



THE FUTURE OF SKILLS AND JOBS

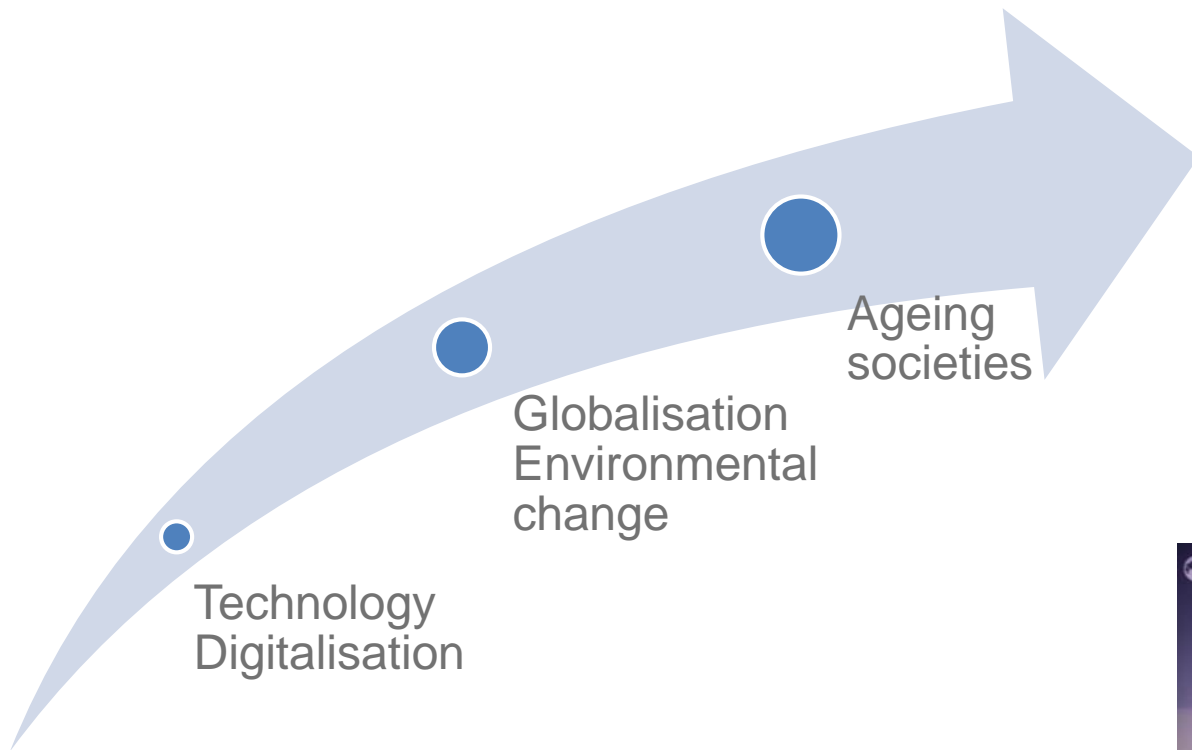
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Megatrends shaping the future of work



Changing:
What jobs will be created
How, where and
by **whom** they are
carried out

