

The future of work: The age of uncertainty

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Boussias, 25 Oct 2022

► Future of work – Facing multiple challenges



New technologies and forms of work...

...amidst rapidly ageing populations...

...and the need to green our economies...

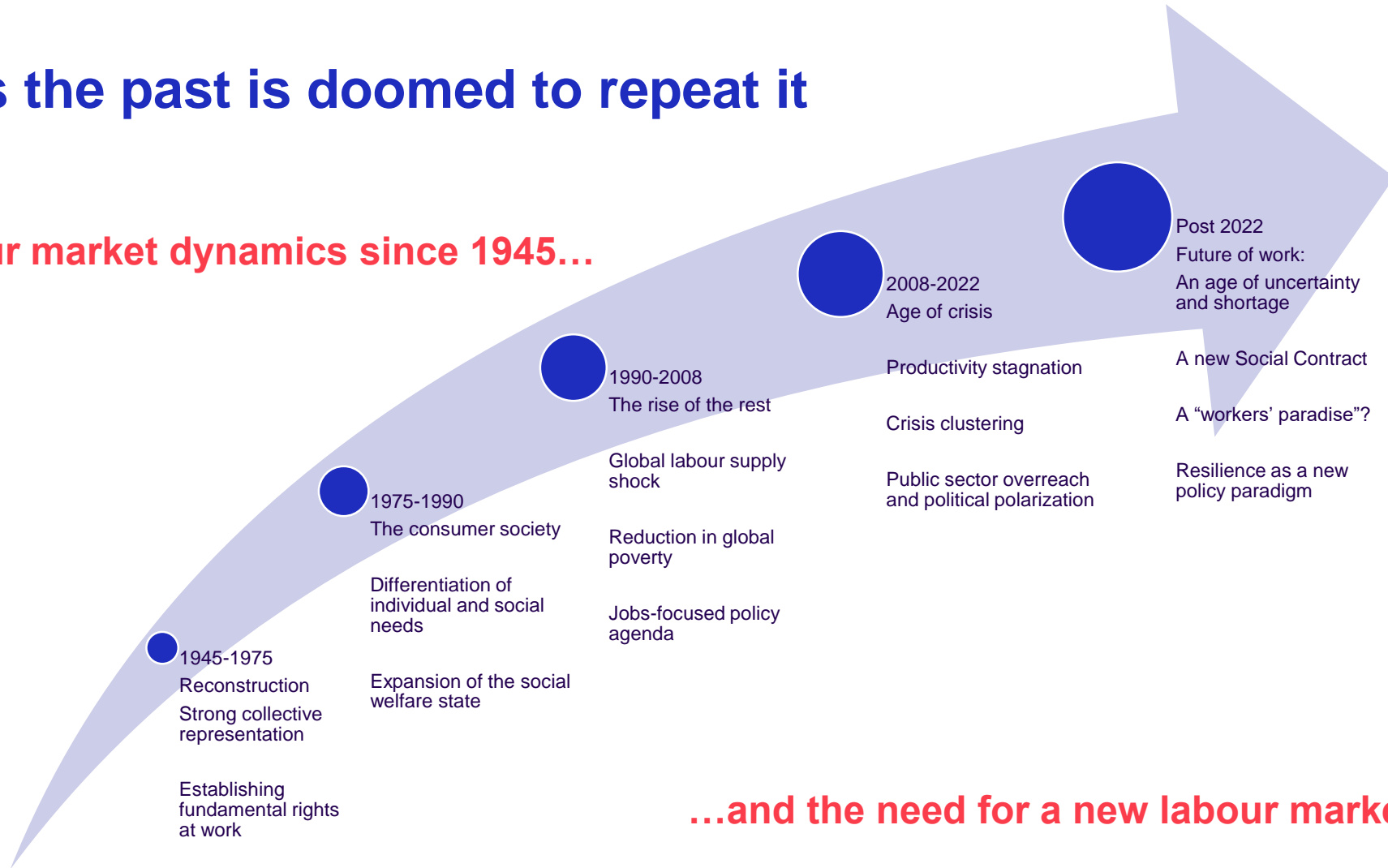
...while recovering from a pandemic-induced recession...

...against the background of heightened uncertainty and geo-political risks

▶ **An age of crisis**

Who forgets the past is doomed to repeat it

4 waves of labour market dynamics since 1945...

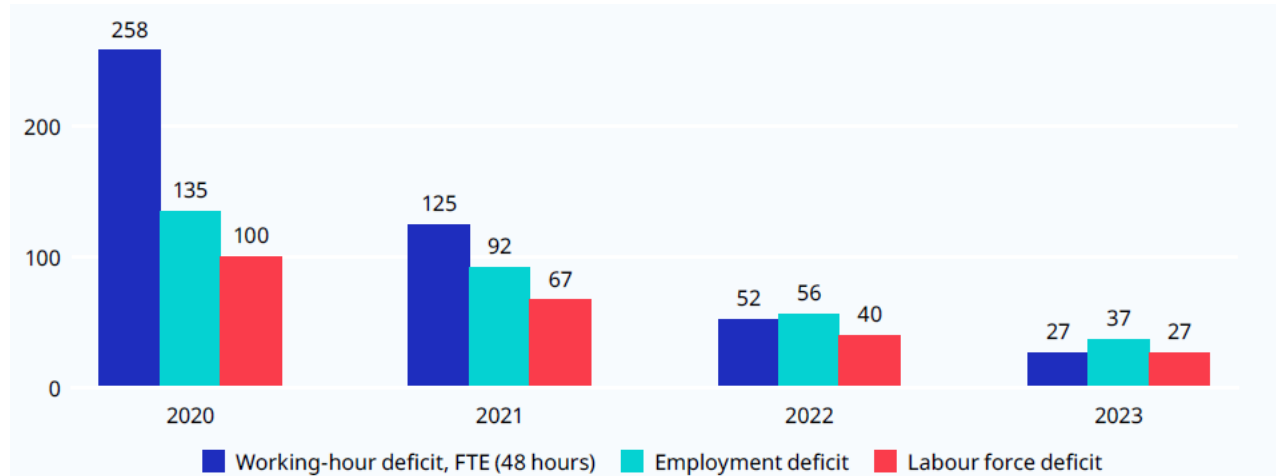
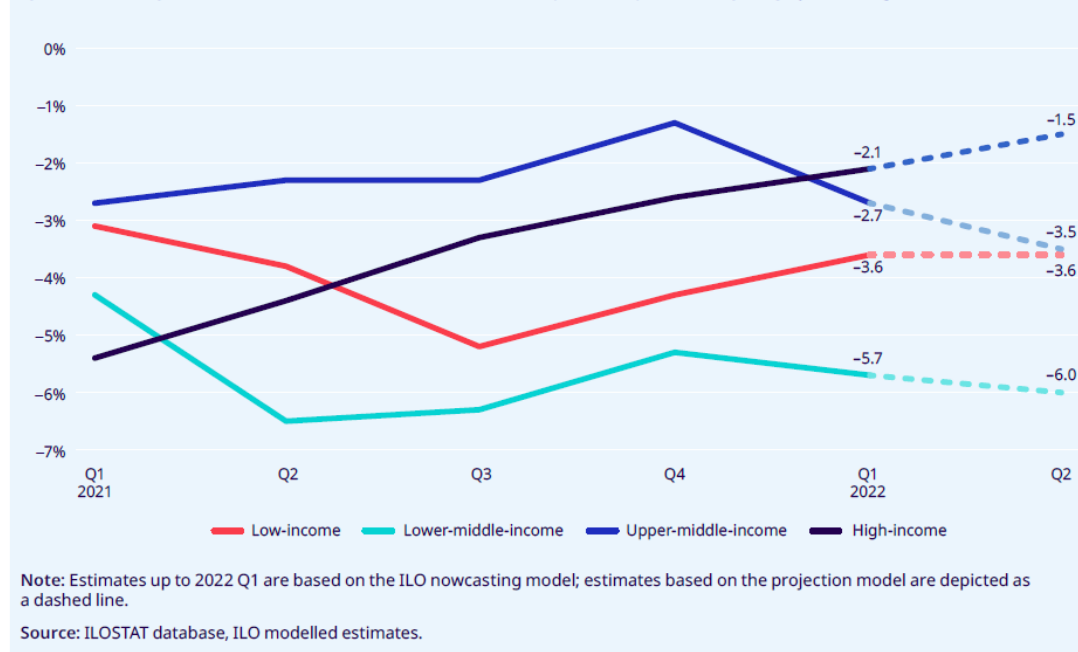


...and the need for a new labour market paradigm



Labour market deficits remain large...especially outside the OECD

Figure 3. Change in hours worked relative to 2019 Q4, by country income group (percentage)



Note: The deficit represents the additional FTE of hours worked (at 48 hours per week), employment or labour force that would exist if the respective ratios to the population aged 15–64 were at the levels of the fourth quarter of 2019 (hours worked) or of the year 2019 (employment and the labour force).

Source: Authors' calculations based on ILOSTAT, ILO modelled estimates, November 2021.



