





# AMBIVALENT NEIGHBOURS. DEMOGRAPHIC CHANGE AND GROWTH STRATEGIES IN SOUTH-EAST EUROPE

Insights and results from the SEE strategic project Making Migration Work for Development



Jointly for our common future

The present report has been produced in the framework of

MMWD – Making Migration Work for Development. Tools for strategic planning in SEE regions and cities

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4: Development of transnational synergies for sustainable growth areas.

http://www.migration4growth.eu

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## PROJECT PARTNERS

































ASSOCIATED PARTNERS











#### MMWD at a Glance

**Duration:** 30 months (May 2012-October 2014)

Website: www.migration4growth.eu

**The Partnership:** MMWD partners are public administrations competent for regional and local development strategies, supported by technical partners (statistical offices, universities and research centres, development agencies), in Austria, Bulgaria, Greece, Italy, Romania, Slovenia, Montenegro, Republic of Moldova and Serbia. The International Organization for Migration participates as an observer.

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Brief project description: MMWD is designed in the realm of the Europe 2020 Strategy to support regional strategy-making for smart, sustainable and inclusive growth. Its key assumption is that policy-makers dealing with territorial development are in need of a future-oriented and integrated vision of development, that would help identify key regional and local challenges and translate the targets and objectives of Europe 2020 into territorial policy priorities. To help build such vision MMWD offers a sound and regionalized knowledge base, scenarios with a 2020 horizon that depict the implications of today's demographic change in local development terms, institutional capacity sessions and roundtables for transnational policy dialogue and cooperation on migration management. The scale of MMWD are regions and cities. Local and regional authorities are at the forefront in facing the interrelated effects of demographic, economic and societal changes occurring on their territories. They are confronted with the need to actively intervene on such processes, and regain their full planning and strategic capacity to the benefit of all citizens. Specifically, MMWD focuses on three inter-related policy realms: Employment; Human capital and education; Social services.

**Project goals:** The ultimate goal of MMWD is to enhance the capacity of public administrations to anticipate, understand and strategically address the implications of current demographic change for the sustainable growth of SEE regions and cities, with a focus on migration-related change and its effects on human capital and labor markets.

## Specific objectives are:

- To improve the analysis and harmonization of the knowledge base on demographic trends and their implications for the prospects of growth and well-being of SEE regions and cities;
- To construct solid demographic forecasts and scenarios to 2020, concerning territorial development trends related to demographic change;
- To strengthen local capacity to undertake evidence-based strategic planning, with migration recognized as a relevant feature for sustainable growth policies;
- To promote and facilitate transnational dialogue among countries and territories that are affected by current demographic trends, with a view to identify comparative advantages in transnational cooperation and promote a more effective regulation of migration flows;
- To disseminate the outputs of the vision-building process of MMWD to an audience of policy makers, practitioners, experts, and local communities.

## Main outputs:

- Reference methodologies for population projections and policy scenarios that take into account migrants and migration movements
- A SEE Knowledge Platform
- Action Plans for Knowledge Sharing across SEE
- A capacity-building pack on the construction of policy scenarios for territorial strategy-making
- Strategic documents or policy frameworks that made use of MMWD's work
- A SEE Platform for Transnational Policy Dialogue and Cooperation on migration management

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## **INTRODUCING MMWD**

MMWD was conceived to understand more deeply and address more effectively the consequences of drastic changes in community structures in South East Europe (SEE), which are modifying the sustainability of growth prospects for the SEE area and for its regions.

In this realm, the partners of MMWD – back in 2011 – have committed themselves to reinterpret today's conditions for sustainable growth in South East Europe, paving the way to new approaches to coherent local and regional policies in a multiregional realm, and as such contributing "to a vision-building process, and to provide creative though feasible and realistic future images of the European territory, that can be part of the vision-building process."

To pursue such ambitious goal, MMWD has worked on three different levels. Firstly, focus has been on improving the knowledge base available, especially at the local levels, on the mid-term implications of today's demographic challenges on future growth, especially in terms of employment, levels of education, and for the welfare system. The outcome of such methodological and analytical effort have been territorial scenarios to 2020, in which the results of demographic projections have been associated to indicators for the three mentioned policy realms, under specific sets of assumptions.

The second core project phase attained the necessity to transfer its added value to administrations and actors of public interest. The teams of MMWD engaged in extensive capacity-building sessions, to improve local capacity to design and implement innovative and holistic responses to core challenges ahead.

Finally and importantly, MMWD incorporated the need for addressing existing interdependencies between effective local strategies and a wider multi-regional realm. The project has brought together various institutions and stakeholders in SEE, to discuss areas of common interest for transnational cooperation in the coming years.

<sup>&</sup>lt;sup>1</sup>Terms of Reference for Priority 4 of the 3rd Call for strategic projects of the SEE Transnational Cooperation Program 2007-2014.

While interactions grow and global competition is accelerating, offering more options for individual choices and for local productive contexts but also more challenges to sustain competition transnational dialogue and cooperation are key dimensions to have territories in South East Europe benefitting of existing connections. Not substituting local action, but offering an important multi-level and multi-regional framework of intervention across countries.

Two core questions have guided MMWD initiative at the transnational level: How asymmetric demographic trends do contribute, and can contribute, to the convergence or divergence of SEE regions? Can a better awareness of existing connections across SEE – which include but are not limited to population and labour movements – support a shared commitment by MMWD institutions to concurrently engage in local and multiregional action?

To start addressing them, MMWD has looked at demographic change as a complex phenomenon, which includes different trends of transformation in the structure of local communities. In its investigation of the relationship between demography and sustainable growth prospects, the analysis of MMWD points to the fact that the demographic tenure of SEE depends on migration, while natural growth has been steadily negative since at least 2007, because of low birth rates<sup>2</sup>.

Both disparities and interdependencies are vast across SEE, and the analysis of demographic trends offers an important analytical cut to investigate both these features.

A relevant part of migration flows in SEE originate within the region: one third of emigration flows from SEE is directed to a SEE country, and about half of immigration flows in SEE come from a SEE country. A core consequence is that on average half of the foreign population in SEE countries is composed of citizens of another country in this region (with a peak of almost 80% in Slovenia).

Migration is the core determinant of demographic growth in the whole area and for the largest part of its territories, and yet, it has a very ambiguous role, depopulating vast areas in contexts with negative migration rates (up to -5% of the total population in 6 years), while in other contexts immigration compensates a negative natural growth.

Yet, the impact is not equal on specific territories, carrying a risk of reinforcing the already huge disparities between SEE regions. Within the same country, macro-trends are largely the same (positive or negative net migration rates tend to persist), but magnitudes may vary broadly, affecting territorial disparities in the same country.

Since the area records a strong mobility of population (mostly young population) within its borders, the different levels of attractiveness of individual SEE regions have direct effects on population movements and their relative effects in other SEE contexts.

What are these effects? Despite diverging demographic trends and resulting disparities, the core challenges are widely the same: a widespread ageing of the population; population under 40 years shrinking and weighting less and less on the total population, associated with lack of improvement in educational levels also in the most developed SEE regions; constant youth-drain and loss of demographic motors in many regions, facilitated also by the vicinity of emigration and immigration countries; contraction and ageing of labour forces, with the balance between 40-65 and 15-39 years expected to worsen until 2020, thus in perspective aggravating the relationship between active and inactive forces of society.

Obviously, all these are long-lasting factors which affect and complicate demographic patterns, and hamper the potential for reversing negative growth trends. Divergences which can be observed in demographic trends, tend to mirror disparities in economic capacity and social tenure.

Significant regional divergences in demographic patterns of this relevance result in a substantially asymmetric socio-economic impact on specific territories, which might have an important influence on economic performance and on the tenure of social models.

The analysis of MMWD is that these unprecedented challenges combine a character of urgency, before the possibility to tackle them is compromised, and long periods of time to revert direction. Today's choices will probably influence our wealth for decades to come.

The design of strategies to address place-based challenges displaying in a specific context, need also consider that in an area which is so interconnected and so dense with disparities, the causes and effects of local challenges depend also on a wider framework. This is a complex challenge of our times, inedited in previous history, which requires a higher capacity to analyse various factors and concurrently intervene on different levels: the effectiveness of territorial strategies lies to a wide extent with the capacity to place local dynamics in a broader geographical and analytical realm, and bring all these levels to synthesis.

Given the existing level of disparities even among regions in the same country, the regional level seems the most appropriate to address context-based challenges. Local and regional authorities are at the forefront in facing the interrelated effects of demographic, economic

 $<sup>^{2}</sup>$  Despite such relevance, the knowledge gap is particularly evident when it comes to structured data on migration and migrants

The chance offered by MMWD, a project which brought together 9 SEE countries, to better understand existing interdependencies and today's demographic determinants of growth strategies has been a significant one.

On one hand, because it became apparent that increasing mobility is the key demographic feature in SEE, with half of the foreign residents in this region being citizens of another SEE country. On the other, because local plans cannot desert the spontaneous ambition of multiple actors to participate in a wider transnational realm of knowledge, exchanges and trades, which also affect the long term implications of demographic change.

Transnational cooperation, in an era of fast and continuous transformations, can offer an important opportunity to build the overall institutional and normative framework for individual areas of intervention, and test innovative actions and models, thus contributing to improving the effectiveness of individual actions, and simultaneously support the progressive convergence of development levels across SEE regions, to the benefit of the whole area and of all of its parts.

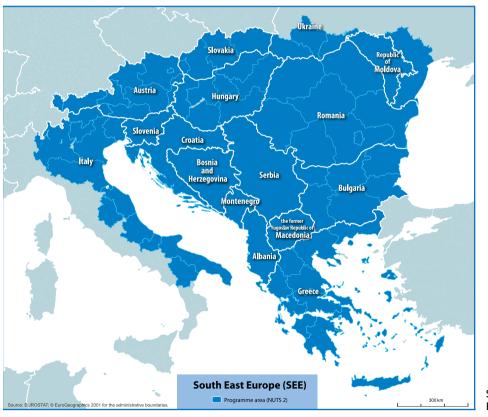
Thank you to all South East Europe institutions who have participated to this complex and requiring undertaking. A particular appreciation goes to those partners who together with the Region of Emilia-Romagna have accepted the responsibility to coordinate entire phases of work: the Region of Crete, the University of Applied Science in Salzburg, the Institute for the Study of Societies and Knowledge at the Bulgarian Academy of Sciences, the School of Advanced Social Studies in Slovenia, the Region of Friuli Venezia Giulia.

## CHAPTER 1

## **DEMOGRAPHIC LANDSCAPE OF SOUTH EAST EUROPE**

South East Europe is a wide area of and Slovenia), and 7 non EU countries cooperation lying across the South-eastern border of the European Union. It involves 9 EU Member States (Austria, Bulgaria, Croatia, Greece, Hungary, Italy; Romania, Slovakia,

(Montenegro, Serbia, Albania, Bosnia and Herzegovina; FYR of Macedonia, Republic of Moldova, and Ukraine).



South East Europe (SEE).

The overall population of the region<sup>1</sup> has remained stable over the last years, just below 150 million inhabitants.

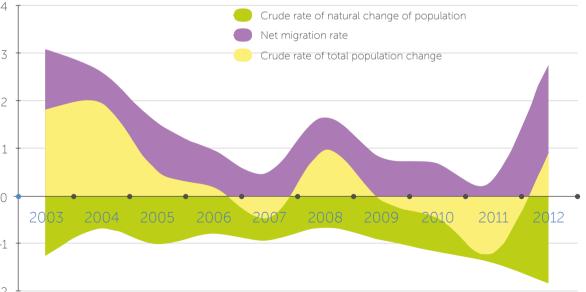
The apparent overall demographic stability of the region is the results of two main drivers of transformation.

On one hand, stability is the result of the balance between natural change of the population (the difference between live birth and deaths registered in a given period), which in the same period has constantly been negative, with negative peaks after 2009,

and net migration (the difference between in-flows and out-flows of people), which on the contrary has always been positive, although more volatile during the concerned time interval

As highlighted in the figure, within this interval, years of growth have alternated with years of demographic shrinking, in a pattern which was basically shaped by the intensity and direction of migration. The overall change in the population is basically shaped by migration trends.

## SEE region population change.



Source: Authors' elaboration on Eurostat data

The above applies for the SEE area as a whole. At country level, a clear geographical divide emerges.

Migration is confirmed as the main driver of population growth in many SEE countries. In some of them, where natural growth has become negative, migration has even counterbalanced the otherwise declining population, sustaining population growth (where it reached considerable levels, it also rapidly modified the composition of the population).

On the other hand, the overall stability is the trade-off among countries experiencing positive demographic growth – basically the Western part including Italy, Slovenia, Austria, FYR of Macedonia, Slovakia, and countries experiencing either a moderate shrinking (Bosnia and Herzegovina, Montenegro, Moldova, Greece, Croatia, Hungary), or a more severe one (Albania, Romania, Bulgaria, Serbia).

## Demographic growth in SEE countries 2007-2013

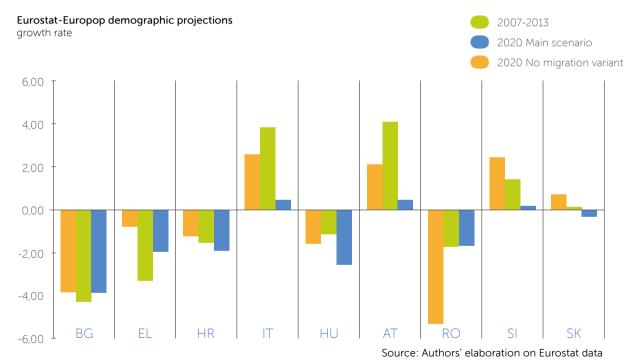
COUNTRY	2007	2013	Var. rate (%)
BG - Bulgaria	7.572.673	7.284.552	-3,80
EL - Greece	11.143.780	11.062.508	-0,73
HR - Croatia	4.313.530	4.262.140	-1,19
IT - Italy	58.223.744	59.685.227	2,51
HU - Hungary	10.066.158	9.908.798	-1,56
AT - Austria	8.282.984	8.451.860	2,04
RO - Romania	21.130.503	20.020.074	-5,26
SI - Slovenia	2.010.377	2.058.821	2,41
SK - Slovakia	5.373.180	5.410.836	0,70
ME - Montenegro	624.896	622.777	-0,34
MK - FYR of Macedonia	2.041.941	2.062.294	1,00
RS - Serbia	7.397.651	7.181.505	-2,92
AL - Albania***	3.152.625	2.831.741	-10,18
BA - Bosnia and Herzegovina	3.844.017	3.839.265	-0,12
MD - Moldova	3.581.110	3.559.497	-0,60
SEE	148.759.169	148.241.895	-0,35
EU28 - European Union	498.408.547	507.162.571	1,76

Source: Authors' elaboration on Eurostat data

<sup>&</sup>lt;sup>1</sup> Ukraine is not included in the analysis, the regions involved in the cooperation area account for a marginal share of the country's population. On the contrary, Italy has been included although only partially eligible in the cooperation programme.

Most of the recent trends are likely to continue in the coming years, given that the evolution of the demographic structure occurs very slowly and gradually, and that available forecasts do not suggest any drastic change in the size and direction of migration flows.

According to Europop demographic projections (available only for European Union Members States), Bulgaria will continue experiencing a robust population loss, as Greece (more than in the past), Romania (less than in last years), Croatia and Hungary. On the opposite, Italy, Austria and Slovenia are expected to remain on a growing pattern, entirely based on the contribution of immigration.



Looking closer at the national level, it • The "migration winner cluster", where becomes apparent that the overall figure for the whole region is the result of different national patterns. The main driver of population growth is again migration, but the interplay between natural change and net migration is heterogeneous.

The figure below shows three groups of countries:

• A "loosing cluster", where a negative or substantially stable natural dynamic is aggravated by a negative net migration. Romania and Bulgaria are the main examples, but Croatia, Moldova and Greece are also experiencing similar trends;

- positive inflows of people from abroad overcome negative or stable rates of natural change. In South East Europe, this is the case of Italy and Austria;
- The "migration neutrality cluster", where population determined trends are by natural change, either positively (Slovakia. Montenearo. FYR Macedonia), or negatively (Hungary, Serbia. Bosnia and Herzegovina). Slovenia is the only country where natural and migratory dynamics are both positive and mutually reinforcing, resulting in the highest population growth registered in SEE between 2008 and 2012 <sup>2</sup>

## Population growth rate components



Source: Authors' elaboration on Eurostat data

<sup>&</sup>lt;sup>2</sup> Due to jeopardised data availability and especially the high annual volatility of statistical data on migration, the analysis refers to different time intervals, offering slightly different results.

As said before, the overall migratory balance in SEE has been positive for most of the last years.

Massive movements have occurred within the region, from a country to another. Even larger flows have happened within single countries, across their respective regions.

Even though the degree of comparability of available migration data is scattered, the information they provide indicates clearly that a large share of emigration flows

originating in one SEE country remain within the macro-region (i.e. are directed toward another country in the same area), and similar evidence can be observed for immigration flows concerning the countries of South East Europe.

More specifically, during the period 2008-2012, on average 38% of total international migration which originated in SEE, has remained in the region, and 50% of all international immigrants have arrived from another SEE country.

## Migration flows by country of next and previous usual residence Average 2008-2012

		Emigration			Immigration	
SEE COUNTRY	Total	SEE	% SEE	Total	SEE	% SEE
BG - Bulgaria	9.364	2.445	26,11	14.103	4.351	30,85
EL - Greece	112.973	-	-	113.344		
HR - Croatia	11.021	7.831	71,05	8.747	5.979	68,36
IT - Italy	85.798	16.743	19,51	434.615	190.946	43,93
HU - Hungary	14.284	-	-	13.557		
AT - Austria	51.893	14.046	27,07	77.566	30.180	38,91
RO - Romania	222.629	-	-	147.922		
SI - Slovenia	14.647	10.650	72,71	21.102	16.434	77,88
SK - Slovakia	3.585	780	21,75	11.496	3.925	34,14
ME - Montenegro	-	-	-			
MK - FYR of Macedonia	1.152	294	25,55	1.590	876	55,08
AL - Albania***	-	-	-	-	-	-
BA - Bosnia and Herzegovina	-	-	-	-	-	-
MD - Moldova	-	-	-	-	-	-
RS - Serbia	-	-	-	-	-	-

Source: Authors' elaboration on Eurostat data

For some countries, flows within South East Europe represent the large majority of migration movements: in Slovenia and Croatia more than 70% of immigrants and emigrants arrived from or pointed to another SEE country; about 40% of in-flows in Italy and Austria originated in SEE.

In absolute numbers, over the period 2008-2012, Romania has been the largest country of departure, with an average of more than 200,000 people per year, followed by Greece (more than 110,000), Italy (85,000) and Austria (50,000).

The same countries have been at the same time main destination countries, even if with different weights, starting from Italy (more than 400,000 people every year), Romania, Greece and Austria.

In the aftermath of the crisis, the puzzle of flows became even more complex, with an increasing mix of emigration and return flows for the same countries.

SEE countries are differentiated also in terms of capacity to attract people and labour from

## Immigration flows by citizenship Average 2008-2012

	IMMIGRANT CITIZENSHIP (SEE COUNTRIES)															
SEE COUNTRY	BG	EL	HR	IT	HU	AT	RO	SI	SK	ME	MK	AL	BA	MD	RS	UA
BG - Bulgaria	3.056	720	2	160	14	41	96	10	10	1	82	25	2	67	53	177
EL - Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HR - Croatia	15	5	7.151	119	36	74	43	215	40	28	205	3	1.125	10	410	59
IT - Italy	6.090	435	652	33.934	969	359	108.806	222	924	62	3.932	23.306	1.182	17.836	3.639	21.290
HU - Hungary	77	52	226	289	4.984	582	6.744	42	1.158	15	41	22	49	70	1.551	1.943
AT - Austria	1.997	536	1.055	1.799	5.973	8.330	7.189	913	3.574	55	646	147	2.088	105	3.225	684
RO - Romania	161	257	12	621	397	333	136.500	11	84	1	4	46	6	2.790	81	213
SI - Slovenia	620	7	1.205	331	68	104	92	2.861	186	98	1.885	17	7.557	58	2.174	296
SK - Slovakia	258	44	55	243	925	210	958	25	1.445	2	70	9	16	16	622	975
ME - Montenegro	6	3	79	37	25	7	12	16	3	556	287	49	915	4	2.481	102
MK - FYR of Macedonia	46	27	32	8	2	10	10	8	2	15	321	217	30	2	212	14
AL - Albania	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BA - Bosnia and Herzegovina	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MD - Moldova	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
RS - Serbia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
UA - Ukraine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: Authors' elaboration on Eurostat data

abroad. The presence of foreign citizens in SEE is concentrated in the old Member States (Austria, Greece, Italy) and to a lesser extent in Slovenia. Their presence is marginal in the other countries, accounting for less than 1.5%.

