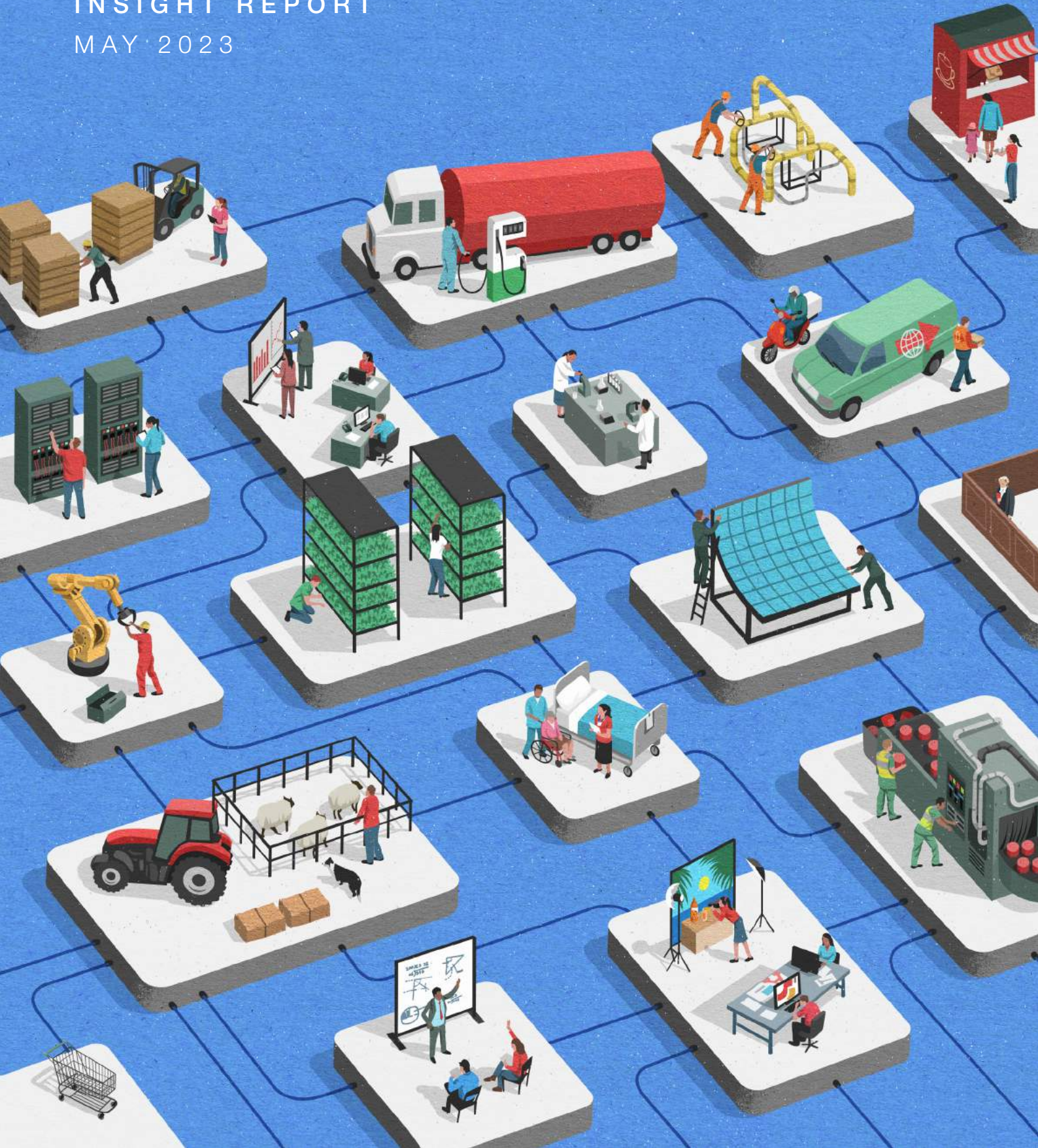


# Future of Jobs Report 2023

INSIGHT REPORT  
MAY 2023



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# Preface



**Saadia Zahidi**  
Managing Director, World  
Economic Forum

Since its first edition in 2016, the World Economic Forum's bi-annual *Future of Jobs Report* has tracked the labour-market impact of the Fourth Industrial Revolution, identifying the potential scale of occupational disruption and growth alongside strategies for empowering job transitions from declining to emerging roles.

In 2023, labour-market transformations driven by technological breakthroughs, such as the coming of age of generative artificial intelligence (AI), are being compounded by economic and geopolitical disruptions and growing social and environmental pressures. This fourth edition of the *Future of Jobs Report* therefore broadens its scope beyond technological change to also consider and address the labour-market impact of a multitude of concurrent trends, including the green and energy transitions, macroeconomic factors, and geo-economic and supply-chain shifts.

Similar to previous editions, the core of the 2023 *Future of Jobs Report* is based on a unique survey-based data set covering the expectations of a wide cross-section of the world's largest employers related to job trends and directions for the 2023—2027 period. This year's report brings together the perspectives of 803 companies – collectively employing more than 11.3 million workers – across

27 industry clusters and 45 economies from all world regions. This report would not be possible without their openness to contributing their views and insights, and we sincerely thank them all. We greatly appreciate, too, the support of our network of Partner Institutes, which have enhanced the report's geographical coverage, and our ongoing data collaborations with Coursera, Indeed and LinkedIn, which complemented the survey findings with a range of unique and innovative data-driven insights. Our thanks also to the project team: Till Leopold, Elselet Hasselaar, Mark Rayner, Sam Grayling, Ricky Li and Attilio Di Battista, as well as the wider team at the Centre for the New Economy and Society for their input.

After widespread instability in the last three years across the world of work, we hope the outlook provided in this report will contribute to an ambitious multistakeholder agenda to better prepare workers, businesses, governments, educators and civil society for the disruptions and opportunities to come, and empower them to navigate these social, environmental and technological transitions. The time is ripe for business leaders and policy-makers to decisively shape these transformations and ensure that future investments translate into better jobs and opportunities for all.

# Key findings

## **Economic, health and geopolitical trends have created divergent outcomes for labour markets globally in 2023.**

While tight labour markets are prevalent in high-income countries, low- and lower-middle-income countries continue to see higher unemployment than before the COVID-19 pandemic. On an individual level, labour-market outcomes are also diverging, as workers with only basic education and women face lower employment levels. At the same time, real wages are declining as a result of an ongoing cost-of-living crisis, and changing worker expectations and concerns about the quality of work are becoming more prominent issues globally.

## **The fourth edition of the Survey has the widest coverage thus far by topic, geography and sector.**

The Future of Jobs Survey brings together the perspective of 803 companies – collectively employing more than 11.3 million workers – across 27 industry clusters and 45 economies from all world regions. The Survey covers questions of macrotrends and technology trends, their impact on jobs, their impact on skills, and the workforce transformation strategies businesses plan to use, across the 2023-2027 timeframe.

## **Technology adoption will remain a key driver of business transformation in the next five years.**

Over 85% of organizations surveyed identify increased adoption of new and frontier technologies and broadening digital access as the trends most likely to drive transformation in their organization. Broader application of Environmental, Social and Governance (ESG) standards within their organizations will also have a significant impact. The next most-impactful trends are macroeconomic: the rising cost of living and slow economic growth. The impact of investments to drive the green transition was judged to be the sixth-most impactful macrotrend, followed by supply shortages and consumer expectations around social and environmental issues. Though still expected to drive the transformation of almost half of companies in the next five years, the ongoing impact of the COVID-19 pandemic, increased geopolitical divisions and demographic dividends in developing and emerging economies were ranked lower as drivers of business evolution by respondents.

## **The largest job creation and destruction effects come from environmental, technology and economic trends.**

Among the macrotrends listed, businesses predict the strongest net job-creation effect to be driven by investments that facilitate the green transition of businesses, the broader application of ESG standards and supply chains becoming more localized, albeit with job growth offset by partial job displacement in each case. Climate change adaptation and the demographic dividend in developing and emerging economies also rate high as net job creators. Technological advancement through increased adoption of new and frontier technologies and increased digital access are expected to drive job growth in more than half of surveyed companies, offset by expected job displacement in one-fifth of companies. The net job creation effect places these two trends in 6<sup>th</sup> and 8<sup>th</sup> place respectively. The three key drivers of expected net job destruction are slower economic growth, supply shortages and the rising cost of inputs, and the rising cost of living for consumers. Employers also recognize that increased geopolitical divisions and the ongoing impact of the COVID-19 pandemic will drive labour-market disruption – with an even split between employers who expect these trends to have a positive impact and employers who expect them to have a negative impact on jobs.

## **Within technology adoption, big data, cloud computing and AI feature highly on likelihood of adoption.**

More than 75% of companies are looking to adopt these technologies in the next five years. The data also shows the impact of the digitalization of commerce and trade. Digital platforms and apps are the technologies most likely to be adopted by the organizations surveyed, with 86% of companies expecting to incorporate them into their operations in the next five years. E-commerce and digital trade are expected to be adopted by 75% of businesses. The second-ranked technology encompasses education and workforce technologies, with 81% of companies looking to adopt these technologies by 2027. The adoption of robots, power storage technology and distributed ledger technologies rank lower on the list.

## **The impact of most technologies on jobs is expected to be a net positive over the next five years.**

Big data analytics, climate change

and environmental management technologies, and encryption and cybersecurity are expected to be the biggest drivers of job growth. Agriculture technologies, digital platforms and apps, e-commerce and digital trade, and AI are all expected to result in significant labour-market disruption, with substantial proportions of companies forecasting job displacement in their organizations, offset by job growth elsewhere to result in a net positive. All but two technologies are expected to be net job creators in the next five years: humanoid robots and non-humanoid robots.

**Employers anticipate a structural labour market churn of 23% of jobs in the next five years.** This can be interpreted as an aggregate measure of disruption, constituting a mixture of emerging jobs added and declining jobs eliminated. Respondents to this year's Future of Jobs Survey expect a higher-than-average churn in the Supply Chain and Transportation and Media, Entertainment and Sports industries, and lower-than-average churn in Manufacturing as well as Retail and Wholesale of Consumer Goods. Of the 673 million jobs reflected in the dataset in this report, respondents expect structural job growth of 69 million jobs and a decline of 83 million jobs. This corresponds to a net decrease of 14 million jobs, or 2% of current employment.

**The human-machine frontier has shifted, with businesses introducing automation into their operations at a slower pace than previously anticipated.** Organizations today estimate that 34% of all business-related tasks are performed by machines, with the remaining 66% performed by humans. This represents a negligible 1% increase in the level of automation that was estimated by respondents to the 2020 edition of the Future of Jobs Survey. This pace of automation contradicts expectations from 2020 survey respondents that almost half (47%) of business tasks would be automated in the following five years. Today, respondents have revised down their expectations for future automation to predict that 42% of business tasks will be automated by 2027. Task automation in 2027 is expected to vary from 35% of reasoning and decision-making to 65% of information and data processing.

But while expectations of the displacement of physical and manual work by machines has decreased, reasoning, communicating and coordinating – all traits with a comparative advantage for humans – are expected to be more automatable in the future. Artificial intelligence, a key driver of potential algorithmic displacement, is expected to be adopted by nearly 75% of surveyed companies and is expected to lead to high churn – with 50% of organizations expecting it to create job growth and 25% expecting it to create job losses.

**The combination of macrotrends and technology adoption will drive specific areas of job growth and decline:**

- **The fastest-growing roles relative to their size today are driven by technology, digitalization and sustainability.** The majority of the fastest growing roles are technology-related roles. AI and Machine Learning Specialists top the list of fast-growing jobs, followed by Sustainability Specialists, Business Intelligence Analysts and Information Security Analysts. Renewable Energy Engineers, and Solar Energy Installation and System Engineers are relatively fast-growing roles, as economies shift towards renewable energy.
- **The fastest-declining roles relative to their size today are driven by technology and digitalization.** The majority of fastest declining roles are clerical or secretarial roles, with Bank Tellers and Related Clerks, Postal Service Clerks, Cashiers and Ticket Clerks, and Data Entry Clerks expected to decline fastest.
- **Large-scale job growth is expected in education, agriculture and digital commerce and trade.** Jobs in the Education industry are expected to grow by about 10%, leading to 3 million additional jobs for Vocational Education Teachers and University and Higher education Teachers. Jobs for agricultural professionals, especially Agricultural Equipment Operators, are expected to see an increase of around 30%, leading to an additional 3 million jobs. Growth is forecast in approximately 4 million digitally-enabled roles, such as E-Commerce Specialists, Digital Transformation Specialists, and Digital Marketing and Strategy Specialists.
- **The largest losses are expected in administrative roles and in traditional security, factory and commerce roles.** Surveyed organizations predict 26 million fewer jobs by 2027 in Record-Keeping and Administrative roles, including Cashiers and Ticket Clerks; Data Entry, Accounting, Bookkeeping and Payroll Clerks; and Administrative and Executive Secretaries, driven mainly by digitalization and automation.
- **Analytical thinking and creative thinking remain the most important skills for workers in 2023.** Analytical thinking is considered a core skill by more companies than any other skill and constitutes, on average, 9% of the core skills reported by companies. Creative thinking, another cognitive skill, ranks second, ahead of three self-efficacy skills – resilience, flexibility and agility; motivation and self-awareness; and curiosity and lifelong learning – in recognition of the importance of workers ability to adapt to disrupted workplaces. Dependability and attention to detail, ranks sixth, behind technological literacy. The core skills top 10 is completed by two attitudes relating to working with others – empathy and active listening and leadership and social influence – as well as quality control.

**Employers estimate that 44% of workers' skills will be disrupted in the next five years.** Cognitive skills are reported to be growing in importance most quickly, reflecting the increasing importance of complex problem-solving in the workplace. Surveyed businesses report creative thinking to be growing in importance slightly more rapidly than analytical thinking. Technology literacy is the third-fastest growing core skill. Self-efficacy skills rank above working with others, in the rate of increase in importance of skills reported by businesses. The socio-emotional attitudes which businesses consider to be growing in importance most quickly are curiosity and lifelong learning; resilience, flexibility and agility; and motivation and self-awareness. Systems thinking, AI and big data, talent management, and service orientation and customer service complete the top 10 growing skills. While respondents judged no skills to be in net decline, sizable minorities of companies judge reading, writing and mathematics; global citizenship; sensory-processing abilities; and manual dexterity, endurance and precision to be of declining importance for their workers.

**Six in 10 workers will require training before 2027, but only half of workers are seen to have access to adequate training opportunities today.** The highest priority for skills training from 2023-2027 is analytical thinking, which is set to account for 10% of training initiatives, on average. The second priority for workforce development is to promote creative thinking, which will be the subject of 8% of upskilling initiatives. Training workers to utilize AI and big data ranks third among company skills-training priorities in the next five years and will be prioritized by 42% of surveyed companies. Employers also plan to focus on developing worker's skills in leadership and social influence (40% of companies); resilience, flexibility and agility (32%); and curiosity and lifelong learning (30%). Two-thirds of companies expect to see a return on investment on skills training within a year of the investment, whether in the form of enhanced cross-role mobility, increased worker satisfaction or enhanced worker productivity.

**The skills that companies report to be increasing in importance the fastest are not always reflected in corporate upskilling strategies.** Beyond the top-ranked cognitive skills are two skills which companies prioritize much more highly than would appear according to their current importance to their workforce: AI and big data as well as leadership and social influence. Companies rank AI and big data 12 places higher in their skills strategies than in their evaluation of core skills, and report that they will invest an estimated 9% of their reskilling efforts in it – a greater proportion than the more highly-ranked creative thinking, indicating that

though AI and big data is part of fewer strategies, it tends to be a more important element when it is included. Leadership and social influence ranks five places higher than suggested by its current importance and is the highest ranked attitude. Other skills which are strategically emphasized by business are design and user experience (nine places higher), environmental stewardship (10 places higher), marketing and media (six places higher) and networks and cybersecurity (five places higher).

**Respondents express confidence in developing their existing workforce, however, they are less optimistic regarding the outlook for talent availability in the next five years.** Accordingly, organizations identify skills gaps and an inability to attract talent as the key barriers preventing industry transformation. In response 48% of companies identify improving talent progression and promotion processes as a key business practice that can increase the availability of talent to their organization, ahead of offering higher wages (36%) and offering effective reskilling and upskilling (34%).

**Surveyed companies report that investing in learning and on-the-job training and automating processes are the most common workforce strategies which will be adopted to deliver their organizations' business goals.** Four in five respondents expect to implement these strategies in the next five years. Workforce development is most commonly considered to be the responsibility of workers and managers, with 27% of training expected to be furnished by on-the-job training and coaching, ahead of the 23% by internal training departments and the 16% by employer-sponsored apprenticeships. To close skills gaps, respondents expect to reject external training solutions in favour of company-led initiatives.

**A majority of companies will prioritize women (79%), youth under 25 (68%) and those with disabilities (51%) as part of their DEI programmes.** A minority will prioritize those from a disadvantaged religious, ethnic or racial background (39%), workers over age 55 (36%), those who identify as LGBTQI+ (35%) and those from a low-income background (33%).

**Forty-five percent of businesses see funding for skills training as an effective intervention available to governments seeking to connect talent to employment.** Funding for skills training ranks ahead of flexibility on hiring and firing practices (33%), tax and other incentives for companies to improve wages (33%), improvements to school systems (31%) and changes to immigration laws on foreign talent (28%).

1

# Introduction: the global labour market landscape in 2023

The past three years have been shaped by a challenging combination of health, economic and geopolitical volatility combined with growing social and environmental pressures. These accelerating transformations have and continue to reconfigure the world's labour markets and shape the demand for jobs and skills of tomorrow, driving divergent economic trajectories within and across countries, in developing and developed economies alike. The Fourth Industrial Revolution, changing worker and consumer expectations, and the urgent need for a green and energy transition are also reconfiguring the sectoral composition of the workforce and stimulating demand for new occupations and skills. Global supply chains must also quickly adapt to the challenges of increasing geopolitical volatility, economic uncertainty, rising inflation and increasing commodity prices.

Like previous editions, *The Future of Jobs Report 2023* offers insights into these transformations and unpacks how businesses are expecting to navigate these labour-market changes from 2023 to 2027, leveraging a unique cross-sectoral and global survey of Chief Human Resources, Chief Learning Officers and Chief Executive Officers of leading global employers and their peers.

This report is structured as follows: Chapter 1 reviews the global labour-market landscape at the beginning of 2023. Chapter 2 explores how key macrotrends are expected to transform this landscape over the 2023–2027 period. Chapters 3 and 4 then discuss the resulting global outlooks for jobs and skills over the 2023–2027 period. Chapter 5 reviews emerging workforce and talent strategies in response to these trends. The report's appendices provide an overview of the report's survey methodology and detailed sectoral breakdowns of the five-year outlook for macrotrends, technology adoption and skills.

In addition, *The Future of Jobs Report 2023* features a comprehensive set of Economy, Industry, and – for the first time – Skill Profiles. User Guides are provided for each of these profiles, to support their use as practical, standalone tools.

As a foundation for analysing respondents' expectations of the future of jobs and skills in the next five years, this chapter now assesses the current state of the global labour-market at the beginning of 2023.

## Diverging labour-market outcomes between low-, middle- and high-income countries

The intertwined economic and geopolitical crises of the past three years created an uncertain and divergent outlook for labour markets, widening disparities between developed and emerging economies and among workers. Even as a growing number of economies have begun to recover from the COVID-19 pandemic and its associated lockdowns, low- and lower-middle-income countries continue to face elevated unemployment, while high-income countries are generally experiencing tight labour markets.

At the time of publication, the latest unemployment rates stand below pre-pandemic rates in three quarters of OECD countries,<sup>1</sup> and across a majority of G20 economies (Figure 1.1). At 4.9%, the 2022 unemployment rate across the OECD area is at its lowest level since 2001.<sup>2</sup>

By contrast, many developing economies have experienced a comparatively slow labour-market recovery from the disruptions induced by the COVID-19 pandemic. In South Africa, for example, the formal unemployment rate has climbed to 30%, five percentage points higher than it was pre-pandemic (Figure 1.1). Developing economies, especially those reliant on the sectors hardest hit by recurring lockdowns, such as hospitality and tourism, still exhibit slow labour-market recoveries.

The asymmetry of the recovery is exacerbated by countries' varying capacities to maintain policy measures to protect the most vulnerable and maintain employment levels. While advanced economies were able to adopt far-reaching

FIGURE 1.1

**Unemployment rate across G20 countries**

Quarterly unemployment rate, 2018Q1–2022Q4

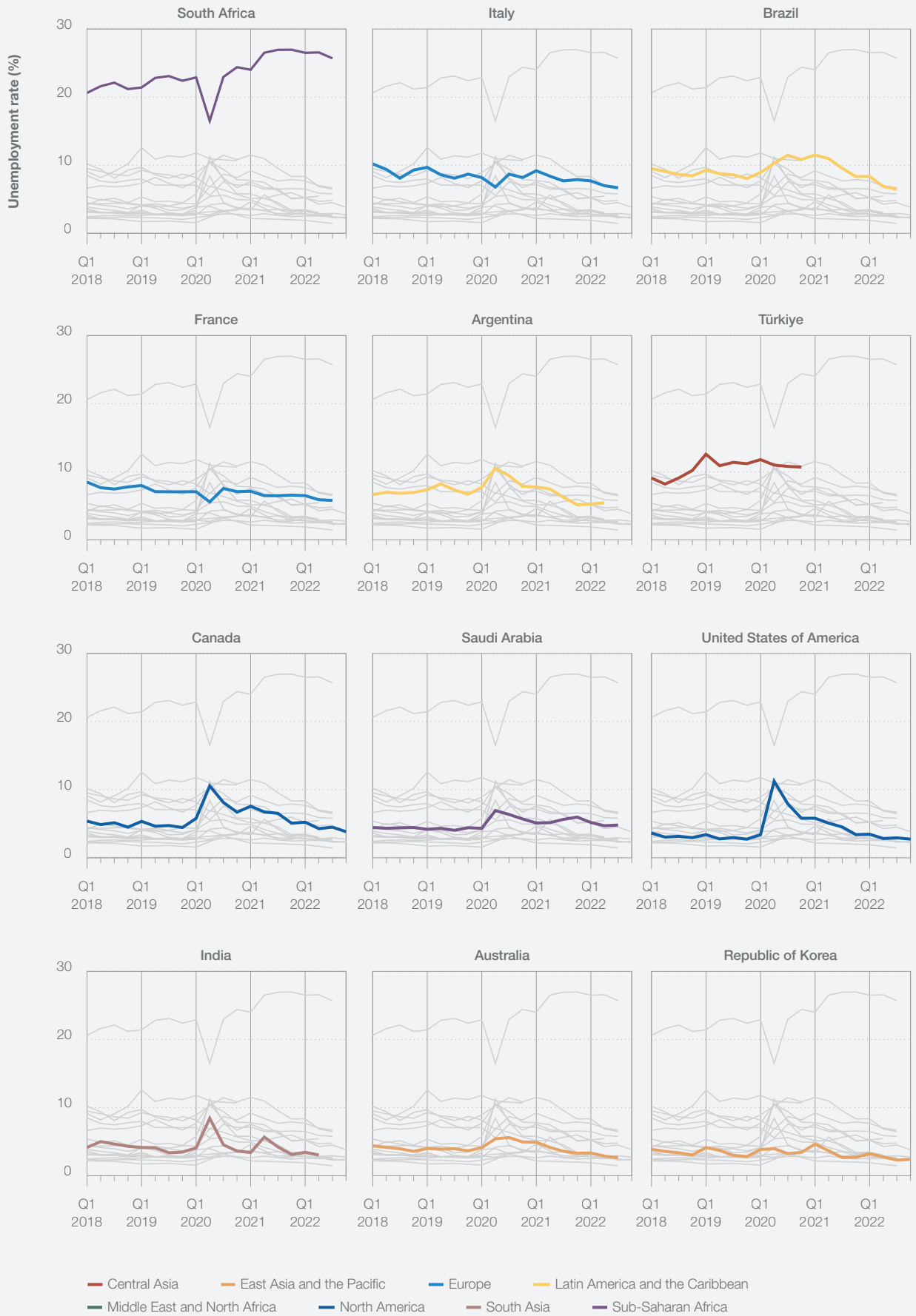
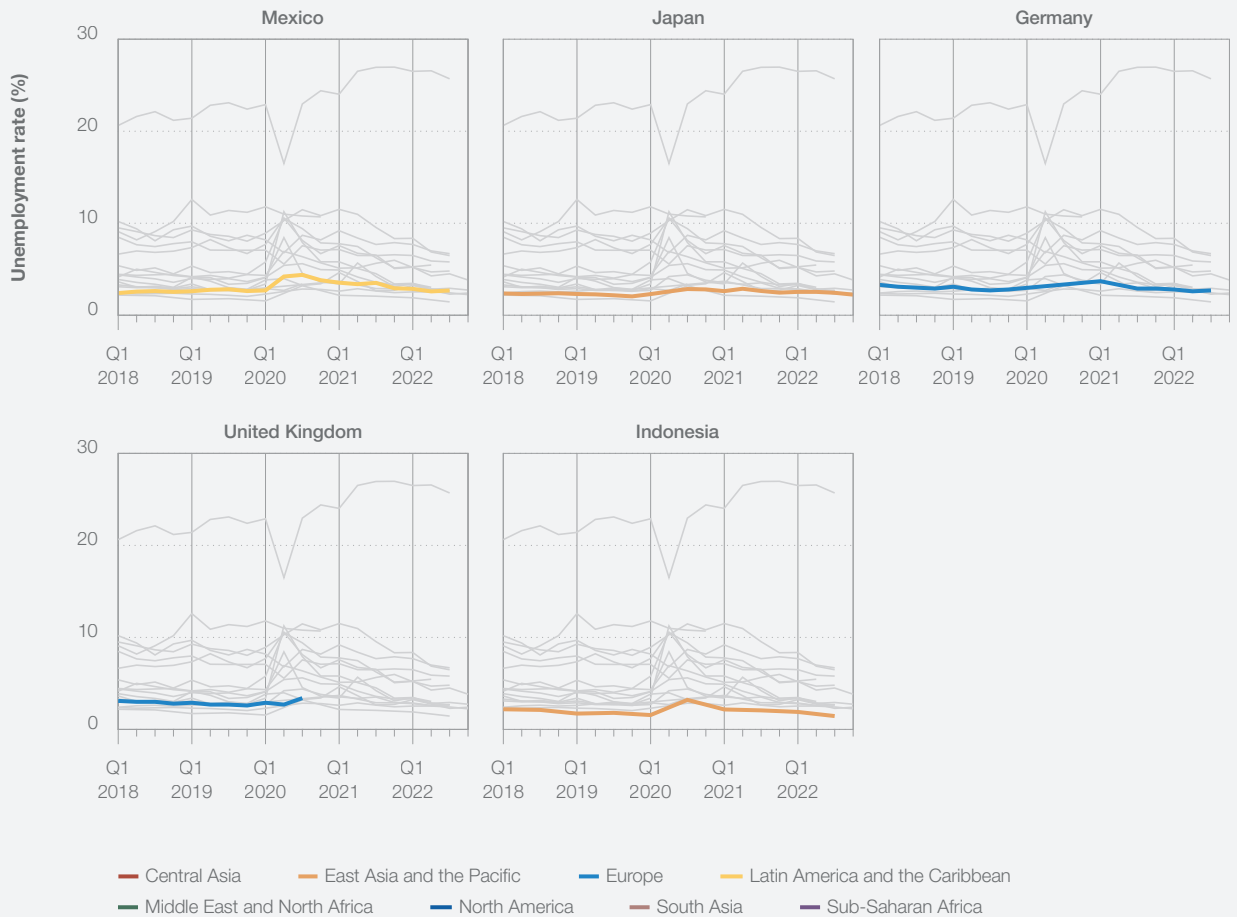


FIGURE 1.1

**Unemployment rate across G20 countries**

Quarterly unemployment rate, 2018Q1–2022Q4



Source

International Labour Organisation, ILOSTAT.

measures, emerging economies have provided less support to the most vulnerable firms and workers due to their limited fiscal space.<sup>3,4</sup>

In 2022, various employment indicators pointed towards a strong labour-market recovery for high-income countries, with many sectors experiencing labour shortages. In Europe, for example, almost three in 10 manufacturing and service firms reported production constraints in the second quarter of 2022 due to a lack of workers.<sup>5</sup> Nursing professionals, plumbers and pipefitters, software developers, systems analysts, welders and flame cutters, bricklayers and related workers, and

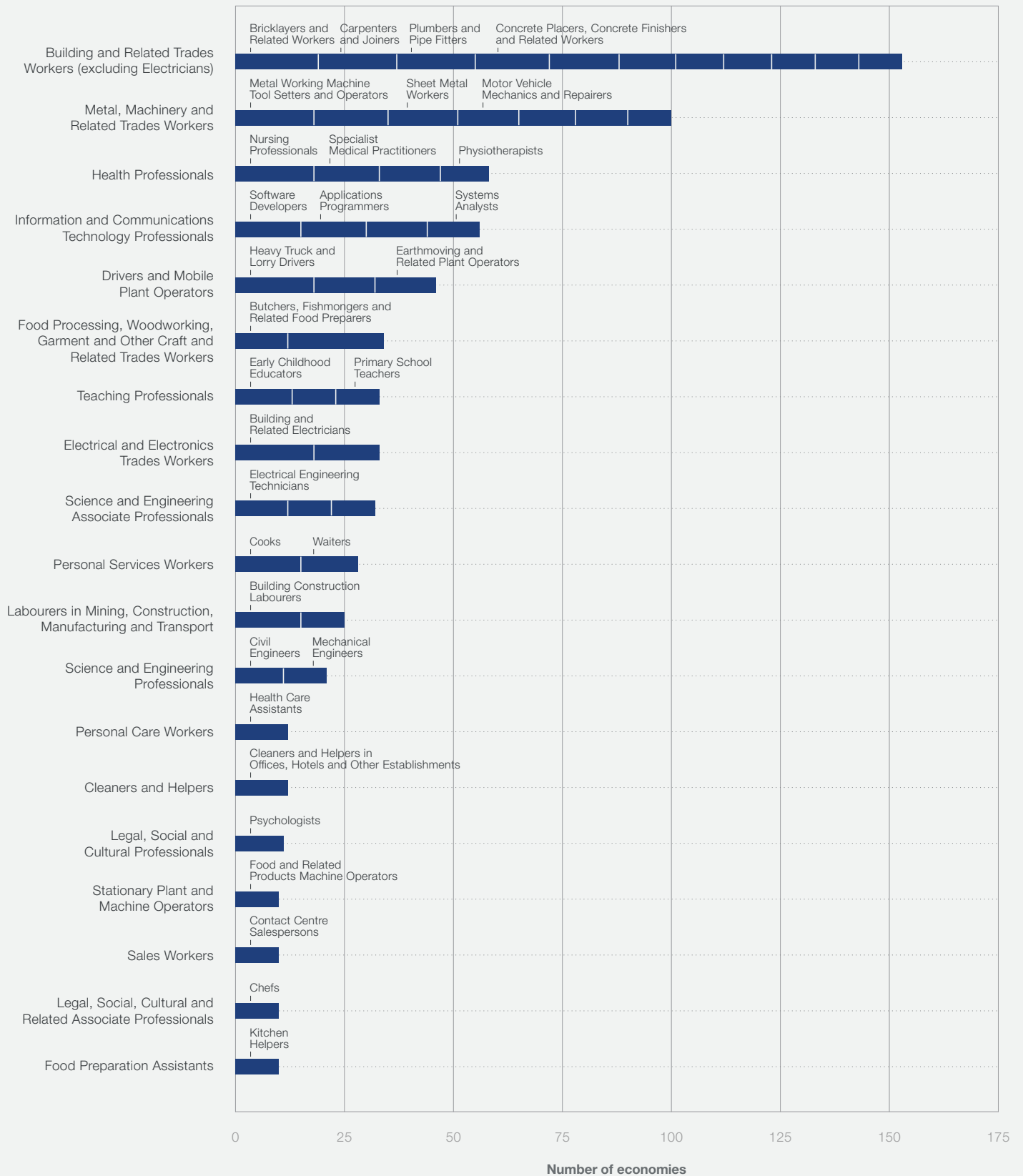
heavy truck and lorry drivers were among the most needed professions (Figure 1.2).

In the United States, businesses in Retail and Wholesale of Consumer Goods reported close to 70% of job openings remaining unfilled, with close to 55% of roles unfilled in manufacturing and 45% in leisure and hospitality.<sup>6</sup> Businesses also reported difficulties in retaining workers. According to a global survey conducted in late 2022 across 44 countries, one in five employees reported they intend to switch employers in the coming year.<sup>7</sup>

FIGURE 1.2

**Most common labour shortages by occupations in 2022 in Europe**

Number of economies in Europe reporting labour shortages for top occupations, grouped by job families



Source  
Labour shortages report 2022, European Labour Authority.

Note  
Job grouping is based on the Level-2, Sub-Major job category in the International Standard Classification of Occupations (ISCO) Taxonomy.

## Diverging employment levels by gender, age and education level

Women experienced greater employment loss than men during the pandemic<sup>8</sup>, and according to the World Economic Forum's Global Gender Gap Report 2022<sup>9</sup>, gender parity in the labour force stands at 62.9% – the lowest level registered since the index was first compiled. The global pandemic also disproportionately impacted young workers,

with less than half of the global youth employment deficit projected to have recovered by the end of 2022.<sup>10</sup> As highlighted in Figure 1.3, the youth employment deficit relative to 2019 is largest in Southern Asia, Latin America, Northern Africa and Eastern Europe, with only Europe and North America likely to have fully recovered at the time of publication.

Workers with a basic education were also hardest hit in 2020, and slower to recover their prior

FIGURE 1.3 Youth employment deficit relative to 2019, by sub-region



### Source

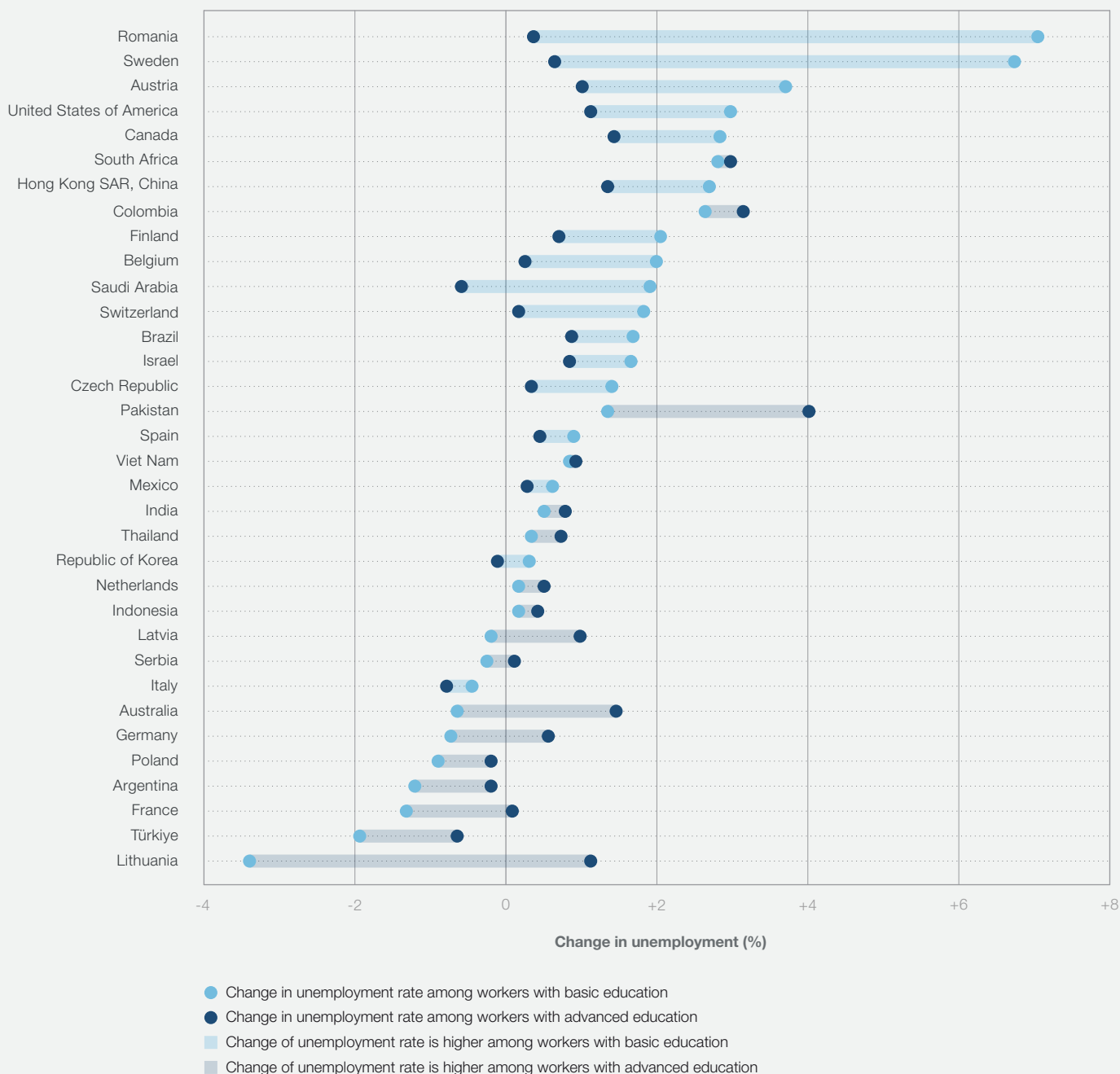
Global Employment Trends for Youth 2022: Investing in transforming futures for young people, ILO calculations based on ILOSTAT, ILO modelled estimates, November 2021.

### Note

The employment deficit shows the difference in employment in each year due to the EPR being below the 2019 level. Data are estimates up to 2021, and projections for 2022. "Youth" refers to ages 15-24.

FIGURE 1.4

Change in unemployment, by economy and education level, 2019-2021



Source

International Labour Organization, *ILOSTAT*.

participation in the labour market. In many countries the increase in unemployment from 2019 to 2021 of workers with a basic education level was more than twice as large as the impact on workers with advanced education (Figure 1.4).

### Access to social protection

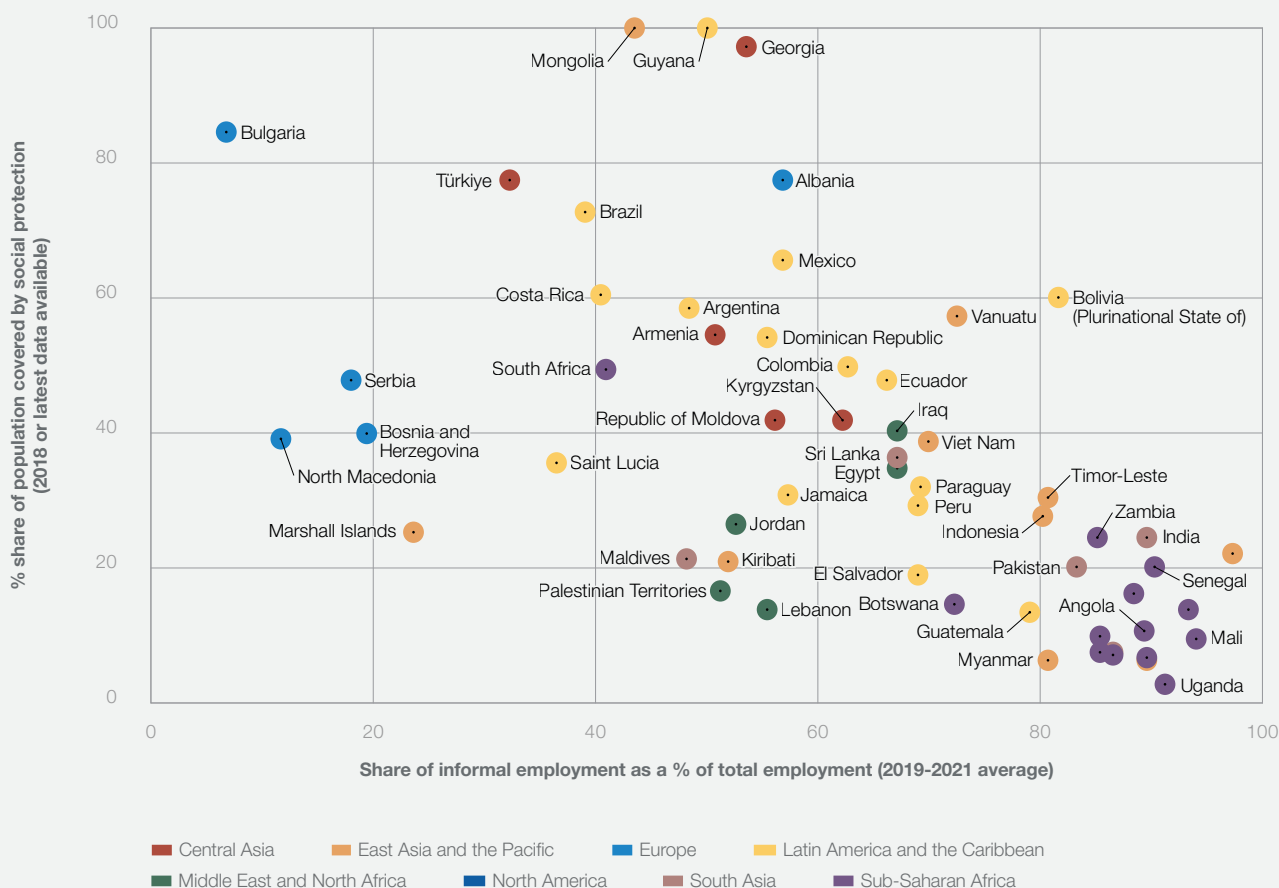
From January 2020 to January 2022, almost 3,900 social-protection measures were implemented across 223 economies to support the labour force impacted by COVID-19.<sup>11</sup> These measures

are estimated to have reached close to 1.2 billion people globally. Wage subsidies, cash transfers, training measures and extending unemployment-benefit coverage have all been crucial tools to protect the most vulnerable during the pandemic. Most such short-term support measures are now being phased out,<sup>12</sup> and targeted medium to long-term investments will be needed to alleviate the long-term effects of recurring economic shocks on firms and workers.

Yet, there remains an urgent need to provide adequate social protection to those not covered by full-time employment contracts (Figure 1.5).

FIGURE 1.5

Informal employment and social protection coverage in developing countries



Source

International Labour Organization, *ILOSTAT*.

Note

Developing countries are countries classified as Upper Middle Income, Lower Middle Income or Low Income Countries by World Bank. For more information about the country classification, please refer to <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.

Nearly 2 billion workers globally are in informal employment, representing close to 70% of workers in developing and low-income countries, as well as 18% in high income ones.<sup>13</sup> Given their susceptibility to economic shocks and working poverty, informal workers represent a crucial labour-market cohort and need better representation in data, broad-based income support in the short term and a longer term shift towards formalization.

