



Forecasting skills supply and demand – Cedefop modelling approach

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Session 1: Forecasting skills supply and demand
in Europe - Cedefop modelling approach -
Expert seminar on Methodology and new ideas:
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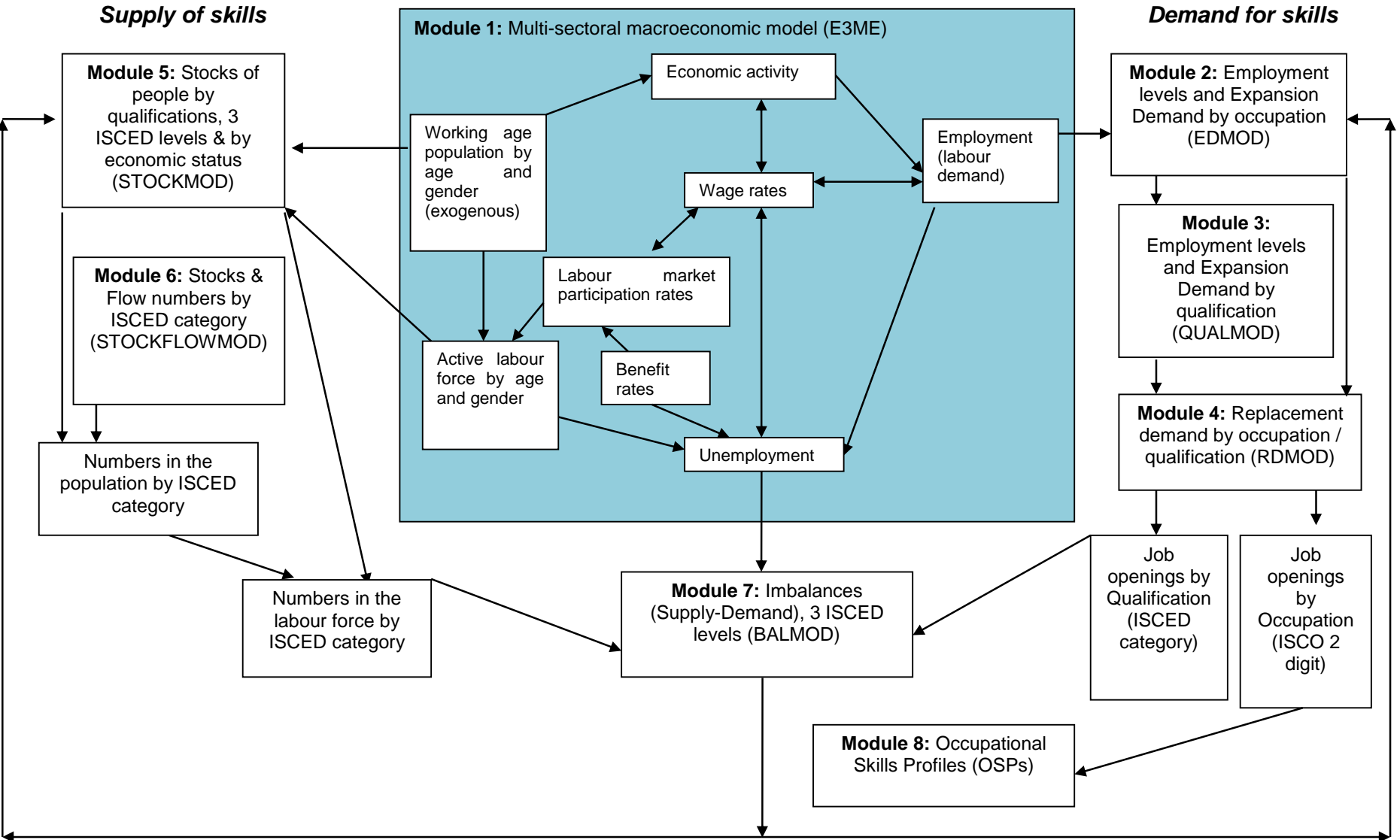
Overview

- Purpose of the projections
- Overall approach
- Role of the E3ME multi-sectoral macroeconomic model
- Modelling the supply of and demand for skills
- Key issues to be addressed

Purpose of the projections

- To provide a comprehensive and consistent overview of anticipated skill demand and supplies across Europe using common data and models
 - taking account of key drivers such as climate change, globalisation, technological change and demographic developments
- To inform strategic thinking and policy-design
 - to respond successfully to challenges and opportunities