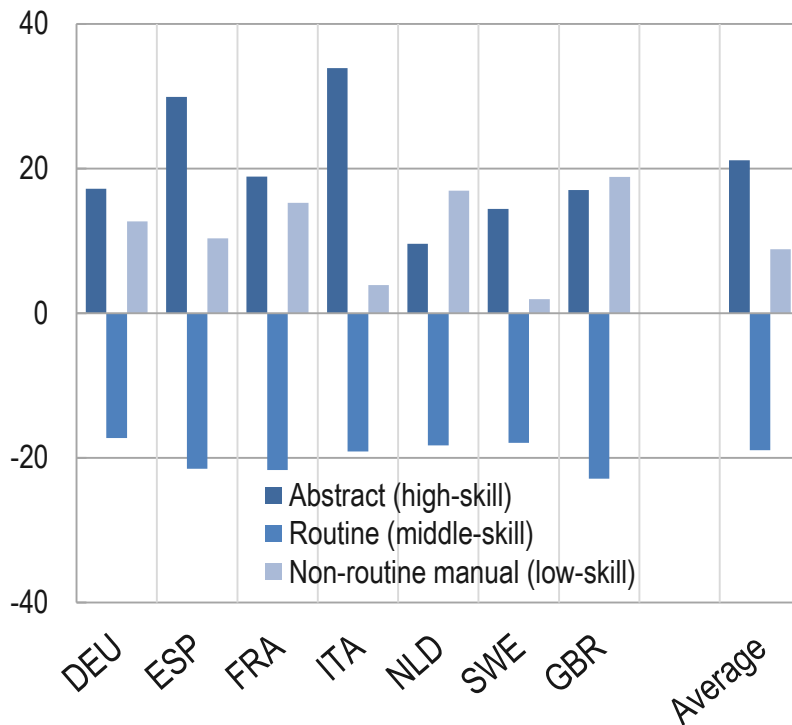




Expect **substitution** for certain kinds of jobs: polarisation in skill demands

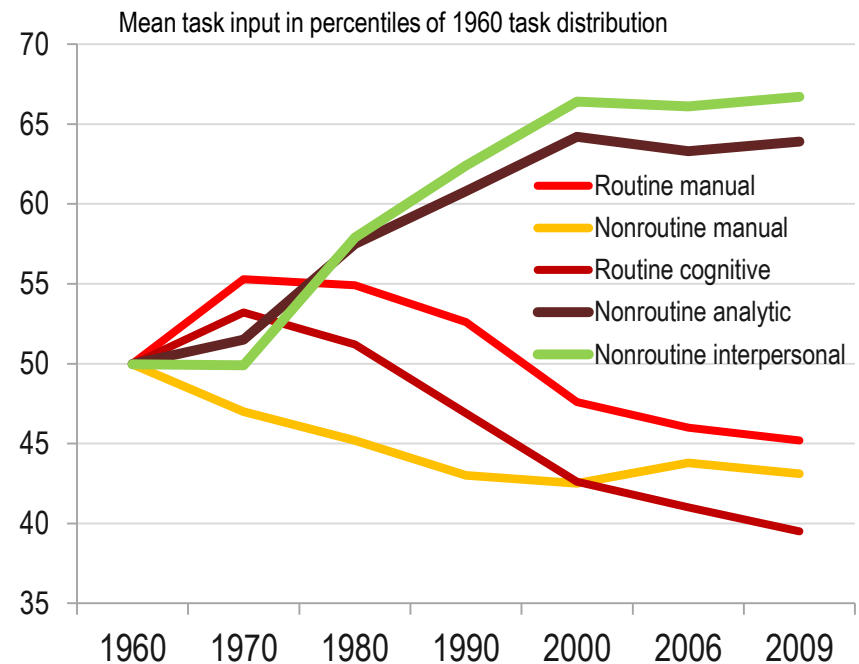
Demand for skills

Growth (%) 1995/98-2010



Index of changing work tasks in the USA

Index value: 1960 = 50



Source: OECD (2015). *In It Together: Why Less Inequality Benefits All*, OECD Publishing.

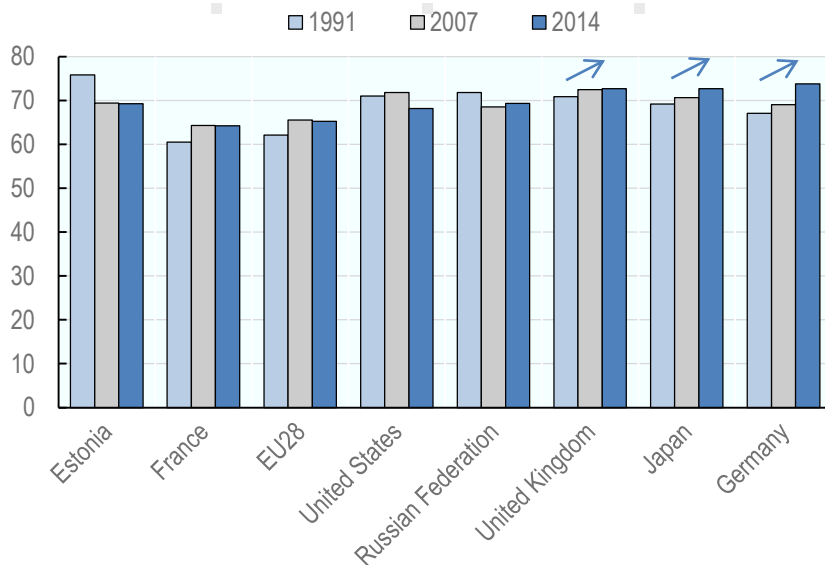
Source: Levy and Murnane (2013), *Dancing with Robots: Human Skills for Computerized Work*, Third Way



Mass technological unemployment or mass change in job task requirements?

Employment to population ratio

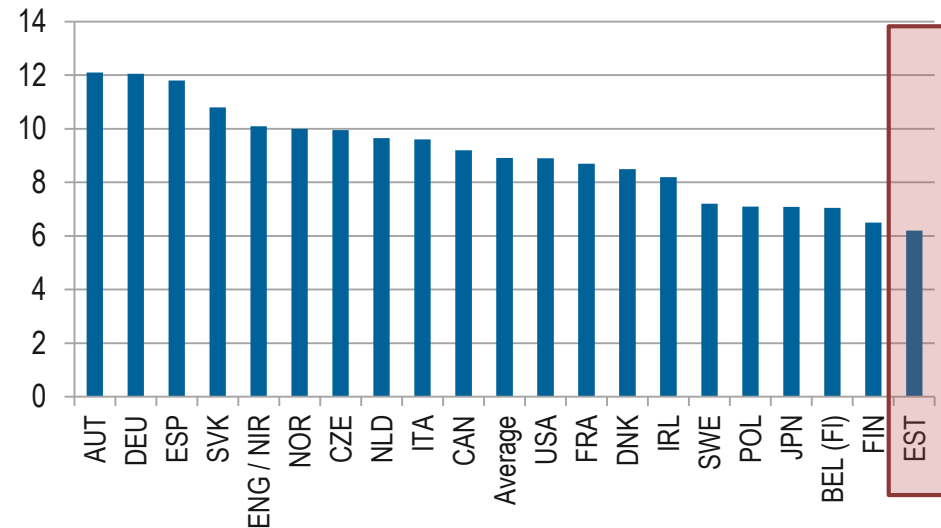
Percentage of the working-age population (aged 15/16-64)



Source: OECD Labour Force Statistics Database

Workers at high risk of substitution

Percentage of workers with >70% of substitutable tasks



Source: Survey of Adult Skills (PIAAC); Arntz et al (2016)

- Technical change has changed the occupational structure of our economies and the types of skills needed but not the aggregate demand for labour.



The platform economy is coming near you

Greater income,
efficiency and
flexibility?