### Real wages and cost of living

According to the International Labour Organization (ILO), labour income in many developing countries remains below pre-pandemic levels.<sup>14</sup> In 2020, the global economy started experiencing inflation levels not seen in almost 40 years.<sup>15</sup> With high inflation, the global cost-of-living crisis has hit the most vulnerable hardest.<sup>16</sup> According to the ILO, for the first time over the last 15 years, workers' real wages have declined – by 0.9% in the first half of 2022.<sup>17</sup>

Across regions, real wage growth was most affected in Northern, Southern and Western Europe; Latin America; Asia Pacific; and North America.<sup>18</sup> In Africa, real wages saw a 10.5% drop in 2020 due to the global pandemic.<sup>19</sup> However, real wages have continued to increase in 2022 across Asia Pacific, Central and Western Asia and Arab states.<sup>20</sup>

In line with rising inflation, purchasing power has declined for the most vulnerable, given the higher weight of energy and food in expenditures of the lowest-income households.<sup>21</sup> According to recent research by the United Nations Development Programme (UNDP), rising food and energy prices could push up to 71 million people into poverty, with hot spots in Sub-Saharan Africa, the Balkans and the Caspian Basin.<sup>22</sup> This cost-of-living crisis highlights the importance of designing permanent models of social protection for non-standard employment and the informal economy that provide security and support resilience.<sup>23</sup>

## Worker preferences

In this context of diverging labour-market outcomes, issues around the quality of work have come to the fore. This section reviews some of the latest worker preference research to analyse which job attributes are of most importance to workers currently. As a starting point, data shows workers, openness to changing employer. Data on worker preferences from CultureAmp<sup>24</sup> and Adecco<sup>25</sup> find that more than a quarter (33% and 27% of workers, respectively) do not see themselves at their current company of employment in two years' time. In line with this, a little under half of workers (42% and 45%, according to CultureAmp and Adecco, respectively) actively explore opportunities at different companies.

Worker surveys at both CultureAmp<sup>26</sup> and Randstad<sup>27</sup> suggest that salary levels are the main reason workers decide to change their job. 52% of Randstad respondents say they worry about the impact of economic uncertainty on their employment and 61% of respondents to Adecco's worker-preference survey worry that their salary is not high enough to keep pace with the cost of living given rising rates of inflation.<sup>28</sup>

Additional data explores the protection and flexibility of employment: 92% of respondents to Randstad's employee survey<sup>29</sup> say job security is important and more than half of these respondents wouldn't accept a job that didn't give assurances regarding job security. 83% prioritize flexible hours and 71% prioritize flexible locations.

A fourth theme identified by workers is work-life balance and burnout: 35% of CultureAmp respondents indicate that work-life balance and burnout would be the primary reason to leave their employer. Workers responding to Randstad's employee survey<sup>30</sup> value salary and work-life balance equally, with a 94% share identifying both aspects of employment as important to choosing to work in a particular role.

Data also suggests that diversity, equity and inclusion (DEI) at work is particularly important to young workers. According to Manpower,<sup>31</sup> 68% of Gen Z workers are not satisfied with their organization's progress in creating a diverse and inclusive work environment, and 56% of Gen Z workers would not accept a role without diverse leadership. Meanwhile, data suggests that fewer women than men are trained.

Lastly, workers across age ranges indicate dissatisfaction about training opportunities. Manpower data<sup>32</sup> show that 57% of surveyed employees are pursuing training outside of work, because company training programmes do not teach them relevant skills, advance their career development or help them stay competitive in the labour market. Respondents to Adecco's survey criticize companies for focusing their

efforts too much on managers' development, skills and rewards. Only 36% of non-managers who responded to Adecco's survey said that their company is investing effectively in developing their skills, compared to 64% of managers.

## Employment shifts across sectors

The past two years have witnessed a volatility in the demand and supply of goods and services resulting from lockdowns and supply-chain disruptions. The global economic rebound has reconfigured the sectoral distribution of employment across industries. Figure 6 presents OECD data demonstrating that, while Information Technology and Digital Communications experienced a strong rebound in most countries, the Accommodation, Food and Leisure; Manufacturing and Consumer; and Wholesale and Consumer Goods sectors are experiencing a slower rate of recovery. Since the first quarter of 2019, a majority of countries have experienced employment growth in Professional Services, Education and Training, Health and Healthcare, and Government and Public Sector, but employment in the Supply Chain and Transportation and Media, Entertainment and Sports sectors lags behind 2019 levels.

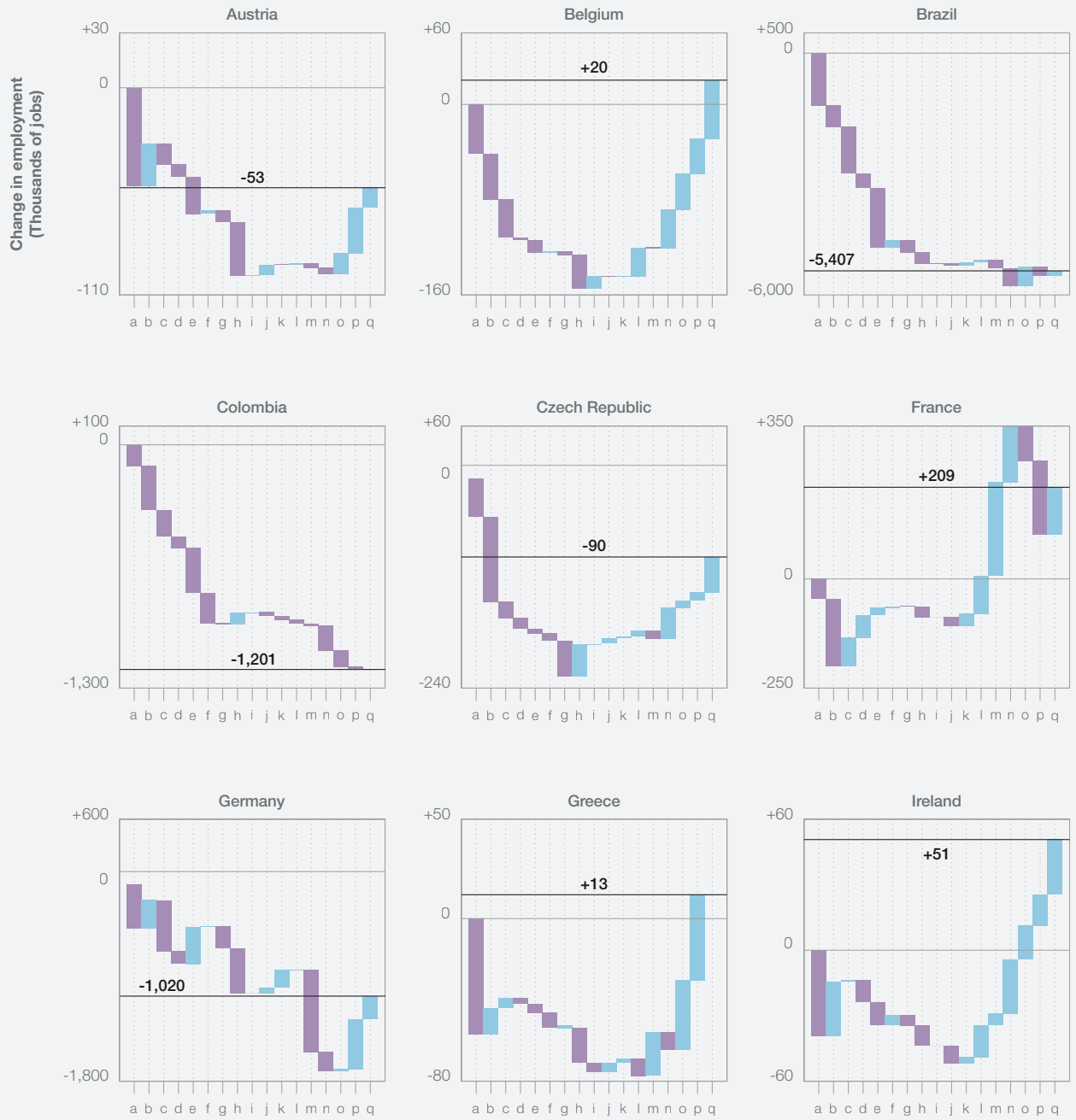
In addition to the pandemic-induced employment shifts we have seen across sectors during the last few years, generative AI models are likely to continue shaping sectoral shifts in employment. While AI applications are shown to be effective general-purpose technologies,<sup>33</sup> the development of general-purpose technologies have previously been hard to predict, which is why regulation needs to be both prompt and adaptable as institutions learn how these technologies can be used.

Through research conducted for the Future of Jobs Report, LinkedIn has identified the fastest growing roles globally over the past four years, shedding further light on the types of jobs employers have been seeking (Box 1.1).

The transformations that labour markets are experiencing have also increased the need for swifter and more efficient job reallocation mechanisms within and across different firms and sectors. The coming years represent a generational opportunity for businesses and policy-makers to embrace a future of work which fosters economic inclusion and opportunity, sets in place policies which will influence not only the rate of growth but its direction, and contribute to shaping more inclusive, sustainable and resilient economies and societies.

FIGURE 1.6

Change in employment by sector in selected countries (2019-2021)

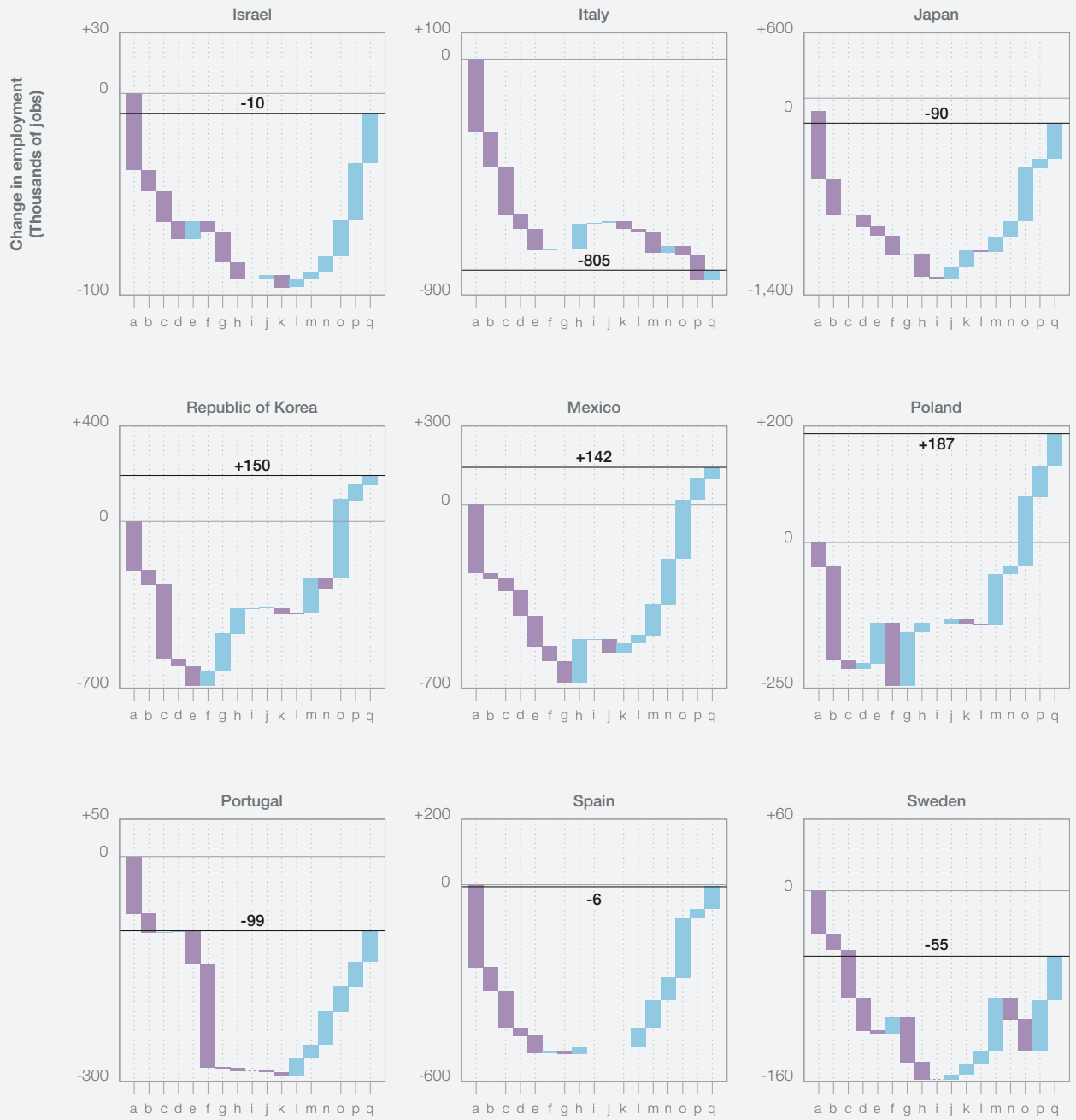


■ Positive    ■ Negative

- a. Accommodation, Food and Leisure
- b. Manufacturing
- c. Retail and Wholesale of Consumer Goods
- d. Media, Entertainment and Sports
- e. Care, Personal Services and Wellbeing
- f. Agriculture and Natural Resources
- g. Supply Chain and Transportation
- h. Infrastructure
- i. Non-governmental and Membership Organisations

- j. Energy and Materials
- k. Real Estate
- l. Financial Services
- m. Professional Services
- n. Education and training
- o. Health and Healthcare
- p. Government and Public Sector
- q. Information Technology and Digital Communications

FIGURE 1.6 | Change in employment by sector in selected countries (2019-2021)



Positive Negative

- a. Accommodation, Food and Leisure
- b. Manufacturing
- c. Retail and Wholesale of Consumer Goods
- d. Media, Entertainment and Sports
- e. Care, Personal Services and Wellbeing
- f. Agriculture and Natural Resources
- g. Supply Chain and Transportation
- h. Infrastructure
- i. Non-governmental and Membership Organisations
- j. Energy and Materials
- k. Real Estate
- l. Financial Services
- m. Professional Services
- n. Education and training
- o. Health and Healthcare
- p. Government and Public Sector
- q. Information Technology and Digital Communications

## The fastest-growing jobs support sales growth and customer engagement, the search for talent, and technology/IT

In collaboration with LinkedIn

Research conducted by LinkedIn for the Future of Jobs Report 2023 describes the 100 roles that have grown fastest, consistently and globally, over the last four years – known as the “Jobs on the Rise”. While ILO and OECD data show which sectors are employing more people, Jobs on the Rise data identifies the specific job types that have experienced significant growth. Figure B.1 organizes the 100 Jobs on the Rise into broad types.

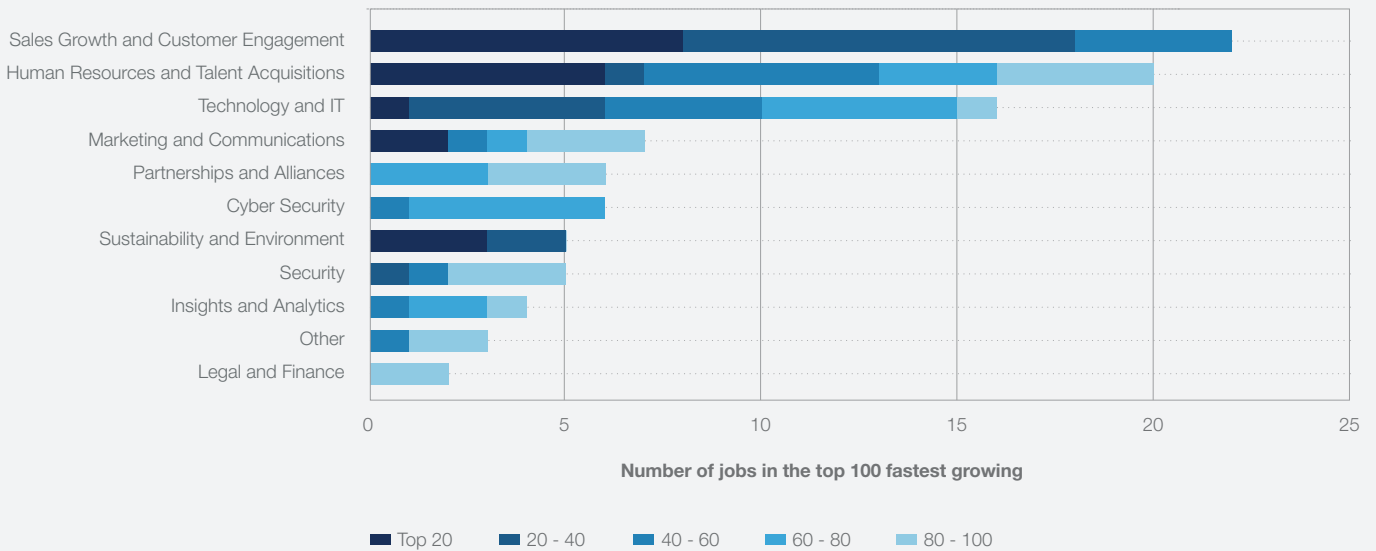
In line with ILO and OECD data on the growth of roles in the Information Technology and Digital Communication sector, Technology and IT related roles make up 16 of the top 100 Jobs on the Rise, the third-highest of all job groupings. Jobs related to Sales Growth and Customer Engagement top the list, with 22 of the 100 roles. With roles such as Sales Development Representatives, Director of Growth, and Customer Success Engineer featuring in this group, this may suggest an increasing focus on broadening customer groups and growth models

in a world with increasing digital access and rapid technological advancement (more detail on how increasing digital access and adoption of frontier technologies could transform demand for specific job types is available in Chapter 3). Human Resources and Talent Acquisition roles are the second-most popular roles, and most of these relate to Talent Acquisition and Recruitment, including a specific role for Information Technology Recruitment – perhaps illustrating the increasing difficulty and importance of accessing talent in a generally strong labour market.

Of the groups further down the list, Sustainability and Environment related roles are notable for all being in the top 40, including three of the top 10 roles (Figure B.2). This might suggest the green transition is both a significant and developing labour-market trend, where roles have titles such as “Sustainability Analyst”. Chapter 3 further examines the outlook for roles related to a green transition.

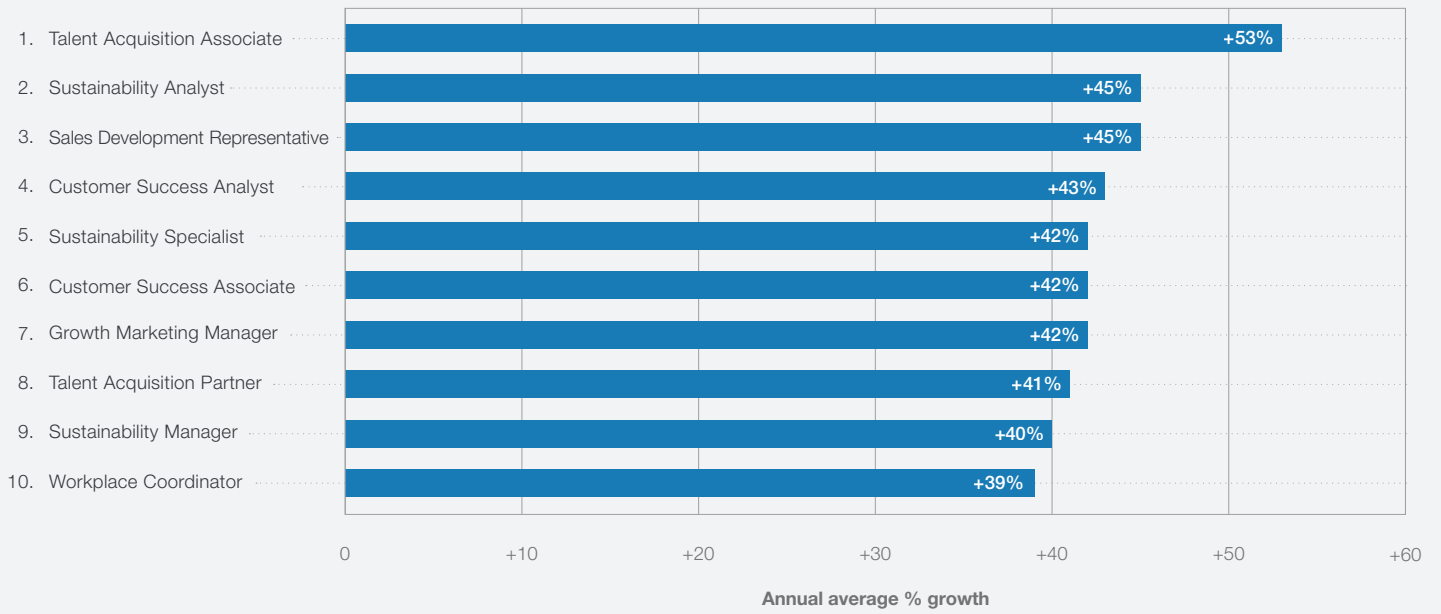
FIGURE B1.1 LinkedIn jobs on the rise, 2018-2022

Growing roles by job type



Source  
LinkedIn.

FIGURE B1.2 | Fastest growing job postings on LinkedIn 2018-2022



Source  
LinkedIn.

2

# Drivers of labour market transformation

The green transition, technological change, supply-chain transformations and changing consumer expectations are all generating demand for new jobs across industries and regions. However, these positive drivers are offset by growing geoeconomic tensions and a cost-of-living crisis.<sup>34</sup>

The Future of Jobs Survey was conducted in late 2022 and early 2023 bringing together the perspective of 803 companies – collectively employing more than 11.3 million workers – across

27 industry clusters and 45 economies from all world regions. The Survey covers questions of macro trends and technology trends, their impact on jobs, their impact on skills, and the workforce transformation strategies businesses plan to use.

This chapter analyses findings from the World Economic Forum's Future of Jobs Survey to explore how businesses expect macro trends and technology adoption to drive industry transformation and employment.

## 2.1 Expected impact of macro trends on business transformation and employment

Results from the survey provide a picture of how businesses expect several macro trends to impact their operations. Trends ranging from technology adoption to macroeconomic and geopolitical outlook, the green transition, demographics and consumer preferences are expected to drive industry transformation in the next five years.

As illustrated in Figure 2.1, businesses identify increased adoption of new and frontier technologies and broadening digital access as the trends which are most likely to drive transformation in their organization, these are expected to drive trends in over 85% of the organizations surveyed. Broader application of Environmental, Social and Governance (ESG) standards within their organizations will also have a significant impact. The next most-impactful trends are macroeconomic: the rising cost of living and slow economic growth. The impact of investments to drive the green transition was judged to be the sixth-most impactful macro trend. Supply shortages and consumer expectations around social and environmental issues follow next. Though still expected to drive the transformation of almost half of companies in the next five years, the ongoing impact of the COVID-19 pandemic, increased geopolitical divisions and demographic dividends in developing and emerging economies were placed lower as drivers of business evolution by respondents.

Employers also forecast the expected impact of these macro trends on employment within their organizations. Figure 2.2 suggests that employers expect most of the disruptions to have a net positive effect on employment, with most macro trends expected to drive net job growth.

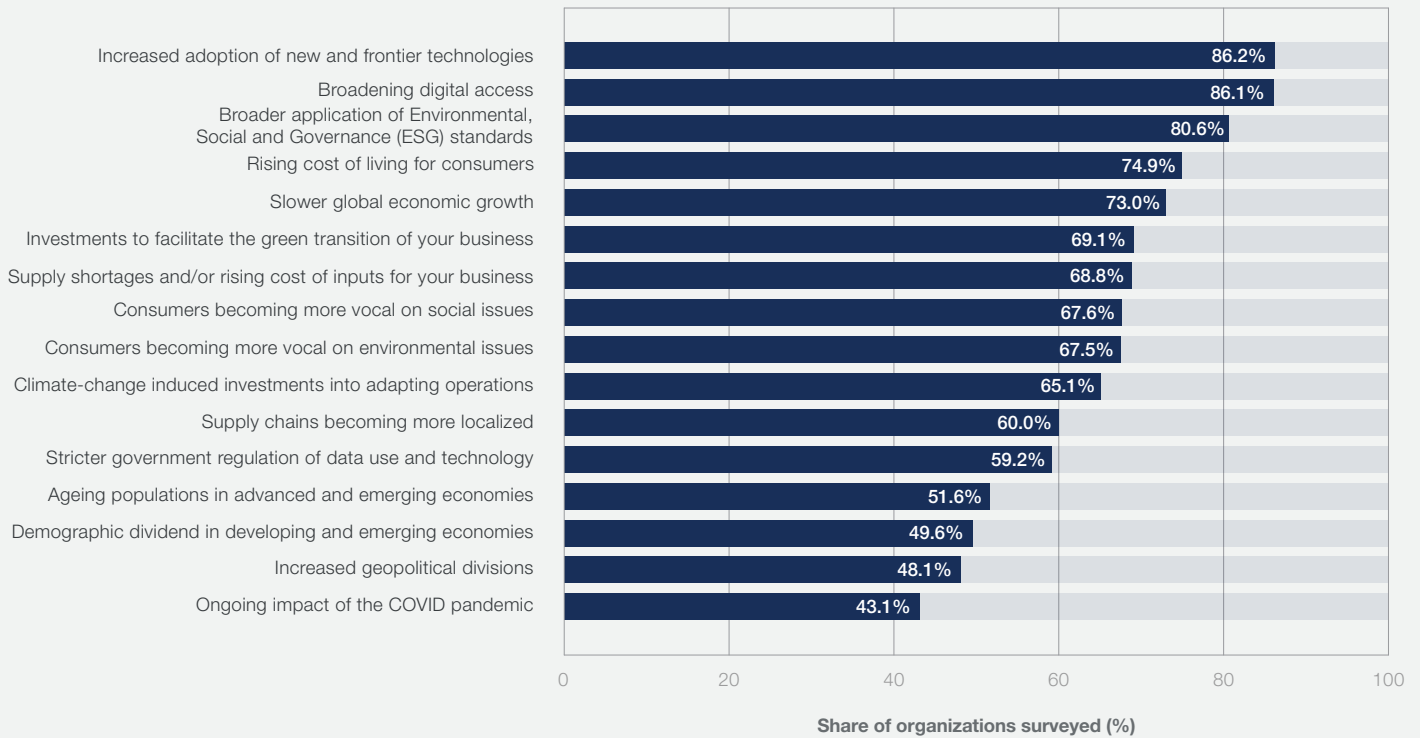
Among the macro trends listed, businesses predict the strongest net job-creation effect to be driven by investments that facilitate the green transition of businesses, the broader application of ESG standards and supply chains becoming more localized, albeit with job growth offset by partial job displacement in each case. Climate change adaptation and the demographic dividend in developing and emerging economies also rate high as net job creators.

Technological advancement through increased adoption of new and frontier technologies and increased digital access – the two macro trends judged by businesses to be most impactful on their organization in the next five years – are also expected to drive job growth in more than half of surveyed companies. However, this is offset by expected job displacement in one-fifth of companies, with the remaining respondents expecting the impact on employment to be roughly neutral. The net job creation effect places these

FIGURE 2.1

**Macrotrends driving business transformation**

Trends ranked by share of organizations surveyed that identified this trend as likely or increasingly likely to drive transformation in their organization.



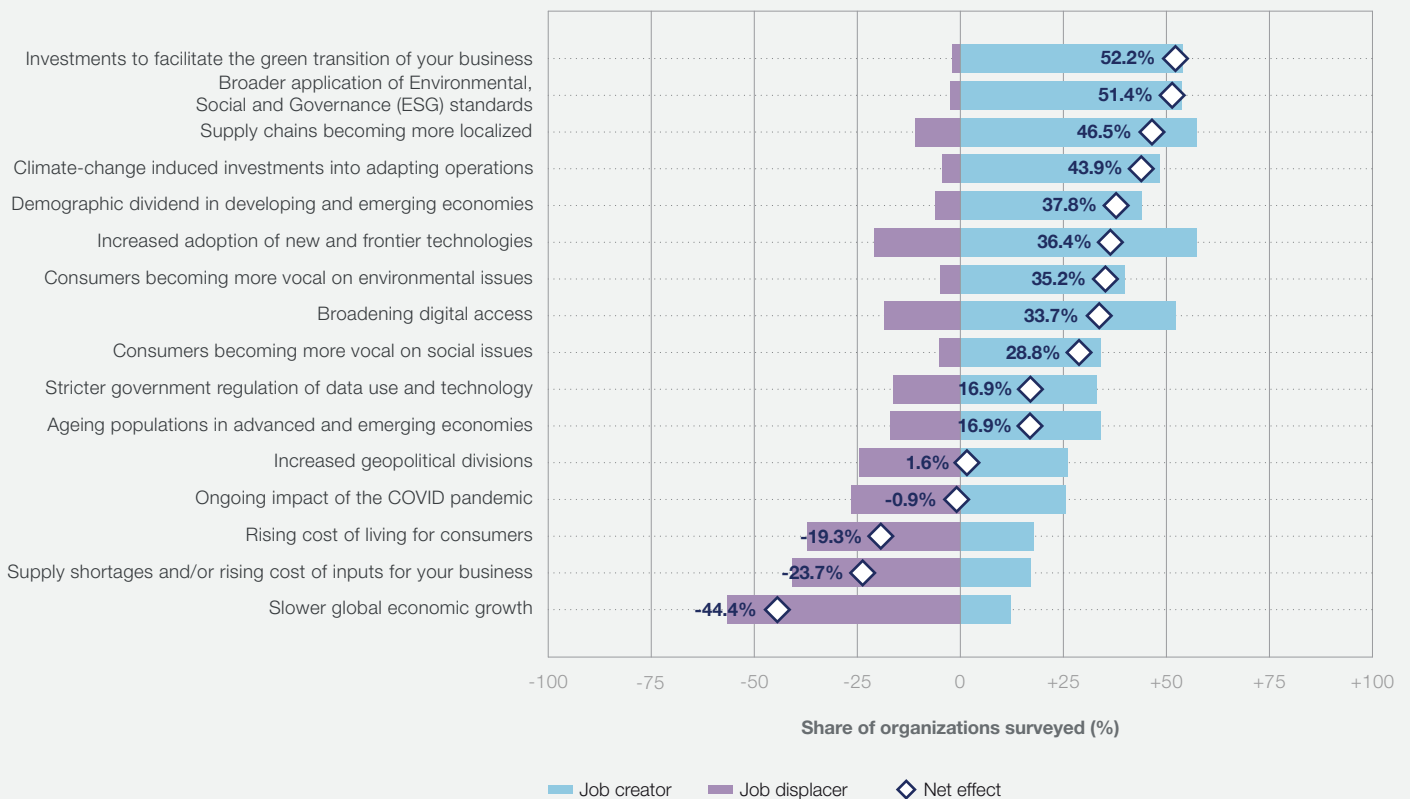
Source

World Economic Forum, Future of Jobs Survey 2023.

FIGURE 2.2

**Expected impact of macrotrends on jobs, 2023–2027**

Share of organizations surveyed that expect each trend to create or displace jobs, ordered by job creation net effect. The shares of organizations which expect the impact of these macrotrends to be neutral are not plotted.



Source

World Economic Forum, Future of Jobs Survey 2023.

two trends in 6th and 8th place respectively. The last section of this chapter will probe which specific technologies businesses expect to drive the reconfiguration of labour markets.

The three key drivers of expected net job destruction are forecast to be slower economic growth, supply shortages and the rising cost of inputs, and the rising cost of living for consumers. Employers also recognize that increased geopolitical divisions and the ongoing impact of the COVID-19 pandemic will drive labour-market disruption, with an even split between employers expecting these to have a positive and negative impact on jobs.

The following sections now briefly explore three facets of this picture more closely: growth and inflation, changing economic geographies and the green transition.

## Growth and inflation

At the beginning of 2023, the global economic situation was shaped by a combination of vulnerabilities that caused high global inflation at 8.8% in 2022 – above the pre-pandemic level of 3.5% – and slowed economic growth which the IMF forecasts to be 2.9% in 2023, below the long-term average of 3.8%.<sup>35</sup> These vulnerabilities include the monetary and fiscal expansion that eased pressure during pandemic lockdowns but enabled higher inflation, exacerbated by higher food and gas prices resulting from geopolitical tensions and Russia's invasion of Ukraine. Several central banks have taken measures to counteract these trends by increasing interest rates.

Over the 2023–2027 period, employers expect these precarious economic conditions to continue to impact their business: as previously noted, three quarters of respondents expect the rising cost of living and slower economic growth to drive transformation in their organizations in the next five years. Of the 10 economies with the highest proportion of businesses expecting the rising cost-of-living to drive transformation, five are from the MENA region. The countries most concerned by slower economic growth are more distributed, with three of the top 10 (including three of the top four) countries from East Asia and the Pacific, with the remaining seven countries split between MENA and Europe.

Against this backdrop, survey respondents expect economic challenges to be the greatest threat to the job market in the next five years, with slower global economic growth, supply shortages and rising costs, and the rising cost-of-living all expected to significantly displace jobs (Figure 2.2). This prediction is more pronounced in the Agricultural and Natural Resources, Manufacturing, and Supply Chain and Transportation industries, where the net decline (the fraction of respondents

expecting job decline minus those expecting growth) is almost 40%. Conversely, the Care, Personal Services and Wellbeing and Government and Public Sector industries expect little impact on jobs from these trends. Organizations operating in Latin America expect to be hit hardest by these trends, with net job decline expectations of around 40%, compared to a lower impact of around 25% in Europe and South Asia.

## Changing economic geographies

Driven by economic, environmental and geopolitical trends, the world economy is undergoing a structural transformation which challenges the traditional drivers of globalization, with diverging outcomes.<sup>36</sup> Though factors such as climate change call for integrated global policy-making and international cooperation, disruptions such as threats to the resilience of value chains due to COVID-19 and geopolitical conflict may make doing business locally more attractive than relying on the stability of international partners.

By comparing how Future of Jobs survey respondents who operate globally (in five or more countries) expect global trends to impact their business to expectations of those who have a single base of operations, this report finds that there are no significant differences between these groups.

These global trends have led to businesses considering ways to enhance resilience in their supply chains, through “nearshoring”, “friendshoring”<sup>37</sup> and other ways to distribute risk (e.g. China+1 strategy among multinational firms – whereby they maintain production bases in China while diversifying suppliers to other countries). This possible supply-chain restructuring is particularly relevant in East Asia, which could see benefits from diversification away from China, but equally could see potential reduced demand from European and North American businesses moving supply chains closer to the operation bases.

This report analyses these developments by assessing three macro-trends related to inter-country dynamics and supply chains: increased geopolitical tensions, localization of supply chains, and supply-chain shortages' impact on organizations' transformation. Figure 2.3 shows that East Asian countries dominate the top 10 countries for expectations that these trends will drive transformation.

Respondents have differing expectations of the impact these three trends will have on jobs, with mixed opinions (net neutral) on the impact of increased geopolitical divisions, strongly positive expectations for supply chains becoming more localized and strongly negative expectations for supply shortages and rising input costs. With East Asian countries expecting the greatest impact on business transformation from these trends, this

FIGURE 2.3

### Top-ranked economies of operation for expected business transformation of selected macrotrends

Ordered by share of organizations surveyed expecting the trend to drive business transformation

Increased geopolitical divisions	Supply chains becoming more localized	Supply shortages and/or rising cost of inputs for your business
1. Philippines	1. United Arab Emirates	1. Viet Nam
2. Taiwan, China	2. Hong Kong SAR, China	2. Taiwan, China
3. Singapore	3. Malaysia	3. Saudi Arabia
4. Thailand	4. Singapore	4. Indonesia
5. Malaysia	5. Republic of Korea	5. Thailand
6. Indonesia	6. Viet Nam	6. Republic of Korea
7. Hong Kong SAR, China	7. Thailand	7. Singapore
8. China	8. Taiwan, China	8. Finland
9. Germany	9. Philippines	9. United Arab Emirates
10. Republic of Korea	10. Saudi Arabia	10. Switzerland

■ East Asia and the Pacific     ■ Elsewhere

Source

World Economic Forum, Future of Jobs Survey 2023.

region can also expect significant job disruption from changing supply chains and geopolitical tensions in the coming years.

### The green transition

To meet the goals of the Paris Agreement – a pledge to keep global temperature rises below 2°C and pursue efforts to limit them to 1.5°C – large-scale global action towards a green transition is ongoing and expected to accelerate. While transitioning to a green economy will disrupt labour markets over the next decade it will also create significant new job opportunities.

The data in this report shows that investments in the green transition, broader application of ESG standards and climate-change adaptation are expected to have strong positive impacts on job creation (Figure 2.3). A deeper examination of the data reveals that job creation will be pronounced in the Energy and Materials and Infrastructure sectors, where roughly 10% more companies expect job creation as a result of these effects. Regarding the application of ESG standards, organizations operating in Sub-Saharan Africa have the highest net expectations for job growth (an excess of 64% of companies expecting job growth less those expecting job decline), well ahead of the lowest-ranking region (Europe at 50%). Regarding investments in the green transition, regional expectations are more aligned, with organizations operating in Sub-Saharan Africa most optimistic (60%), and Central Asia in last place (53%).

In the next five years, these trends are likely to drive job growth through both public and private investments. Since the beginning of the pandemic \$1.8 trillion has been spent globally on green stimulus, compared to \$650 billion (inflation-adjusted) in response to the 2008 financial crisis.<sup>38</sup> Examples of some of these public investment programmes include China’s Carbon Neutrality pledge, the European Green Deal Investment Plan and the United States’ recent Inflation Reduction Act. Similarly, businesses are driving the green transition forward, through their own and joint initiatives. Studies show that investments in renewable energy and energy efficiency often generate more employment in the near term than investments in fossil fuels, but work remains to improve job quality and wages as well as to support workers in carbon-intensive industries.<sup>39</sup>

Demand for green jobs is growing quickly across sectors and industries. According to a recent estimate by the International Energy Agency (IEA), a green-recovery scenario could lead to close to 3.5% of additional GDP growth globally, as well as a net employment impact of 9 million new jobs created each year.<sup>40</sup> Globally, the green transition could create 30 million jobs in clean energy, efficiency and low-emissions technologies by 2030.<sup>41</sup> By 2030 the transition to a nature-positive economy in China alone is expected to add \$1.9 trillion to the country’s economic worth and generate 88 million new jobs.<sup>42</sup>

## 2.2 Expected impact of technology adoption on business transformation and employment

The Fourth Industrial Revolution has accelerated the pace of adoption of technologies and shifted the frontier between humans and machines across sectors and geographies. Technology is altering the way we work, but also changing job content, skills in need, and which jobs are being displaced.<sup>43</sup> Understanding how technologies will impact labour markets is crucial for determining whether people will be able to transition from declining occupations to the jobs of tomorrow.<sup>44</sup>

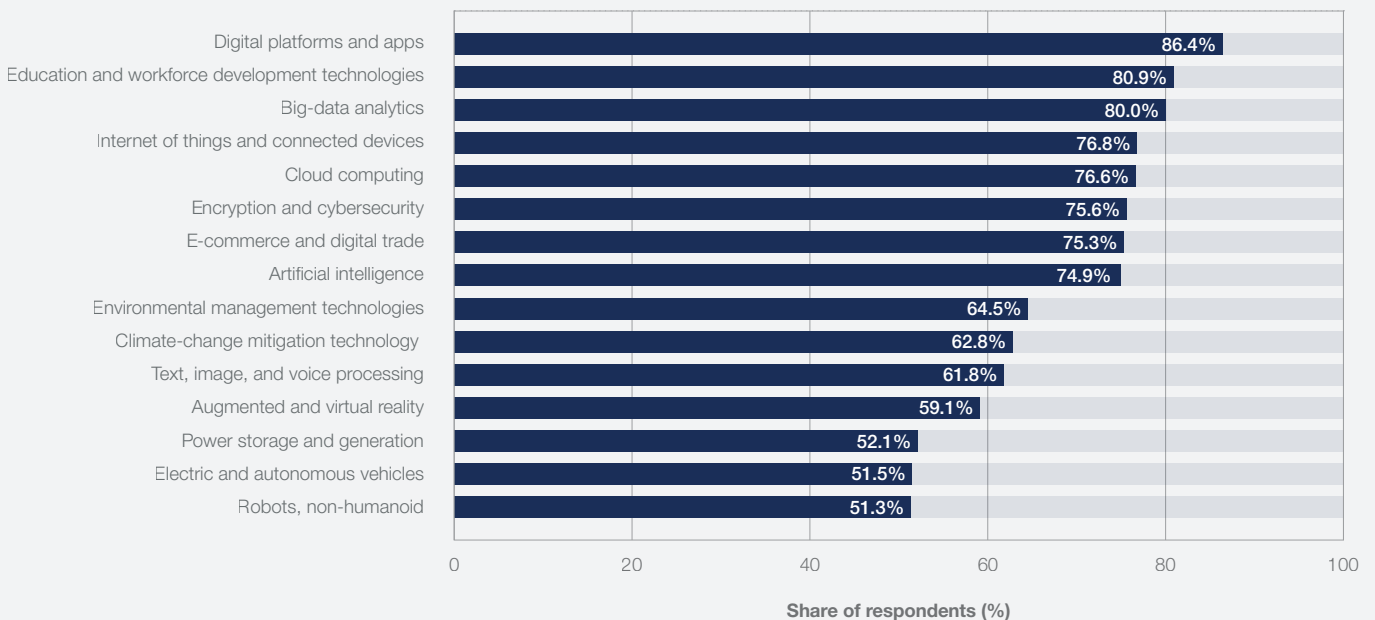
### Relative adoption of technologies

Future of Jobs Survey results highlight expected future trends in technology adoption across industries. Figure 2.4 presents the technologies according to companies' likelihood to adopt them by 2027. As in previous years, big data, cloud computing and AI feature near the top of this list, with approximately 75% of companies looking to

FIGURE 2.4

### Technology adoption, 2023-2027

Technologies ranked by the share of organizations surveyed who are likely or highly likely to adopt this technology over the next 5 years



Source

World Economic Forum, Future of Jobs Survey 2023.

adopt these technologies in the next five years. The data also shows the impact of the digitalization of commerce and trade, with platforms and apps likely to be adopted by 86% of companies and e-commerce and digital trade likely to be adopted by 75% of businesses. The second-ranked technology is education and workforce technologies, with 81% of companies looking to adopt this technology by 2027.

