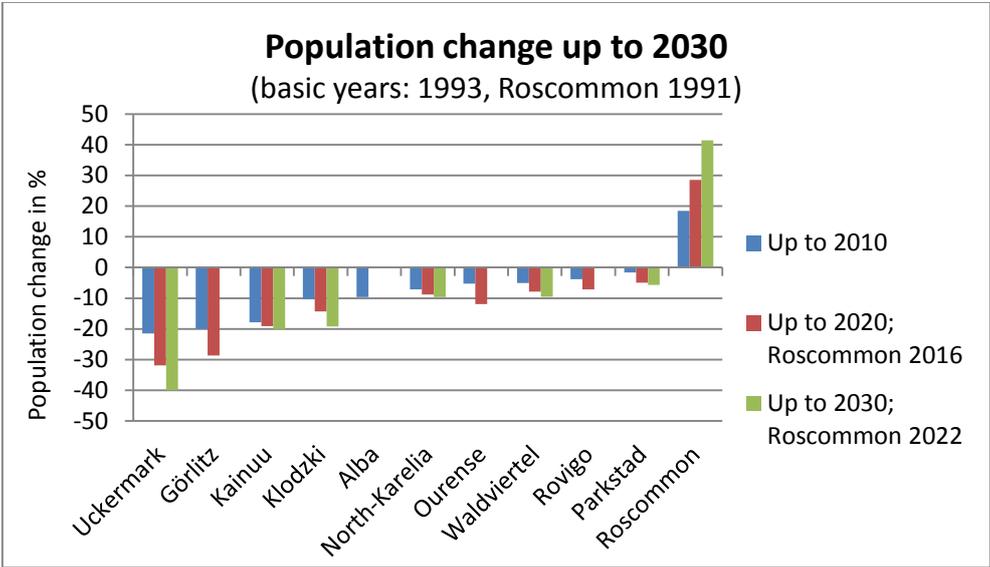
Negative balance in spatial population movement (immigration/migration);

Change in the composition of households (increase in 1-person households);

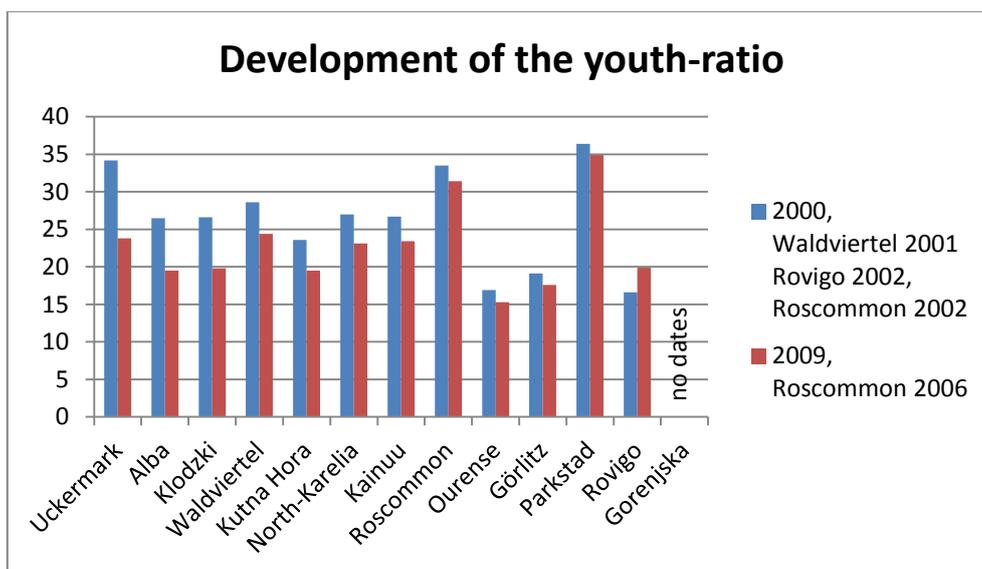
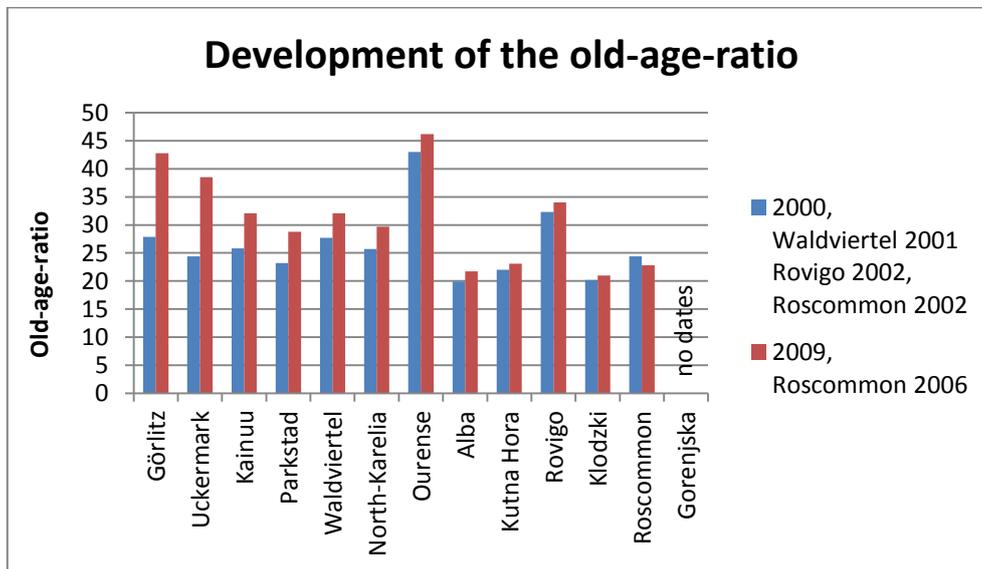
Decrease in the number of pupils and the number of trainees;