Labour market shortages started to appear....

Many companies started to experience difficulties to (re-)hire workers

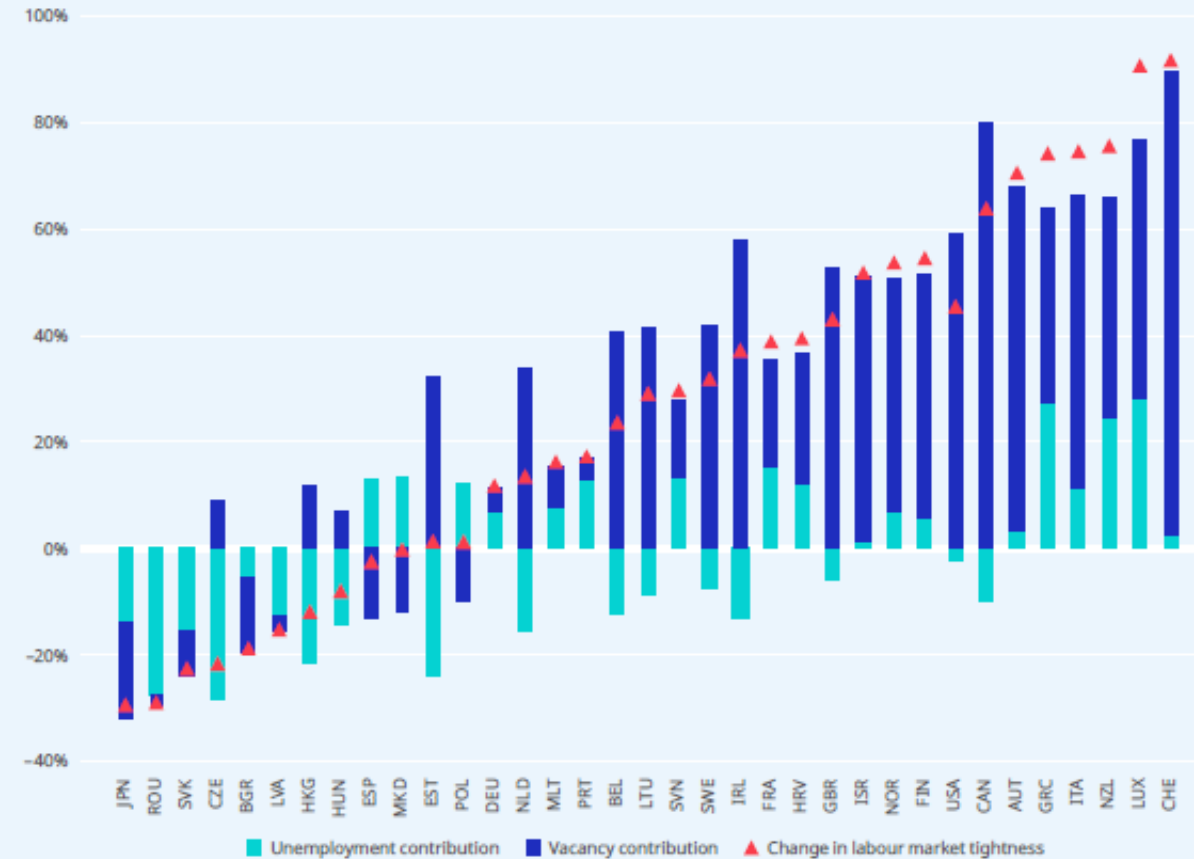
Labour supply still down...partly due to health-related reasons

But an ageing population will worsen talent shortages



Advancing social justice, promoting decent work

Figure 11. Changes in labour market tightness and contributions by component, latest period available (selected countries, October 2021–March 2022)

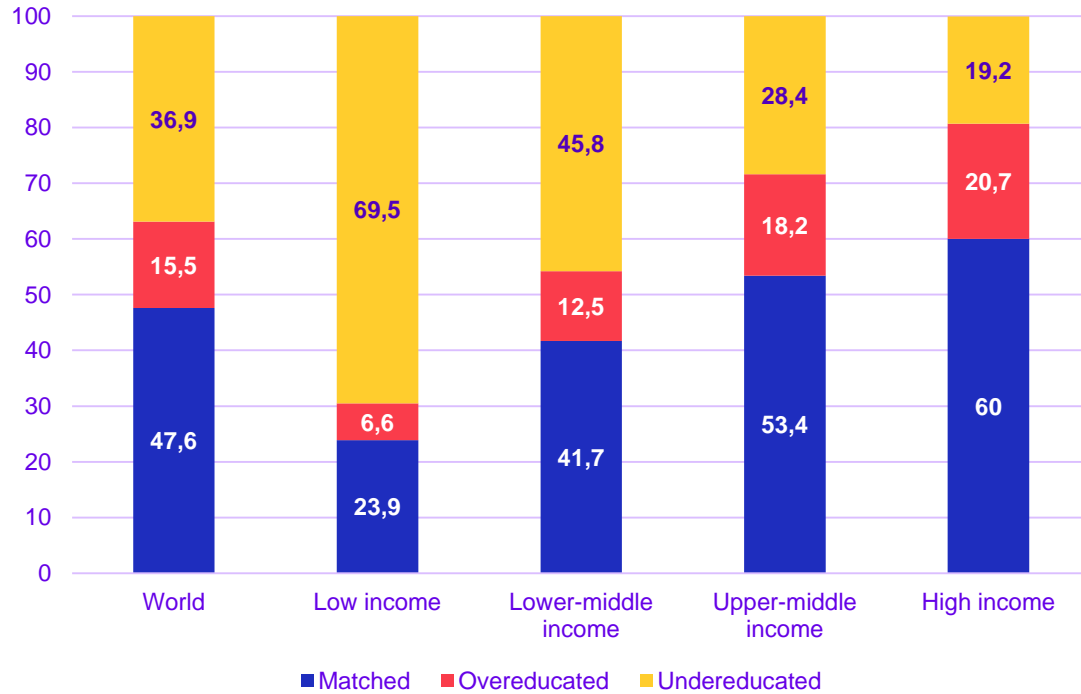


Note: Australia, Cyprus, Iceland and Malaysia not shown for visualization purposes, as they present very large values. Comparison of latest data with the same reference period (quarter or month) in 2019. Countries indicated by the ISO three-digit code: AUT – Austria, BEL – Belgium, BGR – Bulgaria, CAN – Canada, HRV – Croatia, CZE – Czechia, EST – Estonia, FIN – Finland, FRA – France, DEU – Germany, GRC – Greece, HKG – Hong Kong (China), HUN – Hungary, IRL – Ireland, ISR – Israel, ITA – Italy, JPN – Japan, LVA – Latvia, LTU – Lithuania, LUX – Luxembourg, MLT – Malta, NLD – Netherlands, NZL – New Zealand, MKD – North Macedonia, NOR – Norway, POL – Poland, PRT – Portugal, ROU – Romania, SVK – Slovakia, SVN – Slovenia, ESP – Spain, SWE – Sweden, CHE – Switzerland, GBR – United Kingdom, USA – United States. The change in labour market tightness can be decomposed into the contribution of rising vacancies, the contribution of declining unemployment, and the interaction between the two (which is not shown in the graph due to its smaller magnitude). At the country level these three terms will add up exactly to the change in labour market tightness. See Technical annex 3 for more details.

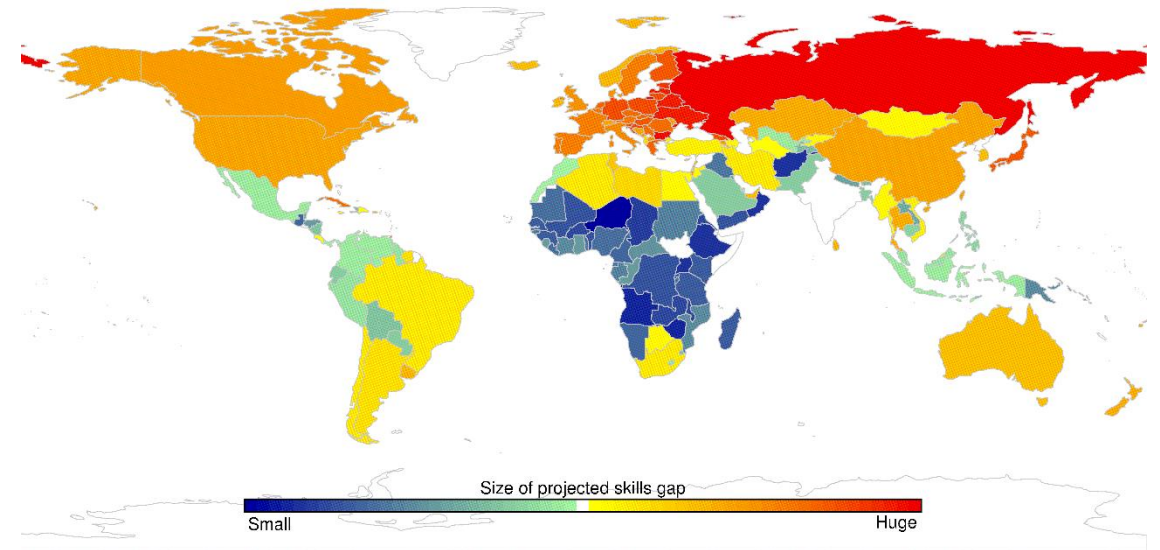
Sources: ILOSTAT database, EUROSTAT, Trading Economics, Statistics Canada and UK's Office of National Statistics.