### Expected impact of technology adoption on jobs

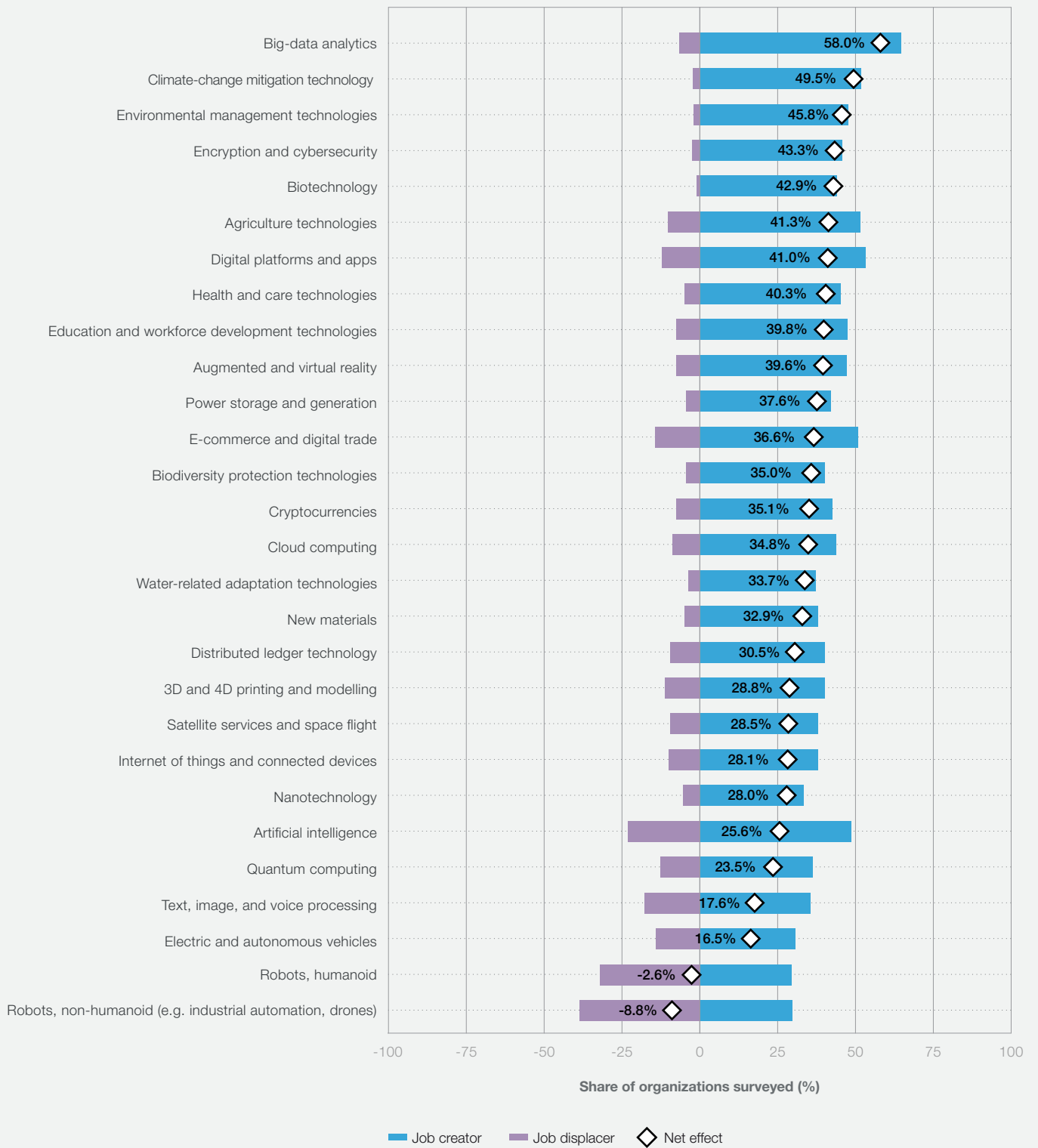
The Future of Jobs Survey also probes the expected impact of technology adoption on

employment. Figure 2.5 shows that all but two technologies are expected to be net job creators in the next five years. Big data analytics, climate change and environmental management technologies, and encryption and cybersecurity are expected to be the biggest drivers of job growth. Agriculture technologies, digital platforms and apps, e-commerce and digital trade, and AI are all expected to result in significant labour-market disruption, with substantial proportions of companies forecasting job displacement in their organizations, offset by job growth elsewhere to result in a net positive. Generative AI has received particular attention recently, with claims that 19% of the workforce could have over 50% of their tasks automated by AI<sup>45</sup> and job losses making headlines, while others expect the technology to

FIGURE 2.5

**Expected impact of technology adoption on jobs, 2023–2027**

Share of organizations surveyed that expect each technology to create or displace jobs, ordered by the job creation net effect. The shares of organizations which expect the impact of adopting these technologies to be neutral are not plotted.



Source  
World Economic Forum, Future of Jobs Survey 2023.

enhance jobs.<sup>46</sup> Only robots, whether humanoid or non-humanoid, are forecast to have a net negative overall impact on employment in our data, with roughly equal cohorts of companies expecting growth, displacement and neutral impact. The shares of organizations surveyed which forecast a neutral impact are not plotted.

While respondents operating in different industries show differing preferences for technologies, there are a few industries that show much higher overall expectations to adopt new technologies while some are more cautious. The Electronics and Chemical and Advanced Materials industries are planning to adopt more technologies than average, while the Employment Services, Insurance and Pension Management, and Real Estate industries are the least inclined to adopt new technologies.

Environmental management technology is one of the technologies with the most differentiated uptake across industries, with 93% of Oil and Gas employers expected to adopt the technology, followed by Chemical and Advanced Materials (88%) and Production of Consumer Goods (86%). In contrast, just 26% of Employment Services employers expect to adopt this technology, followed by Education and Training (36%) and Insurance and Pension Management (42%). Similarly, augmented and virtual reality is likely to be heavily adopted by organizations in Electronics (80%); Research, Design and Business Management services (77%); and Energy Technology and Utilities (75%) industries, compared to Mining and Metals (46%); Accommodation, Food and Leisure services (42%); and Agriculture, Forestry and Fishing (30%) industries. Sectoral data on technology adoption is also included in Appendix B.

Looking specifically at robots, Future of Jobs Survey data highlights the Electronics (83%), Energy Technology and Utilities (72%), and Consumer Goods (71%) industries as likely top adopters. Data from the International Federation of Robotics shows that the number of industrial robots per 10,000 workers has continued to rapidly increase over the last five years across countries.<sup>47</sup> Industrial robot density has nearly doubled over the last five years, reaching 126 robots per 10,000 workers on average. Regarding robots' impact on employment, the strongest sectoral picture emerges for the adoption of non-humanoid robots, wherein 60% of companies operating in the Production of Consumer Goods and the Oil and Gas industry foresee job displacement, and 60% of companies operating in Information and Technology services foresee job creation in the next five years.

## The human-machine frontier

As businesses adopt frontier technologies, tasks such as information and data processing are increasingly automated, reconfiguring labour markets and changing the skills needed for work. Previous editions of the *Future of Jobs Report* have documented the shifting frontier between the work tasks performed by humans and those performed by machines and algorithms. We do so again this year.

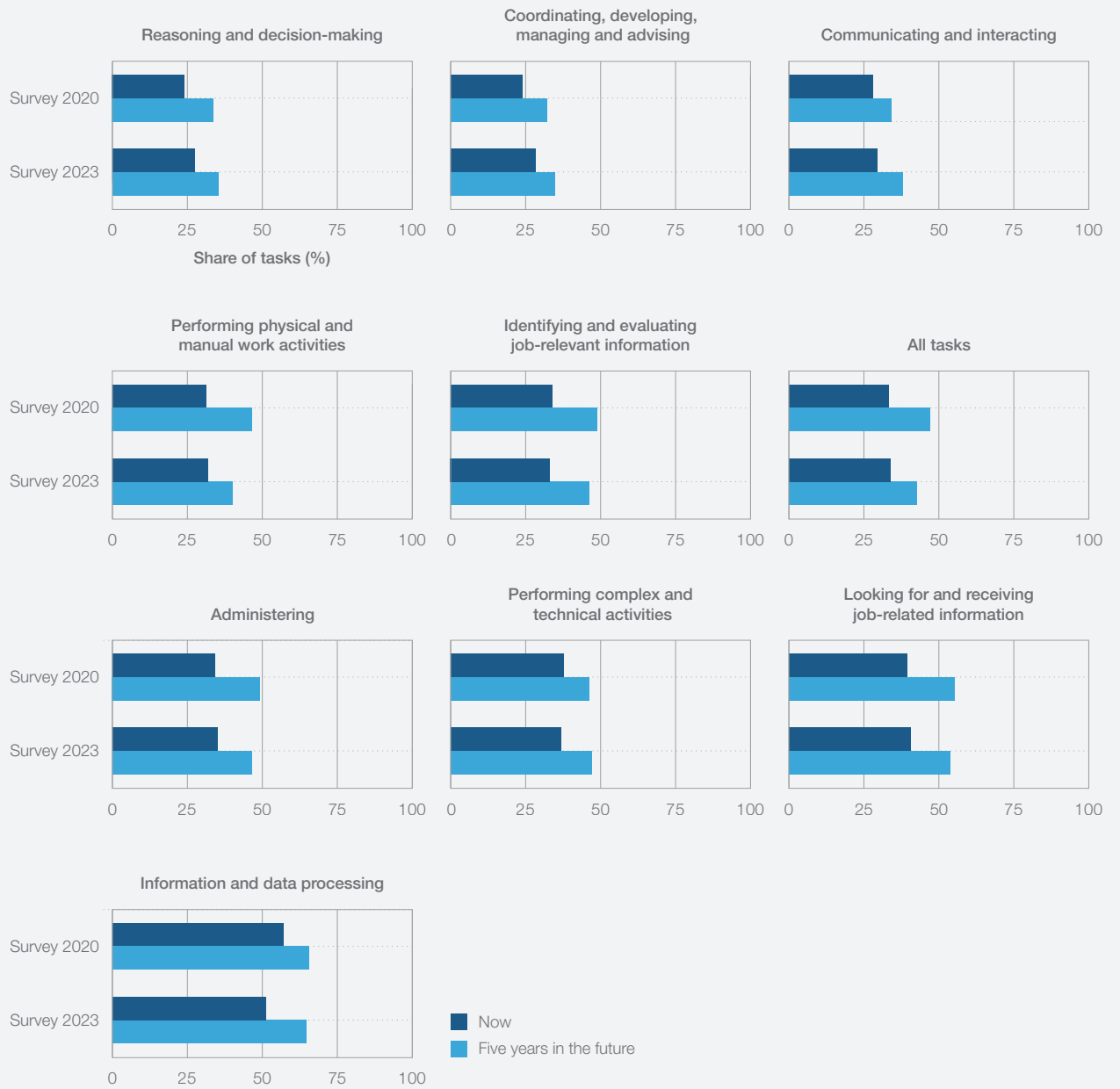
The human-machine frontier has shifted since the 2020 edition, which was released in the midst of COVID-19 lockdowns and remote working, when expectations for increasing automation were high. The fraction of automated tasks has increased less than previously expected, and the horizon for future automation is stretching further into the future than surveyed businesses previously anticipated.

Organizations today estimate that 34% of all business-related tasks are performed by machines, with the remaining 66% performed by humans. This represents a 1% increase on the level of automation estimated by respondents to the 2020 edition of the Future of Jobs Survey. This pace of automation contradicts expectations from respondents to the 2020 survey that almost half of business tasks would be automated in the following five years, possibly reflecting a view that machines and algorithms have augmented human performance rather than automating tasks in this period. Overall, relative to 2020, employers have revised their predictions for future automation down by 5% (from 47% automation by 2025 in 2020 to 42% automation by 2027 now). Task automation in 2027 is expected to vary from 35% of reasoning and decision-making to 65% of information and data processing (see Figure 2.6).

The potential scope of automation and augmentation will further expand over the next few years, with AI techniques maturing and finding mainstream application across sectors. It remains to be seen how technologies going through the most rapid changes, such as generative AI technology, may further change the make-up of automatable tasks over the 2023–2027 period, with some recent studies finding that Large Language Models can already automate 15% of tasks. When combined with applications which can correct known issues with existing Large Language Models (such as factual inaccuracies), this share may increase to 50%.<sup>48</sup>

**FIGURE 2.6** | **The human-machine frontier**

% of tasks expected to be automated



**Source**

World Economic Forum, Future of Jobs Surveys 2020, 2023.

3

# Jobs outlook

Macrotrends and technology are set to drive a mixed outlook for job creation and destruction in the next five years, across job categories and industries.

This chapter uses the concept of *labour-market* churn to help quantify the expected change in labour markets. In particular, the Survey results help quantify *structural* labour-market churn, which results from changes to the employment structure of companies when new roles are created or existing roles are eliminated (this excludes job changes where a new employee replaces an existing one in the same role). Accordingly, this chapter's analysis estimates churn using anticipated structural changes reported by surveyed companies in the composition of their workforces between 2023 and 2027.

## Labour-market churn and the pace of transformation

Labour-market churn refers to the pace of reallocation of workers and jobs. The survey provides insight into structural labour-market churn;

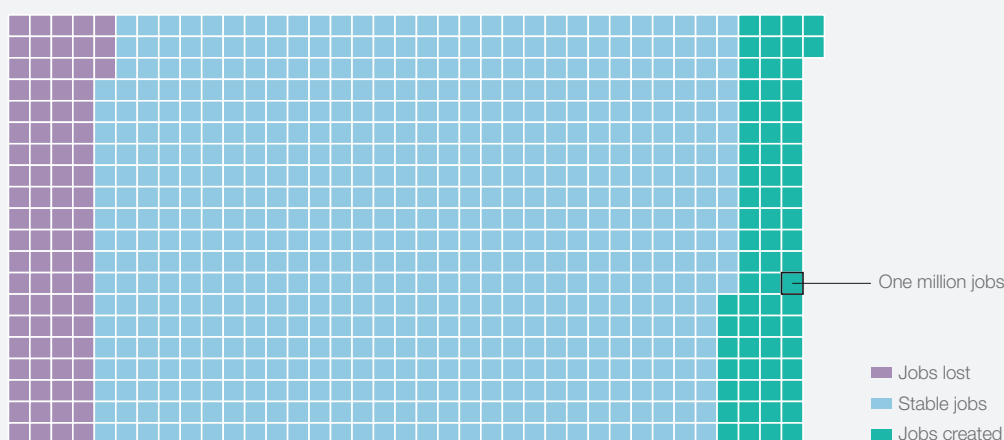
namely, the number of expected new jobs, plus the number of roles expected to be displaced during the period, divided by the size of the labour force in question. Structural churn does not include the natural churn of workers moving between jobs for personal reasons. Five-year structural churn is estimated for each job by summing the absolute magnitudes of its reported workforce fraction changes from now to 2027, reported by the respondents in the Future of Jobs Survey, and dividing by the summed workforce fractions today, reported by the respondents in the Future of Jobs Survey. It can be interpreted as an overall measure of disruption, both growth and decline.

Overall, this report estimates a mean structural labour-market churn of 23% for surveyed companies across sectors and countries over the next five years (see Figure 3.1). This indicates that total expected job movement, including both new roles being created and existing ones being destroyed, represents 23% of the current workforce. This finding helps to illustrate situations whereby relatively modest changes in net job numbers across a country or industry can partly mask major underlying reconfigurations within a churning labour market.

FIGURE 3.1

### Projected job creation and displacement, 2023-2027

In the next five years, 83 million jobs are projected to be lost and 69 million are projected to be created, constituting a structural labour-market churn of 152 million jobs, or 23% of the 673 million employees in the data set being studied. This constitutes a reduction in employment of 14 million jobs, or 2%.



Source

World Economic Forum, Future of Jobs Survey 2023; International Labour Organization, *ILOSTAT*.

Note

World Economic Forum analysis of the labour-market prospects for 673 million employees out of a global ILO dataset comprising 820 million employees using the Future of Jobs Survey 2023.

Future churn expectations for the next 5 years are likely to continue the ongoing structural reconfiguration of labour markets. In Chapter 1, this report identified employment lagging behind 2019 levels in Accommodation, Food and Leisure; Manufacturing; Retail and wholesale of consumer goods; Supply chain and transportation; and Media, Entertainment and Sports. This report's churn analysis suggests a higher than average churn from 2023 to 2027 in the Supply Chain and Transportation and Media, Entertainment and Sports industries, where respondents estimate structural five-year churn to be 29% and 32% respectively, but lower than average churn in Accommodation, Food and Leisure; Manufacturing and Retail; and Wholesale of Consumer Goods (see Figure 3.2). Relatively high churn is also forecast in the Telecommunications and Media, Entertainment and Sports, Financial Services and Capital Markets, and Information and Technology Services industries, in part reflecting technology-driven job changes.

### Growing and declining jobs

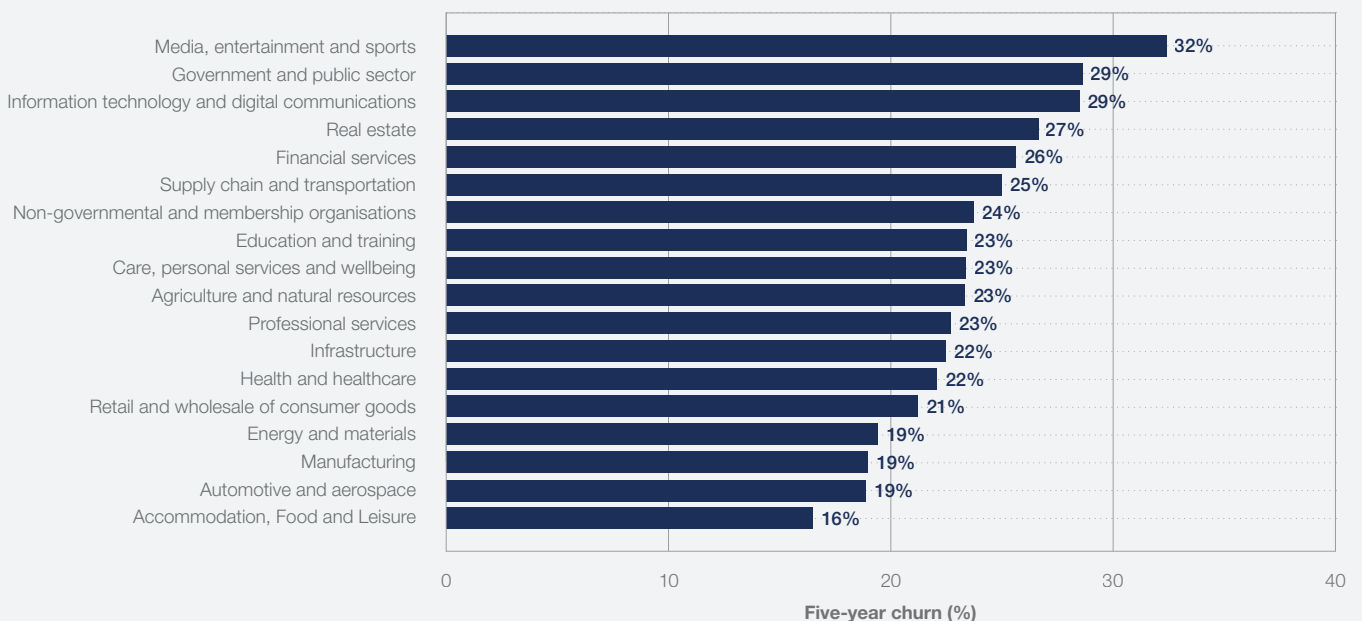
The net growth or decline of jobs can be estimated in a similar way to churn. Figure 3.3 displays how surveyed businesses expect jobs to grow or decline fastest, as a proportion of their existing labour force. AI and Machine Learning Specialists top the list of fast-growing jobs, followed by Sustainability Specialists and Business Intelligence Analysts. The majority of the fastest growing roles on the list are technology-related roles. The majority of fastest declining roles are clerical or secretarial roles, with Bank Tellers and Related Clerks, Postal Service

Clerks, and Cashiers and Ticket Clerks expected to decline fastest.

Many of the roles which are forecast to be growing and declining fastest, relative to their current proportion in the labour force, are consistent with the findings published in previous *Future of Jobs* reports in 2016, 2018 and 2020, signalling a structural reconfiguration of labour-markets with its roots in technological adoption and automation (see Chapter 2). These emerging roles that have been highlighted in all four reports include Data Analysts/Scientists, AI and Machine Learning Specialists, and Digital Transformation Specialists, while declining roles include Data Entry Clerks; Executive and Administrative Secretaries; and Accounting, Bookkeeping, and Payroll Clerks.

To approximate the total impact of job growth and decline, this report compares proportionate growth forecasts with estimates of the total number of workers in these roles based on ILO data for those countries in which data is available. Using this method as a means to obtain an indicative extrapolation of the size of global workforces, the Future of Jobs data set corresponds to 673 million workers in the full ILO data set of 820 million workers (see Figure 3.1). The Future of Jobs Survey is not structured in a way to derive estimates for the remaining 147 million workers, as sectors which employ these workers in large numbers could not be not surveyed in sufficiently large numbers to be able to report reliable predictions. The ILO data set is smaller than modelled ILO estimates of a total of roughly 1.7 billion workers worldwide when country-level data gaps are extrapolated, and smaller than the estimated 3.3 billion workers in either formal

FIGURE 3.2 Labour market churn, by industry

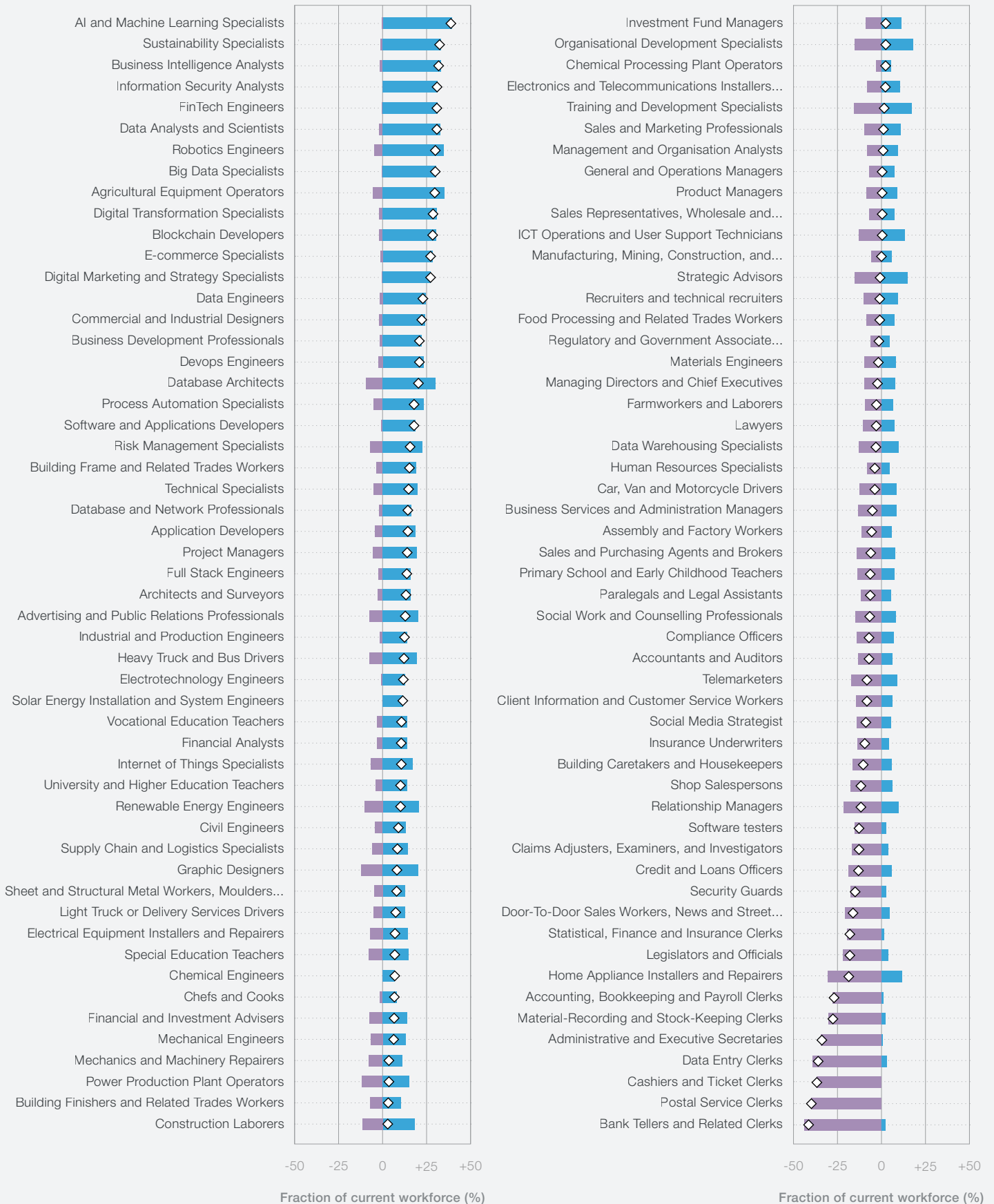


Source  
World Economic Forum, Future of Jobs Survey 2023.

Source  
Labour-market churn refers to the total expected job movement - including both new roles being created and existing roles destroyed - as a proportion of current employment. This excludes situations where a new employee replaces someone in the same role.

**FIGURE 3.3** | **New jobs and lost jobs, 2023-2027**

Projected job creation (blue) and displacement (purple) between 2023 and 2027, as a fraction of current employment, for the global employee data set studied in this report. The projected net growth or decline for each occupation in the next five years (diamonds) calculated by subtracting the two fractions. The projected structural labour-market churn for each occupation in the next five years is the sum of the two fractions, and is indicated by the full width of the bars. Averaged across occupations, structural labour-market churn represents 23% of current employment.



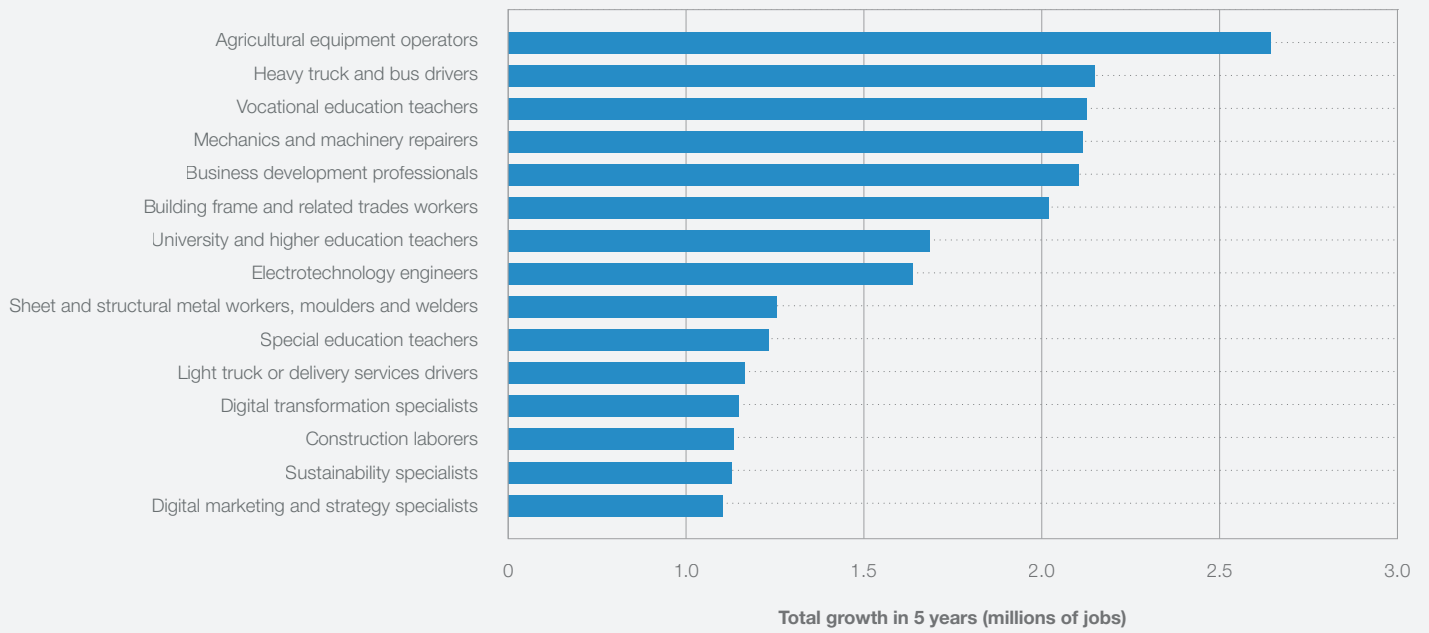
Source

World Economic Forum, Future of Jobs Survey 2023

■ Jobs created ■ Jobs displaced ◇ Net growth or decline

**FIGURE 3.4 Largest job growth, millions**

Top roles ordered by largest net job growth, calculated based on ILO Occupation Employment statistics and growth reported by organizations surveyed

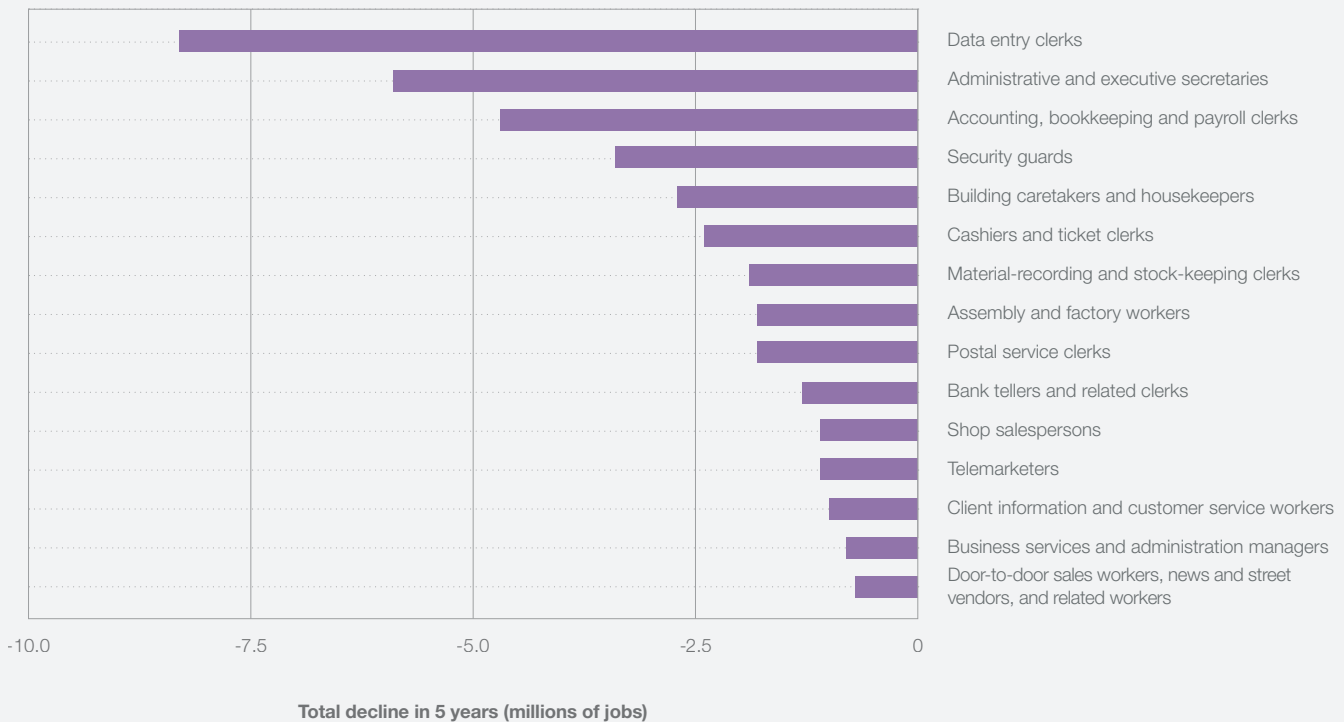


Source

World Economic Forum, Future of Jobs Survey 2023.

**FIGURE 3.5 Largest job decline, millions**

Top roles ordered by the largest net jobs reduction, calculated based on ILO Occupation Employment statistics and growth reported by organizations surveyed



Source

World Economic Forum, Future of Jobs Survey 2023.

or informal employment. The conclusions derived for this subset of data should thus not be treated as comprehensive, but provide useful insights on selected segments of the workforce.

Figures 3.4 and 3.5 present data on jobs that are expected to see the most absolute growth and decline, and survey results suggest that the highest growth from 2023–2027 will be for Agricultural Equipment Operators, Heavy Truck and Bus Drivers, and Vocational Education Teachers. Data Entry Clerks; Administrative and Executive Secretaries; and Accounting, Bookkeeping, and Payroll Clerks are expected to suffer the greatest reduction in employment. Combined, these three roles make up over half of the total expected job destruction.

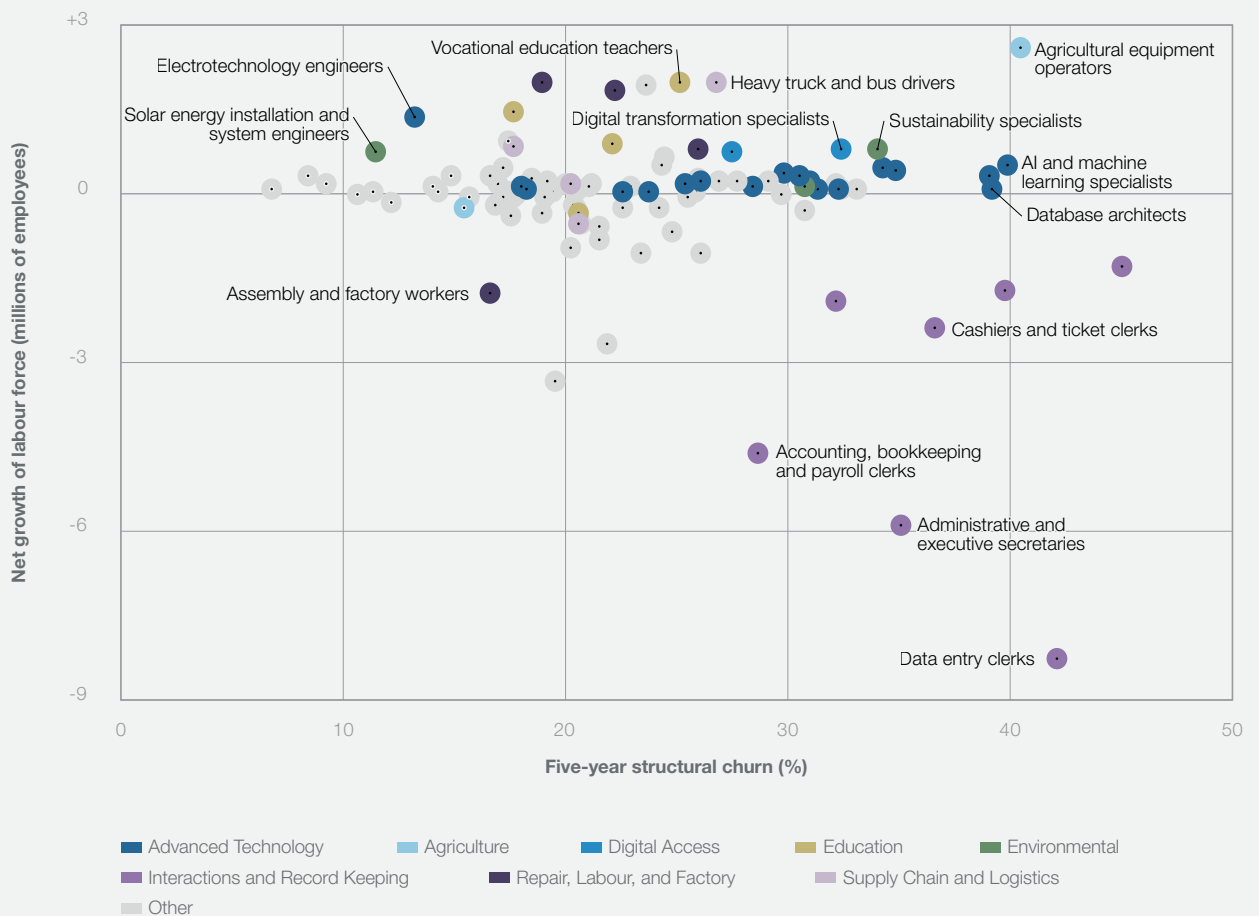
Overall, our analysis suggests that 69 million jobs will be created and 83 million jobs destroyed, leading to a contraction of global labour markets of 14 million jobs in the next five years at the present rate of change, though this figure is subject to a high degree of uncertainty as it is not holistic. The sum of these changes yields the estimated overall

structural labour-market churn of 23% of the current global workforce the data is able to cover.

Figure 3.6 plots these absolute net growth estimates versus churn for each role for which the survey has sufficient data. The jobs that appear towards the top of the graph are expected to be growing, in largest absolute numbers, while those at the bottom of the graph are expected to be declining, in largest absolute numbers. Jobs clustered around zero net growth are expected to churn in the next five years, with displaced jobs replaced by newly created jobs in roughly equal numbers. The fraction of the total number of jobs which is expected to churn between displacement and creation increases along the horizontal axis. As the concept of labour-market churn does not distinguish between job creation and job displacement, jobs can also diverge to substantial expected job creation in the top right of the figure or substantial expected job displacement in the bottom right of the figure. The absence of data points at zero net growth and zero churn shows that respondents expect no job to experience labour-market stability in the next five years. Most

**FIGURE 3.6 Projected churn and net growth/decline of employment 2023-2027, by occupation**

Projected structural labour-market churn from 2023 to 2027, as a proportion of the current workforce. Projected net growth or decline in employment from 2023 to 2027, in millions of employees.



Source

World Economic Forum, Future of Jobs Survey 2023; International Labour Organization, *ILOSTAT*.

occupations in sectors covered by the survey data set should at present expect to experience relative stability in overall employment numbers, but a structural churn between 10% and 40% over the next five years.

In analyzing the patterns in job growth, decline and churn, seven groups of related jobs emerge, being collectively impacted by similar trends, either positively or negatively. The following sections explore the developments in these seven job groups.

## Digital access and digital trade enabled jobs

As noted in Chapter 2, 86% of respondents expect broadening digital access to transform their organization, with 52% expecting it to create job growth and 19% expecting decline as a result. When combined with data on jobs trends, this appears to drive expectations of job growth in digital-trade related jobs and a reduction in roles where more digitalized global interactions cause aspects of face-to-face services and record-keeping to become less necessary.

For example, E-commerce Specialists, Digital Transformation Specialists, and Digital Marketing and Strategy Specialists are expected to increase by 25-35%, leading to an increase of 2 million jobs. This growth expectation is not consistent across regions however, with South Asia expecting these roles to grow fastest at over 30%, and Sub-Saharan Africa the slowest at 15%. Respondents expect this growth on average to be faster for Digital Transformation Specialists in China (32%) and slower in Japan (23%).

The decline of face-to-face and record-keeping roles is consistent across industries, but most pronounced in Information Technology and Digital Communications, at around 50%, Financial Services (around 40%), and Supply Chain and Transportation (around 40%). Other industries that show relatively consistent decline include Education and Training (~30%), Energy and Materials (~35%), Infrastructure (~20%), Manufacturing (~30%), Professional Services (~30%), and Retail and Wholesale of Consumer Goods (~20%).

More specifically, respondents expect to see 25-35% less demand for Cashiers and Ticket Clerks; Data-entry Clerks; Accounting, Bookkeeping and Payroll Clerks; and Secretaries. The trend for Data Entry Clerks is consistent throughout the world, however it is particularly pronounced in Brazil (46%), and slightly less prevalent in some high-income countries such as Germany, the United States, Singapore and the United Kingdom, at around 25%. Similar to Accounting, Bookkeeping and Payroll Clerks, this trend is global, but particularly pronounced in Japan, Italy and the United States. Since these are currently popular occupations,

these expectations could result in a decline of 26 million jobs globally.

## Energy transition and climate-change mitigation jobs

Another area survey respondents expect to grow quickly, which currently employs a relatively small number of people, are jobs in renewable energy and those related to climate change mitigation. This is reflected in almost universal expectations of growth for Renewable Energy Engineers and Solar Energy Installation and System Engineers among respondents who identified these as common roles in their organisation. The same holds true for Sustainability Specialists and Environmental Protection Professionals that are expected to grow by 33% and 34% respectively, translating to growth of approximately 1 million jobs. This is in line with business leaders' expectations for the green transition and climate-mitigation investments to drive job growth as outlined in Chapter 2. This expectation continues the growth in green jobs that labour markets around the world have witnessed in the past four years, as indicated by additional research conducted by LinkedIn for this year's Future of Jobs Report (see Box 3.1).

## Advanced technology jobs

Adoption of frontier technologies is also driving job growth across three job families that currently do not employ large numbers of people:

A 30-35% increase (1.4 million) in demand for roles such as Data Analysts and Scientists, Big Data Specialists, Business Intelligence Analysts, Database and Network Professionals, and Data Engineers that is driven by advances and growth in adoption of frontier technologies which rely on big data. This expectation of growth in these roles is common across countries, but particularly prevalent in China, where growth is expected to be closer to 45%. Industries expecting high growth in these roles include Financial Services (31%), Retail and Wholesale of Consumer Goods (37%), and Supply Chain and Transportation (42%), while expectations are more measured for Information Technology and Digital Communications, at just 8%.

Demand for AI and Machine Learning Specialists is expected to grow by 40%, or 1 million jobs, as the usage of AI and machine learning drives continued industry transformation. Recent research on Generative AI indicates it may affect a significant proportion of total worker tasks.<sup>49</sup> However, this does not distinguish between tasks being augmented vs automated. This research also finds that this is most likely to affect higher wage roles and jobs with greater barriers to entry.

A 31% increase in demand for Information-Security

**Trends in green jobs**

In collaboration with LinkedIn

Green jobs, and a workforce with the skills to fill them, are essential for meeting climate targets. Drawing on data provided by LinkedIn, this year's Future of Jobs Report assesses how employers and employees are responding to the green transition. Employers have increased green job hiring rates, with year-on-year green job growth exceeding the overall hiring rate growth every year since 2019, as shown in Figure B3.1. This has resulted in sustainability jobs making up three of the top ten fastest growing roles on the LinkedIn platform over the last four years, including Sustainability Analysts, Sustainability Specialists, and Sustainability Managers. Meanwhile the proportion of the labour force reporting green skills is rising to meet the increased demand, growing by almost 40% since 2015, from 9% to 13%.

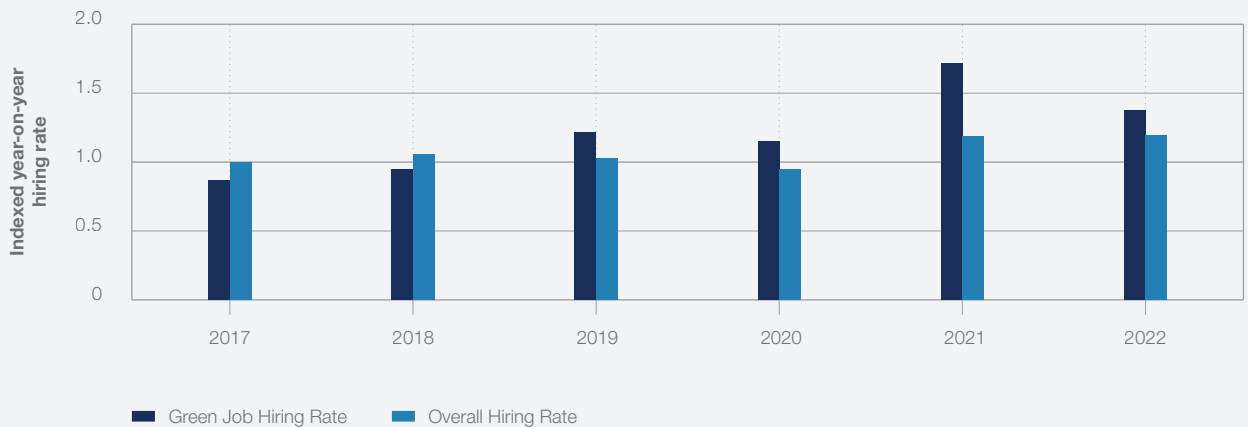
Drawing further on LinkedIn's data, we discover that the Manufacturing and Oil and Gas sectors

have the highest levels of green skill intensity. This is an encouraging sign as it could enable a green-skills-led approach to decarbonizing these emissions-intensive industries. This is consistent across the 50 countries included in the analysis, with Austria, Germany, Italy, the United States and Spain leading the way in Manufacturing, while India, the United States and Finland feature at the top of the list for Oil and Gas.

With governments playing a key role driving and facilitating the green transition, countries including Australia, Argentina, Sweden, the Netherlands and the United States are leading green skills intensity in Government and the Public Sector. This relatively high green skills intensity may enable these countries to accelerate their green transition. Industries with lower green skills intensity include Finance, Technology and Information and Media.

**FIGURE B3.1 Growth in annual hiring rates for green jobs**

Hiring rates for green jobs and the global sample as a fraction of the previous year's hiring rate for that sample. 1 indicates no change.



Source  
LinkedIn.