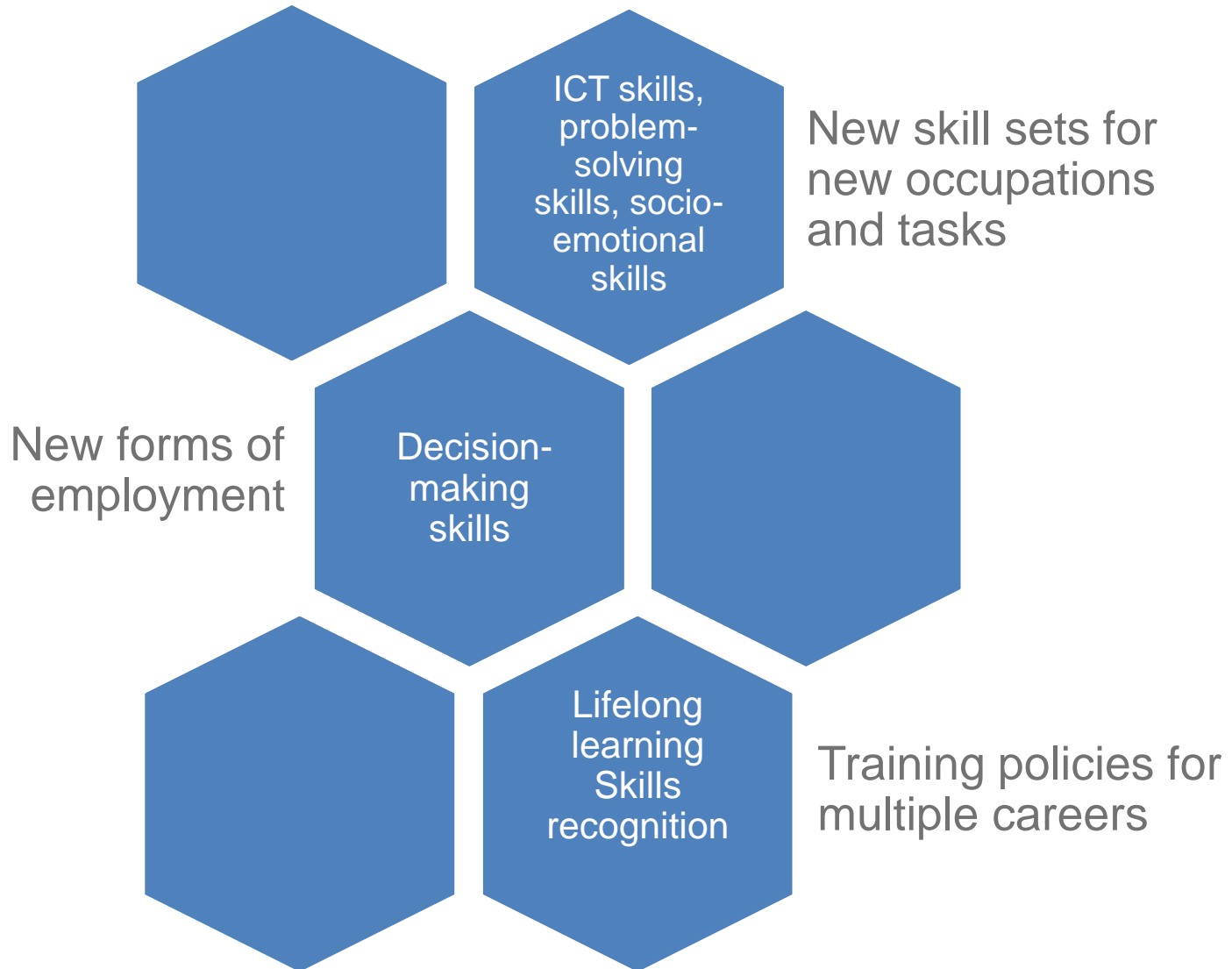


Or less social
protection and
greater precarity?





The future of work requires a change to how we think about skills

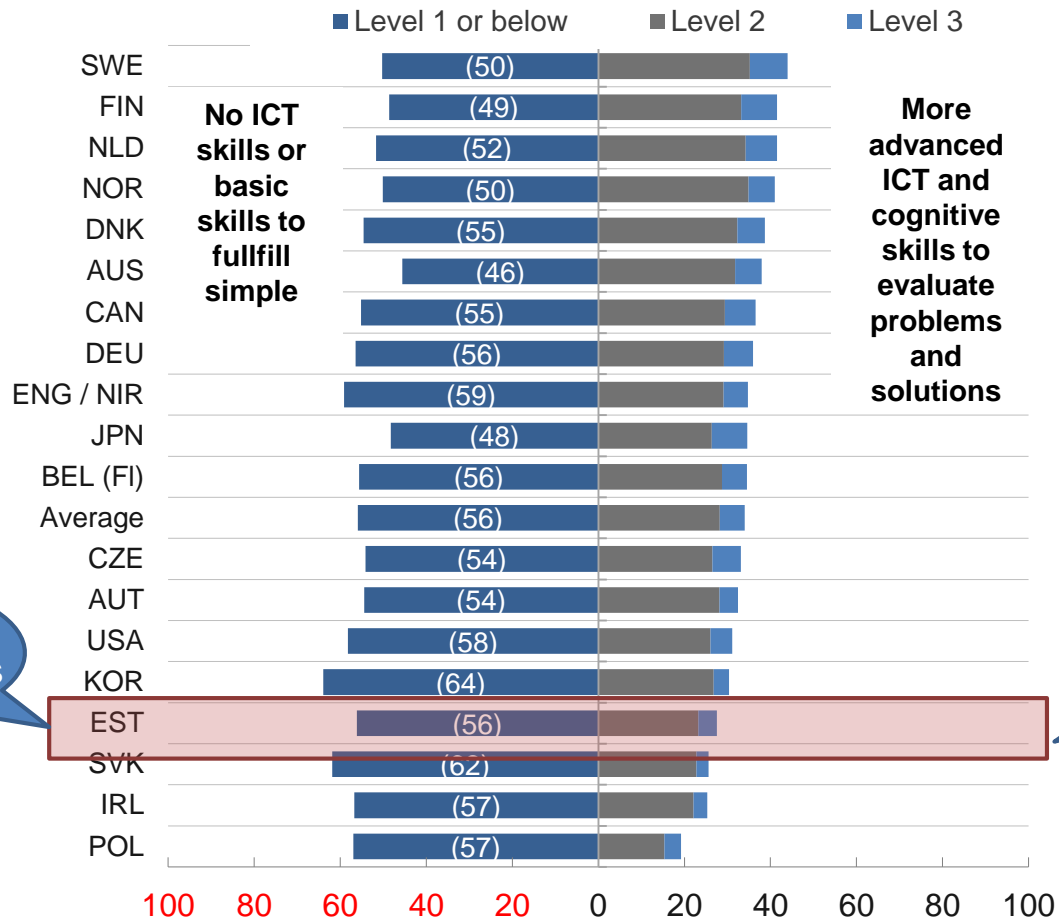




Do workers have the skills for the new jobs?