Modelling framework



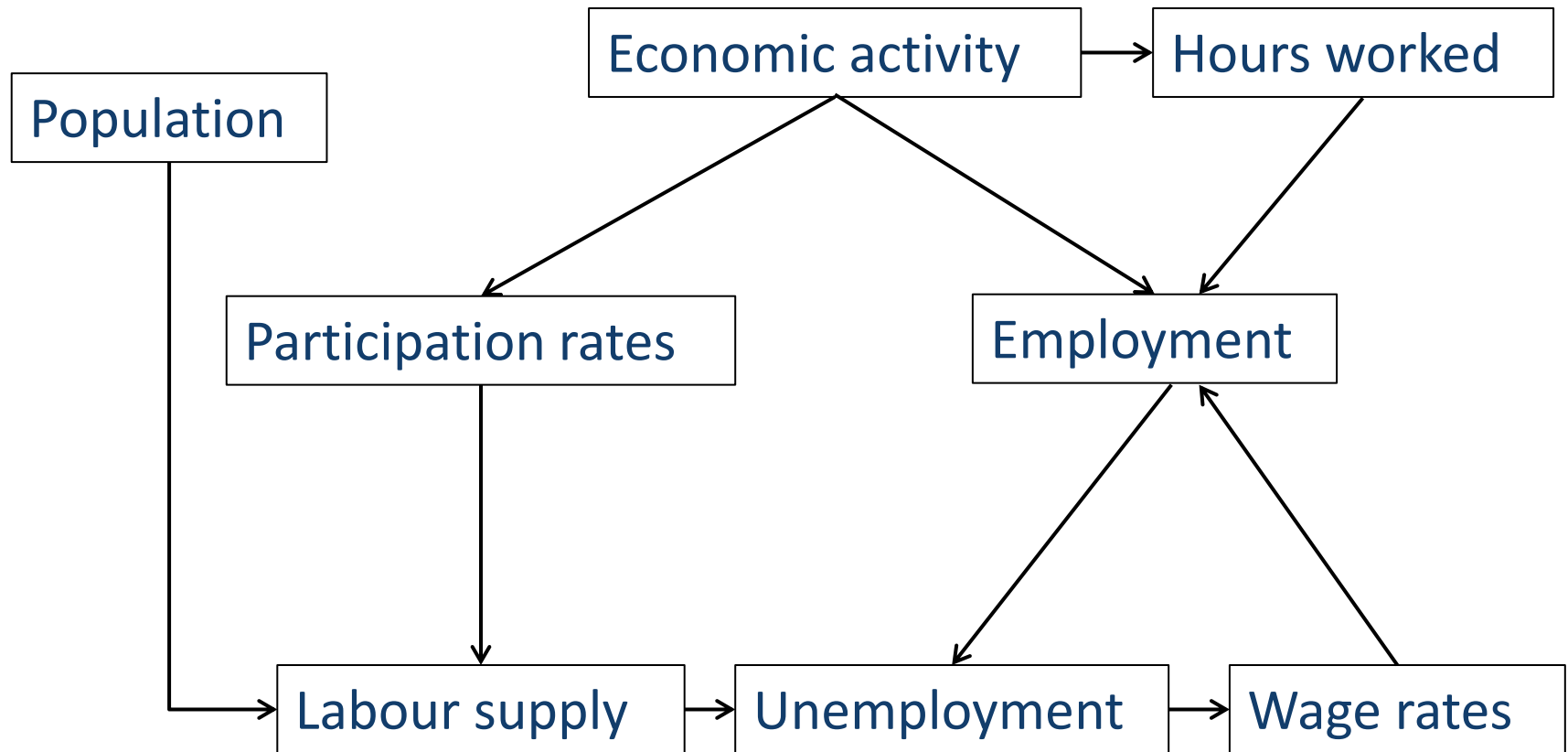
Role of the E3ME multi-sectoral macroeconomic model

- Model the links between the labour market and the wider economy
- Provide a consistent modelling framework for projecting skills demand and supply together
 - allows analysis of imbalances (unemployment)
- Take key drivers into account
 - e.g. the impacts of the financial crisis and demographic change
- Include analyses of key uncertainties
 - develop alternative scenarios to see how these will impact on skills in the future

Key strengths of E3ME

- Integration of the economy, energy systems and environment, and the labour market
- Detailed sectoral disaggregation and linkages (69 NACE sectors and full input-output table)
- Geographical coverage and linkages (EU28+3) linked through international trade equations
- Econometric specification with estimated equations for: labour demand; supply; wages; and working hours