On average, consistently with previous results, almost one half of foreign people residing in South East Europe are citizens of another SEE country, with a peak of more than 80% in Slovenia

## Foreigner citizens in SEE countries 2012

SEE COUNTRY	National	Foreigner	Total	% of foreigner	Foreigner with SEE citizenship	% SEE citizens on total foreigners
BG - Bulgaria	7.287.717	39.432	7.327.224	0,54	8.926	22,64
EL - Greece	10.314.693	975.374	11.290.067	8,64	-	-
HR - Croatia	-	-	-	-	-	-
IT - Italy	55.960.451	4.825.573	60.820.696	7,93	2.187.842	45,34
HU - Hungary	9.788.564	143.125	9.931.925	1,44	75.868	53,01
AT - Austria	7.459.699	945.176	8.409.699	11,24	428.656	45,35
RO - Romania	21.319.018	36.536	21.355.849	0,17	17.023	46,59
SI - Slovenia	1.969.941	85.555	2.055.496	4,16	69.647	81,41
SK - Slovakia	4.980.227	70.727	5.404.322	1,31	27.473	38,84
ME - Montenegro	-	-	-	-	-	-
MK - FYR of Macedonia	-	-	-	-	-	-
AL - Albania	-	-	-	-	-	-
BA - Bosnia and Herzegovina	-	-	-	-	-	-
MD - Moldova	-	-	-	-	-	-
RS - Serbia	-	-	-	-	-	-
UA - Ukraine	-	-	-	-	-	-

Source: Authors' elaboration on Eurostat data

## CHAPTER 2

## **DIVERGING TRENDS, SIMILAR CHALLENGES**

Despite different migration patterns and different prospects of population growth, SEE countries have in common three interrelated aspects of the demographic challenge, all leading to the progressive ageing of the population:

The increase of the share of elderly people on total population;

The contraction of the working age population

The shrinking of youth weight on the population and on labour forces

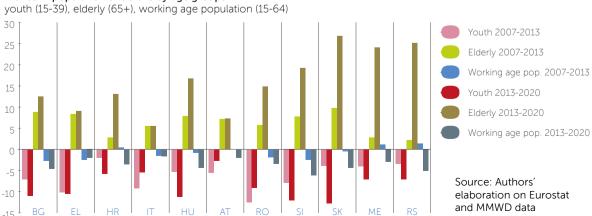
The figure below shows the variation rate of the share of each age group on the total population registered in the recent year (2007-2013), or

expected until 2020 (2013-2020, based on Eurostat-Europop main scenario demographic projections for EU Member States and on MMWD projections for Montenegro and Serbia).

There are common trends involving all countries, but starting points (not in the figure) and the magnitude of change are not equal.

The ageing of the population is a consolidated and in a way stable trend in the Western countries (Austria, Italy, Greece) but also in Bulgaria, while it is quite a new feature in Balkans countries on the increase in the coming years much faster than in the past.





## Looking at the sub-national level

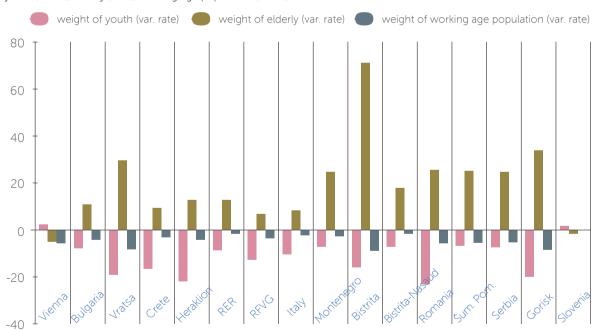
Beyond the national average, it is important to look at the translation of general challenges in specific territorial contexts.

It is very well known that regional and intraregional disparities (i.e. rural-urban), are often higher than cross country differences.

Trends 2012-2020 in population structure by age groups: youth (15-39), elderly (65+), working age population (15-64)

Indeed, the magnitude and the impact of overarching challenges may be very uneven at the territorial level.

Looking at MMWD partners' territories (which includes national, regional and local/municipal levels) basing the analysis on project's demographic projections, we find coherent results.



Source: Authors' elaboration on MMWD data<sup>3</sup>

As shown in the figure, demographic projections foresee an alarming reduction of the young and work forces on the total population, and the relative increase of the weight of the elderly almost in each part of the area.

Noticeable exceptions are Vienna and Slovenia, where a further increase of the younger population is expected, because of a good degree of attractiveness from abroad (in the 'no migration scenario' variant, a moderate shrinking of this age group would be recorded), with a corresponding decrease of the elderly share.

The intensity of the challenge implied by the shrinking of youth weight on total population, depends both on the starting point and the intensity of the expected evolution in the mid-term.

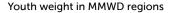
Even if almost all MMWD regions face the same challenge, their positioning in this respect is diversified. Today young people represent no more than 27%-28% in Friuli

Venezia-Giulia and in Emilia-Romagna, while their share is around 35% in Vienna, Heraklion, Bistrita and even above in Montenegro or Romania. On the other hand, demographic projections shows a sharper decrease in most of these "younger" territories: -23% in Romania, -22 in Heraklion, -22 in Goriska.

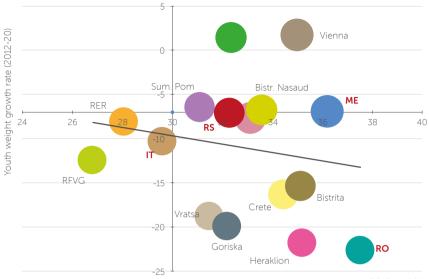
Overall, there is a sort of negative correlation between today's youth weight, and its projected evolution: younger regions are expected to experience higher decreases of the share of youth.

The picture is thus quite heterogeneous, as shown in the figure below, which explores the relationship between the weight of youth today (% of people 15-39 on total population) represented on the horizontal axis, and its expected evolution (growth rate 2012-2020 of youth weight) represented on the vertical axis. The two axis cross in correspondence of the European Union average figures (weight of youth today 29,6%; expected evolution -6.6%).

<sup>&</sup>lt;sup>3</sup> The chart shows the growth rate of the relative share on total population of selected age cohort. The magnitude depends on the starting point, i.e. Bistrita as the lowest elderly share in 2012 (about 9%) which will growth by 6 percentage points in the next years that is a relative growth of 68%



Source: Authors' elaboration on MMWD data



Youth weight 2012 (15-39)

Compared to European levels, most MMWD regions are relatively young: only Italian regions (and Italy as a country) have a share of young people below the EU28 average. At the same time, most of the regions will age faster than EU average in the coming years, in many cases as a consequence of migration.

We can distinguish three groups of regions:

 The group of Italian regions where the ageing process has already showed its effects and the decline of young populations will decline, although more slowly in the near future, thanks to the positive contribute of immigration;

- A group of relative younger regions, which will start experiencing a sharp decline of young population in the coming years (Romania, Heraklion and Crete, Goriska, Vratsa, Bistrita). Here the "youth challenge" will be stronger than elsewhere;
- Finally, a group of relatively young territories with worsening prospects, but not below the EU average trend (Serbia and Šumadija and Pomoravlje, Bulgaria, Bistrita-Nasaud county, Montenegro), and territories for which a positive growth of youth is expected (Vienna, Slovenia).

## MMWD COMPARATIVE ANALYSIS OF DEMOGRAPHIC TRENDS

Demographic projections to 2020 at sub-national territorial levels, are an important knowledge tools made available by MMWD. They have allowed to depict possible evolutions in the population and its age structure, disaggregated by gender and citizenship (national/foreigners). Technical and methodological details are described in Annex 2.

In general terms, MMWD territories can be organised in two main groups, in relation to their expected population growth: territories located in the Western part of the SEE area (Italian regions, Vienna, Crete) are expected to experience an increase, thou moderate, of their population, while for Central and Eastern regions projections point to the aggravation of current trends of population decline.

Population growth is connected with migration in both directions; in most regions where population is projected on the increase, the amount of national residents will actually decline or remain stable, while the number of foreign citizens will rise substantially. A further evidence in this direction comes from the analysis of the natural increase rate (RNI), which is expected to decline in all project territories (with the exception of Friuli Venezia Giulia), due to the decrease of national residents. Also the foreigners' RNI will not continue its increasing trend, and in some cases is expected to begin a decreasing pattern (Vienna, Emilia-Romagna).

According to MMWD Migration Profiles, SEE citizens score among the five top foreign citizenships in all MMWD regions: (Extracts from the document "Comparative analysis between policy scenarios, migration profiles and demographic projections" by the Autonomous Region Friuli-Venezia Giulia)

	1st	2nd	3rd	4th	5th
Vienna	Hungary	Germany	Romania	Italy	The Netherlands
Sumadija and Pomoravlje	Bosnia and Herzegovina	Croatia	Montenegro	FYROM	Slovenia
Emilia- Romagna	Maroc	Romania	Albania	Moldova	Ukraine
Friuli-Venezia Giulia	Romania	Albania	Serbia	Croatia	Ghana
Abruzzo	Romania	Albania	Maroc	FYROM	China
Crete	Albania	Bulgaria	Romania	Ukraine	Pakistan
Goriska	Bosnia and Herzegovina	FYROM	Serbia	Croatia	Kosovo
Bistrita- Nasaud	Moldova	Bulgaria	Ukraine	Italy	Germany

## The ambiguous impact of migration on SEE regions and cities

People mobility plays an ambiguous role with respect to population growth.

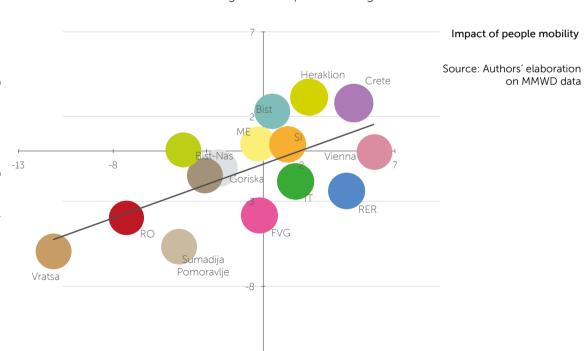
We have observed it while comparing the expected population change up to 2020 in MMWD territories, in the two scenario variants.

The first one represented on the horizontal axis is based on the idea that trends registered

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over the last years will continue up to 2020; the latter, represented on the vertical axis, encompasses the hypothesis of zero net migration balance from now to 2020 (close population).

If the growth rate registered in the no migration variant is respectively lower/higher than in the other variant, the contribution of migration to regional population growth is positive/negative.



Italian regions and Vienna are net migration beneficiaries: their population is expected to grow only if migration flows will continue, otherwise a population decline (Italy, Friuli Venezia Giulia, Emilia-Romagna) or stagnation (Vienna) should be expected. On the contrary,

in the majority of regions, population is expected to shrink, but the decline would be narrower in absence of mobility. Finally, in four territories growth is positive irrespectively of the scenario variant (Crete, Heraklion, Slovenia, Bistrita).

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Population growth rate - crisis variant

## **DEMOGRAPHIC PICTURE OF A SMALL COUNTRY: MONTENEGRO**

From the disintegration of Yugoslavia, Montenegro has gone through significant economic, political and social changes. These changes have greatly affected the country's demographic trends and have contributed to significant changes in individual demographic processes. Some of these processes have been accelerating, such as the drop in fertility, demographic aging, the transformation of the ethnic structure, emigration; while others have slowed down or even stopped, such as urbanization, extension of expected lifespan and the like.

According to the Census data the population of Montenegro is 620,029. The largest share of the population lives in Pod gorica (185,937), which accounts for nearly one-third of the country's population. Almost 60% of the population lives in urban areas, while the rest lives in other types of settlements.

Montenegro is geographically divided into three regions: North, Central and South. The South region includes the coastal settlements, while the Central region includes Podgorica and Niksic the two biggest cities in Montenegro. Comparing the populations of the three regions, strong internal migration from North to Central and Southern regions the north is evident, mainly to the central and somewhat the southern part of Montenegro. Majority of the northern population has been moving to Podgorica.

The average age of the population in Montenegro is 37 years. The adult population today takes up 76.5% of the total population, while the proportion of preschool children is 7.4%, the percentage of primary school age (6-15 years) is 13.2% and of secondary school age (15-19 years) 7.1%. The percentage of working age population (15-64) is 68%.

These age groups are expected to shrink, according to MMWD projections. A completely different trend has been noted in the population over 65 years of age. A growing trend is expected for this population group. By the year 2021 it is expected that the share of the aged 65 and over will be around 16.5%, while in 2011 this share was 12.8%.

Since 1991 the changes in the fertility levels in Montenegro were mainly detected in the sense of its reduction. Such birth trends are a continuation of a long-term decline in fertility, which is a direct result of low reproductive norms accepted by the vast majority of the population for a couple of decades.

However, given the current socio-economic situation, higher birth rates than expected have been achieved in Montenegro. The trend of annual live births, despite some annual fluctuations, can mainly be described as stagnant, which also applies to changes in the level of fertility. Rapid reductions in the number of births and the fertility decline have been noted in Montenegro in the first half of the first decade of the 21st century. Compared to the year 2000, the number of live births in 2011 was lower by 27%.

The twentieth century Montenegro experienced a large-scale emigration. The main reasons for the emigration can be found in the low level of economic development and the wars which broke out during this period. Montenegrin emigrants usually moved to other areas of the former Yugoslavia. During the 1990s and 2000s the Montenegrins were emigrating to Western Europe as well as some overseas countries. However, during this period, immigration to Montenegro was also recorded, which, however, was lower than emigration. The last decade of the twentieth century was marked by immigration caused by the wars in the former Yugoslavia.

The Census has identified the number of individuals who have moved to Montenegro, as well as persons who for reasons of education, work or similar have been absent from Montenegro for more than a year. These persons are called migrants. According to these data, 80% of the population have lived in Montenegro from their birth, while 20% emigrated from another country. Most people migrated to Montenegro in the period from 1900 to 1999.

Migration therefore has a negative impact in present and expected demographic trends in Montenegro. Assuming that there is no migration, calculations indicate a slight increase in population by 2020. The expected population growth in the given period is around 6000, which is about 1% increase in the current population. Stable in constant scenario and slightly decreasing in the third one

According to the 2011 Census the educational structure in Montenegro is such that the largest percentage of the population has only completed high school (51.9%), while the lowest percentage of the population has completed a doctorate (0.2%). 11.9% of the population has completed higher education, postgraduate and doctoral studies. Also, the data shows that a large percentage of the population (more than 30%) has had no schooling (11324 of them) or has (not) completed only primary school (141 198 persons).

By comparing the data from 1991 and 2003 censuses we have observed positive trends in the educational structure in Montenegro. In 1991, thus, 5% of the population had higher education (including graduate and doctoral studies), while according to the results of the 2011 Census the participation of this population increased to 11.9%. At the same time, the participation of the "no education" group has decreased from 8.9% in 1991 to 4.3% in 2003 and 2.3% in 2011.

The average unemployment rate in the period from 2007 to 2013 was 19.1%. The average employment rate in the period from 2007 to 2013 was 41%. A slow decline in employment is expected from 2013 to 2020. Considering the working-age population (aged 15 to 64) the average rate of activity in the period from 2007 to 2013 was 59.2%. In the period from 2014 to 2020 stagnation or slight decline can be expected in the employment rate.

Source: extracts from the MMWD national scenario for Montenegro

## Growth and jobs: concrete objectives?

Demographic change, and ageing of the population in particular, call for higher employment and higher productivity, in order to ensure future sustainability of social and economic systems in Europe, and a smooth and successful transition in accession countries.

The economic crisis and recession which hit Europe in recent years have magnified problems and weaknesses which pre-existed them, but the direction set by the Europe 2020 Strategy is still clear in front of us.

Territorial analysis developed within the MMWD project proved that demography is an endogenous factor of growth, which plays possibly the most crucial role in the long run.

Changing population structures -in terms of age, citizenships, mobility status, openness to the globalised world, education and capabilities, impacts not only the possibility to implement strategies successfully, but even the setting of the agenda, the ranking of priorities, the design of public interventions.

From demographic analysis, it emerged that ageing is a great concern in many regions, but the shrinking of youth is the real alarming feature for future growth strategies.

MMWD scenarios have investigated how demographic change impacts on labour market evolution, on the availability and qualification of human capital, on old and new social needs.

In other words, on the capacity of social models to sustain growth and jobs.

## OBJECTIVES AND TARGETS OF THE EUOPE 2020 STRATEGY

The Europe 2020 strategy, adopted by the European Council on 17 June 2010, is the EU's agenda for growth and jobs for the current decade. It emphasises smart, sustainable and inclusive growth as a way to overcome the structural weaknesses in Europe's economy, improve its competitiveness and productivity and underpin a sustainable social market economy. The Europe 2020 strategy is the successor to the Lisbon strategy, which was launched in March 2000 in response to the mounting economic and demographic challenges for Europe at the dawn of the twenty-first century.

The Europe 2020 strategy puts forward 3 mutually reinforcing priorities to make Europe a smarter, more sustainable and more inclusive place to live:

- 1. It envisions the transition to smart growth through the development of an economy based on knowledge, research and innovation.
- 2. The sustainable growth objective relates to the promotion of more resource efficient, greener and competitive markets.
- 3. The inclusive growth priority encompasses policies aimed at fostering job creation and poverty reduction.

Under these three priority areas, the EU adopted five ambitious headline targets on employment, research and development (R&D) and innovation, climate change and energy, education, and poverty and social exclusion

The targets are monitored using a set of eight headline indicators (including three sub-indicators relating to the multidimensional concept of poverty and social exclusion).

Each indicator falls within one of the three thematic priorities:

• The smart growth objective is covered by the indicators on innovation (gross domestic expenditure on R&D) and education (early leavers from education and training and tertiary educational attainment).

- The sustainable growth pillar is monitored by three indicators on climate change and energy (greenhouse gas emissions, share of renewable energy in gross final energy consumption and primary energy consumption).
- Inclusive growth is measured against the poverty or social exclusion headline indicator (combining three sub-indicators on monetary poverty, material deprivation and living in a household with very low work intensity) and employment rate.

The EU headline targets have been translated into national targets. These reflect each Member State's situation and the level of ambition they are able to reach as part of the EU-wide effort for implementing the Europe 2020 strategy.

The 5 targets at EU level in 2020:

- 1. Employment: 75% of the 20-64 year-olds to be employed
- 2. R&D: 3% of the EU's GDP to be invested in R&D
- 3. Climate change and energy sustainability: greenhouse gas emissions 20% (or even 30%, if the conditions are right) lower than 1990; 20% of energy from renewable sources; 20% increase in energy efficiency
- 4. Education: Reducing the rates of early school leaving below 10%; at least 40% of 30-34-year-olds completing third level education
- 5. Fighting poverty and social exclusion: at least 20 million fewer people in or at risk of poverty and social exclusion

The strategy also includes seven 'flagship initiatives' providing a framework through which the EU and national authorities mutually reinforce their efforts in areas supporting the Europe 2020 priorities such as innovation, the digital economy, employment, youth,, industrial policy, poverty, and resource efficiency

More at: <a href="http://ec.europa.eu/europe2020/index\_en.htm">http://ec.europa.eu/europe2020/index\_en.htm</a>

## **Looking towards 2020**

MMWD scenarios are meant to detect and depict the likely evolution of current demographic trends and their effects, if these will continue on the same line as in the recent past. Scenarios have been built following a common methodology (mixing quantitative and qualitative elements), comparable benchmarks (the head targets of Europe 2020), and a same format. Yet, demographic and growth prospects are of course dependent on the specific contexts in which they occur. MMWD scenarios are thus clearly contextualised and adequate for analysis of specific local endeavours.

Scenarios have been constructed out of collaboration between MMWD institutions and their technical partners. The choice of measures and indicators to consider in the scenarios depended on the outcomes of an extensive mapping of statistical and administrative data, which had been collected and analysed in previous project phases. The analysis of existing data gaps in SEE countries can be found in Annex 1; it especially points to the limited availability of data at the subnational level (largely available only for the total population), and of information of nonnative residents and groups.

Scenarios confirm that common challenges exist not only in demographic terms, but also considering development prospects. In this regard, regional disparities are even wider among MMWD regions and territories.

It is well known that development levels are very different within South East Europe which includes both regions at the top and at the very bottom of per-capita GPD ranking. Nevertheless, the objectives goals of Europe 2020 are the same for all and each region.

We decided not to engage in a work of comparison of scenario quantitative outcomes, as one-for-all solutions do not apply. We strongly support the idea that there is no-one-size-fitting-for-all, and even if most South Eastern European regions face similar challenges and have the same macro-goals ahead, strategies and priorities must be place-based and embedded in local institutional and governance systems.

Therefore, this chapter simply aims at highlighting in an anecdotic way a narrow selection of results, which we believe can be interesting examples of trends and phenomena, which are common also outside the MMWD partnership area and the SEE region.

## Demographic change calls for integrated strategies

First of all, the work done during the 30 months of the project confirmed that demographic change is related to economic performance and societal well-being.

A recent study on Bulgaria – a country experiencing wide population loss and ageing, concluded that demographic decline hampers economic growth: by 2050, with workforce shrinking up to nearly 40%, real GDP growth is expected to slow down to 0.7% per year over the projected period.

Demographic change cannot be addressed with separate measure, on the contrary a holistic strategy is necessary. The Ministry of Labour and Social Policies in Bulgaria shared the experience of the Bulgarian National Strategy for Demographic Development of the Population, a long-term and integrated national policy scenario. It is a balanced strategy for the prevention of and adaptation to the impacts of demographic change, which seem to be concentrated on the latter. Even if one of the priorities is to pave the way to conditions for reversing negative migration trends, and the strengthening of processes of repatriation of the Bulgarian diaspora, not great emphasis is put on the capacity of people mobility to shape demographic trends in a shorter run, compared to natural dynamics.

National strategies should go hand in hand with regional and local plans for action. In addition general trends are often magnified in local context.

Remaining in Bulgaria, the scenarios elaborated by the Municipality of Vratsa describe a dramatic process of depopulation and ageing, which seriously challenge the very sustainability of the social system for the coming years – from labour market deterioration to the maintenance of basic public service provision.

Demographic change may act as a limit to development potential, but can also lead to the opening of new markets and opportunities for investments. Increasing mobility, higher heterogeneity in society connected with more and more diversified social needs, coexistence of several generations (up to 4 in regions with a life expectancy above 80 years), fragmentation and shrinking of families, these are all elements which call for a renovation of the social system, which calls into question also welfare services.

Services for the elderly but also services provided by elderly themselves, with child care support and help in life-job reconciliation. Ageing is the most stressed challenge associated to demographic change but in an increasing number of contexts there are

pilot experiences to transform this challenge (in terms of balance between generations) in an opportunity, redesigning societal habits toward a silver economy.

