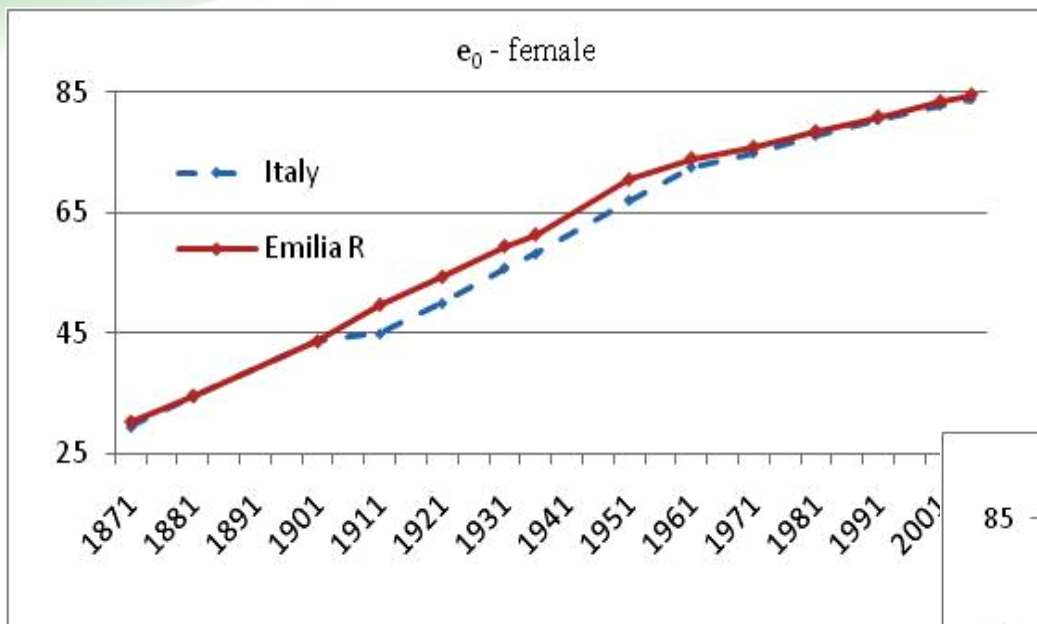


# Demographic projections in Emilia-Romagna: possible population developments

Angelina Mazzocchetti

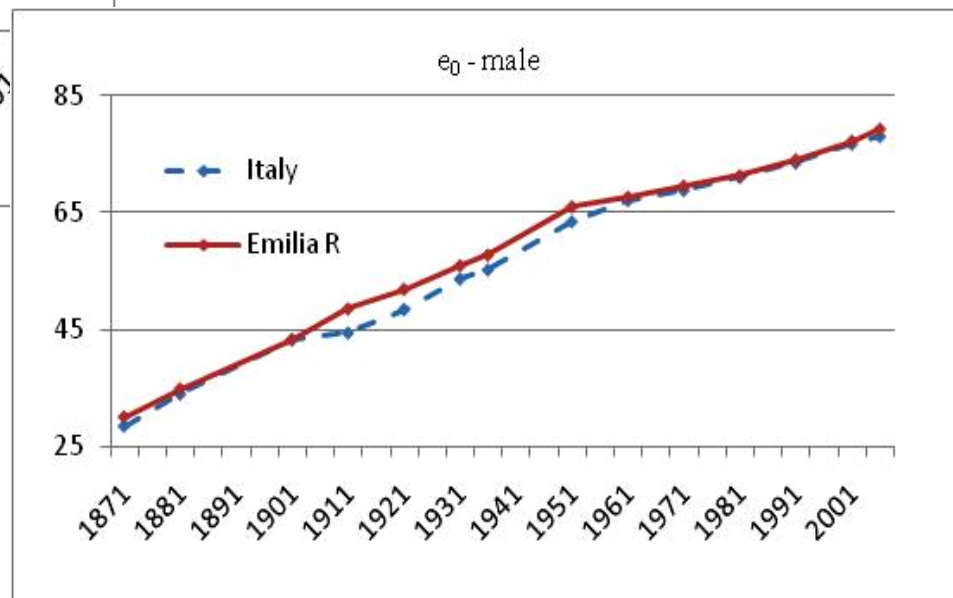
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female

