# Slovakia

Detailed Human Capital projections to 2060

Comparison of CEPAM projections with other sources
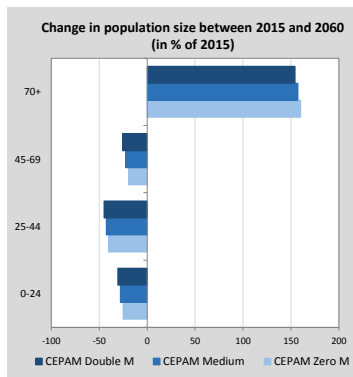
Demographic indicators - CEPAM Medium Scenario (SSP2), Eurostat and national projections

		2015	2020	2030	2040	2050	2060
Population (in millions)	CEPAM	5.44	5.44	5.34	5.14	4.91	4.69
	Eurostat	5.42	5.46	5.46	5.37	5.26	5.11
	National	5.45	5.50	5.56	5.53	5.47	5.34
Proportion age 65+	CEPAM	14.1%	16.7%	19.2%	21.2%	22.7%	24.9%
	Eurostat	14.0%	16.6%	21.0%	24.3%	29.0%	32.0%
	National	14.4%	17.0%	21.2%	24.9%	30.0%	33.1%
Proportion below age 20	CEPAM	20.6%	20.5%	20.1%	18.4%	17.9%	18.3%
	Eurostat	20.7%	20.3%	19.7%	18.5%	18.6%	19.0%
	National	20.8%	20.6%	19.6%	17.4%	17.2%	17.2%
Median age	CEPAM	39.2	41.2	45.3	48.8	50.2	50.3
	Eurostat	39.0	41.1	45.0	48.1	49.0	48.9
	National	39.3	41.4	45.4	48.6	49.9	50.5
Old-age dependency ratio (65+/15-64)	CEPAM	0.20	0.25	0.33	0.40	0.54	0.65
	Eurostat	0.20	0.24	0.33	0.39	0.51	0.59
	National	0.20	0.25	0.33	0.40	0.53	0.61
Young-age dependency ratio (0-14/15-64)	CEPAM	0.22	0.23	0.23	0.21	0.24	0.26
	Eurostat	0.22	0.23	0.22	0.22	0.24	0.26
	National	0.22	0.23	0.22	0.20	0.23	0.23
Parent support ratio (85+/50-64)	CEPAM	0.06	0.07	0.09	0.16	0.27	0.43
	Eurostat	0.06	0.08	0.10	0.16	0.25	0.37
	National	0.06	0.07	0.09	0.17	0.26	0.38

Demographic assumptions underlying projections

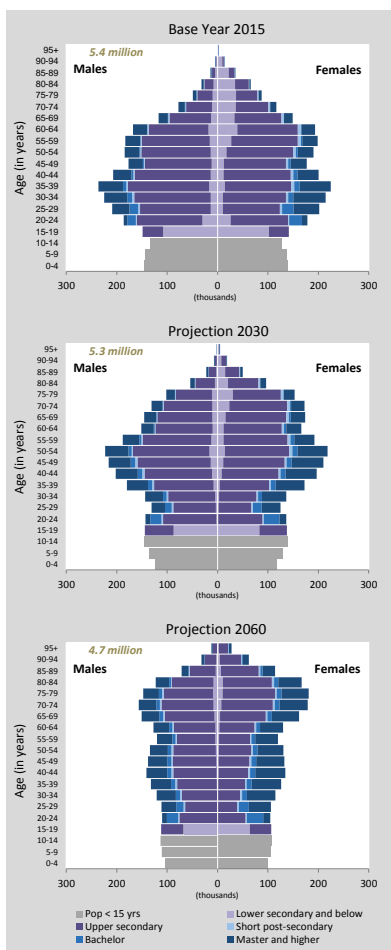|		2010-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060
Total fertility rate	CEPAM	1.46	1.55	1.58	1.64	1.69	1.71
	Eurostat	1.43	1.51	1.57	1.67	1.73	1.78
	National	1.51	1.53	1.54	1.58	1.61	1.64
Life expectancy at birth (in years)							
Male	CEPAM	73.5	74.6	75.7	77.9	80.2	82.4
	Eurostat	74.0	75.2	76.3	78.3	80.3	82.1
	National	73.4	74.5	75.6	78.2	80.6	82.3
Female	CEPAM	80.4	81.5	82.5	84.6	86.7	88.8
	Eurostat	80.9	81.9	82.8	84.4	86.0	87.4
	National	80.3	81.1	81.9	83.8	85.4	86.5
Five-year net migration flow (in thousands)	CEPAM	-17.4	-16.2	-15.0	-12.0	-9.1	-6.6
	Eurostat	27.0	27.6	24.7	35.1	33.2	24.8
	National	30.0	52.0	63.5	65.0	65.0	65.0
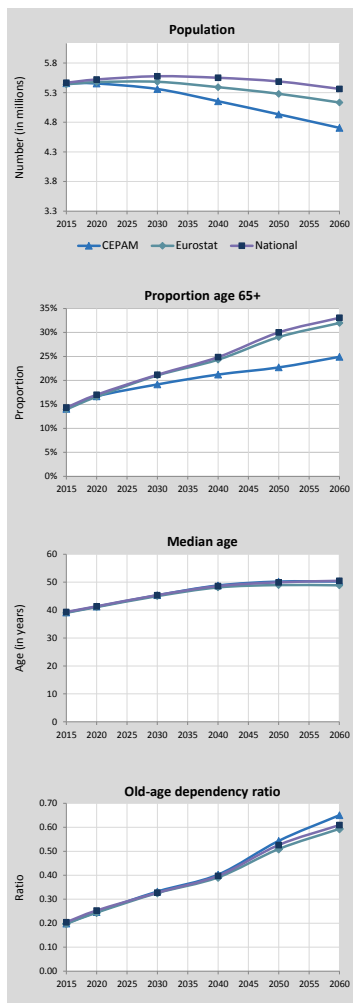
Changes in population size and structure according to CEPAM scenarios (impact of migration)

