# Ireland

Detailed Human Capital projections to 2060

Comparison of CEPAM projections with other sources
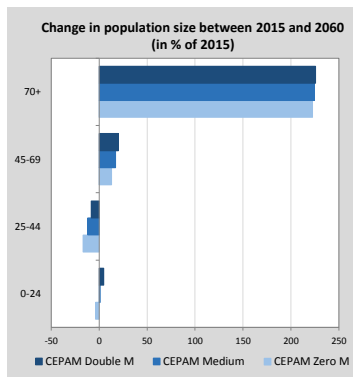
Demographic indicators - CEPAM Medium Scenario (SSP2), Eurostat and national projections		2015	2020	2030	2040	2050	2060
Population (in millions)	CEPAM	4.70	4.88	5.13	5.36	5.57	5.69
	Eurostat	4.63	4.85	5.15	5.40	5.69	5.90
	National	4.66	4.86	5.25	5.66	-	-
Proportion age 65+	CEPAM	13.2%	15.1%	16.9%	19.1%	20.9%	23.4%
	Eurostat	13.0%	14.5%	18.1%	22.2%	25.5%	25.3%
	National	13.0%	14.6%	18.3%	22.1%	-	-
Proportion below age 20	CEPAM	27.5%	27.6%	24.5%	22.3%	22.6%	21.8%
	Eurostat	28.2%	28.5%	26.2%	23.2%	23.9%	24.1%
	National	28.5%	28.7%	26.2%	24.3%	-	-
Median age	CEPAM	36.9	38.7	41.8	42.2	43.3	45.5
	Eurostat	36.5	38.1	41.2	41.8	41.9	43.2
	National	36.4	38.1	40.0	39.7	-	-
Old-age dependency ratio (65+/15-64)	CEPAM	0.20	0.24	0.30	0.39	0.50	0.49
	Eurostat	0.20	0.23	0.29	0.37	0.45	0.45
	National	0.20	0.23	0.29	0.37	-	-
Young-age dependency ratio (0-14/15-64)	CEPAM	0.33	0.33	0.28	0.28	0.31	0.28
	Eurostat	0.34	0.35	0.30	0.28	0.33	0.31
	National	0.34	0.35	0.30	0.31	-	-
Parent support ratio (85+/50-64)	CEPAM	0.08	0.09	0.11	0.20	0.35	0.43
	Eurostat	0.08	0.09	0.11	0.17	0.29	0.37
	National	0.08	0.09	0.12	0.21	-	-