Within SEE, there are some of the "oldest" regions in Europe with a prolongation of life

expectancy and increasing shares of elderly people, over 65 but also over 75 years. A process which necessarily reshape also the economic system and the market's demand. Interesting insight in this direction emerges from the territorial analysis Friuli Venezia Giulia.

### LONG TERM FUTURE ORIENTED STRATEGIES: THE CASE OF BULGARIA

The Bulgarian Updated National Strategy for Demographic Development of the Population (2012 – 2030) has been adopted with the Council of Ministers' Decision on 1st February 2012. It is a national policy scenario which aims to ensure balanced demographic development of the population and to limit the negative effects in the demographic changes.

The analysis of the demographic situation in the country categorically shows that, due to the strong inertia characterizing the demographic processes, a significant increase of population size cannot be a well-grounded policy for Bulgaria in the period through 2030. The future decrease and aging of population has already been programmed, given the existing age structure and the decreased number of women of fertile age.

The realistic strategic goal of the demographic policy up to the year 2030 is to slow down the rate of decrease of the population by purposefully influencing the processes of natural movement (birth rate, mortality, and migration) and simultaneously achieve an optimal balance of the population. Optimizing the balance of the population involves establishing such ratios according to age, education, health condition and gender which would lead to a significant improvement of people's quality of life. In this paradigm the three determinants of the population size and age structure, namely birth rate, mortality and migration, are still considered to be of key importance, but education and health are also being interpolated.

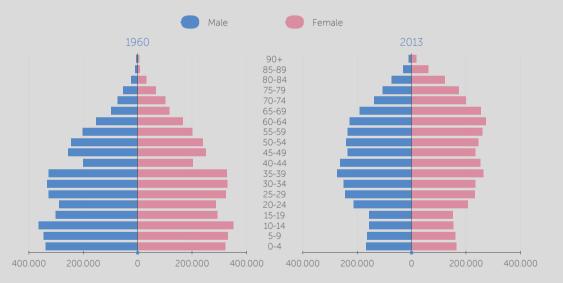
Bulgaria is one of the European countries which are most affected by the process of ageing population. Because of low fertility rates (in 2012 the fertility rate was 9.5%), and high mortality rates (mortality rate in 2012 reaching 15.0%), all regions of Bulgaria show negative population growth. However, in spite of the

persistent tendency of high mortality, the average remaining life expectancy has been on the rise for the last ten years and it has marked an increase by 2.1 years (74.0 years on average).

Population ageing has led to increasing the median age of Bulgarians, which has risen from 40.4 years in 2001 to 41.2 years in 2005 and has reached 42.8 years as of the end of 2012. According this indicator the Bulgarian population becomes one of the four oldest in the world.

The reproduction of population at working age is best characterized by the demographic replacement rate. For Bulgaria in 2012 this ratio is 64. In comparison, in 2001 every 100 persons leaving the labour market are replaced by 124 young people

Age structure of population as of 31.12.1960 and 31.12.2013



Recent forecasting simulations show that even under optimistic assumptions, the demographic change in Bulgaria would put a lasting pressure on the budget and would hamper economic growth. By 2050, with workforce shrinking with nearly 40%, real GDP growth is expected to slow down to 0.7% per year over the projected period.

Demographically, population ageing is an irreversible process, therefore this challenge needs to be addressed not by focusing on mechanical changes in the key demographic indicators but by concentrating

on the implementation and development of an integrated policy aimed at mobilization and full use of the potential of the available human resource and investment in improving the quality of human capital.

There is a need to raise the participation opportunities in labour market for elderly including through removing barriers and disincentives to stay in employment. Once unemployed (or after being inactive for a long time), older people are difficult to be reinserted into the labour market as their qualifications are far too low (or lacking) especially in computer technologies. The only way of overcoming this barrier would be a constant, life-long learning system or adaptation of the training to elder workers at their working place combined with individual counselling. Overcoming the age discrimination is a main barrier to the integration of older people in the labour market.

Adequate attention shall be given on the possibility to combine work and pension in order to enable older people to stay active and to secure adequate level of income.

There is a need of developing preventive health care and to foster the cooperation and coordination between different levels of different service providers. Raising awareness about health and lifestyle represents an opportunity in health care. There is a significant lack of activities for older people and led by them. Lack of partner cooperation is to be overcome by the development of family, neighbourhood organizations, partnerships, local bounds and promotion of the individual activity and self-help.

The Demographic Development Strategy sets the following priorities:

- 1. Slowing down the negative demographic processes and the decrease of population size;
- 2. Overcoming the negative effects of population ageing, and improving the quality characteristics of human capital;
- 3. Achieving social cohesion and creating equal opportunities for an ample and productive life for all social groups;
- 4. Limiting the disproportions in the territorial distribution of the population and the de-population of some of the regions and villages.
- 5. Adaptation and synchronizing the regulatory framework to the public demands for the balanced demographic development of the population and development of quality of human capital.

The realization in full of the priorities of demographic development of the country through 2030 is possible in the conditions of macroeconomic stability, continuous economic growth, increasing economic activity, employment, and income of the population. The proposed measures and activities for demographic development are regarded as an element of the general sustainable development con-cept, according to which the population, environment and economy are tied together and exist in con-stant interaction. It may be expected that future favourable changes of these conditions will lead to favourable changes in the reproductive processes of the population.

Source: extracts from the national scenario f the Bulgarian Ministry of Labour and Social Policies

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## **DEPOPULATION AND AGEING IN VRATSA. TIME FOR ACTION**

The demographic picture of Vratsa shows changes in marital and birth behaviour of the population, high levels of mortality and unstable negative growth, intense internal and external migration processes, all resulting in population decline and aging.

In the context of the negative demographic trends one notes some temporary increases in the birth rate, in average life expectancy and reduction of the size of migration flows. These processes regard both national and regional levels, but the intensity of their manifestation in different districts and municipalities is diversified.

The population of Vratsa Municipality has diminished by more than 7 thousands from 2005, when it was nearly 79 thousands, until 2012 (71,700 people). The decrease was due to negative natural growth (total birth rate is below the national average) and negative net migration. These trends, according to demographic projections will continue until 2020. Total

A clear problem of social sustainability emerges in Vratsa. The workforce turnover (the ratio between people 15-19 ready to enter the labour market and people 60-64 exiting it) is at the low level of 64, in line with the national average. Demographic projections suggest the stability of this low level until 2020 in the "no migration" variant, while in case of continuing migration it will lower further up to 52-53.

It is evident that the migration processes of the population in the municipality will have in the future a strong influence on the functioning of the labour market.

Despite demographic shrinking the employment rate of the economically active population in the municipality of Vratsa, in 2020 was just above 52%. Although negative population projection the scenario suggests that the employment rate will continue to decrease. it can be concluded that the labour market will shrink, not only as a result of demographic factors, but also by the expected reduction in job demand.

At the same time the demographic burden on the working population increases. Up to 2020 in absence of migration it would pass from 43 to 51 dependent people per 100 persons of working age. Allowing for migration, as it involves mainly young people) the ratio could grow up to 55/100.

The decrease of population in the municipality of Vratsa poses serious concerns related to the knowledge and use of the geographical territory, the depopulation of settlements, the use of established social and

productive infrastructures. Shrinking population and economic activity lead to a restructuring of the transport network in the region , and this worsens the conditions for investment. Of course the demographic situation in the area and the region as a whole should be taken into account, but Vratsa Municipality is an important centre for the county development. Reduction of the population directly and indirectly has impact on the revenue side of the municipality budget. The amount of taxes and non-tax revenues is reduced (fees and ownership). House abandonment and urban deterioration negatively influence the real estate market and prices, and this also affects the budget revenues of the municipality

The local authorities in Bulgaria, including Municipality of Vratsa, operate in environment that lacks decentralization, including financial one. Additionally, even policy area under competence of local self-government are designed and managed at national level. Municipalities find it difficult to implement efficient policies in the areas of healthcare, education, social services, tax policy etc.

Thus it is essential to derive the mechanisms with which the Municipality could make a real impact. In order to achieve maximum effect it would be purposeful to implement the integrated approach when it comes to planning and performing the related policies at local level, in the context of the developed scenarios. On the basis of these scenarios, seven interconnected policies have been derived to impact the local processes. The suggested policies include to various degrees a combination of "soft" (mostly services for assistance, addressed at particular beneficiaries) and "hard" (being investments in facilities, spaces and/or infrastructural elements) measures. The purpose is to consider the spatial components related to the intervention in the physical environment and their combination with the instruments of the spatial policy.

Source: extracts from the territorial scenario of the Municipality of Vratsa  $\,$ 

## FRIULI VENEZIA GIULIA. LIVING IN AGEING SOCIETY

Today we can speak of a demographic problem in Friuli Venezia Giulia. The population in this region, as well as in the rest of Italy and Europe, is characterized by an aging process. The increase in the elderly population is mainly due to the advances made in the economic, social and health care sectors in the last few decades. In the near future the weight of the elderly and oldest old (over eighty years of age) will become even more substantial, becoming an unbearable burden for the working-age population which will be decreasing in number instead.

A constant and continuous ageing of the population is foreseen up to 2020. The total population aged over 65 will be more than a quarter of the total population (from 23.96% a 25.06 -26.30%)1. There will be a substantial increase in the population aged over 80, the so-called very old (from 7.2% to 7.8-8.3%). It seems appropriate to highlight the trend of the following indices, especially the consequences that this will have in terms of social policies and public expenditure. A part of the elderly, those between 65 and 79 years of age, is often self-sufficient and those who have medium incomes have no particular difficulties, especially if they live with the family. In this case, instead, they are an important resource since they very often take care of their grandchildren and elderly or disabled relatives.

It is well known that the ageing process of the population, besides being determined by the lengthening of life expectancy, is due also to the low birth rate. This trend, which has been registered in the last decades, is going to decrease further by 8.2 % in 2012 – while it will amount to just over 7% in 2020 – will not have 'relief' thanks to the contribution of the foreign population, too low to be relevant, nor thanks to the slight increase in the fertility rate (from an average number of children per woman of 1,41 to 1,43) of the last few years due to the demographic momentum/demographic inertia – an increase in fertility doesn't result necessarily in demographic growth in the short or medium term.

Friuli Venezia Giulia is also experiencing a strong recession which follows a slow decline of some important traditional productive sectors. It shares with other regions the sharp contraction of domestic demand, but suffers more than others from a decrease of exports and gross fixed investment, reflecting a loss of competitiveness of regional production. In a framework of an increases in labour supply also connected with the need to return in the labour market from inactivity in an attempt to safeguard household's incomes, employment has shrunken.

New employment basins related to social and well-being services should be explored.

Foreigners are an important resource, both from the point of view of their population structure, which is significantly younger, than from the point of view of a potential employment of this part of the population in the sector of welfare services. In 2012 domestic workers in FVG were 16.126, and 8 out of 10 were foreigners (in line with the national figures). The female component was almost 89. 8%.

It must be stressed that the growing number of elderly people also represent an opportunity linked to the improvement of their health status (in particular people between 65 and 79 years of age), which results in a greater consumption of goods and services, as well as in new opportunities to provide services to younger generations (children and grandchildren). The active participation of older people can be promoted through a number of initiatives, such as: encouraging older people to work part-time, engage in community and volunteer initiatives, adapt tax systems in order to recognize informal care provided by the elderly (i.e. babysitting).

Source: extracts from the territorial scenario of the Regione Autonoma Friuli Venezia Giulia

## In or out? Changing patterns of people mobility

The recession and economic stagnation of recent years, have led to a generalised increase of unemployment rates everywhere in South East Europe, with different magnitudes. Only in a few countries and regions the situation is still positive (as in Vienna). The economic situation and the prolonged recession have impacted on migration trends. In several regions two mobility trends coexist, in opposite directions:

Incoming flows from abroad - both from less developed regions of Europe and from third countries - of people in search of better life conditions;

Outwards flows of young native populations, often highly qualified and with professional experience, leaving their home country in search of better employment opportunities.

The net balance may remain positive (i.e. Crete, Emilia-Romagna or Slovenia) but the qualitative impact of these divergent trends may reveal several weaknesses for future development potential.

Mobility patterns are growing in complexity: simplistic analysis – attempting to cluster regions as "emigration" or "immigration" contexts, are inadequate to describe actual processes.

Even in countries like Romania, which experienced over the last decade massive emigration flows, total numbers cannot say everything. There are growing concerns about the emigration of qualified workers, and especially of healthcare professionals. Outward flows cross with growing returning flows, but the qualitative balance among the two is unclear. Once more, a holistic and future-oriented approach to territorial development, which takes into account people mobility and changing population structures, is necessary.

## **CRETE AT THE CROSSROAD OF MIGRATION**

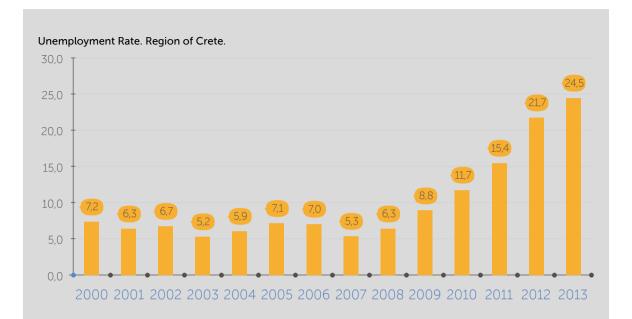
Historically, the region of Crete has been a place where many different ethnicities coexisted for centuries: Greeks, Muslims (Turks and Arabs), Armenians, Hebrews, Latins. In modern times, towards the end of 20th century, immigration from East Europe and the Balkan region have been replacing consolidated emigration trends of 50s, 60s and '70s of the last century -Greek people moving to Europe, USA and Australia in search of a better life.

In most recent years and especially within crisis time (2009-2014) the migration trends in Greece are mainly characterized by two flows going in opposite direction.

Immigration -according to the statistics of 2011 10% of total population in Crete are immigrants- originate mainly from European Union (25.308) and the rest of the Europe (29.399), form Asia (6.097), Africa (1.267), America (601), and Oceania (109). Looking closer EU foreigners are coming mainly by Bulgaria and Romania, and to a less extent from Western and Northern European countries. The latter are old people in retirement age which decide part of their life in the island of Crete, and eventually going back to their home country toward the age of 80 or more. Given this peculiar trend, in Crete immigration contribute to ageing of population, and this is the only case among MMWD territories.

Emigration flows are also significant. During crisis times (2011) the contemporary emigration flows indicates a significant number of people who migrate from Greece to other places in order to sustain or improve their living conditions. Differently from the past emigration involves not only the unskilled workers but also (or largely) the most qualified segment of young forces well educated and with professional experience and expertises.

Given the dramatic increase of unemployment rate registered in Crete in the last years as shown by the figure, the fear of consistent youth and brain drain from the region is very high.



Interestingly in the short term are socio-economic factor which shape the demographic trends; but it is clear from the scenarios that the latter would have an impact in future possible development patterns.

Making the picture even more complex the coexistence of documented and undocumented immigrants in the Region of Crete is a well known reality. Being an island in the middle of Mediterranean sea Crete is at the cross road of international migration routes. Action called by emergencies often prevents a more comprehensive evaluation of the migratory phenomenon and its long term contribution.

This is only one of the aspects analysed for the construction of scenarios for Region of Crete which mixed quantitative projection with qualitative reflections based on a participative process that involved a large number of stakeholders. Two alternatives have been depicted in order to sustain the Administration and its partner to move in the most preferable direction.

## "Yes we can" (Ideal) scenario variant

Demographic Factor: The population does not change significantly but the population in both national and foreigners improve their depedency ratio in ages over 65 and children. The emigration is a risk.



Remains static and does not change. The geopolitical position remains significant, it's linked with South East Meditteranean instability & migration inflow.



The economic development does not improve significantly. Austerity measures still exist. The local sectors slightly are improved. The environmental sustainability remains a risk.



Political instability & austerity in public expenditure exist. Region's sustains its power but the financial resources declined. The migration issue is part of the local agenda and the consensus is a challenge.

#### uman Capital:

The targets by 2020 in early school leavers, educational attainment  $\theta$  tertiary education attainment are not met. Week implementation of lifelong learning initiatives, low budget  $\theta$  inefficient linkage with local sectors are the case.

#### Labor Market:

The Unemployment rate declines by 2020 but it is still a threat. The narrow employment generation is dominant. The link of migration in development is not viable. The "sweatshop" phenomenon is considered threat.

#### Social Need

The social exclusion 5 poverty does not meet the policy need by 2020 Initiatives for social inclusion exist but put expenditures targeted policies are weak. Local initiatives exist but they are not enough. The ghetto phenomenon is a threat.

## "Analysis Paralysis" (Negative) scenario variant



The population does not change significantly. The foreigners population improve and the dependency ratio over 65 and the closed population projection is applied.



Remains static and does not change. The geopolitical position remains significant, it's linked with South East Meditteranean position & EU horders



Economic growth is viable, austerity measures gradually declined & the local sectors improve their potentials by 2020. The environments' sustainability is in risk but not derives to a threat



Political situation is bettere and local public expenditure is slightly improved. The Region's sustains its power and improves its political capability in some policy topics. Migration and Development are elements of the local policy agenda.

#### Human Capit

ne policy targets by 2020 in early school leavers, ducational attainment 6 terriary education gradually let 6 the Region has an active role. The lifelong learning litatives policy initiatives are significant toward the linkage ith local sectors 6 horizontal skills development.

#### Labor Market:

The Unemployment rate declines by 2020 in manageable levels, but the Region is still on alert. The employment generation 6 the migration linkage with development is getting viable: the 2020 targets are very close to be met in employment, especially in new sectors.

#### Social Ne

The social exclusion & poverty meet the targets of 2020. The poverty is dealt because of public expenditures in social policy & local initiatives for social inclusion & targeted policies towards elimination of ghettos, provision of basic goods such as shelter, food & access to ultimate health sequipment for population in risk.

Source: extracts from the territorial scenario of the Region of Crete

 $^{2}$ 

## **IMPROVING EMPLOYMENT OPPORTUNITIES IN HERAKLIO**

Even before the economic crisis major challenges in employment existed at the Municipal Unit level of the Regional Unit of Heraklio, most notably:

- High unemployment rates, especially for people with low education levels and low qualifications
- Relatively limited life-long learning and vocational training availability especially for the unemployed
- · Limited availability of support, counselling services and information for the unemployed

With the advent of the economic crisis some of the progress made for lowering unemployment rates and increasing opportunities for job seekers in the area was reversed. At this point people of all education levels are affected, albeit unequally, with the young having been the main victims of unemployment and with limited employment prospects for the foreseeable future. This is in no way different from what is happening in the rest of the country as youth unemployment rates, having at some point exceeded the 60 % mark, currently stand at approximately 54%.

The selected focus for scenario building was related to the improvement of employment prospects of the residents of Heraklio. Three possible alternative of future have been depicted as follows.

## Crete SCENARIO 1 Stagnation

A marginal improvement of the overall economic environment possibly initiated locally by increased activity in the tourism sector. Enterprises are covering their staff needs by older, more experienced workers, the high youth unemployment persists, the new employment positions require a relatively high skill level but not necessarily high qualifications, employers are not interested in taking up the costs for re-training their employees and upgrading their qualifications

## SCENARIO 2 Brain drain

Some progress is made in job creation but the labour market faces lack of specific skills, there is increase of highly qualified people working in jobs not corresponding to their education level and this in turn swells the numbers of professionals and young graduates emigrating to EU and third countries. Low level jobs continue to be taken by immigrants as they do not represent viable options for the local population

## SCENARIO 3 A better tomorrov

There is a definite improvement in the economic environment. Obstacles associated with excessive red tape are reduced, taxation is brought more in line with development prospects and new enterprises begin to be established by entrepreneurs in economic sectors that can absorb people with high qualifications. Young people migrate from the country's two main urban areas (Athens-Thessaloniki) to smaller cities seeking to establish their own businesses and a better quality of life. They become the impetus to an emerging new economy creating new and better employment positions and an opening up to external markets using the power of networks

In order to plan the Municipality's strategy for these alternative "pictures of the future" built on the focal question of employment, strategy design sessions are organized. The intent is to create a favorable environment so that people from all stakeholder groups including enterprises, employers and employee representative bodies and social partners, young graduates, professional associations and chambers, 3rd Cycle Educational Institutions and VET centres, NGOs and other organizations are represented.

Source: extracts from territorial scenarios for the Municipalities in the Prefectural Unit of Heraklio

## **SLOVENIA. VOLATILE DEMOGRAPHIC PATTERNS**

The population of Slovenia is growing slowly. From 2002 to 2012 the population of Slovenia grew over 60.000 inhabitants. According to the Statistical Office of Slovenia, the population of Slovenia increased by 2,264 in 2013. The number of citizens of Slovenia decreased by nearly 3,000 (0.2%), while the number of foreign citizens increased by about 5,200 (5.7%). On 1 January 2014 the 96,608 foreign citizens represented 4.7% of Slovenia's population.

In Slovenia births alone cannot provide a solid ground for demographic renewal. Indeed independently of how total fertility rate is going to fluctuate in the following years, Slovenia still have a drop in fertility rates due to a reduction in numbers of the next generation of women in childbearing years. From today on, there are many problems erupting concerning the demographic renewal of the population.

Migration therefore give a positive contribution. After the accession to the EU Slovenia is still very closely linked to other countries that emerged on the territory of former Yugoslavia, which is where most of the new immigrants come from. Every year in the 2005-2012 period net migration of foreign citizens was positive by over 3,000 people, except in 2010 when it was positive by only 673 people. Despite adverse economic conditions, this trend continues; in the first half of 2013 another large positive net migration of foreign citizens was recorded (by 2,300 people). The highest share (exactly two thirds) of migration flows of citizens of Slovenia born abroad was between Slovenia and their country of origin where they returned after a shorter or longer stay in Slovenia (this is mostly true of residents born on the territory of former Yugoslavia).

