Skills supply and demand and skills mismatch: Situation and outlook in Iceland

Skills Anticipation at a Pan-European level

Contribution to an open seminar and expert meeting, 9th November, Hilton Reykjavik Nordica, Iceland

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OVERVIEW

1. **WHY produce employment forecasts?**
   The value of skills projections and their limitations
   - What skills forecasts can and cannot achieve

2. **HOW do we go about it?**

3. **RESULTS: Key messages** from the Cedefop Projections for the whole of the EU and for Iceland

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1. WHY FORECAST?

Why Not?

Forecasting is ***impossible***

Forecasting is ***unnecessary***

Forecasts are ***inaccurate*** and based on ***invalid assumptions***

They are ***illegal*** in some countries,

including the UK!

Is systematic anticipation possible?

Nobody can **predict** the future with certainty or precision – "All forecasts are wrong!"

Everybody can prepare or **plan** for the future - Government, employers, educational institutions & individuals

These plans and related decision help to determine actual outcomes – such planning involves some element of forecasting: either implicitly or explicitly

In this sense not only is forecasting **possible** it is **inevitable**

Comprehensive, systematic, consistent projections, based on explicit and transparent assumptions provide useful information for all labour market participants, helping to inform all those making choices & decisions

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Is Forecasting Necessary?

Rapid change, uncertainty & evidence of market failure

Long lead times on investment decisions such as education and training choices

Need for a regular and systematic assessment of future prospects to:

- guide & inform policy formation;
- guide & inform individual decision making;
- avoid future imbalances & mismatches;
- need for a counterfactual to assess policy or different choices

The only meaningful questions are therefore **how**, by **whom** and with **what end** in mind?

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So, Forecasts: Who Needs Them?

A Variety of audiences

The State - planners/policy makers

Education and training providers

Companies/Employers

- labour market pressures
- other reasons

Individuals: career choices

Careers advisors

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2. HOW WE FORECAST

Folk-lore – Crystal balls and other methods!

More systematic approaches:

- Quantitative computer models
- Delphi techniques
- Scenario development

How to Forecast / Anticipate

Formal, quantitative models:

- Extrapolation of past trends
- Time series methods
- Need for behavioural content

Other approaches:

- quantitative & qualitative
- surveys
- scenario development

Key elements:

- Where are we now?
- What happens next?

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Advantages of quantitative modelling

Natural desire to quantify, measure and evaluate:

- Benefits of a formal model
- Value of benchmark forecasts

Technological progress and statistical infrastructure

International best practice - Quantitative modelling approaches, based on macroeconomic, multi-sectoral models

The CEDEFOP framework for skills forecasting in Europe

Developments in the labour market dependent on developments in the economy more generally

Quantitative modelling approach involves 2 key elements:

- Multi-sectoral macroeconomic model
- Modules to translate the results into implications for skills demand and supply

Skills proxied by occupation(ISCO) & qualification (ISCED)

- Demand = Employment
- Supply = Economically active (by highest qualification) (HQ,MQ, LQ)

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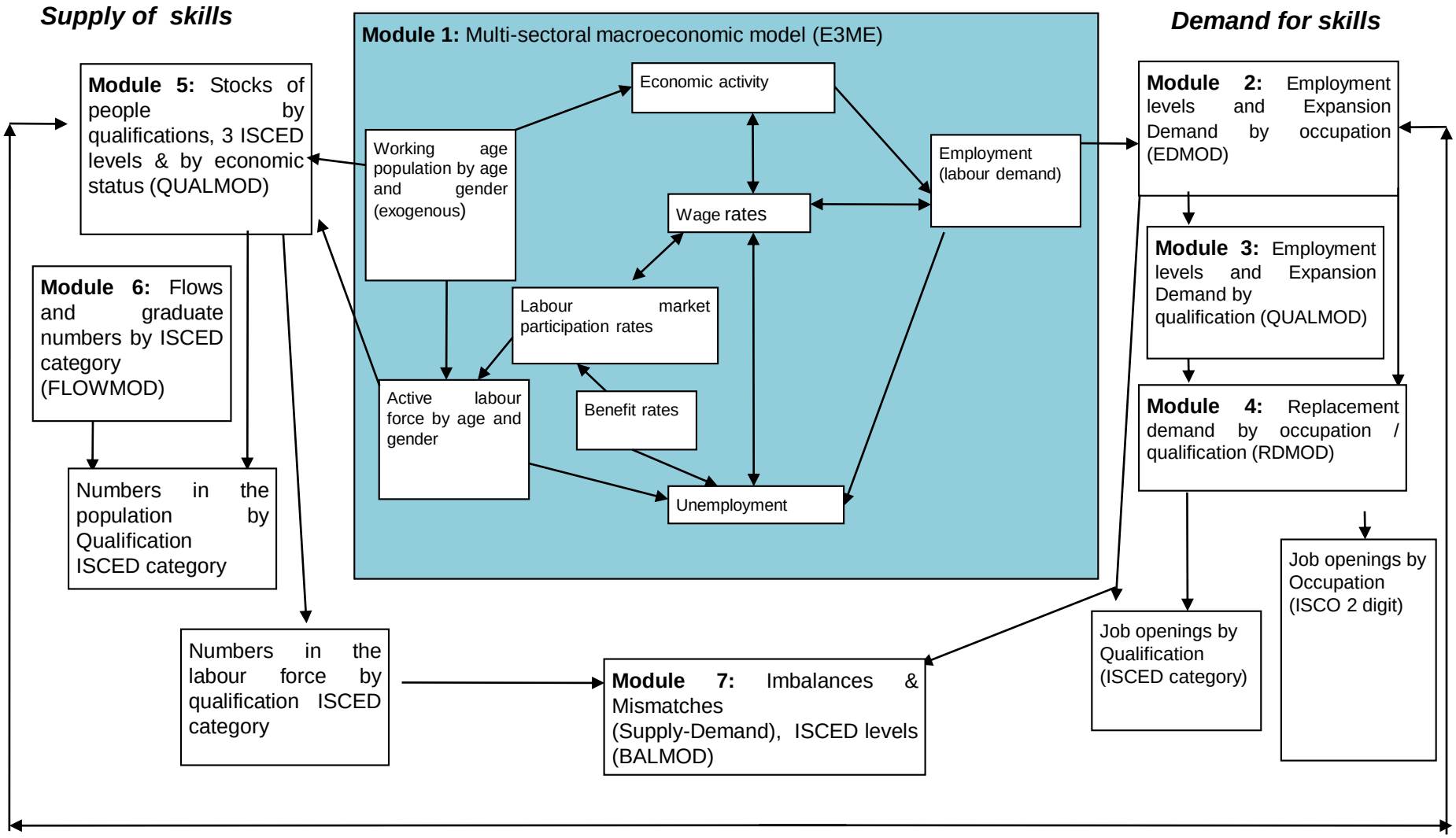
Overall approach – modelling framework



Role of the E3ME multi-sectoral macroeconomic model

Models the links between the labour market and the wider economy

Provides a consistent modelling framework for projecting skills demand and supply together

- allows analysis of imbalances (unemployment)

Takes key drivers into account

e.g. the impacts of the financial crisis and demographic change

Includes analyses of key uncertainties

- alternative scenarios show how these may impact on skills

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Why skills projections are useful

Understanding past trends

Future employment prospects:

- Numbers employed by sector & occupation - job openings
- Education and training requirements - qualifications and skills needed
- Supply/demand balances (avoidance of imbalances and mismatches)

Caveats:

- Implicit assumptions about the labour market
- Not mechanistic manpower planning
- Focus on the formal economy
- The Future is not fixed or predetermined

