

MEDPRO



EUROPEAN COMMISSION
European Research Area



Funded under Socio-economic Sciences & Humanities

MEDITERRANEAN PROSPECTS

Thinking Ahead
for the Mediterranean



**WP 3 - Demography, health and ageing &
WP 7 - Human capital, social protection, inequality and migration**

Scenarios of Demographic Change, Human Capital, Inequality and Migration for the EuroMed region 2010-2030

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Introduction

WP3: - Medium (2010-2030) and longterm (2030-2050) population scenarios for MED11 countries - Results input to other WPs, e.g. WP8, providing denominator values to economic indicators (e.g. GDP/P) comprised in GEM-E3 macro-economic equilibrium model permitting derivation of thematically integrated outlooks of the future of MED11 countries.

This presentation: - Scenario predicted future trends in population growth and comparison with EU
 - Working age population (WAP) growth (*dividend* or *penalty* to economy)
 - Linkages with human capital and inequality, labour market, migration issues (WP7)

Four different future development contexts (MEDPRO economic-political scenarios):

		Total wealth	
		Increase	Decrease
EU-SEMC cooperation	Success	S2	
	Failure		S1
Mediterranean Alliance cooperation	Success	S3	
	Failure		S4

Four different demographic response scenarios:

S1=Business as Usual scenario: Future mortality, fertility, migration (MFM) behavior follows pre-2010 trend.

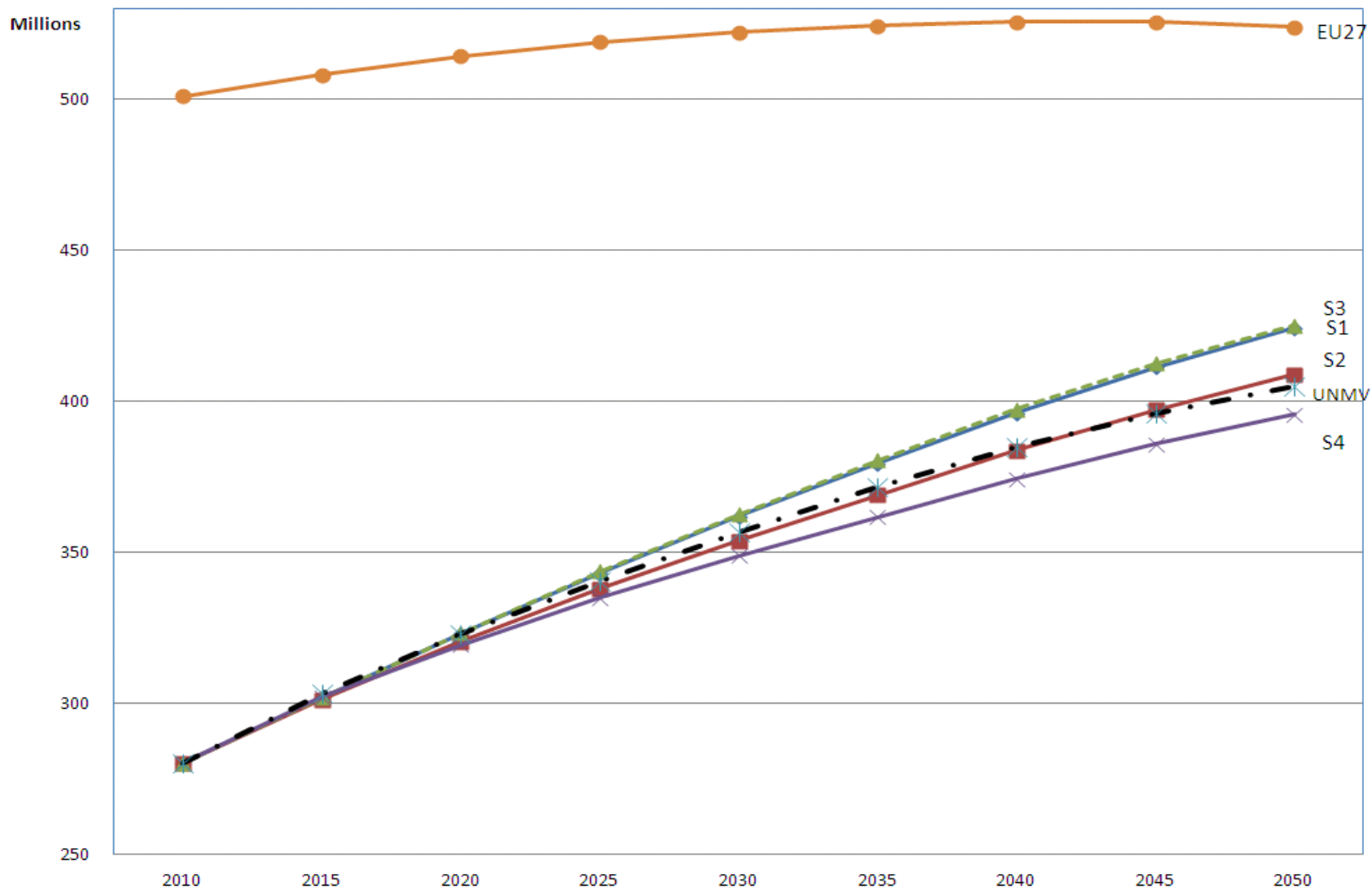
S2=Integration scenario: MFM behavior influenced by high level of EU-MED11 intercultural contact.