Structural changes in the labour force - increase in older workers and employment of women, strengthening of long-term unemployment;

Structural changes between the sectors of the economy – decrease in employees in agriculture and industry, growth in the service sector.



Region	Population		Change (decrease/increase) in the population total and the proportions of age groups (0-14 y/over 65 y) in the population (1993-2008/09)		
	Total 1993	Total 2008/09	Total	0 to14	Over 65
Uckermark	163.719	132.837	-19,9	-9,22	11,86
Görlitz	347.707	281.076	-19,2	-7,24	10,73
Kainuu	96.298	83.160	-14,2	-4,90	6,92
Klodzki	182.667	164.434	-10,4	-7,46	2,45
Alba	412.038	374.535	-9,4	-6,81	3,38
North-Karelia	178.076	166.129	-6,8	-4,25	4,18
Waldviertel	148.633	142.042	-4,7	-3,43	4,47
Ourense	344.170	336.099	-2,5	-1,95	2,63
Parkstad	244.387	241.792	-1,5	no date	3,59
Rovigo	248.004	246.255	-0,3	no date	4,98
Kutna-Hora	74.774	74.850	0,2	-5,59	1,49
Gorenjska	194.472	202.485	4,3	-6,01	5,38
Roscommon	51.975	58.768	13,2	-3,30	-1,65



## **Indicators and standards (results)**

### **Indicators of demographic change**

In the DART project *an indicator set and a regional observation monitor* (demographic "early warning system" DART monitor) were developed and these were tested by the equipment with suitable demographic and social data from the various sub-region (in as much as this data at regional level was available). So it was and is possible for it to illustrate basic demographic changes in European regions in the time course, to measure, to extrapolate and to compare regions with each other (see Section 3). *The processed data was primary data from the sub-regions which existed and could be evaluated for the first time in a European demography project.* In this sense underlying demographic and social counter set to demographic change, in its form and compactness of composition as well as the *data-driven regional viewing monitor*, represents a novel approach to the analysis of demographic change in Europe in the portraits of the sub-regions (see full version of DART final report) and demographic comparison of the sub-regions.

Only with the small-scale, comprehensive complex and specific time intervals (panel surveys) application and evaluation following highly condensed indicators (see the long version of the DART end report to detail), can both the demographic ageing of population decline (and selected indicators of social participation and quality of life) guarantee a largely accurate description of demographic change in a certain European analysis and lead to practical and effective local politics measures in dealing with the consequences of change or forward-looking political planning.

#### *Indicators for the measurement of demographic change*

*Total population by gender* gives a basic overview of quantitative population growth in the sub-regions of the DART project and provides information for the shift in the gender ratio in a certain period of time, particularly relevant in the elderly sector.

*Population / population density per km* refers to the change of its values to a shrinkage trend or tendency towards further growth of the population of the respective region.

*The foreigners / proportion of foreign citizens in the population* returns delivers statements as to the change in the national composition of the population as well as to the change in

the absolute population of a region (significant for the integration issue of foreign citizens and its political consequences).

