1. Thematic scenario 'Demography and migration'

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1.1 Scenario base – Demography

1.1.1 Present situation, trends and forecasts

1.1.1.1 Current EU population trends in their global context

The number of inhabitants of the EU25, stood at 454.9 million at the beginning of 2004, a population which, in spite of healthy immigration rates, is becoming, in parts, virtually stationary. This situation has been referred to as 'zero population growth' and contrasts significantly with the picture across most of the rest of the world where the population continues to increase sharply[1] (see Table 1 in the Appendix below). The contrast is brought into sharpest relief by looking at the situation in the Asian and African countries bordering the EU, such as Syria, Libya and Algeria, where trends indicate substantial demographic gains. As these countries are the main source of the rise in migration to the EU, the disparity is clearly significant.

This so-called 'second demographic transition' in Europe, has been brought about by three decades of low fertility rates, producing shrinking cohorts of young people, in themselves generating a 'negative momentum'. Consequently across Europe as a whole, there are more deaths than births, producing by 1995 a natural decrease of 1 per 1000 (crude birth rate 10 per 1000, crude death rate 11 per 1000[2]). This correlation has been modified, in that while the birth rate has plummeted, a long-term rise in longevity has suppressed the mortality rate producing an ageing population.

Migration is much more important numerically than either births or deaths, indeed a rise in international immigration to Europe has been fundamental to maintaining the size of the EU. This situation has been supplemented by unregistered immigration, with at least three million 'illegal immigrants' living in the EU15 in 2003, according to European Commission estimates.

1.1.1.2 Territorial differentiation across the EU

Territorial variation across Europe is reflected in recent figures showing the average annual rate of population change. This averaged, between 2000 and 2005 at 0.0-0.1% for most of the EU, but 1.1-1.9% in Ireland and at the other extreme -0.4-0.1% in Italy and most of

[1] Over the past ½ century the world's population has been growing faster than ever before and according to UN projections – and hopes – faster than it will in the future (the annual average increment peaking at 87 million between 1985 and 1990). Between 1950 and 2003 89% of the increase in global population has taken place in Less Developed Countries, raising their share of the world's population to 81% in 2003. Asia has contributed nearly 2/3 of this increase, thus increasing its share from 56% to 61%. Africa has been the second largest contributor, with the highest growth rate – an increase of 285% over the 1950 level (compared to 156% for Asia and 33% for Europe).

[2] This contrasts with an average crude birth rate of 26 and death rate of 7 in North Africa and even more tipped in favour of youth in Western Asia, peaking at 45 and 9 in Yemen. In Turkey the crude birth rate is currently 21 and crude death rate is 6; their accession will clearly alter the overall age profile in the EU.

the countries of Central and Eastern Europe and more than -<0.5% across the Russian Federation. Demographic patterns at the meso level can be said to fall into three main patterns:

- continued moderate population growth; early decline in birth rates followed by stabilisation such that the number of births is still slightly higher than the number of deaths (France, The Netherlands and Ireland)
- early zero growth; early decline without stabilisations or negative growth rates leading to a reaction and a 'rebound of birth rates' (Austria, Denmark, Sweden and the UK)
- late zero growth; late, but sharp decline in birth rates, zero or negative growth since the mid to late 1980s (Southern Europe) and from early 1990s (Central and East European countries)

However, these national averages mask significant micro differences (centre/periphery e.g. France and the UK or North/South e.g. Italy or East/West e.g. Germany). ESPON 1.1.4 focused its findings on differences at this level (see below). However in spite of differences in the rate of change and the factors believed to be behind them, mortality and fertility trends across Europe can, in general, be seen to be converging. The decline in fertility has been most recent in Southern Europe, now showing the lowest figures of an average of 1.3 children per woman, and most striking in Eastern European countries[3].

The convergence in mortality rates has largely been the result of countries such as Portugal improving their life expectancy rates (by 14 years between the 1950s and the 1990s) compared to countries such as Denmark which made smaller gains. However, in Eastern Europe mortality rates continue to be notably higher and have actually increased.

Despite the evident convergence in natural population decline (which could also be perceived as stability or stagnation depending on perspective) across the EU, persistent though minor, variation in actual decline can be seen as Table 2 of the Appendix below.

The convergence is less evident in migration which is impacting on regions and countries quite differently. The most obvious feature has been the change in the larger Southern member states, which instead of being net exporters of people to north-west Europe and the 'New World' (as they were until the mid 1970s), have become net immigration countries, mainly as a result of large inflows of migrants from Africa and Asia[4]. With respect to immigration from Eastern Europe, Germany has been the main recipient. In the accommodation of asylum seekers, Austria and Sweden have been significant, relative to their population size, but less notable in gross terms.

Regional movements in population have been characterised variously as centre/periphery, East/West and by 'region type'. The main developments in the former two models have been a move from the peripheral areas to central economically strong zones, which have left areas of de-population and movement generally of younger workers from East to West. 'Region types' were established by the research of ESPON project 1.1.4 and they are presented as 6 categories, based on factors including a mixture of migration and natural population change (as Table 3 in the Appendix).

[3] The total fertility rate (estimate of the number of children a woman will bear throughout her child-bearing years) averages between 1.6 and 2.1 in France, the UK, the Netherlands, Ireland and now parts of Scandinavia, but lies between 0.0 and 1.5 for the rest of the EU and the Russian Federation. Higher rates in France and Scandinavia have been explained by some demographers to reflect generous national pro-natalist policies, in Scandinavia and the UK to reflect the high extra-marital birth-rate and in Ireland to be largely a reflection of a much higher than EU average cohort of young people due to previously higher fertility rates than existed across the rest of the EU. Nonetheless despite these deviations the general European trend in birth-rates is downward.

[4] In 1990, of the (registered) 13 million foreigners living in the then EU-12, 8 million were from outside Europe, with nearly half from North Africa or Turkey.

1.1.1.3 Demographic trends in historical context

The key demographic trends in Europe then, with regard to natural population change are falling birth rates and mortality rates producing increasing life expectancy. Migration trends are more complex. There has been a reduction in long-distance inter-European migration, but a continued high level of short-distance movements within Europe. These movements are producing de-population in certain areas. Similarly migration to Europe from outside the EU continues to reflect high potential and demand. Migration from non-EU countries to the EU is lower than had been predicted by some in the Seventies and Eighties, but shows clear East to West flows.

Current trends show a distinct departure from long-term trends. From the beginning of the nineteenth century demographic trends (described as the 'first demographic transition') were marked by rising population, as still apparent in most of the rest of the world (see table 1 in Appendix). But the end of the 1960s marked the beginning of a sharp downward trend, the 'second demographic transition' with the total fertility rate falling below replacement rate by 1975 (at least 2.1 needed to give a constant population in the long-term). Since then birth rates have continued to decrease, and by 1990-95 they stood at 1.5 births per woman (see Table 4 in the Appendix below), compared with an average of 5.1 in the least developed regions of the world and 3.2 and 3.4 respectively, in neighbouring North African and Western Asian states.

The increase in longevity has been a continuous feature of recent European history rather than the more recent and rapid fall in fertility[5], though arguably there is further scope for improvement particularly as the male/female differences in life expectancy have persisted. Nonetheless, on average life expectancy at birth has risen from 67 years in 1950-1955 to 76.5 years in 1990-1995. Consequently, the proportion of 65+ rose from 9.5% in 1950 to 15.5% in 1995 and the potential support ratio (no. of people aged 15-64 for each person 65+) fell in the same period from 7 to 4.3.

With respect to 'external' factors impacting on population, the nature of migration has changed over the past half century. Three distinct 'waves' can be identified; firstly the post-war 'guest-worker' phenomena, then family reunification and now the emergence of a 'post-industrial' pattern of migration. This comprises three elements: high-skill labour migration, clandestine movement (through illegal entry or after the expiry of a short-term student, tourist or work visa) and asylum seeking. Numerically, and in terms of visibility, the latter two categories are more significant.