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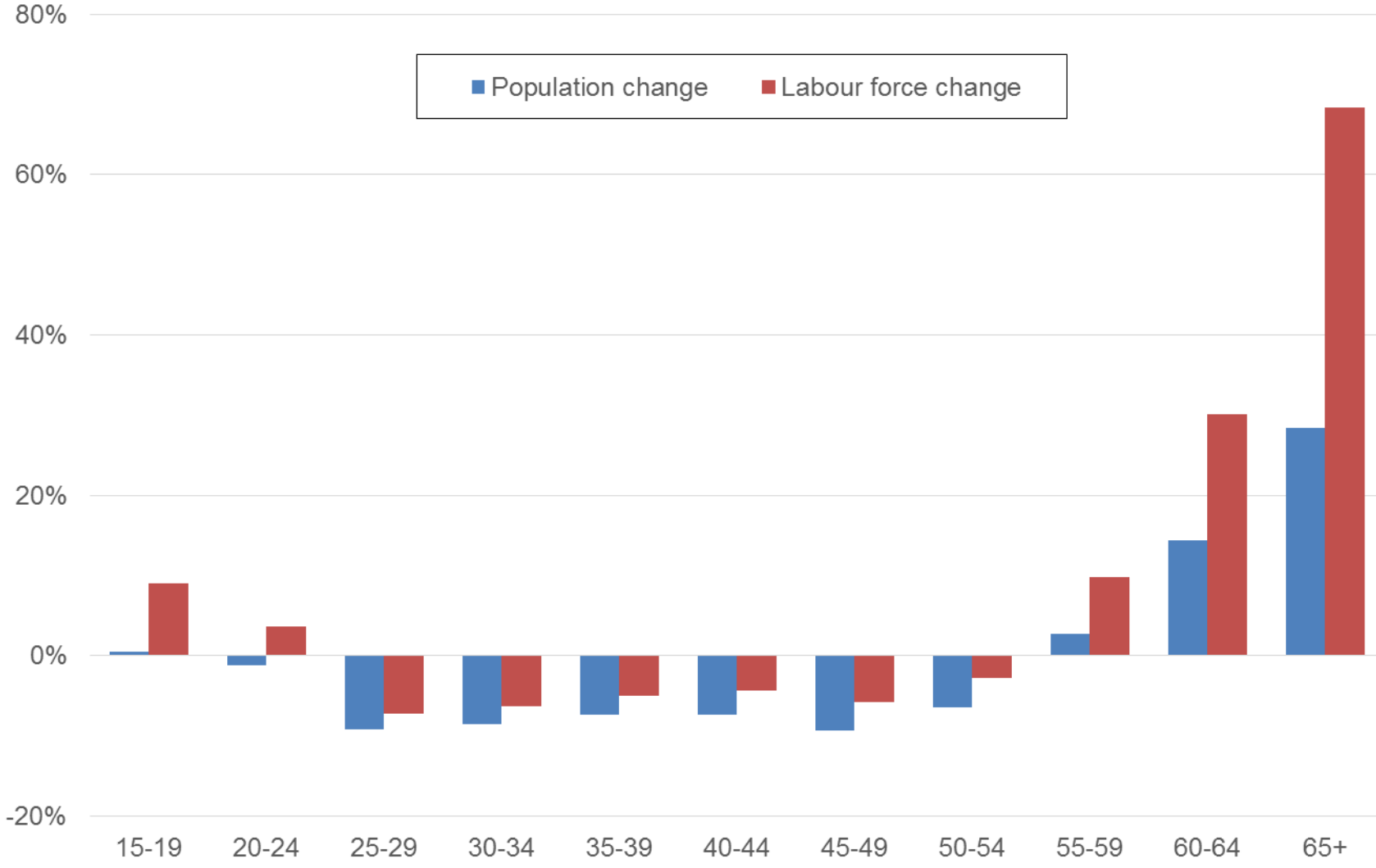
3. SOME KEY RESULTS – The EU+3

The future of employment – the rise of the Professionals

Key issues and drivers

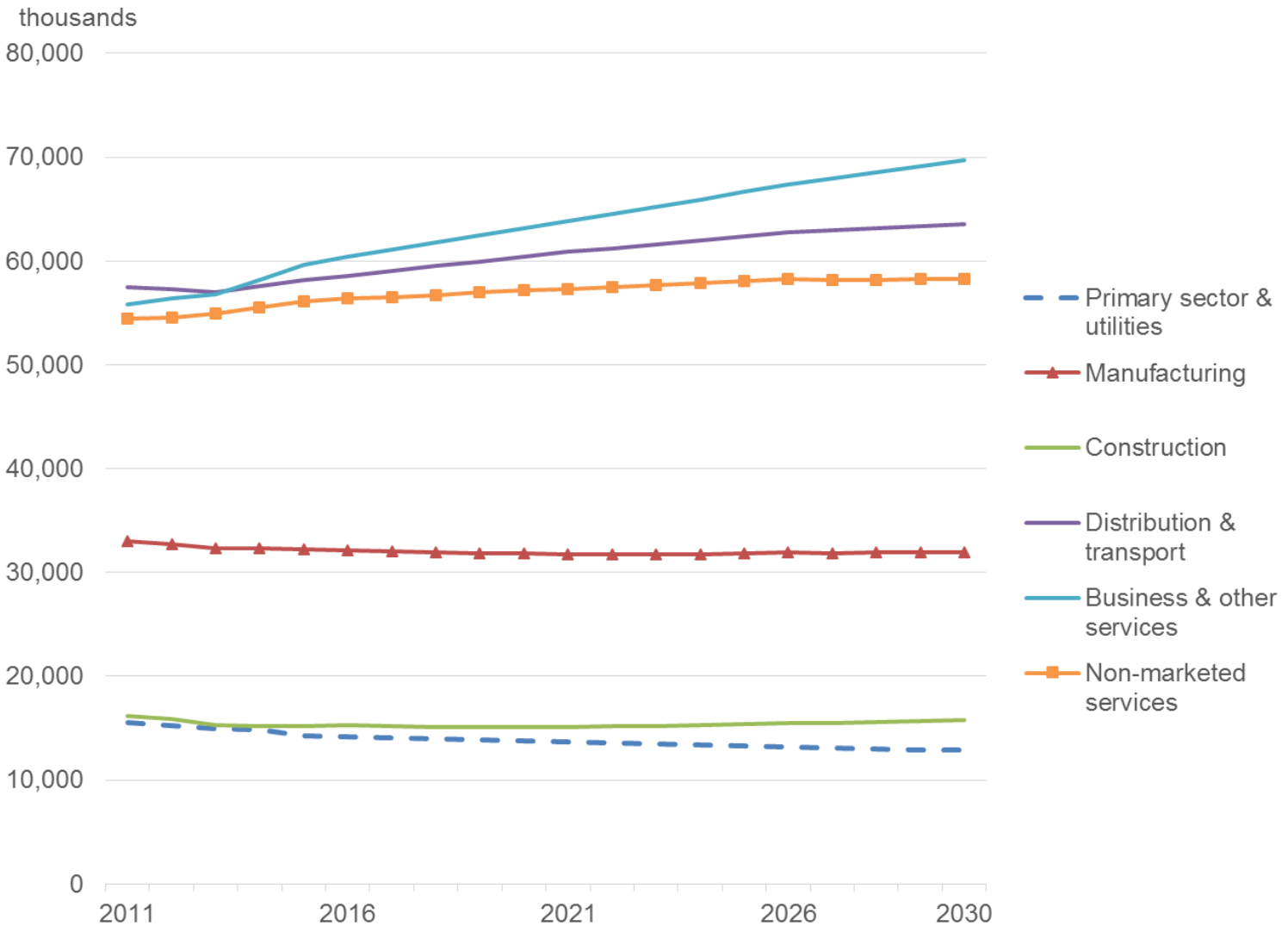
Driver	Demand: employment trends	Supply: labour force trends
Government spending	✓	
GDP forecast	✓	
Competitiveness & trade	✓	
Technology & innovation	✓	
Ageing population	✓	✓
Higher statutory retirement age		✓
Migration		✓
Education policy		✓
Gender equality		✓