Analysts, leading to 0.2 million additional jobs. This is driven by increased adoption of encryption and cybersecurity which aligns with findings of the World Economic Forum's 2023 *Global Risks Report*<sup>50</sup> that widespread cybercrime and cyber insecurity are a top 10 global risk in both the short and long term – and yet there is a current global shortage of 3 million cybersecurity professionals.

**Education jobs**

Jobs in the Education industry are expected to grow at around 10% during the 2023–2027 period.

With many people employed in these roles, this growth could lead to 3 million additional jobs for Vocational Education Teachers and University and Higher Education Teachers over the 2023-2027 period. This growth is particularly prevalent in non-G20 countries where it is expected to be about 50% higher than in G20 countries. Limitations in the Future of Jobs sample for organizations operating in the Education and Training sector indicate caution should be applied when interpreting these figures. Two potential drivers for growth in these roles are: the high rate of adoption of education and workforce development technologies identified in Chapter 2 and organizations' efforts to close skills gaps in their workforces (see Chapter 5).

Should survey respondents' forecast growth in education jobs materialize in the next five years, this would continue the trend in social jobs that labour markets around the world witnessed in the past three years, as highlighted by research conducted by Indeed for this year's *Future of Jobs Report* (see Box 3.2).

## Agriculture jobs

Jobs for Agricultural professionals, especially Agricultural Equipment Operators, are expected to see an increase of 30%. Given the current employment levels for these roles, this could lead to an additional 3 million jobs. This increased demand may be driven by the combined effect of several trends such as supply chains shortening and input costs rising, as well as the increasing use of agricultural technologies, and increasing investments in climate change adaptation. Many Agricultural workers are employed in organizations that are underrepresented in the Future of Jobs Survey, so these numbers should also be interpreted with care. These workers can also expect to be less impacted by generative AI according to research on the impact of Large Language Models on the Labour Market.<sup>51</sup>

## Repairers, factory-workers and labourers

With uncertain impacts from increased uptake of frontier technologies and non-humanoid robots, such as drones and industrial automation (see Chapter 2), there is a mixed outlook for Mechanics and Machinery Repairers, Construction Labourers, and Assembly and Factory Workers.

For Mechanics and Machinery Repairers, almost as many respondents expect a declining outlook as a growing one. However, the relative size of growth and decline that respondents expect, and the large total employment in the role, means this is one of the largest-growing roles in absolute terms at around 1.9 million additional jobs expected.

This growth is concentrated in non-G20 countries, where it is expected to be around 17%, whereas G20 countries expect to see a 1% net decline. The regional picture is mixed, with employers in Europe expecting 8% net growth while those in South Asia expect to see a 9% net decline.

For Construction Workers, more respondents expect the role to decline than grow, however the relative size of these changes mean we expect to see demand for an additional 1 million workers. There is also expected to be significant churn between jobs and employers.

For Assembly and Factory Workers, respondents expect a reduction in demand of 5%, which could reduce this workforce by about 2 million jobs. This reduction is driven by declining demand from Advanced Manufacturing and Electronics industries – especially in China, Japan, Singapore and the United Kingdom. These workers may, however, be shielded from some of the impacts of Generative AI, as manufacturing roles are expected to be less prone to automation from this technology.<sup>52</sup>

## Supply-chain and logistics jobs

Another job group that is facing both expectations of growth and decline in jobs are roles connected to Logistics. Localization of supply chains is expected to be one of the largest gross contributors to job growth but also a significant job displacer. Meanwhile, supply shortages and rising input costs are expected to be a major job displacer – second only to a global economic slowdown. As a result, the report finds some employers expect to hire more Heavy Truck and Bus Drivers, while others expect to reduce this workforce. On aggregate, respondents expect a net increase of 2 million, or 12.5% of this workforce. This expected growth may compound the current Driver shortages outlined in Chapter 1 of this report. In contrast, expectations regarding Car, Van and Motorcycle Drivers differ among respondents, but, overall see a net decline of 0.6 million (4%). Logistics Specialists, as well as Light Truck Drivers, should see small net increases.

### The pandemic has driven faster growth for social jobs

In collaboration with Indeed

Social jobs – those in Care, Education and Healthcare – play a vital role in societal well-being, enabling social mobility, securing human capital and strengthening societal resilience. As the world faces a growing and ageing global population, the importance of social jobs will no doubt increase.

Research conducted by Indeed for this report finds that job postings have grown significantly for both social and other jobs since the pandemic. By comparing the relative growth of social and other jobs we can understand changes in the make-up of jobs.

Figure B3.2 shows the relative growth of the three segments of social jobs (Care, Education and

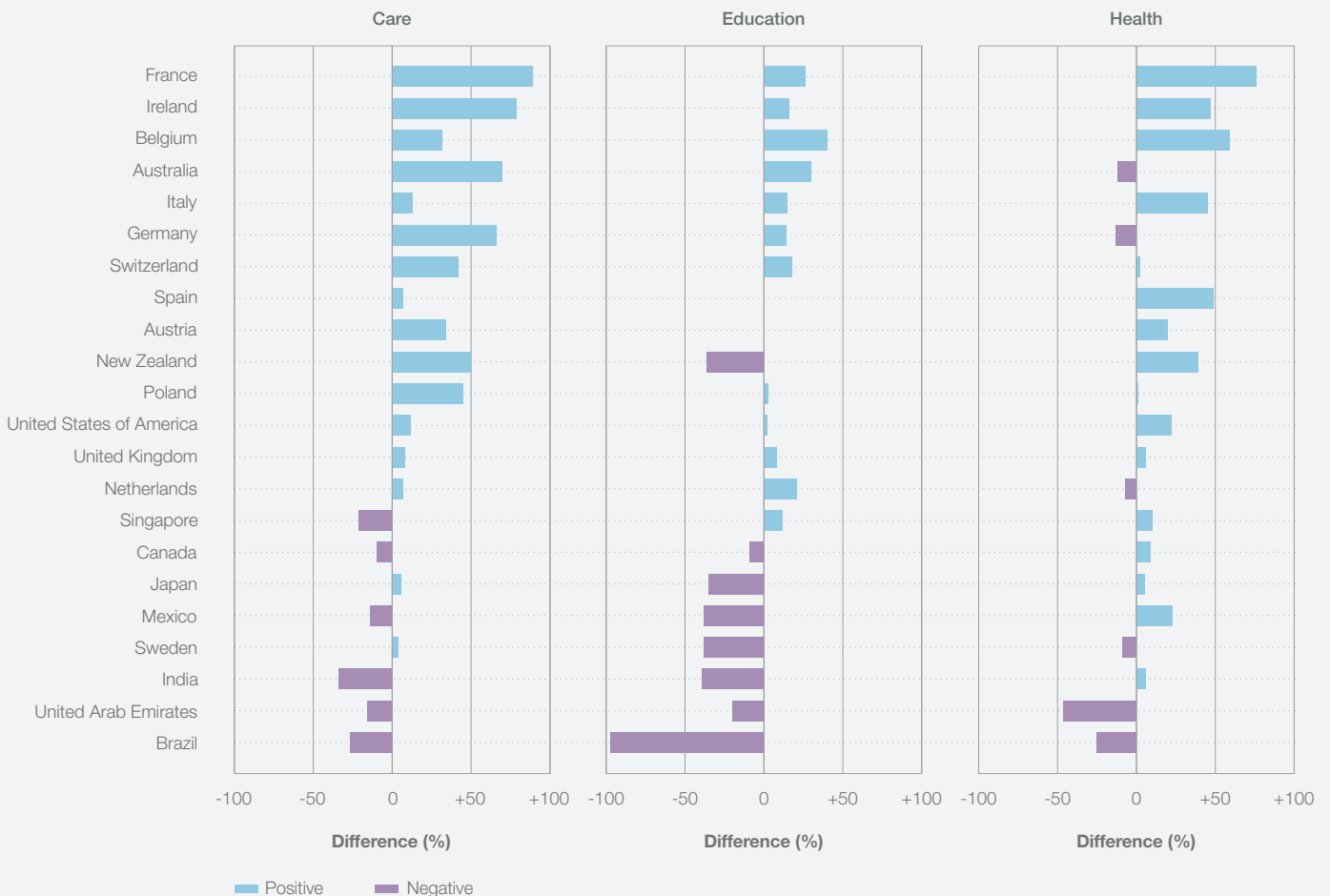
Healthcare) compared to all other jobs. For 15 of the 22 countries analysed, social jobs have grown faster than other jobs. This is predominantly driven by Healthcare and Care jobs, which have grown faster than other jobs in 16 of the 22 countries – reflecting the critical importance of these jobs during the COVID-19 pandemic. Education jobs, meanwhile, have grown faster than other jobs in 12 of 20 countries.

Additional data reveals that France, Ireland and Belgium show particularly strong social-job growth relative to other countries, while Brazil, United Arab Emirates and India are among the seven countries where job growth was slower for social jobs than non-social jobs.

FIGURE B3.2

### Posting rates for social jobs relative to before the pandemic

Growth in the rate of social-job postings on Indeed minus growth in other job postings on the platform, relative to before the pandemic



Source  
Indeed.

**Note**

The two time periods are 1 January 2020 to 28 February 2020 – the World Health Organization categorized COVID-19 as a pandemic on 11 March 2020 – and 1 January 2022 to 10 February 2023.

4

# Skills outlook

This chapter reports Future of Jobs Survey results regarding skills, as classified by the World Economic Forum’s Global Skills Taxonomy.<sup>53</sup> The chapter begins by analysing the skills currently needed for work, and whether businesses expect them to increase or decrease in importance in the next five years. It then presents data provided by surveyed

companies on the prioritized composition of their reskilling and upskilling strategies for the period 2023–2027. Sectoral decompositions of skill trends are available in Appendix C (p79), and detailed profiles for the range of cross-functional skills are included as 26 Skill Profiles at the end of the report (see p255).

## 4.1 Expected disruptions to skills

When the Future of Jobs Report was first published in 2016, surveyed companies predicted that 35% of workers’ skills would be disrupted in the following five years. In 2023, that share has risen to 44% (Figure 4.1). This expected rate of disruption to skills nevertheless represents a stabilization since

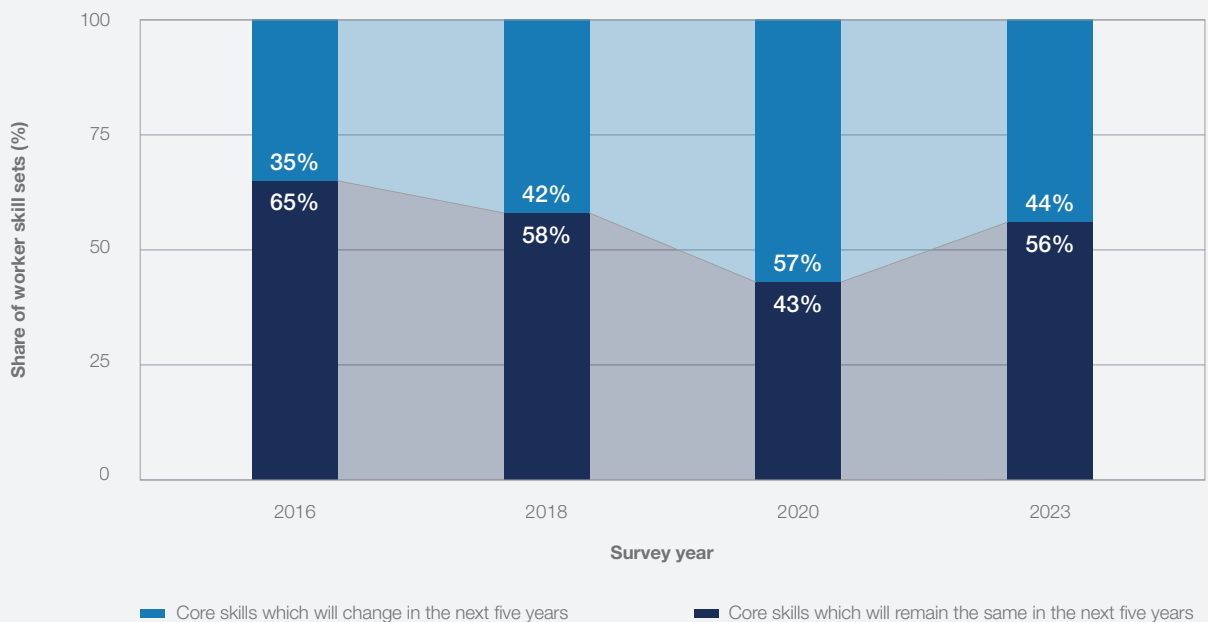
the previous edition of the Future of Jobs Survey in 2020, when COVID-19-induced disruptions to working life caused respondents to forecast a skills instability of 57% in the following five years.

With only 43% of respondents now reporting that

FIGURE 4.1

### Disruptions to skills

Evolution in the shares of workers' core skills which will change and which will remain the same in the next five years



Source

World Economic Forum, Future of Jobs Surveys 2016, 2018, 2020 and 2023.

Note

Values reported are the mean skill stability percentages estimated by organizations surveyed in each edition of the survey.

COVID-19 is driving industry transformation (see Chapter 2), the adoption of frontier technologies (driving transformation in 86% of companies) may be expected to drive the evolution of workplace skills across the full spectrum of skills, knowledge, abilities and attitudes, as workers adapt to automation and AI.

### Core skills in 2023

Figure 4.2 shows the core skills required by workers today. As in 2020, Analytical Thinking is considered to be a core skill by more companies than any other skill, and constitutes on average 9% of the core skills reported by companies. Another cognitive skill, creative thinking, ranks second, ahead of three self-efficacy skills – resilience, flexibility and agility; motivation and self-awareness; and curiosity and lifelong learning – in recognition of the importance

of workers ability to adapt to disrupted workplaces. The fourth self-efficacy skill in the Global Skills Taxonomy, dependability and attention to detail, ranks seventh, behind technological literacy.

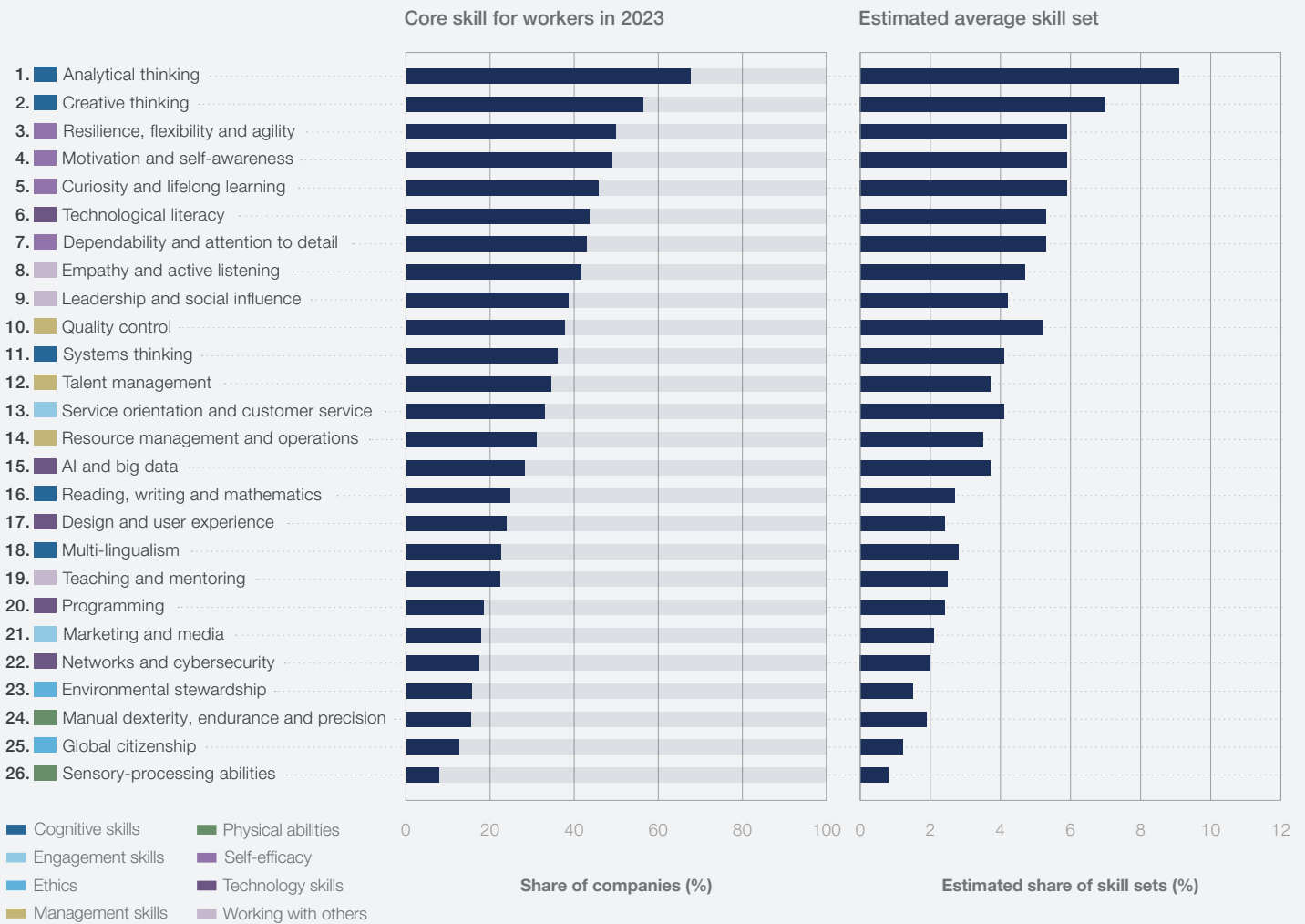
The core skills top 10 is completed by two attitudes relating to working with others – empathy and active listening and leadership and social influence – and quality control. Constituting 5% of worker skill sets despite ranking tenth, quality control is an example of a skill particularly important to a limited cohort of businesses. Management skills, engagement skills, technology skills, ethics and physical abilities are generally considered to be less important than cognition, self-efficacy, and working with others.

While core skill sets are relatively uniform across sectors, several distinguishing features can be identified. The Media Entertainment and Sports industry values empathy and active listening and dependability and attention to detail at half the

FIGURE 4.2

### Core skills in 2023

Share of organizations surveyed which consider skills to be core skills for their workforce. Estimated average composition of the skill sets of workers in organizations surveyed. Skills are ranked and ordered by the share of organizations surveyed which consider the skill as core to their workforce.



Source: World Economic Forum, Future of Jobs Survey 2023.

Note: The Future of Jobs Survey uses the World Economic Forum's Global Skills Taxonomy.

global rate – trends which are reversed in non-governmental and membership organizations. Agriculture, Forestry and Fishing ranks as an outlier due to the sector's focus on environmental stewardship and its growing outlook for the importance of manual dexterity, endurance and precision and resource management skills. Environmental stewardship skills are also notably important in the Chemical and Advanced Materials industry, alongside leadership and social influence. The Electronics and Education and Training industries are united by an emphasis on the importance of systems thinking to their workers. These trends may be viewed in detail in Appendix C.

Comparisons to previous surveys suggest that creative thinking is increasing in importance relative to analytical thinking as workplace tasks become increasingly automated. In 2018 and 2020, the

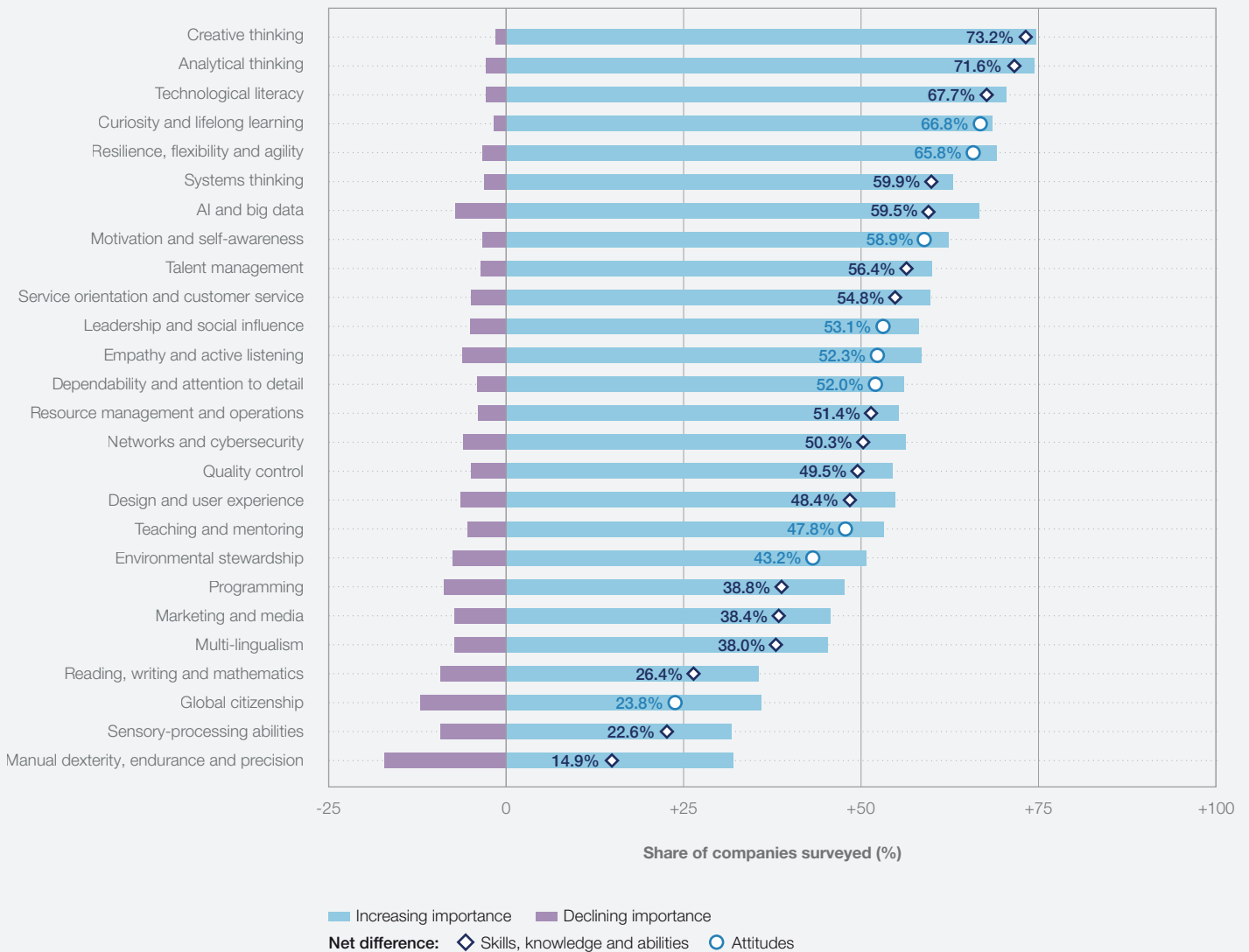
number of surveyed companies that considered analytical thinking to be a core skill outnumbered those considering creative thinking to be a core skill by a margin of 35% and 38%, respectively. That gap has now decreased to 21% and may continue to close. As reported in Chapter 2, companies expect the automation of reasoning and decision-making to increase by 9% by 2027.

### Skill evolution 2023–2027

Figure 4.3 reports business expectations for the evolution of the importance of skills to their workers in the next five years. Cognitive skills are reported to be growing in importance most quickly, reflecting the increasing importance of complex problem-solving in the workplace. Surveyed businesses report creative

FIGURE 4.3 Skills on the rise

Share of organizations surveyed which consider skills to be increasing or decreasing in importance, ordered by the net difference.



Source World Economic Forum, Future of Jobs Survey 2023.

Note The Future of Jobs Survey uses the World Economic Forum's Global Skills Taxonomy. The share of companies which consider skills to be of stable importance to their workers is not plotted.

thinking to be growing in importance slightly more rapidly than analytical thinking. Technology literacy is the third-fastest growing core skill.

Among the 2023 core skills identified in Figure 4.2, self-efficacy skills rank above working with others in the rate of increase in importance of skills reported by businesses. The socio-emotional attitudes which businesses consider to be growing in importance most quickly are curiosity and lifelong learning; resilience, flexibility and agility; and motivation and self-awareness – evidence that businesses emphasize the importance of resilient and reflective workers embracing a culture of lifelong learning as the lifecycle of their skills decreases. Systems thinking, AI and big data, talent management, and service orientation and customer service complete the top 10.

While respondents judged no skills to be in net decline, sizable minorities of companies judge reading, writing and mathematics; global citizenship; sensory-processing abilities; and manual dexterity, endurance and precision to be of declining importance for their workers. These four skills are judged to be increasing in importance least quickly by survey respondents.

The declining importance of physical abilities has been a feature of previous Future of Jobs Reports. Ethical skills have been introduced to the report's skills taxonomy for the first time in this edition, with 68% of companies believing that consumers becoming more vocal on social and environmental issues is likely or highly likely to drive transformation within their organization in the next five years (see Chapter 2). Workers will require skills training if companies are to meet the increasing ethical demands placed on them as a result of adopting frontier technologies and adapting to the green transition. Yet, such an emphasis is currently not evident in Future of Jobs Survey data except in a

minority of industries.

Figure 4.4 illustrates industry-specific variations in the evolving importance of skills. Physical abilities, which comprise manual dexterity and precision and sensory processing abilities, are growing in demand most quickly in the Care, Personal Service and Wellbeing; Agriculture, Forestry and Fishing; Mining and Metals; and Advanced Manufacturing industries. The Care and Agriculture sectors also forecast the fastest growth in importance for management skills, which include talent management, resource management and operations, and quality control.

Engagement skills – which comprise marketing and media and service orientation and customer service – are growing in importance most quickly in the Care, Personal Services and Well-being; Accommodation, Food and Leisure; and Media, Entertainment and Sports sectors. Technology skills are increasing in importance in Care, Personal Services and Wellbeing and in two sub-industries within Financial Services: Insurance and Pensions Management and Financial Services and Capital Markets. Increased demand for cognitive skills such as analytical thinking and creative thinking is most evident in the Electronics and Chemical and Advanced Materials industries and in Nongovernmental and Membership Organizations. Socio-emotional attitudes related to self-efficacy, working with others and ethics are increasing in importance most quickly in the Oil and Gas; Care, Personal Services and Wellbeing; and Electronics industries.

Taking into account all industries in the survey, increasing skill demands are particularly evident in Care, Personal Services and Wellbeing, which ranks in the top five of 27 industries across all skill clusters of the Global Skills Taxonomy.

FIGURE 4.4

**Top industries for increasing skill requirements, 2023–2027**

Shares of organizations which consider skills within the corresponding skill category to be growing in importance for their workers from 2023 to 2027, as opposed to having stable or declining importance. The top seven industries out of the 27 studied in this report are selected in each case, and ranked.

**Cognitive skills**



**Engagement skills**



**Technology skills**



**Physical abilities**



**Management skills**



**Self-efficacy, working with others and ethics**



**Source**

World Economic Forum, Future of Jobs Survey 2023.

**Note**

The Future of Jobs Survey uses the World Economic Forum's Global Skills Taxonomy. Industries are categorised according to an optimised 27 sectors based on respondent statistics.

## 4.2 Reskilling and upskilling priorities in the next 5 years

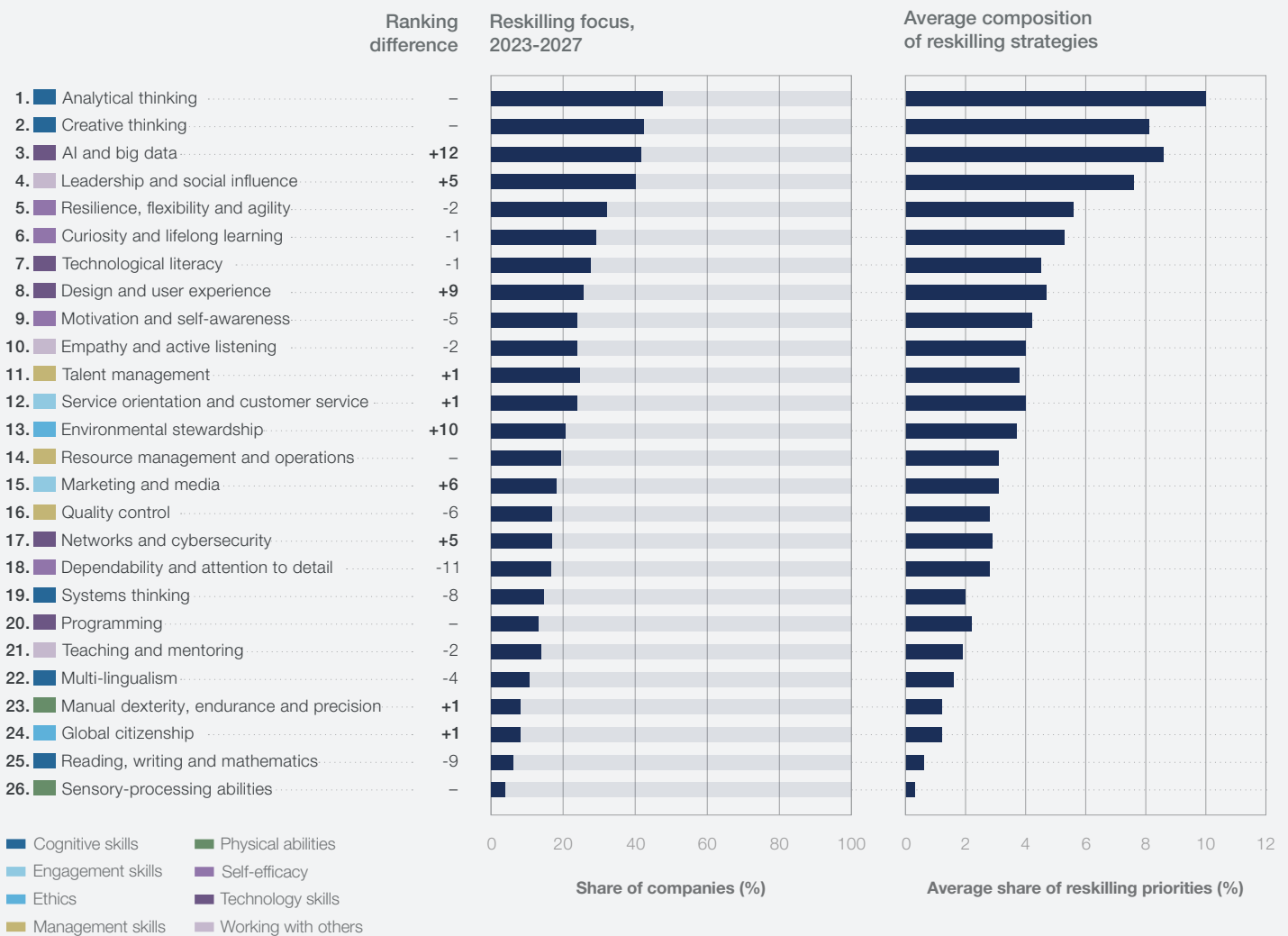
As skills are being disrupted, businesses are designing and scaling up their training programmes. In the 2020 Future of Jobs Report, companies estimated that 42% of workers had completed training that bridged skills gaps. That share receded slightly to 41% in 2023. Given that businesses see skills gaps in the local labour market as the foremost barrier towards achieving industry transformation and investing in learning and training on the job as the most promising workforce strategy for achieving their business goals (see Chapter 5), formulating effective reskilling and upskilling strategies for the next five years is essential for maximizing business performance.

### Upskilling priorities and strategies

Figure 4.5 summarizes the training strategies of companies responding to the Future of Jobs survey. The highest priority for skills training from 2023 to 2027 is analytical thinking, which is set to account for 10% of training initiatives, on average. The second priority for workforce development is to promote creative thinking, which will be the subject of 8% of upskilling initiatives.

FIGURE 4.5 Reskilling and upskilling, 2023-2027

Aggregated rankings of reskilling and upskilling priorities reported by surveyed organizations. Ranking differences relative to the ranking of skill importance in 2023, as denoted in Figure 4.2. (Positive ranking differences indicate strategic priorities.) Share of companies which include each skill in their reskilling and upskilling strategies for 2023 to 2027. Average composition of reskilling and upskilling initiatives of surveyed organizations.



Source

World Economic Forum, Future of Jobs Survey 2023.

Note

The Future of Jobs Survey uses the World Economic Forum's Global Skills Taxonomy.

Figure 4.5 presents cross-functional skills ranked by the priority assigned by companies to them within their reskilling and upskilling strategies scheduled for 2023 to 2027, and an estimate of the composition of the average corporate skills strategy. The difference between this reskilling rank and the ranking of skills according to their current importance in Figure 4.4 is also noted. Source: Future of Jobs Survey.

The skills that companies report to be increasing in importance the fastest are not always reflected in corporate upskilling strategies. Beyond these top-ranked cognitive skills are two skills which companies prioritize much more highly than would appear according to their current importance to their workforce: AI and big data as well as leadership and social influence.

Companies rank AI and big data 12 places higher in their skills strategies than in their evaluation of core skills, and report that they will invest an estimated 9% of their reskilling efforts in it – a greater fraction than the more highly-ranked creative thinking, indicating that though it appears in fewer strategies, it tends to be a more important element when it

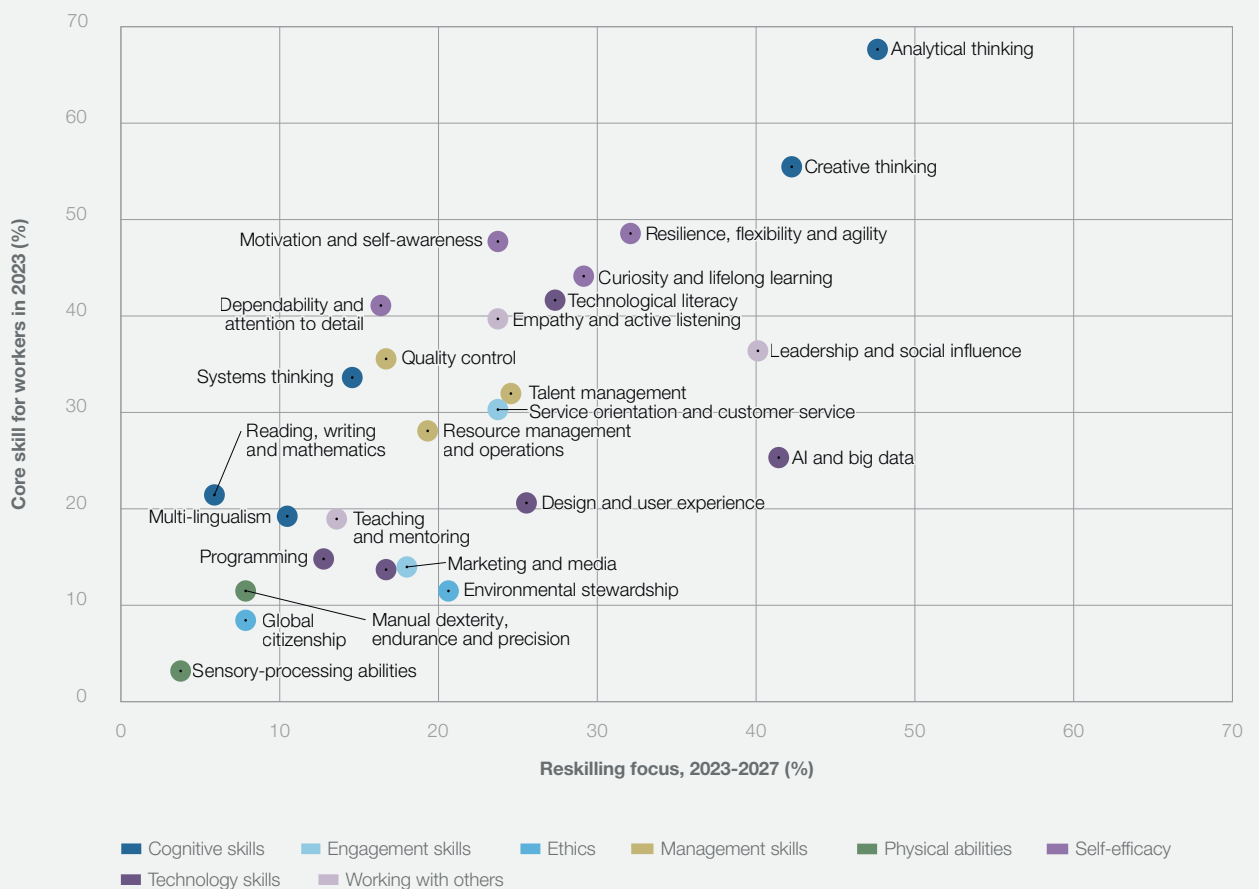
appears. Leadership and social influence ranks five places higher than suggested by its current importance and is the highest ranked attitude. Other skills which are strategically emphasized by business are design and user experience (nine places higher), environmental stewardship (10 places higher), marketing and media (six places higher) and networks and cybersecurity (five places higher).

Figure 4.6 illustrates broader trends which will reshape the future of cross-functional workplace skills in the coming five years. Though companies assess self-efficacy skills to have a high importance at present, following recent disruptions, they will be relatively deemphasized in skills strategies from 2023 to 2027. Technology skills will receive greater emphasis in skills strategies relative to their current importance, with particular emphasis on AI and big data.

Box 4.1 presents an analysis, in collaboration with Coursera, of how companies' skills strategies compare to the skills-training choices made by individual workers.

**FIGURE 4.6 The evolving skills landscape, 2023-2027**

The probability of an organization surveyed evaluating a skill to be a core skill for its workers in 2023 versus the probability of the skill appearing in its reskilling and upskilling initiative in the next five years



Source  
World Economic Forum, Future of Jobs Survey 2023.

Note  
The Future of Jobs Survey uses the World Economic Forum's Global Skills Taxonomy.

### Training supply-demand mismatch

In collaboration with Coursera

The third dimension of the reskilling and upskilling landscape – besides the skills needed for work and the training strategies identified by employers – is the range of upskilling and reskilling choices made by individual learners. Research conducted by Coursera for this report suggests that these choices often differ from business priorities.

Individual learners on Coursera have mainly focused on building technical skills such as programming, resource management and operations, networks and cybersecurity, and design and user experience (see Figure B4.1). These choices sometimes align with the skills businesses seek, as reported in responses to the Future of Jobs survey – and many of these skills are foundational to achieving higher proficiencies in sought-after skills such as AI and big data and leadership and social influence. Similarly, individual learners are prioritising reading, writing, and mathematics, which, while rarely an explicit corporate focus, are critical foundational skills

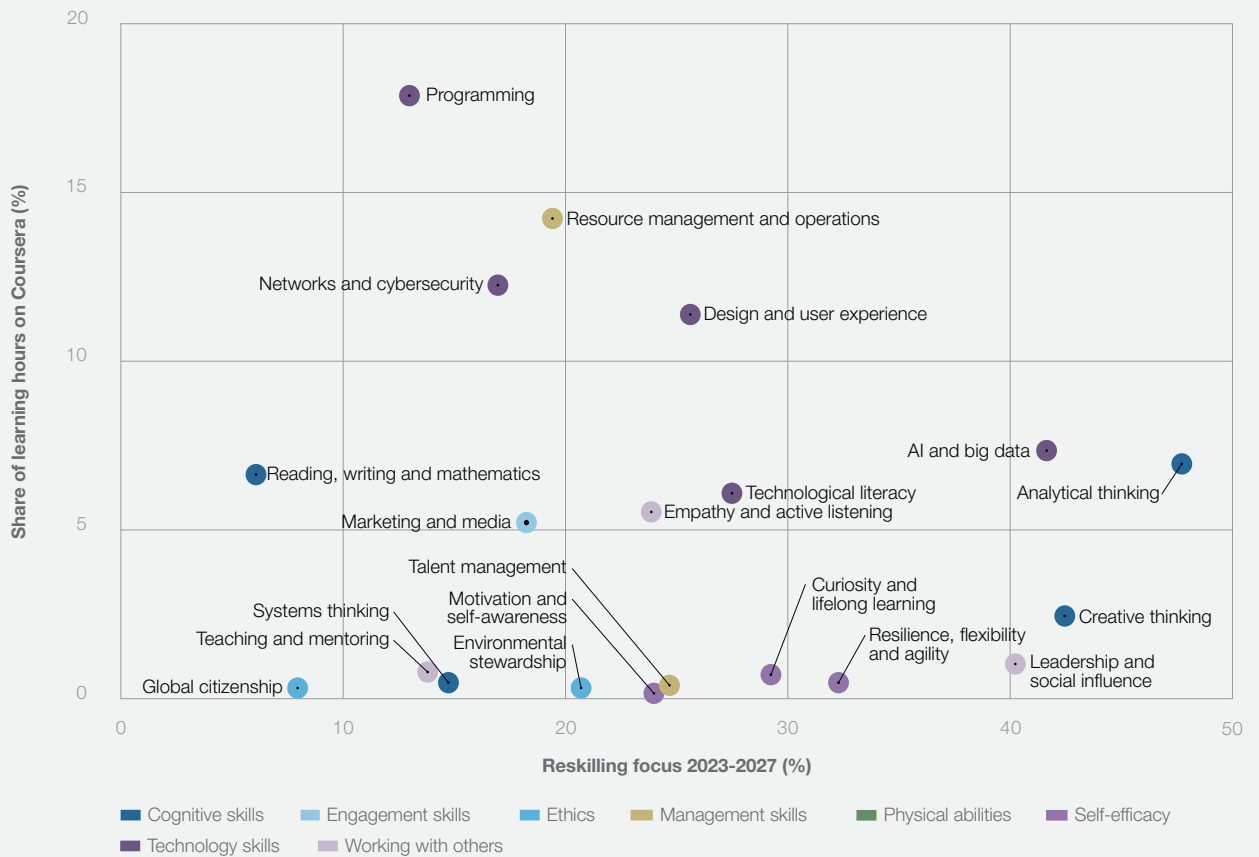
for any career. Even so, discrepancies persist, and job-seekers can more effectively use online learning platforms to close skill gaps and meet employer requirements, especially as traditional qualifications become less important.

Historically, individuals on the Coursera platform have prioritised developing technical or “hard” skills associated with lucrative careers in programming and data analytics. Increasingly, however, emerging technologies such as generative AI are reshaping workforce demands, and employers are placing greater emphasis on “soft” skills (see Figure 4.8). These skills allow companies to respond to change and are resistant to automation. Early evidence suggests that the supply side of the market is equalising itself: socio-emotional skills have steadily increased their share of learning hours from 2017 to 2023, except during a brief uptick toward technical skills during global lockdowns in 2020 (see skills profiles p255-284).

FIGURE B4.1

### Supply and demand for skills

The share of learning hours spent by users on a skill on Coursera's learning platform in 2022 versus the probability of it appearing in its skills strategy for 2023-2027



Source  
Coursera, Inc.; World Economic Forum, Future of Jobs Survey 2023.

Note  
Coursera data were mapped to the same subset of the World Economic Forum's Global Skills Taxonomy as was used by the Future of Jobs Survey.

FIGURE B4.2

**Formal education does not affect the time taken to acquire online skill credentials**

Median number of learning hours taken by users to successfully complete credentials on the Coursera online learning platform, as a function of the skill proficiency taught by the course and the learner's level of formal education



Source  
Coursera, Inc.

Note  
Coursera data were mapped to the World Economic Forum's Global Skills Taxonomy.

The public and private sectors must join forces to create the flexible and affordable reskilling pathways displaced workers need to successfully transition at scale into the jobs of the future (see Chapter 3). With a skills-based talent approach, employers can diversify and expand their hiring pipelines for incoming talent while also creating pathways for employee reskilling necessary to adapt to fast-changing workforce requirements and encourage lifelong learning at work.