S3=Alliance scenario: MFM behavior influenced mainly by MED11 cultural traditions and trends.

S4=Stress scenario: MFM behavior influenced by political desintegration of MED11 region,² social unrest, poverty, and hostility towards non-MED11 value systems.

Results

Population prospects 2010-2050: MED11 region by scenario and EU27 (EUROSTAT 2010, MedVar)



		2010	2030				2050			
			S1	S2	S3	S4	S1	S2	S3	S4
Algeria	Total	35	45	44	45	44	52	50	52	48
	15-64	24	31	31	31	30	33	33	33	30
Egypt	Total	81	109	107	109	107	134	126	132	131
	15-64	51	71	71	71	69	88	86	87	84
Israel	Total	7	10	10	10	8	12	13	12	7
	15-64	5	6	7	6	5	7	9	8	4
Jordan	Total	6	9	9	9	8	12	12	12	9
	15-64	4	6	6	6	5	8	8	8	6
Lebanon	Total	4	5	6	5	4	5	7	6	3
	15-64	3	3	4	4	3	3	5	4	2
Libya	Total	6	8	7	8	7	10	9	9	7
	15-64	4	5	5	5	5	6	6	6	4
Morocco	Total	32	39	37	39	38	43	42	44	41
	15-64	21	26	25	26	25	28	27	29	26
Palestine	Total	4	7	7	7	6	11	10	10	9
	15-64	2	4	4	4	4	7	7	7	5
Syria	Total	20	30	28	29	28	38	35	36	35
	15-64	12	19	19	19	18	25	24	25	23
Tunisia	Total	10	12	12	12	12	13	13	13	12
	15-64	7	8	8	8	8	8	8	8	7
Turkey	Total	73	88	87	88	87	96	93	98	95
	15-64	49	60	60	60	59	62	61	62	61
All SEMCs	Total	280	362	354	363	349	425	409	425	396
	15-64	183	239	238	241	229	275	274	275	252
MT4	Total	151	184	180	185	180	204	197	208	196
	15-64	102	125	124	125	121	131	129	132	124
EU-27	Total	501	522				524			
EU-5	Total	269	280				279			
EU-5	15-64	178	171				157			

The MT4-EU5 migration-system:

1. 94% of immigrants from MED11 region in EU27 come from 4 MED11 countries....

2. More than 90% of these live in main urban areas of 5 EU countries

MED11/EU 2010-30:

1. Widely different scenario assumptions but small differences in scenario results:

-compensation effects
-population momentum
2. Increase WAP in MED11 and MT4, but decrease in WAP in EU5, notably Germany

Note: MT4= The Maghreb countries Morocco, Algeria, Tunisia plus Turkey
EU5= Germany, France, Italy, Spain, The Netherlands

Absolute and relative growth of working-age population (WAP)