...and are unlikely to disappear

Talent shortages world-wide

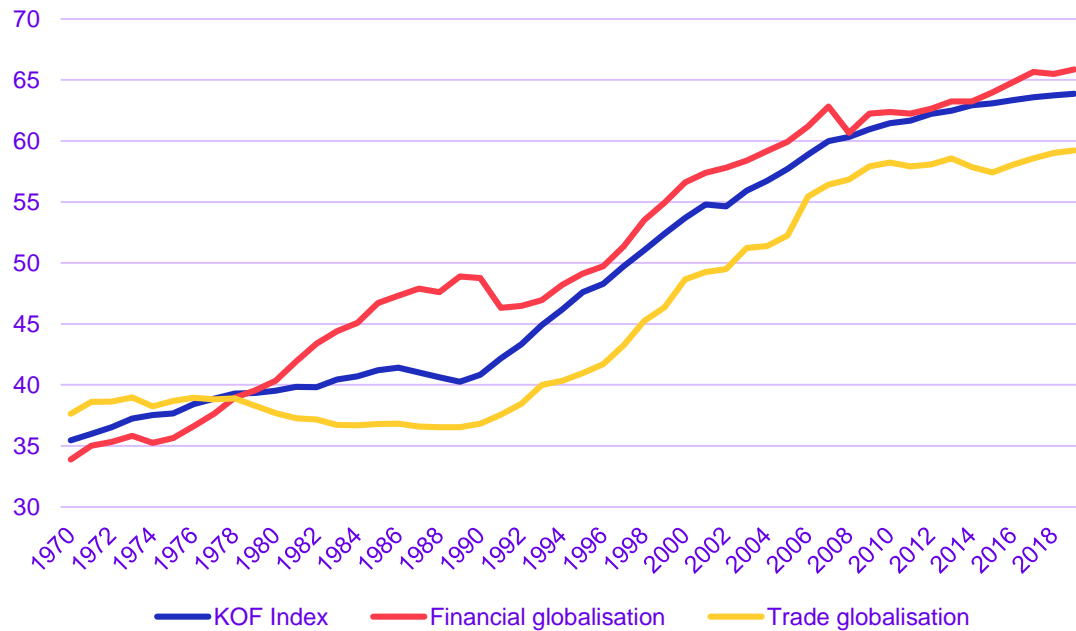


Skill projections until 2025

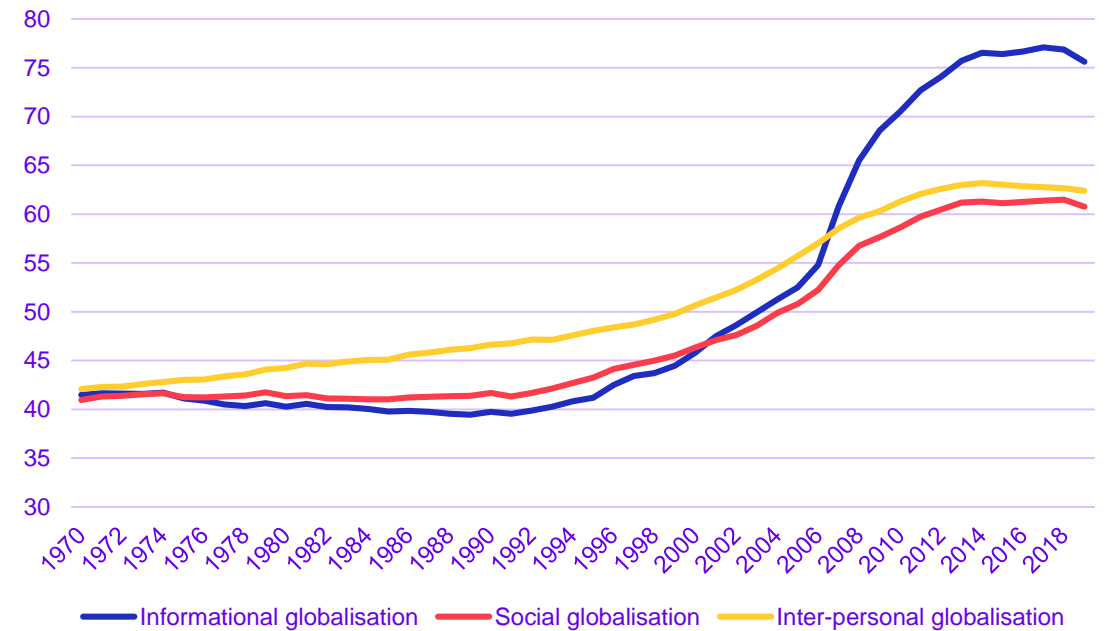


Globalization no longer a driver of progress and exchange

Economic and financial globalisation

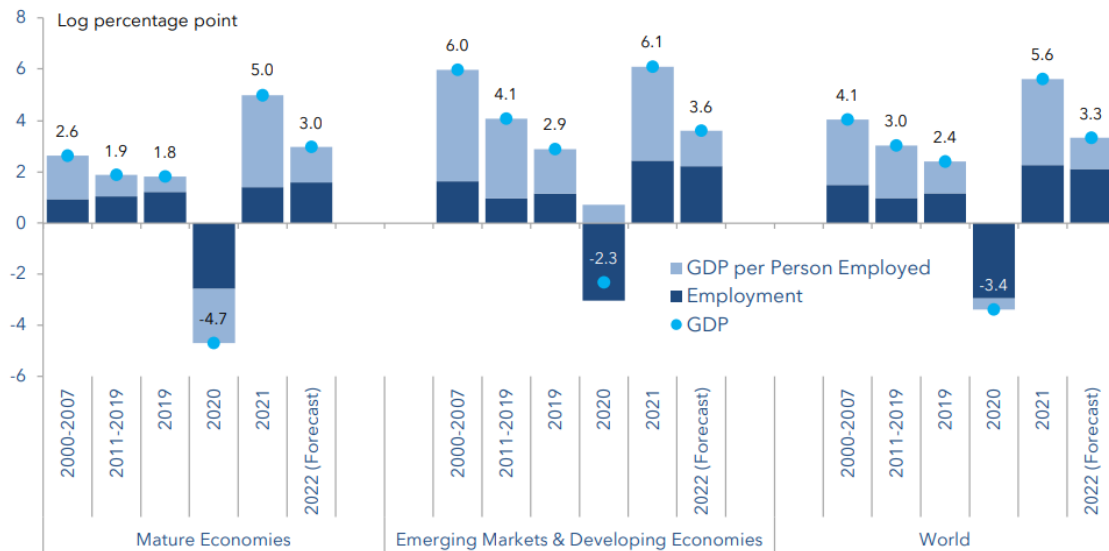


Social and informational globalisation



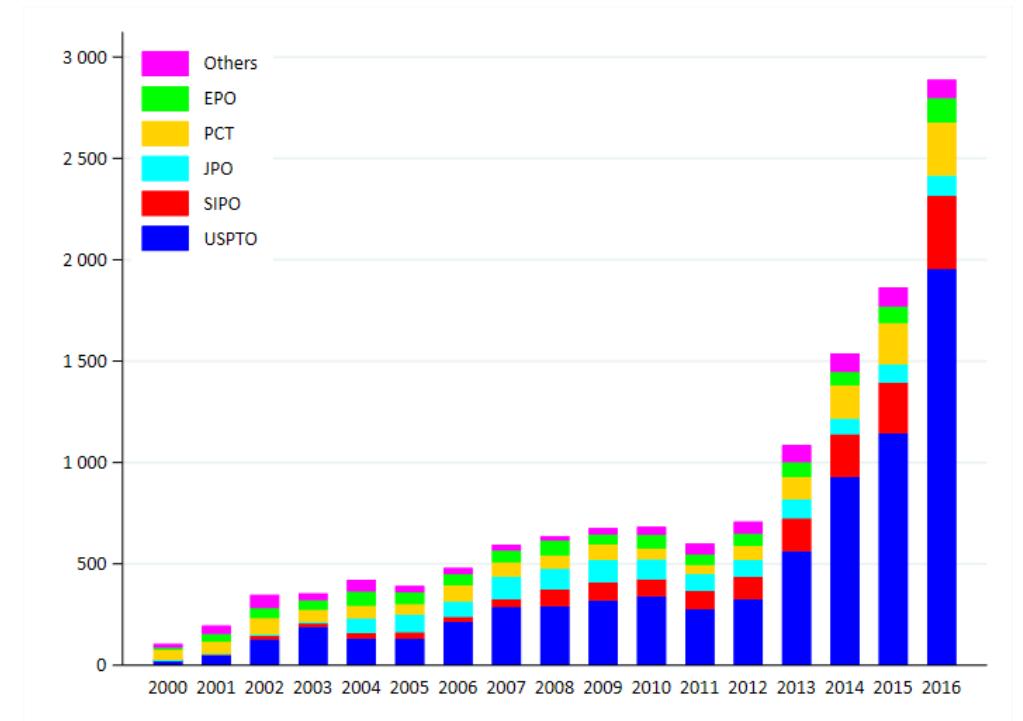
Productivity growth continues to slow...