In terms of migration between regions there has been a major change. In the years immediately following the end of World War Two intra-regional population movements in Europe were still dominated by rural to urban migration. By the 1970s counter-urbanisation, or other forms of 'de-concentration' became more pronounced in many areas and looked set to continue, at least for the increasing proportion of people who were retired, on higher incomes, or flexible and home-workers able to live away from their place of work. However despite this new tendency for people to 'locate themselves down the urban hierarchy' some European peripheries are seriously affected by population decline due mainly to a negative migration balance.

1.1.1.4 Projections of future population developments

The Population Reference Bureau (PRB) calculated that between 1996 and 2010 Europe's

[5] Infant mortality rates have also fallen, most markedly over the past fifty years; since the early 1950s in the 12 pre-1995 EU countries it has been falling by around 5% a year on average; from 49 per 1000 live births to 8 at the end of the 1980s

population would be maintained, largely as a result of declining mortality and migration by 2.3%, but would fall between 2010 and 2025, assuming a continuation of current trends by –0.3%. This compares with an average across the rest of the 'developed world' of 10% (1996-2010) and 8% (2010-2025), and for less developed countries of 25% (1996-2010) and 21% (2010-2025). The consequences of such projections are a continuation of the declining European element of the global population. The PRB predicts that by 2025 Europeans will account for one in 16 of the world's population, down from one in 6 in 1950 (UN forecasts of the situation of Europe in global context at 2050, based on trends between 2000 and 2005 are shown in Table 1, Appendix).

Excluding the migration factor, the most interesting dynamic to many socio-economic policy makers and planners is the ratio of young to older persons. Already the proportion of older people is higher than the proportion of the young (under 15) in several European countries, including Bulgaria, Germany, Greece, Italy, Portugal and Spain. The average percentage of persons over 65 in the EU-15 was 24.1% in 2000, (an average of 25 often suggested as an 'unacceptable' rate in purely economic terms). Eurostat predicts that the figure will reach at least 30% by 2015 and more than 40% by 2030 (a break-down of the forecasts by country are provided in Table 5 of the Appendix). However dependency ratios are culture specific, in terms of the ages at which people are expected to work, and not absolute. They could therefore be altered, at both ends of the age spectrum, by innovative labour market policies. Nonetheless there are policy implications impacting all aspects of life, most obviously health, housing, transport and health care.

1.1.2 EU policies relating to demography and migration

Explicit population policies are currently notable by their absence in most EU member states and clearly at the EU level, where there is no clear competence in this policy sphere. Obviously other policy spheres influence demographic trends: labour market and family policies in the case of fertility and the consequences of an ageing population and social and economic policies broadly to deal with migration. In all these cases it is easier to see the policy implications than to make policy recommendations, which is reflected in the lack of clear policy direction at the EU level[6].

1.1.2.1 EU policies relating to fertility

In the case of 'natural population development' the EU may be said to have adopted mild, non-explicit pro-natalist policies in the form of minimum standards in the field of parental leave[7] (though no agreement on any form of minimum income during parental leave) and a (non-binding) recommendation on child-care service provision.[8] Despite official statements from the Commission that measures must be promoted to 'reconcile work and family life' and assertions that these measures have 'opened the path toward the establishment of a minimum EU pattern of intervention in family policies' (Rossili, 2000), attempts to establish a unified European social policy have been beset with difficulties and resisted by member states, in particular the UK. Consequently the EU is still left with a 'status quo of (fragile) welfare state sovereignty and autonomy in member states producing a variable geometry' in the spheres of social and family policy described (Leibfried, 1994). As a result there has been substantial variation in the generosity, or not, of tax incentives to encourage child-

[6] The Green Paper 'Confronting demographic change: a new solidarity between the generations' COMMISSION OF THE EUROPEAN COMMUNITIES, Brussels, 16.3.2005 COM(2005) 94 final, may be an indication of an attempt to change this.

[7] Council Directive 96/34/EC of 3 June 1996 on the framework agreement on parental leave concluded by UNICE, CEEP and the ETUC. OJ L 145, 19.6.1996.

[8] Council Recommendation 92/241/EEC of 31 March 1992 on childcare. OJ L 123/16, 8.5.1992.

bearing, higher child benefit payments for second, third and subsequent children and subsidised child care provision for working parents. This has at least produced a situation allowing demographers to debate the relative impacts on fertility of different policies.

There are also differing attitudes across the EU in general to female labour force participation, although in this sphere there is a greater degree of EU social regulation[9]. Ironically improving the labour market opportunities for women has been widely cited as one of the driving forces behind falling fertility rates. However there are two possible explanations for this. Firstly, positive action has been directed at redressing the imbalance of women's opportunities in the labour market, rather than at redistributing results (jobs or careers), as occurred with American affirmative action that set quotas and discriminated in favour of women at the point of selection. Interestingly in the USA birth rates have not been declining in the way that they have in Europe. Secondly, this 'liberalism' in EU policy has become apparent in the growing de-regulation in female employment, so that in spite of directives on the protection of part-time and fixed-term workers which have attempted to cut out the more explicit forms of discrimination and abuse (such as that arising from the use of successive fixed-term employment contracts). The persistence of resultant forms of work insecurity may not be conducive to encouraging fertility. Stratigaki (2004) has argued that concepts initially introduced to encourage gender equality in the labour market and the 'reconciliation of working and family life', have gradually shifted in meaning from an objective with the potential of 'sharing family responsibilities between women and men' to a market-oriented objective ('encouraging flexible forms of employment') as it became incorporated in the European Employment Strategy of the 1990s. The current Lisbon Agenda objective of increasing women's participation in the labour market to more than 60% for 2010 would seem to uphold this view, if the EU is concerned about the long-term implications of the fall in the birth-rate, it has not, as yet, produced any explicit or unified policy to address the issue.

1.1.2.2 EU policies relating to longevity and ageing

In the field of ageing there has been more guidance from the European Commission, though still it is in its early stages and, as yet, is non-binding. Recent proposals from the Employment and Social Affairs Commission now stress a 'life cycle approach' to maintaining the EU's competitiveness in order to realise the Lisbon Strategy (op de Beke, 2004)[10]. This follows the revision of the employment strategy in 2003. The dual approach to the issue of the ageing population is to extend the working life and promote health into later life to support this. It is proposed that retirement age should be increased by an average of five years and that the participation of older workers is encouraged in a general sense by restructuring work to be more accommodating to the needs of older workers. The gender dimension of ageing has also been discussed by the Commission. At present the lack of harmonisation of child support is mirrored by a similar lack of unified policy relating to support for the elderly, including support for carers, this has resulted in a wide range of standards of provision, particularly for the frail and very old.

[9] Article 141(1) of the EC Treaty sets out the principle of equal pay for male and female workers for equal work or work of equal value, and Article 141(3) provides the legal base for EU legislation on equal pay. Directive 75/117 was adopted to implement the principle of equal pay. Furthermore, benefits paid in the context of occupational social security schemes also constitute pay within the meaning of Article 141, and Directives 86/378 and 96/97 implement the principle of equal pay in this area. Article 141(3) of the EC Treaty provides the legal base for EU legislation on equal treatment of men and women in matters of employment and occupation. The main piece of legislation which has been adopted in this field is Directive 76/207, recently amended by Directive 2002/73, which Member States are required to transpose in national legislation by October 2005. This legislation implements the principle of equal treatment as regards access to employment, self-employment and occupation, including working conditions, and vocational training.

[10] Op de Beke Op de Beke, J. (2004) 'The Life Cycle dimension of time use in EU social and employment policies', DG Employment and Social Affairs Commission, 9-10 September, 2004.