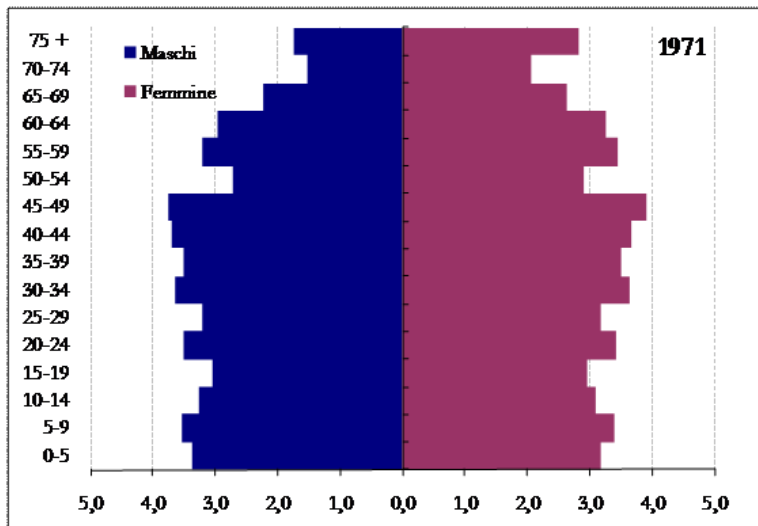


male

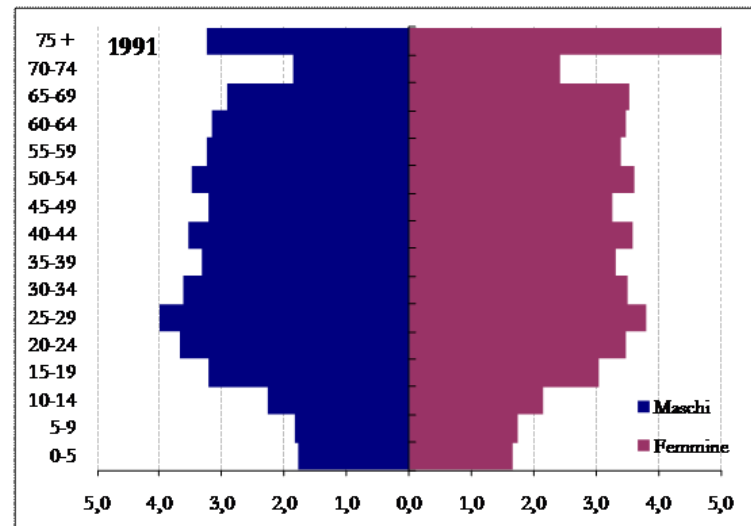


Life expectancy by sex, Emilia-Romagna and Italy . Years 1871-2001, Source: Roli et al; "Evolution of survival at old ages during the 20th Century in Emilia Romagna", STATISTICA vol .69, N.1, 2009.

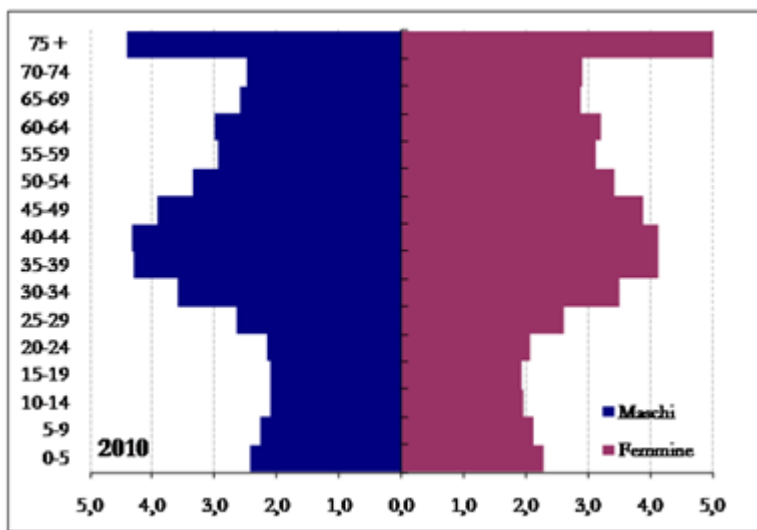
Population pyramid of Emilia-Romagna region. 1971 census.