Demographics, 2016-2030, EU + 3

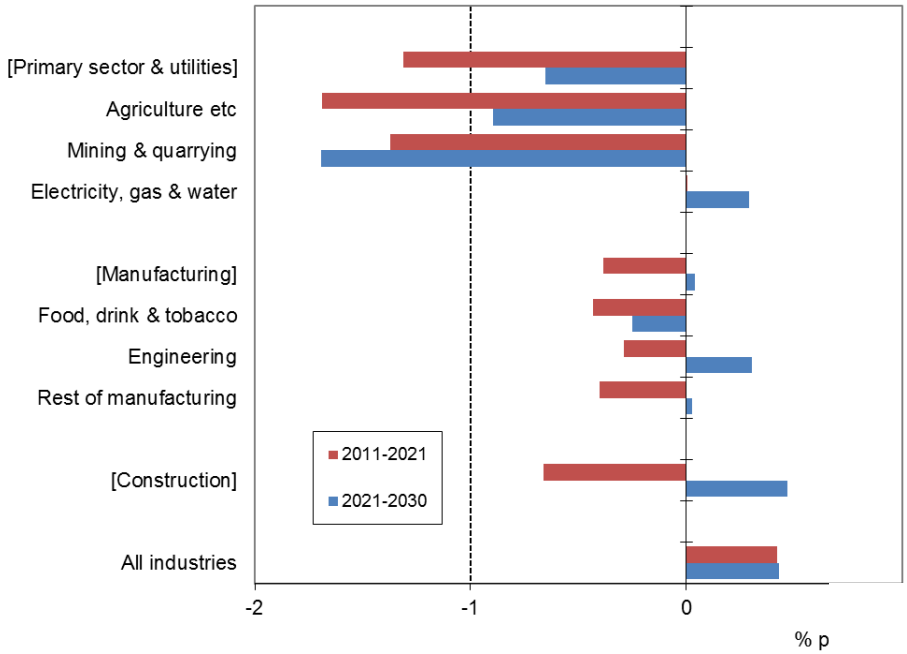


Slow, but significant and inexorable sectoral change, EU +3

The Service Sector will continue to provide the main source of job growth

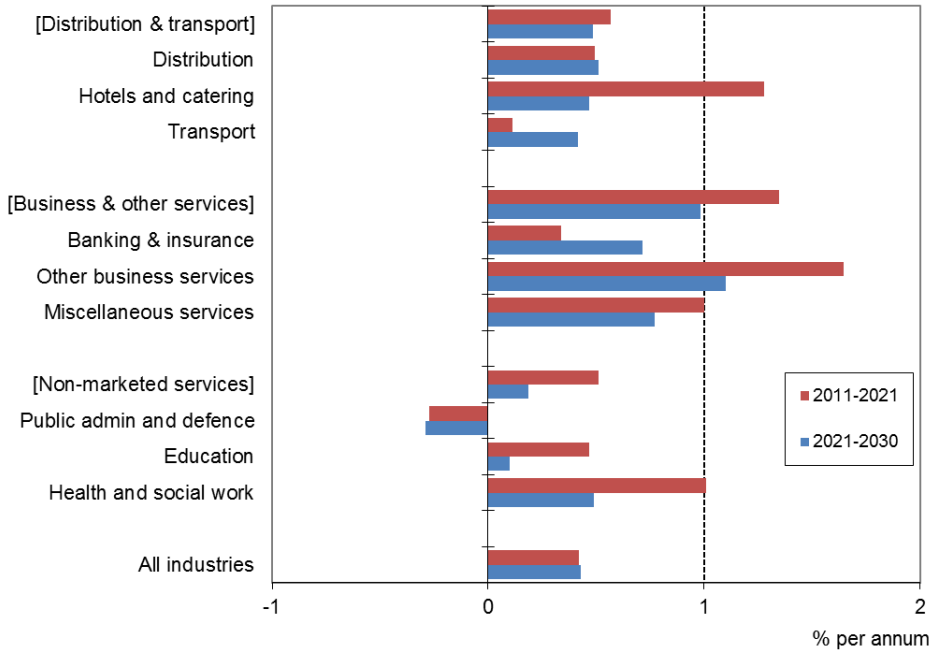


Sectoral details, 2011-30, EU +3

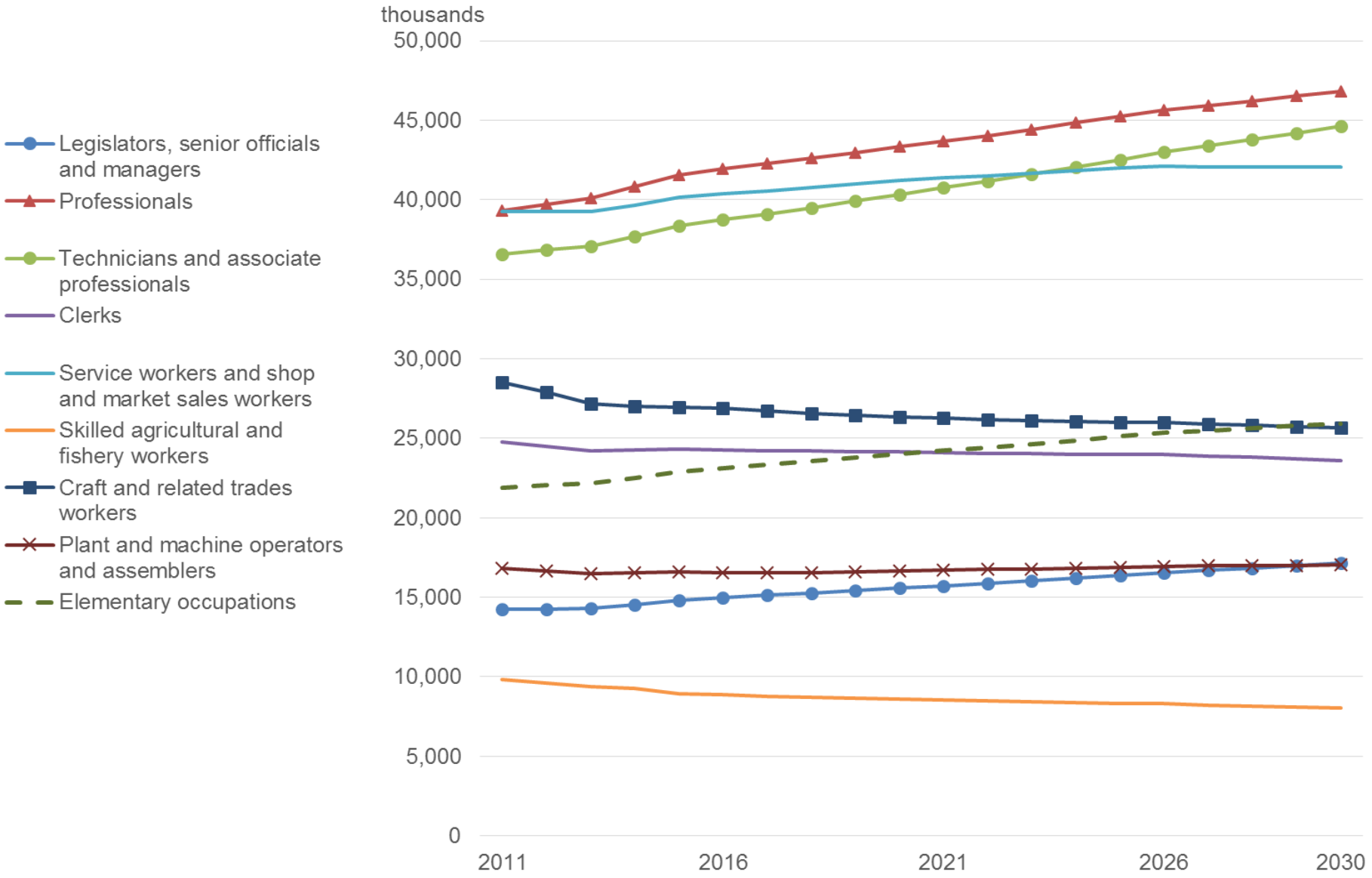