Encouragingly, Coursera data show no evidence that learners without a degree take longer to achieve beginner, intermediate or advanced

proficiency in any skill in the Global Skills Taxonomy (see Figure B4.2). These findings demonstrate the potential for a skills-based approach to workforce development and talent management to close skills gaps and address labour shortages, especially in light of the disproportionate impact of recent disruptions on the labour-market participation of workers with basic education (see Chapter 1).

This edition of the *Future of Jobs Report* aims to offer granularity on technology skills, particularly the priorities companies assign to training workers to work with AI and big data, as well as attitudes and other socio-emotional factors. The next section addresses AI and big data skills and the final section of this chapter addresses attitudes, such as self-efficacy, working with others and ethics.

## AI and big data

While AI and big data ranks only 15th as a core skill for mass employment today, it is the number three priority in company training strategies from now until 2027, and number one priority for companies with more than 50,000 employees. AI and big data is also the most strongly prioritized skill in the Insurance and Pensions; Management, Media, Entertainment and Sports; Information and Technology Services; Telecommunications; Business Support and Premises Maintenance Services; and Electronics industries.

Among technology skills, the ability to efficiently use AI tools now exceeds computer programming by humans, networks and cybersecurity skills, general

technological literacy skills, and design and user experience by some margin. In the next five years, AI and big data will comprise more than 40% of the technology training programmes undertaken in surveyed companies operating in the United States, China, Brazil and Indonesia. The next most emphasized technology skill is design and user experience, though this receives less than half the strategic prioritization of AI and big data in most countries and industries, and only exceeds it in Spain and Latvia, among the countries covered by this year's survey.

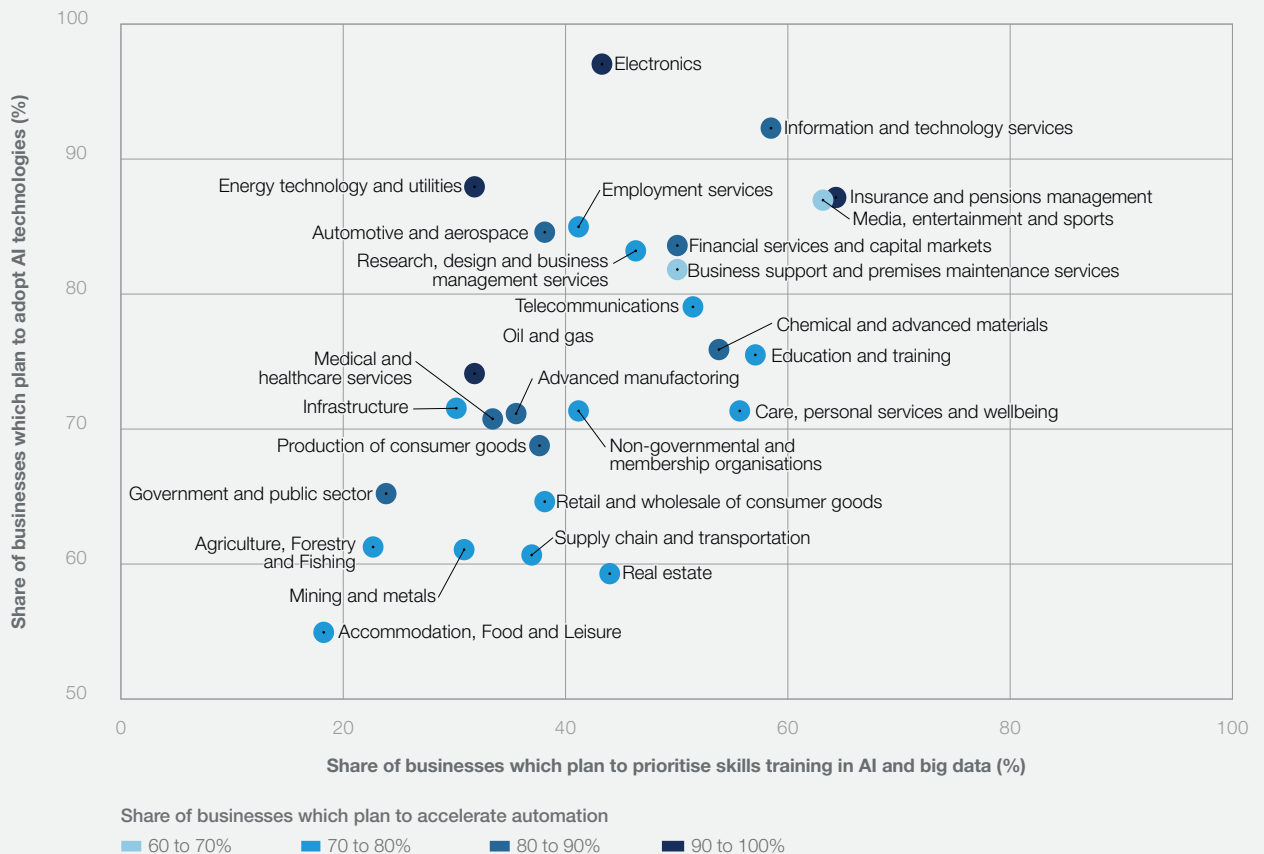
Although a minority of companies believe that AI and big data has been overemphasized as a core skill and will decline in importance to workers, a net 59% of companies predict it will grow in importance, and many companies see it as a strategic priority. Though generative AI has the potential to displace jobs, the focus placed on training workforces to exploit AI and big data indicates the opportunities for new roles which harness its potential to help achieve business goals.

These findings are also reflected elsewhere in the *Future of Jobs Survey*. Big-data analytics also ranks top by some margin among technologies which are seen as likely to create jobs if they are adopted,

FIGURE 4.7

### Artificial intelligence strategies, 2023 to 2027

The probability that organizations surveyed will prioritise skills training in AI and big data versus the probability that they will adopt artificial-intelligence technologies and the likelihood of them pursuing automation as a business strategy



Source

World Economic Forum, Future of Jobs Survey 2023.

with 65% in agreement that they will stimulate labour-market growth and just 7% predicting contraction (see Chapter 2). Specialized roles in AI and big data are estimated to grow by 30-35% (see Chapter 3). Big-data analytics is the third-most likely technology for companies to adopt by 2027, with 80% of companies planning to integrate it more deeply into their operations, and 75% of companies planning to integrate AI techniques such as machine learning and neural networks.

As Figure 4.7 demonstrates, there is widespread increase in prioritizing AI strategies across sectors. However, the need for employees to be trained to exploit and interpret AI and big data is correlated neither with the amount of direct investment in AI foreseen in the next five years, nor with the likelihood that a company will pursue automation as a business strategy.

## Attitudes

Across industries, roughly two-thirds of the skills that companies identify as priorities for workforce development fall within the Skills, Knowledge and Abilities cluster of the Forum's Global Skills Taxonomy, with the remaining third being Attitudes. Socio-emotional skills within the Attitudes cluster are most strongly emphasized by training programmes in the Medical and Healthcare Services; Infrastructure; Production of Consumer Goods; Mining and Metals; and Advanced Manufacturing industries, where they are approaching parity with technical skills and abilities. Skills, knowledge and abilities – so called “hard” skills – are most strongly prioritized in Insurance and Pensions Management as well as digital industries such as Information and Technology Services and Telecommunications, where they are expected to feature in almost three-quarters of training initiatives.

As noted earlier in the chapter, a key strategic priority for businesses from 2023 to 2027 will be leadership and social influence, which ranks far higher in company skills strategies than as a core skill for workers in 2023. Forty percent of surveyed companies report that their strategies will focus on leadership, corresponding to an 8% share of skills strategies on average. Upskilling workers in leadership is reported to be a particular priority in the Automotive and Aerospace as well as Infrastructure industries, where it appears in more than 60% of five-year strategies, and is also the top priority across all skills in both the Supply Chain

and Transportation and Advanced Manufacturing industries.

Figure 4.8 shows broader trends in skills strategies across the full spectrum of Attitudes covered by the Global Skills Taxonomy. Across industries, only Care, Personal Service and Wellbeing; Education and Training; and Medical and Healthcare Services prioritize working with others over the Self-Efficacy skills emphasized elsewhere. These industries are among many to report placing a pronounced emphasis on empathy and active listening as well as leadership and social influence. Respondents report that the remaining skill in the working with others sector of the taxonomy – teaching and mentoring – will receive little focus in training programmes, except in the Education and Training and Production of Consumer Goods industries.

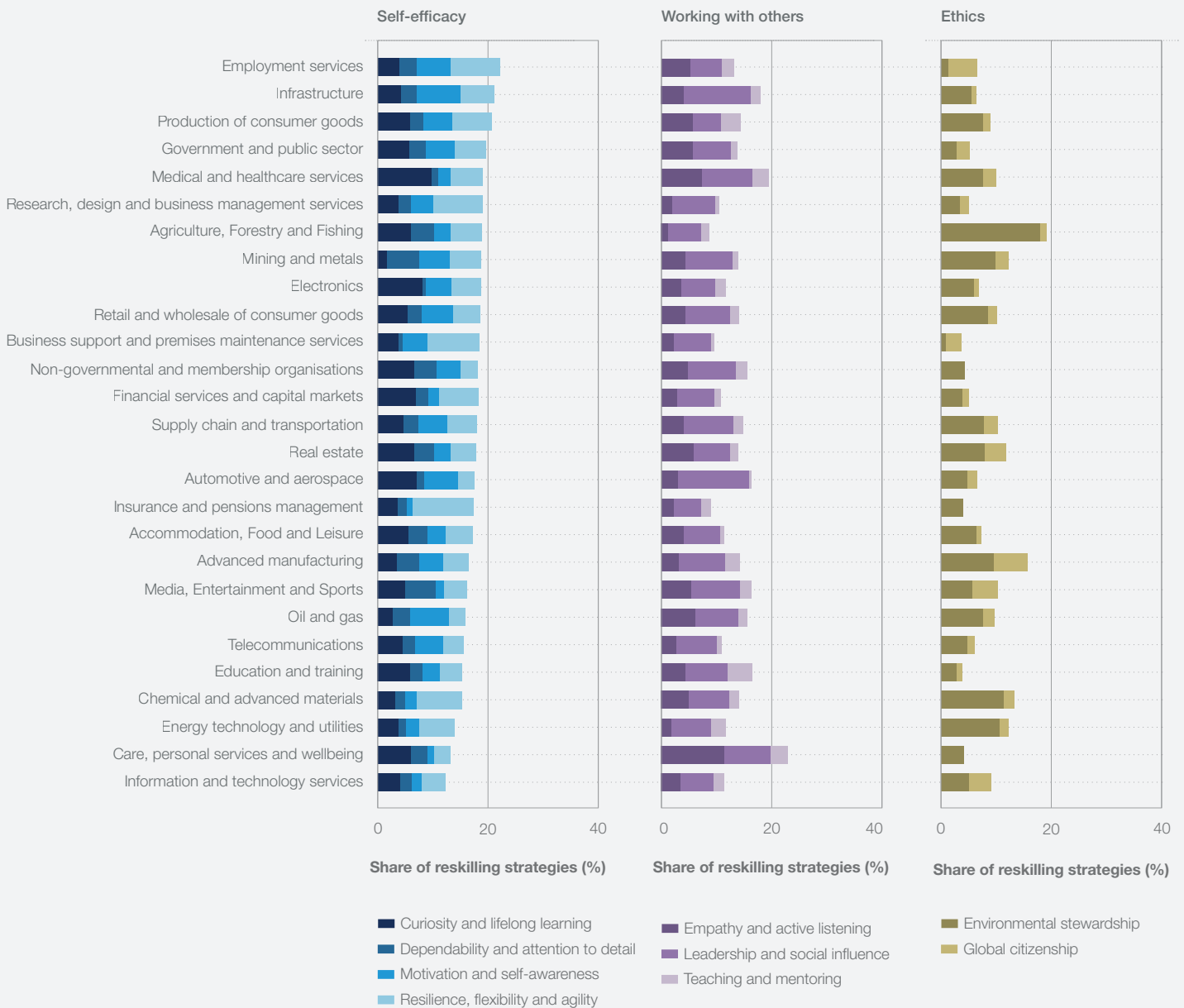
The picture regarding Self-Efficacy skills is more complex. A subset of industries – including Insurance and Pensions Management; Business Support and Premises Maintenance Services; Research, Design and Business Management Services; Employment Services; and Chemical and Advanced Materials will place a marked emphasis on developing their employees' resilience, flexibility and agility. The Medical and Health Services and Electronics industry will emphasize skills development in curiosity and lifelong learning. The Infrastructure industry will focus its self-efficacy skills strategy on motivation and self-awareness. Most industries will place less emphasis on dependability and attention to detail; although Mining and Metals and Media and Entertainment and Sports lead all industries on emphasizing this skill.

Industries vary widely in their commitment to upskilling and reskilling their employees in the cross-functional Ethics skills included in the Global Skills Taxonomy. Upskilling in Attitudes relating to global citizenship is not emphasized, with the strongest commitments in the Advanced Manufacturing and Employment Services industries. Companies operating in Agriculture, Forestry and Fishing; Chemical and Advanced Materials; and Energy Technology and Utilities demonstrate the greatest commitment to upskilling their workers in environmental stewardship. Across industries, environmental stewardship features more strongly in skills strategies than in companies' estimation of its current importance as a core skill, in line with the increasing intensity of green skills of workers and the above-average hiring rate for green jobs, as reported in Chapter 3.

FIGURE 4.8

**Sectoral priorities for "soft" skills**

Stacked percentages showing the mean shares of organizations, reskilling and upskilling skill priorities for 2023 to 2027 which pertain to attitudes. Organizations surveyed assigned the remaining fractions of 100% to skills in the skills, knowledge and abilities branch of the Global Skills Taxonomy.



Source

World Economic Forum, Future of Jobs Survey 2023.

Note

The Future of Jobs Survey uses the World Economic Forum's Global Skills Taxonomy.

5

# Workforce strategies

Faced with a labour market in transition, industries must transform to keep pace. This chapter reviews the key barriers to transformation that organizations

face, exploring the workforce strategies and practices that organizations expect to implement to achieve their business goals.

## 5.1 Barriers to transformation and workforce strategies

Organizations identify skills gaps and an inability to attract talent as the key barriers preventing industry transformation, with 60% of surveyed companies highlighting the difficulty in bridging skills gaps locally and 53% identifying their inability to attract talent as the main barriers to transforming their business (Figure 5.1).

These two aspects of talent availability were identified as top barriers to business transformation by every industry except Research, Design and Business Management Services, where respondents ranked outdated or inflexible regulatory frameworks as the second most limiting barrier. The inability to attract talent is particularly prevalent in the Electronics as well as Automotive and Aerospace sectors, where it is ranked as

the most significant barrier. In addition to these barriers, over half (52.2%) of companies in the Media, Entertainment and Sports industry highlight insufficient understanding of opportunities by leadership as an obstacle. Company size also emerges as a factor, with SMEs 20% less likely to identify lack of skilled talent as a barrier than large corporations.

Businesses see talent as more strategically limiting to their performance than availability of capital: skills gaps in the local labour market were seen as a greater barrier to transformation than a shortage of investment capital by companies in virtually every industry. The picture is more polarized at regional and country levels. Skills gaps are reported to be most problematic in Sub-Saharan Africa, where

FIGURE 5.1

### Barriers to business transformation, 2023-2027

Share of organizations surveyed expecting these factors will limit the transformation of their business

1. Skills gaps in the local labour market	59.7%
2. Inability to attract talent	53.4%
3. Outdated or inflexible regulatory framework	41.9%
4. Skills gaps among the organization's leadership	37.3%
5. Shortage of investment capital	37.2%
6. Insufficient understanding of opportunities	32.6%

Source

World Economic Forum, Future of Jobs Survey 2023.

they are seen to limit the transformation of 70% of companies – 11 percentage points above the global average. Looking at country differences, only 40% of Japanese companies report being limited by skills gaps in the workforce, while more than 80% of companies operating in the Philippines, Colombia and Sweden expect an insufficiently skilled talent pipeline by 2027.

## Workforce strategies

By a wide margin, surveyed companies report that investing in learning and training on the job and automating processes are the most common workforce strategies which will be adopted to deliver their organization’s business goals in the next five years (Figure 5.2).

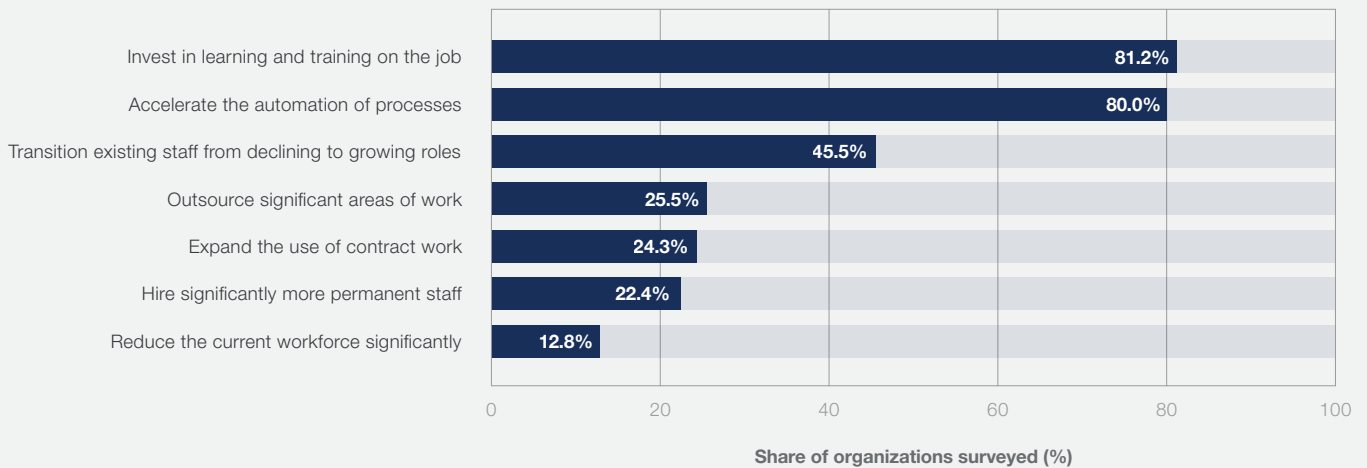
Four in five respondents expect to implement these strategies in the next five years, which rank first and second (81% and 80%, respectively) among workforce strategies across all industries. While trends in automation was discussed in a technical context in Chapter 1, and with regards to jobs and skills in Chapters 2 and 3, workforce development through training is a key theme of this chapter.

Examining the data across industries, both the Automotive and Aerospace and Advanced Manufacturing industries are looking to accelerating automation, whereas Electronics as well as Consumer-Goods industries will focus more on workforce development. From a regional perspective, surveyed companies in East Asia and the Pacific are particularly likely to invest in learning and training on the job, with all respondents in Republic of Korea, Viet Nam, and Hong Kong SAR,

FIGURE 5.2

### Workforce strategies, 2023-2027

Share of organizations surveyed planning to adopt these workforce strategies



Source

World Economic Forum, Future of Jobs Survey 2023.

China foreseeing such investments in the coming five years. European organizations are divided. Switzerland, Sweden and Poland have a strong preference for automation process acceleration, whereas companies in the Czech Republic and France will prioritize investment in on-the-job learning and training.

Within a churning labour market, just under half (46%) of the respondents expect to transition staff from declining to growing roles. Twenty-two percent of surveyed companies expect to hire significantly more staff and just 13% expect to reduce the current workforce significantly. This finding is in line with the earlier discussion in this report that a majority of macro trends and technological developments over the next five years are expected to lead to job creation rather than job destruction.

However, the data does surface geographical disparities: in Georgia, half of surveyed companies plan to significantly reduce their workforce in the coming five years, compared to less than one-tenth of organizations in the United Kingdom.

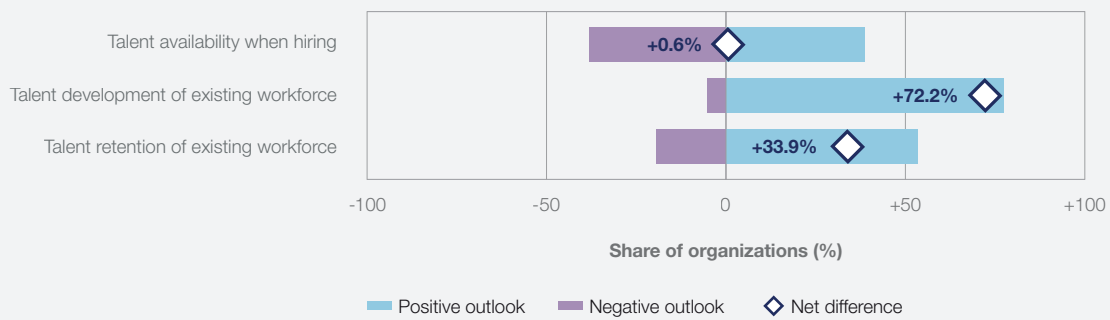
## Talent outlook

Given that companies express skills gaps and talent availability as their greatest barriers to transformation and investing in training as the most promising workforce strategy alongside automation, it is unsurprising that surveyed companies express confidence in their ability to develop their existing workforce and moderate positivity in retaining it but are less unified regarding the outlook for talent

FIGURE 5.3

**Talent outlook, 2023-2027**

Share of organizations surveyed reporting a positive and negative outlook for talent availability, development and retention from 2023 to 2027, and the net difference.



Source

World Economic Forum, Future of Jobs Survey 2023.

Note

The share of companies reporting a neutral outlook is not shown.

availability in the next five years. Roughly equal proportions of companies express positivity and negativity, and few remain neutral (Figure 5.3). In general, respondents are more positive about the talent development of the existing workforce than talent retention and talent availability: 39% are optimistic about talent availability compared to 38% pessimistic, indicating a negligible net 1% positive outlook; 53% are positive about talent retention and 19% negative, indicating a net 34% positive outlook; and 77% of survey respondents are optimistic about talent development of their existing workforce, and 5% negative, indicating a net 72% positive outlook.

When comparing countries' viewpoints on talent availability when hiring, this report finds that more than 60% of respondents in Latvia, Sweden and the Netherlands have a negative outlook, while around 60% of respondents in Austria and Saudi Arabia are more positive. Interestingly, more populous economies such as China and India are more positive than the global average. Looking at sectoral differences, Research, Design and Business Management Practices are the most optimistic in hiring talent, while the Energy Technologies and Utilities and the Medical and Healthcare Services industries are the most pessimistic on talent availability. This finding is supported by a

collaboration with Indeed which reveals that social jobs in the Care, Medical and Education sectors take longer, on average, to fill than jobs in other sectors (see Box 5.1).

In terms of retaining talent, organizations in the Energy, Technology and Utilities and the Electronics sectors are less positive than the global average, with more than 30% of respondents having a negative outlook. By contrast, more than 70% of Agriculture, Forestry and Fishing organizations maintain a positive outlook on retaining their talent.

Contrary to the generally positive perception of talent development at the global level, only three of five Accommodation, Food and Leisure Services businesses are optimistic, compared with the global average of almost 80%. The Energy sector is more positive than the global average on talent development— as all organizations in the Oil and Gas and Mining and Metal sector have either a neutral or positive outlook. At the country level, Indonesia, China and France sit on the more negative side of the scale, with Pakistan having the most negative outlook globally, where only 45% of respondents have a positive outlook for talent development in the next five years. This is in line with the finding that Pakistan has a lower skills stability, 44%, compared with the global average of 56%.

### Labour shortages in social jobs

In collaboration with Indeed

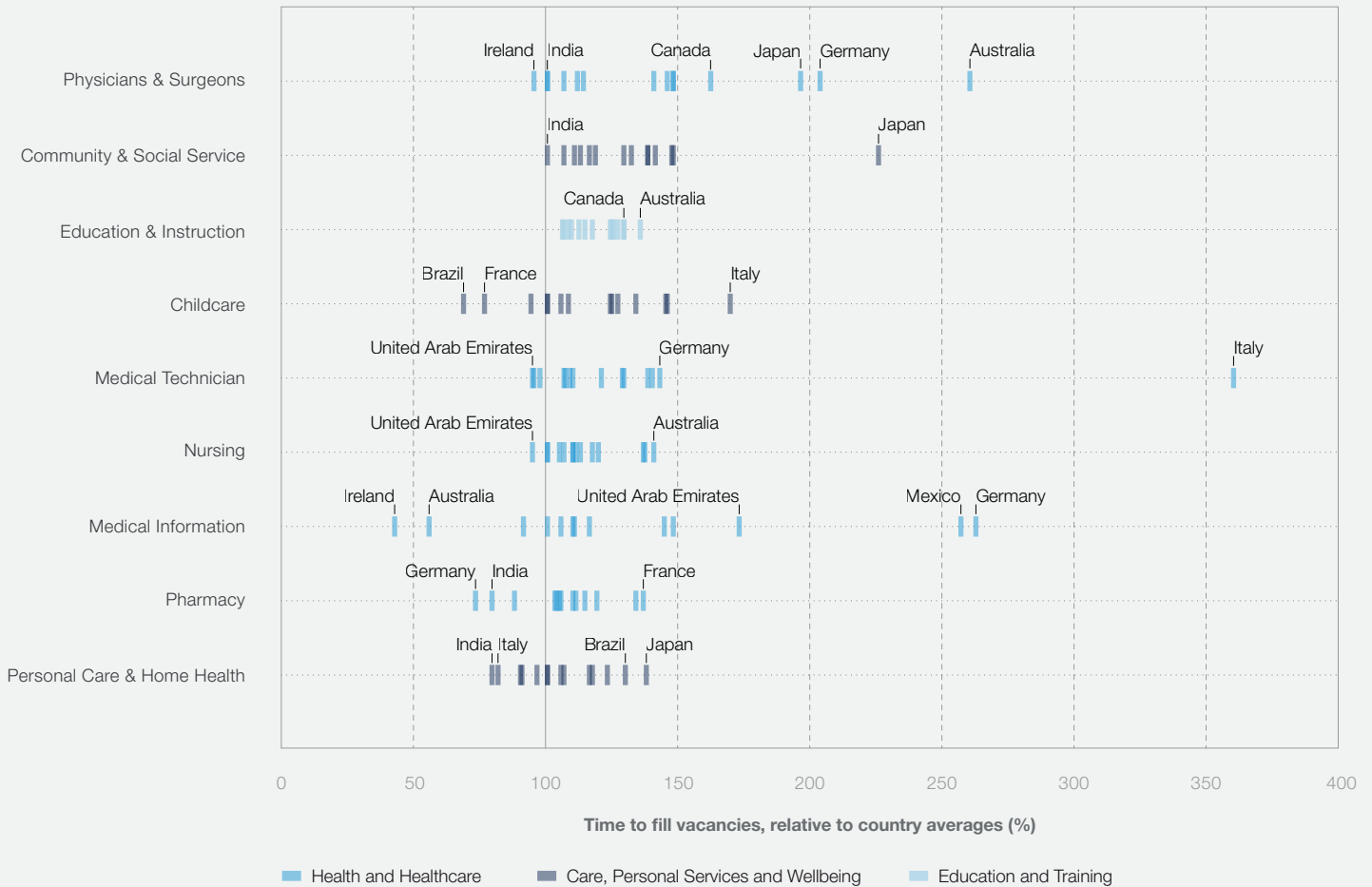
Future of Jobs Survey concerns regarding talent availability in social jobs are reinforced by a new study, partnership with Indeed, of external data on job-board postings. A new labour-market indicator measures the median time required to fill jobs in a cross-sectoral range of occupation groups,

revealing that employers operating in Medical and Healthcare Services; Care, Personal Services and Wellbeing; and Education and Training have greater difficulty than average in securing staff for open roles (Figure B5.1).

FIGURE B5.1

### Time to fill vacancies in social jobs

Median time taken to fill vacancies in social jobs on Indeed from July to December 2022 as a proportion of the median time for all jobs in a country



Source  
Indeed.

## 5.2 Talent availability and retention

As presented in Figure 5.4, businesses consider improving talent progression and promotion processes to be the most promising way to increase the availability of talent in their organization. In fact, 48% of respondents identified this business practice, with particularly high response rates in the Automotive and Aerospace and Production of Consumer Goods sectors.

Thirty-five percent of respondents identified offering higher wages as an effective route to increasing talent availability, particularly in the Government and the Public Sector. Yet, this response was selected by less than half the global rate in the Chemical and Advanced Materials sector.

While 81% of companies consider investing in learning and on-the-job training to be a key strategy for delivering their business goals (see Figure 5.2), only 34% consider providing reskilling and upskilling to be a way to increase talent availability specifically.

Ranked the fourth highest business practice, executives see the link between articulating business purpose and impact with higher talent availability. This is particularly prevalent in Indonesia (38%) and Japan (38%), as well as the Finance Services and Capital Markets industry globally (35%).

FIGURE 5.4

### Business practices to increase talent availability, 2023-2027

Share of organizations surveyed that identify these business practices as promising ways to increase talent availability in the next five years



Source

World Economic Forum, Future of Jobs Survey 2023.

In fact, possessing an effective employee training programme is seen as the top talent-attracting policy available to businesses in the Business Support and Premises Maintenance Services; Employment Services; Insurance and Pensions Management; and Research, Design and Business Management Services industries, though only 17% of the Mining and Metals sector see this as an effective way to increase talent availability. Across the board, effective training opportunities

are seen as more attractive to prospective talent than well-communicated impact; remote and hybrid work; DEI policies; supporting employee health and well-being; improving working hours; tapping into diverse talent pools; skills-based hiring; childcare support; or support for worker representation. Although, globally, only one-third of companies identify a robust training dispensation as attractive to prospective employees, this figure rises to 40% among SMEs.

The practices that are rarely selected by respondents warrant further consideration: respondents may be sceptical of such measures' feasibility, or they may not recognize the potential links between the following measures and talent availability. Increasing worker representation is only selected by 1.4% of the companies surveyed. Childcare for working parents is ranked the second-lowest, except in countries such as Serbia and Finland, which see a greater need to

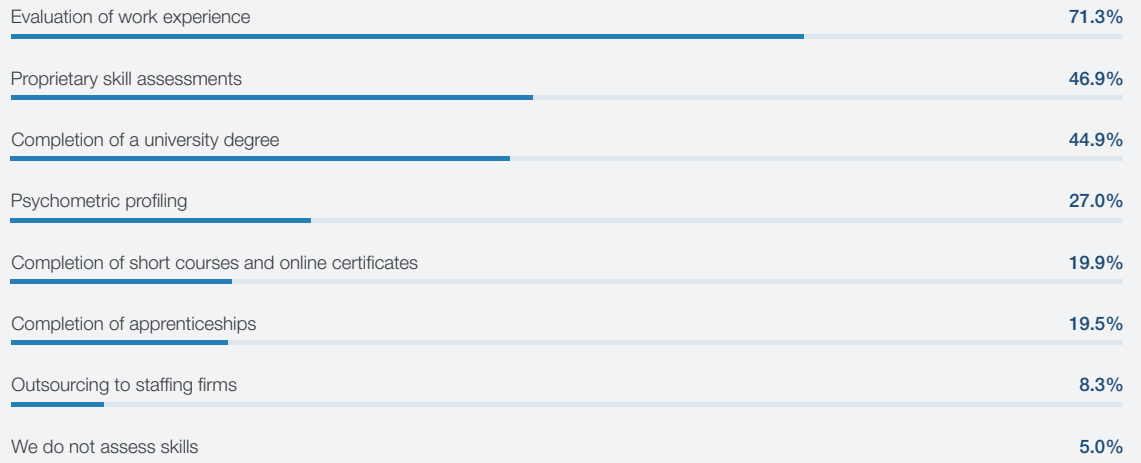
supplement childcare.

Despite the emphasis on skills in organizations' workforce strategy and practices, only 7% of respondents agree that removing degree requirements and conducting skill-based hiring is linked to increasing talent availability. The following section explores in detail how companies assess skills when hiring.

FIGURE 5.5

### Skills assessment mechanisms

Share of organizations surveyed which will prioritize the following ways to assess skills when hiring



Source

World Economic Forum, Future of Jobs Survey 2023.

### Assessing skills when hiring

Figure 5.5 shows that the evaluation of work experience remains by far the top skills-assessment mechanism used when business hire workers. This factor is used by 71% of businesses. Only 5% of surveyed companies do not assess the skills of prospective employees – and more companies now report using skill assessments (47%) than the completion of a university degree (45%) to select candidates. Twenty-seven percent of companies report employing psychometric testing.

Although, currently, only 20% of companies consider the completion of short courses and online certificates as one of their top-three skills assessment criteria, such “microcredentials” (such as short courses and online certificates) have the potential to accelerate skills-based talent management and open new pipelines of talent. The flexibility they offer learners opens possibilities, for example, for learners with lower incomes, learners who are seeking to return to the labour market while undertaking family responsibilities, and older learners who do not wish to enter full-time education. Furthermore, results presented in

Chapter 4 suggest that encouraging the completion of such credentials by increasing their consideration when hiring has the potential to open up new talent pipelines, as the time required to complete these courses does not depend on a learner's level of formal education (see Figure Box 4.1). The Republic of Korea and Switzerland consider the completion of short courses and online certificates at a rate of less than 5%, compared to more than twice the global average of 19% in Pakistan (41%) and Finland (40%). The fraction of employers who consider microcredentials may indeed be expected to increase, given that 82% of companies plan to adopt education and workforce development technologies in the next five years (see Chapter 2).

Nineteen percent of companies consider completion of apprenticeships as a top-three criteria, ahead of outsourcing to staffing firms, at 9%. The prevalence of apprenticeships as a mainstream route to employment varies geographically, ranging from consideration by less than 5% of companies in the Republic of Korea and the Netherlands to more than half of surveyed companies in Austria. Egypt and Colombia also consider apprenticeships at more than twice the global average rate (19%).

Survey responses suggest that university degrees as a hiring criteria remain most recognized among companies operating in Bahrain, Saudi Arabia, United Arab Emirates, Egypt, Austria and the Republic of Korea, wherein more than 60% of surveyed companies use this as a top criteria for skills assessment. By contrast, fewer than 30% of companies in Romania, Colombia, Latvia and Sweden use degrees as a top employment consideration.

Additionally, and as the following section demonstrates, comparatively few companies consider relaxing degree requirements as a means to promote DEI in their organization. Globally, only 24% of companies consider flexibility on education requirements as a means to promote diversity, less than the 33% of companies which do not have a DEI programme at all.

## Diversity, equity and inclusion (DEI)

Under organization transformation and labour-market transitions, companies are to play a more prominent role in supporting fragile and disrupted talent groups and advancing social justice and DEI. Even though less than one-fifth of organizations intend to run DEI programmes to boost talent availability, more than two-thirds of the organizations surveyed have a DEI programme. This number is significantly higher in larger organizations: 92% of companies with more than 50,000 employees report the presence of such an initiative in their organization.

The most popular component of DEI programmes is running comprehensive DEI training for managers

FIGURE 5.6

### Diversity, equity and inclusion (DEI) programmes, 2023-2027

Share of organizations surveyed which will run these programmes

Run comprehensive DEI training for managers	41.7%
Run comprehensive DEI training for staff	36.4%
Enable inclusion and accessibility across physical and virtual spaces	32.7%
Set DEI goals, targets or quotas that exceed public requirements	25.5%
Offer greater flexibility on education requirements to recruit from various backgrounds	24.0%
Embed DEI goals and solutions across the supply chain	22.9%
Provide greater flexibility on degree requirements for roles	21.6%
Set up Employee Representation Groups	18.4%
Recruit a DEI Officer	12.1%

Source

World Economic Forum, Future of Jobs Survey 2023.

(42%) and for staff (37%) (Figure 5.6). A significant outlier is the real estate industry, where only around 20% of executives agree with such an approach. A considerable number of global respondents, at 33%, prioritize inclusion and accessibility across physical and virtual spaces. Most notably, more than half of respondents in the Insurance and Pension Management industry, as well as across industries in Australia and Hong Kong SAR, China, expect these to be significant components of their DEI programmes. There are, however, divergent opinions on the least adopted DEI measure: recruiting a DEI officer. Globally, only 12% of respondents regard this as a priority, while half of the respondents in Egypt are in favour of such a measure, and more than 30% of Advanced

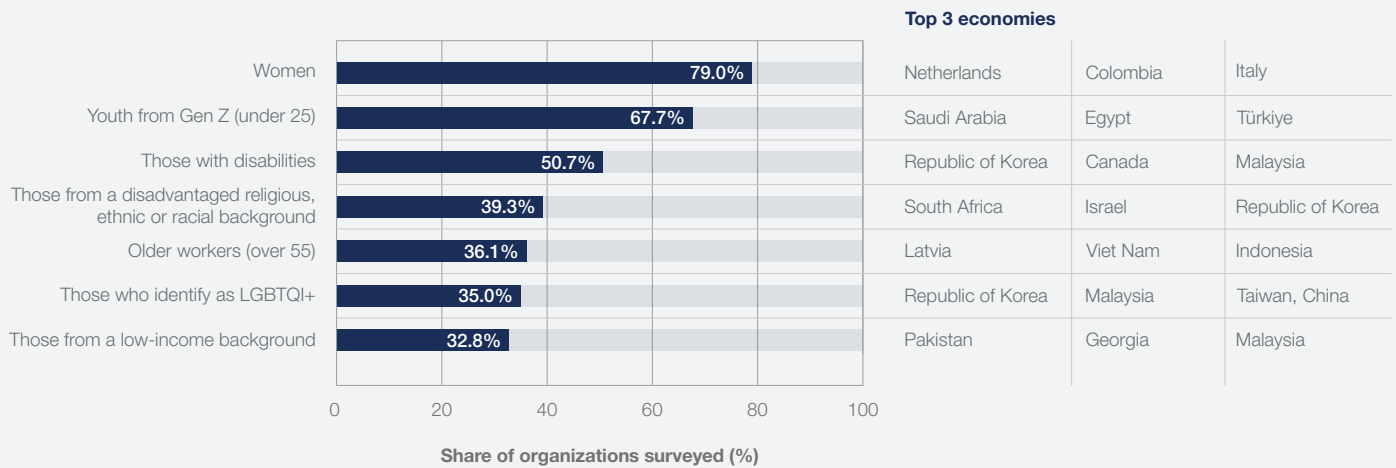
Manufacturing businesses prefer this approach.

Globally, women are the most common priority group for surveyed organizations' DEI programmes across all regions and industries, with four of five respondents identifying them as a priority for DEI programmes (Figure 5.7). Youth from Gen Z (under 25 years old) are the second-most common priority group in every region, with an average of two of three respondents identifying young workers as a priority – these DEI strategies are a constructive way to address the effect on young people's labour-market participation of recent disruptions (see Chapter 1). Those from a low-income background are the lowest priorities for all organizations. Less than one-third of the companies surveyed dedicate

FIGURE 5.7

**Diversity, equity and inclusion (DEI) priority groups, 2023-2027**

Share of organizations surveyed which will prioritize these groups in DEI programmes in the next five years. Top three economies with the highest share of organizations that identify the group as the focus of the DEI programme



Source

World Economic Forum, Future of Jobs Survey 2023.

DEI programmes to this particular group.

Responses return differences when it comes to DEI-programme priorities across regions. Three of the five economies where women are reported to be the highest priority group for DEI programmes are in Europe, including the Netherlands where all respondents identify them as a priority. Middle Eastern and North African countries focus predominantly more on young workers. More than 80% of organizations in Saudi Arabia, Egypt, Bahrain and the United Arab Emirates prioritize the young labour force. East Asia and Pacific countries are strongly represented in LGBTQI+ inclusion; this

focus is strongly present in organizations in the Republic of Korea, Malaysia and Taiwan, China.

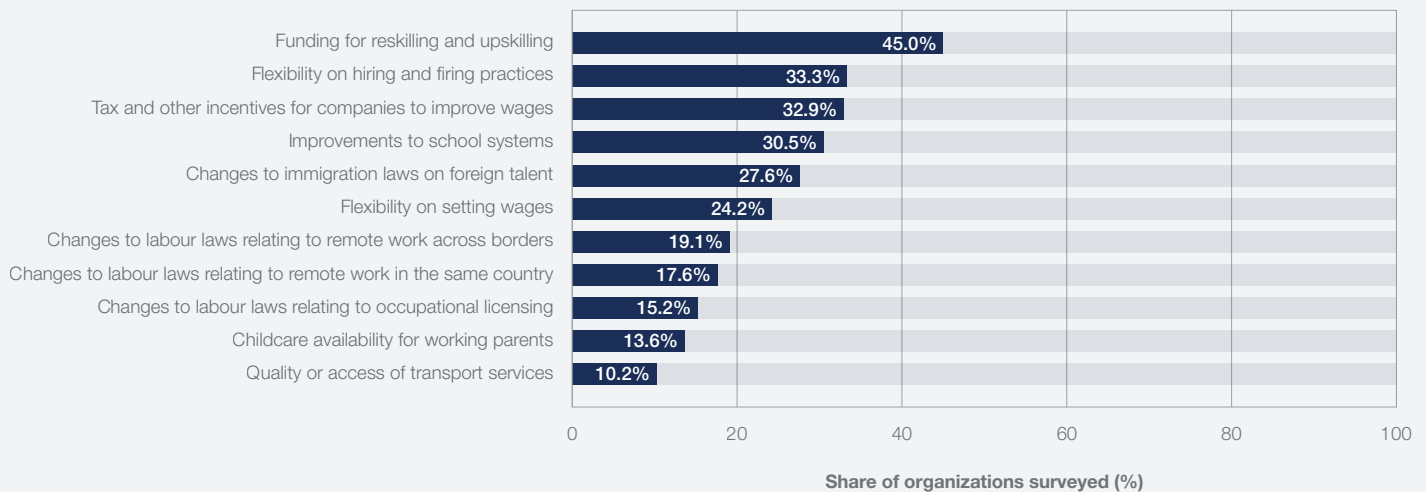
**Public policies to enhance access to talent**

Businesses see funding for skills training as the most effective governmental intervention for connecting talent to employment (Figure 5.8). Funding for reskilling and upskilling ranks first among public policies with the potential to improve talent availability for all company sizes, regions

FIGURE 5.8

**Public policies to increase talent availability**

Share of organizations surveyed that identify these public policies as promising ways to increase talent availability in the next five years



Source

World Economic Forum, Future of Jobs Survey 2023.

and industries except Health and Healthcare and Accommodation, Food and Leisure (which seek greater flexibility on hiring and firing practices) and Agriculture and Natural Resources (which seeks greater flexibility on setting wages). Notable exceptions include China, Indonesia, Germany and the Philippines, which favour changes to immigration laws on foreign talent as more likely to promote talent availability, and Argentina, Brazil and Colombia, which seek flexibility on hiring and firing practices. Government funding for reskilling and upskilling is considered a relatively low priority only in Colombia and Argentina, where only about 10% of companies indicate its potential to increase talent availability.

The second-most welcomed public policy is increased flexibility on hiring and firing practices, with one-third of organizations surveyed recognizing its impact. Such flexibility is most desired in the Electronics (50%) and Oil and Gas (48%) sectors. Childcare availability and better access to transport are seen as less effective, with several exceptions, such as in Israel, where 40% of the respondents identified an increase in the quality or access to transport as key to improve talent availability.

Meanwhile less than one in five respondents expect changes to labour laws to accommodate remote work as a key policy for talent availability. Here, the outliers are organizations in Telecommunications and Non-Profit sectors, and those in Switzerland that seek a better policy and regulatory environment for remote work domestically and across borders.