Population pyramid of Emilia-Romagna region. 1991 census.



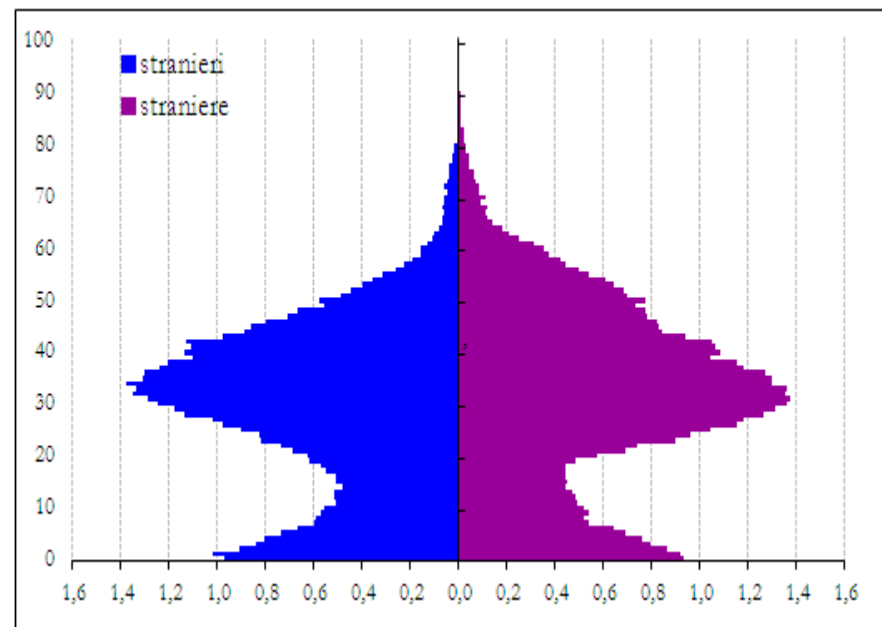
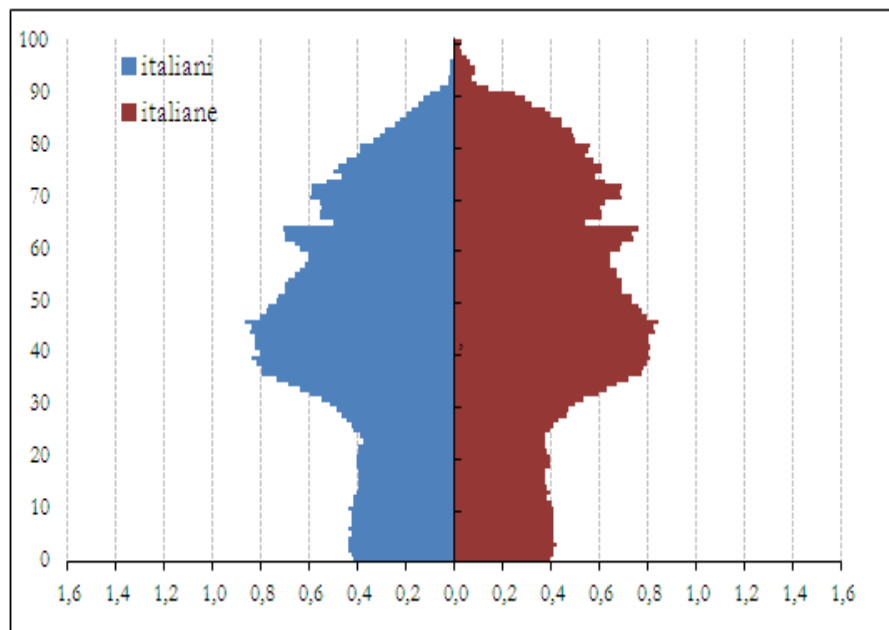
Population pyramid of Emilia-Romagna region. 1° January 2012.



