



# The EU's growth potential vis-à-vis a shrinking workforce

Dr Jörg Peschner, European  
Commission,

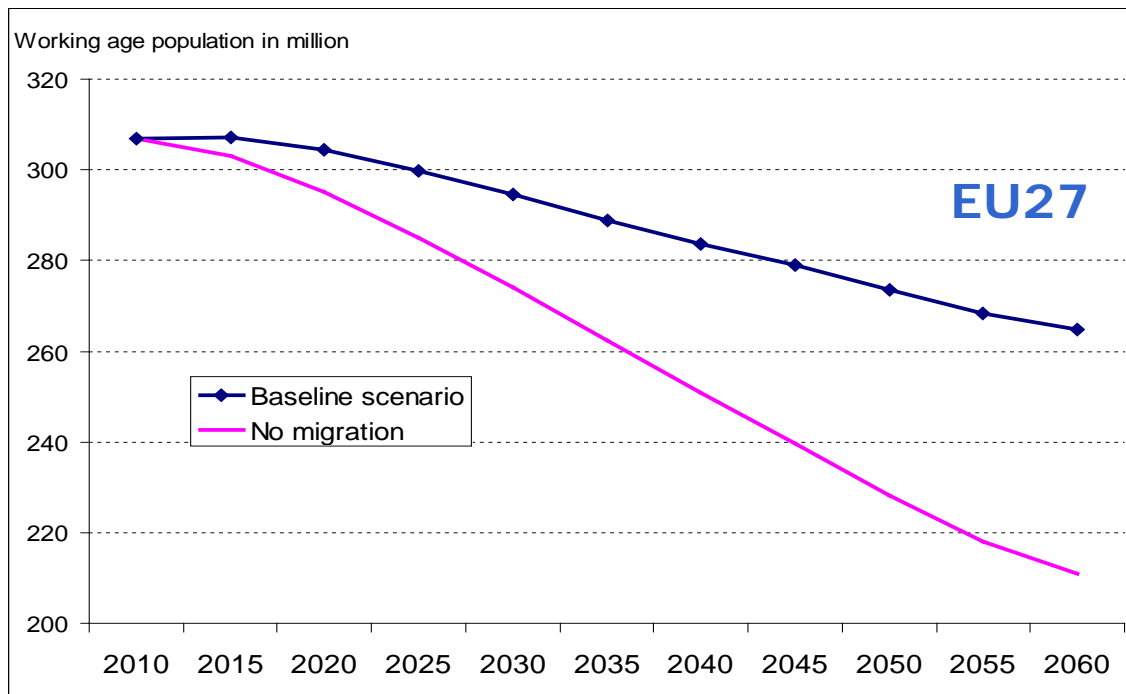
DG EMPL, Employment Analysis

EU-OECD DIALOGUE ON INTERNATIONAL MIGRATION AND  
MOBILITY: MATCHING ECONOMIC MIGRATION WITH LABOUR  
MARKET NEEDS - Brussels, 24 February, 2014

# Shrinking Working-Age Population..

Average annual decline will be -0.4% as from 2020..  
 .. setting the focus on the potential impact of migration

EU's working-age population (people aged between 20 to 64 years)



-42 m pot. workers over  
the next 50 years..

.. -96 m pot. workers without  
migration..

Source: Eurostat Europop2010 convergence vs no-migration scenario

## .. will impact on employment growth.

*We assume for the employment rate:*

- Phase I:
- 1. Successful "EU2020": 75% EU-wide employment rate to be achieved by 2020 (today: 68%)*
- Phase II:
- 2. No NUTS-2 region will be lagging behind 75% by 2030 (today: 191 out of 267 regions < 75%)*

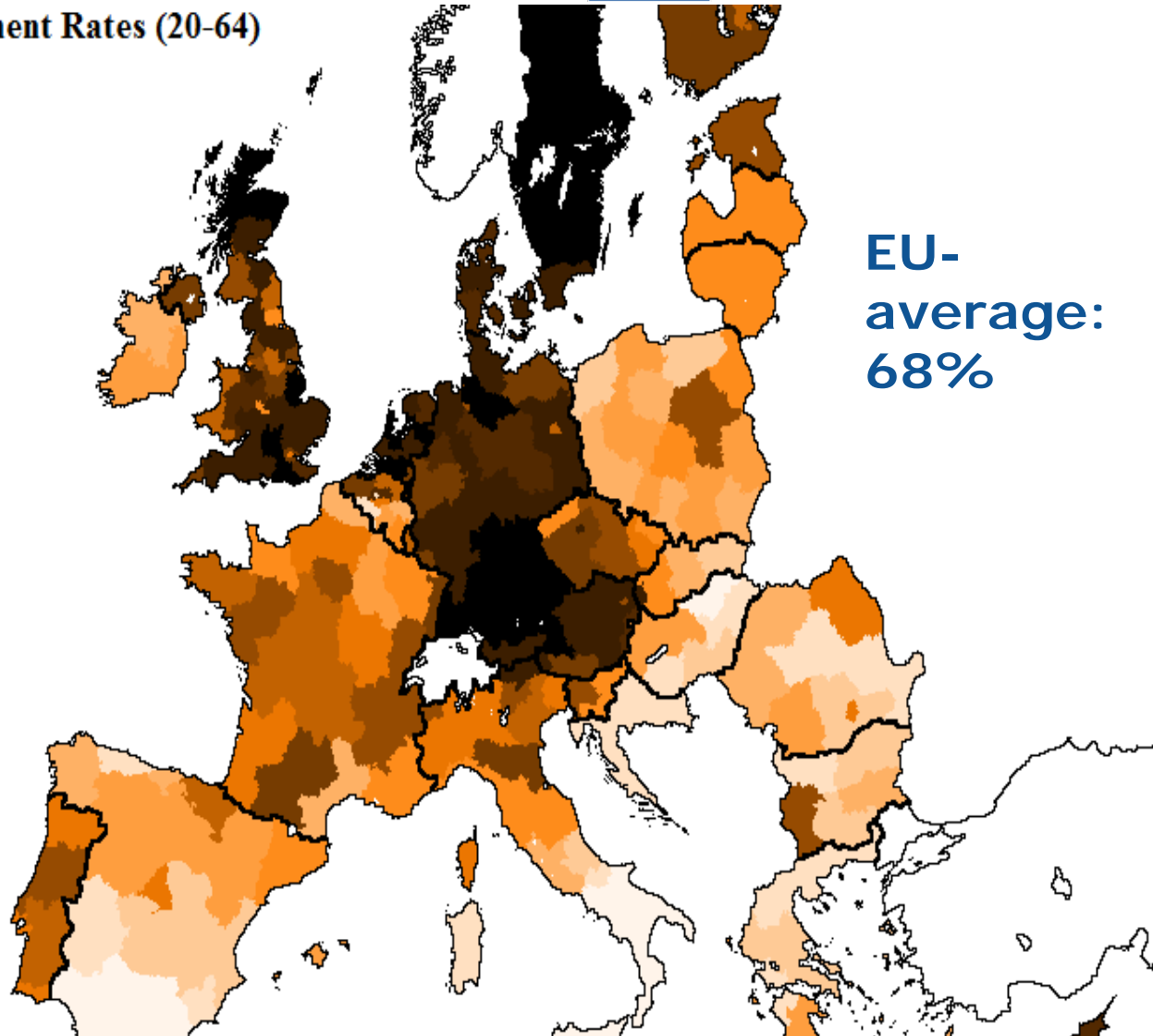
# Employment rates in Europe: 2012 (age 20-64)

European  
Commission

## Local Employment Rates (20-64)

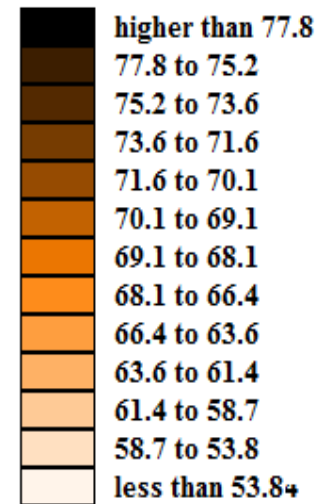
Now:

**2012**

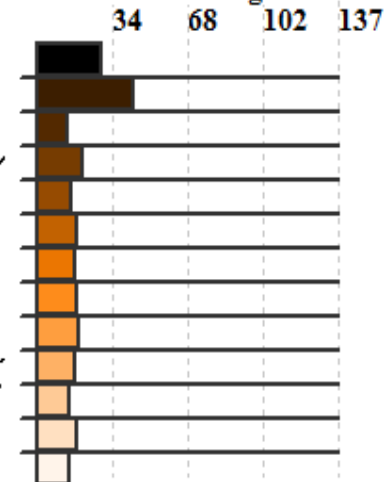


**EU-  
average:  
68%**

Ratio per 1000



Distribution of regions



Source: LFS data, own calculations based on DG EMPL's regional projection software

Source: Own calculations based on Eurostat EU LFS

# Employment rates in Europe: „EU2020“ (age 20-64) (EU-average 75% by 2020)

European  
Commission

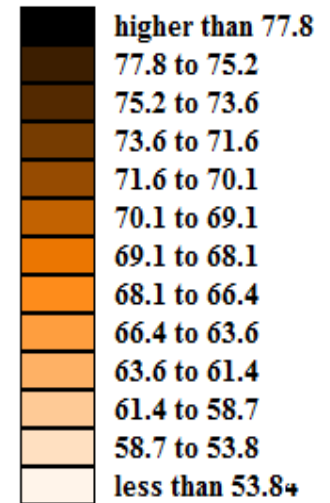
Local Employment Rates (20-64)

Phase I:

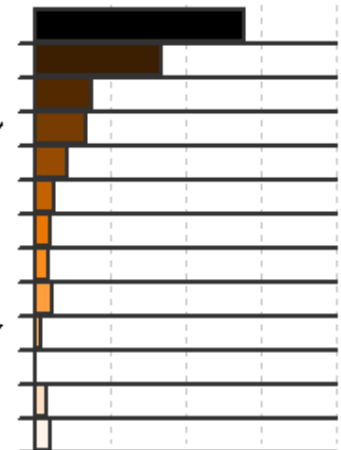
2022

EU-  
average:  
75%

Ratio per 1000



Distribution of regions  
34 68 102 137



Source: LFS data, own calculations  
based on DG EMPL's regional projection software

Source: Own calculations based on Eurostat EU LFS

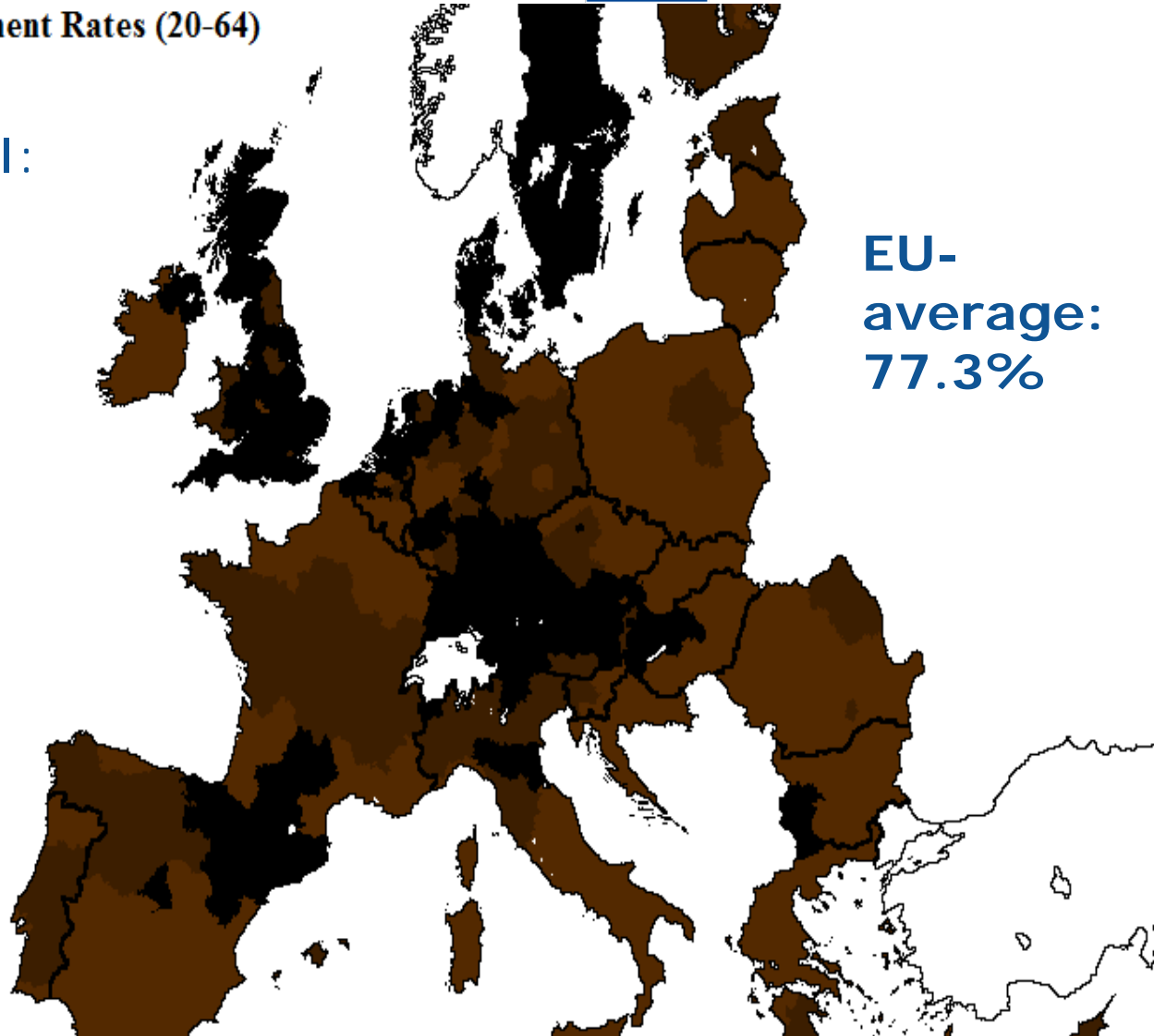
# Employment rates: min. 75% by 2032 (age 20-64)

European  
Commission

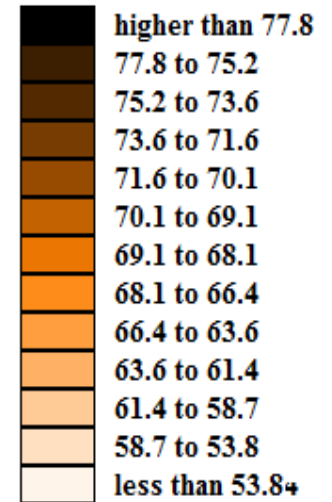
## Local Employment Rates (20-64)

Phase II:

**2032**

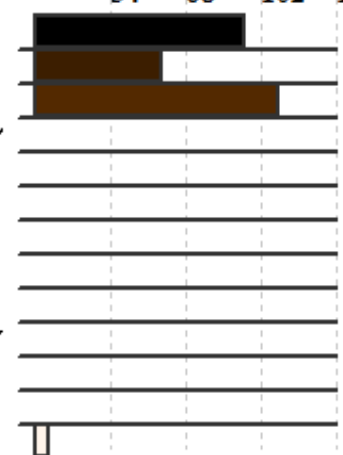


Ratio per 1000



Distribution of regions

34 68 102 137



Source: LFS data, own calculations based on DG EMPL's regional projection software

Source: Own calculations based on Eurostat EU LFS

# Employment growth in Europe: 2002 – 2007

European  
Commission

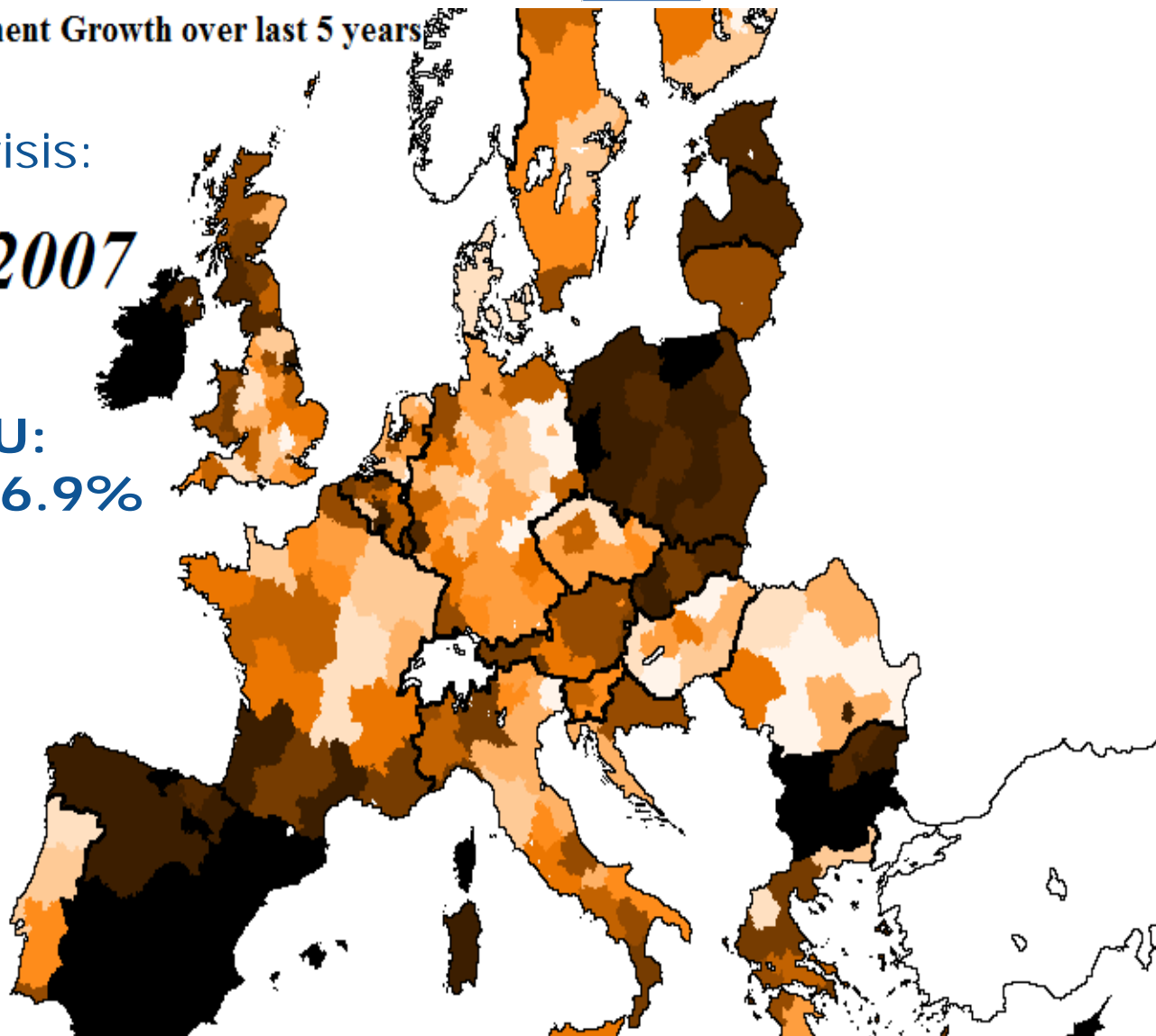
Local Employment Growth over last 5 years