While companies tend to focus primarily on government help with adult skills training, they do not neglect the importance of better connecting childhood education to evolving workplace skill sets. Improvements to school systems was ranked the most promising public policy to improve talent availability in the Telecommunications industry, and the second-most promising in the Chemical and Advanced Materials; Education and Training; Financial Services and Capital Markets; Government and Public Sector, Insurance and Pensions Management; Non-Governmental and Membership Organisations; and Research, design and Business Management Services industries. Notably, improvements to school systems were valued as a means to attract skilled talent by a greater fraction of SMEs than large corporations.

## 5.3 Talent development

A majority of companies in every country and industry express a net positive outlook for talent development of their existing workforce in the next five years.

As shown in Figure 5.9, workforce development is most commonly considered the responsibility of workers and managers, with 27% of training provision to be furnished by on-the-job training and coaching. This share may be compared to the 81% of companies noted at the beginning of this chapter that will employ learning and on-the-job training as a key strategy to deliver their business goals – with a particularly strong prevalence in the Electronics and Consumer-Goods Production industries, where companies almost unanimously express that this is a key part of their business strategy.

At 24%, companies assert that almost as a large a fraction of training will be provided by internal training departments. Fifteen percent will be provided by employer-sponsored apprenticeships. External training solutions complete the list, with licensed training from professional associations (13%), private-sector online-learning platforms (12%) and universities and other educational institutions (10%) comparatively disfavoured compared to company-led initiatives for closing skills gaps. This trend is most apparent in the Employment Services sector, which will look to on-the-job training and coaching for 38% of skills training, and external solutions at a rate 15% below the global average.

As shown in Figure 5.10, companies overwhelmingly expect to fund their own reskilling and upskilling programmes, with a few notable geographic exceptions, such as Georgia, where this funding mechanism ranks third, behind co-funding across the industry and public-private hybrid funding. At 16% engagement among surveyed companies globally, co-funding across the industry is forecast to be the least utilized funding model for skills training, with particularly low uptake in the Netherlands (2%), Switzerland (4%) and Romania (5%). On average, Europe exhibits the highest uptake for intra-industry co-funding, with this mechanism least common in Sub-Saharan Africa, East Asia and the Pacific, and Latin America and the Caribbean.

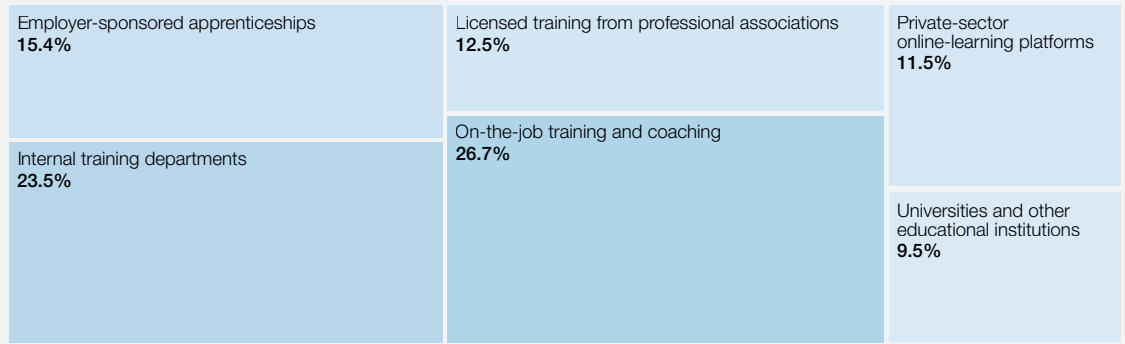
Other common funding mechanisms including free-of-cost training, which is a key funding mechanism for more than half of Employment Services and Mining and Metals firms; government funding, which is expected to be utilized by more than half of Electronics firms; and public-private hybrid funding, which is emphasized by almost half of surveyed Non-Governmental and Membership organizations as well as companies operating in Agriculture, Forestry and Fishing.

Learning habits are evolving to make training faster and more flexible. Figure 5.11 shows that companies expect 25% of their training programmes to last less than one month during 2023–2027. Only 17% will last longer than a

FIGURE 5.9

### Training provision, 2023-2027

The expected mean composition of training programmes



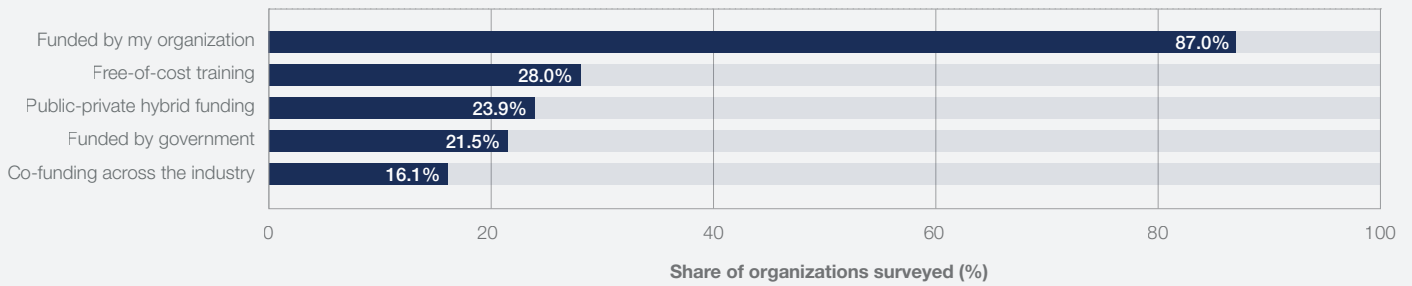
Source

World Economic Forum, Future of Jobs Survey 2023.

FIGURE 5.10

### Funding for training, 2023-2027

The share of companies which will use these funding sources for their training programmes from 2023 to 2027



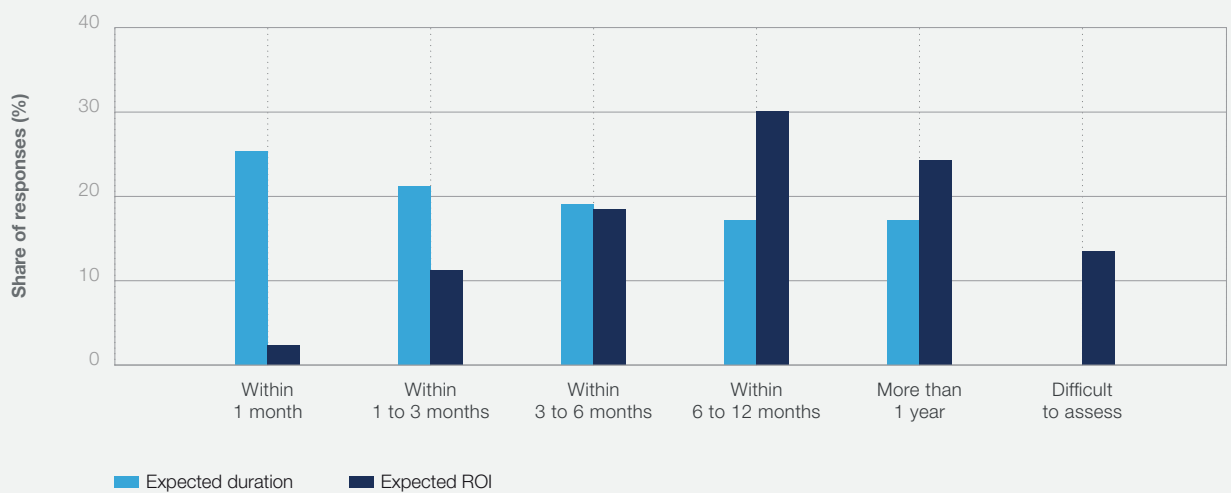
Source

World Economic Forum, Future of Jobs Survey 2023.

FIGURE 5.11

### Duration of training and expected return on investment

Probability distributions for the expected duration of training programmes from 2023 to 2027, and how long organizations surveyed expect to subsequently wait for a return on this investment



Source

World Economic Forum, Future of Jobs Survey 2023.

year. Following training, just under two-thirds of employers expect an ROI within a year. Another one-third expect a ROI within six months of training. Notably, large companies tend to be more optimistic on this measure than SMEs. On balance, companies are slightly less certain and slightly more pessimistic about when to expect a ROI compared to results from the 2020 Future of Jobs Survey.

## Availability and effectiveness of skills training

Reported skills gaps remain wide despite accelerating investments in skills training. Surveyed organizations report that only 41% of current workers have completed training that has effectively bridged skills gaps – a 1% decrease on the share reported by respondents to the 2020 edition of the Future of Jobs Survey.

Figure 5.12 summarizes the upskilling and reskilling strategies of companies responding to the Future of Jobs Survey for 2023 to 2027. For a representative sample of 100 employees, businesses estimate that 39 will not require training before 2027; 12 will need training that will not become accessible to them until 2027; 15 will require training which will not be accessible for the foreseeable future, likely leaving their skills gaps unclosed beyond 2027; and 18 will be upskilled in their post by 2027. Companies expect that 16 of the representative 100 employees will be reskilled and successfully redeployed to growing roles within their organization by 2027.

Assessments of training requirements are uniform across industries and countries, with a few geographic exceptions, such as Egypt, where companies judge just 38% of employees to require training. More broadly across industries,

the fraction of employees judged to have access to adequate training varies slightly, from two-thirds of workers in Employment Services to two in five in Accommodation, Food and Leisure. The largest variation is in companies' expected ability to redeploy upskilled and reskilled workers to new jobs within their organization. Just one-quarter of respondents in Egypt believe this while more than half do in Georgia and Mexico.

These workforce development strategies will be supported by technology adoption. As outlined in Chapter 2, more than four in five companies plan to adopt education and workforce development technologies in the next five years – the second highest ranked technology after digital platforms and apps among the 28 emerging technology solutions put to survey respondents in 2023. While uptake is expected to be near ubiquitous in Employment Services and the Public Sector, it dips nearer to three in five companies for the Real Estate, Agriculture, and Oil and Gas industries. Almost half of companies believe that deploying education and workforce development technologies will have a knock-on effect to create jobs – optimism which rises to 70% in geographies such as Egypt and Pakistan. The greatest variance in opinion is found between industries. For example, 85% of companies in Education and Training believe in the technology's job creation potential, but just one in three Telecommunications companies and two in five Oil and Gas companies foresee it will lead to layoffs.

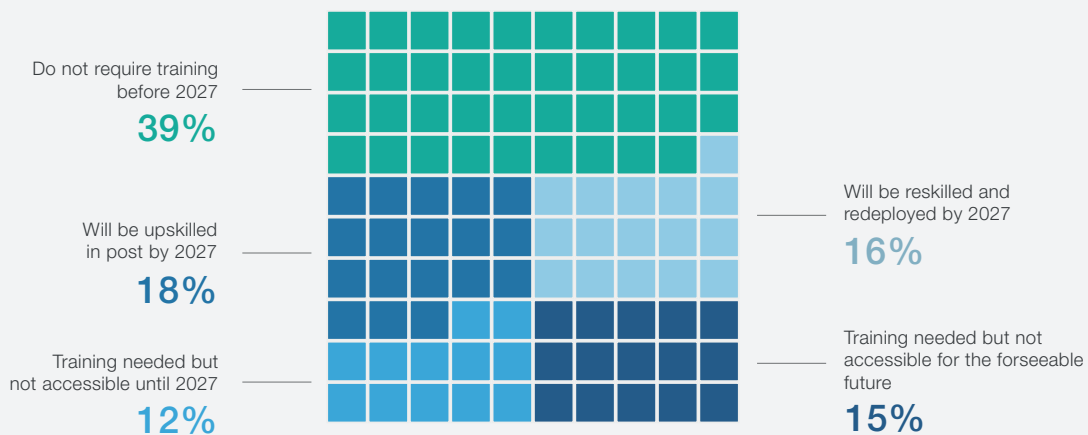
## Outlook for motivation and productivity

This section presents companies' readiness to develop their workforce to meet business goals

FIGURE 5.12

### Upskilling and reskilling outlook, 2023-2027, by workforce fraction

A breakdown of the average training strategy for a representative group of 100 employees, calculated based on the training strategies reported by organizations surveyed



Source

World Economic Forum, Future of Jobs Survey 2023.

over the 2023–2027 period. In general, most workers will need to be trained during this period. Roughly half of those can currently be trained, but Human Resources functions will have to accelerate their current plans if the remaining workers’ skills gaps are to be closed. Companies seldom expect external funding for training and will avail themselves of external training solutions far less frequently than looking to internal solutions, especially via on-the-job training and coaching. Most training programmes will be short, and a return on investment is expected within a year.

Beyond these considerations, companies’ readiness for the 2023–2027 period can be evaluated through a simple cross-sectoral survey of CHROs, CLOs and other C-suite executives on their workforce’s expected level of motivation and productivity in the 2023-2027 period. Figure

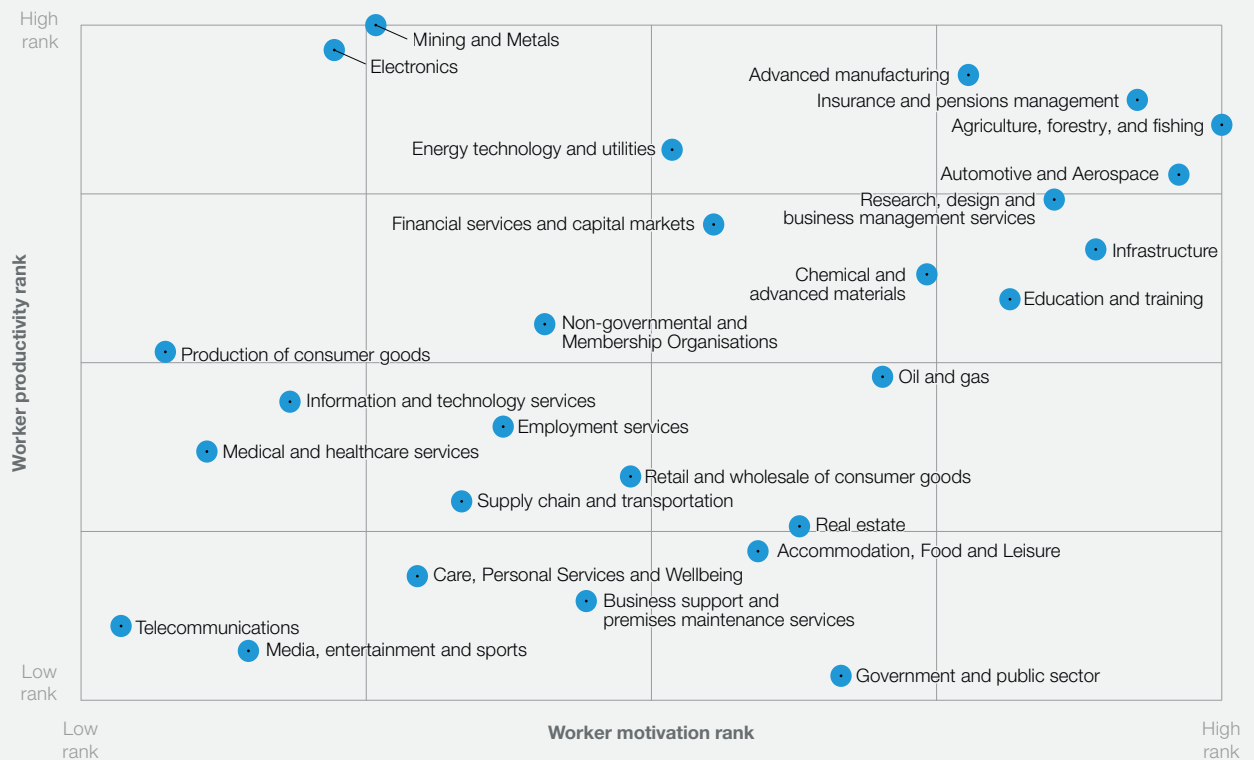
5.13 ranks industries’ expected performance on motivation and productivity, based on the net difference between the share of companies in each sector that foresee a positive outlook minus those that foresee a negative outlook.

Survey results suggest that the strongest performance may be expected in Advanced Manufacturing; Insurance and Pensions Management; and Agriculture, Forestry and Fishing. Surveyed companies operating in Telecommunications as well as Media, Entertainment and Sports reported the least positivity across these two measures. Executives in Mining and Metals and Electronics expect workers to be highly productive but not strongly motivated. Respondents expect workers in Government and the Public Sector to be well motivated but show less optimism regarding productivity.

FIGURE 5.13

**Outlook for motivation and productivity, 2023-2027**

Rankings of the relative outlook for worker motivation and productivity reported by organizations surveyed for 2023 to 2027



Source

World Economic Forum, Future of Jobs Survey 2023.

# Conclusion

The transformation of jobs and skills have significant impacts on businesses, governments and workers worldwide. It is crucial to develop insight forecasts, identify the appropriate talent to promote growth, and make informed decisions on managing the significant disruptions to jobs and skills for employers and workers alike.

This year's edition of the Future of Jobs Report presents a mixed picture with regard to the 2023-2027 outlook for the global labour-market landscape. Global macrotrends and disruptions create an ever-more complex environment for policy-makers, employers and workers to navigate, and uncertainty and volatility remain high (Chapter 1). Thus, while, in early 2023, pessimistic predictions regarding the jobs impact of the green transition and generative AI dominate the media headlines, these areas have also been identified as some of the largest drivers of future job creation by Future of Jobs Survey respondents (Chapter 2). While the report finds – for the second time since its inception – a net negative global employment outlook, these displacements are likely to be highly concentrated in an identifiable set of job

categories, enabling targeted support and proactive redeployment strategies (Chapter 3). While skills disruption remains high, it has somewhat stabilized from the height of the COVID-19 pandemic (Chapter 4). And while companies continue to identify access to skilled talent as the single biggest barrier to business transformation, expectations regarding workforce strategies show an increasing level of nuance, pragmatism and proactive engagement (Chapter 5).

This last point reflects a core tenet of the Future of Jobs Report since its inception: that the future of work can be shaped for better outcomes and that it is the policy, business and investment decisions made by leaders today that will determine outcomes and the future space for action.

Accordingly, we hope that this report will contribute to an ambitious multistakeholder agenda to better prepare workers, businesses, governments, educators and civil society for the disruptions to come, and empower them to navigate these social, environmental and technological transitions.

# Appendix A

## Analysis methodology

This report is based on an analysis of the results of the fourth edition of an extensive survey of senior executives leading people and culture, strategy and innovation functions within leading global employers. Established in 2015, the Future of Jobs Survey has been instrumental in providing insights into the evolution of jobs and skills under the Fourth Industrial Revolution. It is a pioneering measurement tool that enables companies and governments to map their workforce planning for the next five years. The survey data is collected across countries and industries, providing a much-needed compass for private- and public-sector leaders who strive to ensure a better future of work for all.

### Survey design

The survey builds on the methodology from the previous survey editions. Following survey best practices and informed by literature review, several questions were refined and new questions were added.

The survey consists of four interrelated parts. **Business Trends 2022-2027** focuses on the trends that are likely to transform industries in the next five years and their job-creation outlook. It also examines technology adoption at the organization level, and its impact on jobs. **Occupation Trends 2022-2027** maps the mass-employment and specialized and strategic roles that are relevant to businesses and how these are expected to evolve until 2027. **Skill Trends 2022-2027** analyses the priorities of businesses in terms of skills and collects information on training programmes and employee reskilling needs and efforts. **Workforce Practices 2022-2027** explores the talent strategies and talent-management practices in organizations.

The survey is comprised of 44 questions and was made available in 12 languages: Arabic, Chinese (simplified), Czech, Georgian, Hebrew, Japanese, Portuguese, Russian, Serbian, Spanish, Thai and Turkish. The survey collection process was conducted via Qualtrics, with data collection spanning a four-month period from November 2022 to February 2023.

### Representativeness

The survey set out to represent the current strategies, projections and estimates of global businesses, with a focus on large multinational companies and more localized companies which are of significance due to their employee or revenue size. As such, there are three areas of the future of jobs that remain out of scope for this report; namely, the future of jobs as it relates to the activities of small enterprises, the public sector and the informal sector.

The Future of Jobs Survey was distributed through collaboration between the World Economic Forum and its regional survey partners, amplified by the World Economic Forum's extensive network and its constituents. The survey is also the result of cross-departmental coordination within the World Economic Forum. The Forum's Centre for Advanced Manufacturing and Supply Chains; Centre for Energy and Materials; Centre for Financial and Monetary Systems; Centre for Health and Healthcare; Platform for Shaping the Future of Digital Economy and New Value Creation; Centre for the Fourth Industrial Revolution and Global Industries Team supported the report team's efforts to collect relevant samples. For key partners in the survey distribution process, please refer to the Survey Partners and Acknowledgements sections.

Detailed sample design specifications were shared with survey partners, requesting that the sample of companies targeted for participation in the survey should be drawn from a cross-section of leading companies that make up an economy or region's business. The target companies were specified as the largest multinational and national companies, significant in terms of revenue or employee size. The threshold was set at companies with 100 employees or more as questions concerning technology absorption and its consequential impact on employee planning are most relevant for larger companies with a significant share of employment.

The final sub-selection of countries with data of sufficient quality to be featured in the report was based on the overall number of responses from

companies with a presence in each economy. Companies were allowed to select up to 10 economies in which they have significant presence (i.e. a minimum of 100 employees). Half of the companies surveyed operate in more than one economy, making the sample representative of both global and more local workforce and business practices. The final sub-selection of industries was included based on the overall number of responses by industry, in addition to a qualitative review of the pool of named companies represented in the survey data.

After relevant criteria were applied, the sample was found to be composed of 27 industry clusters and 46 economies. Industry clusters include: Accommodation, Food and Leisure; Advanced Manufacturing; Agriculture, Forestry and Fishing; Automotive and Aerospace; Business Support and Premises Maintenance Services; Care, Personal Services and Wellbeing; Chemical and Advanced Materials; Education and Training; Electronics; Employment Services; Energy Technology and Utilities; Financial Services and Capital Markets; Government and Public Sector; Information and Technology Services; Infrastructure; Insurance and Pensions Management; Media, Entertainment and Sports; Medical and Healthcare Services; Mining and Metals; Non-Governmental and Membership Organizations; Oil and Gas; Production of Consumer Goods; Real Estate; Research, Design and Business Management Services; Retail and Wholesale of Consumer goods; Supply Chain and Transportation; and Telecommunications. You can refer to Table A1 for the list of industry clusters. Economies include Argentina; Australia; Austria; Bahrain; Belgium; Brazil; Canada; China; Colombia; Czech Republic; Egypt; Finland; France; Georgia; Germany; Hong Kong SAR, China; India; Indonesia; Israel; Italy; Japan; Kazakhstan; Korea, Republic of; Latvia; Lithuania; Malaysia; Mexico; Netherlands; Pakistan; Philippines; Poland; Romania; Saudi Arabia; Serbia; Singapore; South Africa; Spain; Sweden; Switzerland; Taiwan, China; Thailand; Türkiye; United Arab Emirates; United Kingdom; United States; and Viet Nam. Collectively, these economies represent 88% of global GDP.

In total, the report's data set contains 803 unique responses by global companies, collectively representing more than 11.3 million employees worldwide.

## Classification frameworks for jobs and skills

This year's report employed the Occupational Information Network (O\*NET) framework, cross-walked with the International Standard Classification of Occupations (ISCO). O\*NET was developed by the US Department of Labour in collaboration with its Bureau of Labour Statistics' Standard Classification of Occupations (SOC) and remains the most extensive and respected classification of

its kind. ISCO is a classification system developed by the ILO to organize information on jobs and labour. It is a part of the UN's classification system for social and economic purposes. The list of roles used in the report is enhanced with roles which were consistently added to previous editions of the report and referred to the emerging roles from data partner collaborations.

The Future of Jobs survey and report use the World Economic Forum's **Global Skills Taxonomy** to categorise skills. Built on a foundation of data insights and ongoing inputs from our network of partners, the taxonomy focuses on the skills that are needed by workers across sectors and regions in a fast-changing labour market. It is designed to serve as a "universal adapter" between data presented in the language of the many region and industry specific skills taxonomies in use. You may view the Global Skills Taxonomy on the [Reskilling Revolution webpage](#). New data from the Future of Jobs Survey are presented in Chapter 3 and in the skill profiles on the following pages. The selection of skills chosen from the Global Skills Taxonomy for use in this survey is shown in Table A2.

## Metrics

Statistical samples presented in this report correspond to organizations' self-reported economies and industries of operation. Each organization which responded to the Future of Jobs Survey was permitted to associate itself with up to 10 economies and up to three industries of operation.

Most metrics presented in this report are shares of respondents identifying their organization with a business strategy/impact or the mean value of a metric relating to business operations which was directly estimated by respondents. A small number of metrics relating to labour markets and skills are derived from information provided in different formats. These are described below.

## Net growth in employment and labour-market churn

Written at a time of labour-market turmoil and realignment, this edition of the Future of Jobs Report is the first to estimate labour-market churn as well as growth. Net growth represents the forecast increase or decrease in the size of a workforce, either as a fraction of its current size, or in millions of employees. Labour-market churn represents the sum of job losses and created jobs in a workforce as a fraction of its initial size. In this report both concepts are applied to roles in the jobs taxonomy (see Table A3) and industries in the industry taxonomy (see Table A1). The figures correspond to changes forecast by survey respondents for a five year period from 2023 to 2027, with the survey being administered

TABLE A1 | Taxonomy of industry categories

Industry cluster	Industry
<b>Accommodation, Food and Leisure</b>	Accommodation, Food and Leisure Services
	Rental, Reservation and Leasing Services
<b>Agriculture and Natural Resources</b>	Agriculture, Forestry and Fishing
<b>Automotive and Aerospace</b>	Automotive and Aerospace
<b>Care, Personal Services and Wellbeing</b>	Care and Social Work Services
	Personal Care, Wellbeing and Repair Services
<b>Education and Training</b>	Education and Training
<b>Energy and Materials</b>	Chemical and Advanced Materials
	Energy Technology and Utilities
	Mining and Metals
	Oil and Gas
<b>Financial Services</b>	Financial Services and Capital Markets
	Insurance and Pensions Management
<b>Government and Public Sector</b>	Government and Public Sector
<b>Health and Healthcare</b>	Medical and Healthcare Services
<b>Information Technology and Digital Communications</b>	Information and Technology Services
	Telecommunications
<b>Infrastructure</b>	Engineering and Construction
	Water and Waste Management
<b>Manufacturing</b>	Advanced Manufacturing
	Electronics
	Production of Consumer Goods
<b>Media, Entertainment and Sports</b>	Arts, Entertainment and recreation
	Media and Publishing
<b>Non-Governmental and Membership Organisations</b>	Extraterritorial Organizations and Bodies
	Non-Profit Organizations, Professional Bodies and Unions
<b>Professional Services</b>	Business Support and Premises Maintenance Services
	Employment Services
	Research, Design and Business Management Services
<b>Real Estate</b>	Real Estate
<b>Retail and Wholesale of Consumer Goods</b>	Retail and Wholesale of Consumer Goods
<b>Supply Chain and Transportation</b>	Supply Chain and Transportation

over several months centred around the turn of 2023. Metrics relating to both concepts reflect forecast structural changes in employment across companies, economies, industries and roles. Turnover induced by employees moving between jobs for personal reasons is not included.

### Fractional metrics

Respondents aggregated roles included in the jobs taxonomy to six groups:

- roles representing a large proportion of the organization's workforce with a stable employment outlook for the next five years;
- roles representing a large proportion of the organization's workforce which are expected to grow in the next five years;
- roles representing a large proportion of the organization's workforce which are expected to be increasingly redundant in the next five years;
- specialised and strategic roles which are crucial to the organization, represent a small proportion of the organization's workforce today and are expected to have a stable employment outlook in the next five years;
- specialised and strategic roles which are crucial to the organization, represent a small proportion of the organization's workforce today and which are expected to be increasingly important in the next five years; and
- specialised and strategic roles which are crucial to the organization, represent a small proportion of the organization's workforce today and which are expected to be increasingly redundant in the next five years.

Respondents allocated up to three roles from the jobs taxonomy to each of the six groups. One of the three roles in the three specialised and strategic categories could be specified by a free-text field. Free-text fields were subsequently allocated to jobs in the jobs taxonomy where possible. Metrics on roles are only published in the report when they meet statistical criteria in a given sample.

Respondents subsequently allocated workforce fractions to each of the above groups of jobs, both at present and as predicted for 2027. These workforce fractions were used to calculate two metrics: estimated net growth between 2023 and 2027 and estimated structural labour-market churn from 2023 to 2027, for the labour forces pertaining to roles in the jobs taxonomy and industries in the industry taxonomy. In both cases, the fractional increase or decrease between 2023 and 2027 pertaining to a job or industry is compared to its workforce fraction in 2023. In the calculation of net growth, increases and decreases are added and subtracted in the numerator, and divided by the sum of workforce fractions in 2023 in the

denominator, across all responses pertaining to a particular role or industry. In the case of churn, the calculation is identical, except for taking the absolute value of decreases, so that all terms in the numerator are positive. In both cases, changes in the stable workforce fraction are neglected in the numerator, to respect the respondent's indication that this workforce is stable. Stable workforce fractions from 2023 are nevertheless included in the denominator, to ensure that responses indicating a stable workforce fraction appropriately suppress the magnitude of net growth and churn.

### Reweighted metrics

ILO data were then used to translate the forecast fractional net growth for each role into estimates of the number of jobs that will be created or displaced between 2023 and 2027. ILO estimates (excluding their modelled estimates) of the number of employees in each occupational category of ISCO08 level 2 were used as a basis for the number of employees working at the time of publication. To approximate the number of employees in each occupation of the jobs taxonomy used in the Future of Jobs Survey, the jobs taxonomy (a modified and extended version of the O\*NET SOC occupational classification) was mapped to the ISCO08 occupational taxonomy used in the ILO data by modifying and extending the map developed by the U.S. Bureau of Labor Statistics, which connects O\*NET SOC level 4 and ISCO08 level 2. Ambiguities arising due to differences in the granularity of job titles were resolved using Future of Jobs Survey data to estimate the relative numbers of employees based on the number of times jobs were selected by respondents. Estimates of present employment were then multiplied by the fractional net growth estimates obtained from the survey, to estimate net growth worldwide in units of millions of employees.

Using this method, the Future of Jobs dataset described in Chapter 3 corresponds to 673 million employees. By comparison, the ILO dataset used in the analysis accounts for 820 million employees. The remaining 147 million employees correspond to roles for which the Future of Jobs Survey did not collect sufficient data to reliably estimate net growth. Data on employees rather than general employment was used as organisations responding to the Future of Jobs Survey maintain workers in formal rather than informal employment.

The available ILO dataset which boasts an occupational employment breakdown with level 2 granularity in ISCO08 is smaller than modelled ILO estimates of a total of 1.739 billion employees worldwide when country-level data gaps are extrapolated, and smaller still than the estimated 3.283 billion workers in either formal or informal employment. Extrapolating beyond this sample of 673 million employees would require unfounded assumptions regarding the structure of labour markets, but readers may use these normalizations to perform rough estimations of the expected full

magnitude. Large economies whose workers could not be included include China, India and Indonesia, however data from these economies is reflected in fractional estimates reported as percentages, according to the data coverage of the Future of Jobs Survey.

The estimates of the number of employees per sector which can be found in the Industry Profiles (p183-236) are based on the full dataset of 1.739 billion employees worldwide. This calculation is described in the user guide to the profiles (p82).

## Metrics relating to the Global Skills Taxonomy

Three survey questions probed the present importance of skills, their expected evolution in importance from 2023 to 2027, and the strategic focus organizations will assign to upskilling and reskilling their workers in skills from 2023 to 2027. In each case, respondents selected skills from a list of 26 “cross-functional” skills from the Global Skills Taxonomy (see Table A2). No attempt was made to represent skills and knowledge which is specialised within industries or occupations. In the case of the first and third questions, skills data are reported as both raw shares of companies and derived estimates of the mean normalised share of each skill per respondent. While the former metrics have the benefit of simplicity, the latter metrics give equal statistical weight to all respondents and sum to 100% across the full Global Skills Taxonomy.

### Skill importance

The relative current importance of skills was estimated using the question: “What are the core skills workers currently need to perform well in the key roles with a stable outlook?”. The resulting data are reported as both a raw share of companies selecting each skill and a derived metric. The derived metric accounts for the fact that respondents were permitted to select as many or as few skills as they wished. In this derived analysis, each skill receives an equal share of a respondent’s statistical weight, and all respondents are assigned the same overall weight. The share per skill is then the mean taken across the respondents in a sample. This “normalized skill share” may be treated as a rough approximation of the cross-functional skill set of workers today.

### Skill evolution

The evolving importance of skills was estimated using the question: “For the key roles with a stable outlook, would you expect an increase or decrease in the use of the following skills?”. Respondents specified all 26 skills as increasing, decreasing or stable in importance over the next five years. Across the report these figures are often presented alongside the net difference between the share of respondents classifying the skill as increasing in importance and the share classifying it as decreasing in importance, to obtain a single metric per skill.

### Reskilling focus

The reskilling focus of strategic importance surveyed organizations apply to skills was gauged using the question: “Keeping in mind your current strategic direction, please select the skill clusters on which you are focusing your organisation’s reskilling and upskilling efforts in the next five years.” For this question, respondents ranked an unlimited number of the 26 skills according to their importance. These ranks were aggregated using the Borda method to calculate the “Reskilling ranking” which is used to order the Skill Profiles. The calculation is outlined in the user guide to the Skill Profiles (p255). This aggregated ranking is also used to order the skills in Figure 4.5, which also represents the difference in this ranking with respect to the ranking of skills by their importance, as represented above, and in Figure 4.2.

An equivalent analysis to that for skill importance is also performed. At this stage, the rankings assigned by respondents are neglected, and the selected skills are treated equally. The data are now reported as both a raw share of companies selecting each skill and a derived metric. The derived metric accounts for the fact that respondents were permitted to select as many or as few skills as they wished. Each skill receives an equal share of a respondent’s statistical weight, and all respondents are assigned the same overall weight. The share per skill is then the mean taken across the respondents in a sample. This “normalized strategy share” may be treated as a rough approximation of the mean composition of organizations’ strategic priorities and reskilling needs from 2023 to 2027.

TABLE A2 | **Skill taxonomy**

Skills were selected from levels 3 and 4 of the Global Skills Taxonomy to represent skills of interest to organizations across sectors and economies

Skill family (level 1)	Skill cluster (level 2)	Skill
<b>Attitudes</b>	<b>Ethics</b>	Environmental stewardship
		Global citizenship
		Curiosity and lifelong learning
	<b>Self-efficacy</b>	Dependability and attention to detail
		Motivation and self-awareness
		Resilience, flexibility and agility
	<b>Working with others</b>	Empathy and active listening
		Leadership and social influence
		Teaching and mentoring
<b>Skills, knowledge and abilities</b>	<b>Cognitive skills</b>	Analytical thinking
		Creative thinking
		Multi-lingualism
		Reading, writing and mathematics
		Systems thinking
	<b>Engagement skills</b>	Marketing and media
		Service orientation and customer service
	<b>Management skills</b>	Quality control
		Resource management and operations
		Talent management
	<b>Physical abilities</b>	Manual dexterity, endurance and precision
		Sensory-processing abilities
	<b>Technology skills</b>	AI and big data
		Design and user experience
		Networks and cybersecurity
Programming		
Technological literacy		

TABLE A3 | **Job taxonomy**

The occupational taxonomy was modified and extended from O\*NET SOC.

Job family	Occupation
<b>Architecture and Engineering</b>	Architects and Surveyors
	Biochemical Engineers
	Biomedical Engineers
	Chemical Engineers
	Civil Engineers
	Electrotechnology Engineers
	Energy and Petroleum Engineers
	Environmental Engineers
	Industrial and Production Engineers
	Materials Engineers
	Mechanical Engineers
	Mining Engineers, Metallurgists and Related Professionals
	Nanosystems Engineers
	Nuclear Engineers
	Photonics Engineers
	Renewable Energy Engineers
	Robotics Engineers
Technical Specialists	
<b>Arts, Design, Entertainment, Sports and Media</b>	Advertising and Public Relations Professionals
	Athletes and Sports Competitors
	Authors and Journalists
	Commercial and Industrial Designers
	Creative and Performing Artists
	Fashion Designers
	Graphic Designers
	Handicraft Workers
	Interior Designers
	Photographers
	Telecommunications and Broadcasting Technicians
<b>Business and Financial Operations</b>	Accountants and Auditors
	Business Intelligence Analysts
	Claims Adjusters, Examiners, and Investigators
	Compliance Officers
	Credit and Loans Officers

TABLE A3 | **Job taxonomy**

The occupational taxonomy was modified and extended from O\*NET SOC.

Job family	Occupation
<b>Business and Financial Operations</b>	Digital Marketing and Strategy Specialists Digital Transformation Specialists E-commerce Specialists Financial Analysts Financial and Investment Advisers Human Resources Specialists Insurance Underwriters Investment Fund Managers Management and Organisation Analysts Product Managers Project Managers Recruiters and technical recruiters Regulatory and Government Associate Professionals Relationship Managers Risk Management Specialists Sales and Marketing Professionals Social Media Strategist Training and Development Specialists Valuers and Loss Assessors
<b>Community, Social Service and Protective Services</b>	Firefighters Immigration and Customs Inspectors Police Officers Prison Guards Religious Professionals Security Guards Social Work and Counselling Professionals
<b>Computer and Mathematical</b>	AI and Machine Learning Specialists Application Developers Big Data Specialists Blockchain Developers Data Analysts and Scientists Data Engineers Data Warehousing Specialists Database and Network Professionals

TABLE A3 | **Job taxonomy**

The occupational taxonomy was modified and extended from O\*NET SOC.

Job family	Occupation
<b>Computer and Mathematical</b>	Database Architects
	Devops Engineers
	FinTech Engineers
	Full Stack Engineers
	Geospatial Information Scientists and Technologists
	ICT Operations and User Support Technicians
	Information Security Analysts
	Internet of Things Specialists
	Mathematicians, Actuaries and Statisticians
	Online Learning Managers
	Software and Applications Developers
	Software testers
	Web Developers
<b>Construction and Extraction</b>	Building Finishers and Related Trades Workers
	Building Frame and Related Trades Workers
	Construction Laborers
	Electrical Equipment Installers and Repairers
	Explosives Workers and Ordnance Handling Experts
	Mining and Petroleum Extraction Workers
	Mining and Petroleum Plant Operators
<b>Education and Training</b>	Librarians, Curators, and Archivists
	Primary School and Early Childhood Teachers
	Secondary Education Teachers
	Special Education Teachers
	University and Higher Education Teachers
	Vocational Education Teachers
<b>Farming, Fishing, and Forestry</b>	Agricultural Equipment Operators
	Agricultural Inspectors
	Animal Breeders
	Farmworkers and Laborers
	Fishers and Related Fishing Workers
	Forest and Conservation Workers
	Graders and Sorters, Agricultural Products
	Hunters and Trappers

TABLE A3 | **Job taxonomy**

The occupational taxonomy was modified and extended from O\*NET SOC.

Job family	Occupation
Farming, Fishing, and Forestry	Logging Equipment Operators
	Nursery and Greenhouse Workers
Healthcare Practitioners and Technicians	Audiologists and Speech Therapists
	Clinical and Counselling Psychologists
	Dentists and Associated Professions
	Dietitians and Nutritionists
	Environmental and Occupational Health and Hygiene Professionals
	Epidemiologists and Public Health Specialists
	Generalist Medical Practitioners
	Medical and Dental Prosthetic Technicians
	Medical, Pharmaceutical and Laboratory Technicians
	Midwifery Professionals
	Nursing Professionals
	Occupational Health and Safety Specialists and Technicians
	Optometrists and Opticians
	Paramedical and Emergency Medical Technicians
	Personal Care Workers in Health Services
	Pharmacists and Associated Professions
	Physical Therapists
	Psychiatrists
	Specialist Medical Practitioners
	Traditional and Complementary Medicine Professionals
Veterinarians	
Hospitality and Food Related	Event Managers
Hospitality, Food and Travel Related	Baristas
	Chefs and Cooks
	Concierges and Hotel Desk Clerks
	Food Preparation Assistants
	Food Service Counter Attendants
	Hotel and Restaurant Managers
	Tour and Travel Guides
	Waiters and Bartenders
Installation and Maintenance	Electronics and Telecommunications Installers and Repairers
	Home Appliance Installers and Repairers

TABLE A3 | **Job taxonomy**

The occupational taxonomy was modified and extended from O\*NET SOC.

Job family	Occupation
<b>Installation and Maintenance</b>	Mechanics and Machinery Repairers
<b>Legal</b>	Administrative Law Judges, Adjudicators, and Hearing Officers
	Arbitrators, Mediators, and Conciliators
	Court Reporters
	Judges, Magistrate Judges, and Magistrates
	Judicial Law Clerks
	Lawyers
	Legal Secretaries
	Paralegals and Legal Assistants
	Title Examiners, Abstractors, and Searchers
<b>Management</b>	Business Services and Administration Managers
	General and Operations Managers
	Health and Education Services Managers
	Legislators and Officials
	Managing Directors and Chief Executives
	Manufacturing, Mining, Construction, and Distribution Managers
	Organisational Development Specialists
	Production Managers in Agriculture, Forestry and Fisheries
	Strategic Advisors
<b>Manufacturing and Production</b>	Assembly and Factory Workers
	Biofuels and Biomass Technicians
	Chemical Processing Plant Operators
	Electricians, Insulation Workers, Plumbers
	Food Processing and Related Trades Workers
	Garment and Related Trades Workers
	Geothermal Technicians
	Hydroelectric Plant Technicians
	Metal and Steel Workers
	Petroleum and Natural Gas Refining Plant Operators
	Power Production Plant Operators
	Printing and Related Trades Workers
	Sheet and Structural Metal Workers, Moulders and Welders
	Solar Energy Installation and System Engineers
	Wind Energy Engineers

TABLE A3 | **Job taxonomy**

The occupational taxonomy was modified and extended from O\*NET SOC.

Job family	Occupation
<b>Military Specific Occupations</b>	Military Enlisted Tactical Operations and Air/Weapons Specialists and Crew Members  Military Officer Special and Tactical Operations Leaders
<b>Natural Science and Sustainability</b>	Biologists and Geneticists Botanists, Zoologists and Related Professionals Chemists and Chemical Laboratory Scientists Environmental Protection Professionals Food Scientists and Technologists Geologists and Geophysicists Materials Scientists Physicists and Astronomers Remote Sensing Scientists and Technologists Sustainability Specialists
<b>Office and Administrative</b>	Accounting, Bookkeeping and Payroll Clerks Administrative and Executive Secretaries Bank Tellers and Related Clerks Client Information and Customer Service Workers Data Entry Clerks Material-Recording and Stock-Keeping Clerks Postal Service Clerks Statistical, Finance and Insurance Clerks
<b>Personal Care and Building Maintenance</b>	Animal Care and Service Workers Building Caretakers and Housekeepers Childcare Workers Entertainment Attendants and Related Workers Funeral Service Workers Hairdressers, Beauticians and Related Workers Occupational Therapy and Physical Therapist Assistants and Aides Personal Care Aides Sports and Fitness Workers Vehicle, Window, Laundry and Other Hand Cleaning Workers
<b>Sales</b>	Business Development Professionals Call Center Operators Cashiers and Ticket Clerks

TABLE A3 | **Job taxonomy**

The occupational taxonomy was modified and extended from O\*NET SOC.