Emilia-Romagna population by age. Absolute figures and percent change . 1971,1991 population census an 1° January 2010

	1971	1991	2012	71-91	91-2012
0-14	763,630	447,887	598,050	-41.3	33.5
15-39	1,293,485	1,367,930	1,320,841	5.8	-3.4
40-64	1,289,437	1,328,180	1,552,742	3.0	16.9
65+	500,203	765,515	888,016	53.0	16.0
<b>totale</b>	<b>3,846,755</b>	<b>3,909,512</b>	<b>4,359,649</b>	<b>1.6</b>	<b>11.5</b>

Population pyramid of Emilia-Romagna by citizenship (native / non-native). Percent distribution. 1° January 2012. Source SSIG - Rer



## Emilia-Romagna population projection

- ✓ 3 scenarios (low, medium, and high variant) combining different evolutionary hypothesis for mortality rate, fertility rate, emigration rate and different level of immigration flows.
- ✓ multistate multiarea cohort-component model
  - ✓ multiarea → flexible sub-regional areas definition
  - ✓ multistate → two sub-populations are considered : Italian and foreign (identified as a whole by non- Italian citizenship)
- ✓ results depend on hypothesis but some evolutionary path are still designed by the recent demographic history
- ✓ 20 years time range → last update 2010-2030 - *under revision*

two observed tendencies for life expectancy:

- ✓ reduced speed of growth rate
- ✓ gender gap decrease

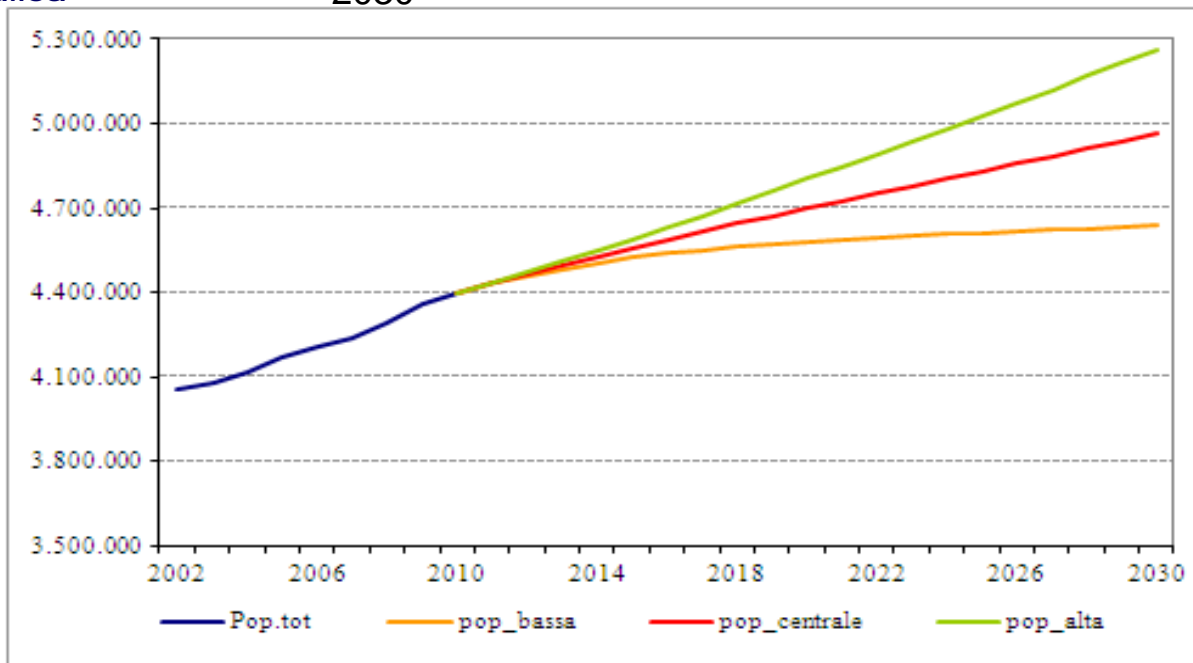
			difference with the previous period		difference male - female
	e0M	e0F	e0M	e0F	
1981	71.74	78.98			-7.25
1991	74.26	80.91	2.53	1.93	-6.65
2001	77.43	83.29	3.17	2.37	-5.86
2010	80.02	84.91	2.59	1.63	-4.89

	2010	2029 projected value		
		Low variant	Medium variant	High variant
e0M	80.02	81.8	83.3	84.8
e0F	84.91	85.3	86.4	87.9