Problem-solving skills in Technology-Rich Environments

Percentage of the working-age population (aged 15/16-64)



No ICT skills or basic skills to fulfill simple

More advanced ICT and cognitive skills to evaluate problems and solutions

Many workers lacking ICT skills

Few high-skilled workers

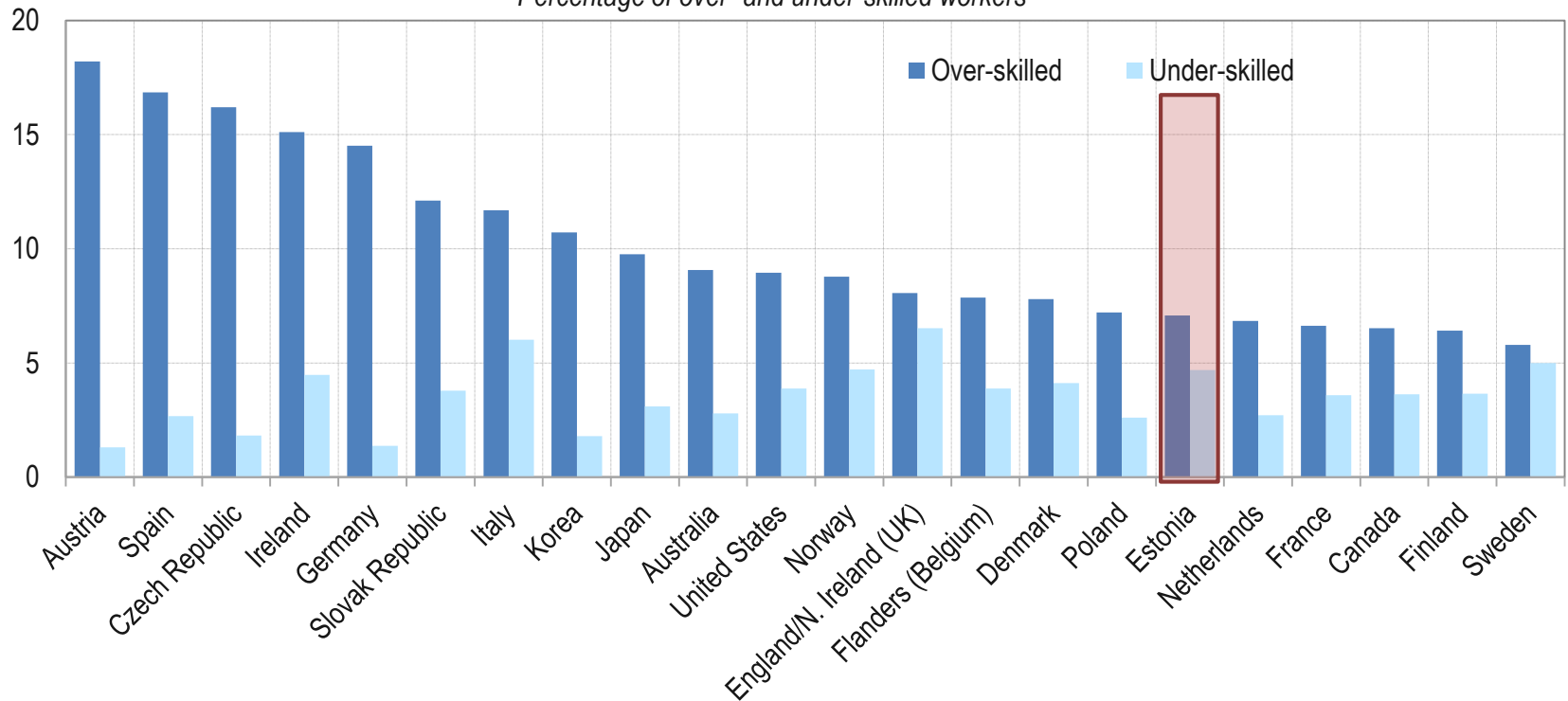
Source: OECD (2013), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing.



Extensive skill mismatch across countries

Skills mismatch in literacy

Percentage of over- and under-skilled workers



Notes: Over-skilled workers are those whose proficiency score is higher than that corresponding to the 95th percentile of self-reported well-matched workers – i.e. workers who neither feel they have the skills to perform a more demanding job nor feel the need of further training in order to be able to perform their current jobs satisfactorily – in their country and occupation. Under-skilled workers are those whose proficiency score is lower than that corresponding to the 5th percentile of self-reported well-matched workers in their country and occupation.