1.1.2.3 Migration policies

With respect to migration within the EU, the meso level, Article 51 of the Single European Act 1987 requires the 'free movement of workers and social security for migrant workers'. Clearly central to the single market ideal is the notion of free movement and thus any sub-regional imbalances consequent to this free movement can only be mitigated after the event, through the operation of Structural Funds and other specific initiatives. The lack of a unified social policy clearly has implications for internal migration across the EU, indeed it has been suggested that the lack of a harmonised form of EU social provision, in the form of a European-wide minimum safety net has increased the incidence, or at least the threat of welfare tourism and (unregulated) migration'.

Policies at the macro EU level are generally restricted to limiting the number of immigrants from outside the EU, policies which have resulted in allegations of a 'Fortress Europe' mentality. While discussions about the role of immigration in replacing falling populations have been the subject of much debate they have not resulted in formal policy initiatives specifying the type of migrants or final destination preferred. With regard to destination, 'European immigration needs' are significantly more urgent in the new member states than in the EU-15.

ESPON Project 1.1.4 argued that there was a need to reduce the gap in living standard and income levels in order to create a polycentric development on EU29-level. For example: 'the gap between the new EU members and the old ones are much more pronounced than the gap within the various countries. Temporary rules and regulations are perhaps in some cases necessary in order to hamper a short term large drain from east to west – the fear of mass migration are probably overvalued - but this is not a solution in the long run. Instead, a policy that stimulates symmetrical migratory movements should be … prioritised on the political and social agenda.' It warns though that 'Immigration can only offer a short-term solution to the consequences of ageing. Long-term solutions, such as higher labour force participation rates or a higher retirement age, stimulate an increased fertility rate and improve the labour productivity, which is necessary to deal with the consequences of ageing.' Also required are policies specific to areas of depopulation.

1.1.3 Main driving forces

Reasons for the decline in fertility and mortality relate mainly to health and lifestyle factors. In the case of fertility economic and employment factors are also important. With regard to migration there are push factors and pull factors accounting for the varying attraction of different member states. These clearly are complex and studies show that there are a lot of country specific factors that explain migration trends.

1.1.3.1 Reductions in the fertility rate

The decline in the birth rate is associated with:

- cultural factors; a shift in partnership arrangements - reduced permanency of marital relationships, lower number of marriages, unstable marriages, increase in divorce (children of single or divorced mothers less likely to have siblings) 'serial monogamy', rise in cohabitation. Also an increase in the mean age of women at first marriage and at

production of first child, leading to less children produced in total;
- economic factors; including consumerism, competitive conditions, cyclical recession and unstable employment and an increase in the proportion of working women[11] - all creating pressures leading to postponement (the tempo effect, in turn leading to the 'quantum effect' i.e. producing less children in total), or the decision not to start families;
- social factors; the decline in collective, familial or community values, media and cultural stress on individualism (fulfilment, mobility, living arrangements etc.), social/health changes, - increased availability and acceptability of new forms of contraception, easier access and a rise in societal and medical acceptance of termination (abortion).

In relation to regional differences, in Eastern Europe – post-communist forms of economic insecurity has been correlated with a sharp fall in birth rates, while in Southern Europe very low non-marital child bearing is one of the key factors reducing overall fertility. However, in Scandinavian countries policies to make motherhood and labour market participation more compatible are widely perceived to have led to partial recovery of rates, as they have in France.

1.1.3.2 Increasing life expectancy

Reductions in the mortality rate have been linked primarily to improvements in health care, access to health care and advances in medical treatment and lifestyle factors, such as good work conditions and diet.

Regionally variable factors impacting mortality rates are arguably 'the Mediterranean diet' in countries which have reduced cardiovascular mortality, and conversely the deterioration of social protection systems in Eastern Europe which can be correlated with an increase in mortality rates.

1.1.3.3 Migration

Changes in migration at the international level have been linked to: higher education opportunities, links between donor countries and some EU countries and other country specific factors, previous migration leading to family re-unification; and most importantly the persistent gulf in living standards and opportunities (especially employment) between EU and 'sending' countries.

At the intra-European meso level: key factors include; a steep rise in car ownership, advances in Information Technology allowing home-working; cohabitation, divorce and remarriage leading to more frequent residential mobility; economic pressures to move away from expensive urban centres; families with children moving further away from city cores as commuting becomes easier; greater variety of lifestyles; selective increase in freedom to move to 'sunbelt' zones and more attractive areas; increased work flexibility and decentralisation - post-industrialisation and economic re-structuring, post-materialism - quality of life considerations in moves out of congested and deteriorating zones, retirement migration, portable pensions and a rise in home ownership allowing more freedom in intra-regional/urban to rural migration and young people leaving home, not to marry but to pursue extended education or employment away from home communities.

What is significant about territorial differentiation in international migration is that reasons for emigration to established EU countries are gender and age specific within each of the 'donor countries'. This is vital in demographic terms in that if the gender/age balance of

[11] This point has been widely debated (see 1.1.2.1). The European Population Committee of the Council of Europe has contended that it is security of employment that pre-empts low fertility rates: precarious employment and unemployment are being correlated with decisions not to have children.

immigrants is different to that of the host country there will be demographic changes to the host country, as well as the 'donor' country. Clearly this could be highly significant in light of the ageing issue in European countries. Certain countries face the prospect both of a major 'youth drain' (Bulgaria and Romania, may experience an outflow of nearly 10% of the youngest age group in the next five years) and a 'brain drain' losing a substantial proportion of persons with third level education. The additional factor, not reviewed here, will be future differences or harmonisation of EU member states immigration policies.

Only a complete country review of migration could cover all relevant factors, but examples include: family motives (Cyprus, Malta); higher education (Central European countries, especially for young women); short-term financial motivation (Bulgaria, Romania); and unemployment (Turkey, Bulgaria and Estonia).

1.1.4 Identification of scenario hypotheses

The 'second demographic transition' apparent in Europe has been negatively presented by those concerned by the consequent ageing of the population and the growing contrasts with the rest of the world in terms of their age components. Thus, though global demographers (largely concerned with containing the global population 'explosion') see reductions in the fertility rate as the key to a successful stabilisation of population and development economists describe a phase of falling death rates followed by a phase of falling birth rates as a key indicator of human development levels (UNDP), many within the EU have expressed concern at the relative shrinking of their share of the world's population and the shifting age dynamics within it. While less developed regions continue to retain the triangular shape of a traditional 'age pyramid' with a broad base caused by above replacement rate fertility producing ever larger generations of potential parents, the EU and Eastern Europe, together with some other more developed regions – such as Japan – are increasingly characterised by a contracting base of young people leading to a rapid ageing of their population over and above the effects of increasing longevity. The apprehension, expressed by some, is that this situation is predicted to become even more top-heavy over the next half century, with Europe's proportion of persons over the age of 60 rising from 1/5 to between a 1/4 and a 1/3 by 2030. The possible consequences of this are the focus of the first scenario 'Silver Century' with a focus on the possible impacts on the 'European social model' of welfare provision, on the form social spending may take. Likely intra-European movements of different age and social sectors within the EU, based on existing trends, will also be considered and the subsequent implications for population distribution.

The second scenario 'Open Borders' will focus more explicitly on the migration issue and in particular the probable consequences, of the introduction by the EU of an explicit policy to encourage immigration to address the issues of ageing as set out above.