Pre-crisis:

**2002-2007**

**EU:  
+6.9%**

Source: LFS data, own calculations  
based on DG EMPL's regional projection software



Ratio per 1000

higher than 18.3  
18.3 to 12.1  
12.1 to 9.9  
9.9 to 8.1  
8.1 to 7.1  
7.1 to 6.0  
6.0 to 4.9  
4.9 to 3.7  
3.7 to 3.0  
3.0 to 2.1  
2.1 to 1.0  
1.0 to -0.5  
less than -0.5

Distribution of regions

34 68 102 137

# Employment growth in Europe: 2007 – 2012

European  
Commission

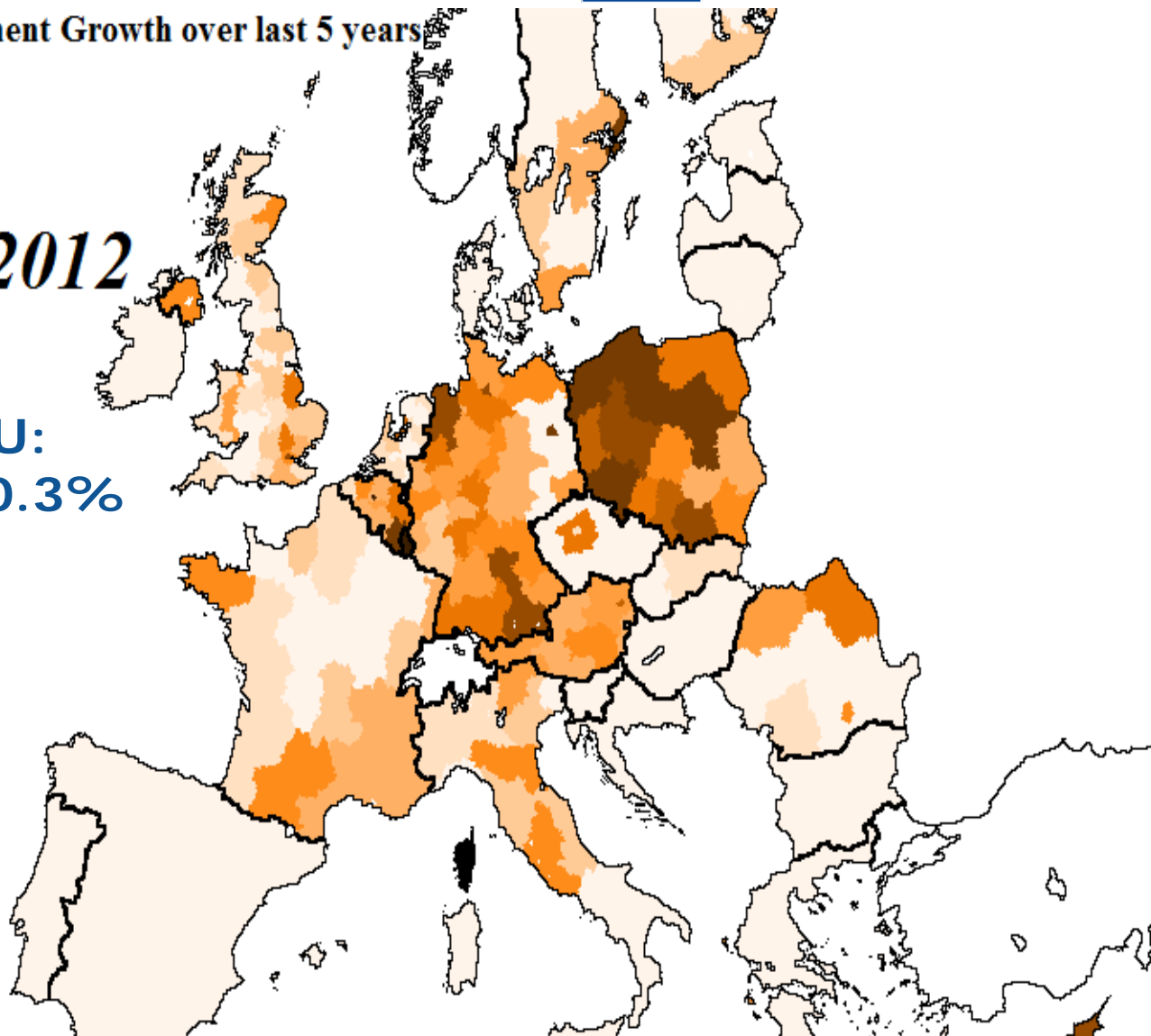
Local Employment Growth over last 5 years

Crisis:

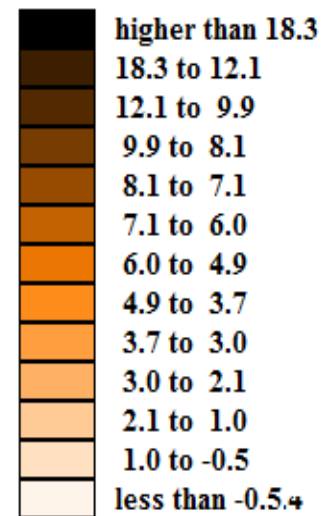
**2007-2012**

**EU:  
-0.3%**

Source: LFS data, own calculations  
based on DG EMPL's regional projection software

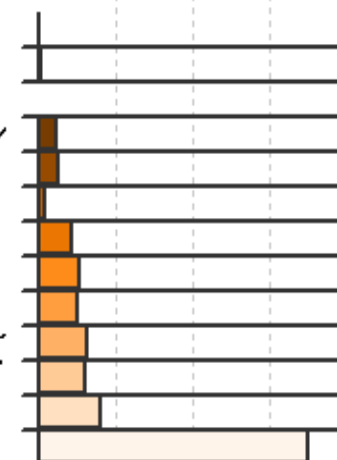


Ratio per 1000



Distribution of regions

34 68 102 137



Source: Own calculations based on Eurostat EILLES



# Employment growth in Europe: 2012 – 2017 (Target: 75% for EU by 2020)

Update of:  
Peschner, J. (2012): 'Exploring conditions for EU growth given a shrinking workforce', in OECD (2012), Free Movement of Workers and Labour Market Adjustment, Recent Experiences from OECD countries and the European Union, esp. p. 220-224.

European Commission

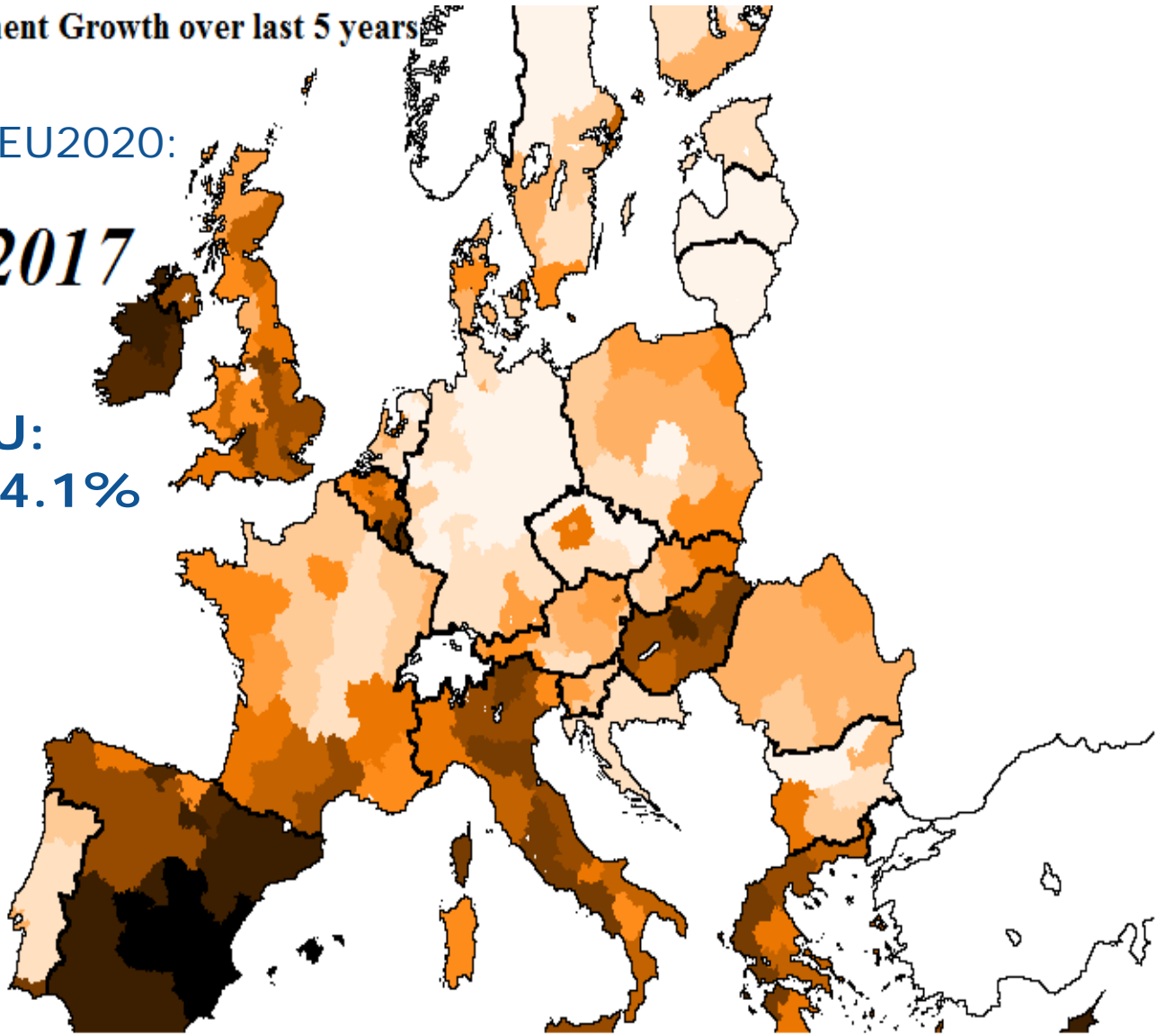
Local Employment Growth over last 5 years

Phase I: EU2020:

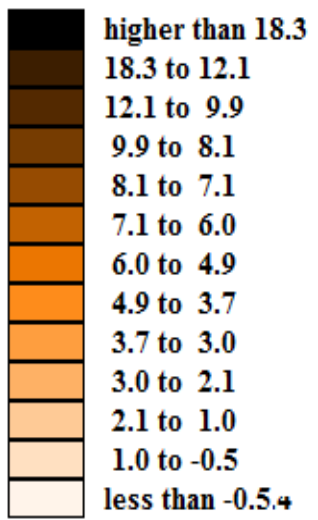
**2012-2017**

**EU:  
+4.1%**

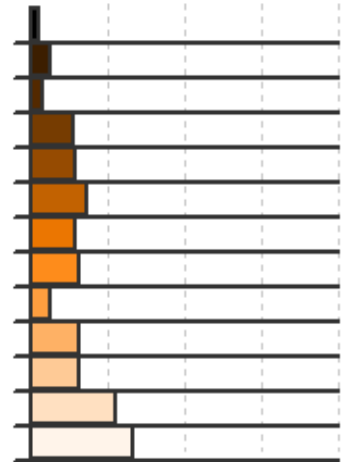
Source: LFS data, own calculations based on DG EMPL's regional projection software



Ratio per 1000



Distribution of regions  
34 68 102 137



Source: Own calculations based on Eurostat EILLES

# Employment growth in Europe: 2012 – 2017 (Target: 75% for EU by 2020)

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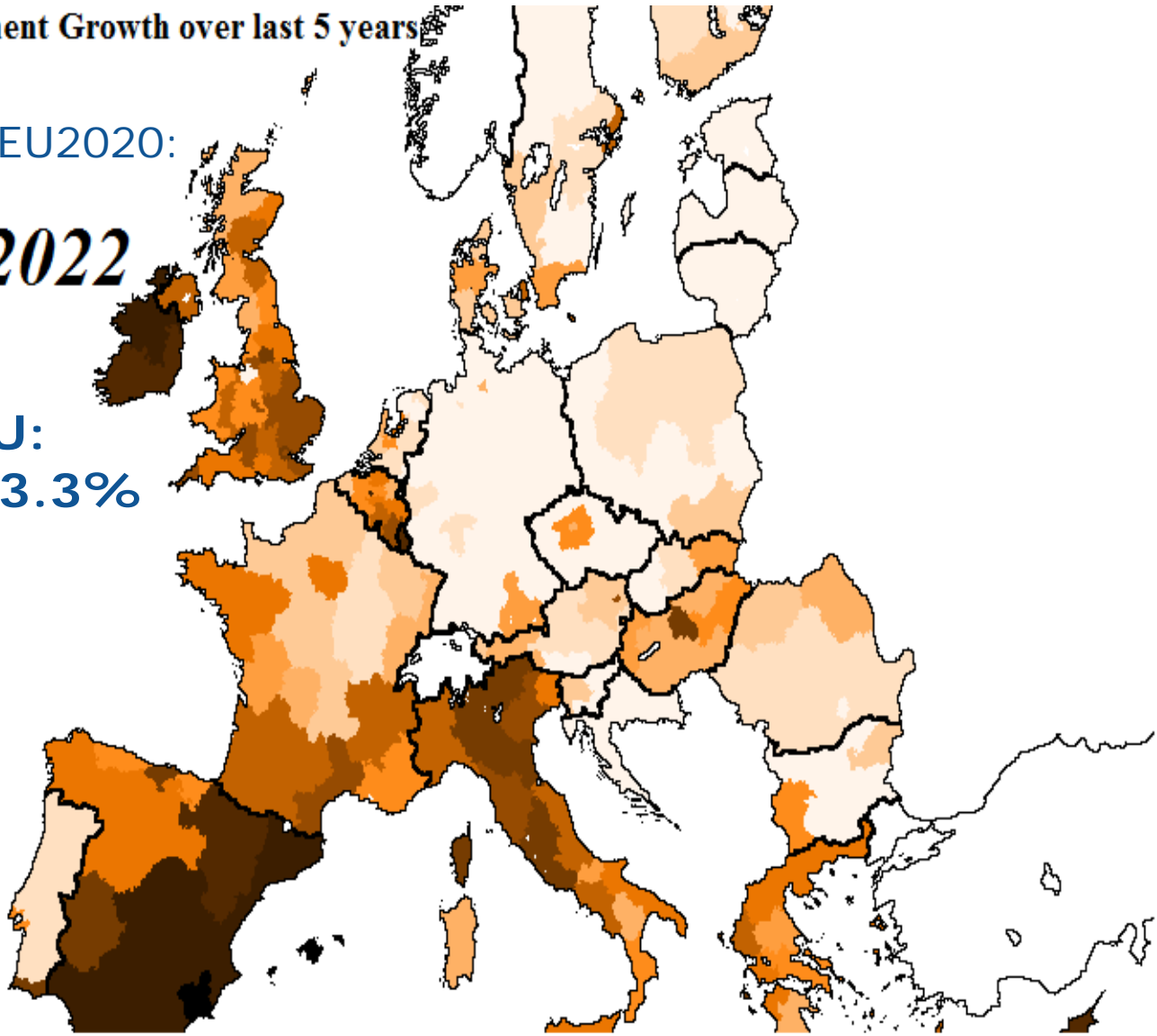
Local Employment Growth over last 5 years

Phase I: EU2020:

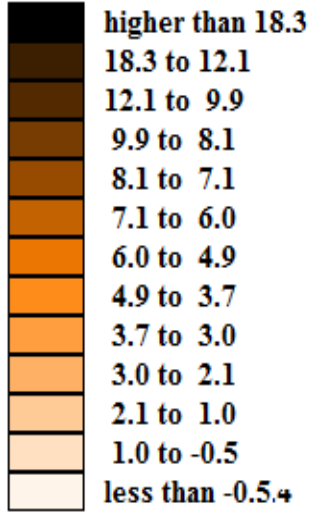
**2017-2022**

**EU:  
+3.3%**

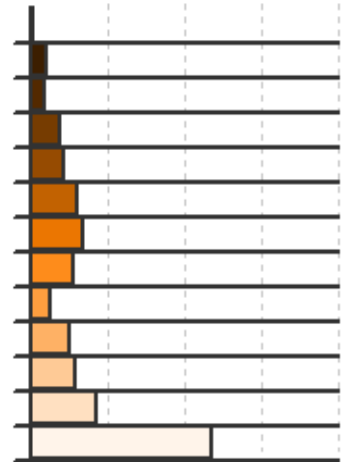
Source: LFS data, own calculations based on DG EMPL's regional projection software



Ratio per 1000



Distribution of regions  
34 68 102 137



Source: Own calculations based on Eurostat EILLES

# Employment growth in Europe: 2012 – 2017 (Target: 75% for EU by 2020)

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European Commission

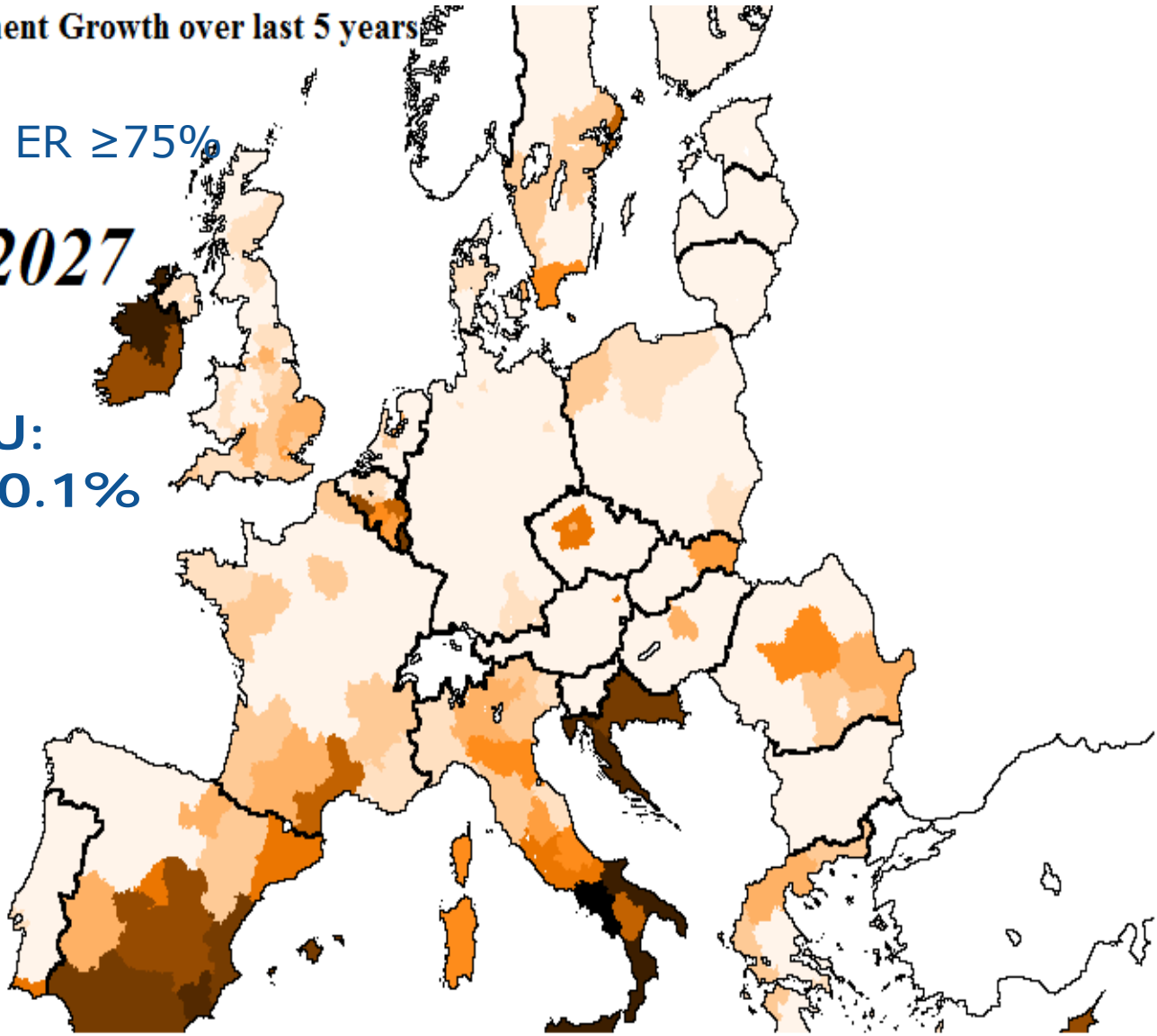
Local Employment Growth over last 5 years