Low variant → stability , 5% growth expected in 20 years

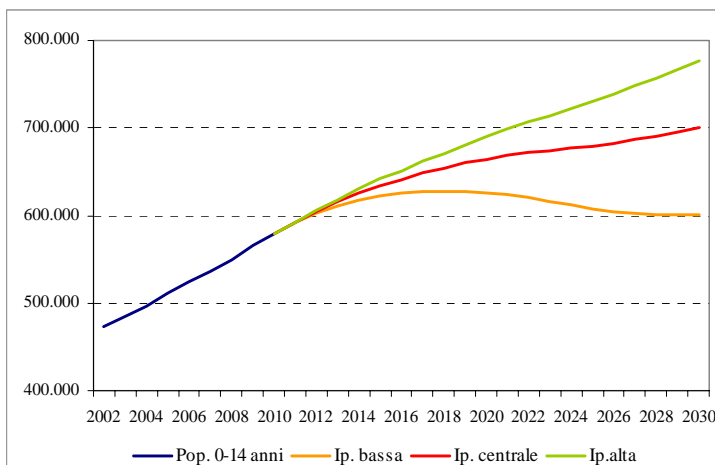
Medium v. → growth in the next 20 years will reproduce growth of the last 20 years

High v. → growth at a sustained pace; total growth will be 1.5 times the last 20 years observed growth

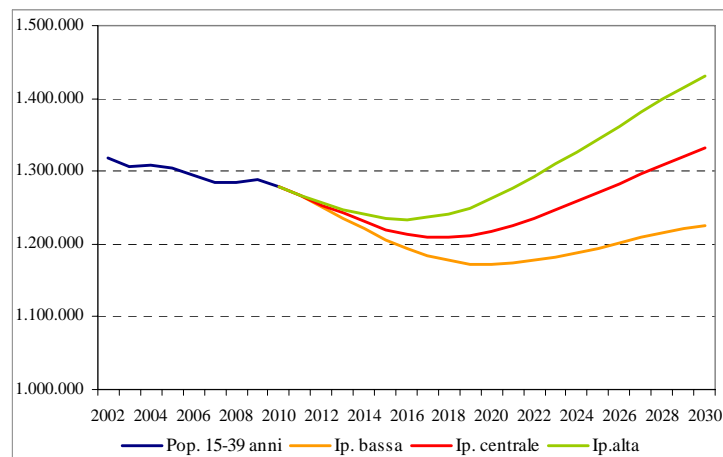


	2010	2030		
		Low v.	Medium v.	High v.
	4,395,606	4,637,948	4,966,475	5,264,182
v.a. su 2010		242,342	570,869	868,576
v. % su 2010		5.23	11.49	16.50