Global productivity has disappointed....



Source: The Conference Board

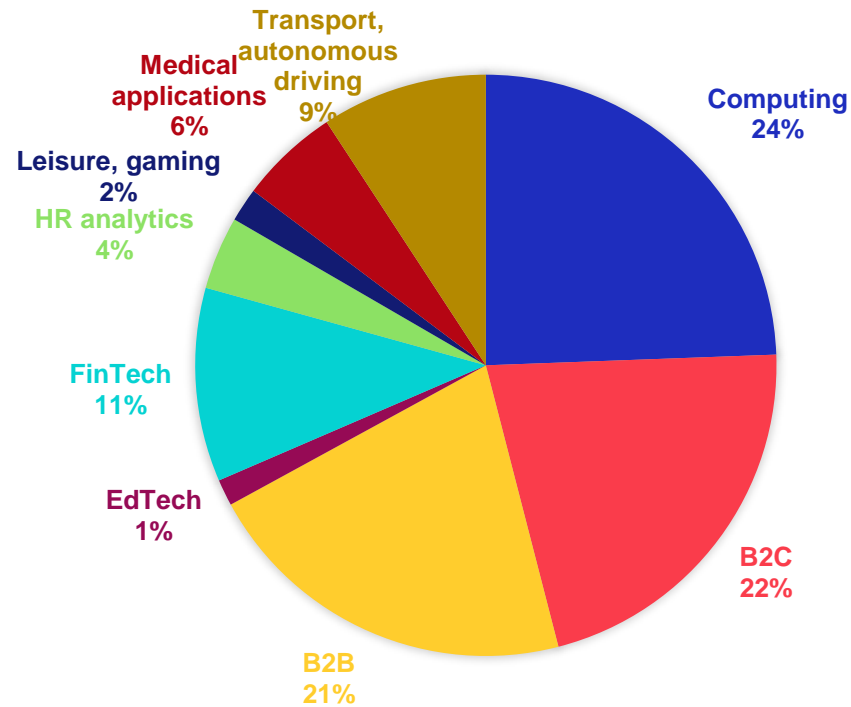
...despite an acceleration in new technologies



Source: Ernst, Merola, and Samaan, 2019



► **...as most tech applications are concentrated in only few domains...**
...with limited economy-wide benefits



E-commerce and B2B applications with limited impact on productivity

High and rising entry barriers to app development

Lack of access to data/algos

Rising energy costs

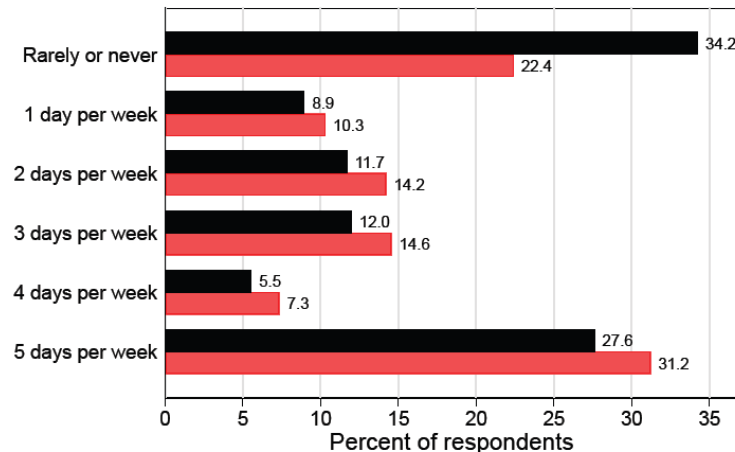
Regulatory compliance costs

Source: Geneva Macro Labs, 2022



Remote work is here to stay...

Employees would like to work remotely....



All respondents
 Respondents able to WFH*

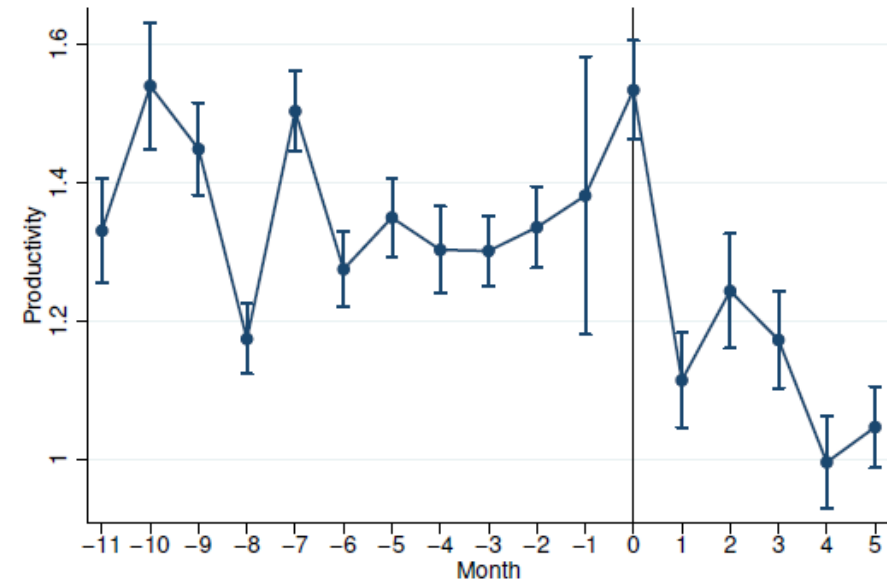
*64% of the full sample meets this criterion

Source: Responses to the question:

In 2022+ (after COVID) how often would you like to have paid work days at home?

Notes: Data are from 33,250 survey responses collected from May 2020 through March 2021 by Inc-Query and QuestionPro. "Respondents able to WFH" are those who say they can work from home at least partially and those who report having mainly worked from home at some point during the COVID-19 pandemic. We re-weight raw responses to match the share of working-age respondents in the 2010-2019 CPS in a given (age x sex x education x earnings) cell.