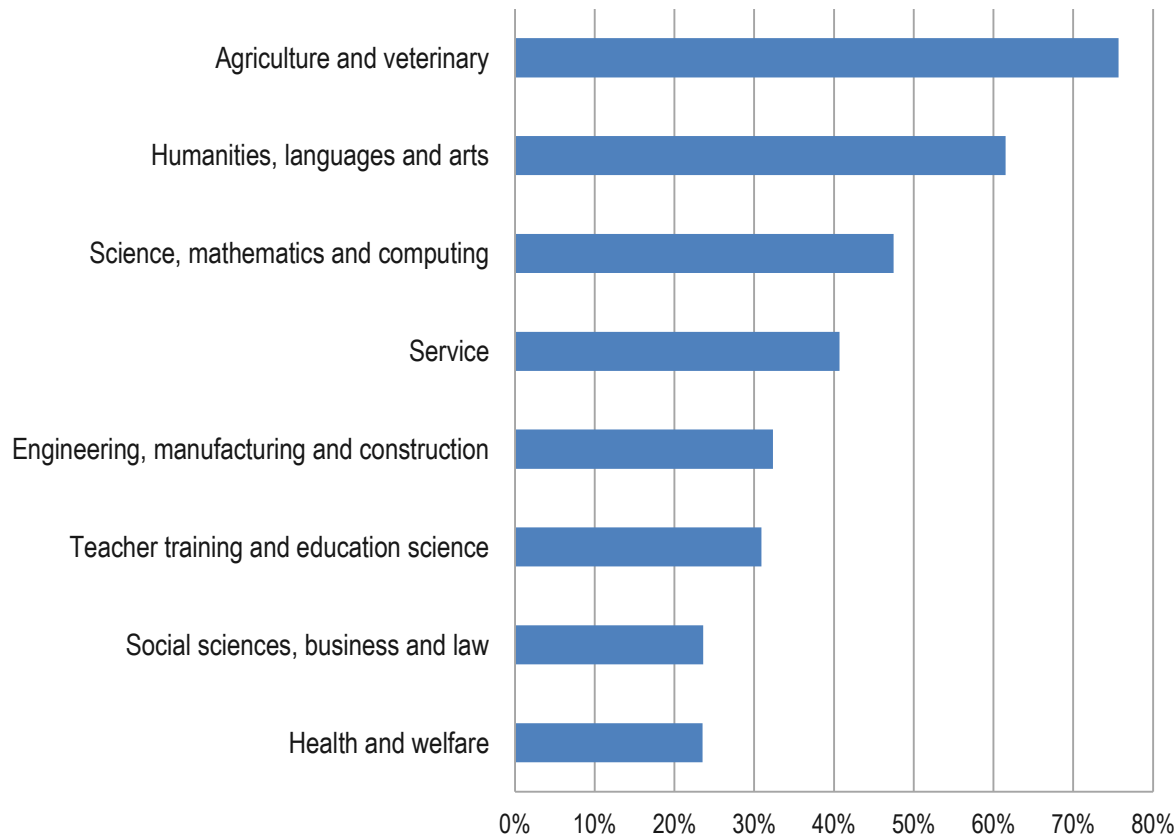
Source: Survey of Adults Skills (PIAAC) (2012), Table A4.25.



...and across sectors and fields of study...

Field of study mismatch by field of study – Estonia

Percentage of workers from a field working in another

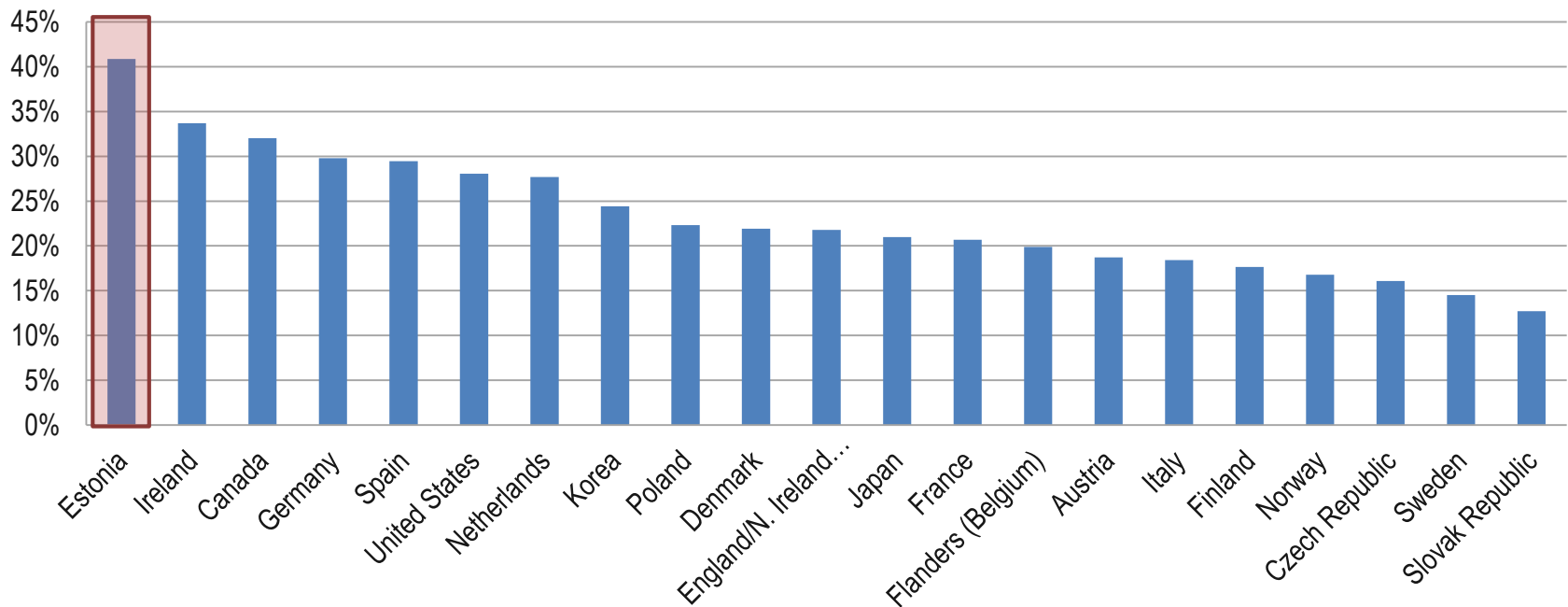


Source: Montt (2015) based on the Survey of Adults Skills (PIAAC) (2012)



...leading to a substantial wage penalty for those who are mismatched...