Immigration to Slovenia is closely connected with its economic situation. Till now Slovenia has not jet recovered from the economic crisis and this reduces its attractiveness. In addition Slovenia attracts labour force from less developed countries (from South and East). On the other hand the Slovenian market is small and not structured enough and brain drain is expected for specific profiles.

In years 2007, 2008 and 2009 there were around 23000 foreign male immigrants coming to Slovenia each year. Construction and Manufacture sector could provide employment for 47581 foreign workers in 2008 but the number has halved in 2012, providing employment for 27214 foreign workers. Before the crisis in

Slovenia a Construction business employed 125813 workers, 40,5% of all employed in the construction business were foreigners. In 2009 when the crisis was at the peak, there were 79655 foreigners living in Slovenia, with the immigration inflow of 30296 people, but also 18788 people leaving the country. The outflow was high also in the following years, accompanied by the national emigrants.

A growing number of young people move abroad in search of better opportunities. In Slovenia the current economic crisis has led to an increase in precarious employment of young people, temporary employment or part-time work, unpaid voluntarily internships in public administration and elsewhere, and forced self-employment. We have a youth unemployment rate a lot higher as the adult population. The chances for a young unemployed person of finding a job are low and even when young people do work; their jobs tend to be less stable. At the same time the expected decline in the number of young people is becoming more and more a problem.

Scenarios have focused on several areas of concern. Population projections were linked with the inflows and outflows of the population, both national and foreign. Due to the severity of demographic changes steps in strategic policy planning must be taken seriously. The future active generations of workers is much smaller than the generation that is going to retire. Nevertheless, even the smaller generation will need to pay for the dependent population and for indebtedness of the former and past generations. We can alleviate this burden by having more working active people that produce wealth. A challenge that cannot be addressed with spot measures.

Source: extracts from the national scenario for Slovenia

## SKILLED WORKFORCE DRAIN IN ROMANIA

After 1989, Romania faced an accentuation of the international migration phenomenon. This contributed to the reduction of the resident (stable) population. In 1990 4 persons out of 1,000 inhabitants chose to emigrate abroad; in 2002, the number of emigrants to 1,000 inhabitants was 48.6, and in 2012 this indicator increased to 116.5. In 2002-2012, the number of emigrating Romanian citizens increased constantly; the phenomenon recorded a higher growth between 2007 and 2008.

Within this framework, the integration in the European Union has brought a paradigm change especially regarding highly qualified personnel migrating from Romania, in particular the migration of health care personnel. These qualified professionals even accepting significant lower wages than native in destination countries, still find much better condition than in the home country, also in terms of benefits, social status, recognition etc.

Data availability is unstable but it seems that 3% of the physicians and 5-10% of the nurses in Romania emigrate constantly each year (according to data reported by Eurostat for 2011, Romania has a physician migration rate of 9%, whereas the European average is 2.5%). In the perspective of 2020, the migration phenomenon of health care workers determines a loss of approximately 30-32% of the educated workforce in this field.

This net loss combined with imbalance generated with exits (retirements) and entries of young physicians in the system dramatically increases problems of accessibility to health care system in the whole country, but especially in rural and small town communities.

Romania is in a losing context. Investments in education ensure the qualification of 5,500-7,500 graduate people from the universities of medicine every year, but the national system is unable to attract 2,500 – 3,000 resident physicians annually. Brain drain is associated with lowering offers of primary services for local population, thus further reducing overall territorial attractiveness.

An integrated strategy to revert this negative trend, also focusing on the significant number of return migrants (people emigrated to Western European countries and increasingly coming back as an effect of the heavy recession hitting the traditional destination countries, such as Italy and Spain). They not only are a ready available resource but have also acquired knowledge and expertise during they work experience abroad which could be precious for the innovation of the national system.

Source: extracts from the national scenario for Romania

## **Understanding societal transformation**

Demographic change, at least in South East Europe, cannot be reduced to population growth, negative or positive, and the ageing process. These are indeed crucial, and largely impacted by people mobility.

Yet, the impact of mobility and migration on societal transformations is not limited to quantitative terms, but should be also considered from the point of view of increasing diversity and complexity.

When people move, they bring along their culture, language, habits, which then tend to mix with those in host countries and regions.

When the incidence of foreigners on the total population rises, especially when this is particularly high on young and active populations (in MMWD partner regions like

Vienna and Emilia-Romagna the share in these age classes exceeds one fifth), the whole society is transformed.

There is growing awareness about these issues in countries with a long term tradition of immigration, while other regions, where everything happened very fast over a few years, need some time to learn how to read and address such complexity. Territorial scenarios developed for the City of Vienna are actually focused on the possibility to maintain social cohesion, in light of growing immigration flows, which are expected to continue for the coming years.

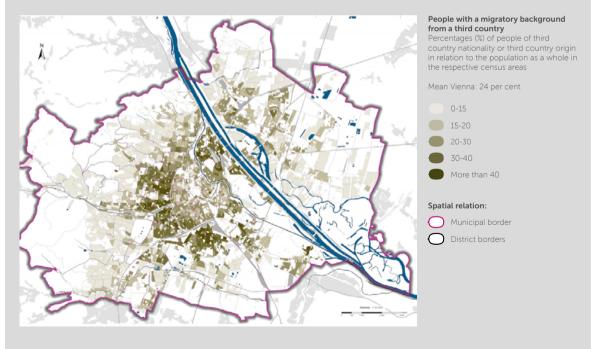
On the contrary, in Emilia-Romagna MMWD analyses have shaded light on societal transformations due to immigration flows and increasing diversity, and new social fractures thereof to be detected.

### **MIGRATION AND SOCIAL COHESION IN VIENNA**

The population of Vienna is increasing. The natural growth was minimal and negative in 2003 so that the enormous growth is almost entirely due to a positive net migration. In 2012, the migrant groups with the largest net migration were persons from the former Yugoslavia (2,892), Poland (2,403) and Germany (2,381). The Austrian population has experienced a strong negative net migration over the past ten years (2012: -1,900).

Up to 2020 the population growth in Vienna will amount to 100,000 to 200,000 people. The higher estimation is based on the assumed continuation of the substantial increase of the last years, which was particularly high due to the opening of the EU. More likely, however, will be an increase of around 100,000 people, who will mainly come from EU countries, predominantly from south-eastern parts of Europe.

This still represents an enormous increase and Vienna is faced with considerable challenges in terms of social cohesion in the city. Demographic and social transformation indeed do not involve all the city with the same intensity.



The figure shows the distribution of members of third countries in Vienna. It becomes apparent that there is a certain degree of concentration, which in the long run could lead to form of ethnic segregation. In Vienna, however, ethnic and as social segregation are less marked as in other European cities.

Territorial scenarios focus on both aspects of the development in Vienna: population growth resulting from migration and social cohesion in the city forms the analytic framework which defines how the scenarios are formulated in detail.

Two main scenarios for future developments have been identified. The negative scenario describes a situation with a tendency to stronger social and ethnic segregation. In comparison, the ideal scenario includes a situation with a tendency to developing toward a better ethnic and social intermixing in Vienna.



Scenario alternatives are described as the outcome of a set of policy action in different sectors from labour market, to education, to social mobility, to housing, to social capital (Networks, personal contacts and language capacity). Being designed at the metropolitan level particular emphasis has been dedicated to urban planning and the interplay of social cohesion with urban settlement at the level of municipal districts and city quarters.

Source: extracts from the territorial scenario for the City of Vienna

## A DIVERSE REGION EMILIA-ROMAGNA

Emilia-Romagna experienced an unprecedented population growth in the last decade, entirely driven by migration both from other Italian regions and from abroad. The share of foreigner citizens living in Emilia-Romagna rises sharply from 4% in 2003 to 12% in 2013 and with a projection to reach 18% in 2020. Moreover, foreigner citizens are concentrated in the younger age groups: about 1 on 5 person under the age of 40 is foreigner and 1 on 3 of the new born in the region have at least one foreigner parent. The trend over the year is of more and more foreign born and less immigration from abroad.

These massive flows of people not only have sustained the overall demographic tenure, but have also fostered the productive capacity of the region, which was characterised by full employment until the crisis triggered in 2007-2008.

New comers and their children are therefore a precious resource which cannot be substituted given the worsening natural growth possibilities, but their human potential seems not fully enhanced yet.

Detailed analysis conducted within MMWD allowed to look behind official statistics which rarely distinguish among native and foreign citizens. A number of indicators point to growing disparity of opportunity in the region at expenses of foreigner citizens and their children. This happens in the labour market (foreigners have been more severely hit by the economic recession; unemployment rate is of foreigner young adults is double than for Italians; foreigner have a significant higher probability to accept a job below their qualification level; even when they achieve tertiary education attainment their employment rate is lower than for Italians). It is still true when looking at the education and training system participation (lower average education attainment; rate of early leaver three times higher than Italians; lower achievement performance as measured by OECD-PISA survey; NEET rate more than double compared to Italians and rate of tertiary education attainment of people 30-34 reach only two third of the level reached by Italians).

Scenario projections do not point to the narrowing of these disparities in the coming years, even if a moderate economic growth is expected. Moreover, difficulties during the education and training life today are likely to be translated in further difficulties in the labour market tomorrow

This is a significant concern for regional development strategies, given that traditional the regional development model have relied on a good level of social cohesion. It is even more important as it involves the young segment of the population which is shrinking and losing weight on total population.

Generational passage is challenged by these transformation. Until in 2003 the balance between people going to exit the labour market (65-74) and people entering it (20-29) was in equilibrium. In 2013 every 100 people exiting there were only 85 youth entering. Additionally while old workers are all Italian citizens, only 65 on 85 of the youth are Italians. The transmission of competences, skills and diffused tacit knowledge may not easily happen within familiar and community networks, and this calls for new connecting tools.

Source: extracts from the territorial scenario for Emilia-Romagna

## Old problems in a new world

Some of the challenges we are analysing now have been there for at least two decades, in both EU and non EU countries in SEE: improving employment levels, limit unemployment and especially youth unemployment, ensure the sustainability of welfare systems. We are unfortunately familiar with them.

Yet, in comparison to 20 years ago, the world has changed drastically, and continues to change. This also concerns also SEE. Since the Nineties, economic strategies and productive sectors have undergone drastic changes, as well as societies.

Good analysis is an indispensable preliminary to understand and address problems which have the same name but have totally changed: strategies to address problems cannot be the same

### **WELFARE CONCERNS IN ABRUZZO**

If we analyse the projections of indicators on the social situation we see a progressive increase of the population at risk of poverty which passes from 20.6 % in 2007 to 26.1% in 2020. Compared to 2013 (22.0%), the increase will amount to 4 percentage points, a level higher than the Italian average which stays below 20% in 2013. This scenario is strongly connected with labour market conditions: unemployment in Abruzzo in 2013 was equal to 11.4%, while in 2020 it will increase to 12.5%.

Risk of poverty involves foreign people more than national residents and households. In 2009 the foreign taxpayers in the Abruzzo amounted to 76,676 and had an average income of 11,630 euro; in 2011, they were 80,824 (5.4%) with an average income of 12,058 euro (+3,7%). This correspond to a gross monthly income of 927.53 euro, which, net of taxes, becomes equal to 713 euros. The level is below the relative poverty threshold and not far from the absolute poverty limit (for an individual aged 18-59 years, who resides in a small town in Abruzzo, absolute poverty thresholds was 525.65 euro in 2011 while in 2012 was 537 euros.

Regarding the indicator "several material deprivation rate", it rises with reference to the total population, from 4.6 % in 2007 to 9.1% in 2020. This indicator was obtained by considering the trend of the "poverty risk rate" that increases of 5%.

From regional scenarios clearly emerged the necessity of an active and inclusive welfare policy that helps the transition from welfare state to a welfare society. It is required to find institutional governance bringing together in a single objective function, a growing need for social inclusion with a limited availability of public financial resources.

This can only be done using the social economy as a possible driving force of social development, with obvious positive effects on employment and regional GDP.

Social situation is not favoured by demographic trend. The negative natural balance indicates an advanced process of demographic endogenous recession, in which at the low birth rate is adding the internal migration of the local population (moving to other Italian regions). It is only partially compensated by international positive net migration, which was increasing.

The average number of members per household –family is traditionally the main pillar of welfare- reduced to the value of 2.5, reflecting the progress of the nuclear model and the gradual transformation of the expanded traditional model (even if still in higher compared with levels registered in Northern Italian regions).

Most important, from the demographic point of view spatial disparities are widening: there is massive regressions in inland areas and advances in coastal areas, reflecting the progressive fracture taking place in the region and the polarization of the development model.

Source: extracts from the territorial scenario for the Regione Abruzzo

## **DEVELOPMENT STRATEGIES AND RURAL-URBAN POLARIZATION IN BISTRITA-NASAUD COUNTY**

There has been a strong emigration phenomenon in recent years in Bistrita and in Bistrita-Nasaud county marked by the local economic crisis. This flow was directly caused by the economic downturn and thus by the decrease of labour market opportunities. The effects of local external migration enhanced by the demographic ones, led to a massive drop in the resident population. Other side effects are:

- affecting the labour market (on one hand, by reducing the recorded unemployment and on the other hand, by lowering labour and altering its structure, particularly in rural areas)
- influencing the quality of human capital;
- highlighting specific social needs of elderly people

MMWD policy scenarios have been adapted to local relevant issues such as the rural urban divide in labour market (employment in rural areas representing two thirds of the total in the county); the modernisation of the county education system (Bistriţa city representing the regional education centre) adapting education to labour market shortages. Issues related to elderly population are considered as the most important at local level both in the present and for the future of the welfare field. They have been at the center of the analysis on welfare and social needs.

Bistrita has a population of over 75.000 in 2011 being the largest city in the Bistrita-Nasaud county accounting for 286,200 people. Following on a path towards urbanisation the town population is expected to increase up to 2020 in every scenario variant, while the county population will decrease.

The population growth is accompanied by a dramatic increase of the elderly share on total population especially in Bistriţa city, where the elderly population will increase by about three quarters up to 2020 (it is also a consequence of movement of older people from rural areas to the town where the accessibility of public services is higher. On this general background, an important increase in the number of people with difficulties in performing daily activities, requiring assistance to compensate the degree of limiting daily activities is expected. To ensure the most demanding needs of elderly people with severe difficulties, local public policies will lead to considerable increase in the capacity of residential care centres for elderly people.

Based on the 2014-2020 development strategy of Bistriţa-Năsăud county and taking into account total population decrease, local public policy in the field of employment in rural area face an important challenge. To maintain in 2020 the present absolute level of active population of 20-64 years old only it is necessary to promote an increase of the activity rate by about 4%. Compared to 2011, this implies an increase in the employment rate by 5.7% in the same age group, while reducing the unemployment rate by 3.5%. In these circumstances, it results the increase in employment of young population aged 18-24 years alongside with a massive drop in youth unemployment rate from 17,0% in 2011 to 5.7% in 2020.

Different is the situation in Bistrita municipality. In view of some optimistic forecasts, supported by adopted strategic plans, employment in Bistrita stimulated by appropriate public policy on the local market will lead to an increase of employment rate by 2020 both on overall and on representative age group namely 20-64 years. Also, compared to 42,7% in 2011 the employment rate of 18-24 young will significantly improve reaching to 52% in 2020.

In the future development of human capital –crucial to sustain these ambitious development and employment strategies- local policy scenarios point to a slow improvement of educational situation of the population in the county. Thus, by 2020 the share of people with higher education will increase by 4.8% and of those with post-secondary and foremen education by 1.2%. The entire county population with tertiary education aged 25-64 years old will represent 23.9% of the total, with about 6% more than in 2011.

Source: extracts from the territorial scenario of the Municipality of Bistrita

## **Scenarios at work**

MMWD aimed to sustain the capacity of regional and local institutions to embrace a future oriented vision of territorial development. Scenarios derived from demographic evolution and focusing their impact on social and economic factors which may hinder future development prospects and the overall sustainability of the social model, have been the building tool for local capacity building processes aimed at

ensuring ownership and concrete application of the analysis in current and future strategic planning processes.

In several partner regions MMWD activities have been rooted in the institutional development plan preparation, in others they have been the occasion to launch new institutional and participative strategic planning processes. A more detailed overview of such processes can be found in Annex 3.

## FUTURE ORIENTED STRATEGIES IN THE ŠUMADIJA AND POMORAVLJE REGION

Demographic trend in the Šumadija and Pomoravlje region has been of a constant depopulation in the last decades, with important internal residence changes: in the period 2002-2011 average annual growth rates were from -6.1% for Pomoravlje to -1.9% for Šumadija. Negative natural growth was nearly doubled, while positive rate of migration balance was mostly a statistical effect resulting from changes in census methodology (internally displaced persons entered the category of permanent inhabitants). Real migration balance has been -1,149.

Policy scenario has been rooted within the regional development strategy based on two priority directions of development for the region of Šumadija and Pomoravlje addressing 1) Industrial and technological development and 2) rural development. REDASP involved over 100 stakeholders in the analysis and scenario building, setting the bases for a robust an shared long term vision which in turn represents an important tool for strategy revision and innovation for the region of Šumadija and Pomoravlje, as well as for individual local development strategies of municipalities.

Scenarios have been conceived on the. Three alternative scenarios have been set to project possible impacts of demographic change on the sectors of labour market, human capital and welfare system.

DESCRIPTION	IMPACTS
SCENARIO 1	
Disintegration of territory Continuation of economic recession Uncompetitive economy Lack of infrastructure cohesion Decreasing/weakening human capital	Industrial development –status quo Rural development –status quo Zero migration balance Continuous depopulation and aging Unchanged employment rate (40%)+ Unchanged unemployment rate (27%) Stagnant education Increasing social vulnerability Unsustainable pension system
SCENARIO 2	
Strengthening of regional integration Restructuring of economy system Moderate increase of regional competitiveness Re-industrialisation and multifunctional agriculture Partial infrastructural cohesion	Gradual recovery of industry Rural development -status quo Internal migrations (moderate balance) Shrinking and aging population Increased employment to 65% Decreased unemployment to 15% Increased tertiary education Present risk from poverty Increased dependency of the elderly
SCENARIO 3	
Depending on the process of EU integration and economic growth rate Increased competitiveness of the region Increased foreign direct investment Constructed vital infrastructural corridors Developed economy based on knowledge Strengthening of internal territorial cohesion	Intensive industrial and technology development Rural development Immigration (internal and external) Preconditions for demographic recovery Increased employment to 70% Decreased unemployment to 10% Coordination between education and economy Reduced social vulnerability Increased number of pre-school education attendants Support to active aging

MMWD demographic projections and policy scenarios have been incorporated in a number of strategic and operational programmes at different government levels in the region with the support of REDASP. Some examples are the following:

1. Development of Social Welfare and Protection Strategy of Kragujevac City 2015 -2020 and Local plan for adult education of Kragujevac City: REDASP produced the methodology for development of the social welfare and protection strategy; local involved actors in charge for social welfare took into consideration demographic projections and policy scenario results into the process of developing the sectoral strategy for the city of Kragujevac

- 2. Revision of the Sustainable Development Strategy of Batocina Municipality 2015-2020 and of Rekovac Municipality 2015-2020 which incorporated population projections for the municipalities produced by REDASP into the social and economic analysis the new plans will be based upon
- 3. Development of Social Welfare and Protection Strategy of Rača Municipality 2015- 2020: as above, REDASP produced the methodology for development of the social welfare and protection strategy; which will be shared and discussed with local actors in charge for social welfare
- 4. Revision of Sustainable Development Strategy of Šumadija and Pomoravlje 2011-2021, incorporating statistical projections of Šumadija and Pomoravlje, Migration Profile for Šumadija and Pomoravlje and Policy Scenario main results. These MMWD output have actually been the starting point of the new planning process.

All relevant stakeholders found interest in using policy scenarios and population projections in the process of investigating background and potentials for development in all relevant sectors for short term and long term plans.

Through analysis of correlation of the sectors of labour, welfare and human capital through prism of demographic change and migration all relevant stakeholders found common opinion that stronger relations and connections, joint work is necessary, in order to overcome crisis and achieve main strategic and operational goals of territorial development.

The integrated approach helped to assess the side effect of spontaneous processes such as internal migrations of young people and experts in industrial and technological areas towards the city of Kragujevac, the centre of development. Rural depopulation and drain lead to very costly consequences on the social realm but also in long term development perspectives. Reinforcing the strategy for rural and agricultural development in view of a more balanced and sustainable growth, emerged as a new priority.

Future replication could be found in integration of demographic change and migration statistics into development and revisions of strategic planning framework for numerous national, regional, local and sectorial strategies on the territory of the Republic of Serbia.

Source: extracts from the territorial scenario for the region of Šumadija and Pomoravlje and from the description of the pilot testing on the use of scenarios promoted by the Regional Economic Development Agency for Šumadija and Pomoravlje (REDASP)

### RETHINKING THE DEVELOPMENT PLAN FOR THE GORISKA REGION

The migration has very significant influence on different aspects of development. In Goriška region migration flows were not managed till now. The demographic picture of the Goriska region is changing. The population has slightly declined during the period 2000-2013 from 120.4 thousand to 119.1 thousand.

