



**CEDEFOP**

European Centre for the Development  
of Vocational Training



**50**  
YEARS

SHAPING LEARNING AND  
SKILLS FOR EUROPE

# Short-Term Anticipation of Skill Trends and VET demands: methodology and key insights from the latest projections

## Cedefop virtual get-together



The Vienna Institute  
for International  
Economic Studies

# Overview

- Introduction to the tool
- Short methodological overview
- Insights from the November 2024 update

# Introduction

The short-term anticipatory system (STAS) was developed to both augment and complement the existing suite of skills anticipation tools in Europe.



## future demand

- to project future labour demand for the next two years
- to provide regular, short-term projections of employment by occupation and Member State



## future skills

- to inform assessments of future skills needs and the extent to which current trends and policy might help the country meet those skills needs

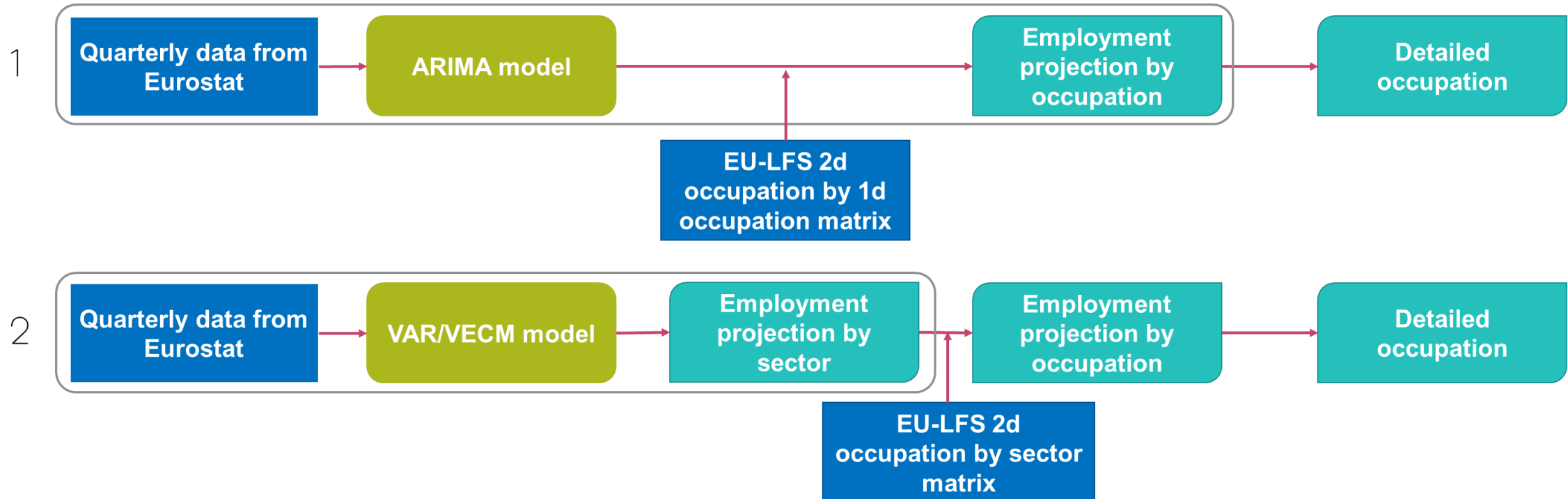


## policy debate

- to stimulate informed policy debates and forms part of the Cedefop toolkit for labour market analysts

# Methodology

- Combined/mixed approach, using time-series econometric techniques
  1. Employment by country and occupation: ARMA/ARIMA
  2. Employment by country and sector: VAR/VECM, as in Lovaglio (2020)



# Implementation

The baseline forecast is the average of (up to) three underlying forecasts:

## 1. ARIMA(X)

Project employment by 1-digit occupation

Disaggregate from 1- to 2-digit occupations using EU-LFS extract

Model occupational demands according to (the dynamics of) their past values and errors

## 2. VAR/VECM

Project employment by 1-digit sector

Disaggregate to 2-digit occupations using EU-LFS extract

Model sectoral demands as the relationship between employment and vacancies, including (the dynamics of) their past values

## 3. Naïve forecast

Project employment directly by 2-digit occupation

Take growth over the previous eight quarters (two years) and use to project forward

# The STAS tool

1

## CEDEFOP STAS Tool

Welcome to the CEDEFOP STAS tool.