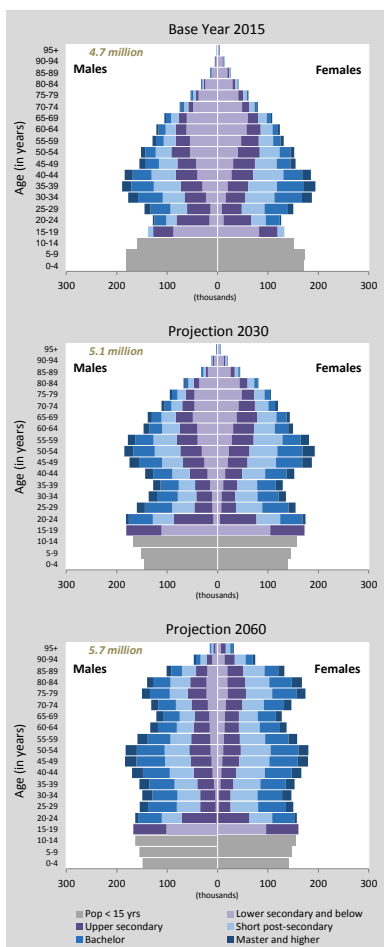| Demographic assumptions underlying projections		2010-2015	2015-2020	2025-2030	2035-2040	2045-2050	2055-2060
Total fertility rate	CEPAM	2.00	2.00	1.98	1.95	1.93	1.90
	Eurostat	1.95	1.96	1.96	1.96	1.96	1.96
	National	2.10	2.10	2.10	2.10	-	-
Life expectancy at birth (in years)							
Male	CEPAM	79.8	80.7	81.7	83.7	85.6	87.6
	Eurostat	79.7	80.5	81.2	82.5	83.8	85.0
	National	80.1	81.3	82.4	84.1	-	-
Female	CEPAM	83.7	84.7	85.7	87.8	89.8	91.9
	Eurostat	83.8	84.5	85.2	86.5	87.8	89.0
	National	84.3	85.2	86.1	87.6	-	-
Five-year net migration flow (in thousands)	CEPAM	6.6	8.7	11.1	15.8	18.9	21.5
	Eurostat	53.8	40.9	35.0	61.2	67.6	62.9
	National	-16.1	47.6	50.0	50.0	-	-
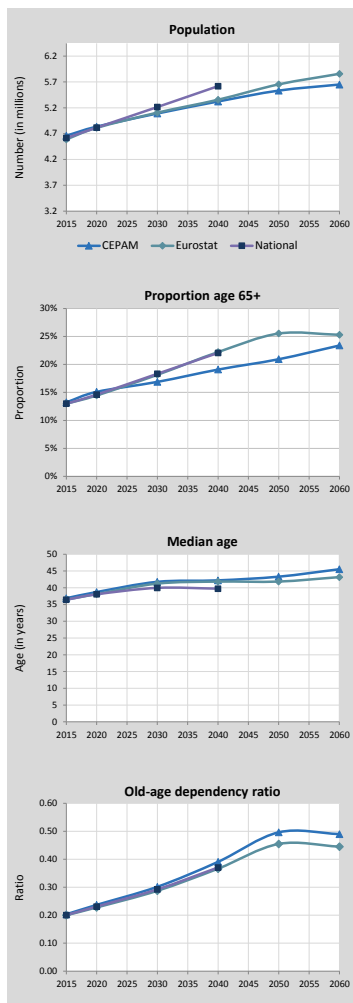
Changes in population size and structure according to CEPAM scenarios (impact of migration)

Population size according to CEPAM projections to 2060		2015	2020	2030	2040	2050	2060
Population (in millions)	Zero M	4.70	4.87	5.09	5.28	5.44	5.49
	Medium	4.70	4.88	5.13	5.36	5.57	5.69
	Double M	4.70	4.88	5.16	5.43	5.68	5.85
Population 0-24 (in millions)	Zero M	1.55	1.61	1.60	1.49	1.50	1.49
	Medium	1.55	1.62	1.62	1.52	1.55	1.56
	Double M	1.55	1.62	1.63	1.55	1.59	1.62
Population 25-44 (in millions)	Zero M	1.41	1.29	1.12	1.28	1.31	1.18
	Medium	1.41	1.30	1.14	1.31	1.36	1.24
	Double M	1.41	1.30	1.15	1.33	1.40	1.30
Population 45-69 (in millions)	Zero M	1.33	1.46	1.67	1.60	1.45	1.51
	Medium	1.33	1.46	1.68	1.62	1.48	1.56
	Double M	1.33	1.46	1.68	1.63	1.51	1.60
Population 70+ (in millions)	Zero M	0.41	0.50	0.70	0.91	1.18	1.32
	Medium	0.41	0.50	0.70	0.91	1.18	1.32
	Double M	0.41	0.50	0.70	0.91	1.19	1.33

Population

Proportion age 65+

Median age

Old-age dependency ratio

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

Ireland (Continued)

Pyramids by education, CEPAM Medium

Base Year 2015

4.7 million

Males — Females

Age (in years): 95+, 90-94, 85-89, 80-84, 75-79, 70-74, 65-69, 60-64, 55-59, 50-54, 45-49, 40-44, 35-39, 30-34, 25-29, 20-24, 15-19, 10-14, 5-9, 0-4

300 200 100 0 100 200 300 (thousands)

Projection 2030

5.1 million

Males — Females

300 200 100 0 100 200 300 (thousands)

Projection 2060

5.7 million

Males — Females

300 200 100 0 100 200 300 (thousands)