Wage penalty for over-qualified and field of study mismatched workers

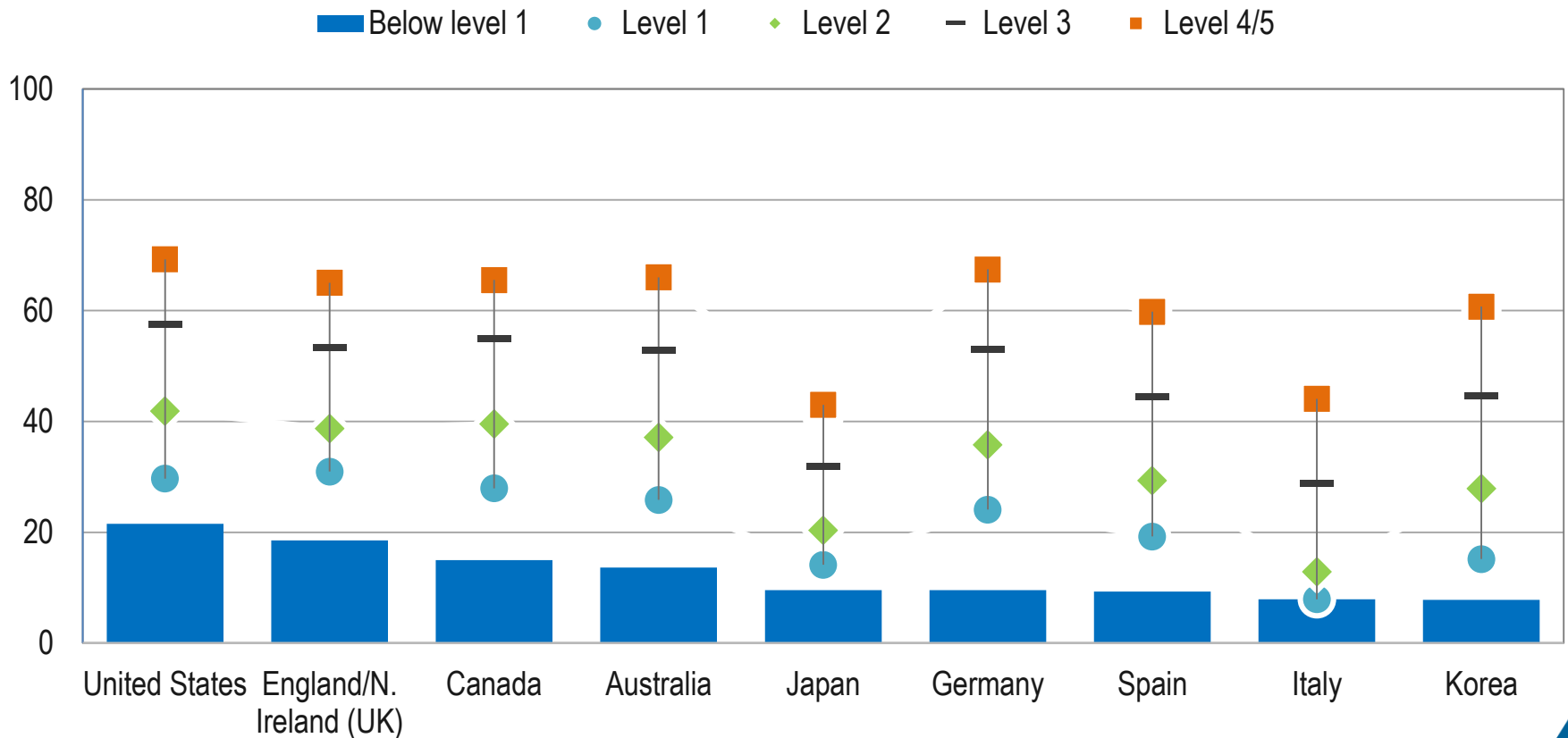


Notes: Linear regression with log(wages) as the dependent variable. Control variables in all country regressions: age, experience, tenure, type of contract, firms size etc.
Source: Montt (2015) based on the Survey of Adults Skills (PIAAC) (2012)