1.1.5 Information sources

European Foundation for the Improvement of Living and Working Conditions

The European Observatory on Demography

ESPON 1.1.4 Project - The Spatial Effects of Demographic Trends and Migration

Eurostat

International Office of Migration

Organisation for Economic Co-operation and Development Statistics Directorate

Population Division, United Nations

Population Reference Bureau

The European Population Committee (CAHP), Council of Europe

United Nations Economic Commission for Europe (UNECE) Population Forum

World Bank Population Projections: short and long-term estimates

1.1.6 Appendix: tables and graphs

	1900	1950	2003	2500 (UN projected)
World	1650	2519	6301	8919
Asia	947	1398	3823	5222
Europe	408	547	726	632
North America	82	172	326	448
Africa	133	221	851	1803

Source: UNECE Population Forum, 2003

Table 1 World population growth (millions)

	Population 2003 (mill)	Growth (%)	Infant mortality$	TFR~	Life Expectancy	% 2000	60+ 2050
World	6301	1.2	56	2.7	65	10	21
Asia	3823	1.3	53	2.6#	67	9	23
Europe	726	-0.1	9	1.4	74	20	35
N America	326	1	7	2.1	77	16	26
Africa	851	2.2	89	4.9	49	5	10

Source: UNECE Population Forum, 2003

Table 2 Key population statistics by region (millions): annual averages 2000-2005*

*Except for population (2003)
$ Per 1000 live births
~ Total fertility rate
# Rate averaged down due to the 'China effect' (one child policy)

	AT	BE	DK	FI	FR	DE	EL	IE	IT	LU	NL	PT	ES	SE	UK
2000	0.01	0.4(e)	0.13	0.15	0.42	-0.09	-0.02	0.67	-0.03	0.45	0.42	0.14	0.10	-0.03	0.11

By 2003 the decline in Italy and Germany had accelerated. Of the 10 new member states all have negative rates, except for Malta and Cyprus. The rates in Eastern Europe are also now almost all in absolute decline, the sharpest fall being seen in Bulgaria. These figures may also be measured annually by '000 inhabitants, see below.

Source: T1.3 Europe-wide comparative review, Council of Europe, 2004

Table 3 Current rate of 'natural population increase' (excess of births over deaths in the indigenous population in % – EU15 (average 2000, 1.8)

	AT	BE	DE	ES	IT	UK	BG	EE	LT	MT	PL	RO	SI
Natural	0.0	0.6	-1.8	1.7	-0.8	1.4	-5.9	-3.7	-3.0	1.8	-0.2	-2.6	-1.0
Total	3.1	3.9	0.1	7.2	2.8	3.2	-5.9	-3.8	-4.5	5.7	-0.6	-2.6	0.8

Half of the new member states were showing a total fall in population by 2003, but in the case of the Czech Republic, Slovakia and Slovenia immigration was preventing an overall decline.

Source: Eurostat European population trends, 04/6

Table 4 Natural population increase: Total population increase (by '000 inhabitants – selection of EU29 (average 2003, 0.8: 3.4)

1 In-migration and young population/'high' TFR
2 In-migration but low fertility rate
3 Out-migration but young population/'high' TFR
4 Out-migration and old population/'low' TFR, depopulation
5 In-migration and old population/'low' TFR
6 Out-migration but still young population/'high' TFR

PT=Total population development, PM=Net migration, PN=Natural population development, TFR=Total Fertility rate

Source: ESPON 1.1.4 Final Interim Report

Table 5 Demographic Typology of Regions

	AT	BE	DK	FI	FR	DE	EL	IE	IT	LU	NL	PT	ES	SE	UK	CZ+	SK+	SI+
1960	2.7	2.6	2.6	2.7	2.7	2.4	2.2	3.8	2.4	2.4	3.1	3.2	2.9	2.2	2.7			
2001 +2003	1.3	1.5	1.7	1.7	1.9	1.4	1.3	1.97	1.2	1.6	1.7	1.46	1.26	1.57	1.6	1.17	1.2	1.22

Source: T3.3 Europe-wide comparative review, Council of Europe, 2004

Table 6 Total Fertility Rate – EU15 (average 1960: 2.7, 2001: 1.4)

Year at which working age population is expected to stop growing/start declining	
-2000	IT, DE, LV, BG, RO
2004	HU
2006	LT, EE
2007	CZ
2008	DK, PT
2010	FI, EL, ES, SK
2011	SI, NL, BE, UK, FR, PL (average EU15, EU25)
2012	AT
2035	IE
2042	MT
2044	CY
2050+	SW, LU

Source: Eurostat 2004 Demographic Projection (Baseline Scenario), 2004

Table 7 Ageing Patterns – EU25

1.2 Scenarios

1.2.1 Scenario 1: Silver Century

1.2.1.1 Hypothesis underlying the scenario

This hypothesis is based on the continuation of current trends, both in terms of demographic evolutions and in terms of policy. The question asked by the scenario is thus: should current demographic, migration and labour market trends continue unchecked, how will Europe look in 2030?

The European population will continue to age and immigration will be very limited and controlled. The shrinking workforce will have to work longer hours and pay higher taxes to support the rising costs of health care and pensions for the growing number of older people. The fiscal demands of this 'ageing Europe' place tremendous stress on the 'European social model' of welfare provision which is based on a choice made to accept lower economic growth in return for more social protection and leisure time. The social model may be modified to meet the needs of older people, which will not help redress the continued falling birth-rate. Older people will move in increasing numbers to rural areas and from North and West to Southern 'retirement destination' areas, where they use their 'grey' voting power to shift public spending away from nurseries, schools and playgrounds towards health care and retirement homes. Core-periphery and the east-west demographic polarisation further accentuates as a result of depopulation and loss of labour force.

1.2.1.2 Driving forces

The main driving force leading to an ageing population and a shrinking and ageing working population is a continuation of the trend of falling total fertility rates, a trend continuous with a reduction in mortality rates. The outcome is increasing longevity and declining natural population growth.

Particular features of this driving force include the following:

- Continued decline in the total period fertility rate, with a reduction in child-bearing of women between 18-30
- Continued progressive ageing of the population, most notable in older cohorts - the 'fourth generation – in particular those aged between 80-85 years, and centenarians (100+ years) so that population ageing is 'deepening'[12].
- There is also a 'feminisation' of population ageing (primarily a consequence of lower mortality rates among women). As the population ages, so the female to male ratio increases. Also notable is that that almost 45% of older women are widows, and so live without 'spousal support'
- The working age population vis-à-vis the rest of the world falls and the age structure of the European work force becomes increasing dominated by the 45-64 cohort
- Increasing demographic segregation, more poverty and isolation amongst some older cohorts, others living in relative luxury in retirement villages in desirable locations.

[12] Eurostat predicts an increase of persons aged over 80 of approx. 16 million between 2005 and 2030, see Table 8 below.

- Migration into the EU continues to rise, both legally and illegally, but as destinations are confined to certain MEGAs, the desired 'replacement potential' has been limited.

1.2.1.3 Context and process of scenario development

In the decade and a half since the turn of the century fertility rates have continued on a downward trajectory. The average fertility rate has dropped to 1.2 (0.3% less than the rate in 2004). Meanwhile, life expectancy has continued to rise. Indeed, at birth, life expectancy in 2015 stands at 82 years for men, 87 years for women. The proportion of European population above the age of 60 has also increased from 21 percent in 2000, to between 8 to 15 percentage points higher. In other word, the numbers of the population above 60 is approximately1.5 times the level it was at the beginning of the century. Similarly, the proportion of the population below age 20 has declined up to 2015, but it is not directly a mirror image of the proportion of elderly. The proportion of children and teenagers in Europe has declined from its 2000 figure of 23 percent to 15 percent in 2015.

Demographic change has also started to be reflected in economic change. The declining number of workers has slowed down economic growth, with the ageing of the population adversely affecting consumer demand, asset values, corporate profits, and balance sheets. This occurs more heavily in some markets than others - in mature markets such as cars and home appliances, sales have shrunk year after year[13]. This is because, in its early stages, depopulation is characterised by the shrinking of the youngest age groups, and thus demand for products and services consumed by the young is the first to decline. In Germany, for instance, the cohort born between 1995 and 1999 is only 47 percent as large as the cohort born between 1970 and 1974. Financial services providing top-up pensions and second mortgages targeting more financially secure older people have flourished.