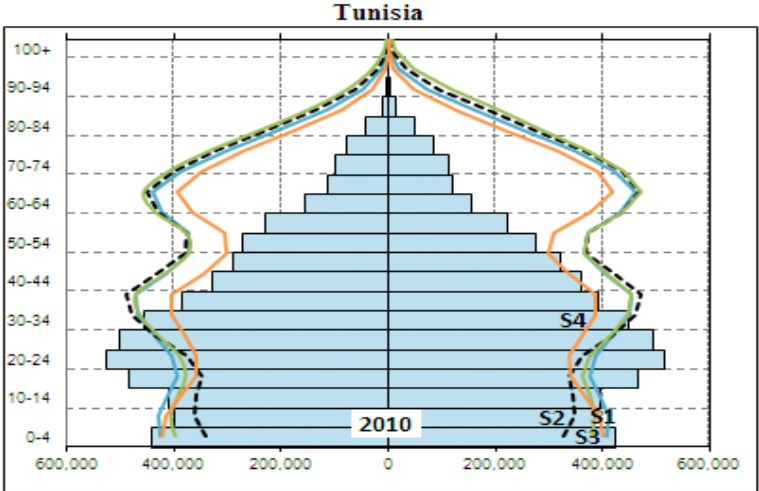
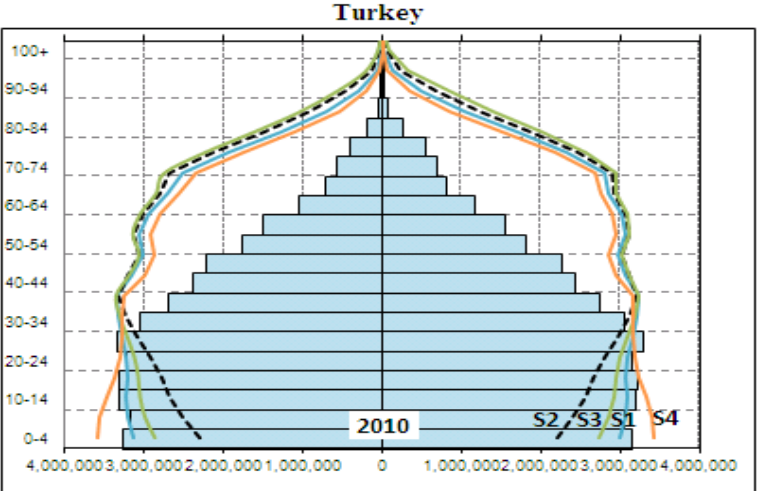
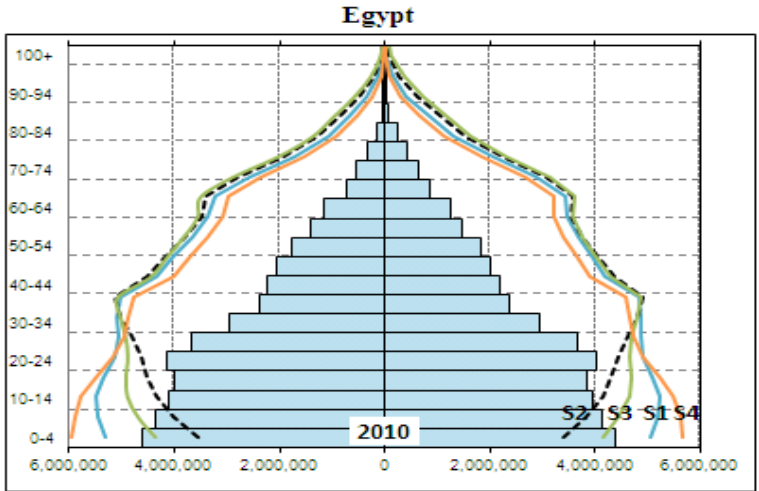
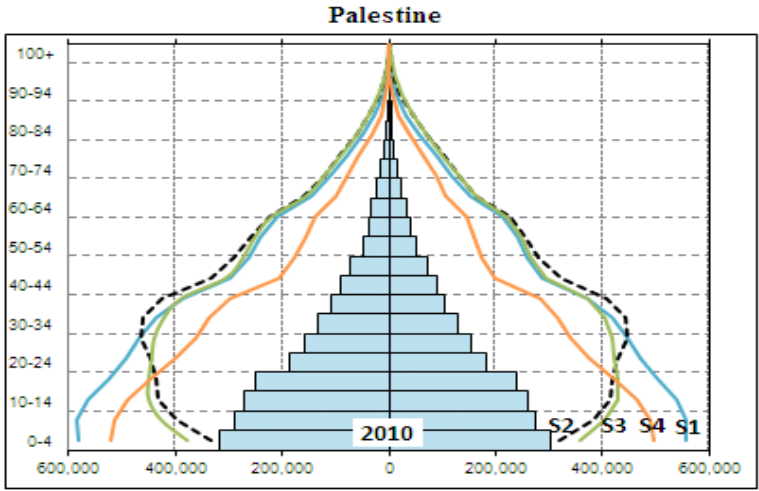
					Change			Annual % growth		
		2010	2030	2050	2010-30	2030-50	2010-50	2010-30	2030-50	2010-50
MED11										
(S1)	BAU	183	239	275	56	36	92	1.3%	0.7%	1.0%
(S2)	Integration	183	238	274	55	36	91	1.3%	0.7%	1.0%
(S3)	Alliance	183	241	275	58	34	92	1.4%	0.7%	1.0%
(S4)	Stress	183	229	252	46	23	69	1.1%	0.5%	0.8%
EU										
	France	42	42	42	0	0	0	0.0%	0.0%	0.0%
	Germany	54	46	39	-8	-7	-15	-0.8%	-0.8%	-0.8%
	Italy	40	40	37	0	-3	-3	0.0%	-0.4%	-0.2%
	Netherlands	11	11	10	-1	0	-1	-0.3%	-0.2%	-0.3%
	Spain	31	32	29	1	-3	-2	0.1%	-0.5%	-0.2%
	EU-5 total	178	171	157	-7	-13	-21	-0.2%	-0.4%	-0.3%