Phase II: ER  $\geq 75\%$

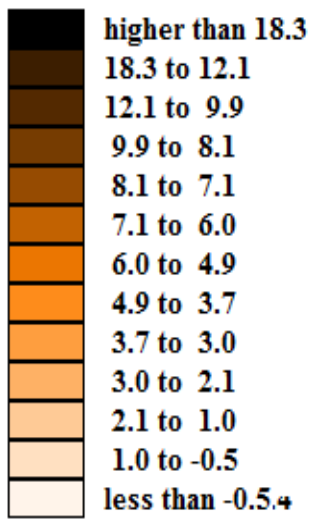
**2022-2027**

**EU:  
+0.1%**

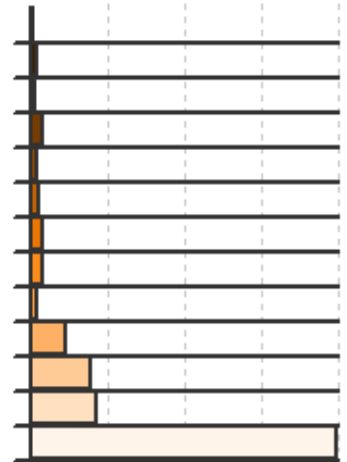
Source: LFS data, own calculations based on DG EMPL's regional projection software



Ratio per 1000



Distribution of regions  
37 75 112 150



Source: Own calculations based on Eurostat EILLES

# Employment growth in Europe: 2012 – 2017 (Target: 75% for EU by 2020)

Update of:  
Peschner, J. (2012): 'Exploring conditions for EU growth given a shrinking workforce', in OECD (2012), Free Movement of Workers and Labour Market Adjustment, Recent Experiences from OECD countries and the European Union, esp. p. 220-224.

European Commission

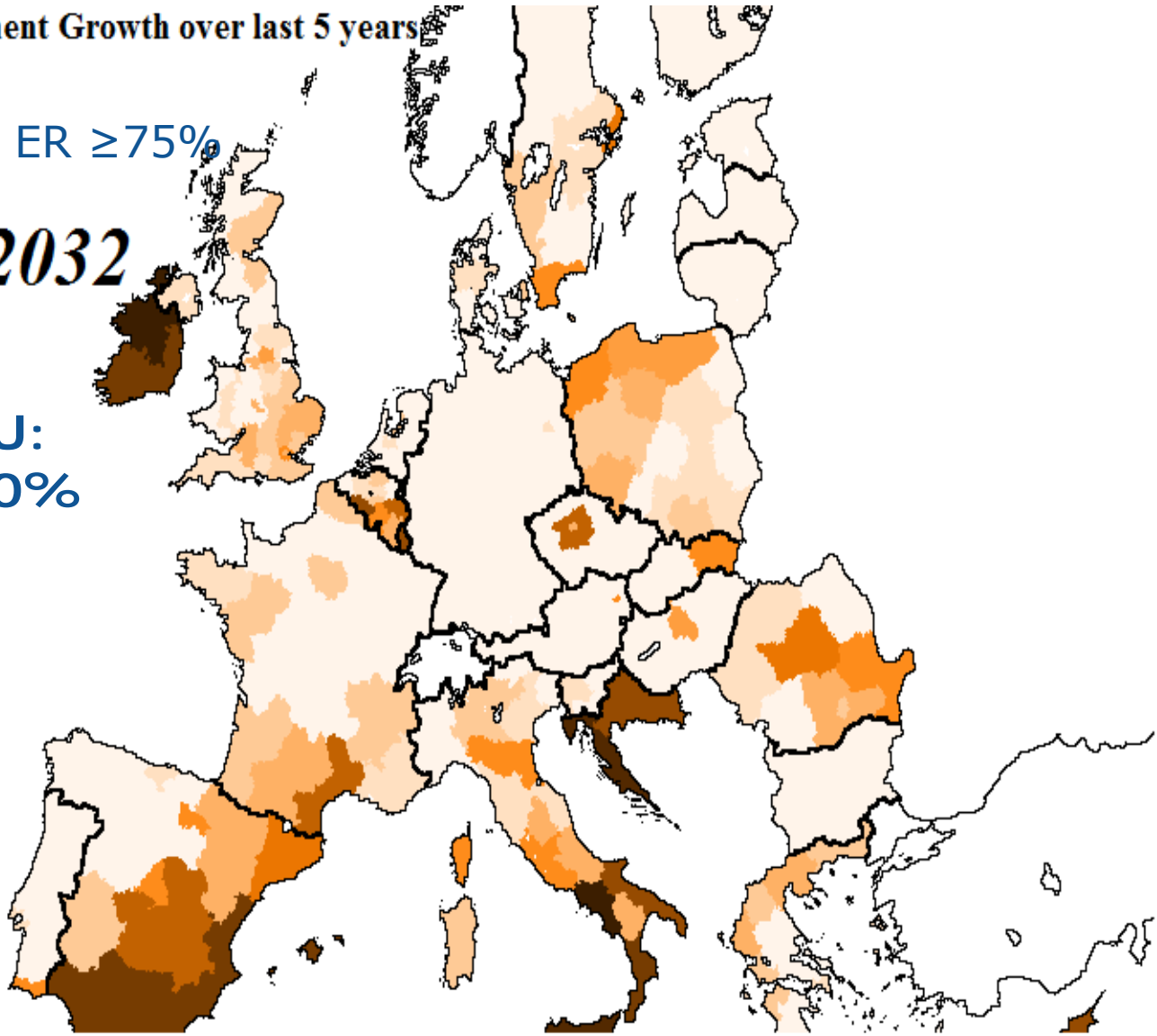
Local Employment Growth over last 5 years

Phase II: ER  $\geq$  75%

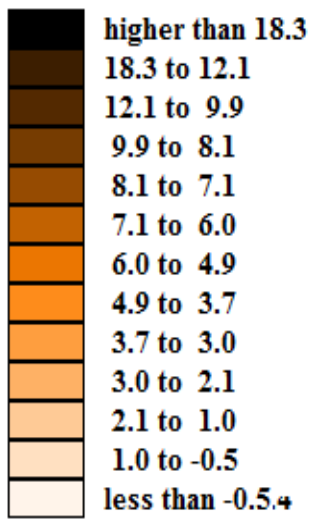
2027-2032

EU:  
0%

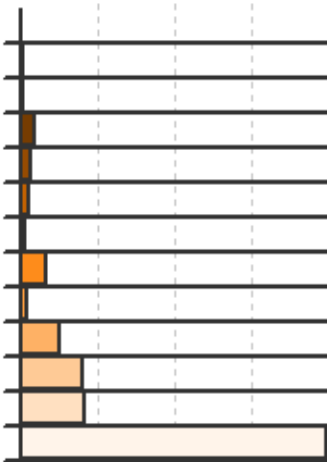
Source: LFS data, own calculations based on DG EMPL's regional projection software



Ratio per 1000



Distribution of regions  
36 73 110 147



Source: Own calculations based on Eurostat EILLES

# Conclusions (1)



Employment growth is set to slow down even under ambitious employment rate scenarios.

What can activation policies contribute?

*We define a range*

*(for the activity rate by age, gender, educational attainment level):*

**1. *LOW activation scenario:***

*No further progress in increasing activity rates*

*vs.*

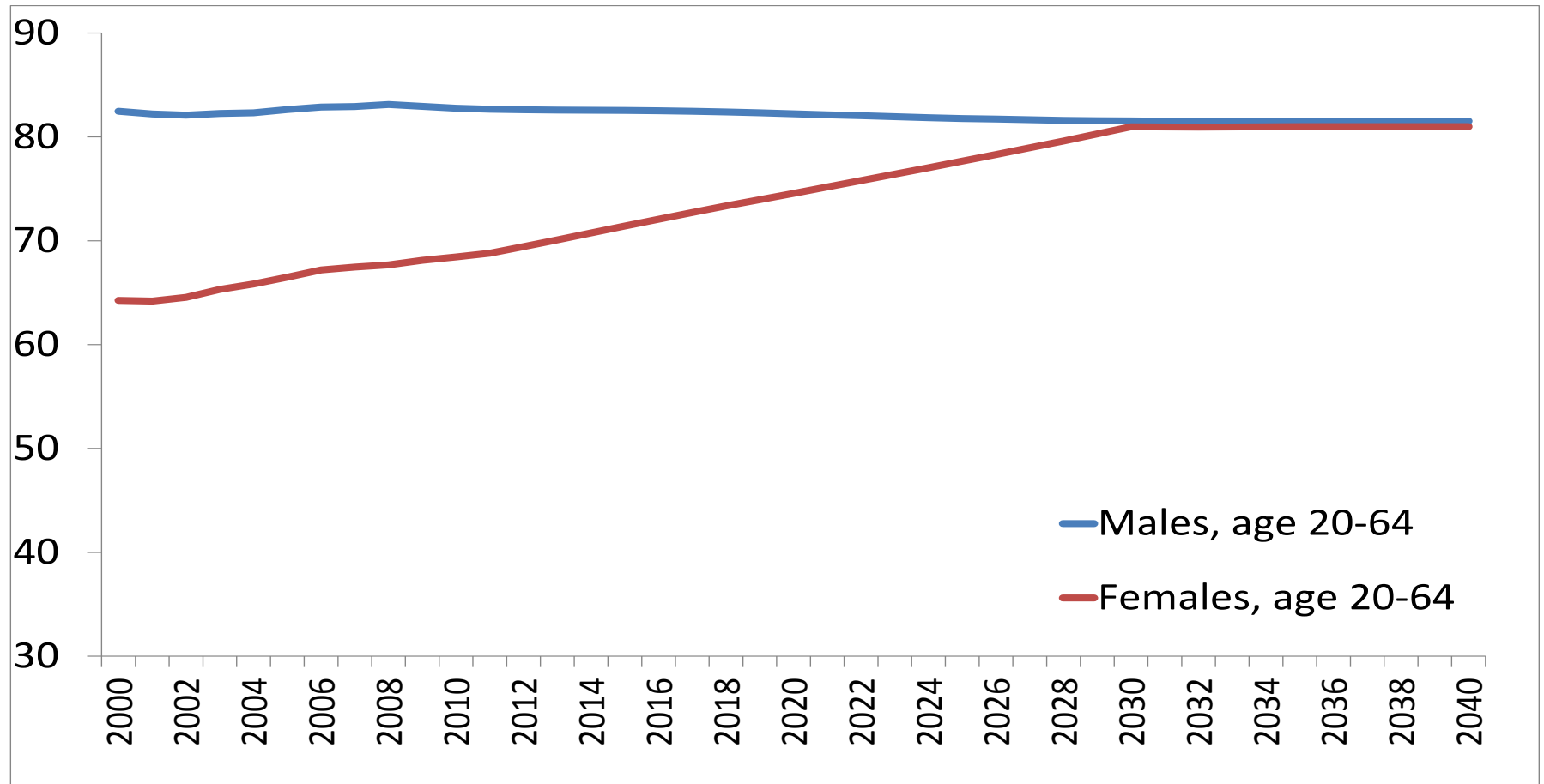
**2. *HIGH activation scenario:***

- Female activity rates will catch up to male levels by 2030.*
- Older workers' activity rates shift by 20 p-pts. by 2030.*
- Further educational progress will trigger activity gradually.*

## HIGH Activity scenario

### 1: Female activity rates: No gender difference by 2030

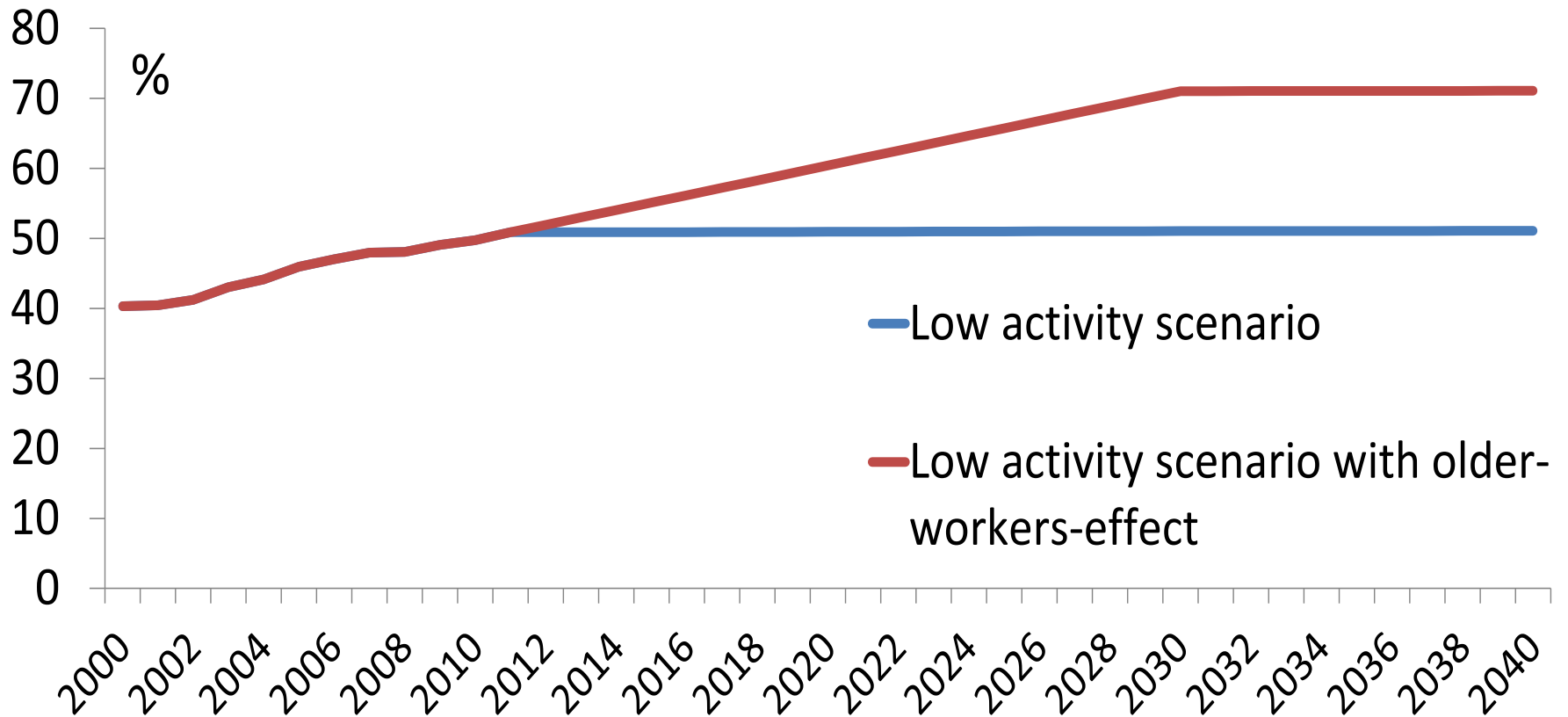
Activity rates in % of working-age population