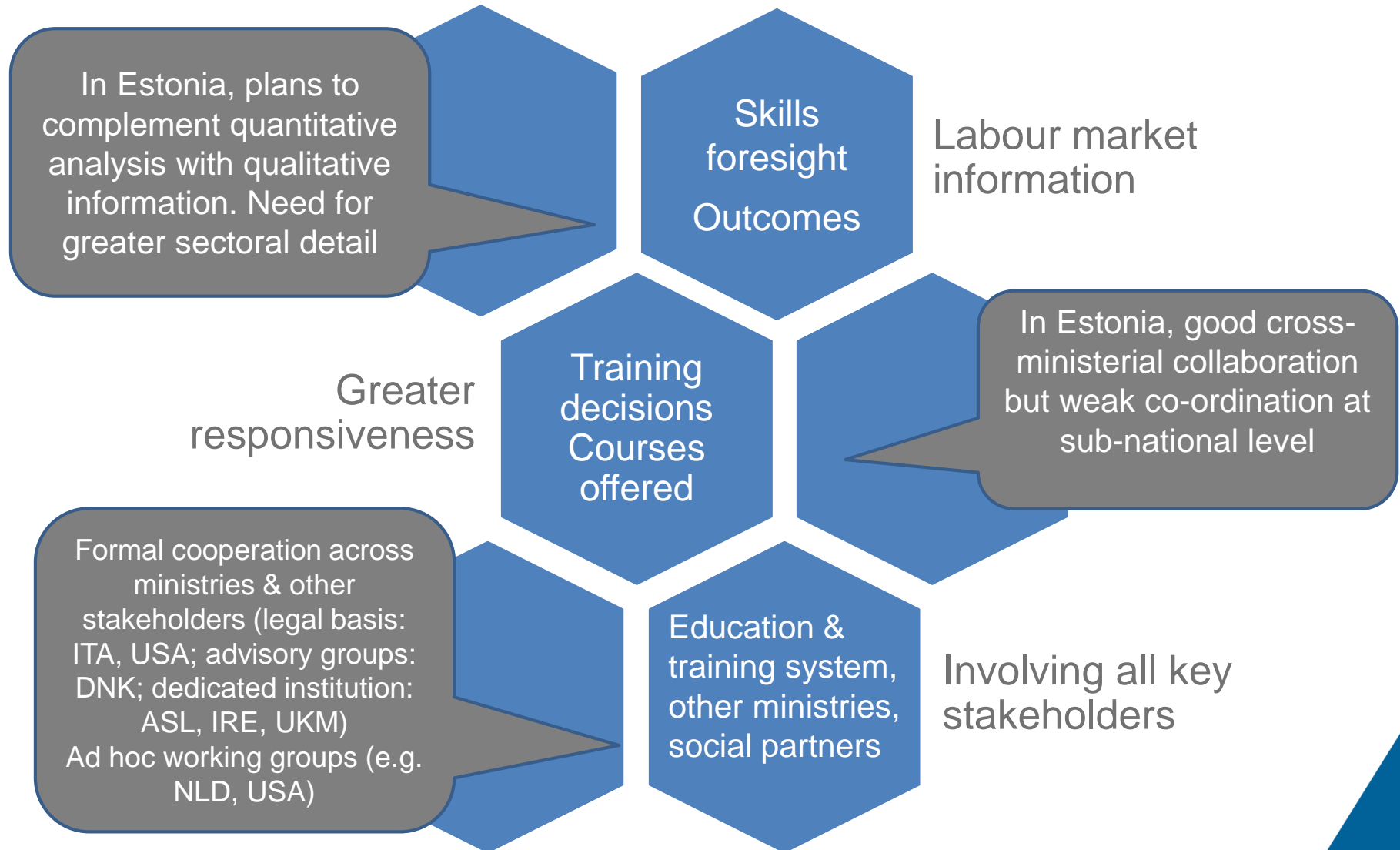
Job-related training – most in need get the least

Percent of working population participating in job-related education and training during the last year





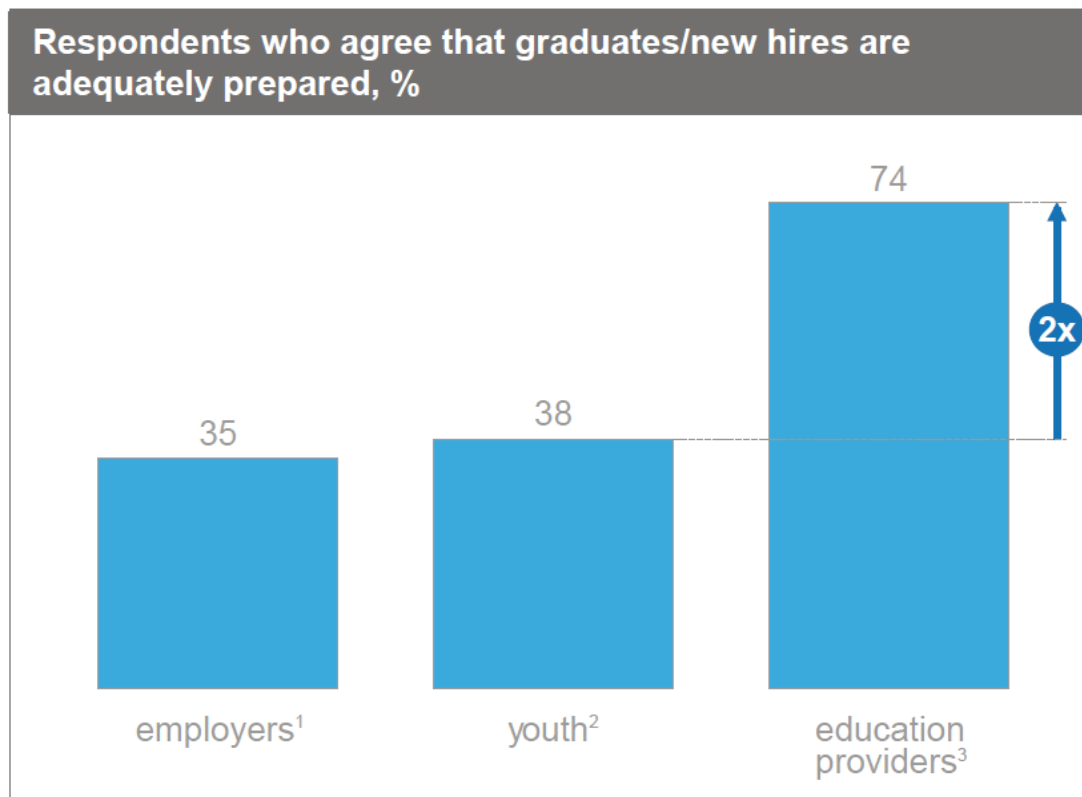
Need for better anticipation of changing skill needs and greater responsiveness