Population size according to CEPAM projections to 2060

		2015	2020	2030	2040	2050	2060
Population (in millions)	Zero M	5.44	5.45	5.40	5.23	5.04	4.84
	Medium	5.44	5.44	5.34	5.14	4.91	4.69
	Double M	5.44	5.42	5.29	5.04	4.79	4.54
Population 0-24 (in millions)	Zero M	1.49	1.41	1.37	1.26	1.15	1.12
	Medium	1.49	1.40	1.36	1.23	1.12	1.07
	Double M	1.49	1.40	1.34	1.20	1.08	1.03
Population 25-44 (in millions)	Zero M	1.72	1.67	1.32	1.11	1.12	1.03
	Medium	1.72	1.66	1.29	1.08	1.08	0.99
	Double M	1.72	1.65	1.26	1.04	1.05	0.95
Population 45-69 (in millions)	Zero M	1.74	1.80	1.89	1.92	1.64	1.40
	Medium	1.74	1.80	1.88	1.90	1.59	1.34
	Double M	1.74	1.80	1.88	1.87	1.55	1.29
Population 70+ (in millions)	Zero M	0.50	0.57	0.82	0.94	1.13	1.30
	Medium	0.50	0.57	0.81	0.94	1.12	1.28
	Double M	0.50	0.57	0.81	0.93	1.12	1.27

Population

Proportion age 65+

Median age

Old-age dependency ratio

Change in population size between 2015 and 2060 (in % of 2015)

Slovakia (Continued)

Pyramids by education, CEPAM Medium

Detailed Human Capital projections to 2060

Base Year 2015

5.4 million

Males / Females

Projection 2030

5.3 million

Males / Females

Projection 2060

4.7 million

Males / Females

Legend:
- Pop < 15 yrs
- Upper secondary
- Bachelor
- Lower secondary and below
- Short post-secondary
- Master and higher