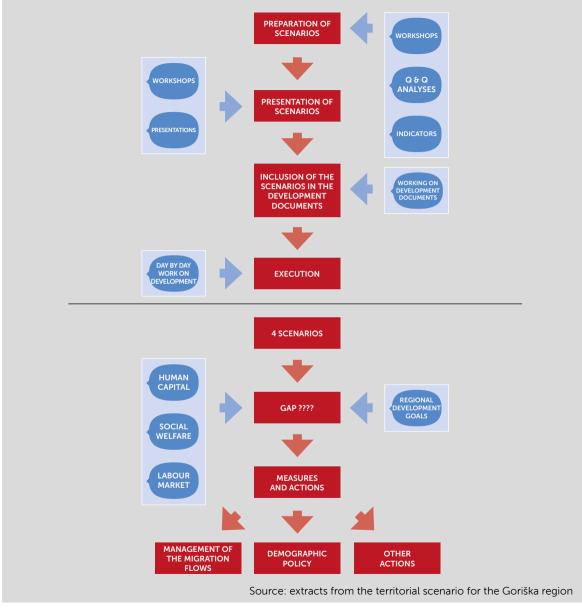
In the period 2000-2007, the decline in the population was the result of negative natural balance and negative net interregional migration, which was to some degree off set by positive net international migration flows. Following the outbreak of the financial and economic crisis at the end of 2008 that hit the construction and manufacturing sector most, there was a large increase in the number of international emigrants in 2009 combined with a considerable decrease in the inflow of international migrants (starting in 2010). Consequently, the positive net international migration decreased to a very low level in the period 2010-2012 and could not offset the negative net interregional migration anymore.

According to three out of four population projection scenarios, the population of the Goriška region is projected to be smaller in 2020 compared to 2010. However, the number of foreign citizens is projected to be larger in 2020 by all four projection scenarios. Considering only the natural population movements (zero net migration scenario), the population of Goriška region is projected to decrease to some 117.9 thousand people in 2020 (a decrease of 1 % compared to 2013).

Scenario building coincided with the process of creation of the Regional Development Plan. The scenarios and the Regional Development Plan were discussed with stakeholders (representatives of different public and private institutions, economic subjects, civil society, NGO) and experts in several fields: human resource, economy, tourism, countryside development, environment space and infrastructure. More than 170 people were involved. Several issues were found and discussed

Quantitative projections and qualitative analysis in the field of labour market, human capital and social welfare where confronted with the regional development goals in order to identify relevant gaps and proper measures and actions. One of the conclusion is that without active management of migrations the Goriška region will face serious problems in achieving development goals.

The process is described by the figures below.



# A COMPLEX FRAMEWORK OF INTER-DEPENDENCIES

Evidence in this report has shown how existing connections across the regions of SEE, which we observed from the perspective of human mobility, influence local contexts and tend to reinforce existing disparities. moreover, effects observed in demographic terms, tend to mirror divergences in economic capacity and social tenure.

Regional imbalances are amplified by migration, as both a cause and an effect, and constitute a challenge for the SEE region as a whole, and for each of its territories.

The evidence of such interdependencies between local and macro-regional effects has sustained in MMWD the awareness that effective local strategies are closely related to macro-regional goals, requiring the capacity to combine multiple levels of intervention as well as multiple areas of action.

Such knowledge has strongly informed the process of transnational dialogue and cooperation among SEE institutions in MMWD: starting from the analysis of existing local demographic challenges, SEE

institutions have come to discuss coherent frameworks for transnational cooperation, pursuing a holistic vision centred on the concurrent innovation of economic and social models, affected by demography.

MMWD Roundtables for Transnational Dialogue and Cooperation

Transnational dialogue in MMWD has built on the context-based analysis made available by the project. Territorial analysis served as the basis for a process of dialogue and cooperation which has aimed to place specific local needs in the broader attainment of developing a shared strategic vision at the transnational level.

The three Roundtables organized by MMWD in 2014 (in Trieste and in Belgrade) have offered a concrete opportunity to bring institutions and stakeholders from various SEE countries to discuss and design partnerships for action. To increase coherence with European framework strategies and thus overall sustainability of the process, each discussion was anchored to the SEE 2020

Strategy and to cohesion policy priorities for 2014-20.

Extensive consultations and a thorough mapping of institutional frameworks in participating countries set the Roundtables' agenda, and MMWD dialogue was centred around a specific focus for each of its three main policy areas, each chosen for its relevance to address common challenges ahead related to demographic trends.

Dialogue on Employment addressed the promotion of entrepreneurship and self-employment as measures to foster participation levels and activism in the labour market. The need to improving the quality of human capital across SEE was approached by discussing models and networks for secondary and tertiary technical education to sustain stability, competitiveness and innovation in South East Europe. Today's and future challenges to welfare systems and traditional social models were tackled discussing how to stimulate social economy in territories whose welfare and social models are so diverse.

In concrete terms, each of these strands of discussion brought together over 20 participants, mostly representatives of public administrations, and resulted in joint Action Plans for Transnational Cooperation in 2014-2020.

Despite the specificity of references and analyses required for each discussion, their outcomes come together indicating a number of principles of a general nature, which are at the core of MMWD vision. The context-based approach followed in MMWD Roundtables, gave evidence to the complexity of challenges ahead, and to the necessity that they are addressed pursuing a higher degree of coherence between the different levels of intervention: local, national, transnational.

SEE is a region which is at the same time strongly interconnected, and burdened by persistent territorial divergences. Responses to local challenges must take into consideration the wide institutional, social and productive context in which they occur, thus must be local in nature. But it is also very important that local strategies are designed maintaining clear awareness that local dynamics are also the outcome of trends and conditions taking place internationally, and that this is especially relevant for a transnational area which is tied together by a thick web of exchanges and historical, cultural, and productive connections, which include the mobility of students and labour.

The relationship between local causes and effects are the result of a multiplicity of factors, some of which operate exceeding

administrative borders. If effects are local and dynamics are (also) transnational, it becomes evident that local and transnational strategies are interdependent, and their effectiveness strongly related to the capacity of transnational action to take into account diverging local situations, and of local action to pursue a coherent engagement in the wider territorial frameworks they are part to.

For MMWD territories, such enlarged territorial space is Europe, with its macroregions. South East Europe, before being a transnational cooperation programme area, is an area of natural cooperation lying at the South East periphery of the European Union (EU), bringing together Member States and countries with a perspective to enter the EU.

The EU has over the decades consolidated its role in defining common framework strategies, which set the strategic direction for national and local action, and outline the overall institutional and normative frameworks European actors must adhere to, in order to pave the way to increasing cohesion across the Union, and higher levels of converge towards a common goal.

Leaving aside positions which for the time being concern a minority of EU citizens and representatives, the collective interest for each EU territory to be a part of a wider assembly remains at the core of the action of the European Union. This same interest applies also to each of the EU peripheral areas, as SEE is. A neighbourhood area whose wealth and cohesion is in the interest of each of its territories, because they are closely linked, and of the EU, which needs a dynamic and competitive contribution from all of its parts.

In the context of MMWD discussion on multiregional action for 2014-20, the direction emerging from the three thematic discussions is that Action Plans must address the definition of the overall institutional and regulatory framework guiding local and multiregional action, while at the same time also favoring the insurgence of appropriate local conditions, and testing the capacity of more specific multi-regional initiatives to feed coherence of action in different contexts.

In this respect, multi-level interventions appear as coherent models of intervention, contributing to the key objective of enhancing local capacity to be active at the transnational level, as a precondition to building more cohesive and harmonic transnational cooperation areas.

All MMWD proposals are moreover built around a wide interpretation of the innovation principle, calling for the joint involvement

of social, economic and institutional actors to enhance sustainability of transnational action, and at the same time foster structural, coherent and concurrent innovation in social models and economic systems.

At the centre of such principle are the citizens of SEE. MMWD Action Plans are built around a conception of territorial development which sees individuals and their active participation in society as the engine of any positive and effective strategy pursuing the future wellbeing of European regions. In particular, thematic discussions have spontaneously come to stress the importance of youth activation and self-investment.

# PROPOSALS FOR TRANSNATIONAL COOPERATION 2014-20

### ACTION PLAN OF THE THEMATIC ROUNDTABLE ON WELFARE

Coordinators: Franco Marzocchi, Giorgia Perra for the Region Emilia-Romagna

Participants: on average 20 participants to each of the three meetings, from 7 SEE countries
(Italy, Austria, Bulgaria, Romania, Serbia, Slovenia, Greece)

## **POLICY FOCUS**

In the current socio-economic scenario, a welfare system based only on State intervention is not sufficient to address social needs. It is necessary to create a new development model that overcomes the traditional vision of the dualism State-market in order to achieve the Europe 2020 social goals and to satisfy the increasing demand of social services emerging from socio-demographic evolutions in South East Europe (SEE).

The growing differentiation of needs has gradually made the standardized responses provided by public sector more and more ineffective. In particular, demographic trends should be taken specifically into account, given their importance in determining the insurgence of new needs. An ageing population and the gradual erosion of working forces are two important and common phenomena which emerged from the discussion of the thematic roundtable on welfare, and having the largest impact on the future social systems and welfare models.

In this vision the MMWD thematic roundtable on welfare and social economy pointed out as main priority the development of a regulatory framework able to promote and support the involvement of other key actors, in addition to the public, within the welfare system of participating territories.

Starting from MMWD analyses, and considering the various dimensions of the relationship of private (enterprises and civil society organizations) and public actors, and the system's capacity to address the actual needs of local communities, the roundtable focused on the experiences of territorial development models connected to social economy. The themes of social enterprise and social business are thus placed in the wider context of the role of welfare in development models, placing emphasis on public-private partnerships and on the role of civil societies in this regard, including networking and representations of sector groups.ro-regional perspective

The macro-regional perspective is an added value for the development of social economy, as it can extend dimension, networks, resources, actions and, above all, a development vision that sees welfare services as a core part of development strategies, and brings together public and private actors in its realization. At the same time, a macro-regional perspective can be reinforced by the promotion of a sustainable and innovative model of social economy, able to embody and communicate the strategic pillars of a smart and inclusive growth. A polycentric approach could be key to conjugate a common strategic vision at macro-regional level with the enhancement of the intellectual, social, political, material, cultural, geographical capital of the territories involved, which is necessarily different among regions.

Priorities and actions of the Action Plan are coherent with the Europe 2020 goals on education and poverty and social exclusion, and with the ERDF 2014-20 Thematic Objective 9 - Promoting social inclusion, combating poverty and any discrimination, and T.O. 11 - Enhancing institutional capacity of public authorities and stakeholders and efficient public administration.

## **PRIORITIES AND ACTIONS**

The overall approach in our discussion departed from the evidence that specific actions without the background of a strategic vision cannot properly address social needs.

Agreed priority and actions are organised in three categories: strategic actions aimed directly to address the policy focus of the Action Plan; cross-cutting actions with the purpose to act in an horizontal way on the welfare system; actions oriented specifically to the identified target groups (elderly, migrants, children, families, disadvantage people).

## Strategic actions:

- Support the insurgence of an ecosystem for the development of social economy and identify the emerging fields to promote it (for instance, social tourism);
- Assess the legal framework for social economy in the region in order to improve it;
- Monitor and measure the social impact of social economy organizations not only by quantitative but particularly by qualitative indicators, in order to illustrate the importance of this sector;
- Develop training programmes for high quality personnel operating in social services, social economy and social entrepreneurship;
- Plan and submit a project to foster the cooperation between social enterprises in the SEE region.

## **Cross-cutting actions:**

- Participatory planning (proposal based on the Italian practice for the local planning of social policies "Piani di Zona" and "Patti di Sussidiarietà");
- Promote public-private partnership and networks of social service providers at national level;
- Promote active citizenship;
- Implementation of non-discriminatory and transparent access criteria in public funding;
- Promote and ensure a preventive program on health care starting from the evidences emerged from MMWD demographic projections in order to address better the population's needs;
- Improve financial sustainability of social and care services through incentives and/or social investments.

## Actions oriented to specific targets:

- Promote policies for elderly people: Demographic projections highlights a growing elderly rate in the next few years in all MMWD territories. In this scenario the welfare systems have to react effectively with social interventions. In particular, the discussion focused on home care services/support services for elderly people and adaption of workplaces suitable for an ageing society;
- Migrants: The demographic trend shows the importance of in and out-migration as a key factor of the increase/decrease of population. An integrated foreign population can contribute to cover the gap in local labour forces resulting from an ageing society in destination countries whereas this process is at the

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same time the main cause of an ageing society (and the related problems) in countries of origin. Thus, a strategic transnational approach is needed to address this connection. Services include multilingual information and counselling services for migrants, inclusion of staff with migratory background in social services and establishment of housing policies to prevent social and ethnic segregation;

- Children: Enlargement of availability and access to high quality childcare, especially for children below the age of three;
- Families: Realization of family-friendly services respecting the work-life-balance in order to increase female labour participation and male participation in childcare and domestic work; Provision of childcare allowance up to two years and of possibilities of maternal as well as paternal leaves;
- Disadvantaged people: assistance and support services.

#### **ACTION PLAN OF THE THEMATIC ROUNDTABLE ON EMPLOYMENT**

Coordinators: Marco Cantalupi, Alessandra Gruppi for the Region Friuli Venezia Giulia, with the support of Flavia Piperno

Participants: on average 30 participants to each of the three meetings, from 8 SEE countries (Italy, Austria, Bulgaria, Romania, Moldova, Serbia, Slovenia, Greece)

#### **POLICY FOCUS**

The policy focus of the present Action Plan is to support the relationship between learning mobility, employment and self-employment across SEE, with a special emphasis on transnational entrepreneurship and on youth.

In addition to the fundamental descriptive relevance for the ex-ante context analysis, where demographic and migration dynamics mix together in very complex ways, the macro-regional perspective made it possible to point out some of the widespread externalities and the need to avoid the pitfalls of considering the labour issues only from a narrow-minded and potentially misleading micro-management perspective.

The MMWD Thematic Roundtable on Labour has first discussed the approach to labour policies, focusing on the concept of inclusive growth, and pointed as the main priority the harnessing of international mobility and associated specific training programmes as a driver of employment and self employment/ entrepreneurship, with the final aim of making a credible and cohesive labour market at regional and macro-regional level and counter (especially youth) unemployment. This strategic choice is to be encouraged at the policy level by regional cooperation, keeping in mind the SEE 2020 Strategy pillars, i.e. smart growth and inclusive growth.

Promoting sustainable and quality employment and supporting labour mobility is the 8th Thematic Objective of the European Structural and Investment Funds (ESI) and, in line with the ESI regulation, the 8th ERDF Thematic Objective 2014-20 on 'Promoting employment and supporting labour mobility', giving priority for investments to the development of business incubators and investment support for self-employment and business creation. Labour Mobility is a priority also in the SEE 2020 Strategy, within the inclusive growth pillar, 'promotion of employment creation in SEE through regional actions ensuring

labour mobility'. The 'creation of a regional consultancy process on mobility and the abolition of labour market restriction in the region' are some of the recommended measures for promoting labour mobility. The positive impact of geographical mobility on job generation is firmly stressed also in the European Social Fund Regulation (1304/2013). As stated by its regulation, the ESF mission will be to 'promote high levels of employment and job quality, improve access to the labour market, support the geographical and occupational mobility of workers and facilitate their adaptation to industrial change and to changes in production systems'.

Opportunities related to this proposal include: Strong commercial ties and outsourcing/delocalization processes; Current migratory flows already linking specific countries within the Danube and Adriatic-Ionian Macro-regions. Growth of returning flows, including those who haven't found a suitable position in the labour market abroad and make a new start in the country of origin. Increasing ratio of skilled and young migrants who studied abroad. Increasing (self) selectivity; Mobility schemes as a strategic tool for young migrants, enabling them to better address, test and manage their migratory project, in both direction (out-flow and return). As a matter of fact, short period of traineeship and apprenticeship abroad, make it possible for young people to acquire contacts, skills and a more realistic knowledge of the labour market where they wish enter. Given the strong migratory ties linking specific territories at macro-regional level, this can also lead to an increased stability and cohesion in the whole area; Public-private partnerships. Cooperation between the public and the private sectors especially in the provision of information and other public goods, such as educational/training programmes. Role of the Employment services.

#### **PRIORITIES AND ACTIONS**

The partners converged in considering as the main targets: Migrants; and Youth (young workers and students below 29 years of age involved in on the job traineeships or apprenticeship).

#### Priorities and actions are:

• Supporting transnational entrepreneurs (TE) during all business life-cycle, including by supporting the networking between TE at the regional scale; sustaining dialogue with business communities, the banking/financial sector and the employment services.

- Training (formal and informal) and capacity building of entrepreneurship, considering also multicultural skills. The diffusion of a culture of entrepreneurship along the entire educational sector, especially targeting young people and groups traditionally under-represented in entrepreneurship. Public policy intervention in support to self-employment and entrepreneurship as a structural policy, for both sustaining aggregate activity rates and territorial development;
- Fostering mobility schemes for internationalization, in particular by reinforcing the capacity of SEE countries/regions to apply, extend and the scaling up the existing EU instruments promoting mobility and apprenticeship schemes for young people in a transnational dimension, reinforcing networks with institutional actors and local business communities. Mobility schemes can best promote a cosmopolitan culture within the macro-region and thus reinforce the idea of Europe.
- Shaping the regulatory and normative environments and harnessing the institutional cooperation. Integration between TEs and local entrepreneurs is fundamental to prevent unfair competition and/or marginalization of TEs. Institutions should support these forms of networking. Partners considered it strategic to simplify the collection of information necessary for a potential TE to start up a new venture.
- Cooperation between institution to increase networking between TE and business community. Given the relatively abundant availability of EU projects and of best practices, scan thoroughly opportunities and engage in proper match-making with potential target groups and local environments.
- Achieving coherence, at regional and macro-regional level, between mobility schemes and development and productive policies, through a better synergy among: a) in-flow mobility schemes b) out-flow mobility schemes (that can be supported through different European programmes as Cosme, Erasmus +, the Youth Guarantee and Eures).

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#### **ACTION PLAN OF THE THEMATIC ROUNDTABLE ON HUMAN CAPITAL**

Coordinators: Eva Sinkovic, Massimiliano Costa with the support of Corrado Campobasso for the Region Friuli Venezia Giulia

Participants: an average of 20 participants from 7 SEE countries (Italy, Austria, Bulgaria, Romania, Serbia, Slovenia, Greece)

#### **POLICY FOCUS**

Demographic change calls for increasing employment and productivity to respond to the ageing of population. In the aftermath of the crisis, one major concern is to ensure more and better jobs especially for young people. Youth unemployment rate and the share of NEET is impressively high in most of the South East Europe regions.

The policy focus here is to improve the quality of technical education and training at secondary and tertiary level, in order to spur innovation and productivity, and contribute to social and economic stability across SEE.

In concrete terms, the proposal is to design a model of technical education that is apt to respond to real employment and innovation drivers in SEE territories, and that is grounded on a structured collaboration between public institutions, educational centres and enterprises.

The analysis of MMWD concerning demographic trends by levels of education shows an insufficient improvement in educational levels, while available project's analyses point to increasing migration flows across the area, which are mostly labour-driven. At the same time, foreign direct investments and delocalisation processes persist within SEE especially along some manufacturing value chains. The reinforcement of regional systems of effective technical education and the strengthening of their relationships and collaborations at transnational level could contribute accompanying these processes in an innovative way.

#### PRIORITY AREAS

The key priorities are set in order to contribute to the innovation and harmonic development of the area, smooth the differences between the regions involved with the aim to overcome the labour-driven migration towards an opportunity-driven mobility. The following priority areas have been identified:

# • Improve quality and attractiveness of technical education in terms of employability, and inclusion for all citizens:

- The result of the correct planning of TE (and VET) in cooperation with labour market needs will impact the employability of Technical profiles and the possibility of employment increases the attractiveness of the system.
- Technical education (and VET) should play an active role in inclusion. Inclusive education increases its attractiveness for vulnerable groups, such as migrants. Specific attention should therefore be paid to active citizenship competences as well as to guidance and other individual services.
- Development of entrepreneurial competences to favour inclusion and promote self-employment.
- Improve guidance for better learning and job placement, to respond appropriately to the different needs of individuals and promoting the recognition of their capabilities).
- Improving attractiveness and quality of adult education using modern educational methods and techniques in curricula in order to ensure high level educational intercultural environment.

#### • Strengthen connections with labour market and business sector for sustainable regional development:

- Improving local and regional governance in technical education (and VET) systems to better respond to the (local) labour market needs
- Promoting cooperation between local/regional governance level with national and macro-regional levels coherently with the map of productive and labour mobility flows.
- Promoting public-private partnership through cooperation and direct involvement of different stakeholders (public bodies, enterprises and their associations, education providers) in the governance and organisational model for technical education offer.
- Encouraging the education practice to improve the capacity of education and training system to

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answer to the needs of the industry and labour market locally, with an eye on national and macroregional perspective.

• Set-up partnerships of stakeholders involved in work based learning (including SMEs representatives) in order to improve practices that ease transition in the labour market.

#### Developing a workforce skilled for innovation:

- Promote the capacity of higher technical organizations, operating both in education, research and innovation (third mission), to be effective bridges between qualified workers and enterprises, and between enterprises themselves in a value chain perspective.
- Setting and promoting partnerships for innovation skills development as well as interdisciplinary and cross sector partnerships to contribute to human capital development.
- Perform cooperation with industry representatives and other stakeholders, aimed at identifying emerging demand for innovative-related skills in order to qualify the technical curricula and contribute to the innovativeness of the area.

#### Improve quality of cross-sector and cross-country mobility

- Technical education should favour more quick conversion and re-skilling according to changes of industry trends as well as qualified geographic mobility.
- Worked-based learning should be promoted in order to contribute to informal learning and competences (according to EU documents on WBL it also contributes to employability, social inclusion and entrepreneurship). WBL promoted at trans-national level allows qualified mobility and benefiting from it.
- Certifying transversal and technical competences and skills will contribute to cross-industry and cross-country mobility (ECVET) by maximizing the portability of individuals' skills from one sector to another and to one country to another, and eliminating the risk of unit duplication across industries.