*Gender age structure of the population:* the observation of the age and gender structure in the sub-regions showed an increase in the share of women in older age groups and others in the DART project pointed to an ageing specific to gender, a higher proportion of men in younger age groups, "thinning out" or the reduction or increasing the proportion of young reproductive age groups in the population over time, the increase or decrease in the proportion of old, elderly and unproductive age groups in the population, the fall in pupil numbers and the number of trainees, the change in the proportion of older workers in the labor force, the change in the overall dependency ratio (youth quotient and the elderly quotient, whose shifting refers to ageing)

*Migration* refers to mobility or stability in the migration behaviour, which means a population growth or shrinkage trend especially in the net balance of spatial population movement.

***Indicators to predict the demographic change (not to separate indicators for the measurement of demographic change)***

*Population projections* show, in the DART project in the various sub-regions, expected shrinkage trends or population decline or/and growth trends or population growth. These projections are among the other important indicators listed for local government plans and targets in certain periods, for infrastructural, economic and social projects and redesigns, etc.)

*Fertility:* An increase or reduction in the fertility can explain quantitative population changes (shrinkage tendencies or growth trends), where always such indicators as age of the mother having her first child (= increase in age = usually the shift in the age of a mother having her first child= lower birth rate in the reproductive age= reduction of the young generation= shrinking population) contribute, but also mortality and migration are considered.

*Mortality:* an influence on the increase in the average age of a population or the average life expectancy (ageing of the population in demographic change) has reduced mortality rate and mortality.

*Net balance of natural population movement:* constant mortality case surpluses over longer periods of time (usually in combination with an increase in the age of mothers having their first child and a negative balance of spatial population movements) to the shrinkage of each population analyzed.

*Life expectancy:* Rising life expectancy is in addition to traditions in the way of life (e.g. nutrition, geographical location and others) mostly an expression of the development of high-quality living conditions, in particular the social and health care, but also of medical progress. The results in the DART project in the sub-regions also detected displacement of the age structure of population in the period to increase the proportion of old and elderly in the total population, and clearly shows in addition to the increase in life expectancy, the ageing of the population in various European countries as a basic process of demographic transformation.

#### ***Indicators for the classification of the regions in demographic change***

*Quantitative data – Total population:* decrease or increase in the absolute population at specific time intervals (annually, etc.).

*Cluster:* Within the DART analysis groups of similar sub-regions with regard to the size of the decline or growth of the population (e.g., very strong decline, strong decline, decline, stagnation, growth etc.) in a particular period of time. The clustering, i.e. in the DART project the group division after quantitatively defined types/sizes of contraction / or and others, serves the order of education in the region, the comparison of individual regions from different clusters. Other cluster can be identified and so forth depending on the need, current interest, political relevance if there is assessable data available.

#### ***Indicators to measure social participation and quality of life in an ageing region***

*Structure of households / size of households:* Changes showed tendencies of "isolation", "separation", and social isolation by the increasing dominance of single person households and the decline of large multiple-person households in the DART project. A growing proportion of widowed women (generally in all DART sub-regions there was a higher life expectancy in women) is an expression of gender ageing and entails appropriate consequences with regard to the quality of life of these people of that age (loneliness, social isolation, nursing and care expenditure, poverty rate and so forth).

*Marital status of persons in private households* referred also to "separation and isolation trends" or changes in the forms of cohabitation by a growing proportion of singles ("households") in the project.

*Education/educational structure by age group:* this social indicator may among other things indicate needs and possibilities of the age-specific training / training / qualification training. It shows also the current use including the educational potential of older workers and refers to its development in an ageing society.

*Student numbers or number of trainees:* This indicator refers to changes in the fertility and declining birth rate, also on the school and educational consequences in the municipalities / regions.

*Proportion of employees/workforce per sector of the economy:* this indicator provides information on the employment structure and changes in the respective DART sub-region or on new areas of employment for an ageing working population by economic structural changes, including future opportunities for the employment of older people in the sub-regions.

*Participation (economically active population)* documents the development of the participation of the population in the labour market and on the regional economy as the essential basis of social participation and quality of life.

*Employment rate of older workers:* this important indicator of social participation in ageing societies presents the realities, but also the chances of older people in employment or in the regional labour markets and thus the use of relevant experience and education potential of elderly workers capable of gainful employment.

*Shows development of unemployment* (especially related to the under 25 year olds and over 50 year olds) shows the exclusion from the labour market of certain age groups and thus the need for social benefits or supports. In this context, the indicator of long-term unemployment (unemployment as time-solidified) illustrates the long-term exclusion of the regional labour market and thus sustainable wear of human capital in the age groups that have a special relevance for demographic change.

