

# Working Group Methodology and Projections

UPDATE COLOGNE OCTOBER 5<sup>TH</sup> 2023

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# Agenda

1. Update on Working Group activities
2. Methodology and Projections in Europop2023 population projections
  - Key idea of convergence
  - Overview of Eurostat's population projection methodology
  - Modelling treatment of COVID-19 and the impact of the war in Ukraine



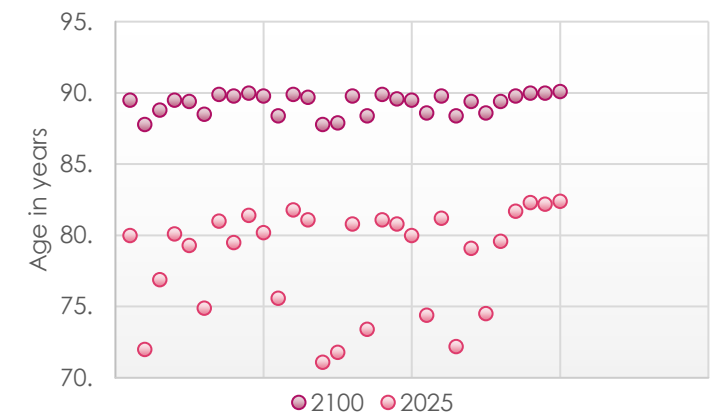
# Working group activities

1. Presented to Eurostat's Pensions Expert Group on April 28<sup>th</sup>
  - Feedback was positive
  - Eurostat to incorporate recommendations on T29 factsheets
2. Next steps: review of Automatic Adjustment Mechanisms in pension systems
  - Build on previous work of Tibor Párniczky
  - Call mid-October to agree the focus of this work

# Europop – Convergence

- “Convergence scenario” first introduced in 2008
- Convergence refers to an assumption of socio-economic convergence in the EU leading to the **partial convergence of drivers of demographic developments**
- Convergence can take place beyond 2100 (the end of the projection period)
- Graph on right illustrate the partial convergence in projected life expectancy under EUROPOP2023

EUROPOP2023: Projected life expectancy at birth males across EU

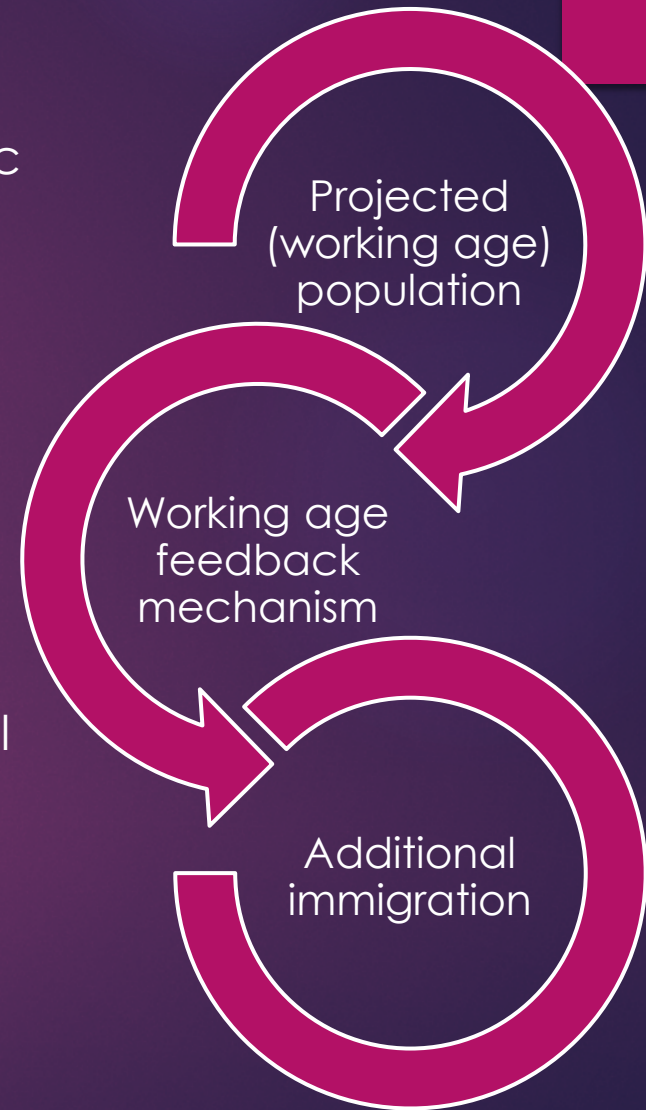


Source Eurostat Europop2023 population projections



# Projection Methodology

- 4 independent models for the components of demographic change
  - Fertility
  - Mortality
  - Immigration
  - Emigration
- Population is projected by recursively applying changes from these models
- Immigration model applies a “**working-age**” **feedback mechanism**
  - This models a “pull factor” created by the projected fall in the numbers of working age people
  - Shrinkages in the working age population trigger additional (non-EU) immigration
  - Additional immigration calculated as 10% of the shrinkage of the working age population





# Impact of COVID-19, Ukraine War

## COVID-19 impact

- Core assumption of **no lasting impact** of the COVID-19 pandemic on life expectancy
- Beyond 2024, mortality rates are assumed to partially converge towards a common (sex-specific) life table (the 'ultimate' life table)
- Mortality rates are assumed to return to levels observed before the pandemic by 2024
- 2024 mortality rates are based on 2018 and 2019 mortality rates

## Ukraine War

- Refugees under the EU's Temporary Protection Directive are included in the base population numbers
- The total stocks at the end of December 2022 is used to measure 2022 inflows
- 2023 inflows are projected at 15% of 2022 levels
- No further inflows projected beyond 2023
- No estimates for further inflows due to family reunions have been made
- Based on results of surveys among refugees **67%** are assumed to return to Ukraine
- Returns are modelled over 10 years, number linearly decreasing by year\*

\*Eurostat noted that this return period of 10 years is not meant to imply any statement whatsoever on the duration or intensity of the ongoing war.