#### **ACTIONS**

- 1. To strengthen the role of higher technical education institutions in the SEE knowledge and innovation community, exploring potential development in the following directions:
- Promotion of transnational mobility of people students, specialized technicians in lifelong learning, teachers and researchers mirroring the transnational relationships of existing and emerging productive value chains;
- Reinforcement of overall innovation capacity promoting research and training collaborations and knowledge spill-over at macro-regional level;
- Promotion of transnational partnerships with peer institutions operating in other regions in order to strengthen networks within the SEE region. A tighter network of higher technical education providers around SEE could also act as an enabling platform to bridge different kinds of subjects -firms, qualified human capital, investors, regional development institutions- throughout SEE
- 2. To reinforce quality, attractiveness and inclusiveness of technical education and VET at secondary level, to promote better employment opportunities and regional balanced development. This complex task includes actions in the following directions:
- To set up and qualify an European network of "second chance" schools to target vulnerable groups (migrants, NEETs, etc.);
- To set up "open schools" network to promote the development of transversal key-competences (active citizenship; etc.) using innovative methodologies to involve students, junior and senior workers (creation of inter-generational cooperation);
- To promote the creation of technical laboratories in order to allow the development of innovation skills linked to the emerging professional profiles and labour market needs;
- Guidance (involving different stakeholders) in a transnational prospective should be a transversal priority to improve the quality of mobility. This also means to define professional standards of the employment services/centres workers promoting the creation of "communities of practice" and to set up common training and educational path/courses concerning key issues as guidance.

# **ANNEXES**

# SELECTED INDICATORS ON DEMOGRAPHIC CHANGE AND MIGRATION AND THEIR EFFECTS ON SELECTED POLICY AREAS

# **Comparative analysis of available datasets**

#### Introducing MMWD background and approach

Countries and regions across the South East European Space, as in the whole European continent, are facing unprecedented transformations in their demographic structure.

Such changes have direct effects on their economic development prospects and overall wellbeing, and result from different thou intertwined trends: an ageing population, low birth rates, changing family structures, and increasing migration. Not least, because the development outcomes are affected among others by educational attainment, potential for competitiveness and innovation, quantity and quality of labour offer and demand, and of social and community services.

Territorial analysis is critical, as future challenges relate to the socio-economic consequences of demographic change on specific contexts, rather than to demographic change itself. Local and regional authorities are at the forefront in facing the interrelated effects of today's demographic, economic and societal changes. They are confronted with the need to actively govern such processes, and regain their full planning and strategic capacity.

The possibility to undertake solid territorial analysis is however disputed by a persistent problem of data availability, accessibility and consistency across SEE countries and regions, and by lack of transnationally comparable analytical models. Persisting limitations are particularly harsh for all SEE countries, thou in different degrees, with regard to migration and non-native residents at sub-national level.

MMWD is tailored on the specific needs of SEE regions. The project is particularly interested in the implications of mentioned demographic trends on three inter-related policy realms: labour forces and employment, educational levels and the demand for social and community services (which in turn ensure the social infrastructure needed to support growth policies).



Migration is scrutinised in relation to its effects: different combinations of population trends and resources in different territories.

#### The project panel of indicators

The first phase of work of MMWD aims at improving the availability of sound and regionalized knowledge of the evolutionary effects of today's demographic change. Such knowledge shall be made available by constructing mid-term scenarios with a 2020 horizon, depicting the implications of demographic change and migration flows on selected policy areas for the regions and cities of South East Europe.

Activities started with the definition of a panel of indicators. The panel design took large account of Europe 2020 targets, the work of the Stieglitz Commission, and the so called Zaragoza indicators on immigrant integration. Indicators were eventually selected on the basis of multiple hypothesis of possible interrelationships between demographic trends and development outcomes in selected policy fields. These included focus on possible relationships between the population structure and migration movements, on one side, and national and regional labour forces, skills, and expected labour needs on the other. Human capital is central in MMWD analysis, for its direct relationship on economic growth and social wellbeing, and the key relevance for both dimensions of valuing the human capital related to incoming migration, or handling the consequences of a loss of human capital due to out-migration. Moreover, since economic development and local competitiveness can only be pursued together with social cohesion, as Europe 2020 clearly indicates, analysis will also consider the effects that changes in the population composition are likely to produce in terms of foreseeable social needs (among others, access of migrants and disadvantaged groups to the labour market and to qualifying training programs, coherence between qualifications and occupations, mitigating negative dependency ratios, conciliation of work and family life).

As a preliminary note to the panel of indicators presented in the following pages, it is important to note that MMWD places migration at the centre of today's demographic change but does not limit its analysis to migration processes and considers different demographic trends. Moreover, referring to migration processes, the project takes into account their multifaceted realms, considering movements occurring within the same regions (i.e. rural to urban movements and vice versa), between regions in the same country, and across different countries.

Theme	Variables considered			
POPULATION	Population stocks on 1 January by age and sex			
POPULATION	Population stocks on 1 January by age and country of citizenship			
POPULATION	Population stocks on 1 January by age, sex and country of citizenship			
POPULATION	Population by age, sex and educational attainment			
POPULATION	Demographic balance by sex			
POPULATION	Population projection			
FERTILITY	Live births by mother's age and new-born's sex			
FERTILITY	Live births by mother's and father's citizenship			
FERTILITY	Fertility rates by age			
FERTILITY	Total fertility rate (TFR)			
MORTALITY	Deaths by age and sex .			
MORTALITY	Life table by sex			
MORTALITY	Life expectancy by age and sex			
MIGRATION	Arrival due to internal migration by sex ,age, citizenship, origin and destination			
MIGRATION	Departure due to internal migration by sex, age, citizenship, origin and destination			
MIGRATION	Arrival due to international migration by age, sex and citizenship			
MIGRATION	Departure due to international migration by sex, age, citizenship			
MIGRATION	Acquisition of citizenship by sex, age and former citizenship			
MIGRATION	Valid resident permits by reason, age, sex and citizenship			
MIGRATION	Long-term residence permit or permanent residence permits by age, sex and reason			
HOUSEHOLD	Number of household by household size -			
HOUSEHOLD	Number of household in which both spouses are foreign citizens/born abroad			
HOUSEHOLD	Number of household with at least a foreign member			
HOUSEHOLD	Number of household by household type and size			
HOUSEHOLD	Household by household type and age of the reference person			
HOUSEHOLD	One-person household by age and sex			
HOUSEHOLD	Household by household size and number of elderly (i.e.>=75 years)			
HOUSEHOLD	Household by household size and number of minors in different age brackets (0-2; 3-5; 6-10; 11- 13; 14-16; 17-18) -			
HOUSEHOLD	Household projection			

Heads of household by age and sex.			
Marriages by citizenship of the spouses and age			
Economically active population by sex, age and labour force participation status			
Employment by sex and age			
Employment by sex, age and highest educational level attained			
Employment by sex, age and major economic activity sector			
Employment by sex, age and work time (full-time or part-time)			
Unemployment by sex, age and previous activity status			
Employed population with tertiary education by sector of economic activity			
Long-term unemployment by age and sex			
Self-employed person by age and sex -			
Entrepreneurs by age and sex			
Transition rate (12 month time-distance) from non-standard to standard employment			
Employed person with temporary jobs for at least 5 years by sex and age-groups			
Over-qualified employed person by sex and age group			
Number of fatal occupational injuries or injuries leading to permanent disability by activity sector			
Women employment rate by age group and number of child under compulsory scholage			
Share of household work time carried out by women in a couple on the total household work time			
Population aged 15-64 year by number of working hours and sex			
Number of patent taken out by age and sex			
Number of registered trademark by age and sex			
Young people aged 18-24 not in employment and not in any education and training (NEET), by sex			
Students enrolment by ISCED level, age and sex -			
Students enrolment by ISCED level, age and sex by year of enrolment – .			
Number of students voted down by ISCED level and sex			

EDUCATION AND TRAINING / HUMAN CAPITAL	Number of students voted down by ISCED level, sex and attended class
EDUCATION AND TRAINING / HUMAN CAPITAL	Early-levers by attended school level and sex
EDUCATION AND TRAINING / HUMAN CAPITAL	Early-levers by attended school level and sex by class attended
EDUCATION AND TRAINING / HUMAN CAPITAL	Early-levers aged 18-24 not included in a training program by sex
EDUCATION AND TRAINING / HUMAN CAPITAL	Low-achieving 15-years-old in reading, mathematics and science by sex -
EDUCATION AND TRAINING / HUMAN CAPITAL	People aged 25-64 participating in formal or non-formal education by sex
EDUCATION AND TRAINING / HUMAN CAPITAL	Level of literacy: scores obtained in the tests of functional literacy skills of students in the second classes of upper secondary education - total students
EDUCATION AND TRAINING / HUMAN CAPITAL	Level of numeracy: scores obtained in the tests of numeracy skills of students in the second classes of upper secondary education - total students
EDUCATION AND TRAINING / HUMAN CAPITAL	Persons aged 16 years and over with high level of ICT competencies
EDUCATION AND TRAINING / HUMAN CAPITAL	Students in tertiary and post-tertiary education by University and faculty – .
EDUCATION AND TRAINING / HUMAN CAPITAL	Students in tertiary and post-tertiary education by University and faculty, by year of enrolment – .
EDUCATION AND TRAINING / HUMAN CAPITAL	Students in tertiary and post-tertiary education by University and faculty, by year of graduation – .
INCOME AND LIVING CONDITION	Property owners by age and sex
INCOME AND LIVING CONDITION	Median net income by age and sex

INCOME AND LIVING CONDITION	Population at risk of poverty			
INCOME AND LIVING CONDITION	Household by family income level - total household			
INCOME AND LIVING CONDITION	Persons living in households with very low work intensity			
INCOME AND LIVING CONDITION	Household by household size and number of dependents people			
INCOME AND LIVING CONDITION	Household receiving remittances by household size and sex of head of household			
INCOME AND LIVING CONDITION	Household receiving remittances by share of annual household income			
SOCIAL/CULTURAL INDICATOR	People aged 6 years and over that, in the 12 months preceding the interview, have gone at least once to: cinema, theatre, exhibitions and museums, archaeological sites, monuments and concerts of all kind of music			
SOCIAL/CULTURAL INDICATOR	People aged 6 and over who read newspaper at least once a week -			
SOCIAL/CULTURAL INDICATOR	People aged 6 and over who read at least one book in the 12 months preceding interview -			
SOCIAL/CULTURAL INDICATOR	People aged 6 and over who usually some magazine (weekly or periodic) -			
SOCIAL/CULTURAL INDICATOR	People aged 6 and over who watches DVDs at home -			
SOCIAL/CULTURAL INDICATOR	Children aged 0-3 years in day nursery (crèche) by age and sex			
SOCIAL/CULTURAL INDICATOR	Children aged 4-5 years in nursery school (kindergarten) by age and sex			
SOCIAL/CULTURAL INDICATOR	Children aged 0-3 years applying for day nursery (crèche) by age and sex			
SOCIAL/CULTURAL INDICATOR	Children aged 4-5 years applying for nursery school (kindergarten) by age and sex			
SOCIAL/CULTURAL INDICATOR	Elderly not self-sufficient who receive some kind of support by age and sex -			
SOCIAL/CULTURAL INDICATOR	Households with elderly not self-sufficient by household size, age and sex of the elderly -			
SOCIAL/CULTURAL INDICATOR	Households who receive home assistance by household size, number of elderly family members, age and sex of the elderly			

#### Comparative analysis of statistical datasets: a gap analysis

Following the definition of the panel of indicators, all MMWD partners have engaged in the mapping of existing data sources and of data related to individual indicators. Using results of the mapping phase, the project engaged in a thorough comparative analysis of existing datasets for the different indicators and variables. This chapter will illustrate the main outcomes of such analysis.

#### **Analytical framework**

Gap analyses are typically designed in four main phases or steps: assessment of data sets availability; assessment of data sets quality; assessment of data sets coverage and eventually compatibility of data sets. The rationale of MMWD led analytical focus towards the verification of the availability of sufficient empirical evidence to engage in the construction of population projections and outcomes scenarios related to demographic trends, rather than dataset pooling or the creation of metadata. Evidence of MMWD gap analysis is key to identify if the data requirements of the project – especially the identification of the common knowledge-base for demographic forecasts – can be met by existing data. For those contexts where the database will be found insufficient in this regard, the project will ensure specific actions of knowledge transfer, to be illustrated in country action plans.

In summary, the approach is partly top-down, because the set of variables to be used for mapping is given by a proposed classification concerted ex-ante, and partly bottom-up since the common knowledge base will be identified by the findings of data mapping.

The paramount criterion is, in fact, the availability of variables within thematic groups in the panel of indicators. Furthermore the information provided by partners allows to depict when, where, how and for what territorial level data are collected and publicly disseminated.

In a gap analysis framework, data availability refers to who owns data, how data can be accessed and at what cost. The data types to which refers MMWD project are in the public interest, are mainly collected from public institutions and are largely publicly available, possibly after requesting authorization for the use and dissemination of data. Otherwise, the data are subject to constraints in their access and distribution.

In line with the core territorial scale of MMWD, corresponding to the NUTS 2 level, analysis

of data availability focused on the availability of reliable and consistent data at sub-national level.

#### Data quality and coverage

Data quality in MMWD refers to data collection methods, pointing out if data are collected according to a national or international harmonised standards. This specific information is not directly available but it can be obtained through the source of the data, whether Eurostat or the national statistical office of an EU member state, a national statistical office of a non-Member State, or any other source that collect data on a regular basis and in the public interest.

Data coverage refers both to the spatial dimension and the temporal dimension; it should assess both the available territorial disaggregation level and the temporal extension and frequency of the available data.

The following sub-paragraphs are organised in two sections.

The first three sub- paragraphs only develop the Gap Analysis according to the criteria outlined above.

The remaining four sub- paragraphs differ from the first part of the Gap Analysis in three ways:

- a) In view of existing gaps in the availability of data for the different variables, the analysis "relaxes" the definition of "availability" of a variable, basically leaving out the "hard" availability notion and expanding the definition to "soft" availability. The analysis has thus tried to incorporate as "availability" even the general information on partners' knowledge base (i.e. EU partners should have a common knowledge base, especially with respect to demographic variables), or any alternative sources which could help to reconstruct or derive the variable by using other sources such as administrative and tax registers for example.
- b) It takes into account some changes to the mapping grid of variables, as partners have sought the identification of additional variables and proxies;
- c) In order to provide informative guidance for the preparation of the Country Action Plans, this second part of the gap analysis takes into account the functional discrimination by theme related to the possibility to construct population projections. These are: Population,

Fertility, Mortality, Migration, Household structures. On the other hand, additional variables analysed for outcomes scenarios are: Labour, Income and Living Conditions, Education and Training, Social and Cultural Indicators.

#### Data Availability and Quality by Theme and Country

One summary table has been produced containing a picture of the data availability by the 9 proposed themes across the partner countries, with specific evidence of information on foreign population.

A soft concept of availability has been used: if hard availability is related (theme by theme) to the presence of the same variable required, soft availability relates a) to the presence of variables with a lower disaggregation level for not more than a dimension (e.g. existing disaggregation only sex and not by sex and age as required) and a level of territorial disaggregation equal or upper to NUTS-2 (regional and sub-regional coverage) or b) to the presence of variables with a level of territorial disaggregation equal to NUTS-0 (national coverage) while for the other dimensions the disaggregation level matches the requirements. The relevance of the territorial disaggregation is reasonable as the aim is the creation of analytical tools enforcing policy-making capacity at regional or local level. It can be observed that if a threshold of 3/4 of available variable on the total required variables is chosen as criterion by theme/country, only 29 intersections out of a total of 160, or 18.1%, are above this threshold. In the case of the variables related to the foreign population this value drops to 15.3% (11 intersections out of a total of 72). If we lower the percentage value, chosen as the threshold value, at 60% we observe that 43 intersections out of a total of 160, or 26,9%, are above this threshold. In the case of the variables related to the foreign population this value drops to 23,6% (17 intersections out of a total of 72); even considering this lower threshold value the gaps are significant.

In particular regarding the foreign population, the availability at the country level may be considered sufficient only for Italy and Austria; Bulgaria, Romania and Montenegro are particularly deficient. With regard to the issue of migration, of particular importance for the project, the availability is critical only for Montenegro, while for Greece availability is close to the limit of sufficiency.

The theme of work (employment and unemployment) presents a lack of availability in Montenegro, Romania, Serbia and Slovenia. Greece and Bulgaria present partial availability.

All the themes related to the socio-economic development (Labour related with Human Capital; Education and Training Human Capital; Income and Living Conditions; Social/Cultural Indicators) have a low average availability as it does not exceed 20%. The lowest level of average availability is observed for the Social/Cultural Indicators which does not exceed 10%. On these issues, partners should focus activities in a shared search for feasible alternatives. Moreover other solutions could also be examined as the identification of cross-cutting issues by merging of the previous ones.

#### Data Availability and Quality by Theme and Country

Detailed tables present for each theme, the situation of "hard" and "soft availability" by variable. The calculation is made on the number of Countries for which there is NO availability, in the hard version and soft availability definition. The count value can vary between 0 (the variable is available in all Countries) and the value 8 (the variable is not available in any Country).

It is considered a threshold value the non-availability of a maximum of two countries (75%). Variables that are below this threshold are those actually in common; the main criticalities have been underlined.

The four themes of strictly demographic nature present, on a total of 29 variables, an almost sufficient situation with regard to their presence among the partner countries. In fact, 17 of them (59%) can be considered - with a tolerance of 25% - actually common variables. However, 6 variables have a very critical situation because they do not seem to be present in more than half of the countries (availability for less than half of the partners). In particular, it is worth highlighting the unavailability in 6 out of 8 countries of projection for the foreign population, given the intermediate goal of scenario building and forecasting. The remaining 6 variables represent a situation, however, difficult because they are present in half or slightly more of the countries.

The themes that are not strictly related to the population show a significantly different situation with regard to the presence/absence of availability of the partner countries. If the theme Labour (employment and unemployment) shows a profile, with regard to the number of variables actually common, similar to that of demographic themes (9 of them (50%) can be considered - with a tolerance of 25% - actually common variables, while three variables show availability in no more than one third of partner countries), the

picture changes significantly for issues relevant to the quality of labour, human capital, living conditions and other socio-cultural indicators. In this case 7 of 66 variables can be considered - with a tolerance of 25% - actually common variables and 37 (56%) variables show availability in less than a third of the partners. The remaining 22 variables represent a situation, however, difficult (may be improvable) because they are present in half or slightly more of the countries.

#### Data Coverage by Variable and Theme

Another important dimension in terms of the gap analysis is the geographic coverage of the data. With regard to the information available to the Partnership MMWD, the geographic scope ranges from level NUTS5-LAU2, corresponding to the municipality, at NUTS-0 corresponding to the national level. For the project, the coverage of the data at the regional level is discriminating, then separate tables have described the distribution of coverage of information relative to the total population and the foreign population at two aggregate levels: NUTS 2-5 and NUTS 0-1.

Note that out of 370 intersections country/variable for which there is data availability, 68% of these crossings presents a geographical breakdown equal to or greater than the regional one, which is certainly a positive finding for design purposes. We can also note that the presence and level of territorial disaggregation for the variables related to the foreign population act as a leading indicator. Indeed, if a variable is present in the foreign population, it is also available at deep territorial level except for Romania and Slovenia.

# Demographic Projections and Total Population: General Data Availability by Theme and Country

A synthetic overview of data availability by themes that in the different countries are considered in demographic projections. The Universe of reference is the Total Population. If we consider the general availability, the coverage is on average insured. Only themes Fertility and Households show one or two country-specific problems, respectively: Serbia; Bulgaria and Romania.

If we consider the Total Population, all variables related to Population, Fertility and Mobility themes present an acceptable level of availability (6/8 threshold). Only variables related to the Households theme present an unacceptable level of availability (4 out of 8 variables).

In particular Household projections are available just in one country.

Considering at least the presence of 10 years historical data for each variable, the availability changes significantly: Austria and Greece are the only two countries presenting at least one variables with adequate time series length on each theme. Montenegro, Bulgaria and Slovenia present correspondingly none, one and 4 variables with adequate time series length out of 17 variables. The household theme present the most delicate situation, even if some information is still missing.

At country level: Bulgaria presents relevant gaps on Population, Fertility, Mortality and Household themes (16 out of 18 variables with unavailable time series); Italy presents a gap on the theme Population (2 variables out of 4 with unavailable time series) and a very severe one on the Households theme (all 8 variables with unavailable time series); Montenegro presents severe gaps on all themes (Population, Fertility, Mortality and likely Households record all variables with unavailable time series); Romania presents a severe gap on Households; Serbia presents a relevant gap on fertility; Slovenia presents a relevant gaps on Population, Fertility and Household themes (11 out of 15 variables with unavailable time series).

# Demographic Projections and Foreign Population: General Data Availability by Theme and Country

If we consider the general availability by taking the Foreign Population as the Universe of reference the situation changes significantly.

There are significant gaps both in terms of theme and country. At the country level the most significant gaps concern Greece (Fertility, Mortality, Migration and Households), Slovenia and Bulgaria (Fertility, Mortality and Households) and Montenegro (Population, Mortality and Migration).

In particular if we define a gap the unavailability of more than 30% of the variables in a specific theme:

- Austria presents a gap on Households theme (4 out of 7 variables with unavailable time series);
- Bulgaria presents a gap on all the themes with the exception of Migration theme (Fertility, Mortality and Households record all unavailable time series).;

- Greece presents severe gaps on all the theme except Population (fertility and mortality record all unavailable variables);
- Italy presents a severe gap on Mortality theme. Montenegro present gaps on all the themes with the exception of Households theme (Fertility theme record 2 unavailable variables out of 4);
- Romania presents severe gaps on Fertility and Households (10 unavailable variables out of 12);
- Serbia presents a gap on Population and Mortality themes;
- Slovenia presents a gap on Fertility, Mortality and Household themes (Fertility and Mortality record all variables with unavailable time series).

If we consider the availability of each variable in relation to the number of countries, few variables per theme (7 out of 27 variable with 6/8 threshold; 15 out of 27 with 5/8 threshold) present an acceptable level of availability Households, Fertility and Mortality themes present few or no variable with acceptable levels of availability (6/8 threshold).