...but employers fear drop in productivity

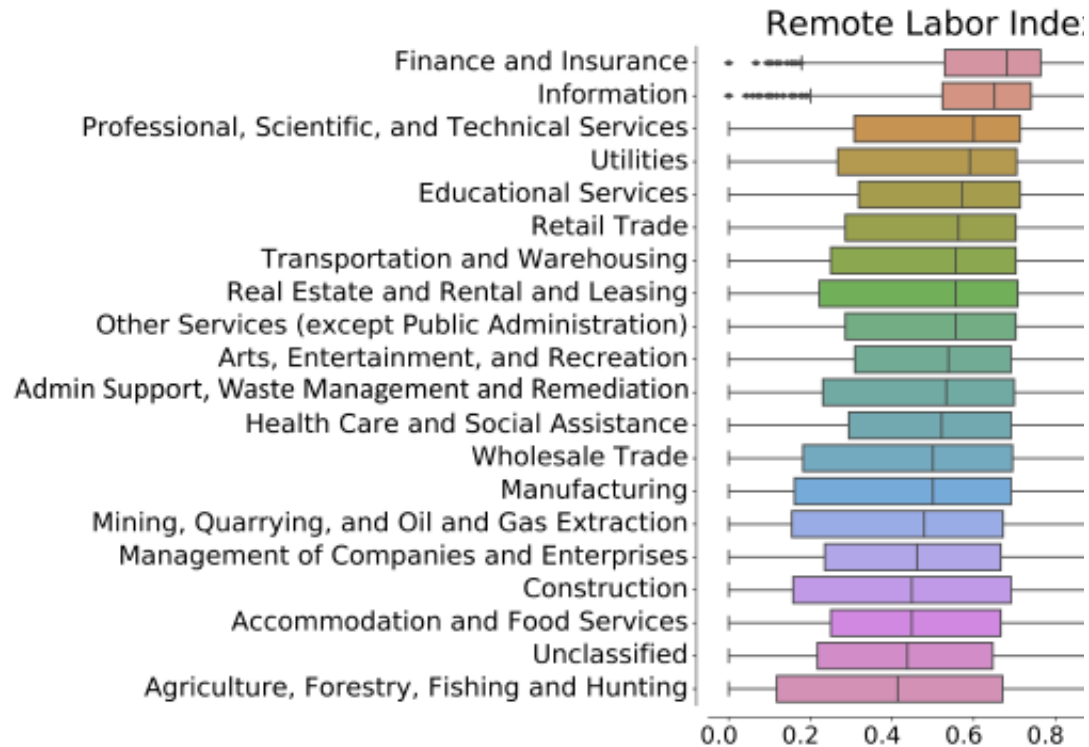


Productivity

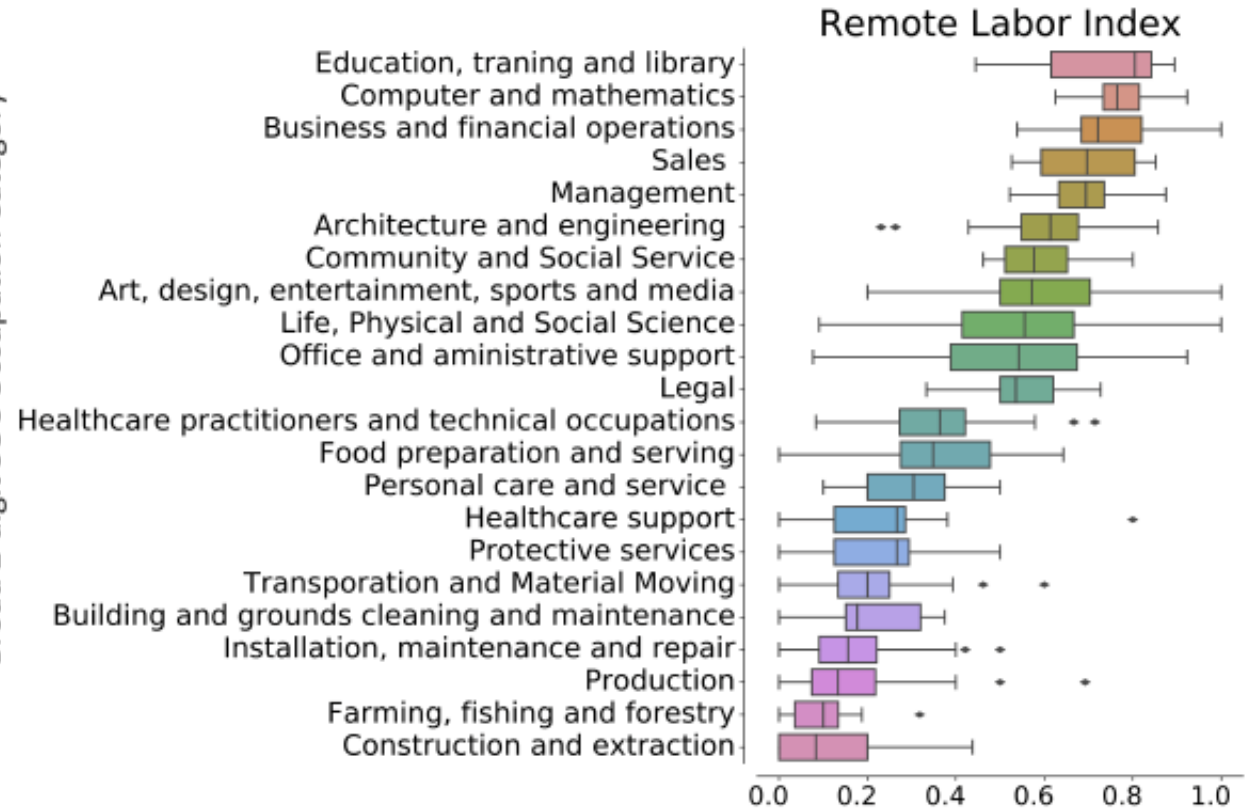


...with unequal effects across occupations

Broad 2-digit NAICS Industry Category



Broad 2-digit SOC Occupation Category

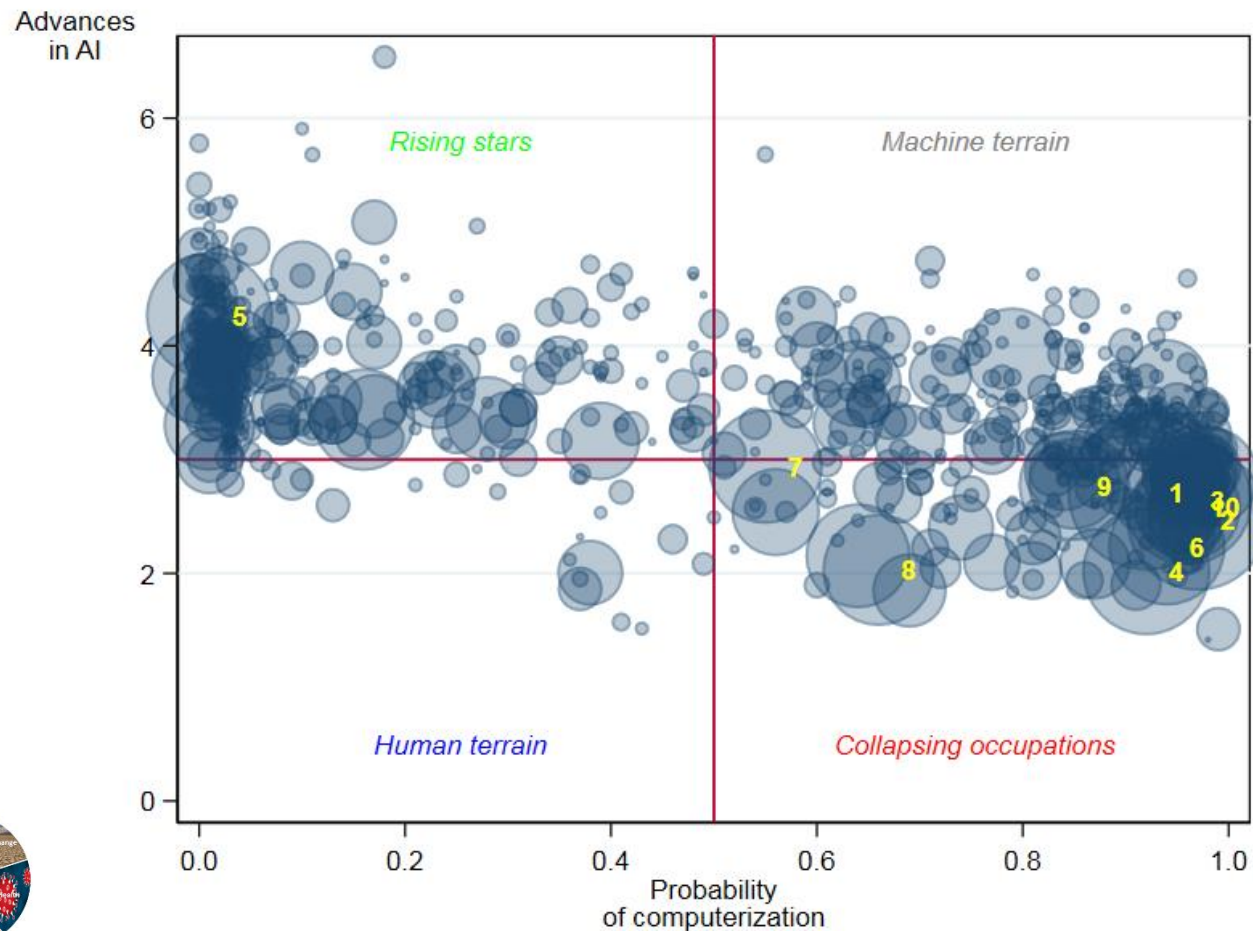


Outlook highly uncertain, will weigh on the recovery



▶ Which jobs for the future?

How is AI currently used in labour markets? Job destruction vs job augmentation in the United States



USA

#	Type of occupation/job
1	Retail salesperson
2	Cashiers
3	Office clerks
4	Cooks and serving personnel
5	Nurses
6	Waiters and waitresses
7	Customer Service Representatives
8	Janitors and cleaners
9	Laborers and Freight, Stock, and Material Movers
10	Secretaries and Administrative Assistants



AI is more than automation

		Computerization risk	
		<i>Low</i>	<i>High</i>
Level of transformation	<i>Low</i>	Needs human presence: <ul style="list-style-type: none"> • Specialized education • Trainers, coaches • Comedians, musicians 	Strong reduction in employment: <ul style="list-style-type: none"> • Distribution • Personal assistants • Accountants
	<i>High</i>	Improved productivity: <ul style="list-style-type: none"> • Medical personal • Scientists, engineers • Pilots, navigation personal 	Imminent job loss: <ul style="list-style-type: none"> • Executive assistants • (Lorry) drivers • Maintenance and reparation