Need for greater alignment in identification of skill needs across stakeholders

Providers are twice as likely as employers and youth to rate youth as prepared



- 74% of education providers across 8 major EU Economies believe youth to be prepared for their job
- Yet, only 35% of employers share the same opinion on new hires

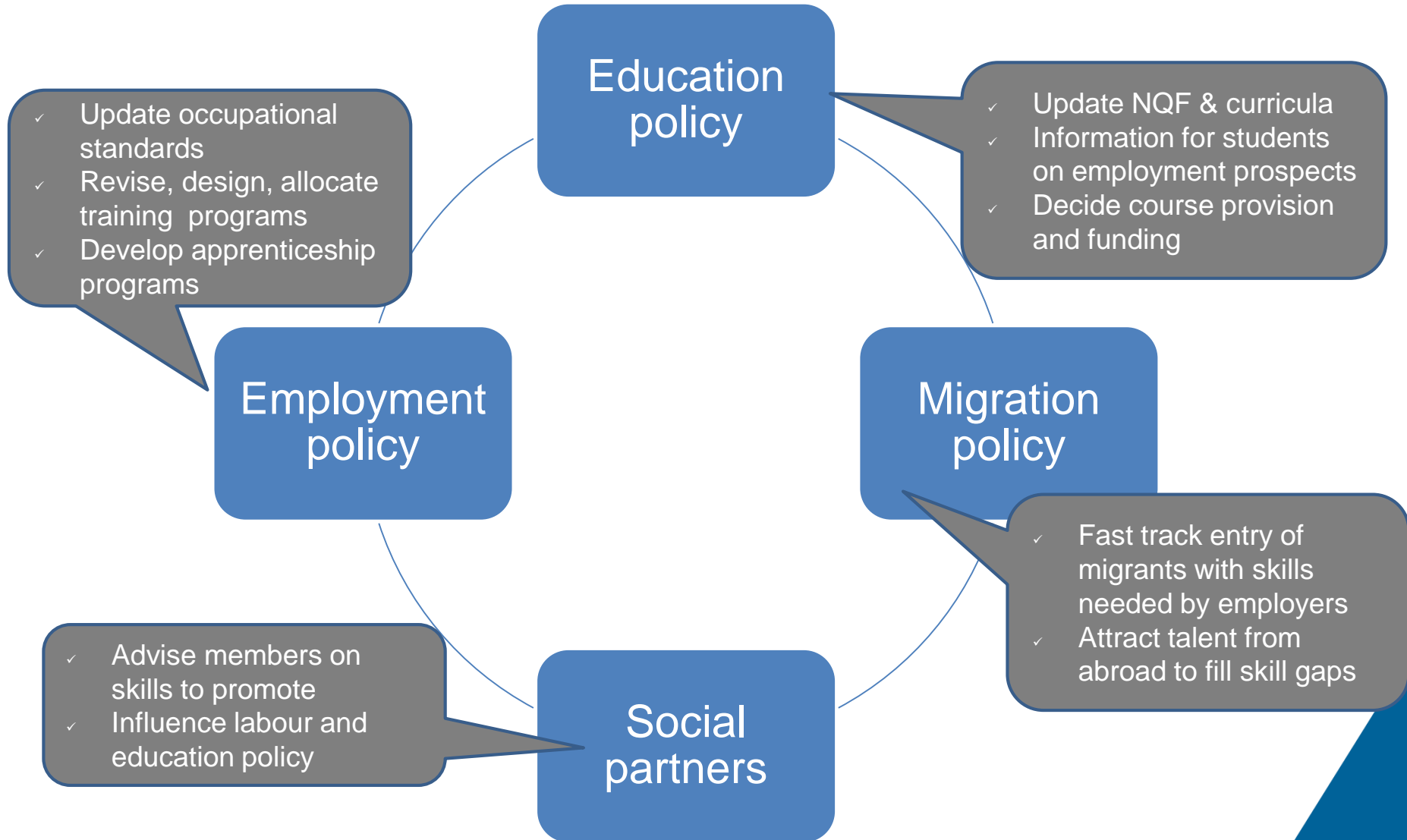
¹ Overall, the entry-level employees we hired in the past year have been adequately prepared by their prehire education and/or training.

² Overall, I think I was adequately prepared for an entry-level position in my chosen career field.

³ Overall, graduates from my institution are adequately prepared for entry-level positions in their chosen field of study.



Integrated skill needs information for better employment, education and migration policy



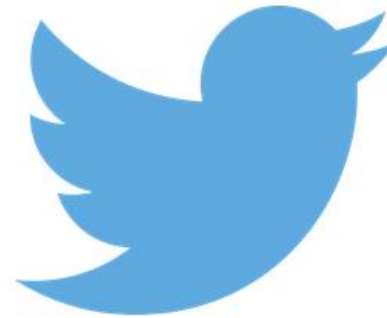
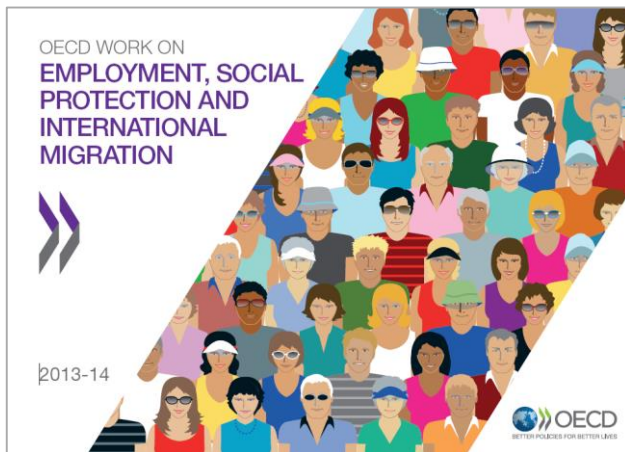


Thank you

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