Applying the requirement of an adequate length of time series to the variables related to the foreign population the situation worsens dramatically. Austria is the only country that has at least a variable with adequate time series length on each of the themes.

If we define as a gap the unavailability of more than 30% of the variables in a specific theme, we can see that Austria presents relevant gaps on Population and Households and in these 2 themes 10 variables out of 13 are unavailable. Bulgaria presents gaps on all 5 themes (Population, Fertility, Mortality and Household themes record all variables with unavailable time series) with the Migration theme percentage unavailability around 40%. Also Greece presents gaps on all 5 themes (Population, Fertility and Mortality themes record all variables with unavailable time series). Italy presents relevant gaps on 4 themes with the exception of Fertility (2 variables out of 4 with unavailable time series). In total 22 variables out of 27 are unavailable. Montenegro presents gaps on all 5 themes (Population, Fertility, Mortality and Migration themes record all variables with unavailable time series). Romania presents gaps on all 5 themes (Fertility and Mortality themes record all variables with unavailable time series) with Population and Households theme percentages of unavailability respectively at 50% and around 40%. Serbia presents gaps on Population, Fertility, Mortality and Migration with Fertility theme unavailability percentage at 50%. Slovenia presents gaps on all themes

(Population, Fertility, Mortality and Household themes record all variables with unavailable time series).

No variable presents an acceptable level of availability even if we choose threshold of "4 countries out of 8" possessing the variable with an adequate time series length.

# Data availability for population projections

The suggested model for Population Projections is the Cohort-Component model. If we check for the general availability of the variables related to the Cohort-Component model, we can see that there is time series availability and that they cover the data needed for applying the method but they are shorter than 10 years.

At country level Montenegro, Bulgaria, Slovenia and Serbia present the most relevant gaps. At theme level all the Internal and International migration variables present inadequate time series length in Austria, Italy, Bulgaria, Montenegro and Serbia even if it has to be considered that the actual segmentation is finer than the one requested by the cohort-component method.

If we check by country/theme we can see that Austria presents no gaps when general availability is considered. However, when you check for the availability conditioned by the presence of a suitable length of the time series, population presents a 50% gap. Bulgaria presents a gap on Mortality (migration theme percentage unavailability is around 40%) when general availability is considered. However, when you check for time series availability Bulgaria presents gaps on all 4 themes. Greece presents a gap on Migration (theme percentage unavailability at 50%) when general availability is considered. However, when you check for time series availability Greece presents gaps on all themes (Fertility, Mortality and Migration themes present a percentage unavailability at 50%). Montenegro presents a gap on Population, Mortality and Migration (migration theme percentage unavailability of 50%), when general availability is considered. However, when you check time series availability, the Country presents severe gaps on all 4 themes (all variables with unavailable time series). Romania presents a gap on Migration (theme percentage unavailability at 50%) when general availability is considered; when time series availability is checked, Romania presents gaps on Fertility, Mortality and Migration themes (all the three theme present a percentage unavailability at 50%). Serbia presents a gap on Population and Migration (migration theme percentage unavailability at 50%) when general availability is considered.

When time series availability is analyzed, Serbia presents gaps on all 4 themes. Slovenia presents a gap on Mortality when general availability is considered; when time series availability is analyzed Population and Fertility themes do not present available variable and also Mortality present the same gap (no variables for foreign population).

#### Data availability for policy scenarios

In order to check for gaps concerning the Themes related to the Impact Scenarios (Labour A (labour market-related variables) and Labour B (skills-related variables); Education and Training/Human Capital; Income and Living Conditions; Social/Cultural Indicators) by Total and Foreign Population, you can consider only the general availability of the variable, as times series availability is not needed to develop scenarios. Gaps at country level relates to the unavailability of more than 30% of the variables of each specific theme.

If we analyse the Labour A theme availability in the Total Population (labour market-related variables) we can see that there are no significant gaps. Instead, when the theme of skills-related variables (Labour B) is analysed in the Total Population, we see that Austria, Serbia, Bulgaria, Slovenia, Greece and Romania present significant gaps. If we consider the Labour A theme availability in the Foreign Population (labour market-related variables) we can see that there are significant gaps concerning Bulgaria (no variable available), Greece ("less severe" gap with around 50% of unavailable variables), Romania, Serbia, and Slovenia.

Instead, when the theme of skills-related variables (Labour B) is analysed for the Foreign Population, we see that all the Countries present significant gaps. In particular Greece and Slovenia do not present available variables.

If we analyse the Education and Training/Human Capital theme availability in the Total Population we can see that just Italy and Slovenia do not present significant gaps. If we consider the Education and Training/Human Capital theme availability in the Foreign Population we can see that there are significant gaps concerning all the countries. Bulgaria and Romania present no available variables while Slovenia has just one variable available out of 16.

#### If we analyse the Income and Living

Condition theme availability in the Total Population we can see that Greece, Montenegro and Slovenia present significant gaps. Bulgaria presents in comparison "less severe" gap with 50% of unavailable variables but other two variables need an additional check. If we consider the Income and Living Condition theme availability in the Foreign Population we can see that there are significant gaps concerning all the countries. Italy, Greece, Serbia and Romania do not present available variables keeping in mind the project has a local scale.

If we analyse the Social/Cultural Indicators theme availability in the Total Population we can see that all the Countries present gaps with the exception of Italy. Montenegro and Serbia present in comparison a "less severe" gap with 50% of unavailable variables. Considering the Social/Cultural Indicators theme availability in the Foreign Population we can see that there are significant gaps concerning all the countries. Austria, Greece and Serbia do not present available variables.

# METHODOLOGICAL REFERENCES FOR POPULATION PROJECTIONS

These methodological references are intended as a tool for the preparation by the Project Partners of demographic projections within the MMWD project<sup>1</sup>.

These methodological references are based on the report prepared by the ISSK-BAS on MMWD consortium's similarities and differences in the methodologies for population projections. The report analysed the information provided by MMWD consortium partners on the established methods for national and regional demographic forecasts and highlighted Project Partners differences in terms of methodologies and methods, sources of information, geographic districts and periods covered, definitions, etc., in population projections.

## 1. Basic Population Projections

The basic population projections are:

- Projection by age/sex/total population
- Projection by age/sex/foreign population

These are therefore strictly demographic projections that provide the amount and structure of the population.

Foreign population, if age and sex profiles are available by citizenship, should be split at least in EU/non EU, according to the recommendations made during 2010 Eurostat's Work session on demographic projections<sup>2</sup>.

<sup>&</sup>lt;sup>1</sup> Authors: Angelina Mazzocchetti for Region Emilia-Romagna and Irene Plet for Region Friuli Venezia Giulia

<sup>&</sup>lt;sup>2</sup> International migration data as input for population projections\* by A.Herm, & M.Poulain, in Work session on demographic projections, Lisbon, 28-30 April 2010, EUROSTAT Methodologies and Working Papers, pp. 255-268.

The basic population projections have to cover the period between the last available data and 2020.

Basic population projections should be transmitted to the AC using a specific framework that will be provided to all PPs.

#### a) Data availability

Time Series choice. The availability of the analogous Time Series by EUROSTAT should always be checked. In case of double availability the choice should be based on the highest suitability for projections (length; frequency; territorial breakdown; etc.).

The situation concerning the declared availability of data for the construction of projections by sex and age of the Foreign Population, in the light of the evidence of the project document "Data Required to Construct Population Projections and Policy Scenarios Working Paper 2 Activity 3.3", can be briefly described in these terms:

1) Time Series Complete Availability (Nuts-2 or lower)

There is availability of time series with appropriate length for the stocks of foreign population by gender / age, as well as for Fertility (TFR and / or specific), Mortality, Arrivals and departures by age /sex /nationality. In this case the projections, even if not available and / or published, may be easily calculated with the Cohort Component Model as described below.

2) Time Series Unavailability (Nuts-2 or lower)

In case of unavailability of time series necessary (but not sufficient) condition is the availability of census data or point data derived from surveys or other sources, at least for Foreign population by sex / age.

• If there are no tables of mortality at regional level for the foreign population but the mortality table is available at the national level you can take this as a national structure for the regional level. This can also be done for the other dimensions such as fertility and immigration. If you have at your disposal regional immigration figures, for example by sex, but the age structure is only available at the national level, we can assume the latter as a regional distribution in order to have an estimate of the regional population projection.

- The foreign population can alternatively be regarded as a subpopulation (see section 3 on Extended Population Projections). The incidence of foreigners (share or weight) at a particular time, such as the Census, can be applied to the projected total population. If the incidences (shares or weights) are specific (by sex / age) you can get a robust result. But this holds only in case of an hypothesis of constant incidences, then within the Scenario 2(see item g). Otherwise, the assumptions must be made on "diminishing share / weights" on the hypothesis NO Migration (closed population, see g))or increasing shares / weights in the case of migration flows increases (see item g).
- In the attempt of projecting foreign population, additional information and estimates on emigration rates and amounts, total fertility rates for population with foreign background, can be found in the Eurostat papers<sup>3</sup>.
- b) Definitions<sup>4</sup>
- 1) Population

Population on 1<sup>st</sup> January should be based on concept of usual resident population, and it is number of the inhabitants of a given area on 1 January of the year in question (or, in some cases, on 31 December of the previous year). The population figures can be based on data from the most recent census adjusted by the components of population change produced since the last census, or based on population registers.

Usually resident population means all persons having usual residence in a country at the reference time

Usual residence means the place where a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, holidays, visits to friends and relatives, business, medical treatment or religious pilgrimage.

<sup>&</sup>lt;sup>3</sup> EUROSTAT – Methodologies and Working Papers «Fewer, older and multicultural? Projections of EU population by foreign / national background» (2011) by G. Lanzieri. Eurostat Statistics in Focus – Population and Social Conditions 1/2010\*Regional population projections EUROPOP2008:Most EU regions face older population profile in 2030\* by K. GIANNAKOURIS. van Wissen; van der Gaag; Rees; Stillwell (2008) In search of a modeling strategy for projecting internal migration in European countries. Demographic versus economic-geographical approaches.

<sup>&</sup>lt;sup>4</sup> Statistical concepts and definitions at http://epp.eurostat.ec.europa.eu/cache/ITY\_SDDS/en/demoreq\_esms.htm

The following persons alone are considered to be usual residents of the geographical area in question:

- those who have lived in their place of usual residence for a continuous period of at least 12 months before the reference time; or
- those who arrived in their place of usual residence during the 12 months before the reference time with the intention of staying there for at least one year.

Demographic balance - is the equation that describes the change in the size of the population due to the flows of live births, deaths, immigration and emigration that occur in the reference year T.

Population[T+1] = Population[T] + Births[T, T+1] - Deaths[T, T+1] + Net Migration\*[T, T+1] where:

Population[T+1] = total population on 1st January of the year T+1;

Population[T] = total population on 1st January of the year T;

Births[T, T+1] = total number of live births in the time interval T to T+1;

Deaths[T, T+1] = total number of deaths in the time interval T to T+1;

Net Migration\*[T, T+1] = net migration including statistical adjustment in the time interval [T, T+1] to [T+1].

Population density - the ratio of the (annual average) population of a region to the (land) area of the region; total area (including inland waters) is used when land area is not available.

Crude rate of population change - the ratio of the total population change during the year to the average population of the area in question in that year. The value is expressed per 1000 inhabitants.

Crude rate of natural change - the ratio of natural change over a period to the average population of the area in question during that period. The value is expressed per 1000 inhabitants.

#### 2) Mortality

Crude death rate - the ratio of the total number of deaths during the year to the average population in that year. The value is expressed per 1000 inhabitants.

Infant mortality rate - the ratio of the total number of deaths of children under one year of age during the year to the number of live births in that year. The value is expressed per 1000 live births.

Life expectancy at given exact age - the mean number of years still to be lived by a person who has reached a certain exact age, if subjected throughout the rest of his or her life to the current mortality conditions (age-specific probabilities of dying).

Life table is one of the most important and most widely used devices in demography, summarizing various aspects of the variation of mortality with age and showing, for each age, the probability that a person of that age will die before his next birthday. Functions pertaining to mortality are available in distinct tables: age specific death rates, probabilities of dying between exact ages, probability of surviving between exact ages, number left alive at a given exact age, number dying between exact ages, person-years lived between exact ages, total person-years lived above given exact age and life expectancy at given exact age. Eurostat uses the concept of age completed for the calculation of the mortality indicators by age.

## 3) Fertility

Crude birth rate - the ratio of the total number of live births during the year to the average population in that year. The value is expressed per 1000 inhabitants.

Total fertility rate (TFR) - the mean number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years conforming to the fertility rates by age of a given year.

Fertility rates by mother's age (Age Specific Fertility Rate) - the number of births of mothers of age x to the average female population of age x.

Eurostat uses the concept of 'age completed' for calculation of the fertility indicators.

#### 4) Migration

Net migration - the difference between the number of immigrants and the number emigrants from a given region during the year (net migration is therefore negative when the number of emigrants exceeds the number of immigrants).

Net migration including statistical adjustments - a general estimation of the net migration based on the difference between population change and natural change between two dates (in Eurostat database it is called net migration plus statistical adjustment). In different countries net migration including statistical adjustment may cover, besides the difference between inward and outward migration, other changes observed in the population figures between 1 January for two consecutive years which cannot be attributed to births, deaths, immigration or emigration.

Crude rate of net migration including statistical adjustment - the ratio of the net migration including statistical adjustment during the year to the average population in that year. The value is expressed per 1000 inhabitants. The crude rate of net migration is equal to the difference between the crude rate of population change and the crude rate of natural change (that is, net migration is considered as the part of population change not attributable to births and deaths). It is calculated in this way because immigration or emigration flows are either not available or the figures are not reliable.

#### 5) Household

A 'private household' means "a person living alone or a group of people who live together in the same private dwelling and share expenditures, including the joint provision of the essentials of living". Refer to Eurostat for the different types of household.<sup>5</sup>

## 6) Level of education

International classification ISCED 1997 system is intended: Level 0 Pre-primary education, Level 1 Primary education, Level 2 Lower secondary education, Level 3 (Upper) secondary education, Level 4 Post-secondary non-tertiary education, Level 5 First stage of tertiary education, Level 6 Second stage of tertiary education

#### <sup>5</sup> See http://epp.eurostat.ec.europa.eu/cache/ITY\_SDDS/en/ilc\_esms.htm

The cohort-component method is the most commonly used technique to project future population size.

Population projections should be made for successive years running from the 1<sup>st</sup> of a the base year to the next using the cohort component method. Demographers who utilize the method could use a different interval length, to say the time between the launch year and target dates (common target dates are 2015 and 2020). Usually five year intervals are used. This occurs when most of the data needed to implement the cohort-component method available are classified in five-year.

The basic concept behind the cohort-component method is that behaviours that prevailed recently will continue in the future. This assumption is quite strong and often erroneous. However, the time-horizon for MMWD projections (up to 2020) is well suited to this assumption of the cohort-component method. It is in fact projections closer to the time horizon of the short- term (five years) that temporal horizon of the medium term (20 years).

The method is relatively standardized, however, variations in the application of the method are often needed to account for the (national, regional and sub-regional) type of data available for input.

In the cohort-component method three components of change migration, birth, and death, drive changes in population from one period to the next. Projections are made for age-gender groups as migration and mortality rates tend to differ significantly by age and sex. Similarly, birth rates depend on the age of the potential mother. For the cohort-component method, the three components are addressed individually then combined to project the population.

# In summary you should:

- "To grow old" those who are already present in the population at the beginning of the forecast period (mortality);
- Predict the number of births in the meantime (fertility) and make them survive until the end of the forecast range (mortality);

• "Correct" the population with the number of inputs and outputs occurring over the forecast period (migration)

The C-CM calculation can be summarized as follows:

Annual Frequency

Population, Population, Deaths, In-Migrants, Out-Migrants,

For each age, the starting population plus net inward migrants less the number of deaths produces the number in the population, one year older, at the end of the year. Survivors of those born during the year are then added. Age is defined as completed years at the last birthday. Migration, deaths and births are all assumed to occur evenly throughout the year.

The procedure is carried out separately for the two sexes.

Five-years frequency

Assuming you have the structure and the amount of population at time t, at time t+5 the population of 5 years or more is the same as that already present at time t minus the deceased and emigrants, plus the immigrants. Therefore, each cohort of age x, x+4 must be adjusted on the basis of their mortality and migration.

The projection process ends with the estimation of newborns in the range t, t+5, which correct for the respective mortality and migration, will constitute the age group between 0 and 4 years old at time t+5.

The procedure is carried out separately for the two sexes.

The  $1^{st}$  January population estimates from each country are used as the starting population. The numbers of births, deaths and migrants are calculated using the assumptions of fertility, mortality and international migration.

Data required are the following:

• An initial population classified by sex and age;

- A table of mortality on the population and the period in question or adaptable to;
- A structure of fertility by age adaptable to the period considered; A structure of migration by sex and age valid for the forecast period

Cohort Component Method for Closed Population

Let us for simplicity in the following situation (see g))

- Closed population (no migration)
- Constant fertility and mortality.

It follows that the population already born in t is changed only for the effect of mortality.

If we set:  $q_x$  = probability of death;  $l_x$  = left alive;  $l_x$  = deaths;  $p_x$  = probability of survival;  $l_x$  = years lived, we can derive:

 $d_x = I_x \times q$ ;  $I_x = I_{x-1} - d_{x-1}$ ;  $p_x = 1 - q_x$ ;  $L_x = I_x - (1 - \delta)$  Then we consider the quantity determined from a mortality table called Probability of perspective survival :

 $S_{x,x+4} = L_{x+5,x+9}/L_{x,x+4}$  This quantity represents the probability that, at time t, people of age x, x +4 shall survive until time t +5 (when they will have x +5, x +9 years).

We therefore have:

 $P_{x+5,x+9}(t+5) = P_{x,x+4}(t) \cdot s_{x,x+4}$ , x = 0,5,10,15,..., 70 The mathematical relationship is slightly different for the last age group. In fact, both  $P_{75,79}$  then  $P_{80+}$  at time t are included in the class  $P_{80+}$  at time t +5. So:

 $P_{80+}(t+5) = [P_{75,79}(t) + P_{80+}(t)] \cdot s_{75+}$  The first age class in t +5 will be made up of all those born in the interval t, t +5 correct for the respective mortality:

 $P_{0,4}(t+5) = N(t,t+5) \cdot s_{Born}$  where  $S_{Born}$  x is the prospective probability of survival of newborns.

The last step is about the calculation of the amount of births N (t, t + 5). The estimate of the number of births is obtained by considering that:

$$f_{x,x+4} = \frac{N_{x,x+4}(t,t+5)/5}{\frac{1}{2} \left( P_{x,x+4}^f(t) + P_{x,x+4}^f(t+5) \right)'}$$

So the numerator is divided by 5 to keep the annual size of the specific rate. In fact, the number of births in the numerator is recorded in five calendar years.

So those born of women aged x, x + 4 are:

 $N_{x,x+4}(t,t+5) = 5 \cdot f_{x,x+4} \cdot \frac{1}{2} \left( P_{x,x+4}^f(t) + P_{x,x+4}^f(t+5) \right)$  The number of total births will be given by the sum of births had from the total of fertile women:

$$N(t,t+5) = \sum_{x=15,19}^{45,49} N_{x,x+4}(t,t+5)$$

Once you have determined the total number of births in the five years, births must be distributed between the sexes that is, identify how many female and male births.

Because the sex ratio at birth is constant in each population and equal to 106 males per 100 females, then out of 100 births you get 51.5 males and 48.5 females, then the number of total births has to get multiplied to these percentages and get the male and female births.

A cycle of five-year projection can be repeated in order to obtain a projection in the longer term.

In summary, each cycle of projection (t, t +5) requires the following steps:

- A) Identification of the basic elements
- 1. Population at time t by sex and age
- 2. Model of survival by sex and age
- 3. Specific rates of fertility
- B) Calculation of surviving for those already born at time t Application of the prospective probabilities of survival of individuals already present in the starting population
- C) Estimated number of births provided for each sex
- D) Calculation of survivors among the new born

First, it is appropriate to assess separately the immigration from emigration. it is useful to observe the differences between the population under study and the other in the same area, in terms of demographic and economic development.

To take account of migration, we need to modify the formulas adopted for the projections to take into account both net migration and the mortality of migrants.

Considering the net migration (NM) in a given time interval (t, t +1), and assuming that the probabilities of death during this period are similar to the indigenous population and migrants, we have:

 $P_{x+1}(t+1) = P_x(t) + NM(t,t+1) - [P_x(t) + \frac{1}{2}NM(t,t+1)] \cdot q_{x,x+1}$  Then, at the time t +1 you should subtract the dead from the indigenous population at time t and net migration recorded in the interval t, t +1,.

Note that the chances of dying applies only to half of the net migration since it is assumed that both the emigrants that immigrants remain on average present, in the population studied, for only half of the time between t and t + 1.

Performing simple calculations we arrive at the following relationship:

 $P_{x+1}(t+1) = P_x(t) \cdot s_x + \frac{1}{2}NM(t,t+1) \cdot (1+s_x)$  For new born we have the following equation:

 $P_0(t+1) = N(t,t+1) \cdot s_{Bom} + \frac{1}{2}NM_{Bom}(t,t+1) \cdot (1+s_{Bom})$  where NM<sub>Bom</sub> is the balance between children born to immigrants and new born emigrants.

If entering the migratory component is technically easy to solve, not just as simple is the prediction of the amount of migration and, even more, their specification by sex and age.

Generally you make a prediction on the flows in absolute terms, for example by assuming the value of net migration for each forecast period and then correcting these values with the prediction equations.

## d) Geographical Breakdown

The territorial level for the development of population projections is to NUTS-2, but projections can also be developed to the lower level ( $NUTS_3$  and  $LAU_1$ ).