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

Detailed Human Capital projections to 2060

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	30.8%	27.8%	21.6%	16.0%	11.9%	9.1%
E5 - upper secondary	22.2%	22.3%	22.5%	22.4%	22.0%	21.2%
E6 - short post-secondary	22.8%	23.8%	25.7%	27.4%	28.7%	29.6%
E7 - bachelor	17.5%	18.9%	21.8%	24.7%	27.0%	29.0%
E8 - master and higher	6.8%	7.3%	8.4%	9.4%	10.3%	11.0%
Mean years of schooling (in years)	11.79	12.12	12.80	13.45	13.97	14.39
Age gap: highest educational attainment (ratio 35-44/50-64)						
E1-E4 - lower secondary and below	0.40	0.41	0.59	0.60	0.48	0.54
E5 - upper secondary	0.95	0.87	0.97	0.95	0.89	0.90
E6 - short post-secondary	1.40	1.20	1.00	1.08	1.13	1.09
E7 - bachelor	1.91	1.83	1.34	1.14	1.14	1.09
E8 - master and higher	2.18	1.82	1.16	1.08	1.14	1.09
Mean years of schooling (35-44 minus 50-64)	2.53	2.71	2.23	1.05	0.63	0.43
Gender gap (population age 25+): highest educational attainment (ratio male/female)						
E1-E4 - lower secondary and below	1.16	1.17	1.17	1.18	1.19	1.18
E5 - upper secondary	0.95	0.96	1.00	1.05	1.09	1.14
E6 - short post-secondary	0.85	0.85	0.85	0.85	0.84	0.84
E7 - bachelor	1.00	1.00	1.00	1.00	1.00	1.00
E8 - master and higher	1.05	1.06	1.07	1.08	1.08	1.08
Mean years of schooling (male minus female)	-0.21	-0.18	-0.11	-0.05	-0.02	0.00
Women age 20-39: highest educational attainment (columns sum to 100%)						
E1-E4 - lower secondary and below	9%	8%	5%	4%	3%	2%
E5 - upper secondary	26%	26%	26%	24%	22%	22%
E6 - short post-secondary	29%	29%	31%	33%	34%	34%
E7 - bachelor	27%	28%	30%	31%	32%	33%
E8 - master and higher	9%	8%	8%	9%	9%	9%
Mean years of schooling (in years)	14.22	14.51	14.71	14.90	15.01	15.06
Age gap among women: highest educational attainment (ratio 35-44/50-64)						
E1-E4 - lower secondary and below	0.35	0.38	0.60	0.63	0.47	0.52
E5 - upper secondary	0.85	0.75	0.91	0.93	0.85	0.87
E6 - short post-secondary	1.36	1.17	1.03	1.10	1.13	1.09
E7 - bachelor	2.03	1.90	1.31	1.11	1.13	1.09
E8 - master and higher	2.63	2.11	1.07	1.00	1.13	1.09
Mean years of schooling (35-44 minus 50-64)	3.53	3.42	2.74	1.18	0.78	0.60

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)

Population (in millions): 0–7, years 2015 2020 2025 2030 2035 2040 2045 2050 2055 2060
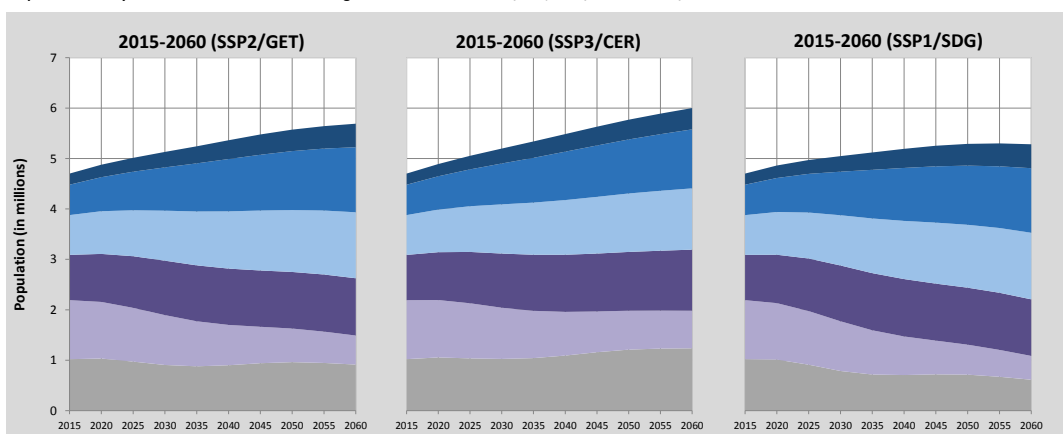
Colour legend as in pyramids above