Continuing job losses in Primary and manufacturing sectors

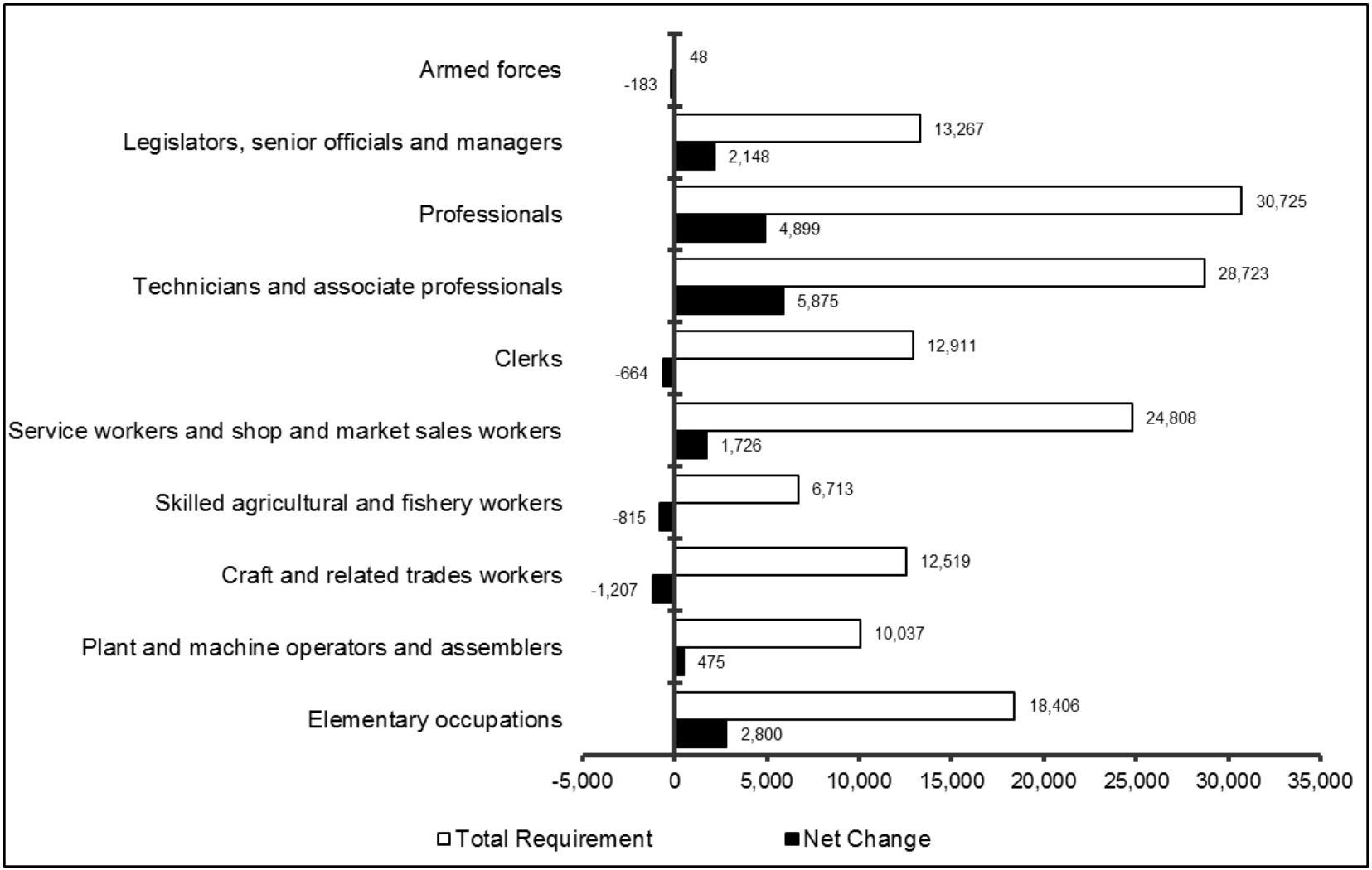
Austerity measures will curb employment growth in the public sector



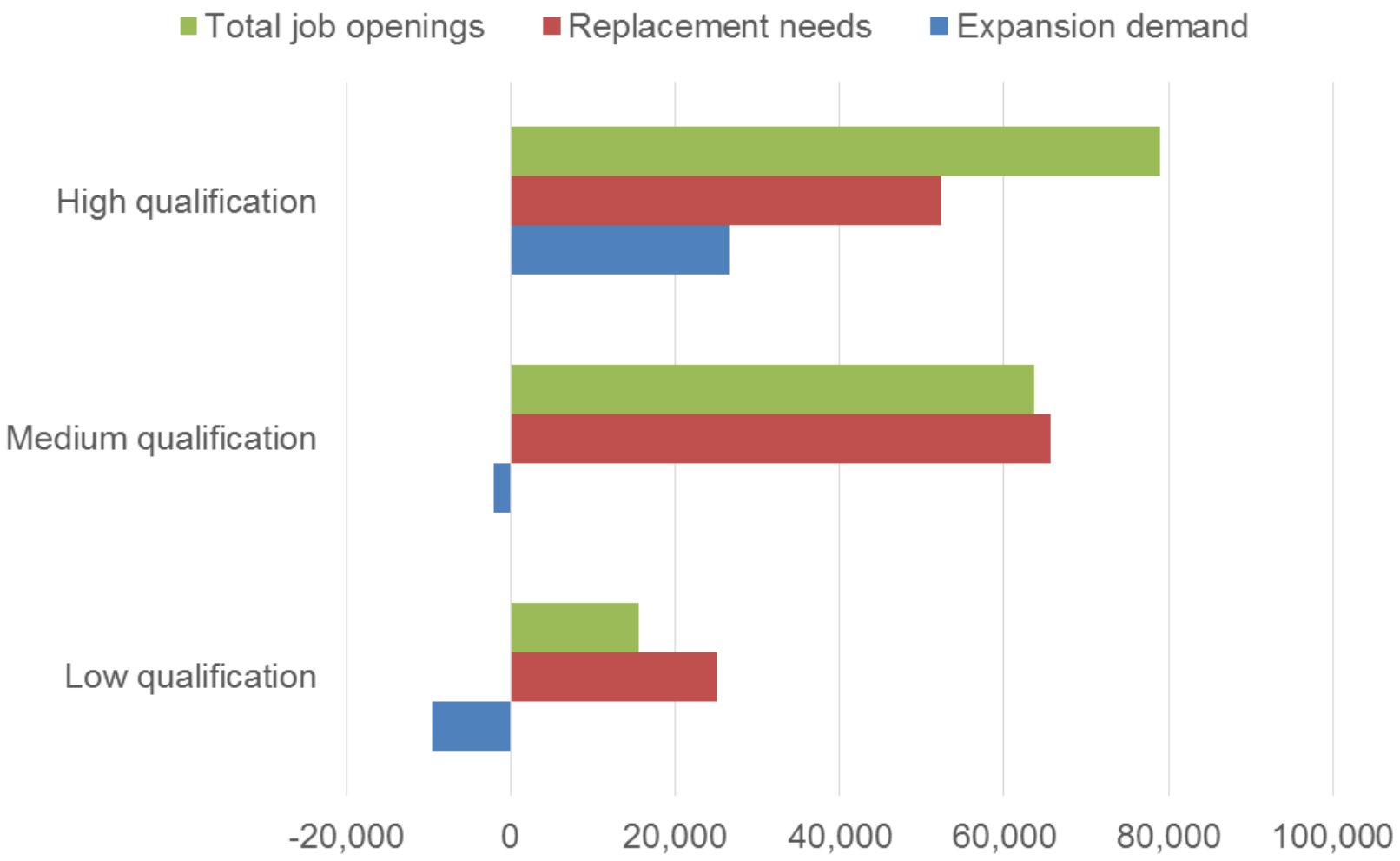
Significant structural change by Occupation too - but few big surprises, EU +3