Human Capital indicators, CEPAM Medium (SSP2)						
	2015	2020	2030	2040	2050	2060
Population age 25+: highest educational attainment (columns sum to 100%)						
E1-E4 - lower secondary and below	12.1%	10.2%	7.6%	5.7%	4.3%	3.4%
E5 - upper secondary	65.2%	65.3%	64.8%	63.2%	60.6%	57.5%
E6 - short post-secondary	2.2%	2.2%	2.2%	2.2%	2.4%	2.5%
E7 - bachelor	2.8%	3.2%	3.7%	4.5%	5.3%	6.0%
E8 - master and higher	17.7%	19.1%	21.7%	24.3%	27.4%	30.5%
Mean years of schooling (in years)	12.83	13.07	13.45	13.83	14.21	14.56
Age gap: highest educational attainment (ratio 35-44/50-64)						
E1-E4 - lower secondary and below	0.56	0.72	0.62	0.46	0.44	0.42
E5 - upper secondary	0.95	0.88	0.91	0.94	0.92	0.90
E6 - short post-secondary	0.91	0.98	1.08	1.17	1.21	1.19
E7 - bachelor	3.40	2.81	1.63	1.27	1.21	1.19
E8 - master and higher	1.39	1.50	1.32	1.21	1.21	1.19
Mean years of schooling (35-44 minus 50-64)	1.10	1.40	1.46	0.79	0.55	0.54
Gender gap (population age 25+): highest educational attainment (ratio male/female)						
E1-E4 - lower secondary and below	0.56	0.61	0.72	0.85	0.98	1.07
E5 - upper secondary	1.16	1.14	1.13	1.14	1.17	1.22
E6 - short post-secondary	0.63	0.64	0.67	0.75	0.85	0.94
E7 - bachelor	0.73	0.77	0.80	0.81	0.82	0.82
E8 - master and higher	0.94	0.89	0.83	0.78	0.74	0.71
Mean years of schooling (male minus female)	0.17	0.05	-0.13	-0.28	-0.43	-0.56
Women age 20-39: highest educational attainment (columns sum to 100%)						
E1-E4 - lower secondary and below	8%	5%	2%	1%	1%	1%
E5 - upper secondary	59%	59%	57%	52%	47%	42%
E6 - short post-secondary	2%	2%	2%	2%	3%	3%
E7 - bachelor	9%	9%	12%	14%	14%	16%
E8 - master and higher	23%	25%	27%	30%	35%	38%
Mean years of schooling (in years)	14.01	14.44	14.77	15.04	15.34	15.58
Age gap among women: highest educational attainment (ratio 35-44/50-64)						
E1-E4 - lower secondary and below	0.43	0.58	0.52	0.41	0.42	0.40
E5 - upper secondary	0.94	0.85	0.89	0.91	0.86	0.84
E6 - short post-secondary	0.89	0.80	0.76	1.04	1.24	1.21
E7 - bachelor	3.47	2.47	1.35	1.22	1.24	1.21
E8 - master and higher	1.61	1.73	1.43	1.24	1.24	1.21
Mean years of schooling (35-44 minus 50-64)	1.93	2.12	2.02	1.16	0.85	0.84

Population size by educational attainment according to three scenarios: SSP2/GET, SSP3/CER and SSP1/SDG

2015-2060 (SSP2/GET)

2015-2060 (SSP3/CER)

2015-2060 (SSP1/SDG)
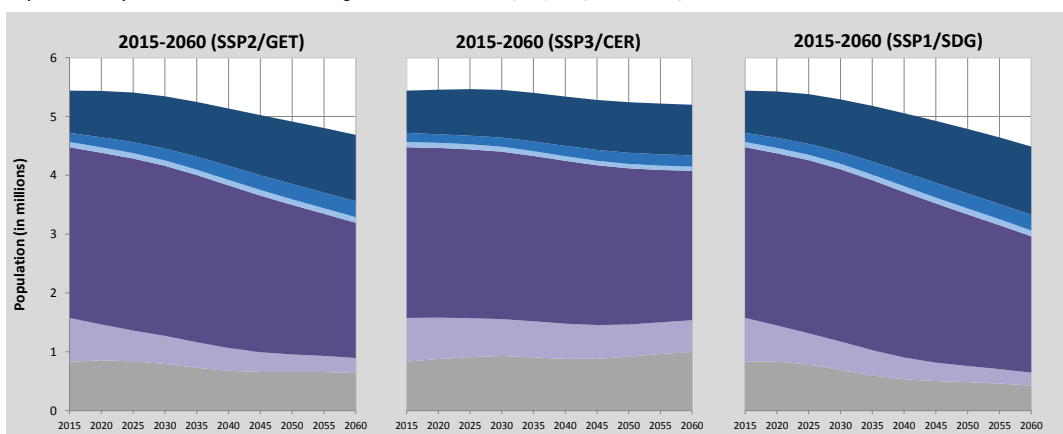
Colour legend as in pyramids above

Education scenarios

SSP2/GET : Global Education Trend Scenario (Medium assumption)

SSP3/CER : Constant Enrollment Rates Scenario (assumption of no future improvements)