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)

Ireland (Continued)

Alternative scenarios to 2100

Projection results by scenario (SSP1-SSP3)

	2015	2020	2030	2050	2060	2075	2100
Population (in millions)							
SSP1 - Rapid Development	4.70	4.86	5.05	5.29	5.28	5.15	4.87
SSP2 - CEPAM *Zero Migration*	4.70	4.87	5.09	5.44	5.49	5.48	5.57
SSP2 - CEPAM *Medium*	4.70	4.88	5.13	5.57	5.69	5.80	6.11
SSP2 - CEPAM *Double Migration*	4.70	4.88	5.16	5.68	5.85	6.04	6.45
SSP3 - Stalled Development	4.70	4.89	5.20	5.77	6.00	6.40	7.42
Proportion age 65+							
SSP1 - Rapid Development	13.2%	15.3%	20.0%	31.7%	34.1%	39.9%	49.7%
SSP2 - CEPAM *Zero Migration*	13.2%	15.1%	19.2%	28.0%	28.4%	30.2%	35.4%
SSP2 - CEPAM *Medium*	13.2%	15.1%	19.1%	27.4%	27.6%	29.1%	34.1%
SSP2 - CEPAM *Double Migration*	13.2%	15.1%	19.0%	27.0%	27.1%	28.5%	33.6%
SSP3 - Stalled Development	13.2%	15.0%	18.2%	23.9%	22.3%	21.0%	22.3%
Proportion below age 20							
SSP1 - Rapid Development	27.5%	27.2%	22.6%	17.9%	16.3%	13.7%	11.5%
SSP2 - CEPAM *Zero Migration*	27.5%	27.6%	24.5%	22.4%	21.5%	20.0%	18.3%
SSP2 - CEPAM *Medium*	27.5%	27.6%	24.5%	22.6%	21.8%	20.4%	18.8%
SSP2 - CEPAM *Double Migration*	27.5%	27.6%	24.6%	22.8%	22.1%	20.7%	19.1%
SSP3 - Stalled Development	27.5%	28.0%	26.6%	27.2%	27.4%	27.3%	26.5%
Proportion of women age 20-39 with post-secondary education							
SSP1 - Rapid Development	60.6%	61.9%	66.3%	75.0%	76.5%	80.3%	82.1%
SSP2 - CEPAM *Zero Migration*	60.6%	63.7%	68.7%	75.3%	76.4%	79.4%	81.2%
SSP2 - CEPAM *Medium*	60.6%	61.9%	66.0%	72.5%	73.5%	76.7%	79.0%
SSP2 - CEPAM *Double Migration*	60.6%	60.1%	63.5%	69.9%	71.0%	74.5%	77.2%
SSP3 - Stalled Development	60.6%	59.1%	58.1%	59.6%	58.9%	59.4%	59.2%
Mean years of schooling, age 25+							
SSP1 - Rapid Development	11.8	12.1	12.8	14.0	14.4	15.0	15.4
SSP2 - CEPAM *Zero Migration*	11.8	12.2	13.0	14.2	14.7	15.2	15.5
SSP2 - CEPAM *Medium*	11.8	12.1	12.8	14.0	14.4	14.9	15.2
SSP2 - CEPAM *Double Migration*	11.8	12.0	12.6	13.7	14.1	14.6	15.0
SSP3 - Stalled Development	11.8	12.1	12.8	14.0	14.4	14.7	14.7