As a proportion of the labour market, the service sector has continued to grow rapidly. The majority of the new 'working class' employment now involves servicing the private or domestic 'needs' of middle class older people. Also in evidence has been a growing intergenerational division in service sector delivery, with a steep increase in occupational demand focusing on providing for needs of a growing elderly population. This has been accompanied by a boom in professional 'caring' qualifications.

Despite a rise in home ownership among older people, there has been a steep contraction of housing demand. This has undermined property values creating both reverse wealth effects at the household level and balance sheet weakness among financial institutions that hold mortgage-backed assets. This is seen to be related to 20 percent decline in the 25-44 age group across Europe, with certain regions, such as Spain and Italy seeing more radical declines of 36 percent and 30 percent respectively.

By 2030 the number of people in the over 60 age category is some 40% higher than at the turn of the century. In addition there has been a marked rise in the very old. In the UK for instance, compared with the 300 people aged 100+ in 1950, in 2030 there is a growing expectation that living for a century will be the norm for thousands of people. However, changes to the age structure are most marked in Germany. Here, by 2030, people over 65 accounted for almost half the adult population, compared with one-fifth at the beginning of the century. In other European countries the proportion of people over 65 is at least 30%. Furthermore, as the country's birth rate has failed to recover, the under 35 population has shrunk about twice as fast as the older population has grown. The net result is that the total population, 82m at the start of the century, has declined to 71.5m by 2030. The number of people of working age has fallen by a full quarter, from 40m to 30m.

[13] Arguably this has produced some pay-offs in terms of environmental sustainability.

These trends have been replicated to varying degrees across the EU. The key factor continues to be a failure of population replacement, producing the fall in the total population and working age population. There may be some correlation in the rising longevity and falling fertility, so that at the same time as life spans continue to rise, so fertility continues to fall as women leave childbirth later and later. By 2030 the TFR is barely at 1 per woman. The combination of this decline in birth rates and the increase in the life expectancy of people has created the 'gerontological drift'[14].

At the beginning of the century it was estimated that by 2030 the age at which full retirement benefits start would have risen to the mid-70s in all developed countries, while benefits for healthy pensioners would be substantially lower than their 2005 levels. It was also argued that fixed retirement ages for people in reasonable physical and mental health would have been abolished to prevent the pension burden on the working population from becoming unbearable. These predictions and concerns arose from a young and middle aged working population who suspected that there would not be enough pension provision when they reached traditional retirement age. But between 2005 and 2030, continued and growing electoral pressure from older voters, meant that pension reform was not politically feasible. Consequently, the estimates made by the World Bank in the 1990s, that spending on public pensions would increase from under 9% to over 16% of GDP between 1990 and 2040, have proved a fair evaluation[15]. By 2030 pension costs have reached 15% of GDP.

1.2.1.4 Impacts

- **Macro-economic, social and political impacts**

The 'baby boomer' generation have been retiring in large numbers resulting in the 'emptying out' of workplaces. This has been particularly noticeable in the area of public sector service employment. Despite various policy measures to retain workers, old people have been drawing their pensions much earlier than the retirement age. This reflects the growing economic power of older persons, who not only continue to draw pensions based on transfers from a decreasing workforce, but have been able to negotiate and maintain subsidies on many aspects of life, such as transport, entry to cultural events etc. Some policy makers have argued that these need retaining given the propensity of older people to save rather than spend, all efforts need to be made to retain older people's stake in the functioning of the economy.

One outcome of this is that less than 4% of men remain in the workforce by the age of 65. The level of economic inactivity has also remained high, well above the 2004 figure when 40% of Europeans of working age were economically inactive. The continued early exit rates from the labour market have accentuated by late entries with a continued emphasis on higher education extending for longer periods. Consequently the number of workers has fallen while the number of those dependent on them has risen. By 2015, the number of pensioners has grown relative to the number of workers, with 55 pensioners for every 100 workers (compared to 35 people of pensionable age for every 100 of working age in 2004). Thus the dependency rate stands at 2 people in work for every one in retirement. Inter-generational conflict resulting from this 'burden' has been the subject of much trade union debate, threatened and actual action.

Concerns about the declining competitiveness of the European economy relative to younger and growing economies continue. Developments in R&D and ICT remain the hope for its future global ranking, as well as reliance on technological advances to deal with persistent

[14] Characterised by an increase over time in the proportion of older people relative to younger people.
[15] Higher than the forecasts of the Economic Policy Committee given below.

labour scarcity problems. In the field of long-term geriatric care, temporary work visas for migrant workers has become a typical way of ensuring adequate staff, this has lead to allegations of the misuse of the guest worker syndrome, though there seems to be no shortage yet of migrants seeking these positions.

The consequences of the ageing of the population have not been confined to the labour market and related issues, the changing demographic balance have affected voting behaviour and subsequently political developments. The increasing power of the 'grey vote' has effectively blocked reforms to pension schemes and to proposals to increase the retirement age. Similarly, as the number of retired people has out numbered young voters, older people have become a determining force in shifting public spending priorities away from provision of services commonly associated with the young, such as nurseries, schools and playgrounds, towards services for the elderly, such as retirement homes and health care. At the same time, spending on the latter years of life has risen as the proportion of users of these services has increased relative to younger people. These changes in spending begin to be reflected in cultural and media output, with a marked reduction in emphasis on youth evident in at the outset of the century.

Nightmare visions depicting overwhelming demands on future health care budgets of an ageing population, popular at the end of the last century[16], have not materialised to the extent that had been predicted. Improvements in health and lifestyle of a large sector of older adults have resulted in dominance of the so-called 'receding horizon scenario', where the onset and progress of disease and disability have been postponed to precisely the same extent as death itself, so that the number of years of diseased and disabled existence have remained unchanged. The 'plateau effect' in some regions, and for a minority of people, has been further reduced in accordance with the 'compressed morbidity scenario', where both disability and death are postponed but the former more so than the latter, so that the interval between the onset of chronic disease or disability and death has been shortened. However in poorer socio-economic groups, higher mortality rates among men have persisted, and among women an extended period of dependency has become the norm, often with minimal and remote forms of support.

Social differentiation has not been reduced during the ageing of Europe's population, indeed socio-economic divisions – without policy intervention - have visibly multiplied in the period of 'remaining life' (age cohort 65-95+). Amongst higher income groups, live-in carers and domestic workers for older adults have become increasingly popular and large homes designed with, 'carers quarters' attached, have been developed throughout the EU. Conversely for lower income groups 'distance surveillance centres' have emerged. These sparsely staffed centres monitor the homes and movements of elderly people. Such 'distance care packages' have done little to confront the problem of isolation in old age. Indeed depression in the very elderly has increased as these forms of technology have not been used to maximise social or community contact. For all income groups the long-term consequences of a continued rise in marital and kinship insecurity has undermined family care of the elderly.

In general then all aspects of how life is organised have been changing as a consequence of the demographic shift; housing, transport and other forms of infrastructure have started to take different forms and there has been a revival of new forms of polycentricity, at the

[16] The 'nightmare scenario' where the age at which disease and disability strikes remains as it was in 2000, but death is postponed was the basis for the claims of an 'exponential' growth of health care costs. This was based on the apparent constant 'high' in health care costs from age 80 onwards in many member states (based on data from the Economic Policy Committee of the European Commission), depending on the length of the 'plateau effect'.

micro level, as older people prefer local accessibility to travelling long distances to large centres to shop etc. However at the macro level only France and the UK have experienced rising populations and this has largely been due to increased concentration and a continued influx of people to the conurbations around the Isle de France and Greater London.