## HIGH Activity scenario

### 2: Older Workers' activity rates: Up 20 %-pts by 2030

Activity rates in % of working-age population

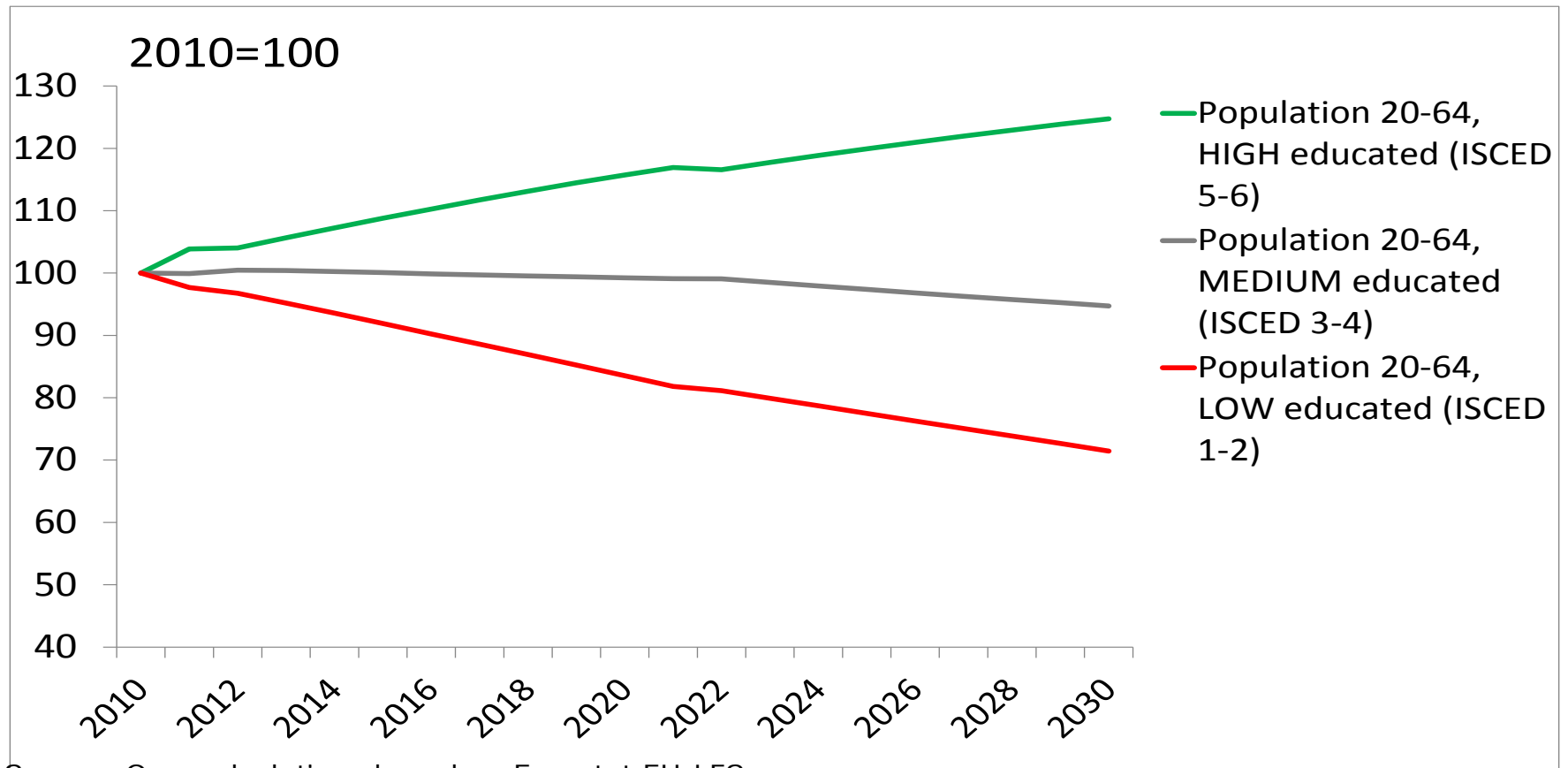




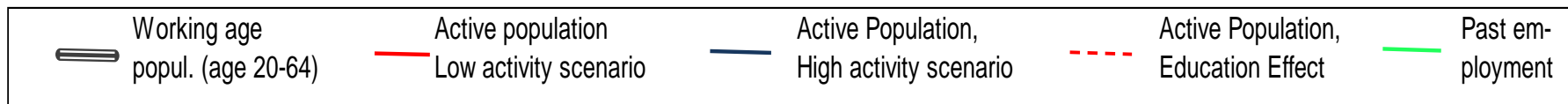
## HIGH Activity scenario

### 3: Further educational progression for the younger workforce: people aged 25-34 (log-linear regression)

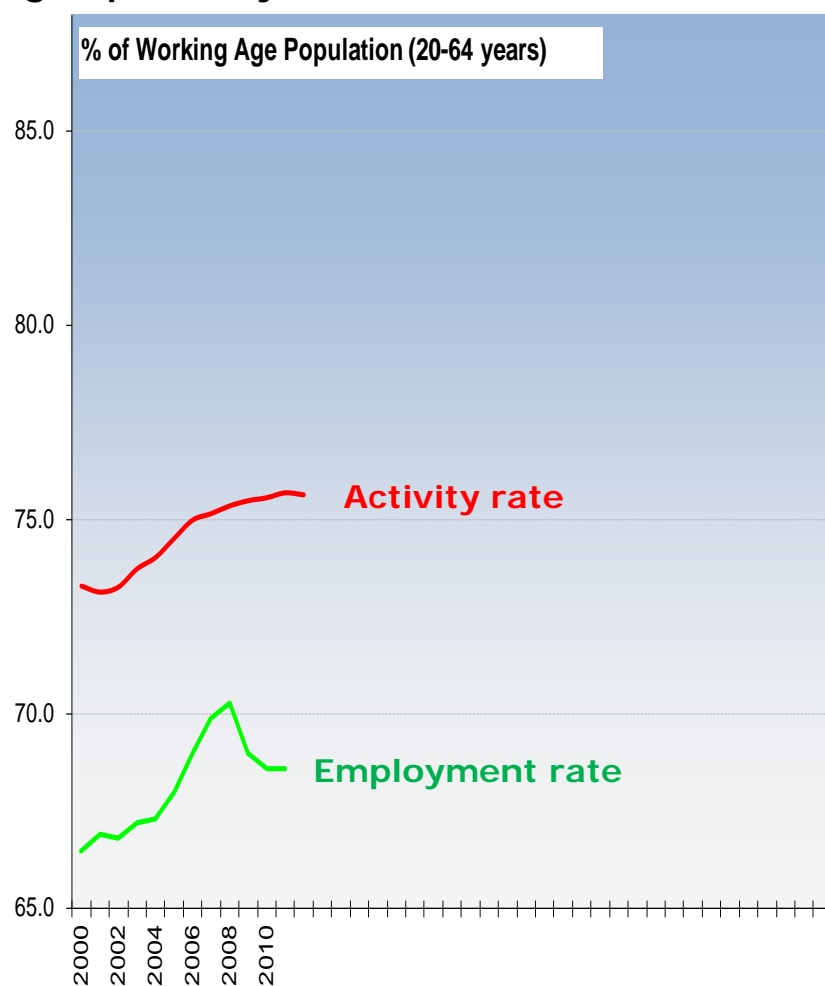
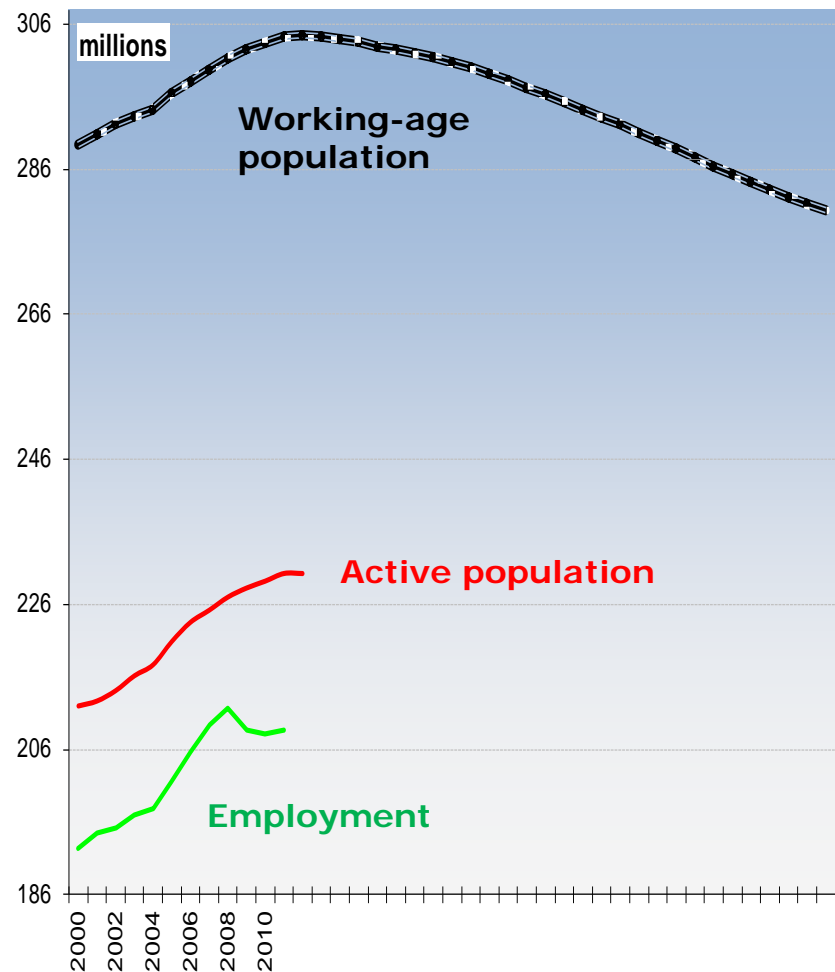
Resulting development of population aged 20-64 by educational attainment level from 2010



## Potential employment paths



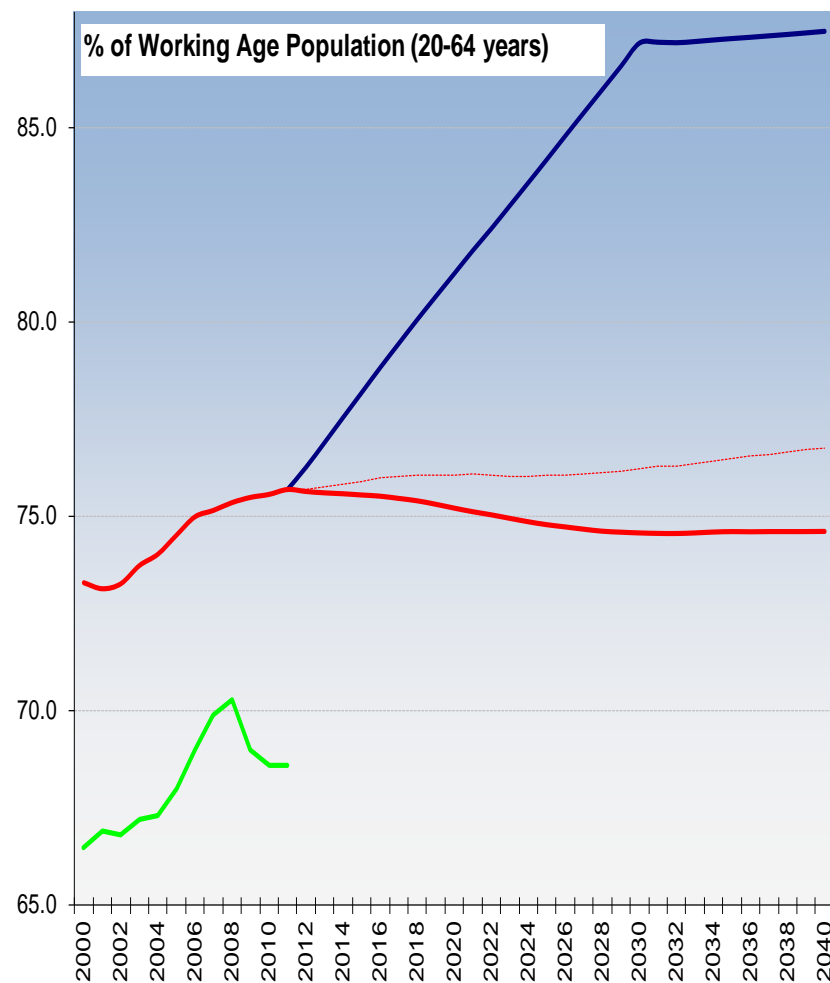
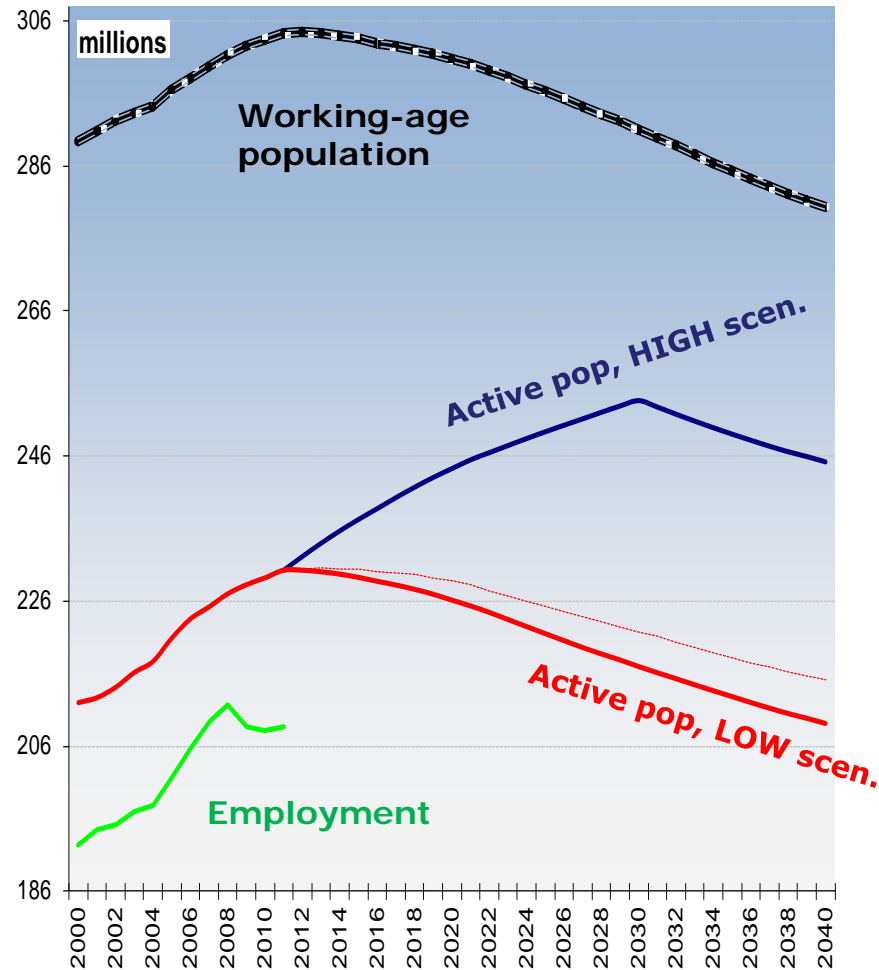
Workforce development, age group 20-64 years



## Potential employment paths



Workforce development, age group 20-64 years

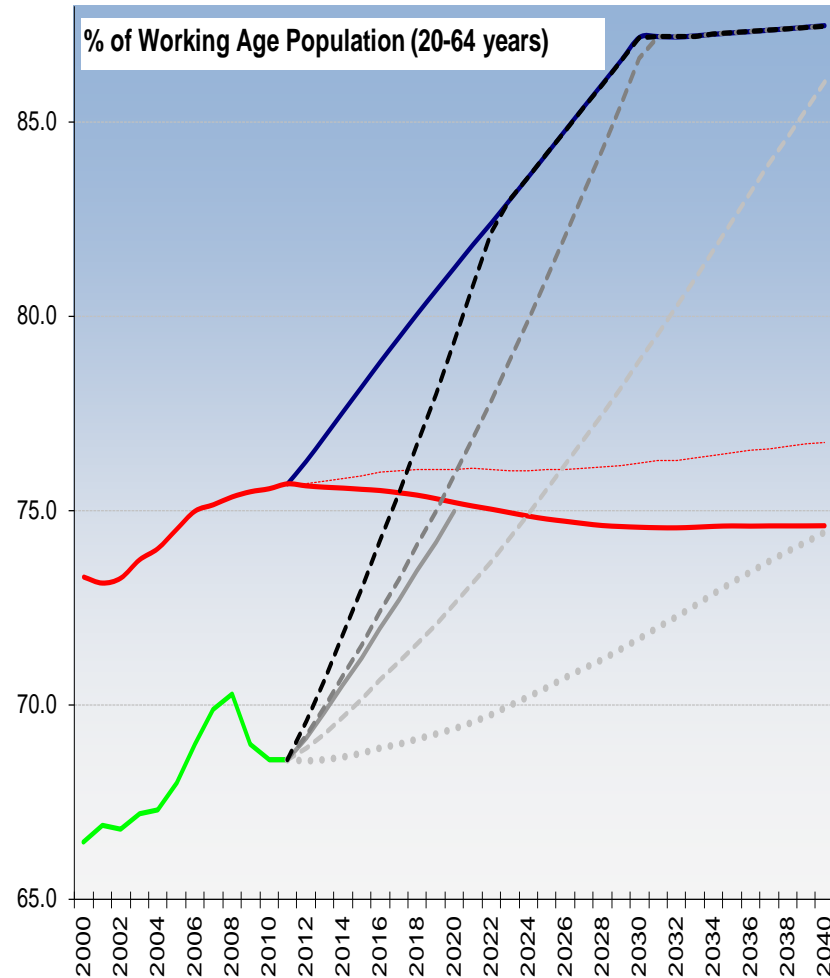
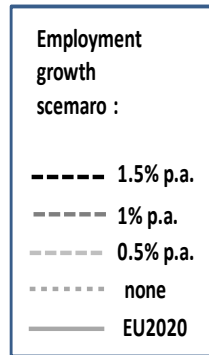
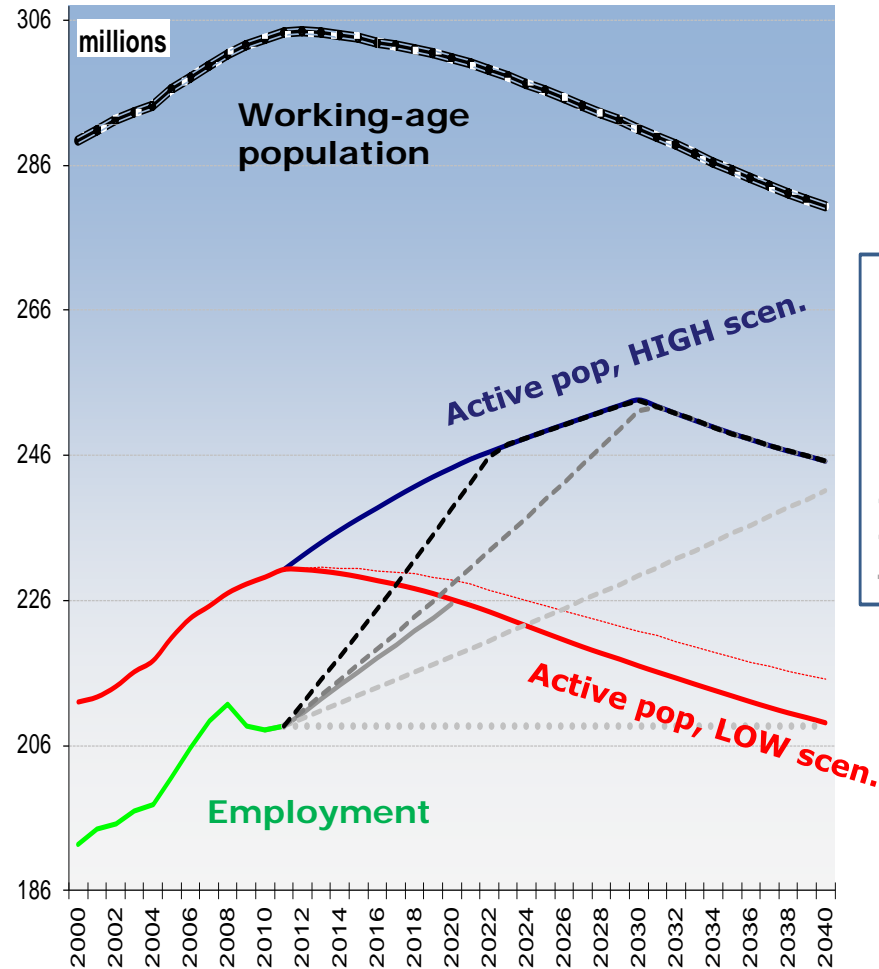


Source: Own calculations based on Eurostat EU LFS and Eurostat Europop 2010 population projection