Demographic assumptions underlying SSPs

	2015-2020	2020-2025	2030-2035	2050-2055	2060-2065	2075-2080	2095-2100
Total fertility rate							
SSP1 - Rapid Development	1.86	1.73	1.54	1.43	1.42	1.40	1.39
SSP2 - CEPAM *Zero Migration*	1.99	1.99	1.97	1.91	1.89	1.87	1.85
SSP2 - CEPAM *Medium*	2.00	2.00	1.96	1.91	1.89	1.87	1.85
SSP2 - CEPAM *Double Migration*	2.00	2.00	1.96	1.91	1.89	1.87	1.85
SSP3 - Stalled Development	2.14	2.29	2.43	2.45	2.42	2.40	2.38
Life expectancy at birth for females (in years)							
SSP1 - Rapid Development	84.2	85.7	88.7	94.9	97.9	102.5	108.6
SSP2 - CEPAM *Zero Migration*	83.7	84.7	86.8	90.9	93.0	96.1	100.2
SSP2 - CEPAM *Medium*	83.7	84.7	86.7	90.8	92.9	96.0	100.1
SSP2 - CEPAM *Double Migration*	83.7	84.7	86.7	90.8	92.8	95.9	100.0
SSP3 - Stalled Development	83.2	83.7	84.7	86.9	87.9	89.5	91.5
Migration – net flow over five years (in thousands)							
SSP1 - Rapid Development	6.6	8.4	12.1	16.6	17.8	18.4	13.5
SSP2 - CEPAM *Zero Migration*	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SSP2 - CEPAM *Medium*	6.6	8.7	13.6	20.2	22.6	23.3	17.4
SSP2 - CEPAM *Double Migration*	13.1	16.6	24.7	33.5	35.9	34.0	18.8
SSP3 - Stalled Development	4.4	3.1	0.0	0.0	0.0	0.1	0.1

Ageing indicators by scenario

	2015	2020	2030	2050	2060	2075	2095
Median age							
SSP1 - Rapid Development	36.9	38.9	43.1	47.7	51.6	57.5	63.0
SSP2 - CEPAM *Zero Migration*	36.9	38.8	42.0	43.7	46.1	47.6	50.7
SSP2 - CEPAM *Medium*	36.9	38.7	41.8	43.3	45.5	46.6	49.7
SSP2 - CEPAM *Double Migration*	36.9	38.7	41.6	43.0	45.1	46.1	49.2
SSP3 - Stalled Development	36.9	38.5	40.5	39.2	39.0	37.9	39.2
Proportion with less than 15 years of remaining life expectancy (RLE)							
SSP1 - Rapid Development	5.9%	6.2%	7.7%	10.1%	11.9%	13.2%	11.4%
SSP2 - CEPAM *Zero Migration*	6.1%	6.6%	8.3%	10.8%	12.7%	11.7%	11.6%
SSP2 - CEPAM *Medium*	6.1%	6.6%	8.3%	10.6%	12.3%	11.1%	11.1%
SSP2 - CEPAM *Double Migration*	6.1%	6.6%	8.3%	10.4%	12.0%	10.8%	10.8%
SSP3 - Stalled Development	6.4%	7.1%	8.9%	11.3%	12.3%	9.4%	9.9%

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)
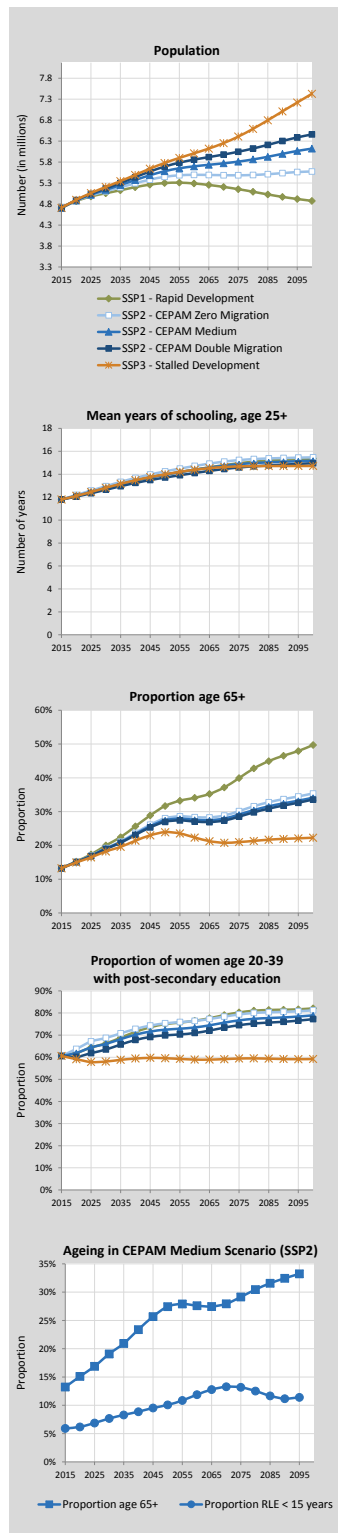
Ireland (Continued)