SSP1/SDG : Sustainable Development Goal Scenario (universal primary and secondary education by 2030)

Slovakia (Continued)

Alternative scenarios to 2100

Projection results by scenario (SSP1-SSP3)

	2015	2020	2030	2050	2060	2075	2100
Population (in millions)							
SSP1 - Rapid Development	5.44	5.43	5.29	4.79	4.49	3.97	3.13
SSP2 - CEPAM Zero Migration	5.44	5.45	5.40	5.04	4.84	4.47	4.04
SSP2 - CEPAM Medium	5.44	5.44	5.34	4.91	4.69	4.29	3.85
SSP2 - CEPAM Double Migration	5.44	5.42	5.29	4.79	4.54	4.13	3.68
SSP3 - Stalled Development	5.44	5.46	5.45	5.24	5.20	5.17	5.64
Proportion age 65+							
SSP1 - Rapid Development	14.1%	16.8%	22.2%	35.1%	41.3%	45.8%	53.7%
SSP2 - CEPAM Zero Migration	14.1%	16.6%	21.0%	29.9%	33.5%	33.4%	36.4%
SSP2 - CEPAM Medium	14.1%	16.7%	21.2%	30.5%	34.0%	33.7%	36.6%
SSP2 - CEPAM Double Migration	14.1%	16.7%	21.4%	31.1%	34.6%	34.0%	36.6%
SSP3 - Stalled Development	14.1%	16.5%	20.0%	25.4%	26.1%	22.0%	21.5%
Proportion below age 20							
SSP1 - Rapid Development	20.6%	20.2%	18.4%	13.7%	13.1%	11.1%	9.9%
SSP2 - CEPAM Zero Migration	20.6%	20.5%	20.2%	18.0%	18.5%	17.7%	17.3%
SSP2 - CEPAM Medium	20.6%	20.5%	20.1%	17.9%	18.3%	17.6%	17.3%
SSP2 - CEPAM Double Migration	20.6%	20.5%	20.1%	17.7%	18.2%	17.5%	17.2%
SSP3 - Stalled Development	20.6%	20.9%	22.2%	23.0%	25.0%	26.0%	27.0%
Proportion of women age 20-39 with post-secondary education							
SSP1 - Rapid Development	28.2%	31.0%	35.5%	47.1%	52.2%	58.9%	69.4%
SSP2 - CEPAM Zero Migration	28.2%	31.2%	35.5%	43.9%	47.9%	53.4%	61.8%
SSP2 - CEPAM Medium	28.2%	31.1%	35.3%	43.7%	47.6%	53.1%	61.5%
SSP2 - CEPAM Double Migration	28.2%	31.0%	35.2%	43.5%	47.4%	52.9%	61.2%
SSP3 - Stalled Development	28.2%	26.9%	25.6%	25.4%	25.5%	25.1%	25.1%
Mean years of schooling, age 25+							
SSP1 - Rapid Development	12.8	13.1	13.4	14.2	14.5	15.0	15.7
SSP2 - CEPAM Zero Migration	12.8	13.1	13.5	14.3	14.6	15.1	15.7
SSP2 - CEPAM Medium	12.8	13.1	13.5	14.2	14.6	15.0	15.6
SSP2 - CEPAM Double Migration	12.8	13.1	13.4	14.1	14.5	14.9	15.5
SSP3 - Stalled Development	12.8	13.0	13.3	13.9	14.1	14.2	14.2