## Potential employment paths

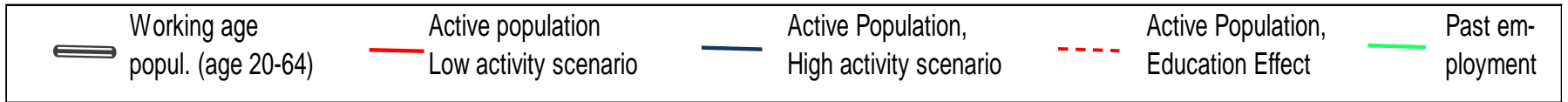


**Workforce development, age group 20-64 years**

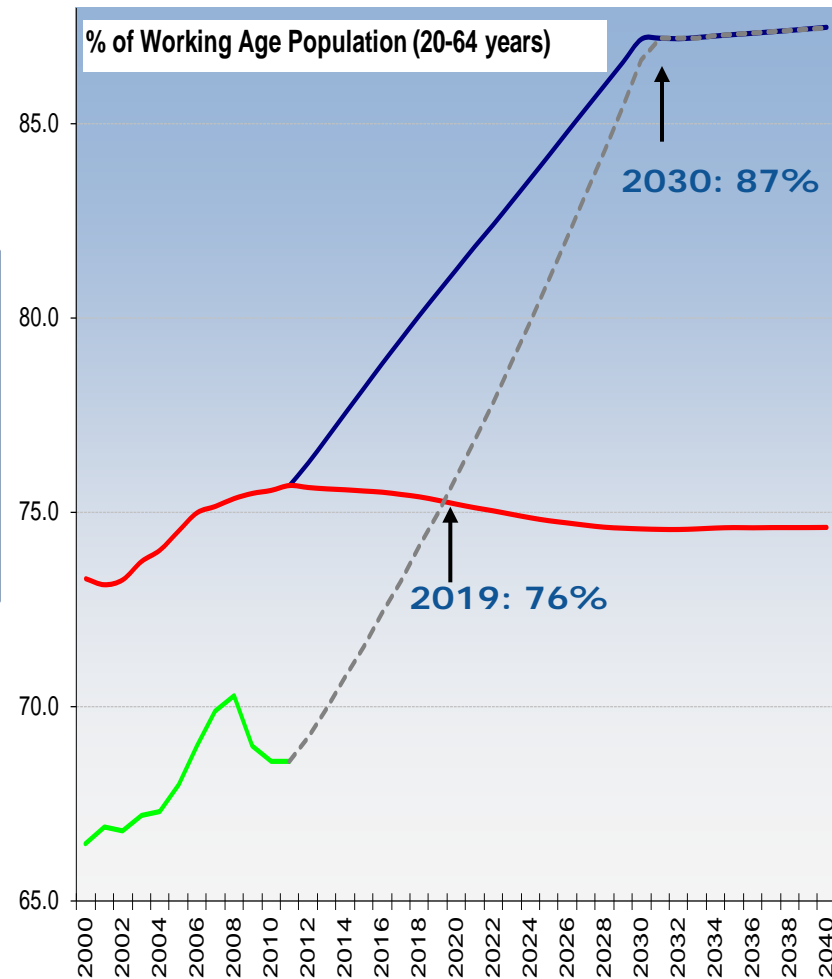
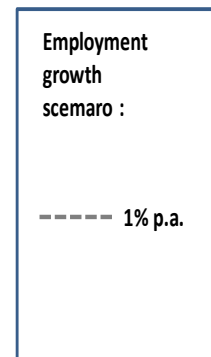
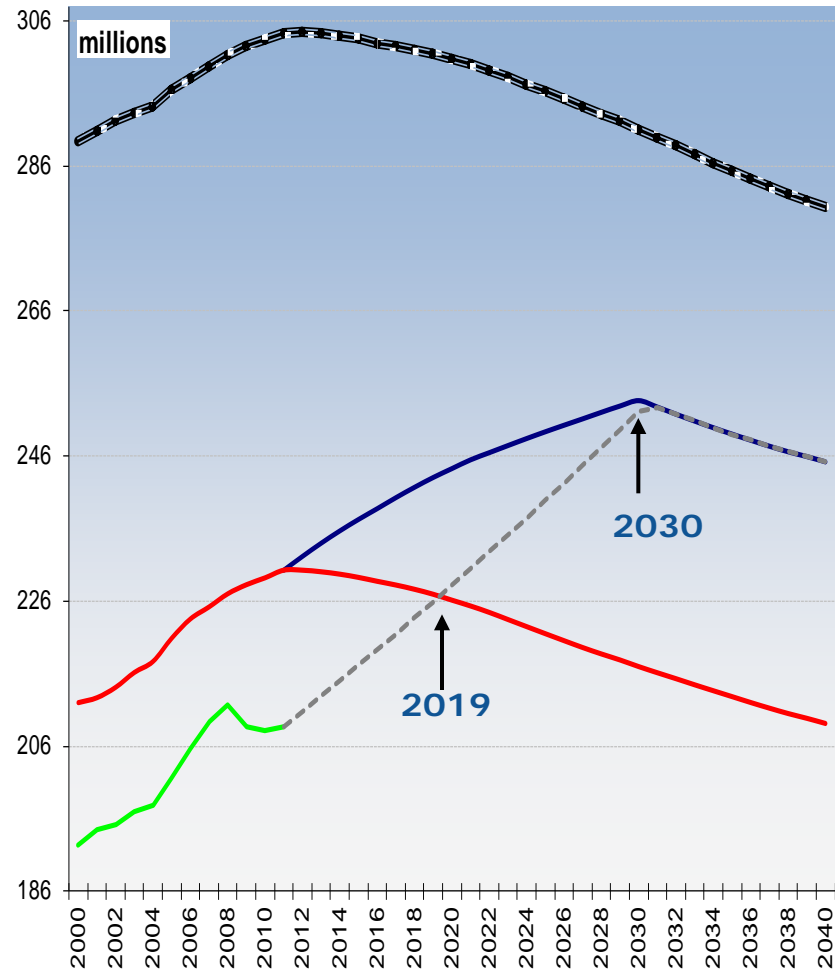


Source: Own calculations based on Eurostat EU LFS and Eurostat Europop 2010 population projection

## Potential employment paths

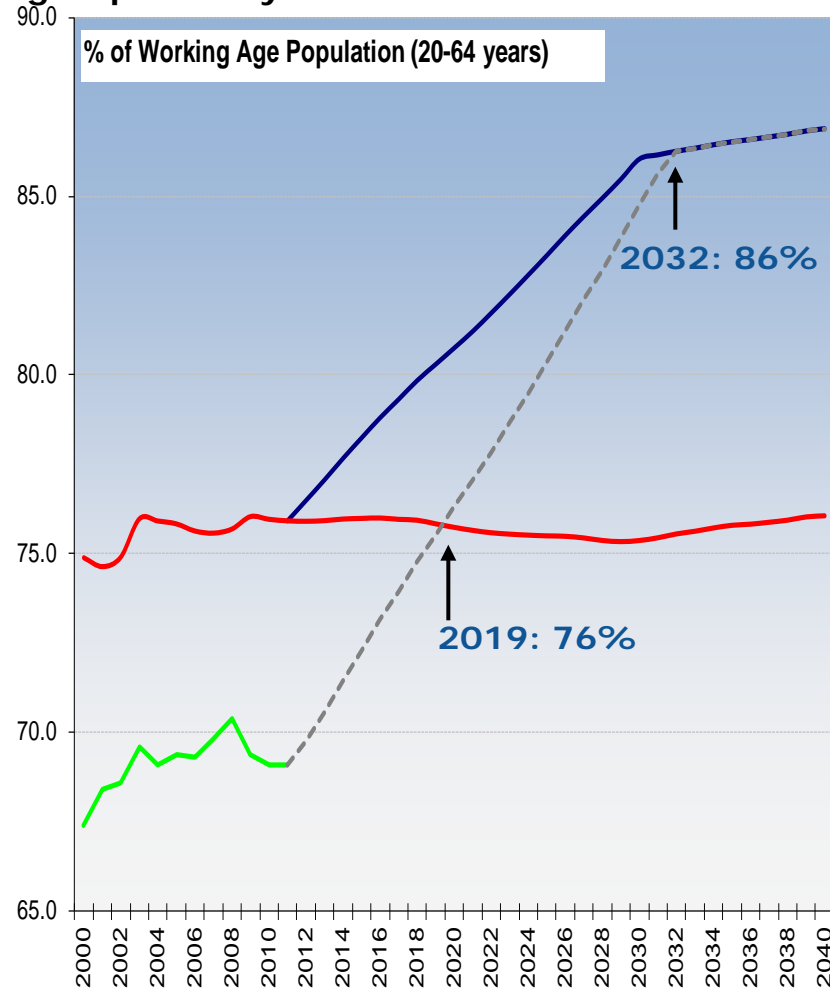
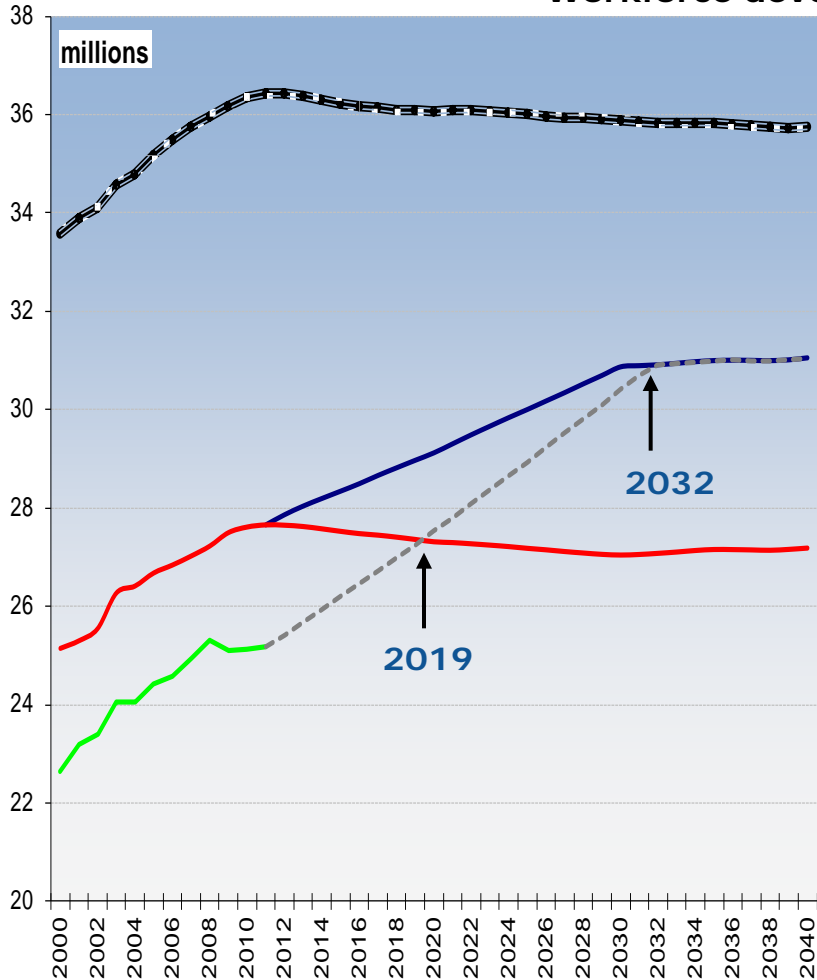


Workforce development, age group 20-64 years





Workforce development, age group 20-64 years

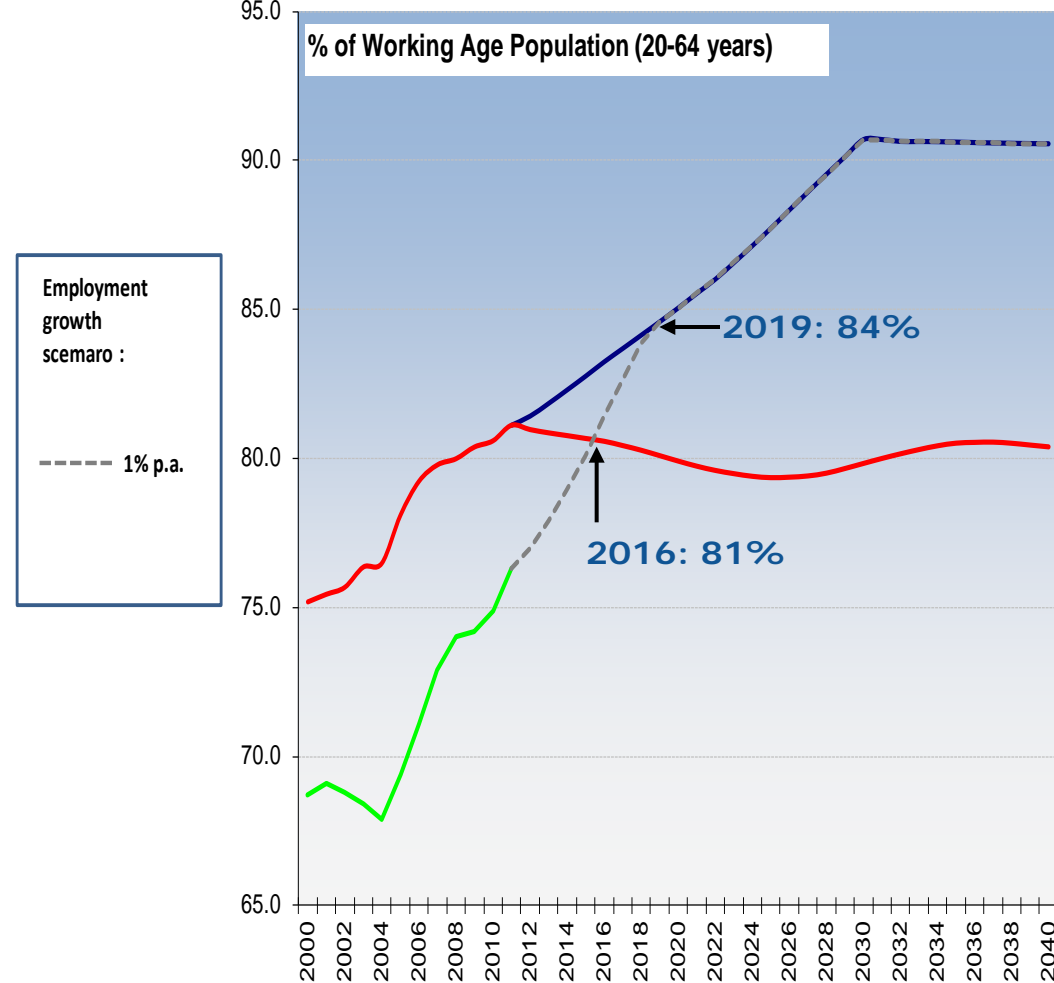
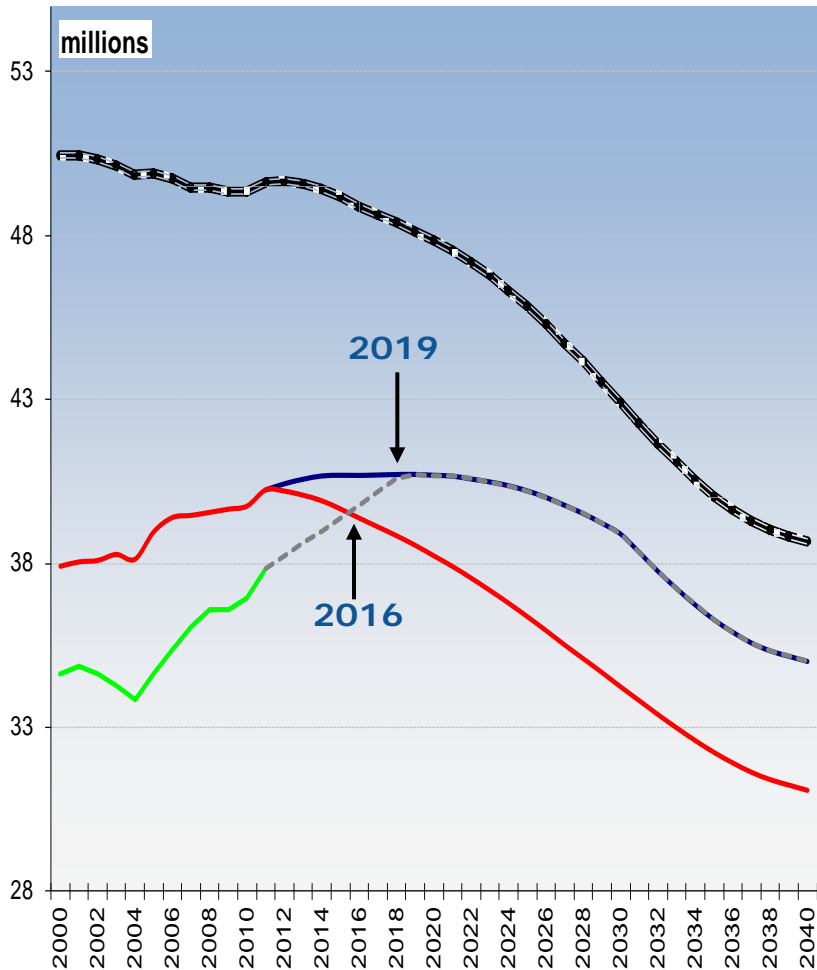


# Germany

## Potential employment paths



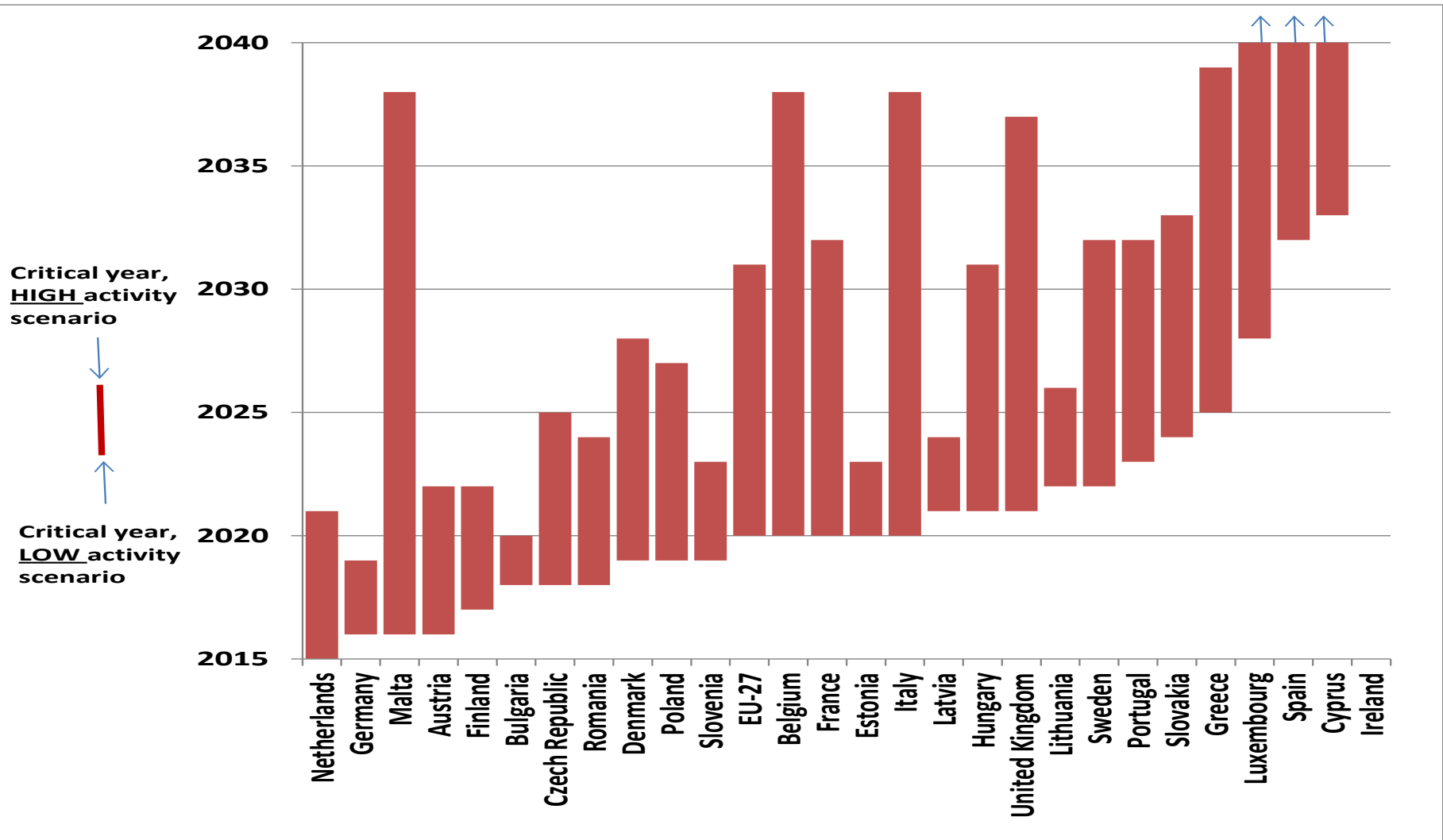
Workforce development, age group 20-64 years