- MT4 countries:
 - WAP is 101 million in 2010
 - 2010-2030: WAP growth 21 to 24 million (EU5 WAP decline 7 million)
 - 2030-2040: WAP growth 2 to 6 million (EU5 WAP decline 13 million)

- Potentially complementary labour pools? Issues:

- . MED11-EU education-skills attainment and quality differences
- . Diploma/qualification recognition
- . Migration and integration policies/regulations (Roadmap to labour mobility)
- . ENP/UfM goals (overcome income and welfare gaps between EU and EU neighboring countries) 5

- Future WAP 15-64 mainly depends on *current shape of age-distribution* and *demographic transition stage* (i.e. timing and speed of decline in fertility and mortality rates). MED11 countries differ in transition stage, shown by pyramids)



- Important to economies is *the share (%) of the total population in the working ages* (i.e. *WAP share*) and future changes therein.

Relationship economic production (GDP/P) and population composition (WAP share, WAP/P):

$$\frac{\text{GDP}}{\text{P}} = \left[\frac{\text{GDP}}{\text{W}} \times \left(\frac{\text{W}}{\text{LF}} \times \frac{\text{LF}}{\text{WAP}} \right) \right] \times \frac{\text{WAP}}{\text{P}}$$

Production = Productivity x Participation x Population composition

where,

GDP/P = Gross domestic product per capita

GDP/W = Gross domestic product per employed person (labour productivity proxy)

W/LF = Share (%) of persons actually working among all persons *able, available and willing to work*

LF/WAP = Share (%) of persons *available, able and willing to work* in the working age population 15-64 y.o.

(W/LF x LF/WAP) = Share (%) of persons actually working in the working age population 15-64 y.o.

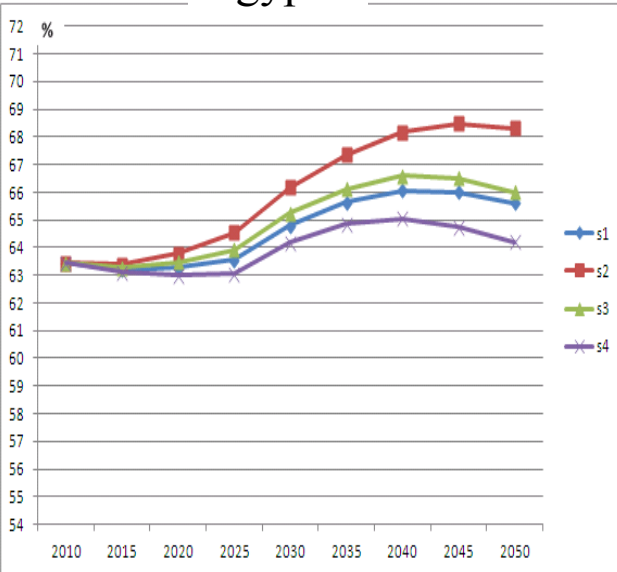
WAP/P = Share (%) of working age population in total population

Implications:

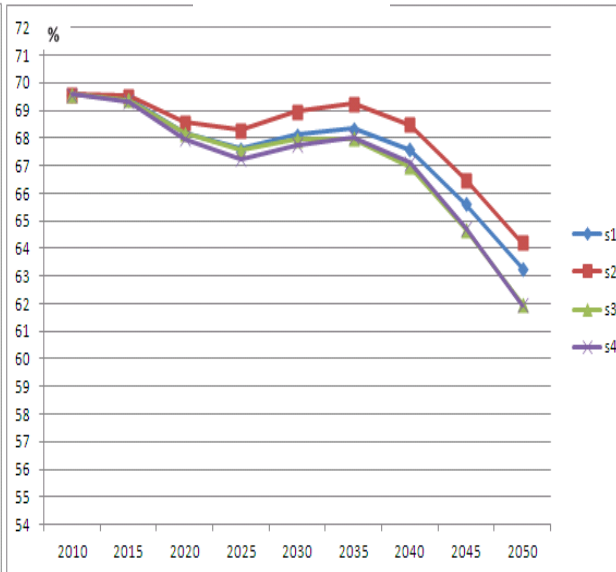
1. If WAP share rise GDP per capita increases (*if* labour force participation, employment rates, labour productivity, “working age” definition do not change)
2. **Rising or high** WAP shares: potential demographic **dividend** to economy
Declining or low WAP shares: potential demographic **penalty** to economy

Rising and declining future WAP shares in selected MED11 countries and EU5

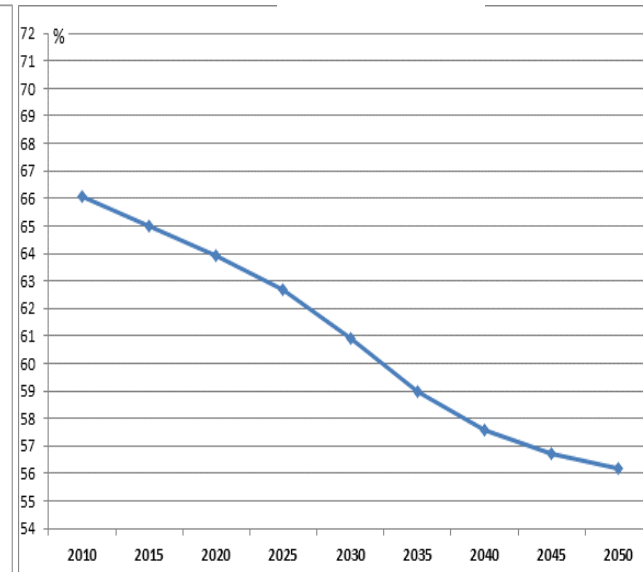
Egypt



Tunisia



EU5



- Rising WAP-shares: - mainly induced by fertility decline (decline youth share in total population), share of elderly is small due to high past mortality reducing presence of survivors in oldest age agroups.
- Window of Opportunity: - period during which WAP shares are rising or at highest levels
- Declining WAP-shares: - mainly due to longterm effect of mortality decline leading to rising numbers of elderly (ageing) while youth share remains low due to fertility hovering at low levels

Effect of WAP share changes on Economic production, past experiences: (GDP in constant 1990 US\$, PPP, ILO 2012).

		Economic production		Output per worker		Employment ratio		Working age population share	
		GDP/P	Index	GDP/W	Index	W/WAP	Index	WAP/P	Index
SEMCs and MT4									
Algeria	2000	1,585	100	7,831	100	0.33	100	0.62	100
	2010	2,349	148	8,334	106	0.41	126	0.68	111
Egypt	2000	2,734	100	10,119	100	0.45	100	0.60	100
	2010	3,906	143	12,897	127	0.48	105	0.63	107
Israel	2000	14,610	100	41,122	100	0.57	100	0.62	100
	2010	17,195	118	44,167	107	0.62	109	0.62	101
Jordan	2000	2,939	100	13,630	100	0.38	100	0.57	100
	2010	3,975	135	17,679	130	0.38	101	0.59	103
Morocco	2000	2,427	100	7,925	100	0.50	100	0.62	100
	2010	3,493	144	10,794	136	0.49	98	0.66	108
Syria	2000	6,263	100	22,946	100	0.49	100	0.56	100
	2010	5,852	93	23,911	104	0.41	85	0.59	105
Tunisia	2000	3,790	100	13,494	100	0.44	100	0.64	100
	2010	5,374	142	17,246	128	0.45	101	0.70	109
Turkey	2000	6,398	100	19,826	100	0.50	100	0.64	100
	2010	8,847	138	27,530	139	0.47	94-	0.68	106+
EU-5									
France	2000	20,656	100	51,311	100	0.62	100	0.65	100
	2010	22,986	111	55,033	107	0.64	104	0.65	100
Germany	2000	18,507	100	40,847	100	0.67	100	0.68	100
	2010	20,645	112	43,050	105	0.73	109	0.66	97
Italy	2000	17,232	100	47,247	100	0.54	100	0.67	100
	2010	17,062	99	44,855	95	0.58	107	0.66	97
The Netherlands	2000	21,658	100	43,434	100	0.73	100	0.68	100
	2010	23,925	110	46,949	108	0.76	104	0.67	99
Spain	2000	15,094	100	38,910	100	0.57	100	0.68	100
	2010	16,785	111	41,641	107	0.59	104	0.68	100