Demographic assumptions underlying SSPs

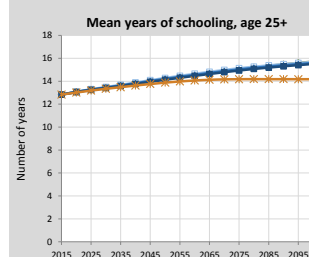|	2015-2020	2020-2025	2030-2035	2050-2055	2060-2065	2075-2080	2095-2100
Total fertility rate							
SSP1 - Rapid Development	1.36	1.34	1.27	1.27	1.28	1.28	1.28
SSP2 - CEPAM Zero Migration	1.46	1.55	1.61	1.70	1.71	1.71	1.71
SSP2 - CEPAM Medium	1.46	1.55	1.61	1.70	1.71	1.71	1.72
SSP2 - CEPAM Double Migration	1.46	1.55	1.61	1.70	1.71	1.71	1.72
SSP3 - Stalled Development	1.58	1.82	2.05	2.27	2.30	2.33	2.36
Life expectancy at birth for females (in years)							
SSP1 - Rapid Development	80.9	82.5	85.6	91.8	94.9	99.5	105.7
SSP2 - CEPAM Zero Migration	80.4	81.5	83.6	87.8	89.9	93.0	97.2
SSP2 - CEPAM Medium	80.4	81.5	83.6	87.8	89.9	93.0	97.2
SSP2 - CEPAM Double Migration	80.4	81.5	83.6	87.8	89.9	93.0	97.2
SSP3 - Stalled Development	79.9	80.5	81.5	83.7	84.8	86.4	88.5
Migration – net flow over five years (in thousands)							
SSP1 - Rapid Development	-17.4	-16.4	-14.0	-8.8	-6.7	-3.5	-0.9
SSP2 - CEPAM Zero Migration	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSP2 - CEPAM Medium	-17.4	-16.2	-13.6	-7.8	-5.4	-2.3	-0.5
SSP2 - CEPAM Double Migration	-34.7	-32.3	-26.8	-14.7	-9.8	-3.4	0.0
SSP3 - Stalled Development	-11.6	-5.4	0.0	0.0	0.0	0.0	0.0

Ageing indicators by scenario

	2015	2020	2030	2050	2060	2075	2095
Median age							
SSP1 - Rapid Development	39.2	41.4	46.2	55.0	57.4	61.9	67.5
SSP2 - CEPAM Zero Migration	39.2	41.2	45.1	49.8	49.9	51.4	51.9
SSP2 - CEPAM Medium	39.2	41.2	45.3	50.2	50.3	51.6	52.0
SSP2 - CEPAM Double Migration	39.2	41.3	45.5	50.7	50.6	51.9	52.1
SSP3 - Stalled Development	39.2	41.1	44.1	43.8	41.8	39.8	38.8
Proportion with less than 15 years of remaining life expectancy (RLE)							
SSP1 - Rapid Development	8.7%	8.8%	10.6%	12.5%	14.3%	17.4%	15.7%
SSP2 - CEPAM Zero Migration	9.0%	9.5%	11.7%	13.1%	15.0%	15.9%	12.6%
SSP2 - CEPAM Medium	9.0%	9.5%	11.8%	13.4%	15.4%	16.3%	12.7%
SSP2 - CEPAM Double Migration	9.0%	9.6%	11.9%	13.7%	15.8%	16.6%	12.7%
SSP3 - Stalled Development	9.4%	10.3%	12.8%	14.2%	15.2%	12.8%	9.7%

Population

Mean years of schooling, age 25+

Proportion age 65+

Proportion of women age 20-39 with post-secondary education

Ageing in CEPAM Medium Scenario (SSP2)
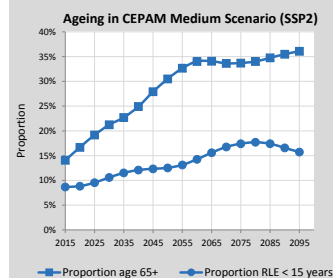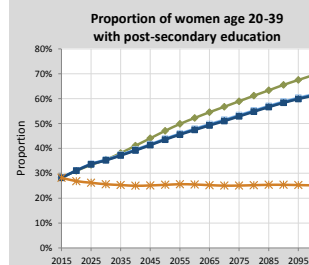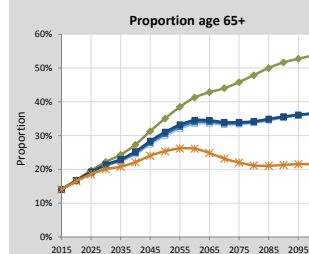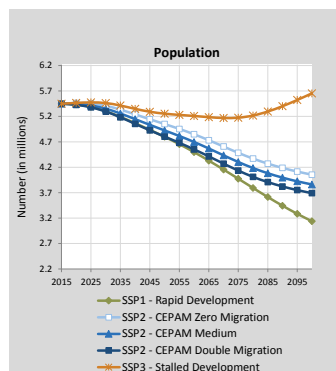
Slovakia (Continued)