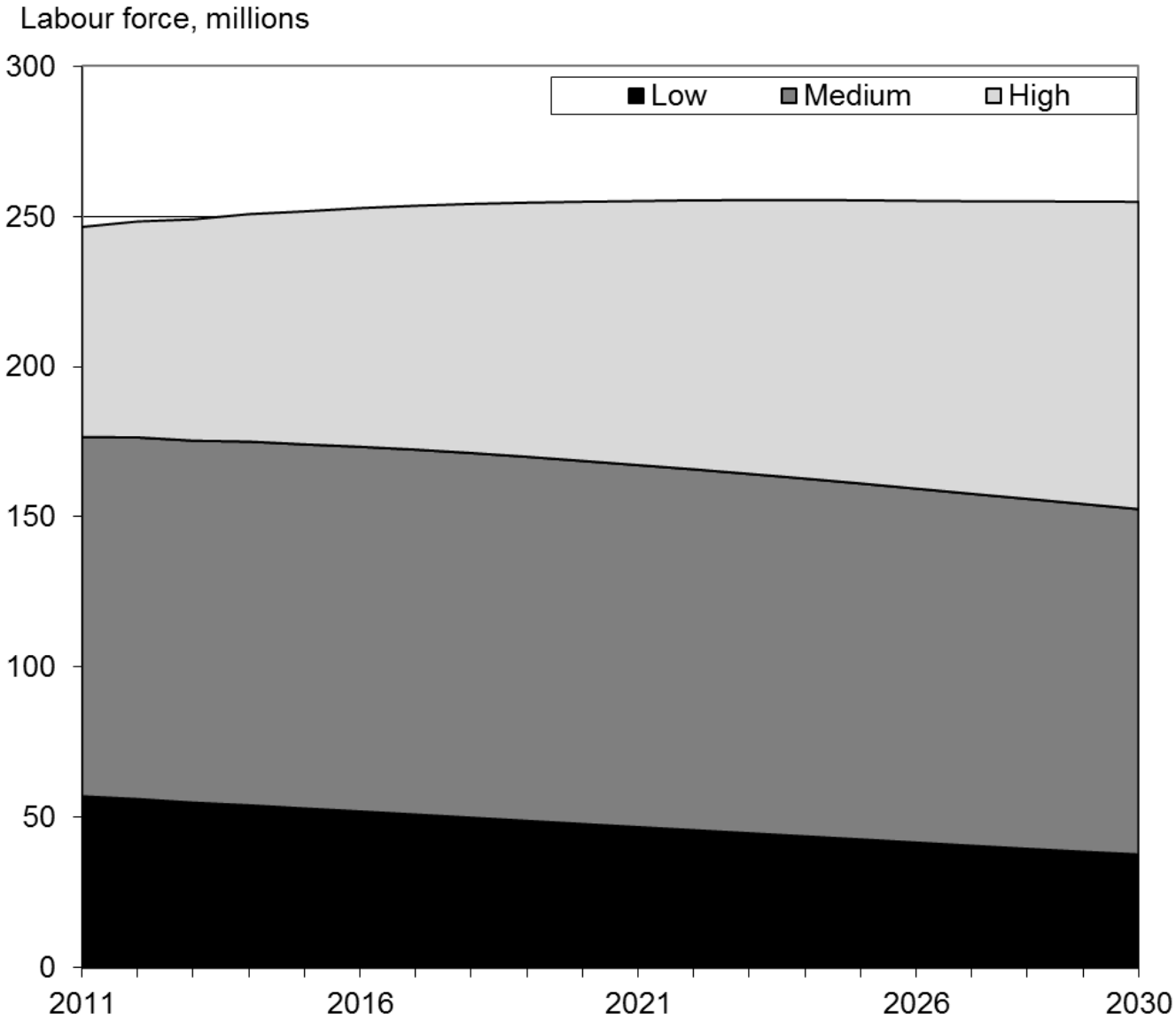
Replacement demands, 2016-2030, EU +3



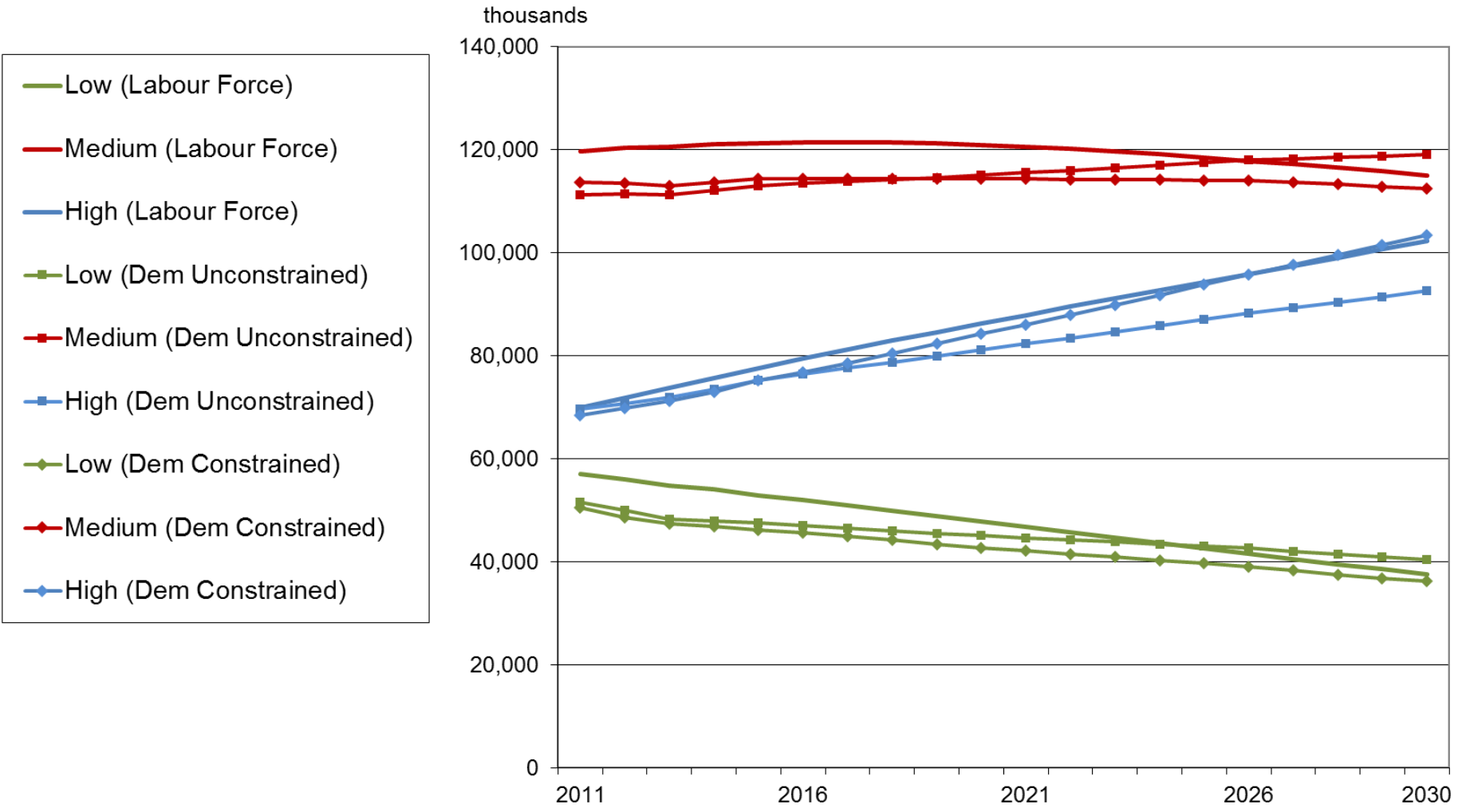
And also by qualifications held, net changes 2016-2030, EU + 3



Driven by supply side trends (numbers economically active), EU+3



Comparison of supply and demand trends - BUT Imbalances not easy to measure, EU + 3



Key results

Labour supply: expanding but also ageing

Employment: rising slowly, constrained by supply

Unemployment: falling slowly but persistent

Macroeconomic uncertainties: Brexit & Trump

Sectoral change: significant change (relentless shift from primary and manufacturing towards services)

Skill Supply: increasing number formally qualified

Skill demands: rising demand but polarisation

Replacement needs: Even where employment is falling

Imbalances and mismatches: problems remain but markets will adjust if allowed to operate freely

Increasing diversity, imbalances, mismatches & risks of over qualification

Increasing diversity of Higher & Further Education (HE)

HE no longer a “minority sport” (participation rates >>50%)

Demand for skills: 2008 crisis has accelerated changes

- Fewer job opportunities for the low-qualified (but some growth)
- Some better qualified may need to accept lower level jobs
- Science, Technology, Engineering & Mathematics is a key area
- But Quality more important than Quantity

Skills mismatches and imbalances are a persistent phenomenon, we need to develop the right skill mix to:

- manage transitions & adjustments in the labour market
- match & anticipate knowledge- & skills-intensive jobs

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On the right track ?

Europe is on track to raise its qualifications profile

- more Europeans acquiring better qualifications
- fewer low-qualified Europeans
- younger cohorts the best qualified ever

Rising supply mirrors projected growth in demand

BUT Concerns about over- qualification & mismatch:

- High level qualifications may no longer guarantee success
- Results suggest some polarisation in skills demand - many graduates may need to find jobs in non-traditional areas
- Looking beyond formal qualifications – need “T-shaped” individuals with general as well as specific core technical skills