2

## Generating Baseline

Choose baseline data option

Download type  
 API  Manual

**RUN**

Please do not navigate away from this page until the run is complete.

## External forecast

### Manage external forecast files for refining the forecast

- Below is a table of the current assumptions file saved locally for the tool. You can perform the following actions on each scenario
- **Copy** - Copy this chosen assumption file to create a new file. A pop window will appear to select the name for the new assumption file
  - **Edit** - Assumption file will be opened directly in excel for you to edit assumptions
  - **Delete** - Delete this chosen assumption file. A pop up window will appear to confirm deletion
  - **Generate** - Generate results based on the assumption file.

The baseline assumption file cannot be edited or deleted.

Name	Actions			
Template	Delete	Edit	Copy	Generate
AMECO 2024	Delete	Edit	Copy	Generate

4

Indicator Settings

1-digit  2-digit

Forecasts

- Baseline
- VAR
- ARIMA
- Naive
- Aligned forecast
- Expert Judgment

Country

Aggregate  All

EU27

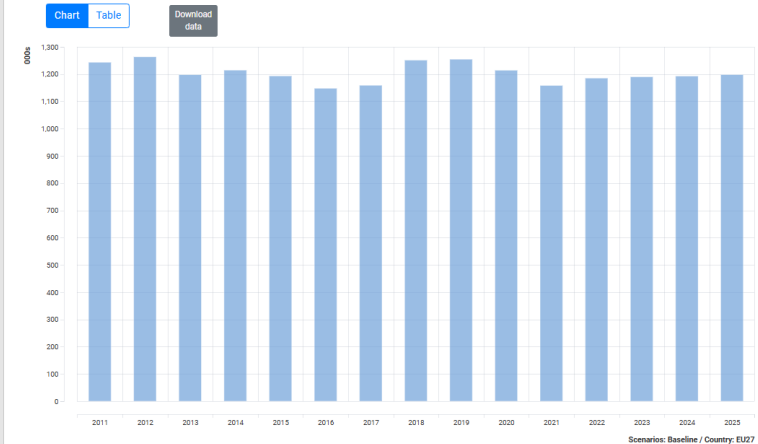
- Austria
- Belgium
- Bulgaria

Occupations (2-digit)

Aggregate  All

- Armed forces
- Chief executives, senior officials and legislators
- Administrative and commercial managers
- Production and specialised services managers

## Employment by occupation



# Short-term projections: November 2024

## Baseline

- Employment by sector and occupation, quarterly, 13/09/2024
- Vacancies by sector, quarterly, 19/11/2024
- Employment by sector and occupation, annual, 12/09/2024
- Employment by 2-digit occupations, annual, 12/09/2024

## Final projection

- Aligning the STAS baseline to total employment growth by Member State provided by DG-ECFIN AMECO Autumn 2024
- The occupational distribution of the Member State comes from STAS baseline