- **Regional and territorial impacts**

The economic impact of the ageing population has varied significantly at the meso level, as some member states and regions have felt the impact of ageing much sooner and more strongly than others. In countries with more serious pension problems (such as Germany) public debt has grown to over 60% of GDP. Within the EU, Italy and Germany have seen their working age population drop by 47 percent and 43 percent respectively. By contrast, France and the United Kingdom have experienced less drastic declines of 26 percent and 15 percent. In countries where the rising costs of old age has been more severe (such as France, Italy and Spain), intergenerational conflict has been taking the form of so-called 'age riots' which have taken place intermittently in certain metropolitan areas.

Patterns of fertility decline at the macro level have converged, though at different rates, taking place firstly in North and West Europe (from the 1970s), followed by South and then Central and East Europe. Thus a similar transition has been occurring but at different time scales. Ageing has been felt first in North and West Europe, but has been developing rapidly across the Mediterranean, where life expectancies are among the longest in the EU. In Central and East Europe, where mortality rates had increased at the turn of the century, life expectancy rates have started to fall into line with the rest of the EU thus producing similar ageing trends. These have been exacerbated however as a result of intra-European migration. Since the end of quotas for East to West European countries in 2011, demographic imbalances in areas away from the economic centres of Central and Eastern member states have become serious, with – for instance - a shortage of working people in caring and other medical occupations leading to service shortfalls. The only countries where there has not been an overall fall in population over this period have been France and the UK.

At a macro level, the East/West, South/North, centre/periphery and urban/rural divisions within the EU have started to take on a significant age element. The East, South, rural areas and periphery have become either magnets for older people (in the case of the South) or areas where older people have been increasingly left behind, as younger cohorts move to economically more dynamic areas.

Many affluent older people are more mobile and have more diverse lifestyles. As such, they have begun to choose 'where to retire' and, increasingly, they have chosen to retire in areas with lower crime rates and good access to services, (particularly health care and hospitals), and with a pleasant climate. Indeed, residential segregation by age is apparent at the macro and micro level. Regarding the former, across Europe, older people are moving to Southern European 'retirement destinations'.

At the micro level, within member states, there are signs of 'age' segregation with retired people concentrating in rural areas, although there is a residual (mainly low income) older population remaining in urban areas. There are also an increasing number of gated type communities, which designate age or 'no children' conditions on residents. These trends are producing a growing spatial differentiation by generation.

In summary unregulated population movements to and within the EU have exacerbated, rather than mitigated in the way that had been hoped at the beginning of the century, the effects of the under-lying ageing trends in the period 2005 to 2030.

1.2.1.5 Final image

In 2030 the balance of power politically, economically and spatially will be increasingly dominated by older people. In territorial terms this will be apparent in a division of space with younger people being concentrated around urban working areas and retirees distributed across suburban and rural spaces. At a macro level there will also be differences in the age distribution of the population, with Southern areas of the EU becoming retirement destinations on a much larger scale than was apparent at the turn of the century. It has become the norm to work in the MEGA areas of the Core during working years, and retire away from these areas relatively early, in spite of continuing longevity and related debate about what the average retirement age should be.

Resistance to large-scale or 'directive' immigration has meant that the ageing of the workforce and population, which began at the end of the last century, has shown itself to be largely irreversible in nature, and gains from international immigration in its legal form have been relatively insignificant, except in the cities where the populations were already younger. In Eastern Europe the loss from emigration, particularly of younger peoples has contributed to the ageing effect. Attempts to contain and control illegal immigration continued to flounder, but the informal economy have continued to flourish – including the service sector and care of the elderly.

Demographic changes have had a continued negative impact on labour force rates, most noticeably in the East. Since 2010 the net intake of young people entering the work force substantially fell, reducing their labour force participation rates relative to workers over the age of 45. However the work force has been 'squeezed' at both ends, due to the popularity of late entry (higher education) and early exit (early retirement), at least among higher socio-economic groups. Between 2010 and 2025 technological adaptations partially compensated for declining work force participation rates as efforts were made to try and maintain the participation of some older workers in 'knowledge based' work.

1.2.1.6 Appendix: Base-line forecasts supporting this scenario

	2005-2050	**2005-2010**	**2010-2030**	**2030-2050**
Total population	-2.1	+1.2	+1.1	-4.3
(in thousands)	*-9642*	*+5444*	*+4980*	*-20066*
Children (0-14)	-19.4	-3.2	-8.9	-8.6
Young people (15-24)	-25	-4.3	-12.3	-10.6
Young adults (25-39)	-25.8	-4.1	-16	-8
Adults (40-54)	-19.5	+4.2	-10	-14.1
Older workers (55-64)	+8.7	+9.6	+15.5	-14.1
'Third generation' (65-79)	+44.1	+3.4	+37.4	+1.5
'Fourth generation' (80+)	+180.5	+17.1	+57.1	+52.4

Table 8 EU25 population change (%) (Eurostat projected)

1.2.2 Scenario 2: Open border

1.2.2.1 Hypothesis underlying the scenario

This hypothesis is a prospective policy scenario, based on the notion that an open and actively promoted immigration policy will be introduced which will change current demographic, migration and labour market trends significantly by 2030.

European societies become aware of the strong implications of their strongly ageing populations on the demographic, social and economic future. Political discussion mainly focus on the implications on shrinking labour markets, on financing of pensions of the strongly increasing number of elderly people, but also on the capacity of European societies for economic and cultural innovation. The European Union and quite a lot of its member countries actively change their immigration policy around the year 2010. Since that time, immigration from other continents, especially from Asia, Africa and South America is no longer strongly restricted, but regulated in more or less coherent immigration policies.

1.2.2.2 Driving forces

The main driving force leading to a change in migration policy has been the awareness of the demographic reduction. In fact, the problem of the ageing population and a shrinking working age population had become a real political shock after 2005 when politicians and the public of different countries in Europe became aware of the social, demographic and financial impacts which could occur in case of a continuation of the trend of falling total fertility rates and the reduction in mortality rates without any compensation through immigration.

1.2.2.3 Development of the scenario

The awareness of the demographic impact grew first in Spain, where a great number of unregistered workers from Northern Africa lived. Some time later Germany, where the immigration from the Republics of former Soviet Union diminished after 2000, decided to open the borders to immigrants from other regions. Hungary, where population had diminished for several years, followed. Finally, the European Commission decided to strengthen a new policy opening the border for the whole territory – even if a great number of amendments, in time, in geographical coverage and especially in skills demanded limited the extent of the decision.

This decision, even if it had been taken first under some contextual pressure such as the situation of boat immigration in the Mediterranean, migration on the Russian border and legalisation in Great Britain, has also been a consequence of imminent Turkish accession. The process has to been seen as the result of a collective awareness of the impossibility of maintaining a 'Fortress Europe' in face of a demographic and economic situation in which population decrease, a strong ageing process and loss of competitiveness would have altered the future of the continent. The intensity of the policy process was high, so that within a few years a majority of the population of most of the member states accepted the opening up of borders.

After 2010 and especially since 2015, net immigration rates increased in almost all European countries. Only after 2020 did some restrictions start to limit somewhat the liberal immigration policy. During the whole period since 2010, we can observe the following effects of the migrations on the total of population increase:

- For Europe as a whole, the process of aging population continued and accelerated during the 2020s. The most rapid growth of older cohorts is occurring in the oldest age groups – in particular those aged over 80 years. In other words, population aging is becoming 'deeper' with an accumulation of very old, and potentially, very frail people.
- The ageing process has somewhat been reduced by immigration, strong effects on population growth, on the age structure of the population and also on the tendency of feminisation.