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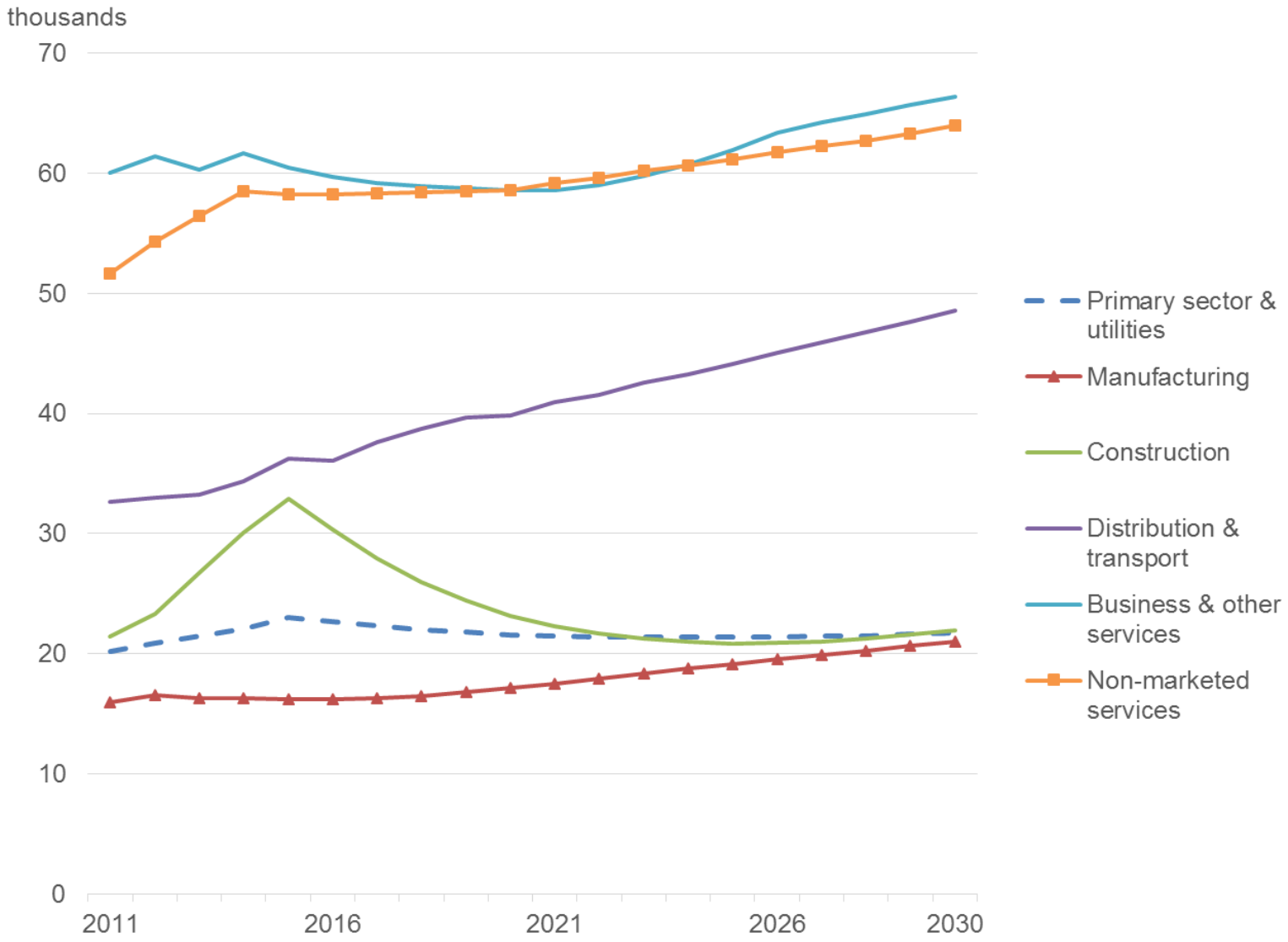
4. SOME KEY RESULTS – ICELAND