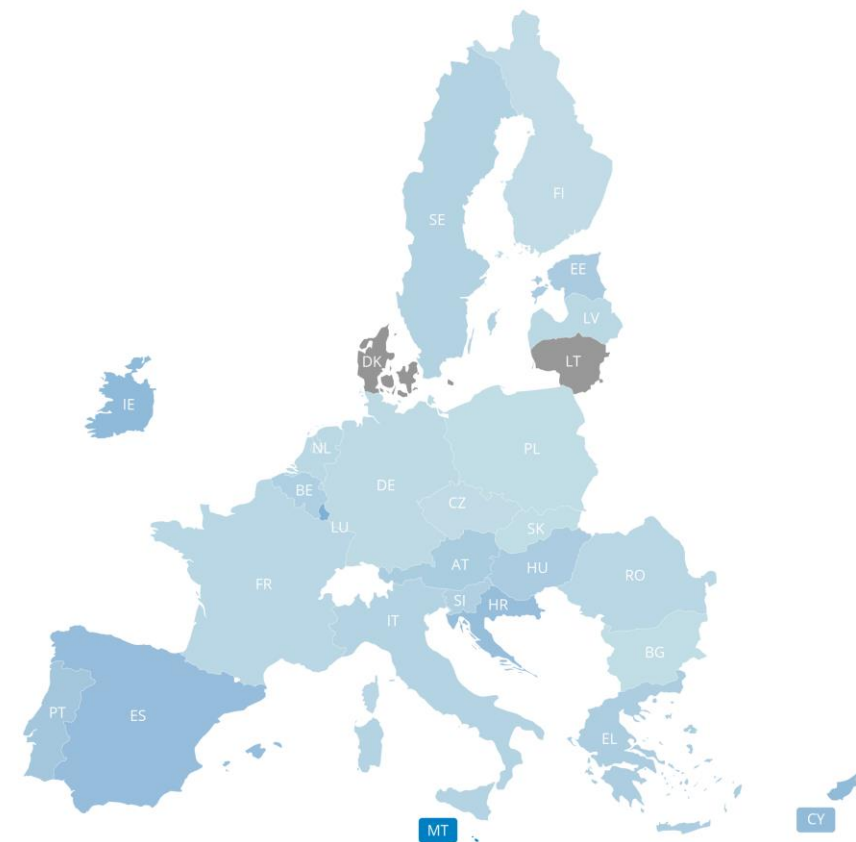
# Overall employment

EU27 employment ('000), STAS baseline (●) and Ameco baseline (●)



## Employment (% growth) by Member State, 2025

MT	4.0
LU	1.9
IE	1.5
CY	1.4
ES	1.3
HR	1.3
PT	0.9
EE	0.7
AT	0.7
HU	0.7
EL	0.7
BE	0.6
SI	0.6
SE	0.5
EU27	0.4
IT	0.4
RO	0.3
FR	0.3
LV	0.3
NL	0.3
DE	0.2
CZ	0.1
FI	0.1
SK	0.1
PL	0.1
BG	0.1
LT	-0.2
DK	-0.2



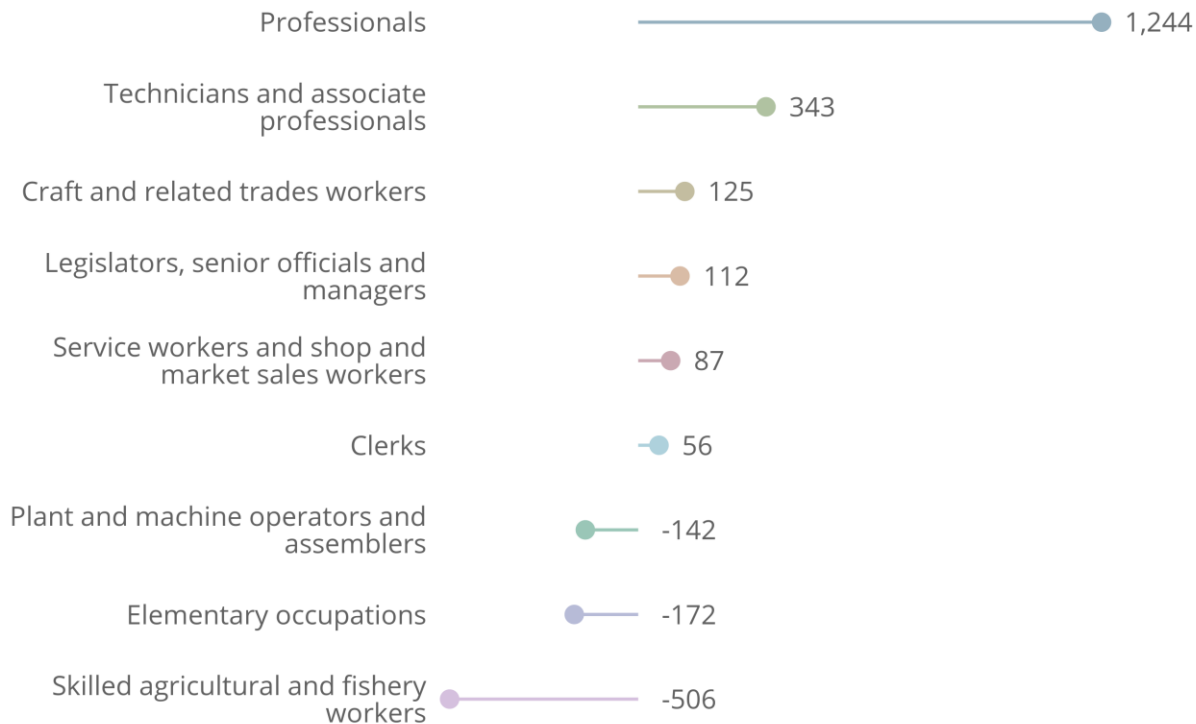
# Employment change (absolute numbers)