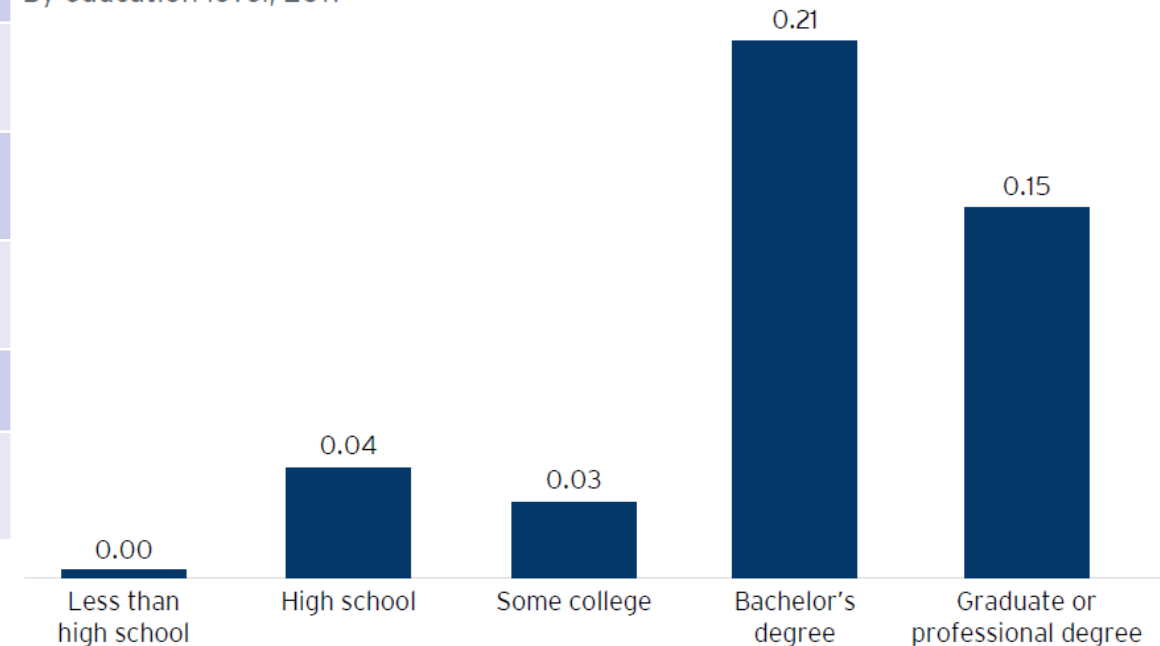
Verb	Example nouns
recognize	pattern, image, speech, face, voice, automobile, emotion, gesture, disease
predict	quality, time, performance, fault, behavior, traffic, prognosis, treatment
detect	signal, abnormality, defect, object, fraud, event, spammer, human, cancer
identify	object, type, damage, illegality, classification, relationship, importance
determine	state, similarity, relevance, importance, characteristic, strategy, risk
control	process, emission, traffic, engine, robot, turbine, plant, discharging
generate	image, rating, lexicon, warning, description, recommendation
classify	data, object, image, pattern, signal, text, electrogram, speech, motion



Advancing social justice, promoting decent work

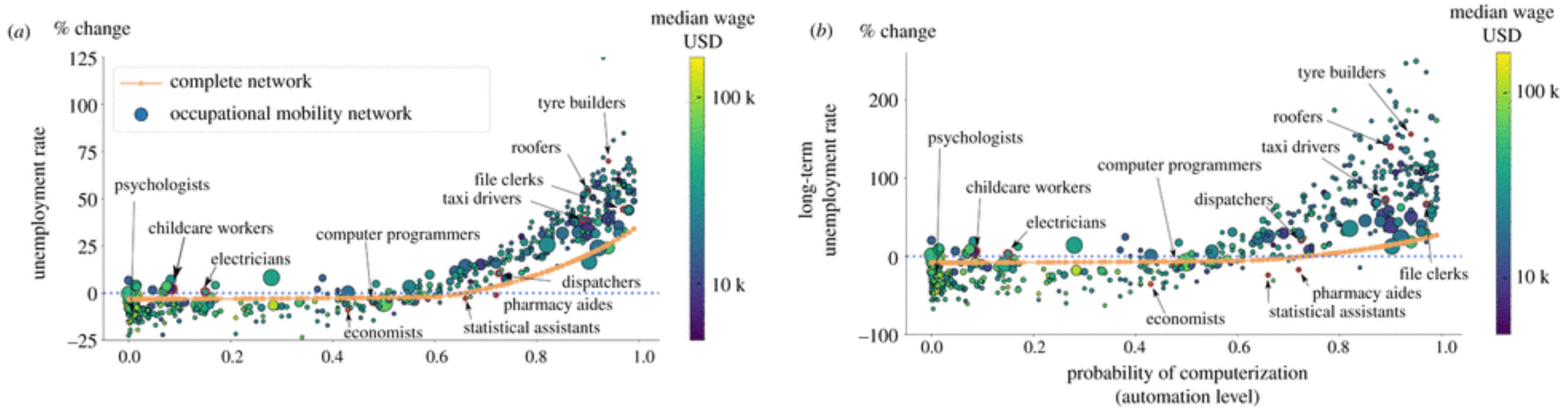
AI also affects white collar jobs...

Figure 3. Average standardized AI exposure
By education level, 2017



Source: Brookings analysis of Webb (2019) and IPUMS-USA ACS 1-year microdata

...making it harder to low-skilled workers to find new opportunities



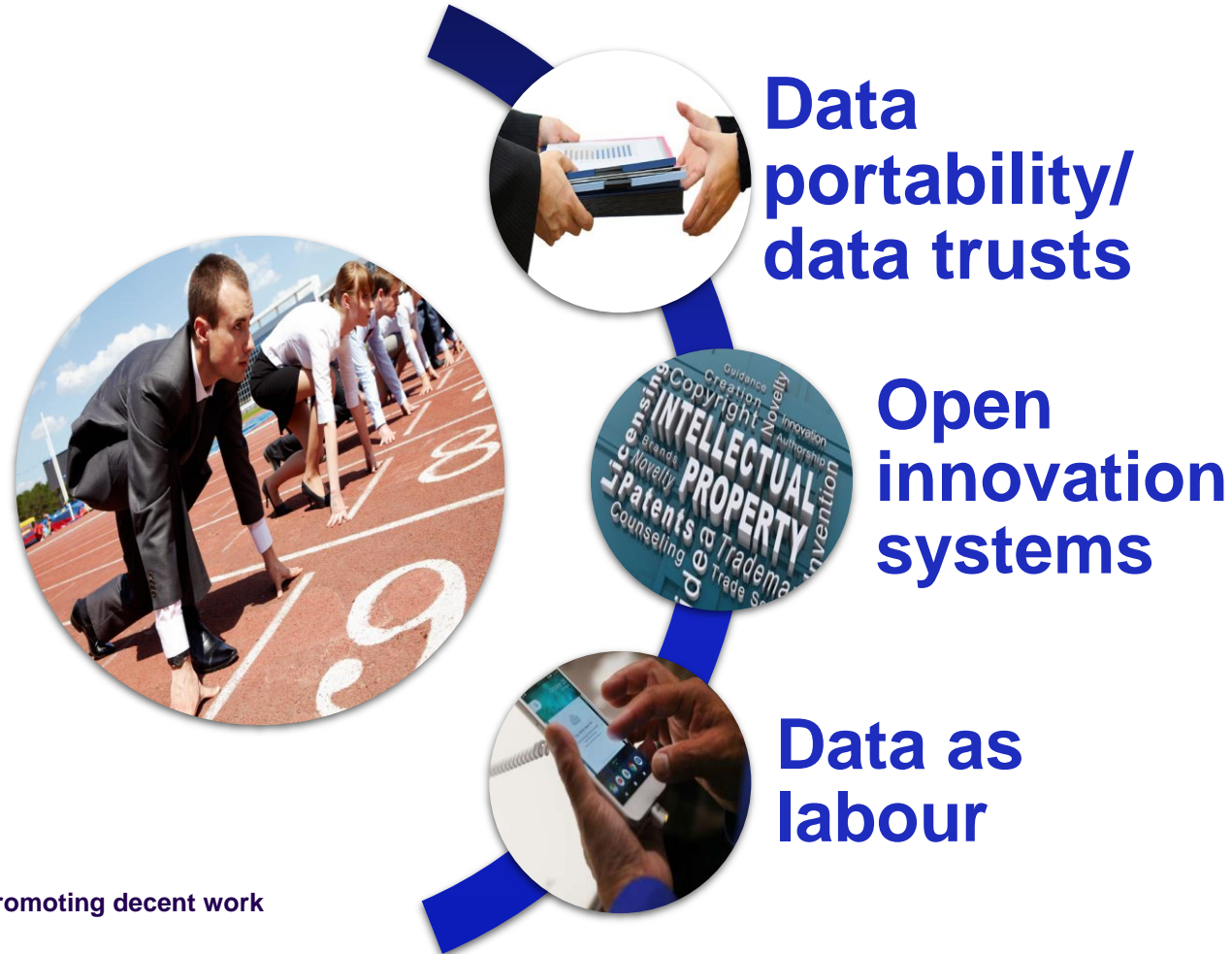
Less opportunities for change for low-skilled/low-wage earners