*Number of deaths by gender or causes of death:* the development of gender-specific deaths references including advances in public health and age-related health care and care. The

analysis of causes of death among other things indicates to problematic living conditions and deviant practices, such as alcoholism, in the shrinkage regions.

*Human resources development in the health and care sector:* this health indicator shows including the acceptance of a health policy in a demographically changing society or region and the human consequences in the health and care sector of a higher life expectancy in ageing regions.

The above mentioned indicators in the DART project were generally good for non-specialists to use and most importantly, comparable and updateable data sets for the small-scale description of basic demographic processes of change in different European regions could be established. They can be maintained independently by European users (eg in the form of the DART observation monitor or in the updating of the provided data tables for each indicator).

### **Standards of public services of general interest**

Europe's population will shrink further in the coming decades and at the same time get older, as shown by the indicators of demographic change and the corresponding data analysis in the DART sub-regions. This has multiple social and economic effects on the respective society and region. Accordingly spatial disparities (shrinkage and growth regions) must be demarcated as such, causes and consequences at all planning levels evaluated, *and standards (guidelines, rules, standards, laws) of social and municipal services of general interest in the sense of ensuring and safeguarding basic living conditions for the population of each must be checked and, where appropriate, new sets introduced and enforced.*

The following problem is on the agenda: *How can the public's general interest and the preservation of the quality of life be guaranteed under the conditions of the population shrinkage and population ageing with restricted or decreasing funding by the local authority districts for a structurally changing population in each respective European sub-region and be adapted to the demographic change?* To expand the knowledge of this problem and to make further bases for appropriate political planning and decision-making contained within the DART project, *an inventory of the standards of public services of general interest in the various sub-regions was performed as an expert forecast to the needs and the adjustment of these standards to demographic change*, with which the above mentioned indicators for each region based on data more or less accurately mapped. *The survey referred to above all:*

shrinking and ageing population, child care, schools and school facilities, medical care, support and care for older people, older / younger workforce / education in the region. *Expert opinions* in the sub-regions were raised for such questions as: what areas of public services of general interest are of particular importance in terms of the demographic change? In what areas should existing standards of public general interest because of the consequences and effects of demographic change (ageing and shrinking of the population) be revised? What standards of public services of general interest are necessary and required from the experts perspective in dealing with the effects of demographic change?

## **Political recommendations**

### **Other topics, e.g. data availability, indicators, standards**

Demographic change is not a "normal" structural change, but includes all aspects of life of the affected societies or sub-regions and is thus also comprehensive policy-relevant. This was clearly shown in the analysis of selected indicators and data from the sub-regions in the DART project.

For this resulting comprehensive policy of the demographic changes to have relevance, it is imperative that the policy response to demographic changes (state and local politics) is a regionally differentiated approach to the complex processes of ageing and shrinkage, showing that their impact on demographic change is absolutely necessary. The basis of information available presently in *the EU statistics and databases are barely sufficient to do justice to the regional level specific processes and requirements of the demographic change or to illustrate this*. Therefore the DART project had to fall back on exclusively on data from the individual sub-regions. This however showed that the demographic, labour market and social data on the ground, in the sub-regions, should be prepared, so that they allow a realistic assessment of the current and perspective demographic situation in the respective region. To strive for this, it is generally good to make comparable a single regional monitor, reporting the essential processes of the population on the basis of a single demographic indicator set (in the DART project proposals have been submitted), which opens up the possibility of territories, areas (such as parts of the country, counties, local units), and regions of the country or several countries, to develop cross-border cooperation, to share experiences in dealing with the consequences of demographic change, etc. Such regional monitoring is one of the most essential basic requirements (basic findings from the empirical part of the DART project), both at the EU level, at the level of individual countries, as also with the view on the affected sub-region, flexible adaptation to demographic developments in pilot projects to test and to generalize. It must be first differentiated that the statistical information and data which can be used for a regional benchmarking and monitoring, be tested, provided, and then continuously updated.

The regions are to recommend the following in this connection: *development and maintenance of small-scale demographic databases, maintain and update a data monitor which*

*makes visible demographic development processes at specific time intervals, small-scale, disaggregated population projections, because informed political and communal decisions (for example in the labour market, education and school, social and infrastructure, health policy) on sectioned regional, municipal or local level require this.*

*What can the establishment of a regional benchmarking policy (which can withstand the criterion of comparability between different regions of the country and sub-regions of different countries with similar demographic problems / processes) and the experience from the DART project particularly point to (proposals)?*

*Application of uniform definitions for indicators (demography, labour market, education, health) in the EU and at the European level (based on EU statistics, Eurostat)*

*Provide similar updateable databases to the corresponding indicators and for similar time intervals*