The increasing immigration processes not only contributed to an influx of younger population during their active period, but also to an upturn in fertility, of the immigrants as well as that of the indigenous population. Thus, the dramatic demographic change projected around the year 2000 did not occur. On the other hand, the effects of an ageing population, of immigration and also of the migration patterns within Europe brought deepening social and spatial inequalities. In addition, immigration did not affect all the countries in the same way, and since regions of recruitment have been quite different, processes of integration, return to their country and exchange between the different contexts have varied. The disparities between the countries as well as between urban and rural regions accelerate for several decades, before new concepts of territorial development have been elaborated at the end of the 2020s.

1.2.2.4 Impacts

- **Demographic, economic, socio-cultural and EU policy impacts**

As mentioned, the demographic outlook for Europe for the 21st century has been the decisive factor of the change of immigration policy. Under these aspects, the 'open border' policy has been successful, since the age pyramid has been enlarged in the age groups of young adults and children. Of course, the number of elderly people has continued to increase and their number reached new records in absolute and relative figures. But the index of dependency did not grow any more after 2020. In a direct or indirect effect of the policy, the number of births and even the fertility rate re-increased after 2015, bringing a second effect of counterbalancing the ageing process of the European population. The large acceptance of immigration brought an increasing number of young mixed marriages – despite some reluctance of the endogenous population - and the maintenance of endogamy in some groups of immigrants.

Overall, the 2010s and 2020s have been a period of economic growth, which allowed the integration of a great number of new immigrants as well as the national population in the labour markets. Nevertheless, the strong increase of elderly people – the baby-boom generations born between 1945 and 1965 – put pressure on social welfare system, on the health sector and on changing demand for the housing sector, for tourism and leisure and in consumption. Immigrants concentrated – at least in relative terms – in the health sector, in tourism, in construction, but also in industry and production, which did not undergo the process of delocalisation as it was around the year 2000. In addition, the new immigrants created types of jobs linked to demand of their own population, especially in commerce, education and transport.

As well as immigration, higher fertility had an effect of reducing the work force participation of younger women. On the other hand, older adults, both men and women became more strongly integrated into the labour market, since the legal age of retirement has been rising in most countries, and since economic demand has been positive. This tendency has been underlined by the effect of a high qualified generation of older persons of working age born between 1960 and 1980. This generation has been highly motivated since they have lived through the experience of a difficult period of entrance to active life. There was an increase in the active population, higher activity rate also from elderly people and a growing percentage of immigrated work force, a lower productivity per working hour could be compensated by a stabilisation of social transfers (i.e. on unemployment, retirement).

Periods of high immigration are often characterised by increasing tensions between generations, between less qualified endogenous workers and new arrivals, especially skilled main force, between richer and poorer regions, but especially between immigrants and inhabitants in rapidly changing town-quarters. During the first decades of the 21st century, some of these divisions have been clearly active, especially the spatial ones. In general, despite the high number of new arrivals, ethnic conflicts have been quite rare, though some violent riots occurred around the 2010s, especially in some Eastern metropolises and in some old-industrial towns in Western Europe. In general, the quality of security did not worsen during the last 30 years, even if problems of integration touched many urban regions. The liberal immigration policy and the high financial efforts in integration in the national context allowed the maintenance of security at a level, which has been considered by the populations as satisfactory. On the other hand, integration in a local or national context of the whole immigrant population did not happen, especially among unqualified groups. English became the standard language in many social contexts, not only in tourism, multinational enterprises and research, but also in culture, commerce, transports and health sector. The tensions between generations often arose because the older generation has been composed, by 80 to 90% of nationals, while the young generation is of foreign origin by over 50%, in 'classical immigration countries' (Luxemburg, Switzerland), but also Germany, Sweden and Southern Spain. The political acceptation of the world-wide increase in migration and the opening of the borders of Europe related to the widely acknowledged variation in fertility rates between the Continents. But the increasing immigration had contributed to social tensions. High investments in the education system had to be foreseen, especially for basic school level, since immigrants started to be dominant in several metropolises and within them in a lot of quarters. Investments in public housing policy had to be reintroduced, since the demand on inexpensive apartments became chronically high. Strong immigration and internal migration within Europe strengthened the position of the English language, which not only increased its role as the dominant language for Europeans, but also for immigrants, especially for skilled persons, coming from China, Russia and the Arab countries.

Introducing migration as an instrument to compensate emerging deficiencies in the age structure, the EU policy had chosen to follow an active and proactive policy in order to intervene on the demographical structure. By choosing this path, the EU has also had to intervene in a series of accords with the Non-European countries which have been the origin of immigration, such as Central Asia, India, Pakistan, Indonesia, China, the Arab countries, Africa, Brazil and Spanish Latin America. These accords have been made both bilaterally as well as in a general facilitation of migration.

Positive net migration is composed of strong immigration, but also quite important flows of emigration and returns to the countries of origin. Accords on education bonuses have been given to countries attracting young immigrants as well and concordats for innovation transfers have underlined growing interdependency on a world-wide scale. Europe went through a series of political crises due to international tensions between Outer-European

countries, especially in the Arab world, in which the political interests diverged between some member countries. This has been especially the case after accession of Turkey.

- **Territorial impacts**

Territorial inequalities grew. Immigration from abroad but also within the Union tended to concentrate on the North, West and Southern countries of Europe, but neglected somewhat the Central and Eastern countries. The demographic evolution had been clearly in favour of urban and suburban regions, but not rural parts, especially not those with low accessibility. In this way, the 1980s and 1990s had been the last decades for a long time to show positive demographic evolution in rural areas. Thus, the demand for a continuation of the policy of structural funds has been expressed increasingly after 2015 – and it has been followed by measures to strengthen rural and peripheral Europe, especially in the South-East and East. Immigration from outside the Union shows some differences according to: country of origin, level of education, activity fields, groups of recruited immigrants, cultural activities and in housing demand. Differences are also given by main origin and destination patterns; Spain, France and Great Britain have continued to have privileged contacts with the former colonies of the 19th century and thus proposed integration in a known linguistic context. Differences between the European countries have been underlined by the variability of the immigrants: Spain and Portugal as destinations for South Americans (as well Moroccans), France for North and West-Africans, Italy and Greece for Eastern Mediterranean's, Northern and Eastern Europe from Russia, Iran and Turkey. Quite strong population growth in Western Europe, especially in France, as well as in Scandinavia, due to strong immigration and natural increase; slight population growth in Southern Europe, in Great-Britain, Germany, Poland and the Czech Republic due to immigration counter-balancing natural population losses; demographic stagnation in other Central European countries, such as Hungary and the Baltic countries, but also in Spain, where low natural increase has not been compensated for by net migration growth.