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)	2.22	2.26	2.38	2.40	2.33	2.37
Constant (CEPAM Medium)	2.22	2.26	2.38	2.41	2.38	2.44
Constant (CEPAM Double Migration)	2.22	2.26	2.37	2.42	2.41	2.50
Swedish (CEPAM Zero Migration)	2.22	2.31	2.51	2.62	2.62	2.74
Swedish (CEPAM Medium)	2.22	2.31	2.52	2.64	2.68	2.84
Swedish (CEPAM Double Migration)	2.22	2.30	2.52	2.66	2.72	2.91
Equalization (CEPAM Zero Migration)	2.22	2.29	2.46	2.53	2.51	2.58
Equalization (CEPAM Medium)	2.22	2.29	2.46	2.56	2.57	2.68
Equalization (CEPAM Double Migration)	2.22	2.29	2.47	2.57	2.61	2.76
Constant (CEPAM Medium-low fertility)	2.22	2.26	2.37	2.39	2.27	2.21
Swedish (CEPAM Medium-low fertility)	2.22	2.31	2.52	2.61	2.55	2.56
Equalization (CEPAM Medium-low fertility)	2.22	2.29	2.46	2.53	2.45	2.43
Labour force participation rates, age 15+, by participation scenario (CEPAM Medium)						
TOTAL (Constant)	60.4%	58.8%	56.2%	54.1%	51.5%	51.2%
TOTAL (Swedish)	60.4%	60.0%	59.6%	59.2%	58.0%	59.4%
TOTAL (Equalization)	60.4%	59.6%	58.3%	57.3%	55.6%	56.1%
MALE (Constant)	68.2%	66.2%	62.9%	60.6%	58.2%	57.9%
MALE (Swedish)	68.2%	66.9%	64.9%	63.9%	62.3%	63.1%
MALE (Equalization)	68.2%	66.2%	62.9%	60.6%	58.2%	57.9%
FEMALE (Constant)	52.8%	51.7%	49.8%	47.9%	45.2%	44.8%
FEMALE (Swedish)	52.8%	53.3%	54.4%	54.8%	53.9%	55.8%
FEMALE (Equalization)	52.8%	53.3%	53.9%	54.0%	53.2%	54.4%
Labour force (15+) by highest level of educational attainment. Columns sum to 100%.						
(CEPAM Medium; Constant participation)						
TOTAL E1-E4 - lower secondary and below	17.6%	15.1%	10.5%	7.6%	5.9%	4.7%
TOTAL E5 - upper secondary	25.4%	25.3%	24.7%	23.3%	22.4%	21.8%
TOTAL E6 - short post-secondary	26.4%	26.8%	27.5%	28.2%	28.8%	29.5%
TOTAL E7 - bachelor	22.0%	23.6%	27.1%	29.8%	31.2%	32.1%
TOTAL E8 - master and higher	8.5%	9.2%	10.2%	11.1%	11.6%	11.9%
MALE E1-E4 - lower secondary and below	22.7%	19.6%	13.8%	9.9%	7.5%	5.9%
MALE E5 - upper secondary	26.0%	26.1%	26.2%	25.4%	24.7%	24.3%
MALE E6 - short post-secondary	23.4%	23.9%	24.9%	25.6%	26.2%	26.9%
MALE E7 - bachelor	20.0%	21.8%	25.4%	28.4%	30.0%	31.1%
MALE E8 - master and higher	7.9%	8.6%	9.7%	10.8%	11.5%	11.8%
FEMALE E1-E4 - lower secondary and below	11.3%	9.5%	6.6%	4.8%	3.9%	3.2%
FEMALE E5 - upper secondary	24.8%	24.3%	22.9%	20.8%	19.6%	18.8%
FEMALE E6 - short post-secondary	30.2%	30.4%	30.7%	31.4%	32.0%	32.7%
FEMALE E7 - bachelor	24.4%	25.9%	29.0%	31.5%	32.6%	33.3%
FEMALE E8 - master and higher	9.3%	9.9%	10.8%	11.5%	11.8%	11.9%

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

Lower secondary and below — Upper secondary — Short post-secondary — Bachelor — Master and higher