Source: Own calculations based on Eurostat EU LFS and Eurostat Europop 2010 population projection

# Critical year by country

(year from which on 1% employment growth won't be possible any longer)



Source: Own calculation based on Eurostat EU LFS and Eurostat Europop2010 population projections



# Conclusions (2)

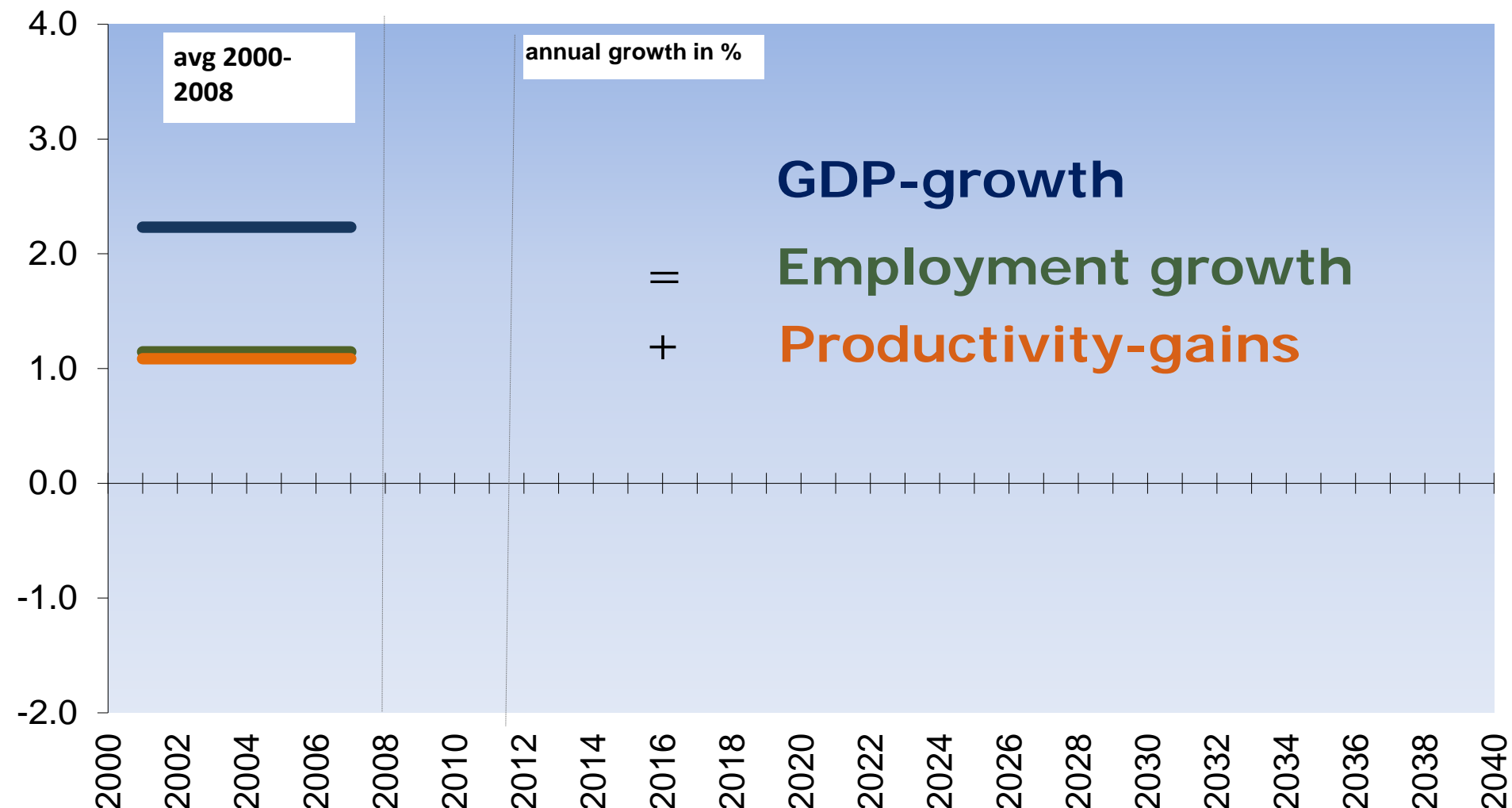


Employment growth would turn negative around 2030 at the latest.

→ Impact on Europe's growth potential?