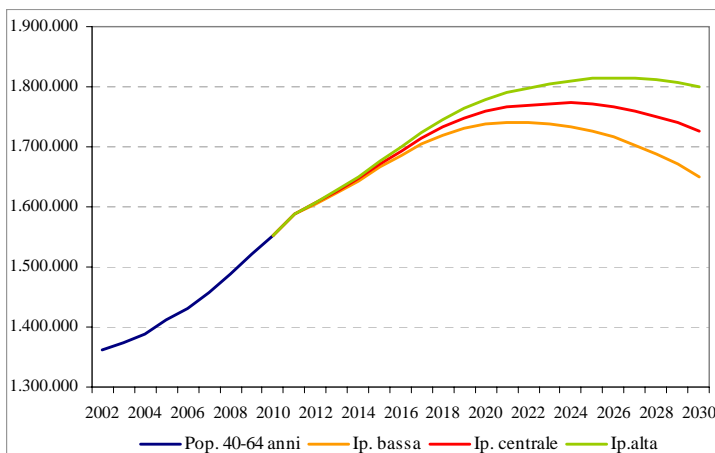
Popolazione 0-14 anni



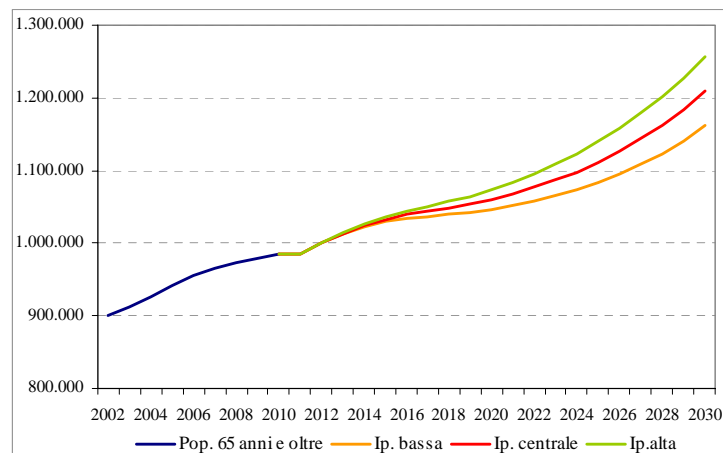
Popolazione 15-39 anni



Popolazione 40-64 anni



Popolazione 65 anni e oltre





Population in Emilia-Romagna aged 65 years or more. 1° January 2010 and estimation 1° January 2020 , 1° January 2030. Absolute figures and percent change. Source : SSIG - RER

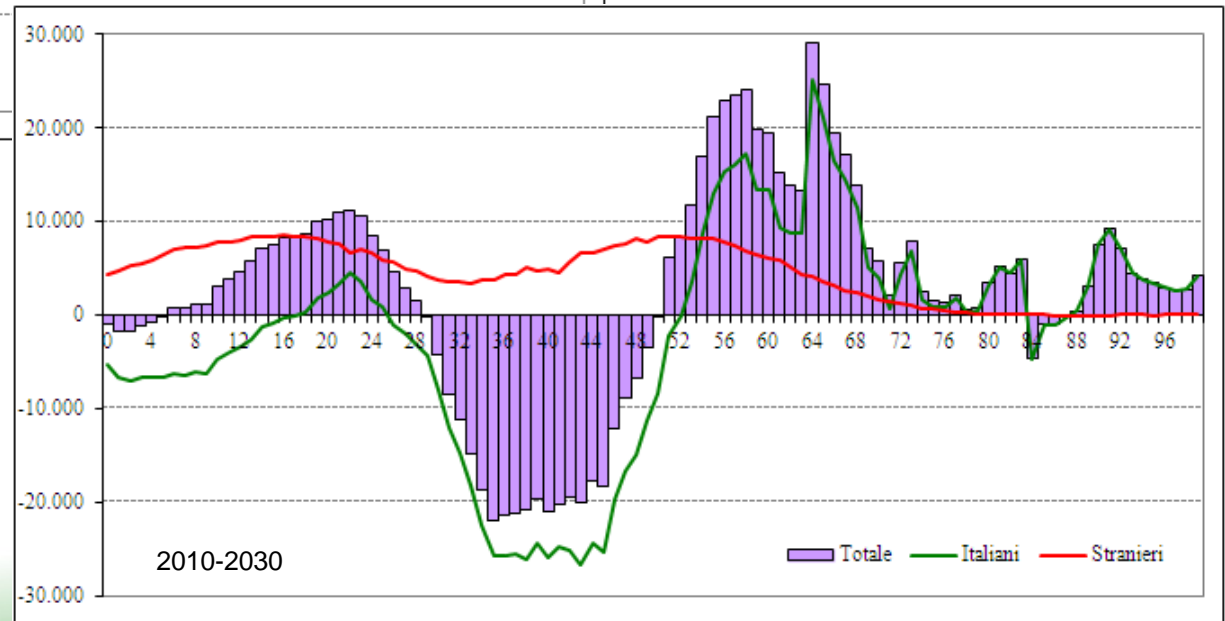
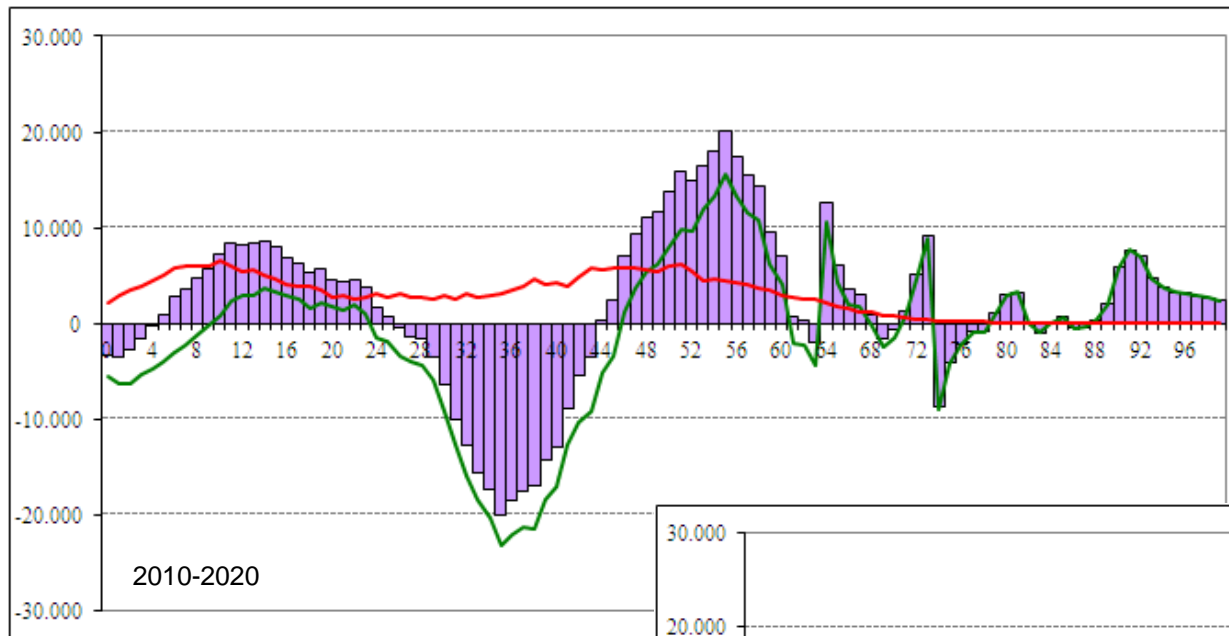
	2010	2020			2030					
		Low variant	Medium variant	High variant	Low variant	Medium variant	High variant			
65-79	679.569	690.508	697.261	703.826	791.921	814.855	836.568			
80+	306.123	356.208	362.848	369.725	369.760	394.417	421.039			
65 years or more	985.692	1.046.716	1.060.109	1.073.551	1.161.681	1.209.272	1.257.607			
		Percent change 2020-2010			Percent change 2030-2020			Percent change 2030-2010		
		Low variant	Medium variant	High variant	Low variant	Medium variant	High variant	Low variant	Medium variant	High variant
65-79		1,6	2,6	3,6	14,7	16,9	18,9	16,5	19,9	23,1
80+		16,4	18,5	20,8	3,8	8,7	13,9	20,8	28,8	37,5
65 years or more		6,2	7,5	8,9	11,0	14,1	17,1	17,9	22,7	27,6