Index results are affected by rounding

GDP/P gap between EU5-MED11 became smaller

Indications (WP7) that MED11 economic growth was not “inclusive”, leading to rising income inequality in MED 11

(Female) labour force participation differences

Demographic dividend or penalty?
Increasing WAP shares but but fewer jobs and/or lower participation in some countries

Increase of migration pressure?

Demographic penalty of declining WAP shares in several EU5 countries prevented by:

- Higher LFP and/or more jobs
- Higher productivity

Policy options:

- *Supply side:* EU5 WAPs are declining, while MED11 WAPs are increasing. In light of ENP/UfM goals **explore new forms of (temporary, restricted, skilled) labour migration** to alleviate forthcoming pressure on labor markets in both regions, i.e. ‘**Roadmap for Labour Mobility**’ within EU, and between EU neighbors and EU, also addressing integration and cohesion issues in cities and neighbourhoods.
- **Explore practical solutions to aspects of EU-MED11 cultural distance** that may act as barrier to new forms of MED11-EU labour migration (e.g. how to deal with cultural restrictions to mobility and migration of educated/skilled MED11 women).
- *Demand side:* EU future demand increase for high skilled labor in health-, ICT and financial service sectors (European Vacancy and Recruitment Report 2012). **Resolve education-skills gap** to better prepare students for quality jobs in the national and EU labor markets by **improving curricula and teacher training** in consultation with market and public sector ‘entrepreneurs’ in both regions.
- Political unrest prevails and investment risk continues to be high while WAP 18-30 y.o. is large and growing. **Job creation, in particular for 18-30 y.o. must have high priority**, contributing to political stability, reduction of extremism and intolerance, and undocumented migration to EU.
- **Modernize societies: gender equity and equality promotion programmes.** Remove cultural barriers to female labour force participation (FLFP), among others, supporting sustainability of economic growth should one of the two optimistic economic growth scenarios unfold (requiring increasing FLFP).
- **Modernize social security/benefits systems:** (1) to support financing the lives of elderly in a future ageing population (>2035), (2) to provide a minimum financial safety net to mitigate negative effects of increased income inequality associated with non-inclusive economic growth during take-off period.
- **Lay foundation of a healthy life-style promotion framework** to reduce persons-years lost due to ill-health and disability among WAP and elderly (notably after 2035) to minimize societal costs.



Thank you!

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About MEDPRO



Title	MEDPRO – Prospective Analysis for the Mediterranean Region
Description	MEDPRO explores the challenges facing the countries in the South Mediterranean region in the coming decades. The project will undertake a comprehensive foresight analysis to provide a sound scientific underpinning for future policy decisions at both domestic and EU levels.
Mediterranean countries covered	Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia and Turkey
Coordinator Consortium	Dr. Rym Ayadi, Centre for European Policy Studies (CEPS) Centre for European Policy Studies, CEPS , Belgium; Center for Social and Economic Research, CASE , Poland; Cyprus Center for European and International Affairs, CCEIA , Cyprus; Fondazione Eni Enrico Mattei, FEEM , Italy; Forum Euro-Méditerranéen des Instituts de Sciences Economiques, FEMISE , France; Faculty of Economics and Political Sciences, FEPS , Egypt; Istituto Affari Internazionali, IAI , Italy; Institute of Communication and Computer Systems, ICCS/NTUA , Greece; Institut Europeu de la Mediterrania, IEMed , Spain; Institut Marocain des Relations Internationales, IMRI , Morocco; Istituto di Studi per l'Integrazione dei Sistemi, ISIS , Italy; Institut Tunisien de la Compétitivité et des Etudes Quantitatives, ITCEQ , Tunisia; Mediterranean Agronomic Institute of Bari, MAIB , Italy; Palestine Economic Policy Research Institute, MAS , Palestine; Netherlands Interdisciplinary Demographic Institute, NIDI , Netherlands; Universidad Politecnica de Madrid, UPM , Spain; Centre for European Economic Research, ZEW , Germany
Budget and Funding	Total budget: €3,088,573 EC-DG RESEARCH contribution: €2,647,330
Duration	1 April 2010 – 31 March 2013 (36 months)
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