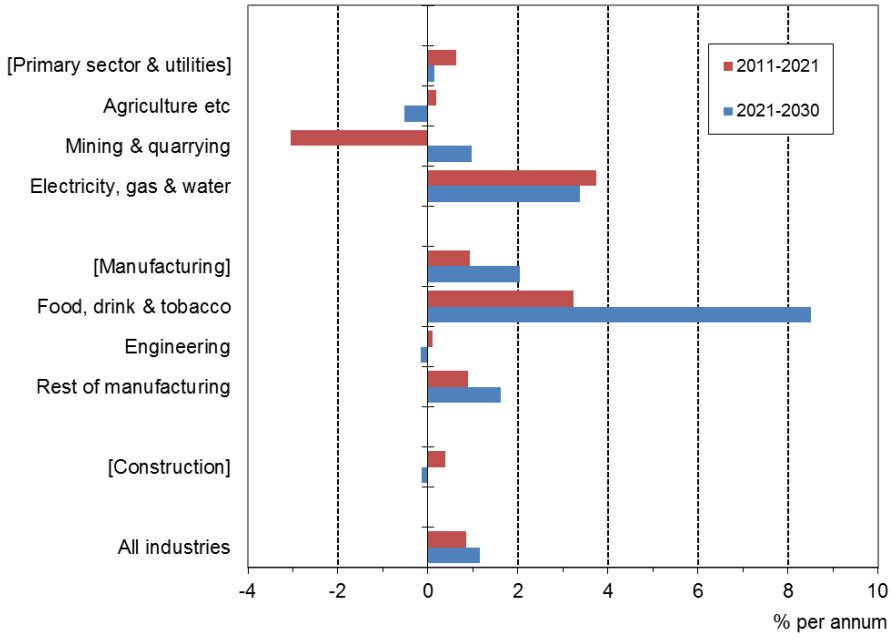
Demographics, 2016-2030, Iceland

Broad sectoral trends, Iceland

The Service Sector will continue to provide the main source of job growth

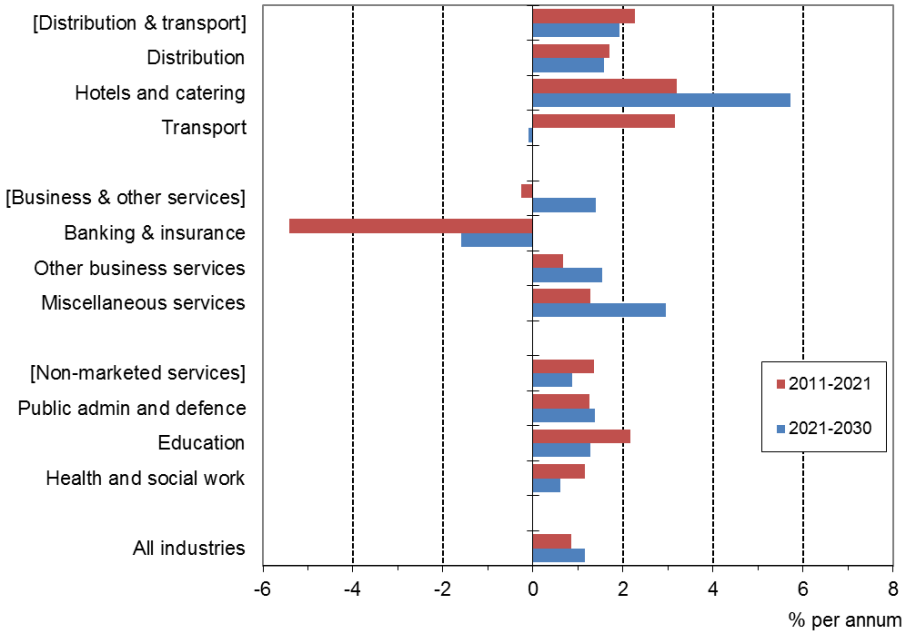


Sectoral details, 2011-30, Iceland

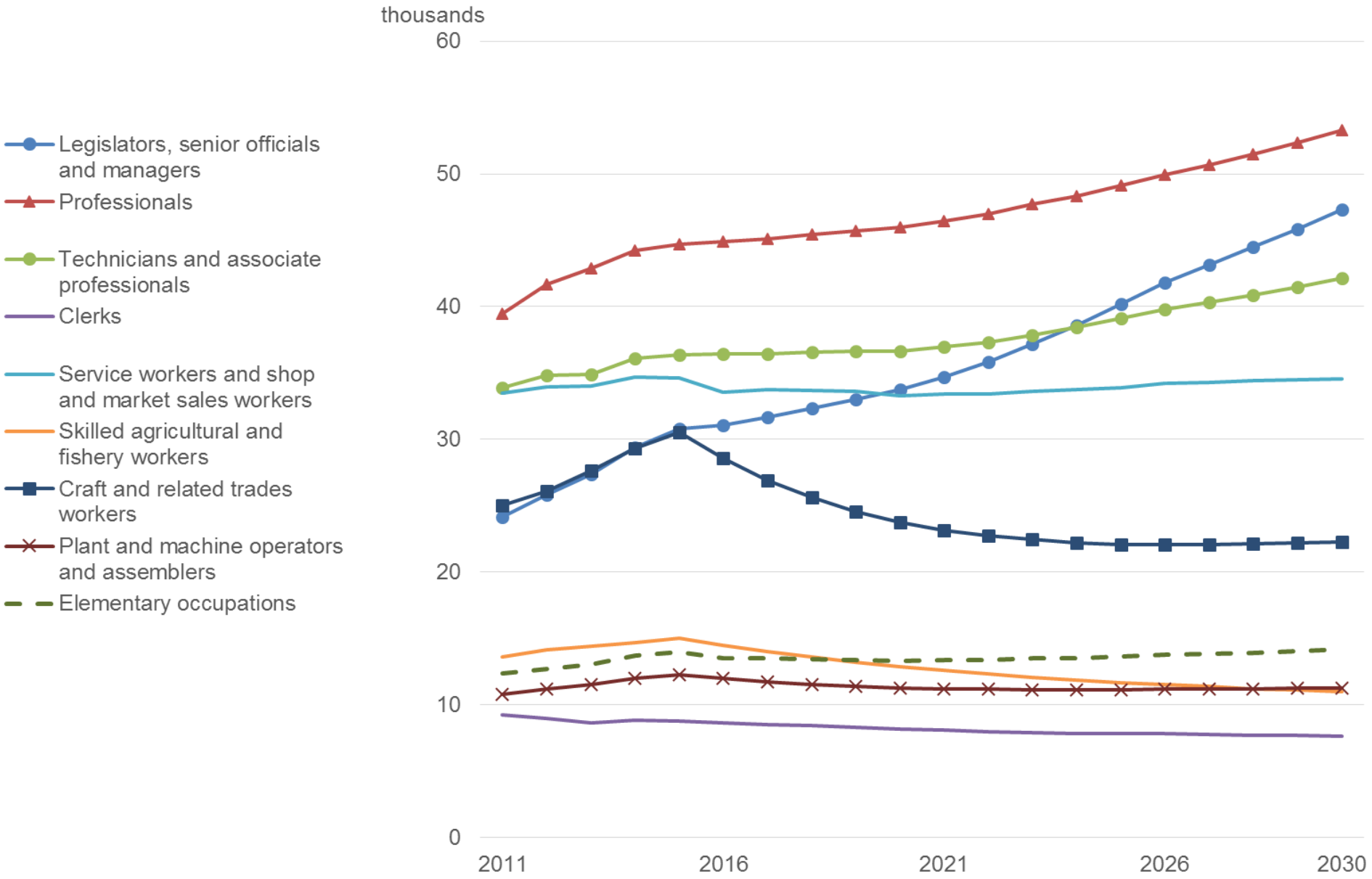


The Food drink and tobacco sector has the best prospects according to our data

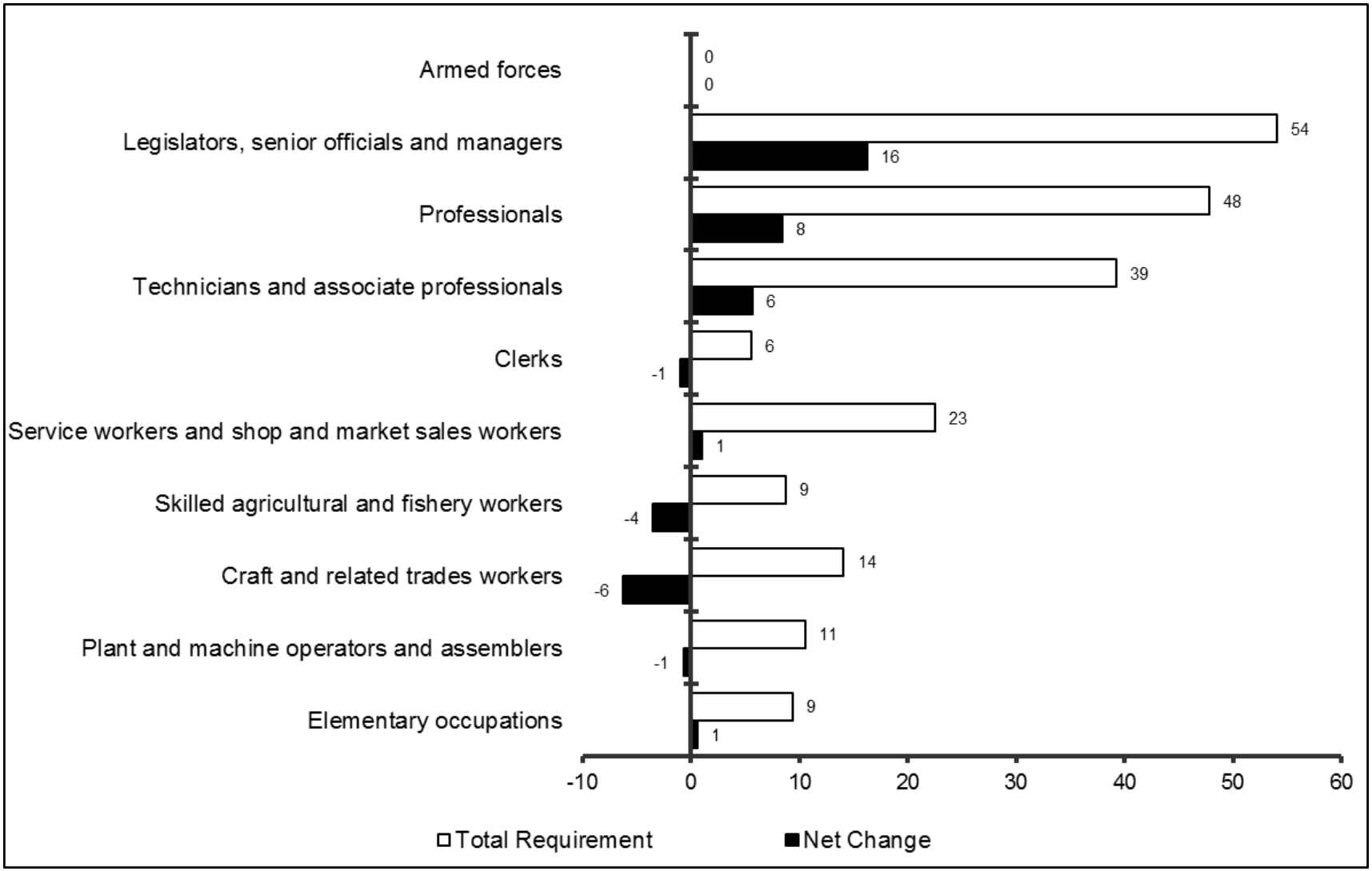
Banking hard hit by the financial crisis



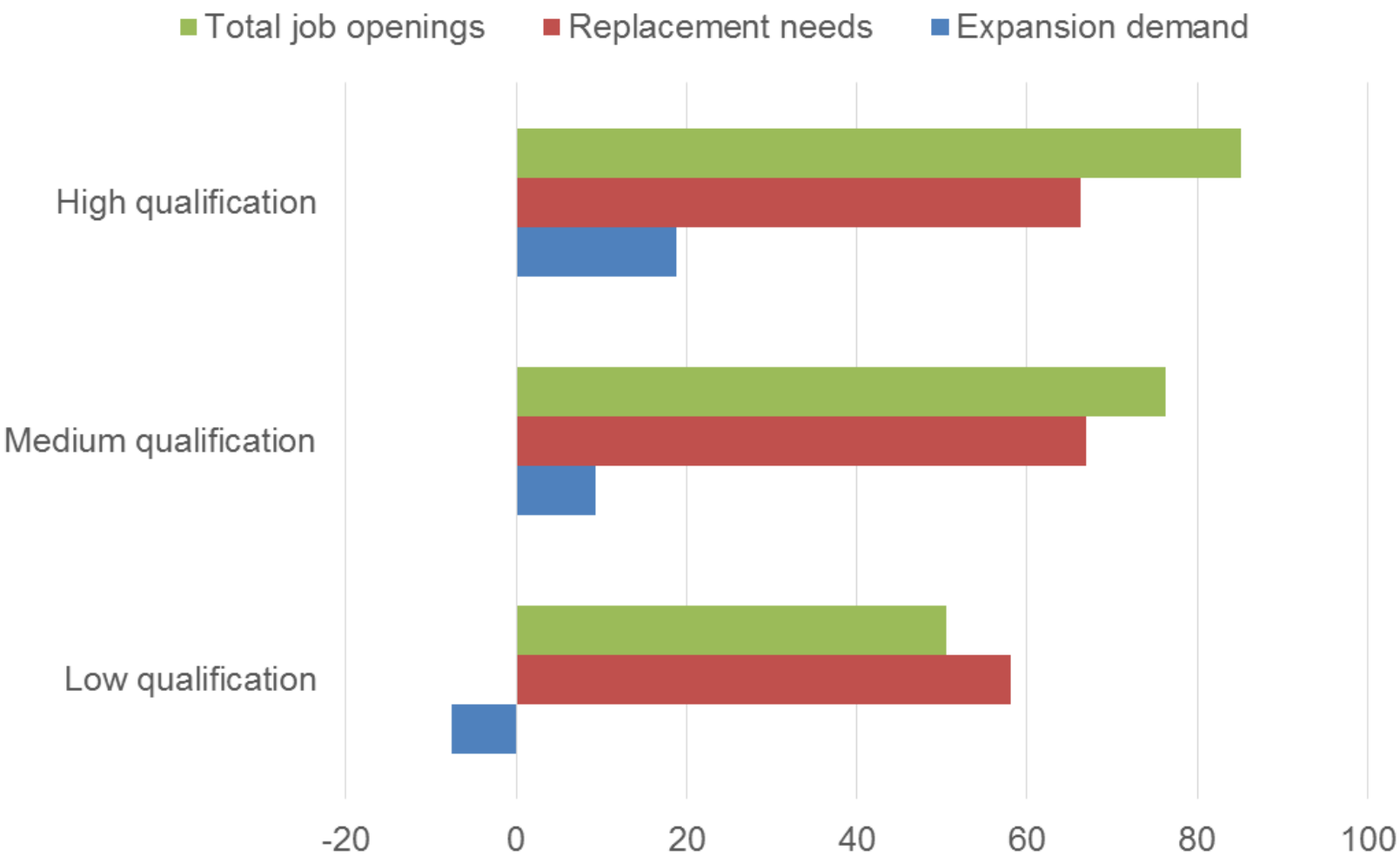
Structural change by Occupation, Iceland