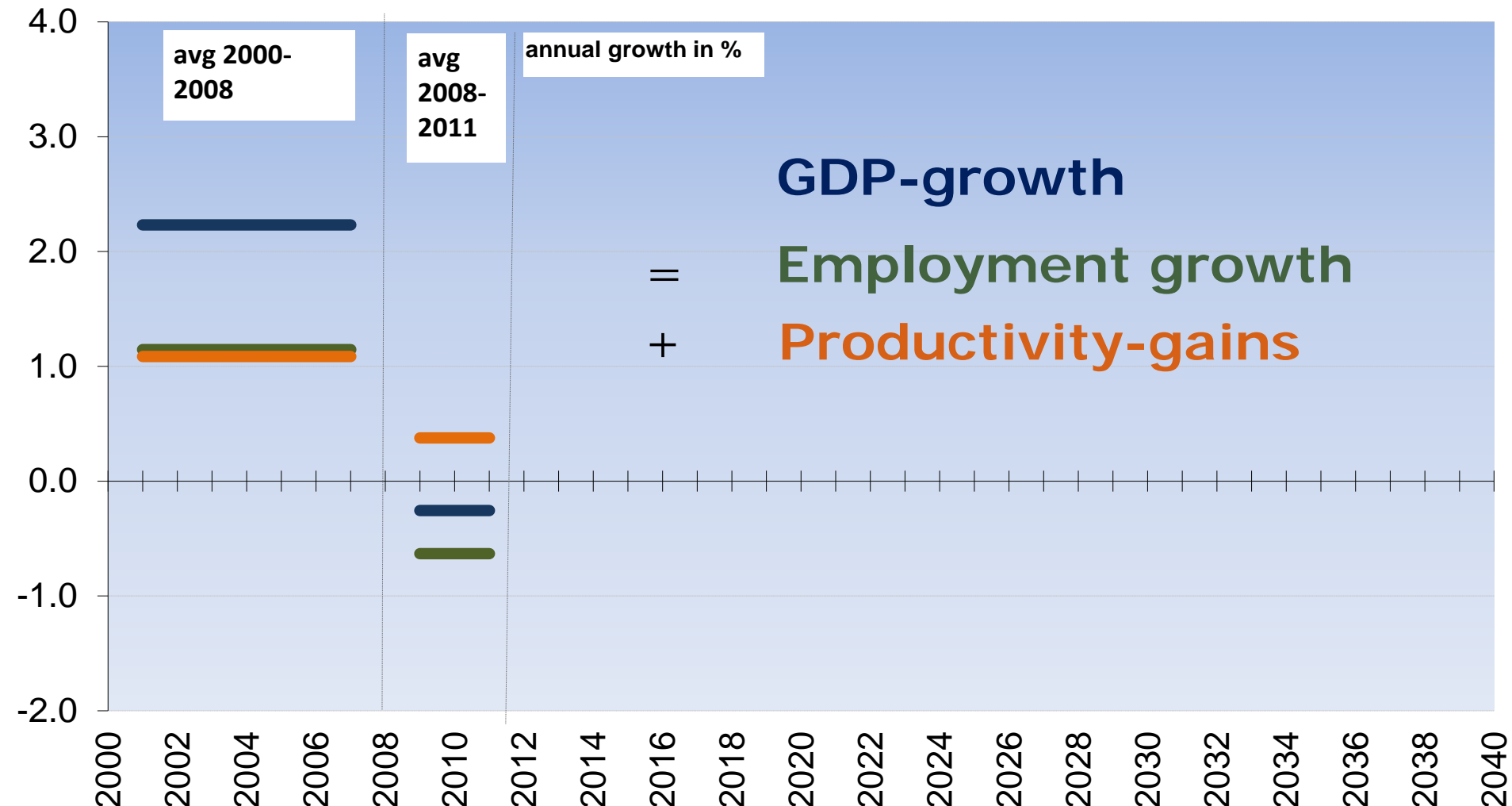


## Potential employment growth paths



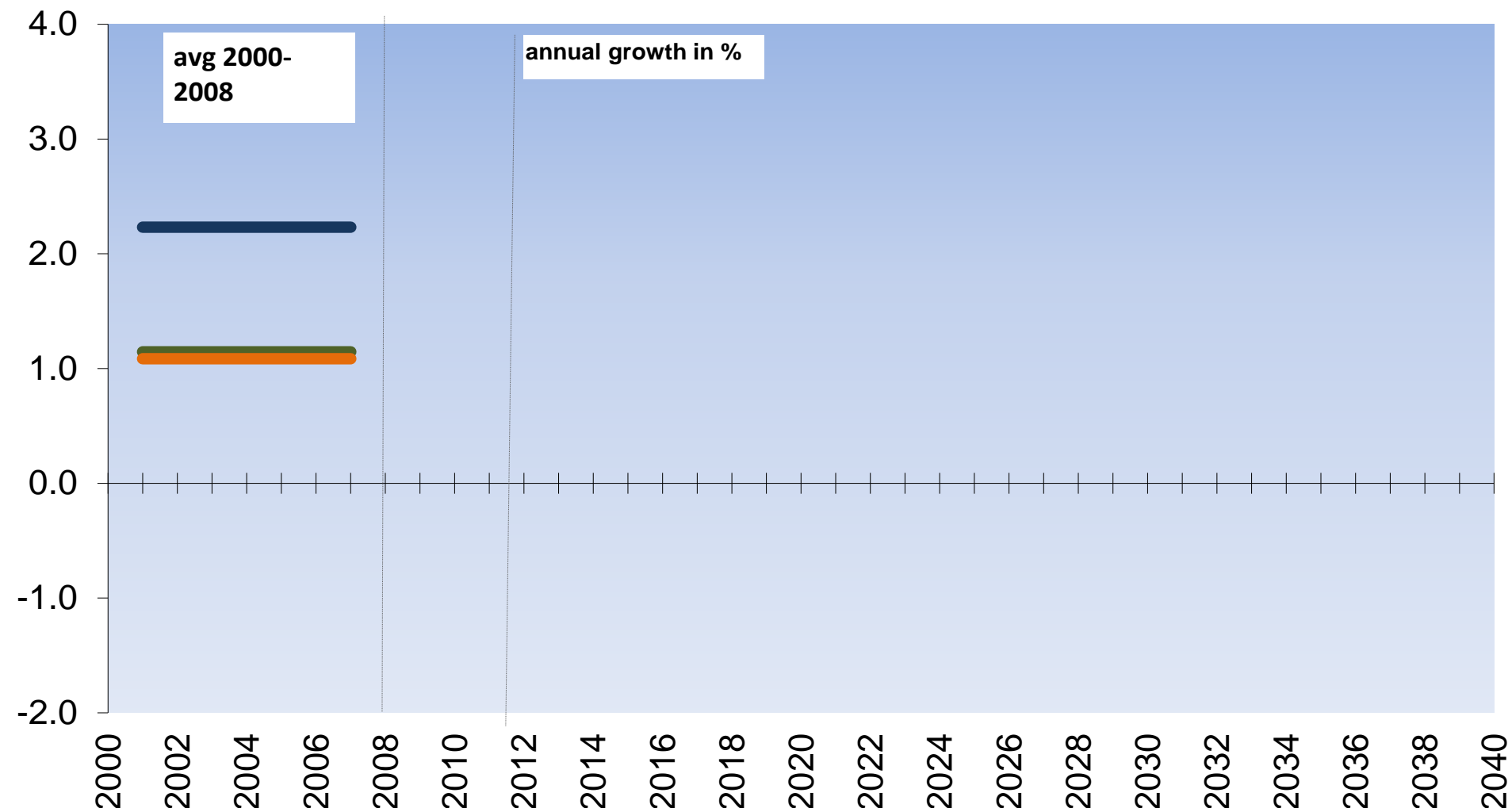


## Potential employment growth paths



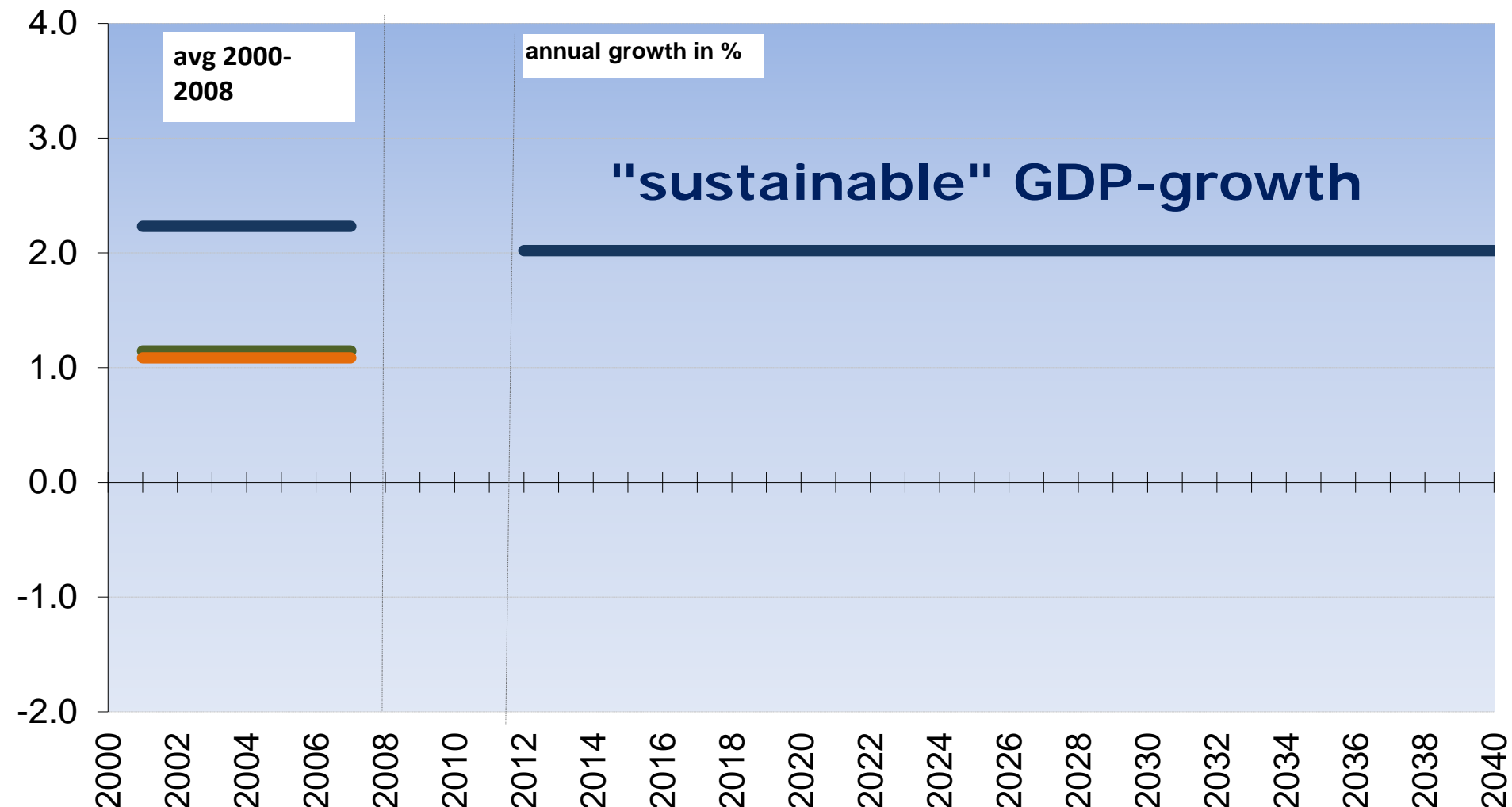


## Potential employment growth paths



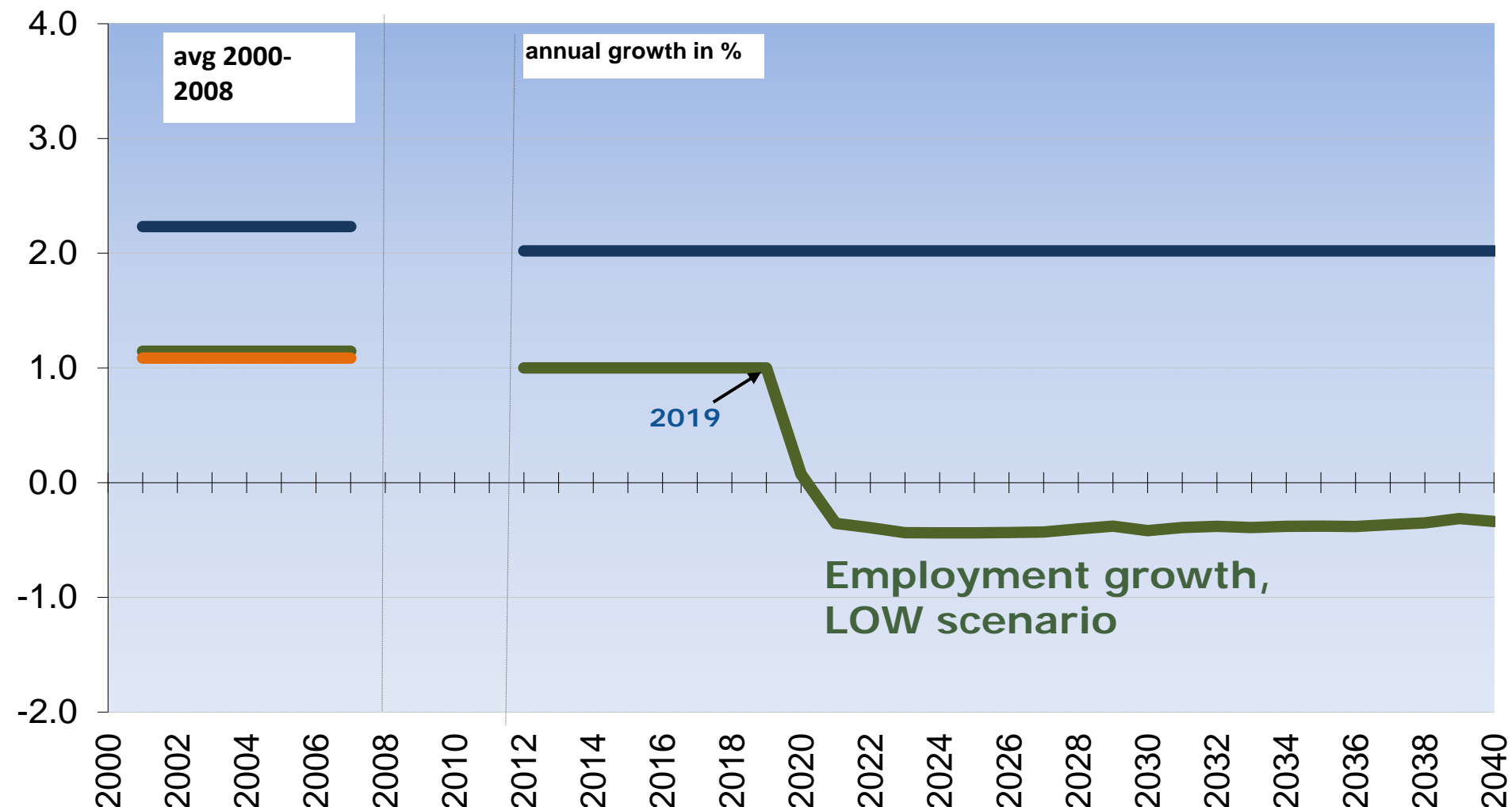


## Potential employment growth paths



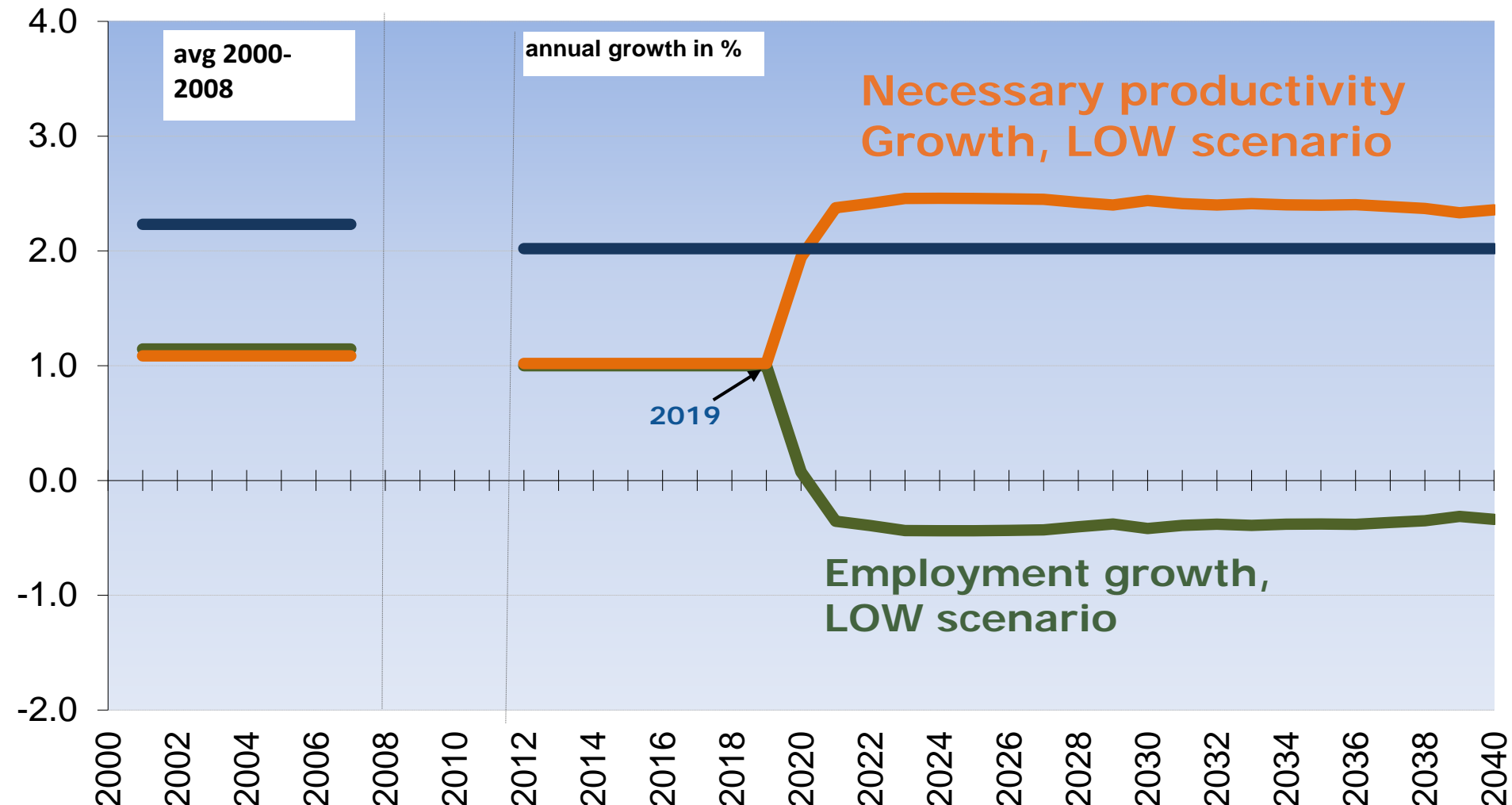


## Potential employment growth paths



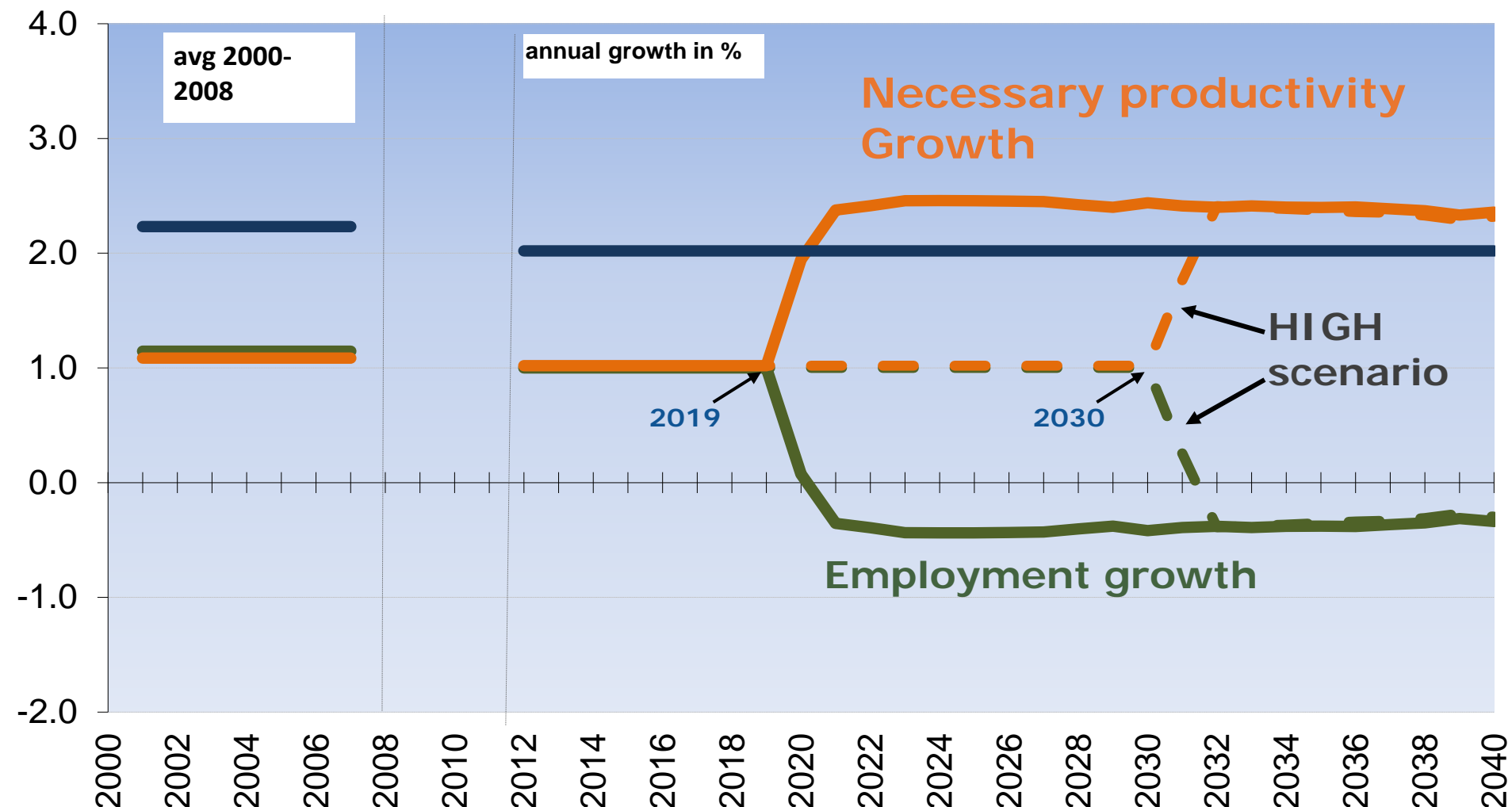


## Potential employment growth paths





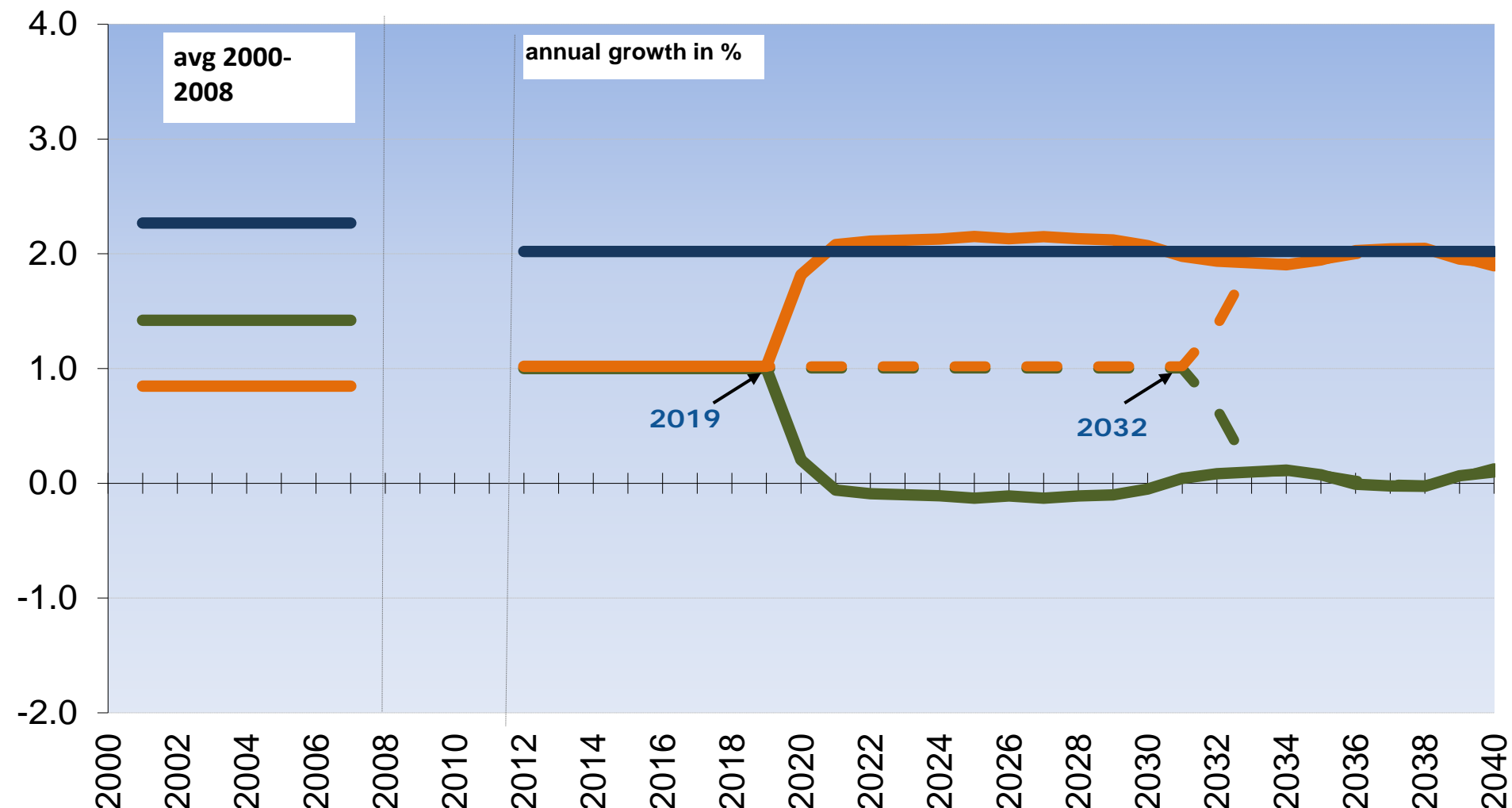
## Potential employment growth paths





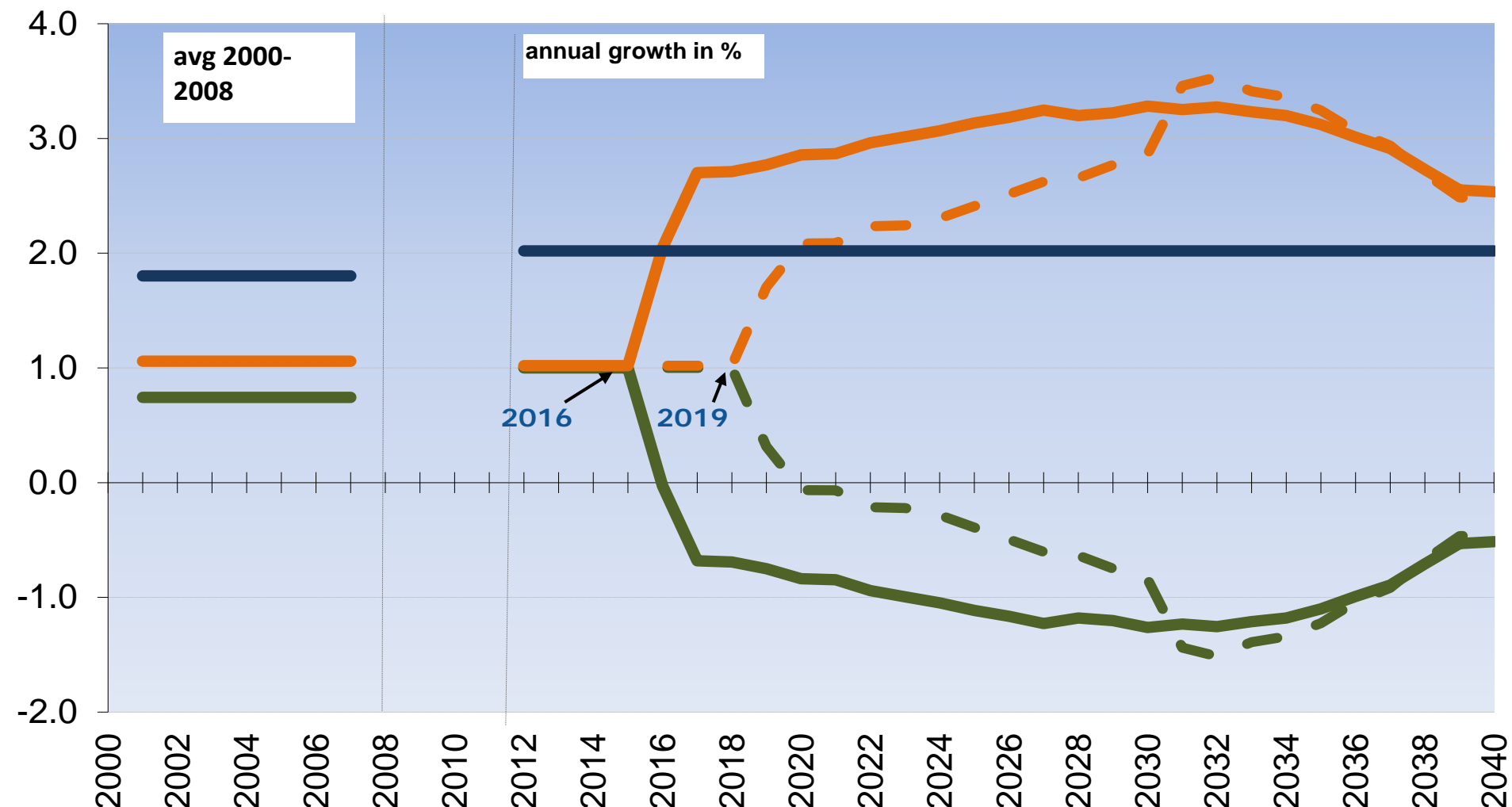


## Potential employment growth paths

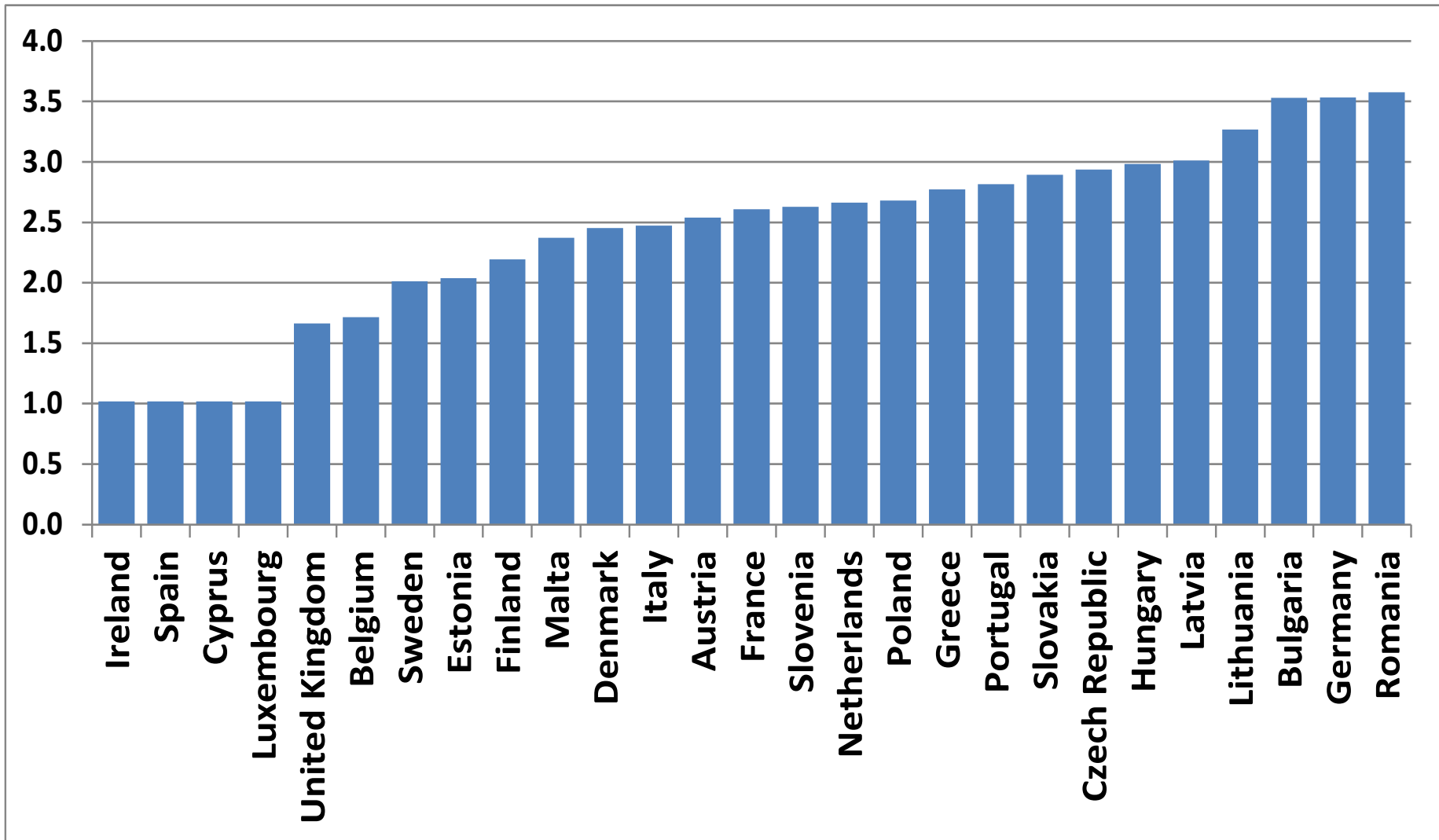




## Potential employment growth paths



# Maximum annual productivity growth required for 2% GDP growth - HIGH activation scenario



Source: Own calculation based on Eurostat EU LFS and Eurostat Europop2010 population projections