Ageing processes concerned some countries quite heavily with serious pension problems (such as France and Germany). Within the EU, some countries have been much more vulnerable to ageing than others. Immigration did not touch all European countries in the same way and it did not contribute in all regions to counterbalance natural losses. We can distinguish the following pattern, which have been dominant during the 2010^{s} and 2020^{s}:

- Quite a strong population growth in France, the Netherlands, in Scandinavia, as well as on the Mediterranean Islands (Cyprus, Malta) due to high immigration rates and positive natural increase;
- Population increase essentially due to a positive balance between births and deaths, but relatively low gains by migration: Ireland, Finland and in some extend Poland and Lithuania.
- High net immigration, but negative natural increase: Germany, Belgium, Czech Republic, Switzerland, Italy, Spain, Greece;
- Low net immigration and natural decrease: Baltic states, Hungary, Bulgaria,
- High natural increase and net migration losses: Turkey
-

1.2.2.5 Final image

In 2030, more older people than ever before are being supported for longer than ever before from a population of working age that are shrinking continuously in absolute size. In order to counterbalance this tendency, immigration from outside Europe has been encouraged by developing a new demographic policy of the European Union. This policy actively supported the arrival of immigrants, legalised illegal presence and tried to

encourage integration models. This policy had a positive effect on the age structure of most of European countries, which otherwise would have turned in a decreasing and strongly ageing spiral. The implication of the policy profoundly impacted the demographic structure of most of the member countries, the labour market and the social insurance systems. But immigration touched also the social, cultural and political life of Europe as well as the interrelations of Europe and the main regions of immigration. In addition, migration had very strong impacts on the countries of origin as well. During the twenty years that this policy has been applied, the character of immigration has changed, since the intensity of immigration diminished and international migration flows have become less unequal. Not only has re-emigration increased, but also more Europeans than before choose to spend part of their life elsewhere or to emigrate definitively. The integration of some 150 million new immigrants caused quite severe problems, especially in metropolitan areas, where social segregation and differentiation by origin became increasingly an issue. Nevertheless, the fact that new immigrants from different origins did not concentrate in distinct quarters, and that integration was in national contexts, as well as in English, ensured that strong conflict was avoided. We have to distinguish the impacts of the first years of the changing policy from that of the later adaptations, in which some violent reactions took place, parallel to a widespread social acceptation of a new European society. Currently, in 2030, back-lashes with some legal and social restrictions of immigration can be observed, but the experience of the last decades shows that this will probably be a transitory phase. Open border policy has also been accompanied by a re-increasing role of social welfare state in the domains of housing, social integration and health sector.

The strongest preoccupation of the migration process has been the strong spatial effects of these important population movements. At the larger scale, we observe some countries and regions with very limited immigration from abroad and some strong concentration in big metropolises. At the local scale, migration contributed to social and spatial segregation, even if these processes were not as important as they have been in North American metropolises around the turn of the century.

1.3 Scenario conclusions

1.3.1 Main issues resulting from the scenarios

The key issues arising from the first scenario 'Silver Century' are pension and budgetary changes, health and long-term care requirements and the challenges of a shrinking and ageing work force. For the second scenario 'Open Borders' the dominant issues are the high costs of integration, problems of segregated regions and quarters and also increased health care need.

Focusing specifically on themes which have a territorial impact, for the first scenario, changing demand for housing, welfare provision, commercial and transport infrastructure could have major ramifications for land use with a possible growth in popularity for polycentric organisation at the micro level as ease of access becomes more desirable. At the macro level though, for both scenarios, issues relating to migration show the most immediate and visible effect. Migration within the EU may influence the impacts of ageing at regional level if younger, more mobile people leave less developed regions for regions with a more attractive range of employment opportunities. Southern regions may also experience inward migration of older people drawn by the milder climate. On a regional level new urban rural divisions are likely to be strengthened as older people relocate to rural areas leading to problems such as a rise in house prices which gives additional cause for local young people to move to urban areas, contributing to problems of social exclusion.

One cause of rising rates of mobility among the 'young elderly' is the trend of early exit from the labour market. One generally accepted response to the ageing population is increasing the absorption of older adults into the labour force and possibly increasing the retirement age. Moves towards this may produce resistance from the 'grey vote', who may make their - statistically stronger voice – heard in a variety of other ways too. Forms of 'inter-generational conflict may become apparent in assessing the spending priorities of local governments, for example away from schools and towards health services. Spending patterns may similarly alter, impacting the domestic economy.

Policies designed to stimulate the birth-rate and provide replacement migration are likely to be the most controversial. Higher payments for second and subsequent children, for instance, may be considered unfair by those with one or no children, while explicit attempts to attract younger workers from outside the EU could exacerbate racial tensions in certain areas.

1.3.2 Implications for EU policies

Excluding migration as an instrument to compensate emerging deficiencies in the age structure, changes in the demographic structure of Europe by 2030 can only be enacted by policies designed to influence other non-demographic processes which have demographic consequences. These could target incentives to increase fertility. Alternatively, they could focus on ways of managing the economic and other consequences of an ageing population, possibly by aiming to:

- increase the work force participation of women[17]

[17] With the provisos given above, Part I, 2a which unless addressed could continue to contribute to falling fertility levels.

- increase the work force participation of older adults
- increase economic activity rates without increased labour force participation
- promote technical improvements which would lead to a rise in productivity irrespective of the demographic decline.

These policy objectives all involve a concentration on non-demographic factors, which affect the economic performance of the EU, which could be used to offset demographic trends. This may be more appropriate, firstly as demographic trends are so difficult to influence, secondly as it is the declining proportion of labour incomes and the growing concentration of wealth, as well as the shortening of the period of working life (in the baseline 'Silver Century' scenario) that are likely to contribute to a fiscal crisis in welfare provision - rather than just the ageing of the population per se.

Policy developments that may challenge this may well need to explore ways of integrating older people, both socially and economically, in order to bring benefits individually and collectively and lower projected social expenditure rises. In view of the objectives of the Lisbon agenda and its emphasis on the development of a knowledge economy, one issue may be how to harness the non-manual utilisation of older people positively in occupations where experience counts. Research by the European Population Committee found that older workers can be more flexible, readily trained and productive (where the work is not physically demanding) than younger ones and that their productive capacity is already 'grossly underutilised'. May it even be feasible that an ageing population, if well managed, may contribute better to the goals of sustainability as set out in the Gothenburg agenda?

Recently the Commission have expressed the hope that economic immigration will help to 'overcome short run labour shortages in several sectors' and be key to fulfilling the Lisbon objectives 'by 2010 and beyond' in view of 'ageing and related skills gaps'. They have also expressed the hope that it will help, in a broader way, the EU to cope with an ageing population and demographic imbalances and their impact on economic growth and other related problems[18]. However, with respect to migration flows, the scenarios suggest that without regulation of type and destination of migration from outside Europe and intra-European migration, existing imbalances will not be addressed to the degree hoped for. Rather concentration around existing MEGAs will increase, as will the de-population and more negative aspects of an ageing population in some Central and Eastern European regions and most peripheral areas across the EU. The issue of a continued lack of harmonisation of socio-economic policies at the meso level could further impact decisions for trans-national migration and may result in further imbalances. Agreements at the macro level on minimum income during parental leave, or leave to care for elderly relatives, might help to tackle this problem.

If a positive immigration policy is to be well managed, the issue of how immigrants are integrated into the EU must be high on the agenda[19]. Related to this, are the issues concerning the age profile of immigrants, their relative fertility rates and relative skill levels and the consequences these factors for both 'donor' countries and 'settlement' regions of the EU.

[18] EU-OECD Conference "The Economic and Social Aspects of Migration", Brussels 21-22/01/2003

[19] The need to focus on integration has been highlighted recently by the Commission Brussels, 3.6.2003, COM (2003) 336 final.

1.3.3 ESPON core indicators related to the scenarios

Structure	Total Population Male (percentage) Female (percentage) Median Age Total Population Development 'Natural' Population Development
Distribution	Urban Proportion Population Density (Persons per sq. km) Sex Ratio (Male per 100 Female) Sex ratio
Growth indicators	Average Annual Growth Rate Life Expectancy at Birth Total Fertility Rate Total Period Fertility Rate Infant Mortality Rate Child Mortality Rate (<5, <15) Mortality Rate (General and Age, Sex and Occupation Specific) Morbidity Rate (General and Age, Sex and Occupation Specific) De-population
Composition change Indicators	Population under 15 (%) Population 15 - 64 Years (%) Population 65 & Above (%) Age Dependency ratio Sex Dependency ratio Potential Support Ratio Economically Active Population (%)
Migration indicators	Population density Net Migration (Immigration and Emigration/'gains and losses') Gross Migration (Immigration and Emigration) Migration by region and type of region (in-migration, out-migration), country, EU, pan-European, inter-continental Replacement migration (labour market measure)

1.3.4 References

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