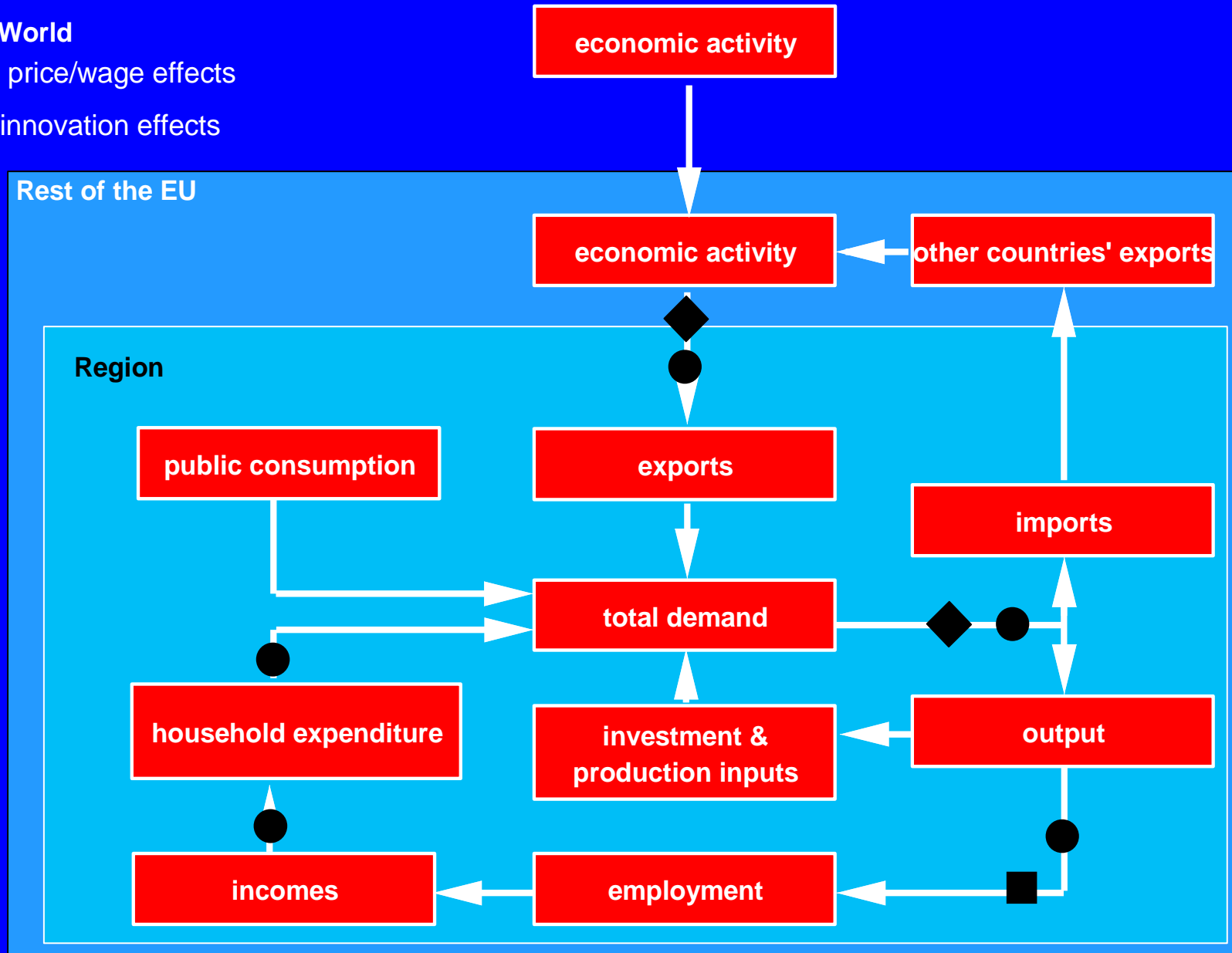
The labour market: endogenous links within E3ME



Modelling economy inter-linkages

Rest of the World

- includes price/wage effects
- ◆ includes innovation effects



Modelling the supply of and demand for skills

- Use of the LFS to measure skills (occupations and qualifications)
- Separate supply, demand and imbalances modules
- Demand – occupational and qualification patterns within industries
- Supply – stock flow models of qualification attainments
- Imbalances and mismatches – reconciling demand with available supply

Key issues to be addressed – the move to ISCO08 for classifying Occupations

- Information only available for one year (2011) severely limits what can be done
- Combination of this with previous time series and projection methods using heroic assumptions
- New data in 2014 and beyond will gradual enable refinement of the approach

Summary

- E3ME is to model the links between the labour market and the wider economy
- LFS data to model skills as measured by occupation and qualification
- Consistent modular framework for projecting skills demand and supply together
- Dealing with the shift to ISCO08 in a pragmatic and transparent fashion

Further information

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