National Consistency. As the MMWD project focus on Nuts-2 and Nuts-3, in the process of projections construction the components of population change (births, deaths and migration) should not be constrained to the national level.

#### e) Starting point of the Projections

The starting point for the projections is the base population. This is taken as the 1st of January of the year in question or the 31st December of the previous year's population estimate from each country.

# f) Projection Extension

Projections should extend from 1st January of 2013 or 31st of December 2012 to 1st of January of 2020 or 31st of December 2019.

#### g) Projections Frequency Annual

The projections should be one-year age group, sex and national/non national.

Project Partners can project and/or aggregate by year and / or select some points in time (such as the common years 2015 and year 2020<sup>5</sup>) or other according to their needs.

The use of five-year classes can have the advantage, in the case of projections on level NUTS<sub>-4</sub> or LAU<sub>1</sub>, to avoid the risk of data gaps or very irregular shapes (e.g.: the more the area is small, the easier it is to find, even on an average of years, no born to a mother 35 years old or no deaths for the same age). However, one must keep in mind that this means to evolve in five-years steps so, if you want to have at least two common projected points (2015 and 2020), it will be necessary to start from the base population at the 1<sup>st</sup> of January 2010 or the 31<sup>st</sup> of December 2009. In the case of evolution with annual pace you can use any year.

#### h) Scenarios

Population scenarios will be made according to the three scenarios mentioned in the ESPON's DEMIFER project. Additional scenarios could also be studied by each PP in the attempt to capture specific issues and flows, assuming specific and more detailed hypothesis depending on the migration profile of the territory.

The disadvantage of an analytical method as the Cohort-Component Method is above all not to have information on the degree of reliability of the projection obtained (eg, confidence intervals). One way to overcome this limitation is to resort to the presentation of a range of results (scenarios). From their comparison can be grasped the importance of the individual components involved.

Migration in the projections timeframe (2013-2020) is the only component that can show a significant change. Birth and mortality remain stable as very limited changes could occur in the reproductive behaviours and mortality trends.

1. The FIRST scenario is a scenario with zero (net) migration or, otherwise said "closed population" scenario.

The hypothesis of the absence of migration is of course unlikely. It would be also the hypothesis of no or negligible net migration, as in the reference area of the project MMWD are prevalent areas of origin or destination of the flows. However, this choice may be useful to assess what would be the evolution of the population as a function of only the natural component.

Regarding migration, interval sustainability of the hypotheses is usually very short (no more than 10 years) because migration flows can vary very quickly (eg as a result of particular laws). This constraint, however, suits to the time horizon considered.

- 2. The SECOND scenario assumes constant migration (periodical average for the last 10 years taking into account migration peaks to regularize historical series).
- 3. The THIRD scenario considers the average migration trends for the period 2009-2012 (or last available data) in order to isolate the effects of the economic crisis on population movements.

<sup>&</sup>lt;sup>5</sup> EUROPOP 2010 projections are 5 years over five years, starting from 2015.

#### 2. Extended Population Projections

The extended population projections are:

- Projection by age/sex/households
- Projection by age/sex/education attainment

Starting from the forecasts of population, we can obtain estimates of other subpopulations, in the case of the project MMWD families and sub-populations for education attainment.

## Static Approach

Specific rates are applied to the projected population without taking into account the internal dynamics of the phenomenon studied. We limit ourselves to observe the final results in terms of stock.

For example, the prediction of the amount of households does not take into account the dynamics associated with family behavior (divorce, cohabitation, remarriage, etc..). Hence, the static approach will give satisfactory results only if there are rapid changes and of opposite sign for different items.

#### Dynamic Approach

It consists in managing complex models capable of controlling a priori information and assumptions on individual factors capable of influencing the dynamics.

The choice between the two methods depends, besides the characteristics of the aggregate object of interest, from: a) the structure of the basic predictions; b) the availability of data; c) the degree of detail that you want to achieve.

#### • Households Projections

Among the forecasting models on families one of the methods used is that based on the "household's headship "rate. Projections give out estimation of the number of families, families by family size and type of family.

The "household's headship" rate

The "household's headship" rate is the ratio between the number of head of household by sex and age group and the total population of the same sex and age group.

Data Requirement

- Projected population
- Households type by age and sex of the head of household
- Households by household size and type

For the calculation of these rates is therefore necessary to know the number of families whose breadwinner is in a certain age group and sex .

The number of households expected in a given time t is obtained by multiplying the projected population by age and sex at time t for the corresponding "household's headship" rates.

In order to obtain the distribution of households by number of members, households are distributed by number of members using the census data.

Distributions should be modified to achieve equality between the population predicted by the demographic model and the population resulting from the distribution of households by number of members. Should be mentioned that typically base population projection considers the total usual resident population while a part of that did not leave in a private household, namely those people living in collective house. This situation imply that, before applying headship rate, the population by age and sex should be divided in living or not living in private household and headship rate should be applied only to the first group.

• Projections of Population by educational attainment

If you choose the static approach, considering the projection of sub-populations for educational attainment, to project the population of individuals with "trait  $\gamma$ ", the ratio of individuals with the trait by age and gender to the total population of the sex-age group are calculated.

To project the population, this rate is then multiplied by the projected population of that age-sex group calculated previously. The total number of individuals projected with "trait  $\gamma$ " is found by summing over age and sex.

In a dynamic perspective, as suggested by Region Emilia Romagna<sup>6</sup>, the methodology proposed by Goujon (2006)<sup>7</sup> and Barakat, Goujon, Skirbekk, Sanderson & Lutz (2010)<sup>8</sup> appear feasible.

The core of the methodology are age- and sex-specific education transitional probabilities along cohort line.

They represent age-specific transition probabilities for men and women to move from one educational attainment level (status<sub>i</sub>) to another (status<sub>i+1</sub>). Educational levels are hierarchical, so an individual can not enroll to a given level of education if he/she has not completed all the previous levels.

A pattern of age-specific transition probabilities for cohorts can be interpreted as a probability for a population at a specific age and in a given time t to move to an higher category of educational attainment by the time t+1.

People complete a level of education at different ages because of differences in age at entrance and repetition of grades. Transition probability to a given educational level are therefore not zero for a limited range of different ages.

#### Data Requirement

- Projected population by age and sex
- Population Time Series by age, sex and levels of educational attainment Assumptions
- Starting age: 5 years
- <sup>6</sup> "Contribution of the Emilia-Romagna to the definition of a common reference methodology for population projections basic and extended. Act.4.2" by A,. Mazzocchetti, MMWD Meeting, September 19,2013.
- <sup>7</sup> "Report on projections by level of education (Future human capital: Estimates and projections of education transition probabilities)" by A. Goujon, Vienna Institute of Demography, Austrian Academy of Sciences http://www.nidi.nl/Content/NIDI/output/micmac/micmac-d3.pdf.
- <sup>8</sup> "Projection of populations by level of educational attainment, age, and sex for 120 countries for 2005-2050" by KC Samir, B. Barakat, A. Goujon, V. Skirbekk, W. Sanderson & W. Lutz, DEMOGRAPHIC RESEARCH VOLUME 22, ARTICLE 15, pages 383-472. http://www.demographic-research.org/Volumes/Vol22/15/ DOI: 10.4054/DemRes.2010.22.15

- Upper age level: usually fixed at 30 as adult education is very limited and has a negligible impact on the distribution of the population by educational level.
- No mortality and no migration effect
- Trend of transition probabilities

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# **SCENARIOS AT WORK**

#### General introduction on knowledge-based policy making and future thinking

Traditionally policy planning draws on analysis of present context, often based on statistical data referring to past years (with more or less time lag). During the post-war years it was commonly accepted that the future could indeed be adequately described as an extension of the immediate past. As the pace of change in the world accelerated and as complexity grew, however, the future could no longer be characterized accurately as an extension of the past. In addition, many of society's most pressing problems, including demographic change, are long-term policy challenges, lasting a generation or more. Institutions and policymakers needs to appraise adequate strategies with an uncertain knowledge of future outcome and socio-economic evolution.

As a consequence a number of tool and techniques such as scenario planning, research and policy foresight, horizon scanning and analysis of trends and megatrends (collectively referred as futures thinking or future studies) have been developed, and their use to inform policy have spread. They can help understand issues of complexity, uncertainty and surprises; they facilitate thinking about the future and so help anticipate where expected and unexpected evolution, although they are not able to predict them. Generally speaking, explorative or normative scenarios are often used for long-term futures thinking whereas for more short-term purposes predictive techniques such as forecasts and outlooks are more usual.

Although futures analysis can serve several functions in relation to policy —from exploratory identification of long-term issues, to agenda setting and to policy development- many techniques are still seen either as highly technical (in the case of models) or highly subjective (in the case of qualitative scenario studies). In any case the use of future studies for policy making is still a challenge, because they are often unable to provide decision-makers with the certainty that they demand for evidence-based policymaking.

At a general level, embedding futures thinking in policymaking can be approached in a number of different ways. The choice will be influenced by a range of factors, including the administrative culture of the country concerned, the timescale over which futures thinking has been developed in the country, the receptiveness of the policymaking process to futures thinking, and the reasons for undertaking futures thinking in the first place, for example particular triggers or events.

#### **Scenario planning**

According to literature, scenario planning broadly refers to the aim to identify a range of new threats and opportunities that arise across a set of plausible alternative scenarios, describe a range of possible consequences for candidate policies, help discover policy options demonstrably robust to long-term uncertainties and surface some of the blind-spots of an organisations' policy, or strategy.

Scenario planning employs qualitative tools to visualise the future, including storylines (often illustrated by images and indicators) to create representations of alternative worlds that resonate with a range of different individuals. Scenarios are plausible representations of the future based on sets of internally consistent assumptions, either about relationships and processes of change or about desired end-states. Different approaches are possible: normative scenario planning is based on positive or negative visions of the future, while exploratory approaches take past trends as their starting point. These approaches are based on four key assumptions:

- 1. The future not only is a continuation of past relationships and dynamics but also can be shaped by human choice and action.
- 2. The future cannot be foreseen, but exploration of the future can inform the decisions of the present
- 3. There is not one possible future only. Uncertainty calls for a variety of futures mapping a possibility space
- 4. Development of scenarios involves both rational analysis and subjective judgement, and therefore requires interactive and participative methods.<sup>1</sup>

Participation of stakeholder in scenario planning exercises is not an essential requirement but is more and more common, and also within MMWD it has very much emphasised. Some potential goals of stakeholder involvement might include the following:

- Promote awareness and understanding of the specific uncertainties under consideration during the planning process, by all participants;
- Promote consistency and transparency in arriving at and implementing decisions made under uncertain conditions:
- $^1$ F. Berkhout and J. Hertin, 2002, Foresight Futures Scenarios. Developing and Applying a Participative Strategic Planning Tool, GMI 37 Spring 2002

- Improve the overall effectiveness and efficiency of planning under uncertainty;
- Contribute to the development and delivery of effective information and education programs to the Corps and its stakeholders;
- Foster public trust and confidence in the planning process;
- Strengthen the working relationships and mutual respect among all planning process participants;
- Promote the appropriate involvement of all interested parties in identifying and addressing significant uncertainty;

Exchange information on the knowledge, attitudes, values, practices and perceptions of interested parties concerning uncertainties associated with a specific planning investigation.

#### Use of scenarios in strategic planning of public policies

A wide and growing literature describes different methodological approach to scenario planning, and also within the MMWD project each partner has been left free to choose the approach better suiting its needs and general knowledge, within the framework of broad common methodological guidelines.

Issues related to the use of scenarios and their impact in concrete policy planning processes is much less investigated and covered by literature.

To be effective any scenario planning exercise needs to be rooted in a sufficient understanding of the milieu in which policy decisions are made. We can refer to the concept of policy cycle in order to disentangle the policy-making process into several phases, as follows:

- 1. Policy issue identification, i.e. to recognize that there is a problem;
- 2. Policy issue-framing and agenda-setting; i.e. to highlight the societal relevance of the problem and underline the need for a response from the political system;
- 3. Policy measure development, i.e. to check for the strengths and weaknesses of different problem-solving strategies, make a final selection and formulate the concrete shape of the measure;
- 4. Policy measure implementation, i.e. to put the measure into practical action;

5. Policy measure effectiveness assessment or policy termination, i.e. to identify the effects of the policy measure and evaluate to which degree they deliver according to their objective, and, if necessary, re-design or terminate the measure, which would start a new cycle.

Scenario planning can support one or more of these phases. Different kinds of scenario based decision support can be listed:<sup>2</sup>

- Stimulating wider debate about possible futures
- Getting stakeholder buy-in or engagement
- Triggering cultural change within the organisation
- Clarifying an issue's importance and framing a decision-making agenda
- Generating options for future actions
- Appraising robustness of option for future action

When focused at early phases of policy-making we talk about indirect decision support. The role of scenarios here is to broaden participation of societal stakeholders and open-minded discussions, to increase the information base, to visualize, rehearse and test the acceptability of different strategies without.

Learning is facilitated by the use of scenarios, but learning is also an important part of this process. The main impacts of scenarios often result more from the process of developing them rather than from any published product describing the scenarios that were created. The value in close collaboration between scenario developers and users is high particularly at the beginning and ending stages of a scenario exercise. Process is an important factor, because it has implications for the extent to which people trust scenarios and thus use them. Trust can based on trust in sources, that is, in the people who develop the scenarios or trust in content, that is, the reliability of the information known to be used in constructing the scenarios. Additionally, trust is gained from methodological credibility, i.e. confidence in the method used to generate the scenarios, or trust in narrative, i.e. the extent to which the scenarios build on existing metaphors and beliefs. Finally, trust in dissemination is important, that is the stature of the people who present the scenarios.

More direct forms of decision support are necessary when it comes to the phase of policy design

and implementation and the translation of scenario results into programmes to be enforced by the Administration. These direct forms of scenario planning require delivery of more targeted information and insights on the candidate policies or strategies in questions, eliminating less favourable alternative options and focusing on the preferable ones. The limits of scenarios -and more generally of future studies and foresight- are more evident at this point.

Innovating the way policies are built can clash with established routines of political decision-making which are informed by policy path-dependencies. A number of vested interests around policies can be touched, both within government and its core target groups.

There are several examples of future thinking exercises that failed to make knowledge useful, failed to link it to the real concerns of decision makers, and failed to provide knowledge at the time it was needed. Sometimes, external experts are commissioned by governments and public administration to produce forward-looking analysis, leading to problems of lack of ownership and trust and a greater motivation to ignore or treat the analysis superficially. Institutional capacity-building was deemed an important requirement for making overall progress, and MMWD heavily relied on this kind of activity to be successful.

Previous project conclusions<sup>3</sup> underline the necessity of a more systematic debate around options for the better institutional embedding of those approaches is still largely missing. A combination of skills development, capacity-building, undertaking evaluation more regularly, as well as making better use of existing knowledge and knowledge platforms is a useful first step. The compartmentalized structure of modern governments is a key barrier to more integrated policy thinking and decision-making, which is indeed a key aspiration of scenario planning. In addition, policy-makers and strategists often have not only different time horizons than scenario planners, but also very different attention foci.

Even if the process of scenario planning is similar in public and private sector application, it is expected that scenario users in the public sector can face more difficult challenges in establishing the client, framing the purpose of the engagement, and gaining the participation of the all the relevant parties. Public sector decision makers may also face particular constraints such as a diversity of legitimate, but competing objectives and societal interests.

 $<sup>^2</sup>$  See A. Volkery, T. Ribeiro, 2009, Scenario planning in public policy: Understanding use, impacts and the role of institutional context factors, Technological Forecasting & Social Change 76 (2009) 1198–1207

<sup>&</sup>lt;sup>3</sup> European Environment Agency, 2011, BLOSSOM — Bridging long-term scenario and strategy analysis: organisation and methods, EEA Technical report 5/2011

Demographic challenge is by nature crossing policy sectors and requires an integrated approach able to look at implications and mutual linkages among several social and economic issues. It is important, especially in regions where transformation is more relevant, to mainstream demographic change in policymaking, innovating the rooted ways to make policies at sectoral level. MMWD has attempted to provider for new knowledge tools to Public Administrations in order to understand and anticipate future evolution. In work package 6 the objective is to bridge this technical and scientific knowledge into the complex decision-making process (policies, plans, programmes) at regional and local level.

#### Practical guidance on the use of scenarios

## General guidance

Available scenarios, including the ones produced within the MMWD project, can be used in a range of different ways, depending on the needs of the individuals or organisations and the resources available <sup>4</sup>

# Approach 1

To use the scenarios to stimulate thought on what the future holds and to consider the implications for medium and long term strategies. Such exercises are usually carried out on a small scale with one-off brainstorming events. Typically they start with a presentation and discussion of the scenarios, followed by a brainstorming session to consider the implications. Involving representatives from all interested parties is crucial for the success of these exercises (different departments and different stakeholder representatives). These exercises are usually: participative; based on the experience of practitioners; a mechanism to engage key people in the development of strategy. These processes tend to engage participants who are unfamiliar with the scenario approaches and who are often unfamiliar with academic language and thinking.

#### Approach 2

To use the scenarios as the basis for a research-based study on a specific sector or policy issue. The scenarios provide the conceptual framework for the study. When the scenarios are used in this way the approach typically: is based on data in addition to expert knowledge; includes scientific methods as well as consultation; uses the scenarios to assess outcomes.

<sup>4</sup>This paragraph is based on DTI (UK Department of Trade and Industry), 2002, Foresight Futures 2020. Revised scenarios and guidance, London: DTI

The main challenge for this approach is to combine the 'soft' scenario tool with 'hard', quantitative methods. This report offers a number of indicators as an illustration of trends, but again these should only be seen as a starting point. If it seems appropriate, they can be revised, specified or complemented by other indicators. Simple modelling and cross-impact analysis can be employed to ensure consistency and analytical depth.

There are few keys challenges to meet in order to use scenarios successfully:

Engaging stakeholders. Scenario exercises can only be successful in promoting creative and unconventional thinking if those with an interest trust the process and are engaged throughout. To convince stakeholders of the value of these exercises, it is vital to:

- be clear about the aims and limitations of the approach. Scenarios are not aiming to predict the future, nor even to identify the most likely future. Instead, they map out a 'possibility space' to inform the decisions of the present. The scenarios method is based on subjective choices but unlike other tools, it allows stakeholders to consider the underlying assumptions and to discuss and challenge how this might affect the future;
- provide sufficient detail. Experience has shown that the first presentation of the scenarios is crucial. It needs to give enough detail to convey the basic logic of the scenarios without overwhelming the audience. It can be helpful if participants have the chance to become familiar with the scenarios in advance;
- explain how the results will be used. If participants are to be convinced of the importance of their contribution, the aim of the scenario planning process needs to be well-defined and clear indications need to be given as to how the results will feed into decision-making.

Getting the process right. Maximising the learning benefits of scenario planning exercises requires close attention to process. Careful planning and structuring of the scenario elaboration, synthesis and evaluation stages of scenario planning is needed. The details of the process should be tailored to the needs and resources available in each case. The process needs to:

- allow for the integration of the different viewpoints and technical expertise;
- be iterative, combining creative, participative workshops with work carried out by individuals or small groups to synthesise and elaborate scenarios;

- be realistic about the time and resources needed to complete an exercise as this tends to be under-estimated; allow time for analysis of the results;
- involve stakeholders.

Adapting the scenarios. The scenarios provide a generic framework but they are in themselves not sufficient to address single policy issues. The adaptation requires:

- the identification of key drivers in the sector (e.g. international markets, social preferences, regional planning)
- an assessment of the links between drivers and relevant sectoral trends
- specialist knowledge of the sector.

The scenario framework is a flexible tool which should be adapted and altered to suit the needs of a given policy exercise.

Taking account of major shocks. The exploratory and synthetic approach used in these scenarios suggests that change occurs gradually along a single trajectory. Future states are seen as the outcome of an accumulation of changes over time, all pointing in the same direction. But not all change is like this. The direction of change may itself vary over time, with one set of conditions being replaced by a new set. This change in direction may take place slowly (as part of the process of economic and social development), or it may happen suddenly as a result of major, surprise external events (such as terrorist attacks, or rapid changes in the natural environment).

If the change is slow it may be possible for one scenario variant to be superseded by another. If the change is sudden, it could make all variants unrealistic and obsolete.

Taking scenario planning further. Scenario planning is one example of a broader set of tools that public sector organisations need to apply more consistently. Economic and political conditions change rapidly, and foresight enables organisations to think about early warning signs for identified trends, plan for possible responses by the organisation, and develop ways of increasing their capacity to adapt. Periodic scenario planning exercises run by specialists can be helpful, but beyond this the organisation may also seek to embed futures 'routines' within business processes. Generating greater awareness about future trends throughout the organisation is a condition of organisational change.

Thinking about the future is often a social process. The future becomes what enough people believe it will become. By embedding these processes within the routines of organisations not only will the quality of scenarios exercises improve but also their utility in influencing change processes will grow. Scenarios routines make for more self-aware and responsive organisations as well as organisations that successfully avoid the biggest pitfalls.

In Finland, a national foresight reporting mechanism has been institutionalized, requiring the Prime Ministers Office to release one report per electoral period addressing a range of long-term issues. The Committee for the Future, which is appointed by Parliament and is the only parliamentary committee specifically dedicated to general future concerns in a member country of the European Union, prepares a statement in response. At the same time, the procedure has included a series of Regional Future Forums. The institutional arrangements in Finland are trend-setting in this regard, in particular because Finland involves a modus of interaction between government and parliament. Several studies point to the need of central coordination and a high political backing, ideally at cabinet level or head of government level, which require some form of enactment. This can be combined with developing networked, small, flexible, task-oriented, managerial teams in government's executive branch. "Soft" links are concerned with creating more informal spaces for discussion and exchange between policymakers and their key stakeholders, in an ongoing mode with few official outputs. Here, the focus is being rather on gradually changing perceptions, changing mind-sets and building shared understanding.