Demographic indices, Emilia-Romagna population. 1° January 2010 and estimation 1° January 2020 , 1° January 2030. Source : SSIG - RER

	2010	2020			2030		
		Low variant	Medium variant	High variant	Low variant	Medium variant	High variant
Ageing index	170,2	167,1	159,6	155,6	193,2	172,7	161,9
Young dependency	20,5	21,5	22,3	22,7	20,9	22,9	24,1
Old dependency	34,8	36,0	35,6	35,3	40,4	39,6	38,9
Total dependency	55,3	57,5	57,9	58,0	61,3	62,5	63,0
Active population structure	121,5	148,3	144,4	140,9	134,7	129,6	125,7
Potential Replacement	154,1	139,3	137,8	136,4	165,5	156,5	151,4
parent support ratio	17,6	19,0	19,2	19,5	18,2	19,0	20,0

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Absolute change of population in Emilia-Romagna region by age and citizenships (native non-native). 2010-2020 and 2010-2030 estimation low variant Source SSIG -Rer



## CONCLUSIONS:

- ✓ ageing process is estimated to persist
- ✓ migration flows can alleviate this process but certainly cannot remove some already wrote pattern
- ✓ change in the consistency and some age groups will mainly due to migrant population
- ✓ the growing complexity of the demographic components represent a recognized future challenge

fewer ? → maybe

older and multicultural? More certainly two future faces of European Countries

Fewer, older and multicultural? Eu populations projections by foreign/national background. G. Lanziari, Eurostat WP, 2011

# Thanks for your attention!

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