Source: <https://royalsocietypublishing.org/doi/10.1098/rsif.2020.0898>

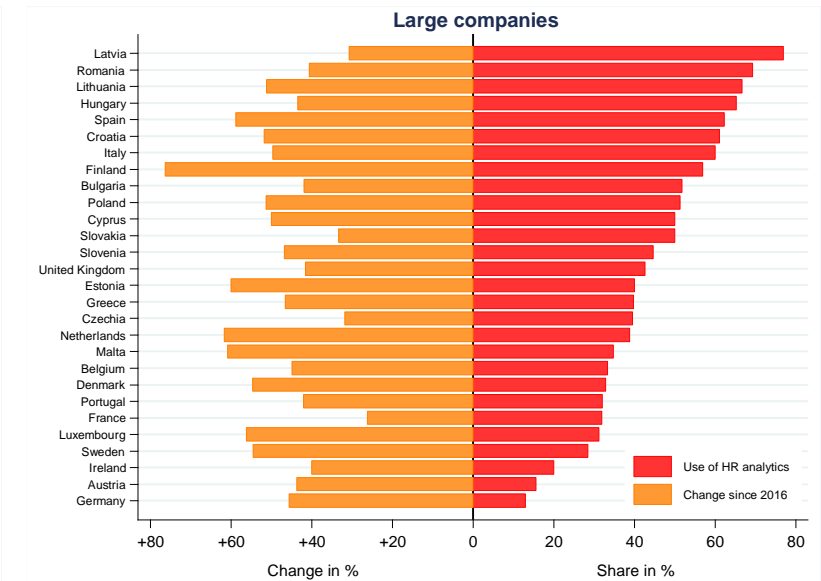
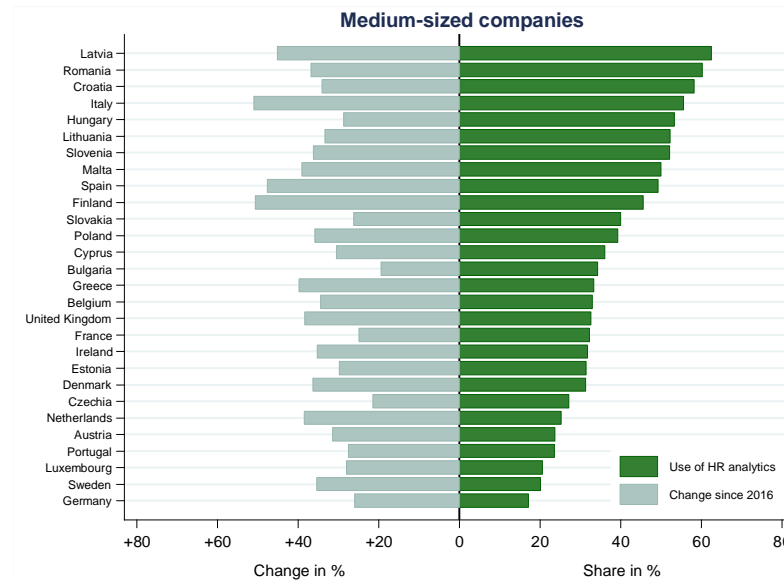
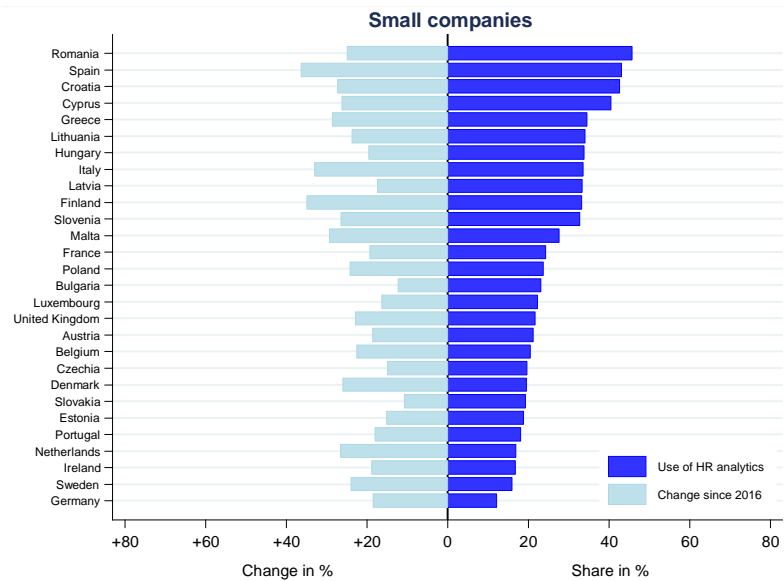


► **Policy solutions and (regulatory) outlook**

▶ The data economy is becoming the engine of growth



Rising use of data analytics in HR management



Source: European Company Survey 2019

But further uptake necessary to prepare for resilient businesses!



▶ Regulatory outlook and the impact on labour markets

Rising compliance costs with data policies (e.g. GDPR)

Very costly, especially for small firms

AI regulation, likely to prevent many applications in the HR sphere that is considered high risk

Prevents better understanding of attrition, inclusivity

Regulatory capture and anti-competitive pressure by incumbents

Lack of access to good data

Hidden worker effect

Digital skills important, including for HR managers

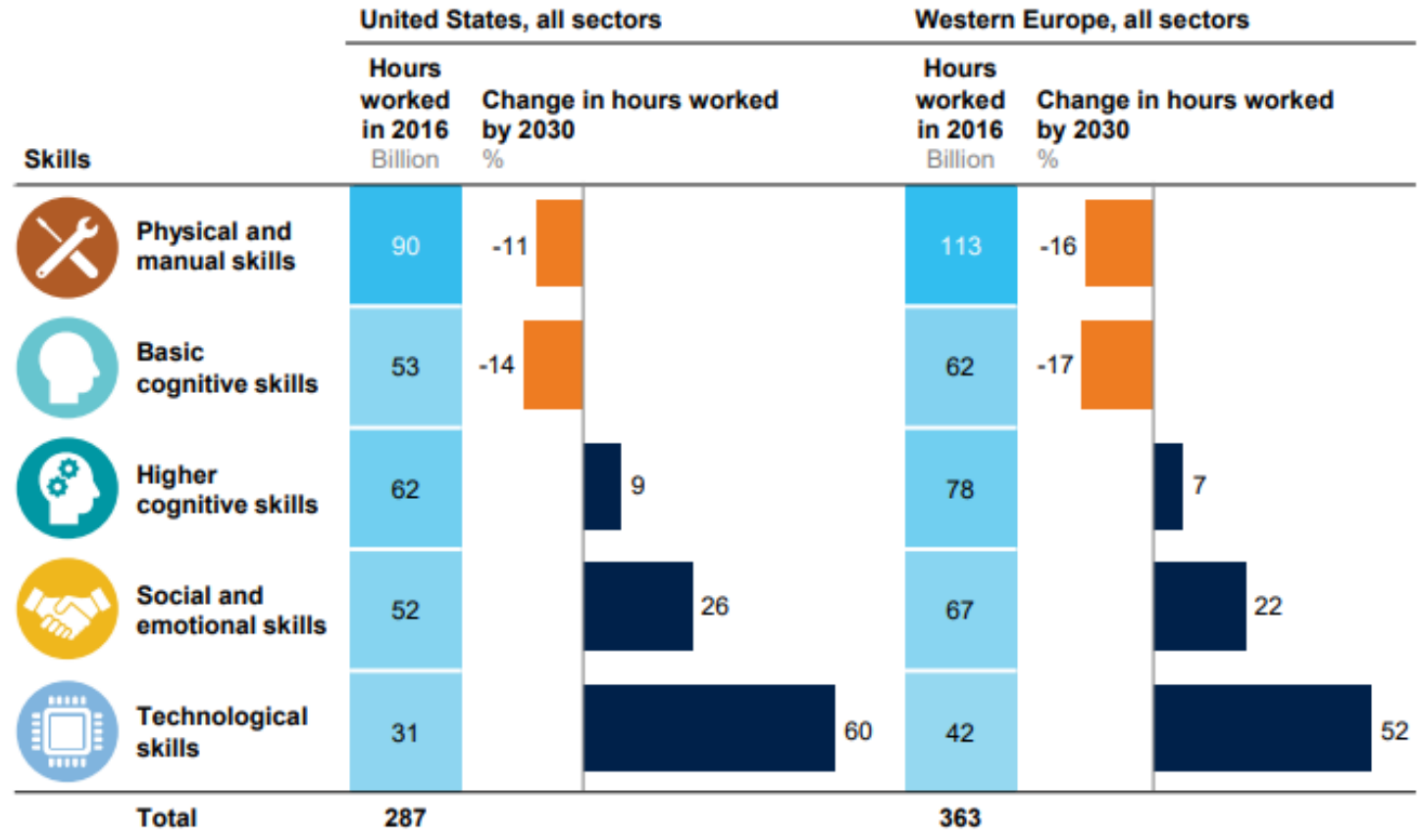


Invest in skills and talent complementary to machines

Automation and AI will accelerate the shift in skills that the workforce needs.