Labour force projections to 2060

Labour force indicators						
	2015	2020	2030	2040	2050	2060
Labour force size, by participation and migration scenario (in millions)						
Constant (CEPAM Zero Migration)	2.77	2.72	2.56	2.34	2.08	1.91
Constant (CEPAM Medium)	2.77	2.71	2.53	2.28	2.01	1.83
Constant (CEPAM Double Migration)	2.77	2.69	2.49	2.23	1.94	1.75
Swedish (CEPAM Zero Migration)	2.77	2.78	2.74	2.65	2.49	2.35
Swedish (CEPAM Medium)	2.77	2.77	2.70	2.59	2.40	2.25
Swedish (CEPAM Double Migration)	2.77	2.75	2.66	2.53	2.32	2.16
Equalization (CEPAM Zero Migration)	2.77	2.74	2.63	2.44	2.21	2.05
Equalization (CEPAM Medium)	2.77	2.73	2.59	2.38	2.14	1.97
Equalization (CEPAM Double Migration)	2.77	2.72	2.55	2.32	2.06	1.88
Constant (CEPAM Medium-low fertility)	2.77	2.71	2.53	2.27	1.93	1.66
Swedish (CEPAM Medium-low fertility)	2.77	2.77	2.70	2.56	2.30	2.04
Equalization (CEPAM Medium-low fertility)	2.77	2.73	2.59	2.37	2.05	1.78
Labour force participation rates, age 15+, by participation scenario (CEPAM Medium)						
TOTAL (Constant)	60.2%	59.0%	55.6%	51.2%	47.2%	45.1%
TOTAL (Swedish)	60.2%	60.4%	59.3%	58.0%	56.4%	55.7%
TOTAL (Equalization)	60.2%	59.6%	56.9%	53.4%	50.2%	48.6%
MALE (Constant)	68.4%	66.9%	62.6%	58.0%	53.7%	51.3%
MALE (Swedish)	68.4%	68.0%	65.7%	63.8%	61.7%	60.4%
MALE (Equalization)	68.4%	66.9%	62.6%	58.0%	53.7%	51.3%
FEMALE (Constant)	52.5%	51.7%	49.1%	45.0%	41.1%	39.4%
FEMALE (Swedish)	52.5%	53.3%	53.4%	52.7%	51.6%	51.3%
FEMALE (Equalization)	52.5%	52.8%	51.7%	49.3%	47.0%	46.1%
Labour force (15+) by highest level of educational attainment. Columns sum to 100%.						
(CEPAM Medium; Constant participation)						
TOTAL E1-E4 - lower secondary and below	6.2%	4.9%	3.6%	2.6%	1.7%	1.3%
TOTAL E5 - upper secondary	68.4%	67.0%	63.9%	60.2%	56.7%	53.4%
TOTAL E6 - short post-secondary	2.0%	2.0%	2.1%	2.2%	2.5%	2.7%
TOTAL E7 - bachelor	3.4%	4.0%	5.0%	6.1%	6.8%	7.4%
TOTAL E8 - master and higher	20.1%	22.0%	25.4%	28.8%	32.3%	35.3%
MALE E1-E4 - lower secondary and below	6.2%	5.2%	3.9%	3.0%	2.0%	1.4%
MALE E5 - upper secondary	71.9%	70.9%	68.7%	66.2%	63.6%	61.2%
MALE E6 - short post-secondary	1.5%	1.6%	1.9%	2.3%	2.6%	2.8%
MALE E7 - bachelor	2.6%	3.2%	4.1%	5.2%	5.9%	6.3%
MALE E8 - master and higher	17.8%	19.2%	21.3%	23.4%	26.0%	28.2%
FEMALE E1-E4 - lower secondary and below	6.1%	4.7%	3.3%	2.2%	1.4%	1.0%
FEMALE E5 - upper secondary	64.2%	62.4%	58.1%	53.2%	48.5%	43.9%
FEMALE E6 - short post-secondary	2.6%	2.5%	2.3%	2.2%	2.4%	2.6%
FEMALE E7 - bachelor	4.4%	5.0%	6.1%	7.1%	7.9%	8.6%
FEMALE E8 - master and higher	22.8%	25.5%	30.3%	35.2%	39.8%	43.8%

Labour force size
(CEPAM Medium)

Labour force participation rates
Population 15+ (CEPAM Medium)

Labour force dependency ratio
Inactive population / Active population (CEPAM Medium)

Labour force size by educational attainment according to three migration scenarios, 2015-2060
(Labour force participation = Constant scenario)

CEPAM Zero Migration

CEPAM Medium

CEPAM Double Migration