## Ameco baseline

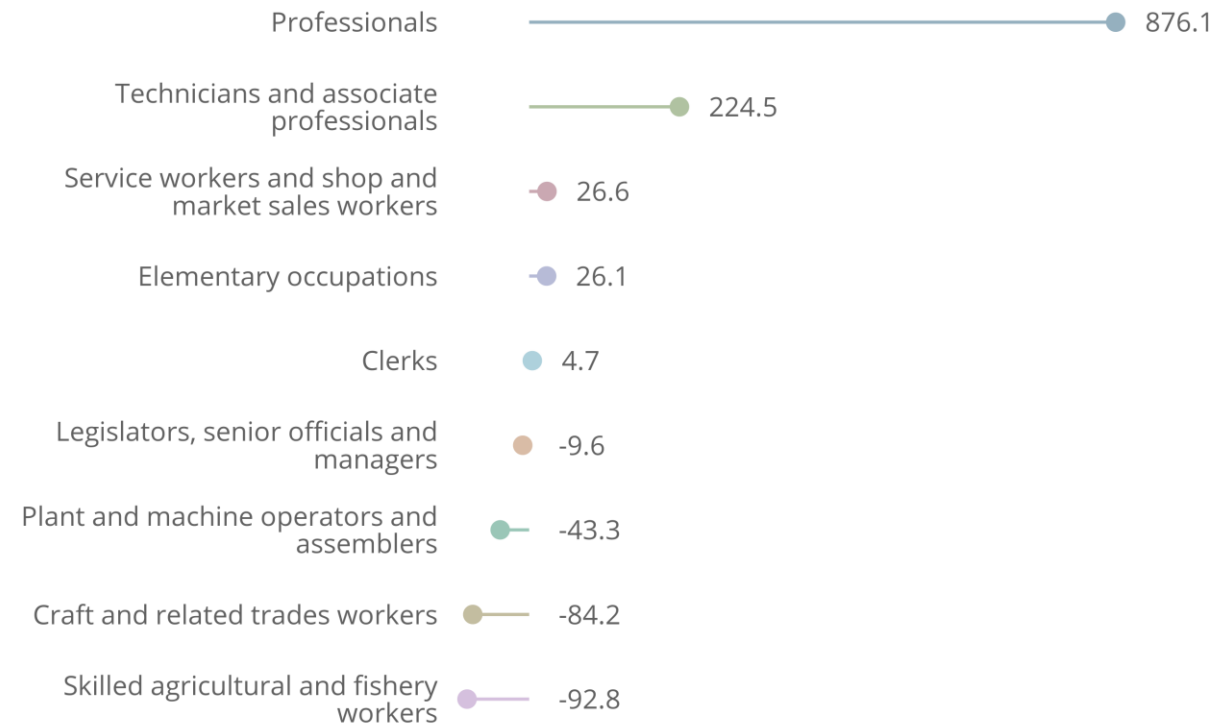


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### EU27, 2024, '000



### EU27, 2025, '000



# Employment growth, EU27, Ameco baseline, 2025

3.3%

## ICT professionals

Growth in all Member States  
Top 3: Malta, Portugal, Poland  
Bottom 3: Finland, Denmark, Slovenia

-0.6%

## Market-oriented skilled agricultural workers

Decline in most Member States, but with small increase in Slovakia, Latvia, Hungary

1.6%

## Science and engineering professionals

Growth in all Member States, especially in Malta, Austria and Cyprus  
Stagnation in Estonia and Bulgaria

-1.8%

## Food processing, woodworking, garment and other craft and related trades workers

Decline in more than half of the Member States, but with small increase in France, Spain Hungary

# Conclusions

- 1 Employment EU-27 is expected to increase in 2024 and in 2025 by ~ 1 million
- 2 Employment growth is distributed unequally among Member States.
- 3 Medium skilled jobs such as agricultural and fisheries work and trade-related workers in manufacturing are expected to decline.
- 4 Professional and associate professionals drive the employment increase.

# Thank you

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