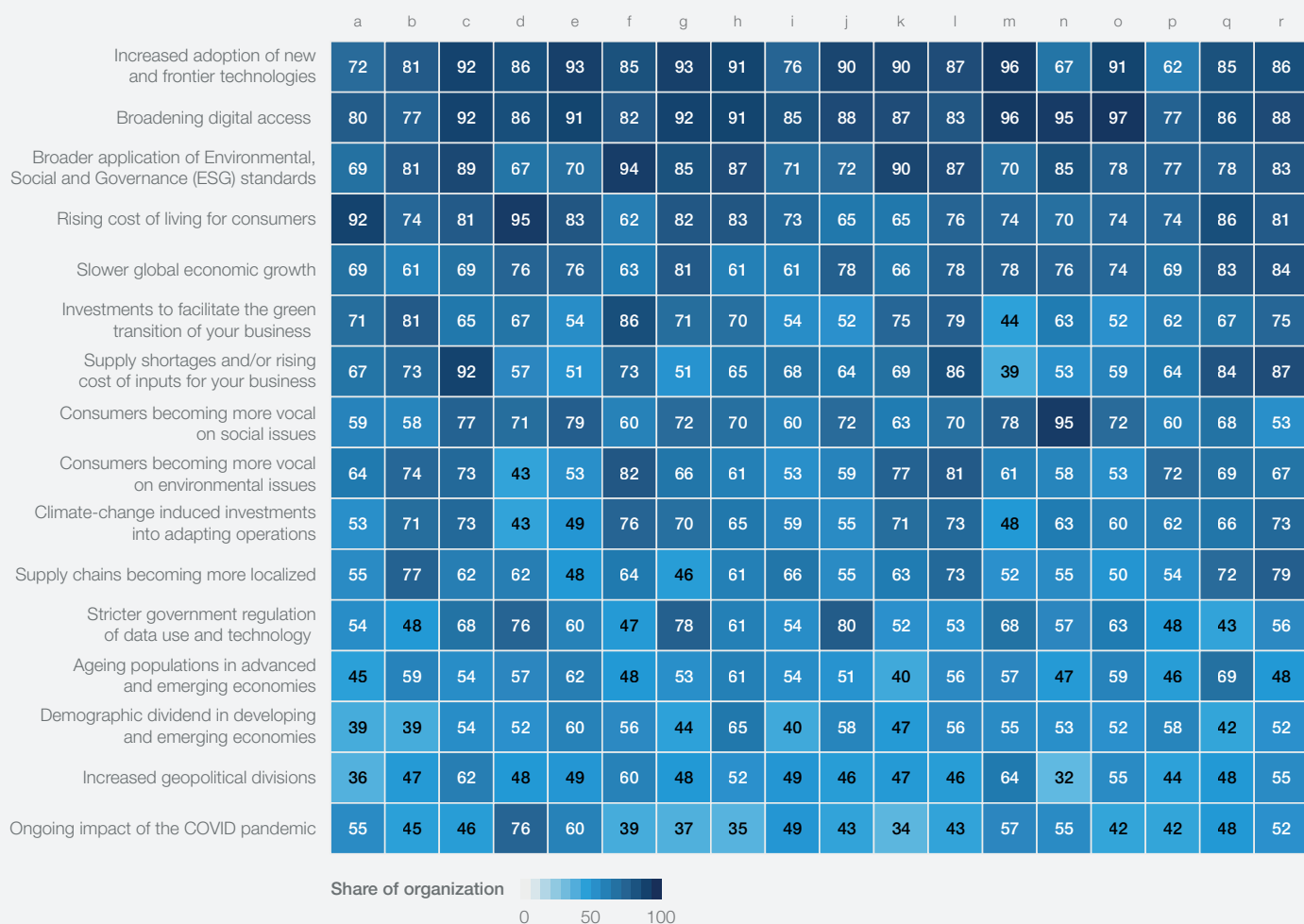
Job family	Occupation
<b>Sales</b>	Door-To-Door Sales Workers, News and Street Vendors, and Related Workers
	Real Estate Sales Agents
	Sales and Purchasing Agents and Brokers
	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products
	Securities and Finance Dealers and Brokers
	Shop Salespersons
	Telemarketers
<b>Social Science</b>	Economists
	Philosophers, Historians and Political Scientists
	Social Psychologists
	Social Science Research Assistants
	Sociologists, Anthropologists and Related Professionals
	Survey Researchers
	Town and Traffic Planners
<b>Transportation and Logistics</b>	Autonomous and Electric Vehicle Specialists
	Car, Van and Motorcycle Drivers
	Commercial Pilots
	Customs Brokers
	Flight Attendants
	Heavy Truck and Bus Drivers
	Light Truck or Delivery Services Drivers
	Locomotive Engine Drivers and Related Workers
	Material Moving Workers
	Postal Service Mail Carriers
	Refuse Workers
	Sailors and Marine Cargo Workers
	Ship and Aircraft Controllers and Technicians
	Ship and Boat Captains
	Supply Chain and Logistics Specialists
	Transportation Attendants and Conductors
	Transportation Inspectors
	Vehicle and Mobile Equipment Mechanics, Installers, and Repairers
	Weighers, Measurers, Checkers, and Samplers, Recordkeeping

# Appendix B

## Sectoral lens on macrotrends and technology

FIGURE B1 **Impact of macrotrends, 2023-2027**

Share of organizations which expect macrotrends to drive transformation in their organization (%)



- a. Accommodation, Food and Leisure
- b. Agriculture and Natural Resources
- c. Automotive and Aerospace
- d. Care, Personal Services and Wellbeing
- e. Education and training
- f. Energy and Materials

- g. Financial Services
- h. Government and public sector
- i. Health and healthcare
- j. Information Technology and Digital Communications
- k. Infrastructure
- l. Manufacturing

- m. Media, Entertainment and Sports
- n. Non-governmental and Membership Organisations
- o. Professional Services
- p. Real estate
- q. Retail and wholesale of consumer goods
- r. Supply chain and transportation

Source

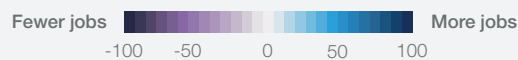
World Economic Forum, Future of Jobs Survey 2023.

FIGURE B2

Impact of macrotrends on jobs, 2023-2027

Net difference between the shares of organizations which expect macrotrends to create and displace jobs between 2023 and 2027 (%). The share of organizations predicting a neutral impact on employment is not used in the calculation.

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
Increased adoption of new and frontier technologies	21	40	67	33	44	34	28	10	48	53	38	25	57	43	47	25	27	21
Broadening digital access	33	29	63	33	52	16	22	14	34	59	27	22	64	47	51	5	31	0
Broader application of Environmental, Social and Governance (ESG) standards	30	40	57	71	64	60	49	50	33	53	67	50	19	59	42	45	44	43
Rising cost of living for consumers	-3	-26	-5	10	-26	-5	-26	11	-21	-15	-14	-25	-29	-29	-17	-15	-22	-33
Slower global economic growth	-19	-58	-39	-6	-30	-42	-47	-14	-44	-42	-29	-56	-22	-44	-35	-35	-39	-54
Investments to facilitate the green transition of your business	56	56	71	36	44	66	41	50	43	47	63	57	70	83	35	73	40	41
Supply shortages and/or rising cost of inputs for your business	-12	-32	-21	0	-40	-13	-23	-13	-4	-22	-23	-24	-45	-40	-18	-38	-39	-33
Consumers becoming more vocal on social issues	22	39	45	57	43	38	17	25	30	21	30	25	22	58	35	13	41	15
Consumers becoming more vocal on environmental issues	32	57	63	67	50	45	27	71	37	30	37	34	29	55	41	33	25	19
Climate-change induced investments into adapting operations	15	41	42	44	50	58	40	40	18	51	58	47	45	50	46	44	23	32
Supply chains becoming more localized	0	40	60	50	71	70	80	25	60	50	62	41	50	100	45	50	38	33
Stricter government regulation of data use and technology	-5	0	12	31	14	12	32	7	10	22	17	14	-13	17	25	-17	11	3
Ageing populations in advanced and emerging economies	41	18	22	50	23	16	15	0	52	20	-11	21	15	11	18	8	5	0
Demographic dividend in developing and emerging economies	40	50	43	46	42	37	46	20	40	34	38	37	17	40	44	-13	22	35
Increased geopolitical divisions	-7	0	-13	30	0	-2	-12	0	-5	4	19	12	-14	17	-6	-10	-3	-17
Ongoing impact of the COVID pandemic	-19	22	-25	38	-3	0	-5	50	50	2	13	-6	-23	-18	-7	-46	3	3



- a. Accommodation, Food and Leisure
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- l. Manufacturing
- m. Media, Entertainment and Sports
- n. Non-governmental and Membership Organisations
- o. Professional Services
- p. Real estate
- q. Retail and wholesale of consumer goods
- r. Supply chain and transportation

Source

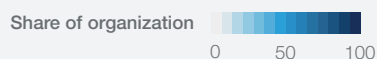
World Economic Forum, Future of Jobs Survey 2023.

FIGURE B3

Technology adoption

Share of organizations which are likely to adopt technologies in the next five years (%)

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
Digital platforms and apps	80	74	92	95	90	83	93	96	72	90	82	84	100	95	98	81	92	81
Education and workforce development technologies	72	63	80	95	87	78	82	91	84	80	77	84	81	91	90	63	79	72
Big-data analytics	69	63	89	81	81	75	91	70	76	89	72	80	95	76	88	58	77	71
Internet of things and connected devices	65	65	77	86	67	81	74	73	77	81	82	80	91	76	88	89	75	73
Cloud computing	65	60	77	71	79	74	90	83	64	87	77	73	74	76	82	62	63	69
Encryption and cybersecurity	70	68	73	76	64	80	91	78	58	82	70	73	74	86	77	63	62	79
E-commerce and digital trade	73	73	73	52	59	65	81	70	78	81	59	80	73	52	75	74	91	75
Artificial intelligence	55	61	85	71	76	72	83	65	71	88	72	74	87	71	83	59	65	61
Environmental management technologies	64	77	69	71	36	85	47	68	71	51	79	83	48	62	47	59	74	68
Climate-change mitigation technology	56	87	62	52	40	84	58	65	46	54	71	74	39	52	47	58	66	71
Text, image, and voice processing	59	45	75	76	67	44	71	65	50	77	56	54	87	67	81	42	60	54
Augmented and virtual reality	44	30	73	57	72	56	56	61	67	70	62	62	74	48	68	54	54	52
Power storage and generation	49	48	54	48	35	75	38	44	51	45	65	70	48	48	38	62	51	47
Electric and autonomous vehicles	51	45	69	52	25	62	48	48	45	44	65	65	22	29	28	54	51	79
Robots, non-humanoid	51	50	69	57	39	61	41	44	53	50	63	70	44	29	32	42	47	53
Health and care technologies	48	50	31	76	37	51	42	39	78	51	46	56	22	50	45	50	45	33
Distributed ledger technology	44	53	39	33	40	34	60	39	47	64	34	44	48	48	48	42	40	36
Water-related adaptation technologies	55	72	63	62	29	60	23	35	50	31	52	61	27	48	32	50	39	28
3D and 4D printing and modelling	26	19	62	48	47	39	21	35	49	44	52	55	52	33	34	27	39	16
Robots, humanoid	51	27	31	55	33	30	41	23	32	43	32	41	41	20	30	19	28	30
Quantum computing	28	20	27	35	18	27	38	18	31	44	26	30	39	24	34	8	22	26
Nanotechnology	36	47	39	33	17	40	21	17	46	33	32	41	18	19	27	8	19	25
Biodiversity protection technologies	26	67	31	24	25	39	19	30	41	25	38	39	13	19	19	31	32	29
New materials	28	43	36	38	10	50	15	23	22	25	45	39	17	24	20	35	19	24
Biotechnology	28	57	8	33	22	25	16	26	70	21	21	34	9	19	14	15	26	15
Cryptocurrencies	32	17	12	25	29	14	40	17	13	40	14	17	39	14	16	19	26	9
Agriculture technologies	34	71	12	14	17	15	11	17	16	21	16	32	13	19	19	15	29	9
Satellite services and space flight	34	37	24	10	10	16	10	13	5	28	28	20	18	14	8	12	11	16



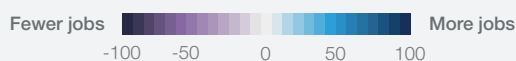
- a. Accommodation, Food and Leisure
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- o. Professional Services
- p. Real estate
- q. Retail and wholesale of consumer goods
- r. Supply chain and transportation

Source  
World Economic Forum, Future of Jobs Survey 2023.

FIGURE B4 | Impact of technology adoption on jobs, 2023-2027

Net difference between the shares of organizations which expect technology adoption to create and displace jobs in the next five years (%). The share of organizations predicting a neutral impact on employment is not used in the calculation.

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
Digital platforms and apps	25	35	63	30	74	27	31	50	39	59	22	28	45	45	61	43	47	35
Education and workforce development technologies	41	44	65	50	75	32	30	38	34	51	44	31	65	58	47	18	29	31
Big-data analytics	42	68	78	71	64	47	66	69	36	64	38	56	55	44	71	36	60	57
Internet of things and connected devices	25	5	50	28	38	18	25	13	35	53	27	22	50	25	48	23	17	9
Cloud computing	27	33	50	53	46	15	36	47	20	60	16	25	35	25	51	20	46	33
Encryption and cybersecurity	33	29	63	25	53	43	62	39	55	63	24	42	50	11	38	38	28	44
E-commerce and digital trade	24	23	47	36	73	30	35	44	35	48	18	27	38	73	51	25	58	41
Artificial intelligence	0	28	59	47	36	12	18	33	31	45	30	19	-5	20	42	-7	31	15
Environmental management technologies	31	50	61	13	53	63	39	27	33	40	60	55	18	62	38	53	31	42
Climate-change mitigation technology	43	42	56	64	52	63	42	47	33	52	58	49	11	55	52	57	44	57
Text, image, and voice processing	23	8	28	13	41	-4	8	20	0	33	16	12	35	36	35	-30	15	-9
Augmented and virtual reality	19	33	53	75	50	16	43	50	27	60	32	39	65	45	35	31	46	55
Power storage and generation	11	47	29	22	47	61	38	40	11	52	48	42	30	20	26	25	29	24
Electric and autonomous vehicles	0	14	56	18	42	28	18	36	28	39	16	20	20	0	6	-8	18	-18
Robots, non-humanoid	10	-13	22	17	32	-26	14	10	-20	27	-14	-27	20	-50	5	-46	-13	-38
Health and care technologies	37	53	63	63	61	50	33	33	65	55	40	41	40	10	46	23	38	41
Distributed ledger technology	-6	19	50	29	55	12	32	56	39	40	0	16	27	10	38	45	62	40
Water-related adaptation technologies	35	29	47	31	27	42	30	38	26	17	44	42	0	40	28	8	44	47
3D and 4D printing and modelling	0	-17	44	40	46	18	29	50	22	31	15	24	25	29	29	57	44	22
Robots, humanoid	10	0	13	50	31	-3	-2	20	8	10	-5	-9	-11	-25	-28	-20	-22	-35
Quantum computing	30	-17	-14	29	38	22	26	25	0	44	19	21	38	20	25	100	21	25
Nanotechnology	8	21	40	14	71	46	14	0	35	39	10	37	75	-25	13	50	8	43
Biodiversity protection technologies	45	50	13	100	39	43	25	29	31	52	44	32	0	100	33	38	33	21
New materials	36	31	22	0	75	28	50	20	38	28	39	34	0	0	33	44	50	50
Biotechnology	22	65	100	57	55	36	35	33	63	50	8	43	0	75	63	33	41	22
Cryptocurrencies	17	0	100	40	47	14	43	50	0	44	0	27	25	0	40	0	31	17
Agriculture technologies	39	73	0	67	50	60	9	100	50	50	30	33	0	75	55	25	61	17
Satellite services and space flight	54	18	33	50	25	25	40	67	50	32	17	47	25	-33	50	-33	29	40



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Source

World Economic Forum, Future of Jobs Survey 2023.

# Appendix C

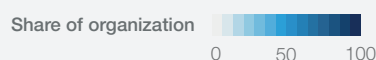
## Sectoral lens on skills

FIGURE C1

### Skill importance in 2023

Share of organizations which consider skills to be core skills for their workers (%)

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r		
Environmental stewardship	11	44	10	10	4	26	14	18	12	12	18	23	20	18	8	8	19	18	Ethics	Attitudes
Global citizenship	14	8	10	15	18	14	15	23	12	7	21	9	15	12	17	16	15	11		
Curiosity and lifelong learning	26	52	48	55	54	44	53	55	53	46	36	50	60	59	50	52	41	36	Self-efficacy	Attitudes
Dependability and attention to detail	54	44	62	55	36	49	43	36	44	36	41	46	25	47	39	24	48	48		
Motivation and self-awareness	49	44	71	65	52	52	42	55	56	35	57	53	30	53	44	28	63	66		
Resilience, flexibility and agility	37	44	43	45	48	54	55	55	50	39	54	54	35	53	54	36	54	57		
Empathy and active listening	31	32	38	50	50	44	41	50	53	38	43	45	25	65	46	36	53	43	Working with others	Attitudes
Leadership and social influence	40	44	33	50	40	49	42	41	44	36	54	37	45	41	35	44	41	30		
Teaching and mentoring	23	12	19	45	36	24	17	27	24	15	36	21	35	29	29	20	19	21		
Analytical thinking	49	40	71	60	70	71	82	77	68	73	75	62	55	82	75	52	68	61	Cognitive skills	Skills, knowledge and abilities
Creative thinking	46	52	38	45	66	52	64	68	62	53	59	55	40	59	65	60	58	43		
Multi-lingualism	37	28	33	35	28	22	21	14	32	24	25	23	20	12	29	28	27	27		
Reading, writing and mathematics	26	20	33	20	22	27	25	18	15	19	25	26	25	59	31	16	25	34		
Systems thinking	29	32	48	40	58	33	34	32	32	42	30	44	50	41	33	24	19	29		
Marketing and media	37	12	14	15	26	11	19	0	24	18	20	14	30	24	15	28	24	18	Management and engagement skills	Skills, knowledge and abilities
Service orientation and customer service	46	44	33	50	30	34	32	32	27	32	32	29	35	53	37	28	39	52		
Quality control	46	52	52	25	32	40	31	27	47	26	52	45	25	53	35	36	31	41		
Resource management and operations	34	40	43	45	22	39	26	23	29	24	36	42	20	35	27	12	24	27		
Talent management	34	40	33	40	32	35	42	41	44	31	39	36	30	35	35	36	27	25		
Manual dexterity, endurance and precision	29	32	24	5	4	22	8	9	12	13	16	22	10	12	10	8	29	13	Physical abilities	Skills, knowledge and abilities
Sensory-processing abilities	6	4	10	0	8	13	6	0	12	7	4	9	10	6	14	12	9	9		
AI and big data	17	16	43	35	38	27	45	14	18	42	25	23	35	18	35	28	24	18	Technology skills	Skills, knowledge and abilities
Design and user experience	11	12	33	20	32	18	28	23	24	35	18	24	30	18	27	16	31	11		
Networks and cybersecurity	11	16	14	25	10	20	22	14	15	29	14	16	10	24	17	12	10	4		
Programming	9	12	29	10	18	12	23	14	6	38	18	18	35	12	27	4	10	11		
Technological literacy	37	52	57	40	52	48	52	32	29	49	38	40	35	29	54	16	48	52		



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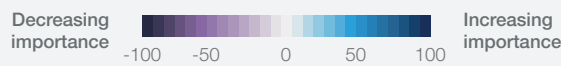
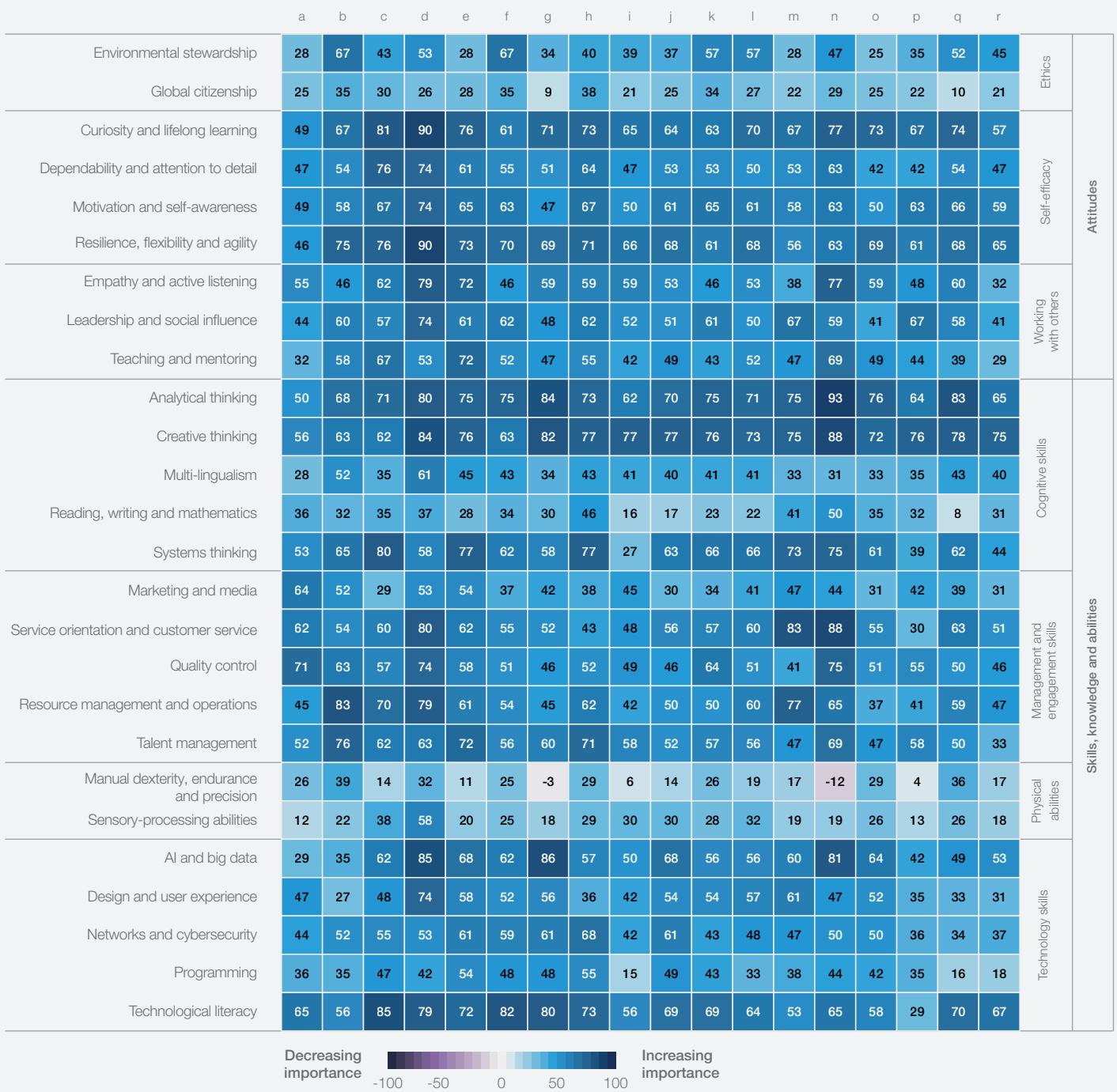
Source

World Economic Forum, Future of Jobs Survey 2023.

FIGURE C2

**Skill evolution, 2023-2027**

Net difference between the shares of organizations which consider skills to be increasing and decreasing in importance to their workers from 2023 to 2027 (%). The share of organizations predicting skill stability is not used in the calculation.



- a. Accommodation, Food and Leisure
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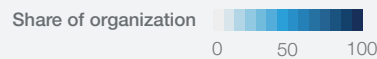
Source: World Economic Forum, Future of Jobs Survey 2023.

FIGURE C3

Reskilling focus, 2023-2027

Share of organizations which include these skills in their reskilling and upskilling priorities for 2023 to 2027 (%)

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r		
Environmental stewardship	24	55	19	17	14	32	13	14	15	16	21	26	26	18	10	20	27	22	Ethics	Attitudes
Global citizenship	6	9	5	0	8	5	4	10	6	8	4	10	21	0	14	12	6	11		
Curiosity and lifelong learning	15	18	43	44	39	20	31	29	49	24	25	33	42	35	27	32	29	28	Self-efficacy	
Dependability and attention to detail	21	27	10	17	18	17	15	19	6	12	19	18	32	18	14	16	20	15		
Motivation and self-awareness	21	23	38	11	27	25	15	29	12	16	42	30	21	24	23	16	33	30		
Resilience, flexibility and agility	21	36	24	28	31	37	37	33	30	25	36	35	37	18	44	24	31	32		
Empathy and active listening	24	14	24	67	33	27	17	33	36	17	23	25	37	24	21	28	26	24	Working with others	
Leadership and social influence	36	41	67	56	45	41	37	38	46	32	62	37	47	47	37	32	44	46		
Teaching and mentoring	9	14	5	22	33	12	12	10	18	11	9	21	26	18	10	8	11	11		
Analytical thinking	39	46	57	39	59	51	63	38	36	49	42	44	58	59	42	36	49	43	Cognitive skills	
Creative thinking	52	46	33	61	47	41	42	43	64	41	47	39	53	59	50	60	31	32		
Multi-lingualism	24	9	10	11	16	7	11	5	6	9	8	14	16	0	12	16	13	11		
Reading, writing and mathematics	6	9	5	0	6	4	4	10	0	4	6	11	16	12	8	0	4	9		
Systems thinking	6	14	24	22	27	20	14	10	12	11	17	20	21	12	15	4	11	13		
Marketing and media	30	18	14	17	45	6	16	14	12	18	11	21	32	12	23	16	20	13	Management and engagement skills	
Service orientation and customer service	27	27	33	28	27	17	30	24	15	20	15	19	26	12	21	8	42	37		
Quality control	24	27	10	11	20	21	8	19	15	8	30	22	16	12	12	16	22	19		
Resource management and operations	30	55	33	22	16	25	13	33	9	12	30	25	32	24	12	12	20	9		
Talent management	21	27	10	22	22	31	27	14	30	18	30	31	26	29	25	12	16	24		
Manual dexterity, endurance and precision	9	23	10	11	8	14	3	5	9	2	6	13	11	0	12	4	7	11	Physical abilities	
Sensory-processing abilities	3	5	0	0	6	3	3	0	0	3	2	5	5	0	8	4	2	4		
AI and big data	18	23	38	56	57	40	54	24	33	57	30	37	63	41	46	44	38	37	Technology skills	
Design and user experience	15	18	14	17	33	19	31	33	24	33	21	25	37	24	27	16	31	19		
Networks and cybersecurity	9	9	10	17	18	17	26	14	6	23	11	15	21	18	17	12	7	9		
Programming	12	5	10	0	22	3	17	10	6	26	6	10	26	6	17	4	9	9		
Technological literacy	21	36	52	28	39	27	35	24	15	22	23	25	26	35	21	12	33	48		



- a. Accommodation, Food and Leisure
- b. Agriculture and Natural Resources
- c. Automotive and Aerospace
- d. Care, Personal Services and Wellbeing
- e. Education and training
- f. Energy and Materials
- g. Financial Services
- h. Government and public sector
- i. Health and healthcare
- j. Information Technology and Digital Communications
- k. Infrastructure
- l. Manufacturing
- m. Media, Entertainment and Sports
- n. Non-governmental and Membership Organisations
- o. Professional Services
- p. Real estate
- q. Retail and wholesale of consumer goods
- r. Supply chain and transportation

Source  
World Economic Forum, Future of Jobs Survey 2023.

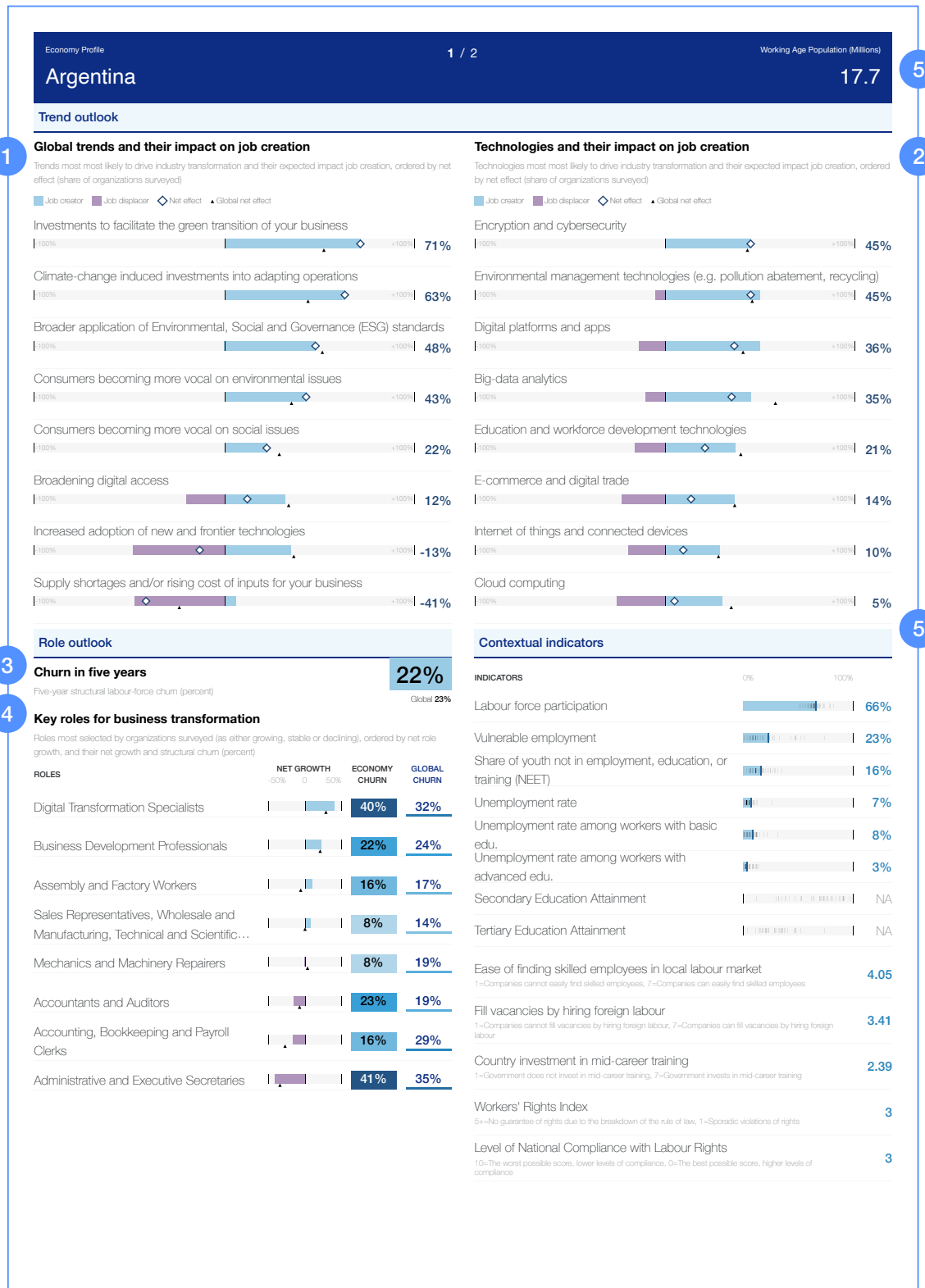
# User Guide

## Economy, Industry, Region and Skill Profiles

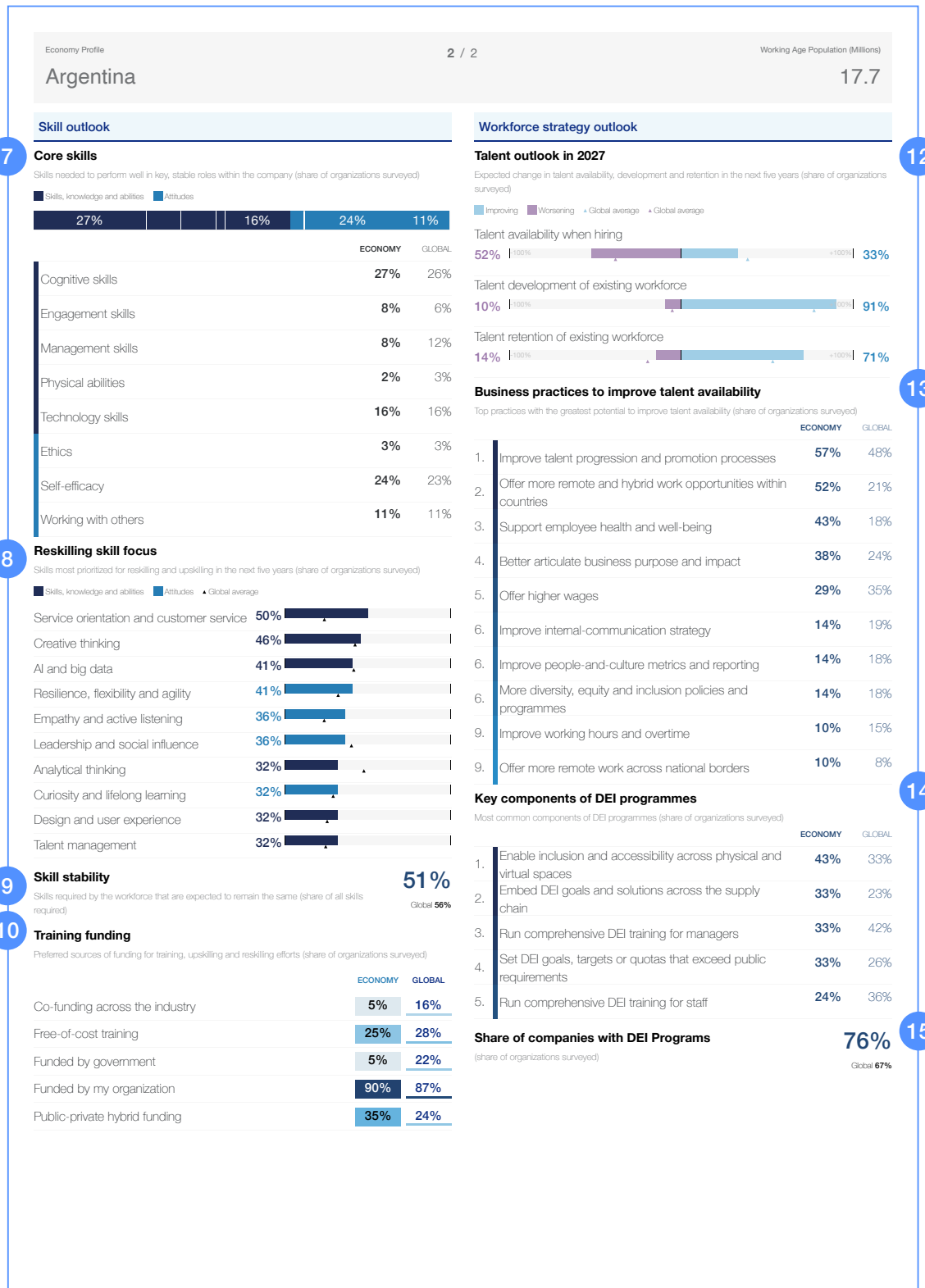
Economy, Industry, Region and Skill Profiles present data findings through these respective lenses, with the aim of providing specific practical information to decision-makers and experts in academia, business, government and civil society. Complementing the cross-industry and cross-economy analysis of results in the report, this section provides deeper granularity for given industries and economies through dedicated Profiles. Economy, Region and Industry Profiles provide interested companies and policy-

makers with the opportunity to benchmark their organization against the range of expectations prevalent in their industry, economy and/or region, whereas the Skill Profiles provide deeper insights for organizations' reskilling, upskilling and training initiatives, and inspiration for workers seeking to develop or describe their skill sets. The User Guide provides an overview of the information contained in the various Profiles and their appropriate interpretation.

# Economy Profiles



# Economy Profiles



### 8 Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)

Skills, knowledge and abilities

Attitudes

 Global average

Service orientation and customer service	50%
Creative thinking	46%
AI and big data	41%
Resilience, flexibility and agility	41%
Empathy and active listening	36%
Leadership and social influence	36%
Analytical thinking	32%
Curiosity and lifelong learning	32%
Design and user experience	32%
Talent management	32%

### 9 Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

51%

Global 56%

### 10 Training funding

Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)

	ECONOMY	GLOBAL
Co-funding across the industry	5%	16%
Free-of-cost training	25%	28%
Funded by government	5%	22%
Funded by my organization	90%	87%
Public-private hybrid funding	35%	24%

### 14 Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	ECONOMY	GLOBAL
1. Enable inclusion and accessibility across physical and virtual spaces	43%	33%
2. Embed DEI goals and solutions across the supply chain	33%	23%
3. Run comprehensive DEI training for managers	33%	42%
4. Set DEI goals, targets or quotas that exceed public requirements	33%	26%
5. Run comprehensive DEI training for staff	24%	36%

### 15 Share of companies with DEI Programs

(share of organizations surveyed)

76%

Global 67%

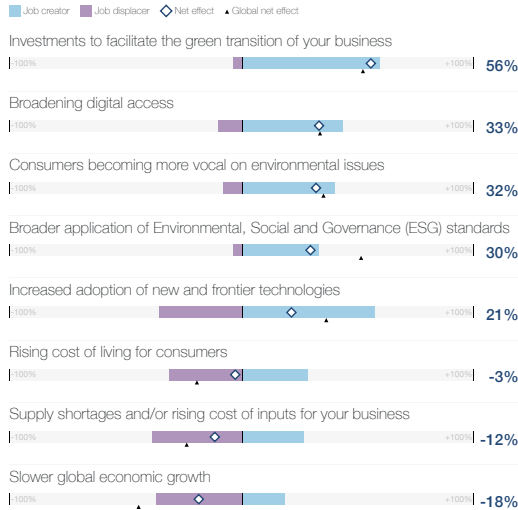
# Industry Profiles

## Trend outlook

1

### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact on job creation, ordered by net effect (share of organizations surveyed)



3

### Churn in five years

Five-year structural labour-force churn (percent)

16%

Global 23%

4

### Key roles for business transformation

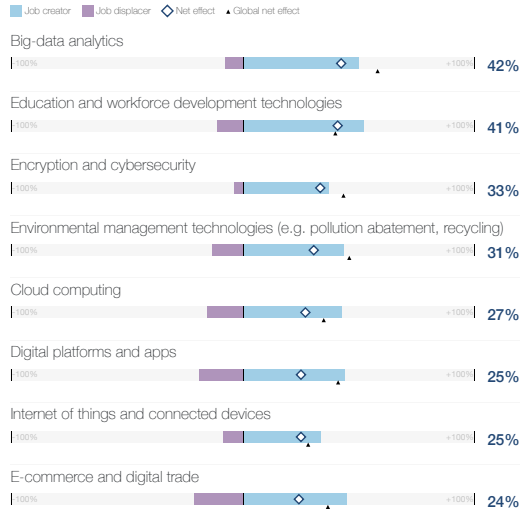
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)

ROLES	NET GROWTH	INDUSTRY CHURN	GLOBAL CHURN
Business Development Professionals	21%	21%	24%
General and Operations Managers	19%	19%	14%
Client Information and Customer Service Workers	26%	26%	20%
Hotel and Restaurant Managers	13%	13%	9%
Chefs and Cooks	8%	8%	9%
Waiters and Bartenders	8%	8%	9%
Business Services and Administration Managers	18%	18%	22%
Event Managers	20%	20%	18%
Food Preparation Assistants	13%	13%	16%
Concierges and Hotel Desk Clerks	9%	9%	28%
Accounting, Bookkeeping and Payroll Clerks	25%	25%	29%
Administrative and Executive Secretaries	23%	23%	35%

5

### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact on job creation, ordered by net effect (share of organizations surveyed)

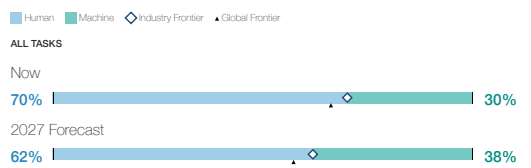


2

### Human-machine frontier

#### Human-machine frontier

Tasks performed by humans and machines today and in 2027 (share of total)

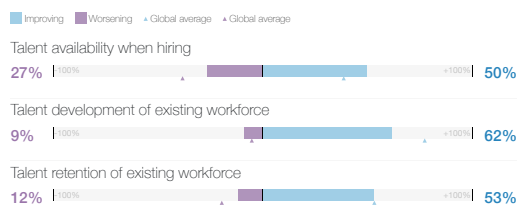


6

### Workforce strategy outlook

#### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



12

# Industry Profiles

Industry Profile

2 / 2

Global Employee (millions, ILO estimates)

## Accommodation, Food, and Leisure

18.6

### Skill outlook

7

#### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

■ Skills, knowledge and abilities ■ Attitudes

	INDUSTRY	GLOBAL
Cognitive skills	25%	26%
Engagement skills	11%	6%
Management skills	16%	12%
Physical abilities	4%	3%
Technology skills	11%	16%
Ethics	2%	3%
Self-efficacy	19%	23%
Working with others	12%	11%

8

#### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)

■ Skills, knowledge and abilities ■ Attitudes ▲ Global average

Creative thinking	52%
Analytical thinking	39%
Leadership and social influence	36%
Marketing and media	30%
Resource management and operations	30%
Service orientation and customer service	27%
Empathy and active listening	24%
Environmental stewardship	24%
Multi-lingualism	24%
Quality control	24%

9

#### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

62%  
Global 56%

11

#### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)

ROLES	INDUSTRY	GLOBAL
Employer-sponsored apprenticeships	17%	15%
Internal training departments	27%	24%
Licensed training from professional associations	13%	13%
On-the-job training and coaching	28%	27%
Private-sector online-learning platforms	8%	12%
Universities and other educational institutions	5%	10%

### Workforce strategy outlook

13

#### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Offer higher wages	35%	35%
2. Better articulate business purpose and impact	32%	24%
2. Improve talent progression and promotion processes	32%	48%
4. Improve internal-communication strategy	29%	19%
5. Improve people-and-culture metrics and reporting	27%	18%
5. Provide effective reskilling and upskilling	27%	34%
7. Improve safety in the workplace	18%	8%
7. Tapping into diverse talent pools	18%	10%
9. Improve working hours and overtime	12%	15%
9. Offer more remote and hybrid work opportunities within countries	12%	21%

14

#### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Run comprehensive DEI training for managers	36%	42%
2. Run comprehensive DEI training for staff	36%	36%
3. Provide greater flexibility on degree requirements for roles	33%	22%
4. Embed DEI goals and solutions across the supply chain	27%	23%
5. Offer greater flexibility on education requirements to recruit from various backgrounds	27%	24%
6. Recruit a DEI Officer	27%	12%
7. Set DEI goals, targets or quotas that exceed public requirements	27%	26%

15

#### Share of companies with DEI Programs

(share of organizations surveyed)