Based on McKinsey Global Institute workforce skills model

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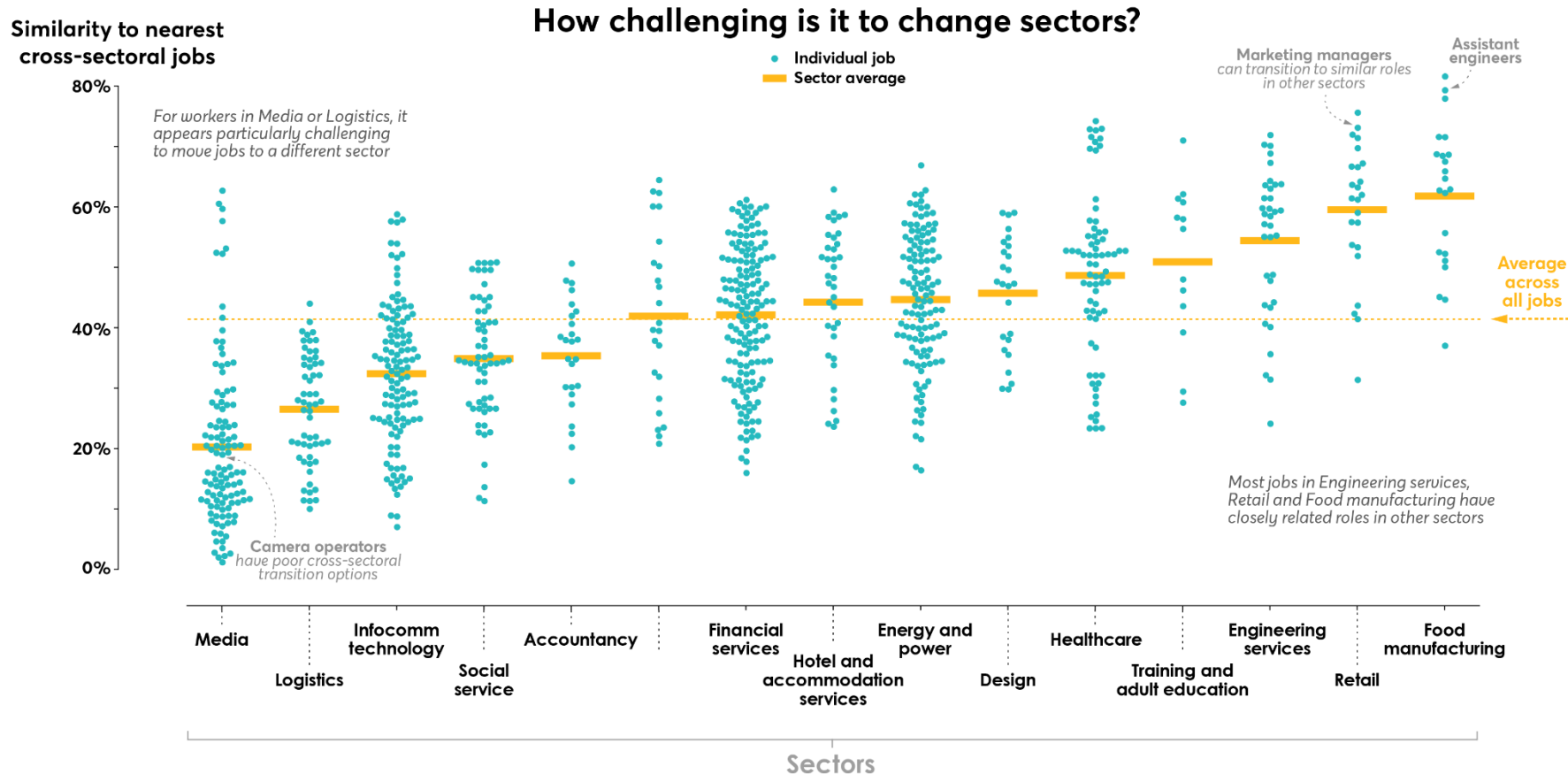
NOTE: Western Europe: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, Spain, Sweden, Switzerland, and the United Kingdom. Numbers may not sum due to rounding.

SOURCE: McKinsey Global Institute workforce skills model; McKinsey Global Institute analysis



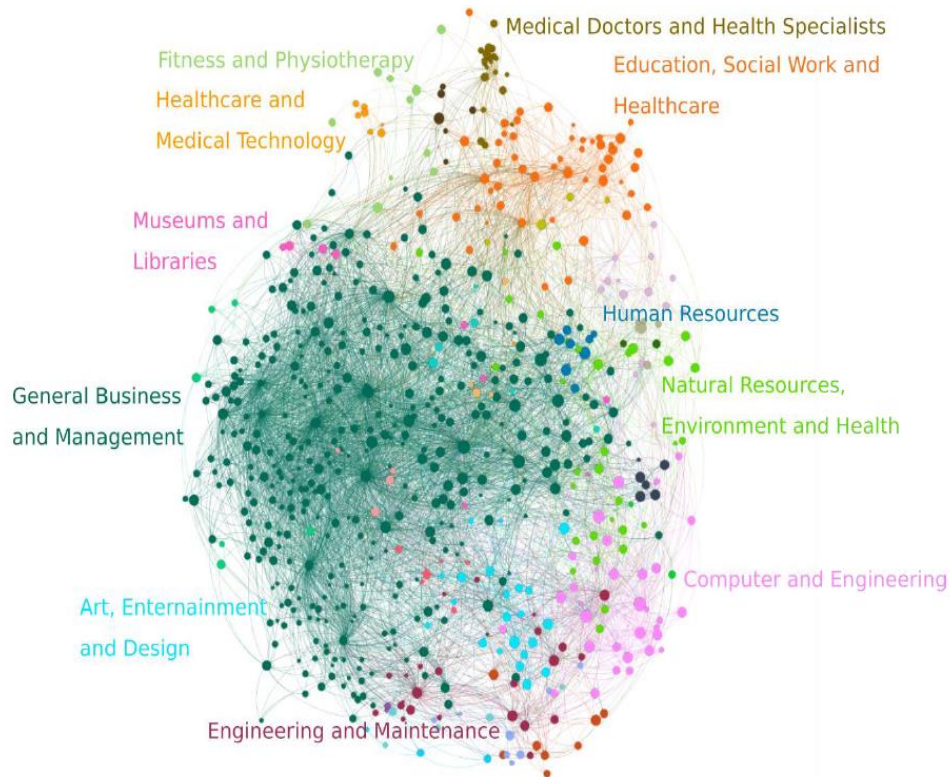
Competence development as an “eco-system” approach

Life-long learning as a “Must-have” not “nice-to-have”



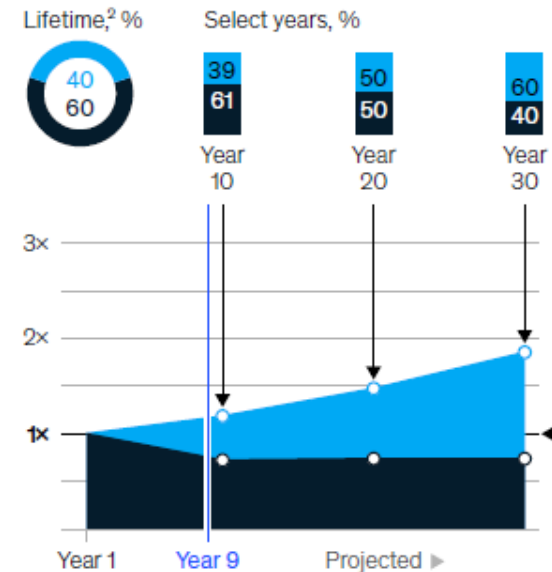
Breaking through occupational silos by making work experience count!

Many professions face occupational traps

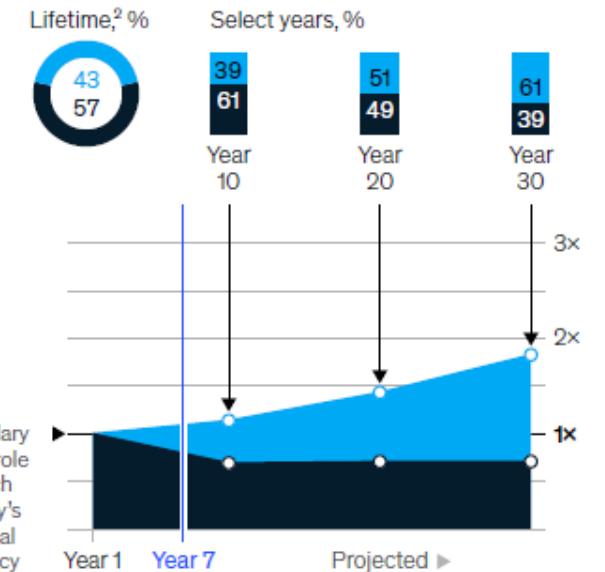


Despite the importance of work experience

United States



Germany



■ Share of earnings associated with work experience¹
 ■ Share of earnings associated with entry-level skills¹

► Resilience – A new paradigm

1. Prepare for new risks: black and green swans

- high uncertainty and fat tails require new approaches
- scenario and stress tests for strategy assessments

2. Inclusiveness is “business-critical”

- Global talent markets are highly competitive
- Partnerships and eco-system development can boost your business

3. Design for resilience

- Over-adjustment to the “optimal” skill mix creates dead-ends
- General skills in a broad range of competences necessary

If you want to know more