# Conclusion (3)

European  
Commission

## What to do in Europe?

→ **NOW: Use existing potential to 'prolong' employment growth !**

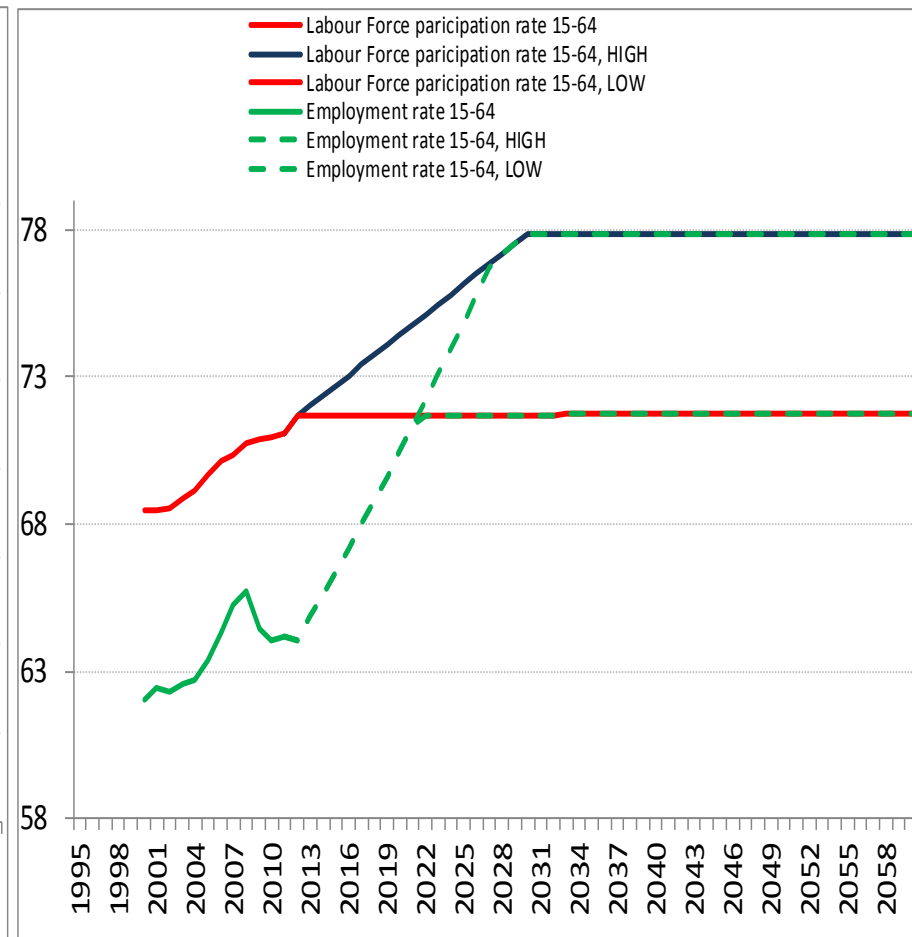
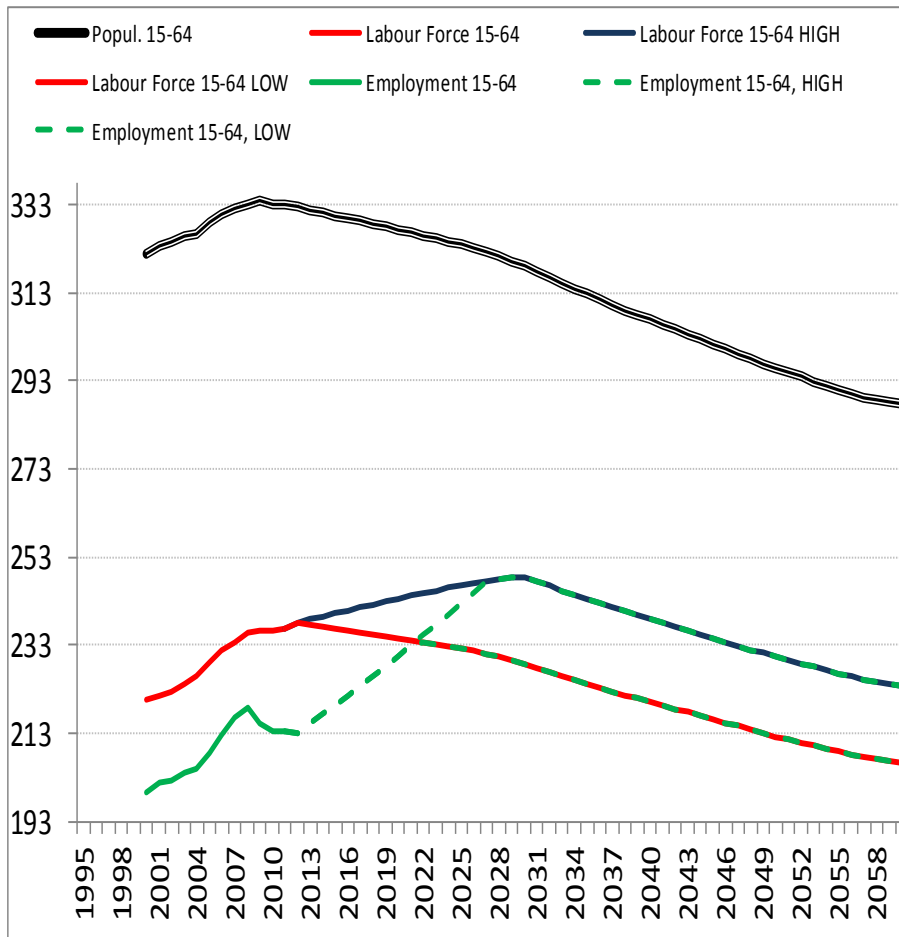
Increase employment potential, **tapping into resources so far unexploited** (increase women's, young people's, migrants', older workers' employment rate).

→ **For COMING DECADES: Use this extra time to invest in productivity !**

Increase (local) productivity as the only remaining source of growth in future decades !

Heavy investment in **skills** development and **education** to achieve higher productivity gains

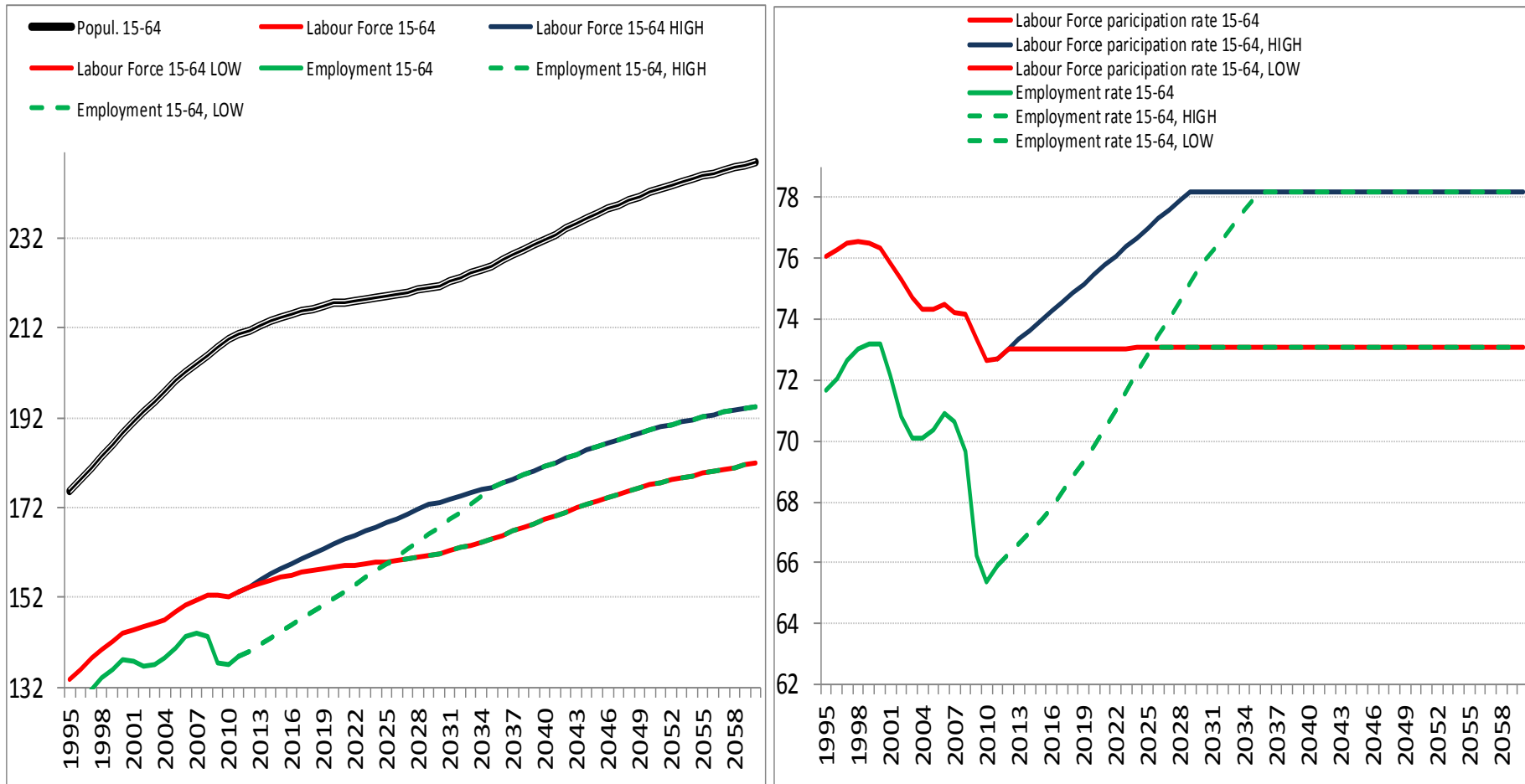
## Workforce development, age group 15-64 years



Own projections based on UN population prospects, 2012 revision, medium variant (except EU: Eurostat EuroPop2010, convergence scenario);  
 World Bank labour market data (employment and participation rates)

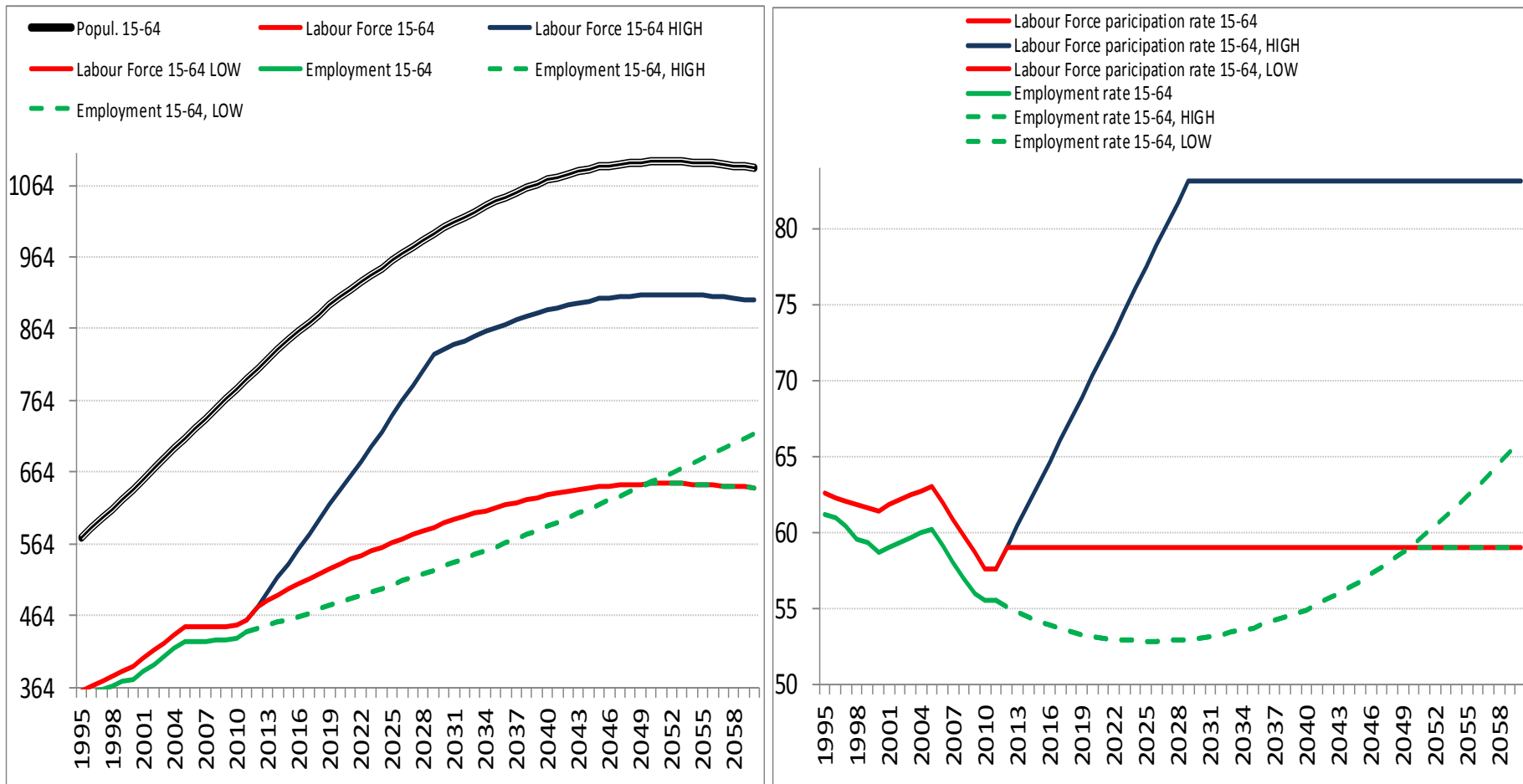
## Potential employment paths

### Workforce development, age group 15-64 years



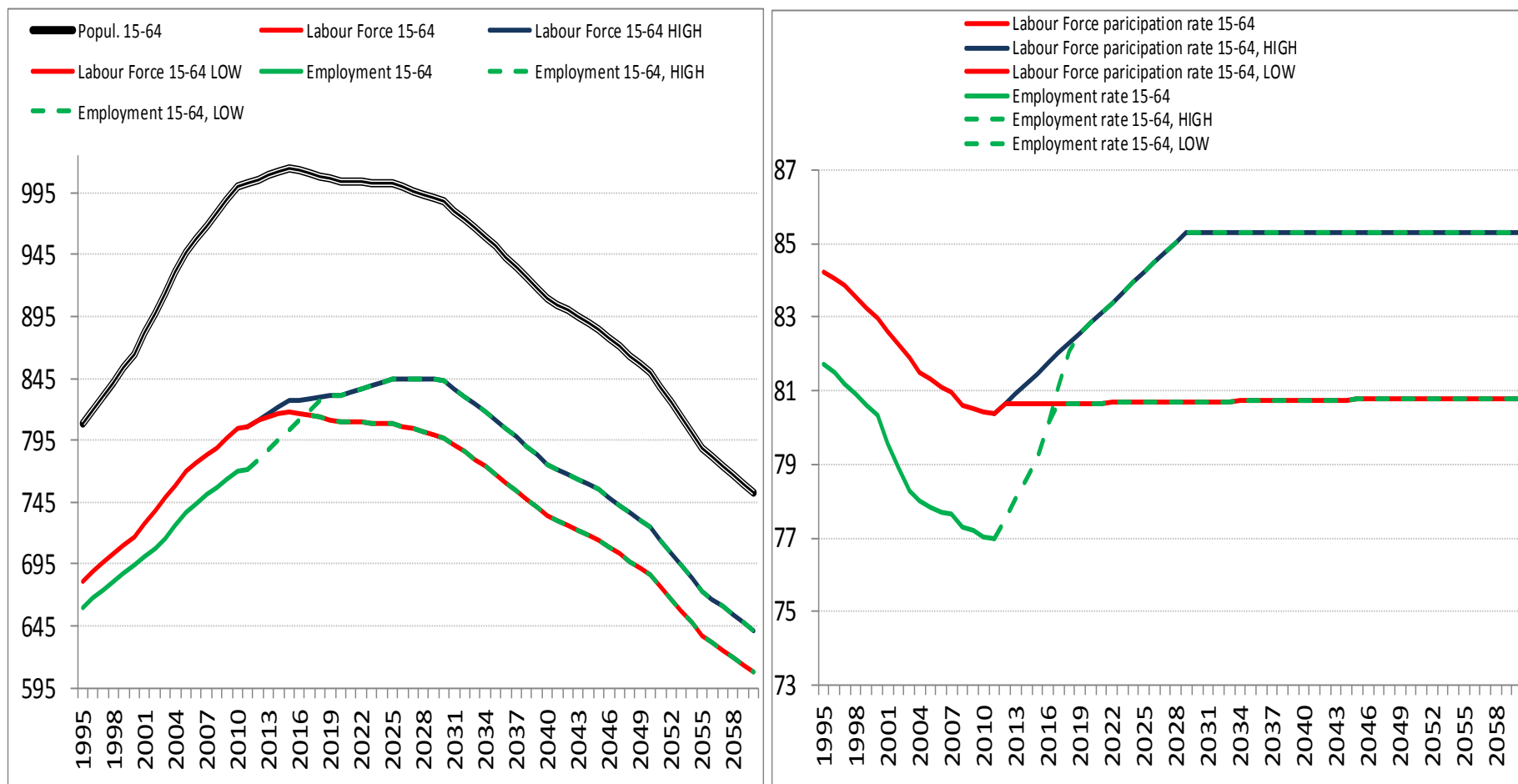
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 World Bank labour market data (employment and participation rates)





## Background:

"Growth potential of EU human resources and policy implications for future economic growth"

European Commission, Working Paper 3/2013

by C. Fotakis and J. Peschner

(available in DG EMPL's online publication catalogue)

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