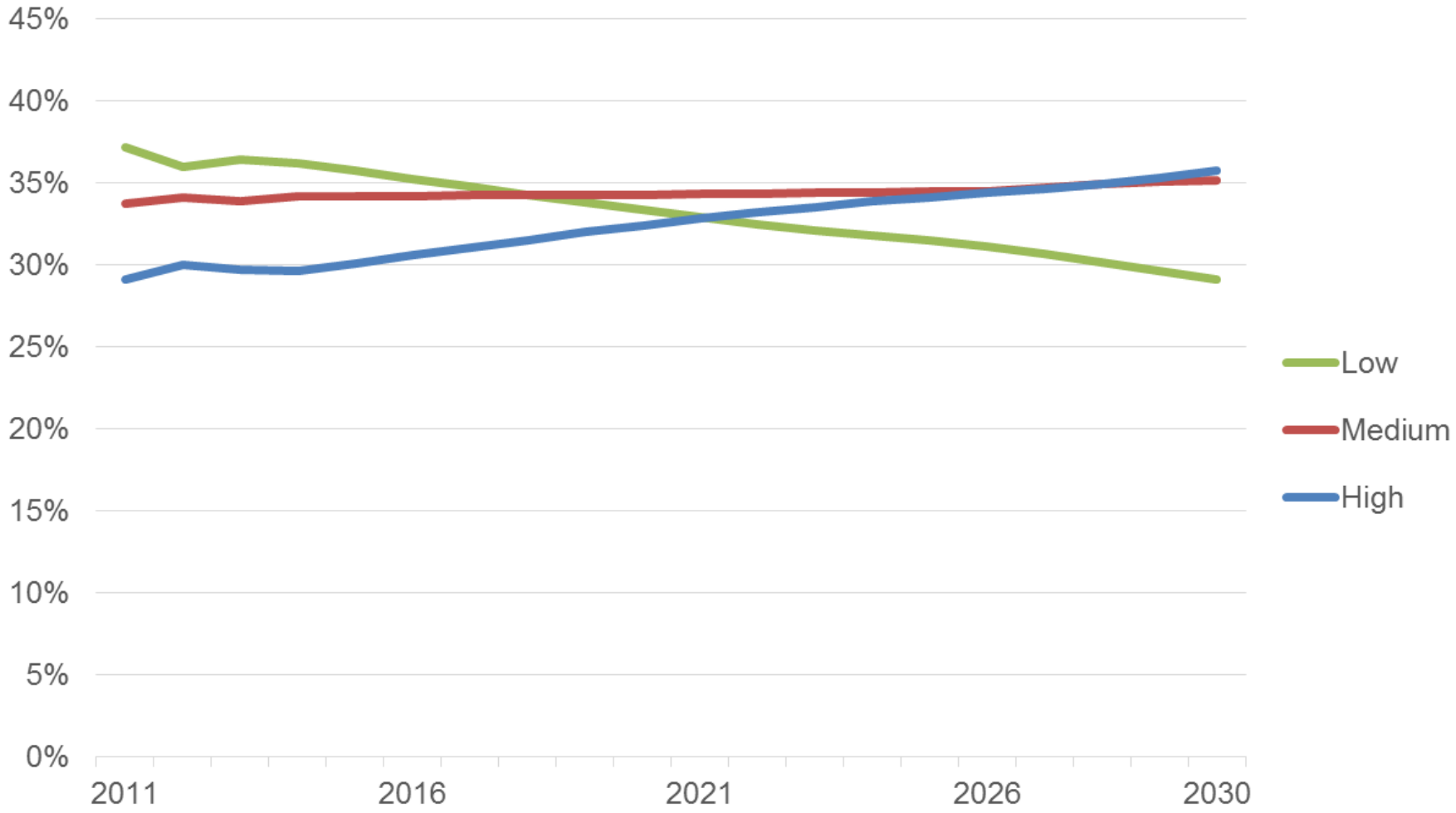
Replacement demands, 2016-2030, Iceland



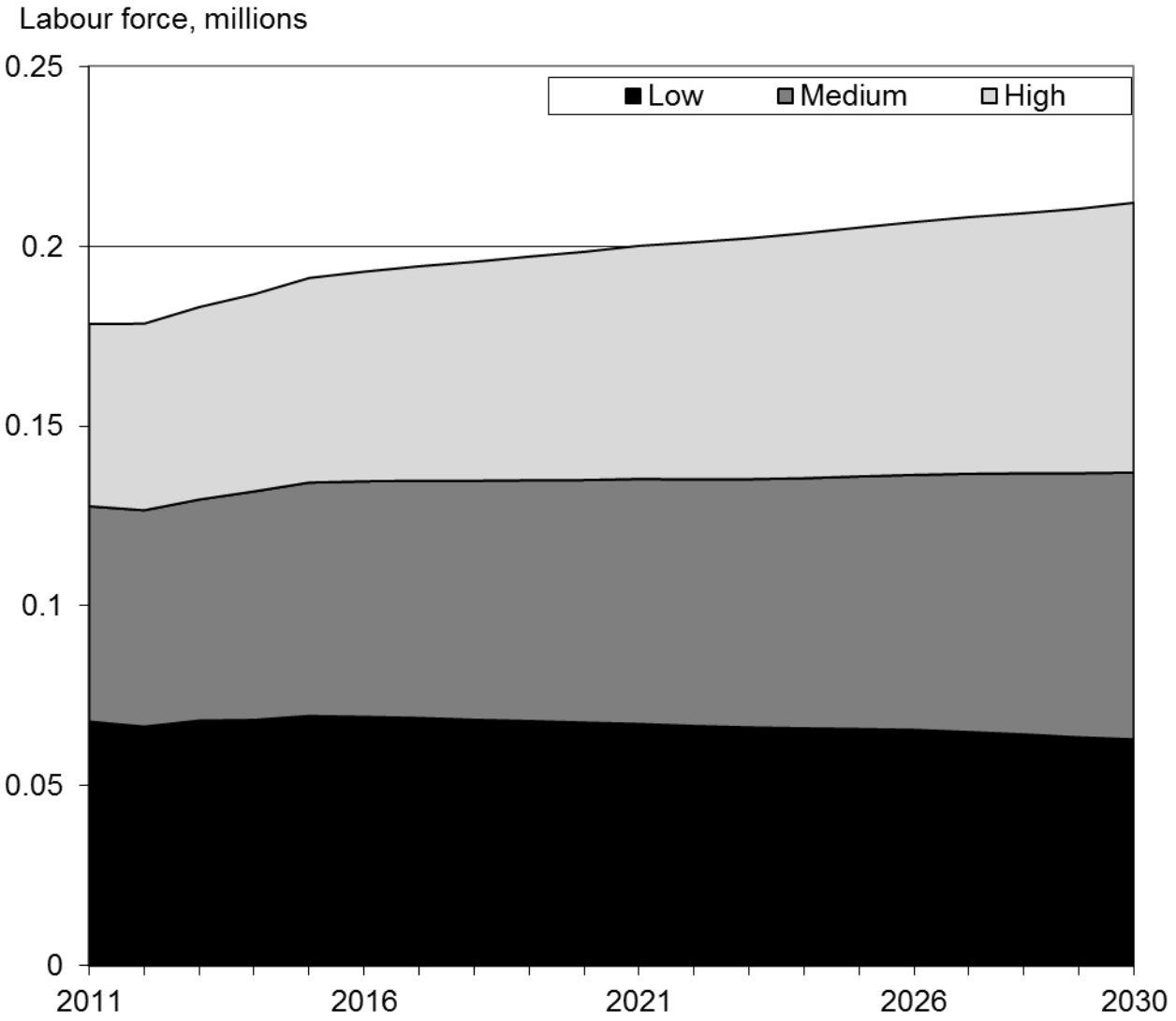
Net changes by qualifications held, 2016-2030, Iceland



……. a greater % share of jobs for the better qualified in Iceland too



Again driven by supply side trends (numbers economically active), Iceland



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Cedefop Pan-European projections:

www.cedefop.europa.eu/skillsnet

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