*Use and integration of demographic and regional sociological expertise as well as exchange of experience and cooperation with the EU regional statistics or the national statistics of the EU countries*

## **Glossary Demography**

**Outward migration** → migration

**Net migration loss** → migration balance

**Total fertility rate (TFR)** (syn. general → fertility rate)

**General fertility rate** → fertility rate

**General fertility rate** → fertility rate

**General birth rate** (syn. general → fertility rate)

**General birth rate** (syn. general → fertility rate)

**Total mortality rate** (syn. general → mortality)

**Total mortality rate** (syn. general → mortality)

**Old-age dependency ratio** - comparable percentage of people who reached retirement age (women from 60, men from 65) to 1000 persons of working age at a certain date. Persons of working age at a certain date are all women from 16 to less than 60 and all men from 16 to less than 65.

**Age specific fertility rate** (syn. age specific → fertility rate)

**Age specific fertility rate** → fertility rate

**Age specific fertility rate** (syn. age specific → fertility rate)

**Age specific birth rate** (syn. age specific → fertility rate)

**Age specific birth rate** (syn. age specific → fertility rate)

**Age specific mortality** → mortality

**Age specific mortality** (syn. age specific → mortality)

**Fertility rate** → fertility rate

**Fertility rate** → fertility rate

**Fertility rate** (syn. Fertility rate, birth rate, birth rate, fertility rate) - Indicator to measure fertility. Basis of calculation is the number of live-births during a certain period (usually calendar year). Distinctions to be made are:

1. *General fertility rate* (syn. general fertility rate, general birth rate, general birth rate, total fertility rate) is the number of live-births during a certain period (usually calendar year) related to the average population of women of → childbearing age multiplied with 1000. It reveals the number of live-births per 1000 women of childbearing age of median population.
2. *Age specific fertility rate* (syn. age specific fertility rate, general birth rate, general birth rate, total fertility rate) is given as the relation of live-births, born by women in between  $x$  and  $x+1$  during a certain period (usually calendar year) to the average stock of women of this age during the same period. The result is usually multiplied with 1000.

**Childbearing age** → age of women while they are potentially able to give birth. Governmental Statistics of Federal Republic of Germany usually takes the age from 15 up to 44.

**Deficit of births** → birth balance

**Birthrate** → fertility rate

**Birth balance** → Difference between the number of → live-births to the number of → deceased during a certain period. A positive birth balance is called birth surplus, a negative one deficit of births or decrease surplus.

**Birthrate** → fertility rate

**Sex specific mortality rate, sex specific death rate** → mortality rate

**Deceased** (syn. deceases) - Natural persons who died after birth. Therefore stillbirths are not counted as deceased.

**Youth quotient** – comparable percentage of children and juveniles under 16 to 1000 persons of working age at a certain date. Persons of working age at a certain date are all women from 16 to less than 60 and all men from 16 to less than 65.

**Live-births** – Governmental Statistics of Federal Republic of Germany records children who had a heartbeat, a pulsing umbilical cord or started to breathe naturally after being parted from their mother's body (international standard phrase).

**Moribundity** → mortality

**Spatial movement of people** → migration

**Deceases** → deceased

**Decease surplus** → birth balance

**Death rate** → mortality rate

**Mortality rate** (syn. death rate, probability of dying) rate to measure mortality of people. - Basis is the number of deceased (syn. deceases) during a specific period (usually calendar year). Distinctions to be made are:

- (1) *Total mortality rate* (syn. general mortality, general probability of dying) is given as the relation of deceases within this period to the average stock of population. The result is usually multiplied with 1000.
- (2) *Sex specific mortality rate* (syn. sex specific mortality rate, sex specific probability of dying) Mortality of men and women is more or less different. To record this differences, sex specific mortalities are calculated by relating the number of women (or men) who deceased during a specific period of time to the average population of women (or men) within the same period. The result is usually multiplied with 1000.
- (3) *Age specific mortality rate* (syn. age specific death rate) is given as the proportion of a population of specific age dying within a specific period of time to the population of the same age living during the same period. The result is usually multiplied with 1000.

**Probability of dying** → mortality rate

**moribundity** (syn. mortality)

- Being mortal, mortality of natural persons.
- Demographic process of diminution of a population by cases of death.

**Migration** (syn. spatial movement of people) - demographic process of regional mobility, the associated demographic events are called cases of migration or also migration.

**Migration loss** → migration balance

**Migration balance** - balance of relocations. A positive balance is called migration surplus, a negative balance is called migration loss or net migration loss.