64%  
Global 67%

# Region Profiles

Region Profile

1 / 2

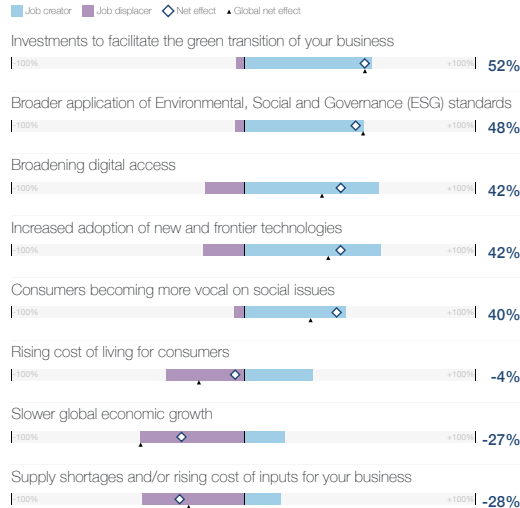
## Central Asia

### Trend outlook

1

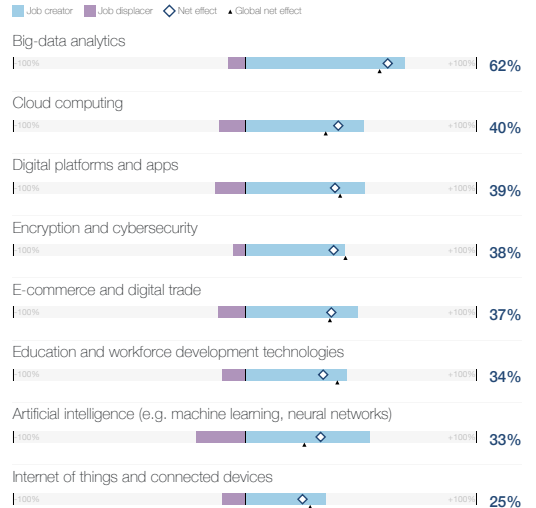
#### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact on job creation, ordered by net effect (share of organizations surveyed)



#### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact on job creation, ordered by net effect (share of organizations surveyed)



2

3

### Role outlook

#### Churn in five years

Five-year structural labour-force churn (percent)

25%

Global 23%

4

#### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)

ROLES	NET GROWTH	REGION CHURN	GLOBAL CHURN
Business Intelligence Analysts	47%	47%	35%
Data Analysts and Scientists	24%	24%	34%
Project Managers	28%	28%	25%
General and Operations Managers	8%	8%	14%
Assembly and Factory Workers	14%	14%	17%
Business Services and Administration Managers	26%	26%	22%
Accountants and Auditors	31%	31%	19%
Administrative and Executive Secretaries	23%	23%	35%
Data Entry Clerks	51%	51%	42%
Accounting, Bookkeeping and Payroll Clerks	46%	46%	29%

### Skill outlook

#### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

	26%	12%	18%	21%	11%
	REGION	GLOBAL			
Cognitive skills	26%	26%			
Engagement skills	6%	6%			
Management skills	12%	12%			
Physical abilities	3%	3%			
Technology skills	18%	16%			
Ethics	3%	3%			
Self-efficacy	21%	23%			
Working with others	11%	11%			

7

# Region Profiles

Region Profile

2 / 2

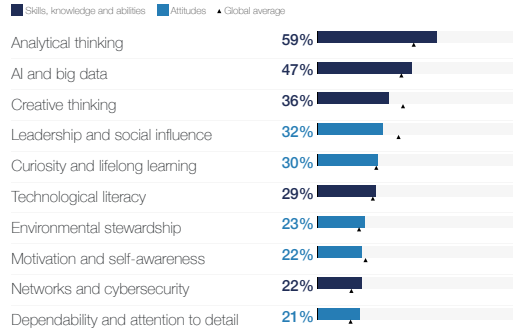
## Central Asia

### Skill outlook

8

#### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



9

#### Skill stability

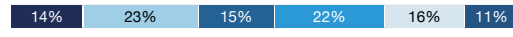
Skills required by the workforce that are expected to remain the same (share of all skills required)

53%  
Global 56%

10

#### Training type

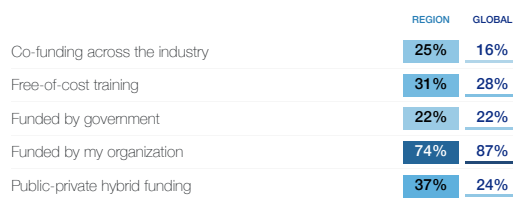
Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



11

#### Training funding

Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)

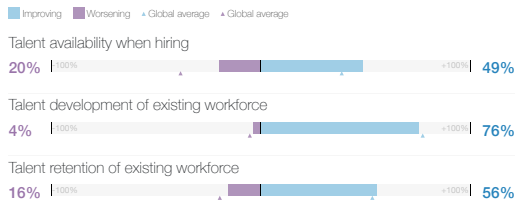


### Workforce strategy outlook

12

#### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



13

#### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

Practice	Industry	Global
1. Offer higher wages	48%	35%
2. Improve talent progression and promotion processes	46%	48%
3. Provide effective reskilling and upskilling	29%	34%
4. Improve working hours and overtime	22%	15%
5. Improve internal-communication strategy	19%	19%
6. Improve people-and-culture metrics and reporting	18%	18%
6. Support employee health and well-being	18%	18%
8. Offer more remote and hybrid work opportunities within countries	17%	21%
9. More diversity, equity and inclusion policies and programmes	17%	18%
10. Improve safety in the workplace	16%	8%

14

#### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

Component	Region	Global
1. Run comprehensive DEI training for managers	35%	42%
2. Run comprehensive DEI training for staff	32%	36%
3. Enable inclusion and accessibility across physical and virtual spaces	31%	33%
4. Embed DEI goals and solutions across the supply chain	23%	23%

15

#### Share of companies with DEI Programs

(share of organizations surveyed)

53%  
Global 67%

## 1. Global trends and their impact on job creation

This bar chart shows the effect on job creation of the global trends that have been identified by most respondents as driving the transformation of their organization. It is based on the responses to the question, “Regarding the macro trends likely or highly likely to drive transformation in your organization, what is their expected impact on job creation in your organization?” of surveyed companies that operate in the respective economy or region, compared with the global average. Net effect is calculated by the share of respondents who view a trend as a net job creator minus the share of respondents who view a trend as a net job displacer.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

---

## 2. Technologies and their impact on job creation

This bar chart shows the effect on job creation of the technologies that have been identified by most respondents as likely to be adopted by their organization. It is based on the responses to the question, “Regarding the technologies likely or highly likely to be adopted in your organization, what is their expected impact on job creation in your organization?” of surveyed companies that operate in the respective economy or region, compared with the global average. Net effect is calculated by the share of respondents who view a technology as a net job creator, minus the share of respondents who view a technology as a net job displacer.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

---

## 3. Churn in five years

This is the five-year structural labour-market churn of surveyed companies that operate in the respective economy or region. Labour-market churn refers to the pace of reallocation of workers and jobs. Structural churn does not take into account the natural churn of workers moving between jobs for personal reasons. For additional details on the calculation of this indicator, please refer to the Methodology section.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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## 4. Top roles for industry transformation

This table provides an overview of the top roles for industry transformation from now until 2027. The list reports the roles that have been selected most often as growing, stable or declining in the next five years by surveyed companies that operate in the respective economy or region, compared with the global average. Net growth is calculated based on the respondent-reported role proportion in the organization now and in 2027.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

---

## 5. Contextual indicators:

This section provides the reader with the latest available data from contextual indicators on an economy’s labour market.

### Working-age population

The total working age population is displayed in the top right corner of the page. The working-age population is the number of people aged 25 and over. In addition to using a minimum age threshold, certain countries also apply a maximum age limit.

**Period:** 2018 or latest available data (accessed March 2023)

**Source:** International Labour Organization, *ILOSTAT*

---

### Wage and salaried workers in sectors (millions)

World Economic Forum’s calculation based on ILO’s estimates of sectoral employment for 41 ISIC sectors and on the World Economic Forum’s Industry Taxonomy (see Appendix Table A1). Wage and salaried workers (employees) are those workers who hold the type of jobs defined as “paid employment jobs,” where the incumbents hold explicit (written or oral) or implicit employment contracts that give them a basic remuneration that is not directly dependent upon the revenue of the unit for which they work.

**Period:** 2021

**Source:** World Economic Forum’s calculation based on ILO modelled estimates

---

### Labour-force participation

The labour-force participation rate is the labour force as a percentage of the working-age population. The labour force is the sum of all persons of working age who are employed and those who are unemployed. .

**Period:** 2018 or latest available data (accessed March 2023)

**Source:** International Labour Organization, *ILOSTAT*

---

### **Youth not in employment, education, or training (NEET)**

This indicator refers to the proportion of youth who are not in employment and not in education or training (ILO modelled estimates). Youth not in education are those who were neither enrolled in school nor in a formal training program (e.g. vocational training).

**Period:** 2018 or latest available data (accessed March 2023)

**Source:** International Labour Organization, *ILOSTAT*

---

### **Unemployment**

The unemployment rate is the number of persons who are unemployed as a percentage of the labour force (i.e. the employed plus the unemployed).

**Period:** 2018 or latest available data (accessed March 2023)

**Source:** International Labour Organization, *ILOSTAT*

---

### **Unemployment among workers with basic and advanced education**

The unemployment rate is the number of persons who are unemployed as a percent of the labour force (i.e. the employed plus the unemployed). Data disaggregated by level of education is provided on the highest level of education completed, classified according to the International Standard Classification of Education (ISCED).

**Period:** 2018 or latest available data (accessed March 2023)

**Source:** International Labour Organization, *ILOSTAT*

---

### **National compliance with labour rights**

This indicator seeks to measure the level of national compliance with fundamental labour rights (freedom of association and collective bargaining or FACB). It has a range from 0 to 10, with 0 being the best possible score (indicating higher levels of compliance with FACB rights) and 10 the worst (indicating lower levels of compliance with FACB rights).

**Period:** 2018 or latest available data (accessed March 2023)

**Source:** International Labour Organization, *ILOSTAT*

---

### **Vulnerable employment**

Vulnerable employment (male and female) as a share of total employment). Vulnerable employment includes contributing family workers and own-account workers as a percentage of total employment.

**Period:** 2018 or latest available data (accessed

March 2023)

**Source:** World Bank, *World Development Indicators* database. Estimates are based on data obtained from International Labour Organization, *ILOSTAT*.

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### **Workers' Rights**

The ITUC Global Rights Index seeks to measure the level of protection of workers' rights across 139 countries on a scale from 1-5. Workers' rights are absent in countries with a rating of 5+ and violations occur on an irregular basis in countries with a rating of 1.

**Period:** 2022.

**Source:** International Trade Union Confederation, Workers' Rights Index.

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### **Country investment in mid-career training**

Score computed based on the average response of companies operating in this country to the question "In your country, to what extent does government invest in mid-career reskilling and upskilling opportunities?" 1=Government does not invest in mid-career training, 7=Government invests in mid-career training.

**Period:** 2021–2022 weighted average

**Source:** World Economic Forum, Executive Opinion Survey

---

### **Ease of finding skilled employees in local labour market**

Score computed based on the average response of companies operating in this country to the question "In your country, to what extent can companies find people with the skills required to fill their vacancies in the local labour market?" 1=Companies cannot easily find skilled employees, 7=Companies can easily find skilled employees.

**Period:** 2021–2022 weighted average

**Source:** World Economic Forum, Executive Opinion Survey

---

### **Fill vacancies by hiring foreign labour**

Score computed based on the average response of companies operating in this country to the question, "In your country, to what extent can companies find people with the skills required to fill their vacancies by hiring foreign labour?" 1=Companies cannot fill vacancies by hiring foreign labour, 7=Companies can fill vacancies by hiring foreign labour.

**Period:** 2021–2022 weighted average

**Source:** World Economic Forum, Executive Opinion Survey

---

## 6. Human-machine frontier

This bar chart shows the share of tasks performed by humans and machines today and in 2027, based on responses to “Currently/In five years, what proportion of time spent doing the following tasks in your organization cannot be automated (that is, performed by machines and algorithms) and is thus spent by your human workforce performing the task?”.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

---

## 7. Core skills

This bar and table estimate the relative importance of eight groups of skills for companies. It is based on responses by the companies that operate in the respective economy or region to the the question, “What are the core skills workers currently need to perform well in the key roles with a stable outlook?”, where respondents are able to select all the level-3 skills in the Global Skills Taxonomy that apply. The relative importance of each skill is calculated as a share of the total number of skills selected by each respondent, and averaged across all respondents. For example, a skill is assigned a share of 100% if it is the only one selected by a respondent, or 25% if it one of the four skills selected by the respondent.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

---

## 8. Reskilling skill focus

This bar chart shows the share of surveyed companies that operate in the respective economy or region that selects a particular level-3 skill in the Global Skills Taxonomy, based on responses to the question, “Keeping in mind your current strategic direction, please select the skill clusters on which you are focusing your organization’s reskilling and upskilling efforts in the next five years”.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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## 9. Skill stability

This is the average of estimates of surveyed companies that operate in the respective economy or region, based on responses to the question, “What proportion of the core skills required by your workforce will remain the same?”, compared with the global average.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

---

## 10. Training funding

This table shows average proportion of training funding among surveyed companies that operate in the respective economy or region, based on responses to the question, “How will you fund the majority of your training, upskilling and reskilling efforts in your organization?”, compared with the global average.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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## 11. Training type

This bar and table show the average proportion of training type among surveyed companies that operate in the respective economy or region, based on response to the question, “In your future reskilling and upskilling programmes, what proportion of training provision will come from?”, compared with the global average.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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## 12. Talent outlook in 2027

This bar chart shows the share of respondents that operate in the respective economy or region who expect their talent availability when hiring, talent development of existing workforce, and talent retention of existing workforce to improve or worsen in five years, and their net effect of surveyed companies that operate in the respective economy or region, compared with the global average. It is based on the responses to the question, “How would you rate talent availability, development and retention in your organization in the next five years?”. Net effect is calculated by the share of respondents who expect their talent availability to improve or improve significantly, minus the share of respondents who expect their talent availability to worsen or worsen significantly.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

---

### 13. Business practices to improve talent availability

This table shows the share of respondents who agree that the particular business practice has the greatest potential to increase the talent availability. This is based on responses to the question, "Which business practices have the greatest potential to increase the availability of talent to your organization in the next five years?". Global averages are provided for comparison.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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### 14. Key components of DEI programs to improve talent availability

This table shows the share of companies that operate in the respective economy, region or industry that have selected each component of DEI programmes among the those most likely to be key components. This is the result of the question, "What are likely to be the key components your workforce diversity, equity and inclusion (DEI) programme prioritizes in the next five years?".

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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### 15. Share of companies with DEI programs

This is the share of surveyed companies with Diversity, Equity and Inclusion (DEI) programmes that operate in the respective economy or region, compared with the global average. It is based on the share of the respondents who do not select "My organization does not have a DEI programme" for the question, "What are likely to be the key components your workforce diversity, equity and inclusion (DEI) programme priorities in the next five years?".

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

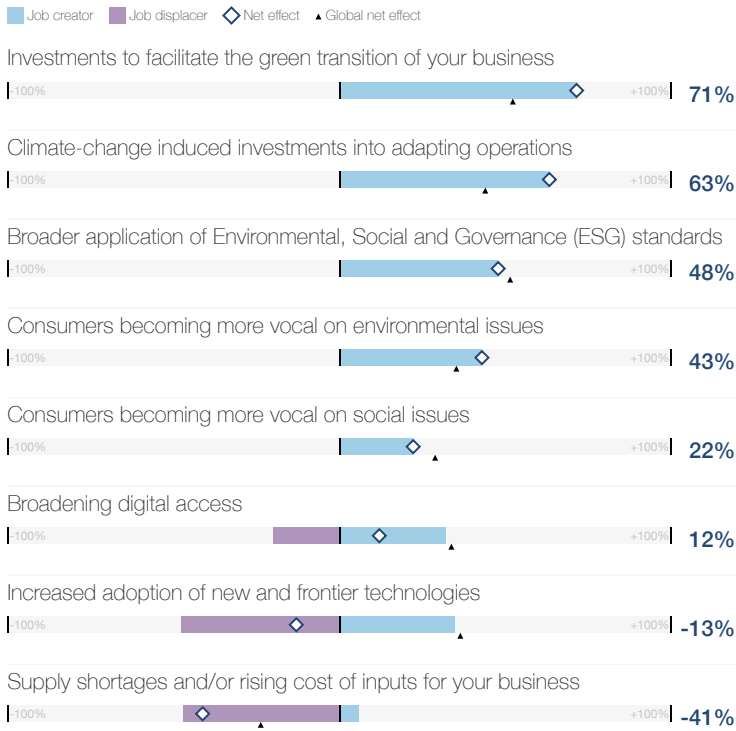


# Economy Profiles

## Trend outlook

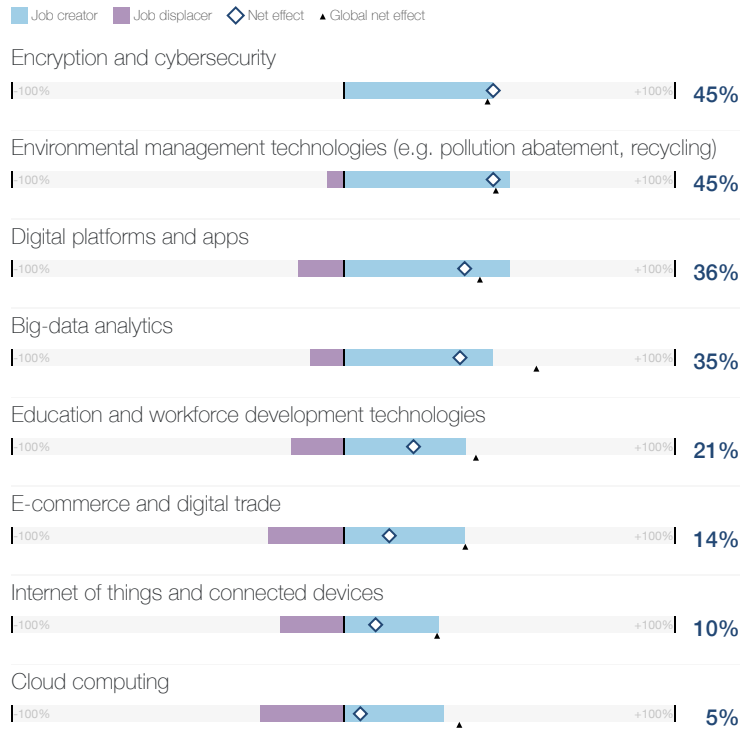
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

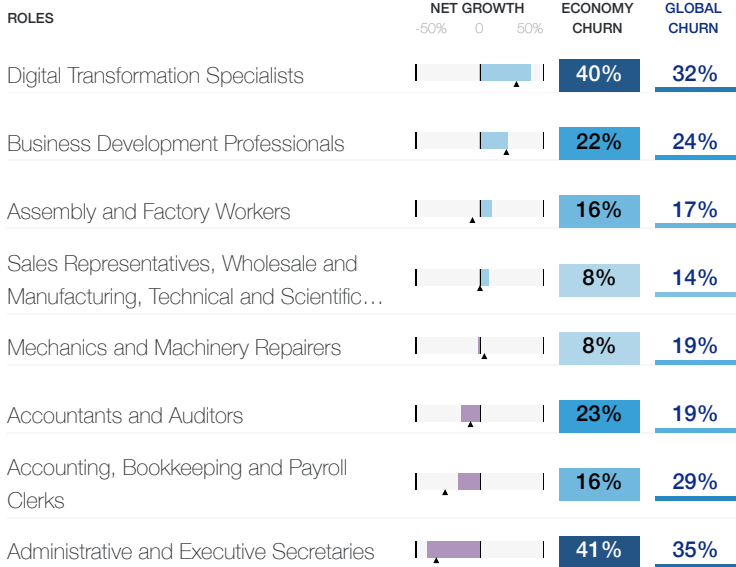
Five-year structural labour-force churn (percent)

**22%**

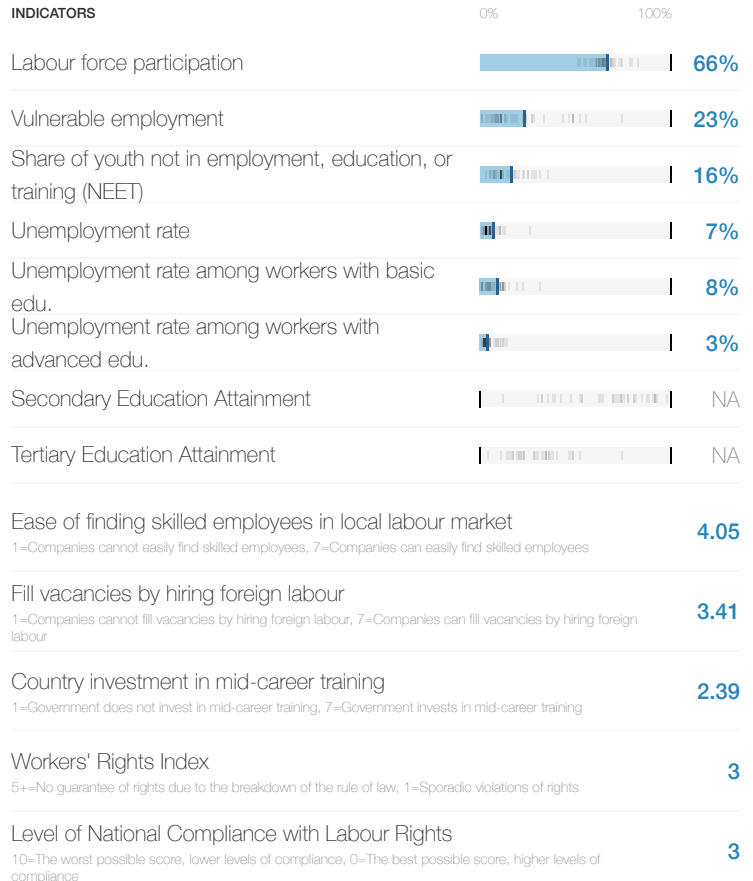
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



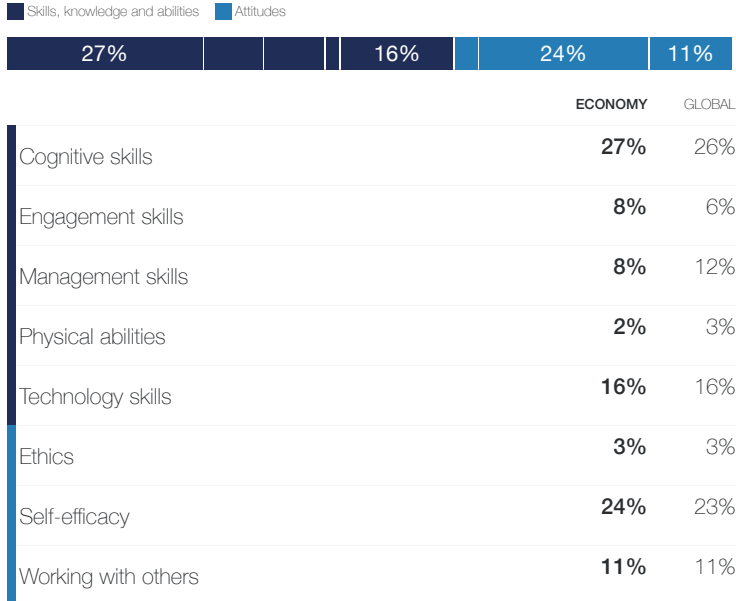
# Argentina

17.7

## Skill outlook

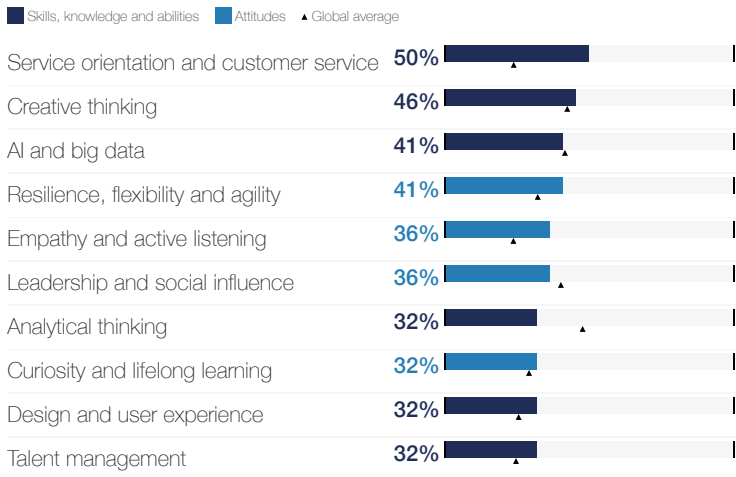
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



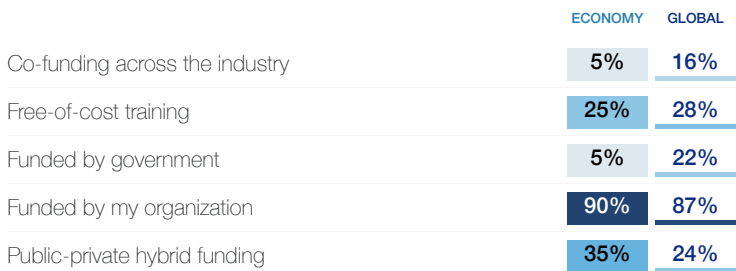
### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

51%  
Global 56%

### Training funding

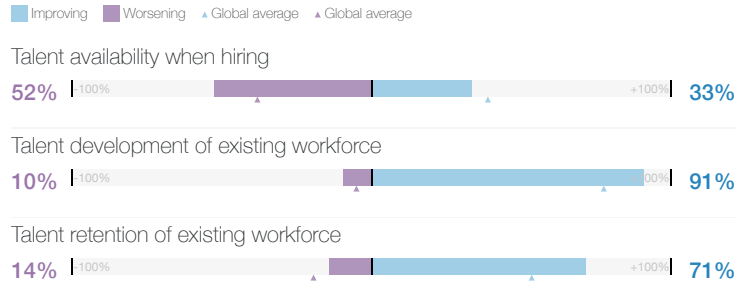
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

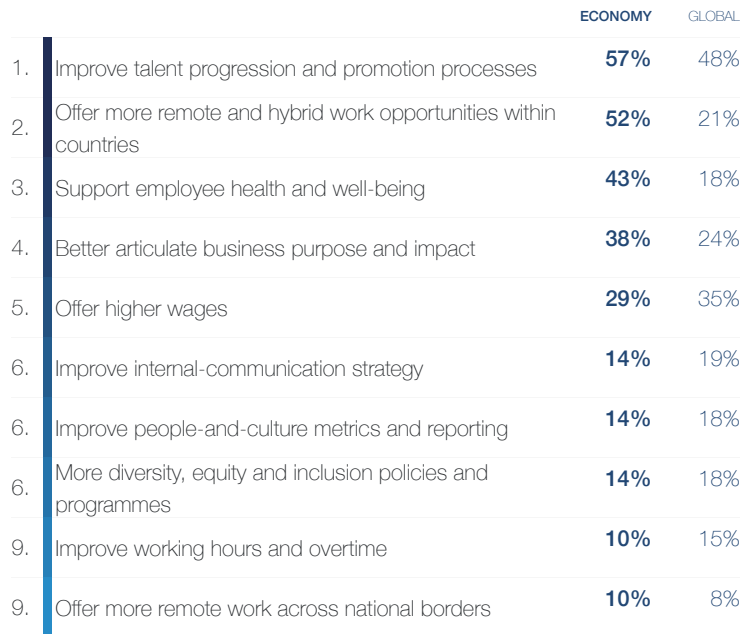
### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



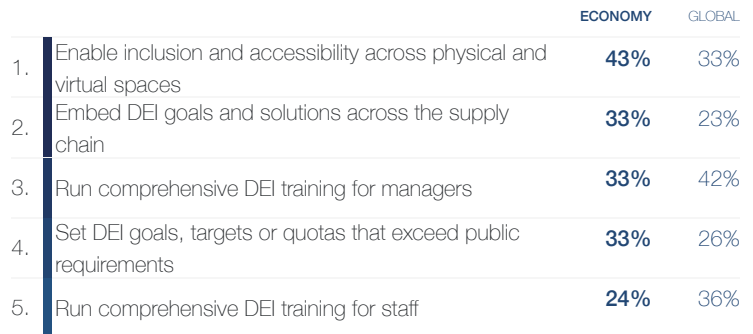
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

76%  
Global 67%

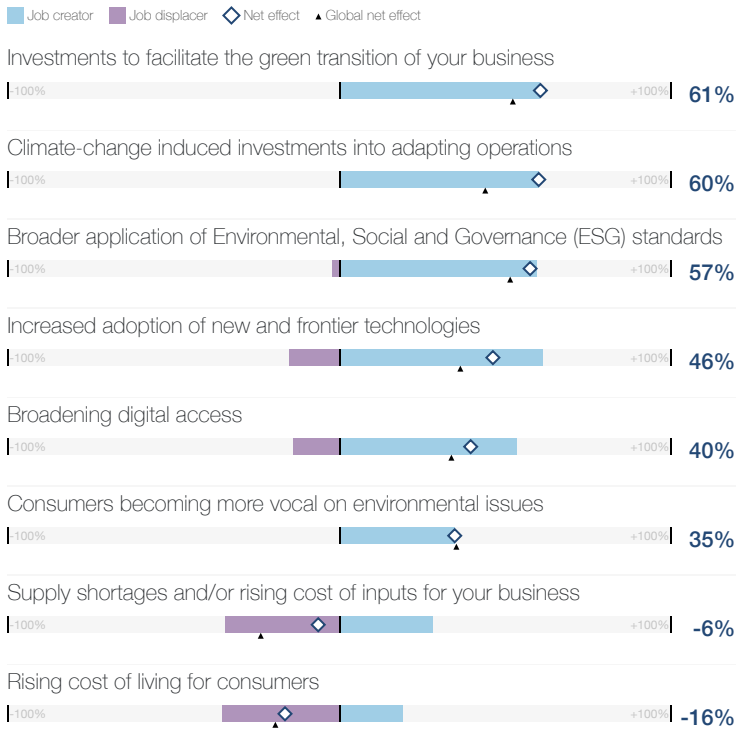
# Australia

17.8

## Trend outlook

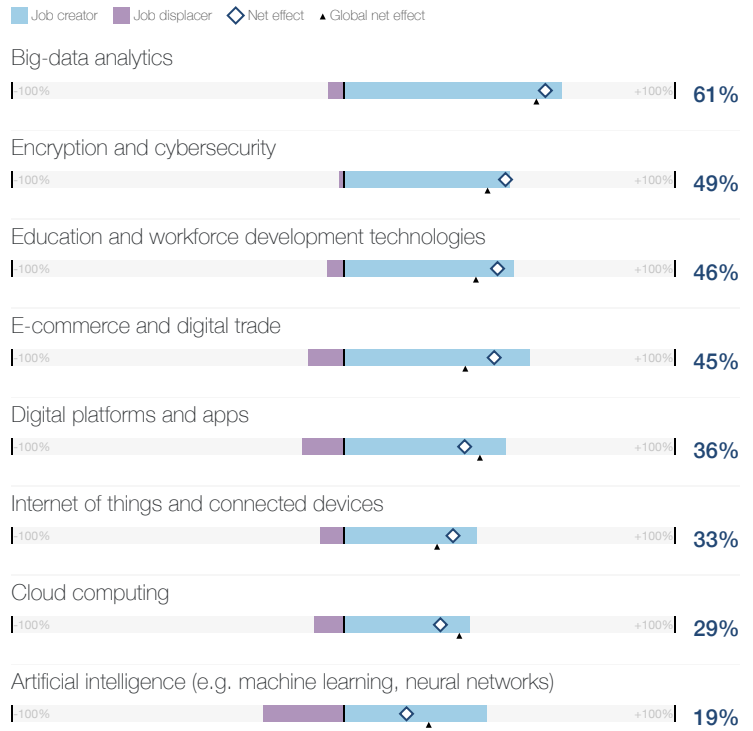
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

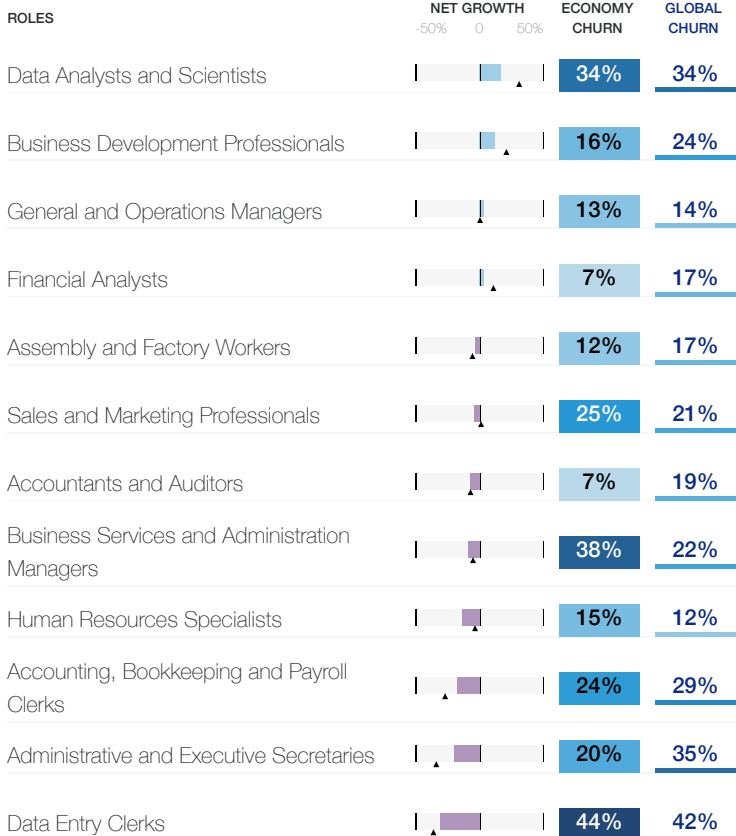
Five-year structural labour-force churn (percent)

21%

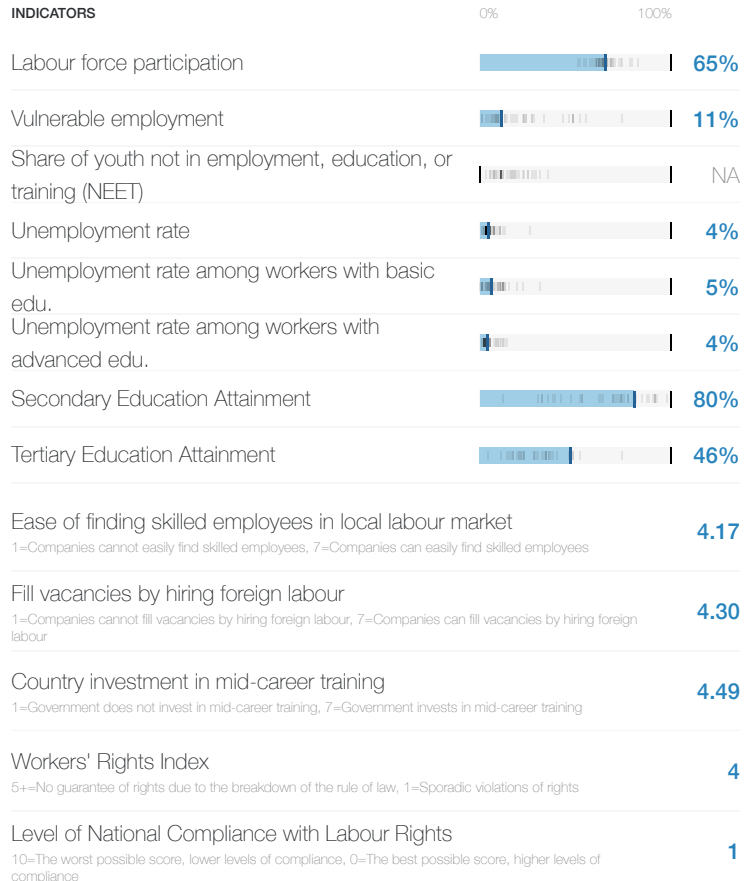
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



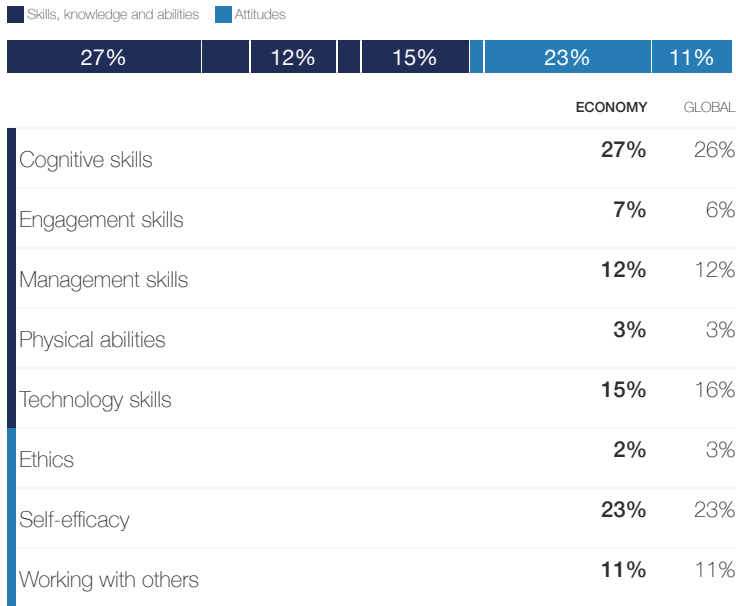
# Australia

17.8

## Skill outlook

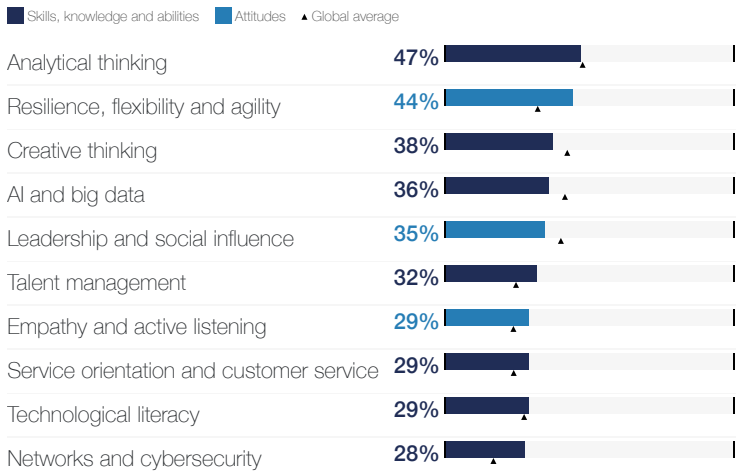
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

60%  
Global 56%

### Training funding

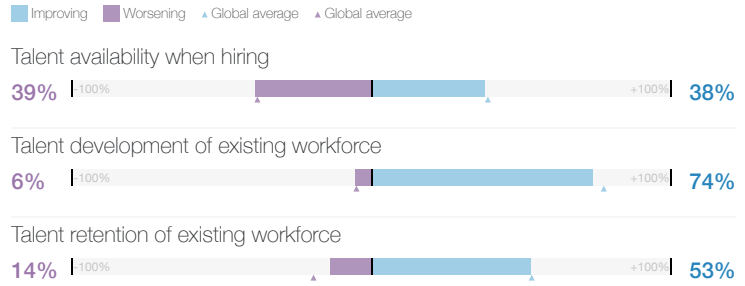
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



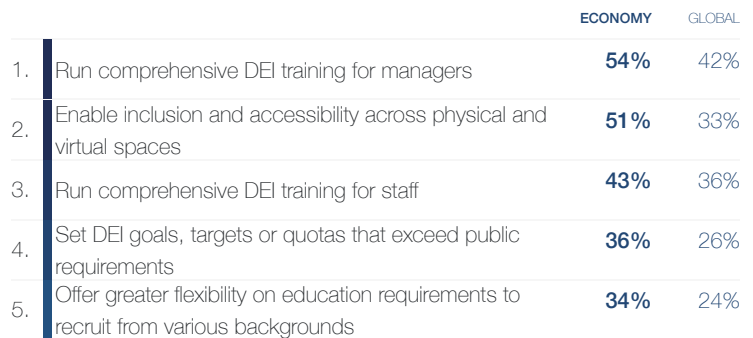
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

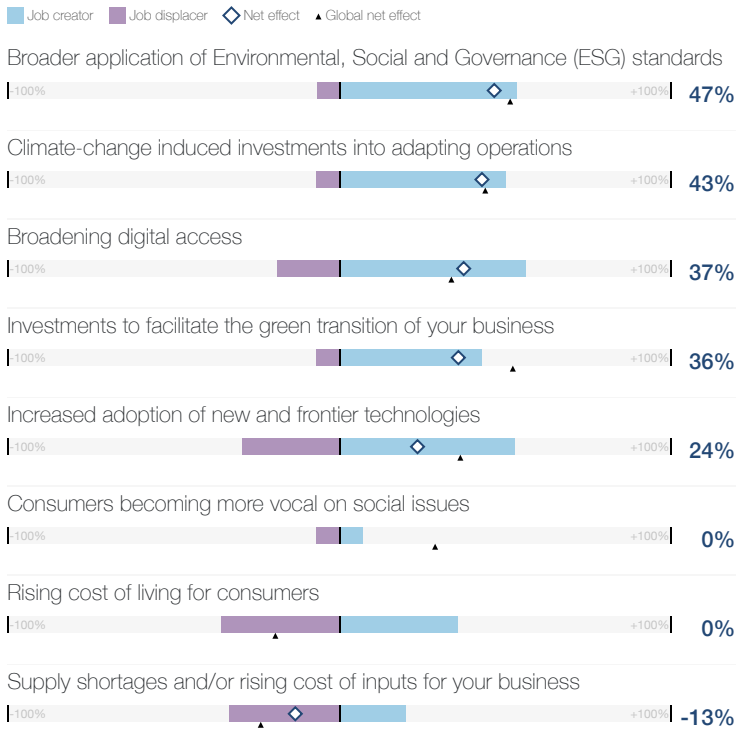
(share of organizations surveyed)

74%  
Global 67%

Trend outlook

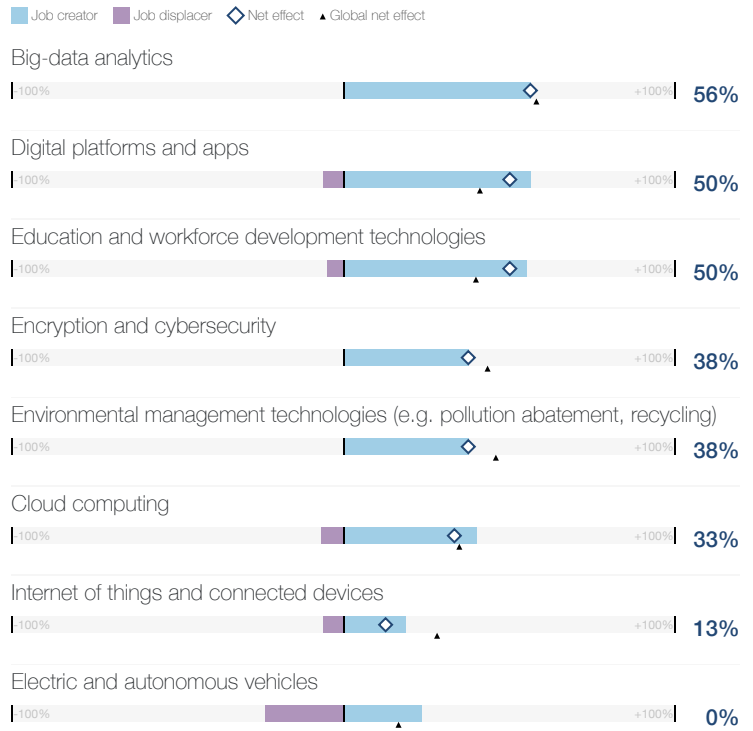
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

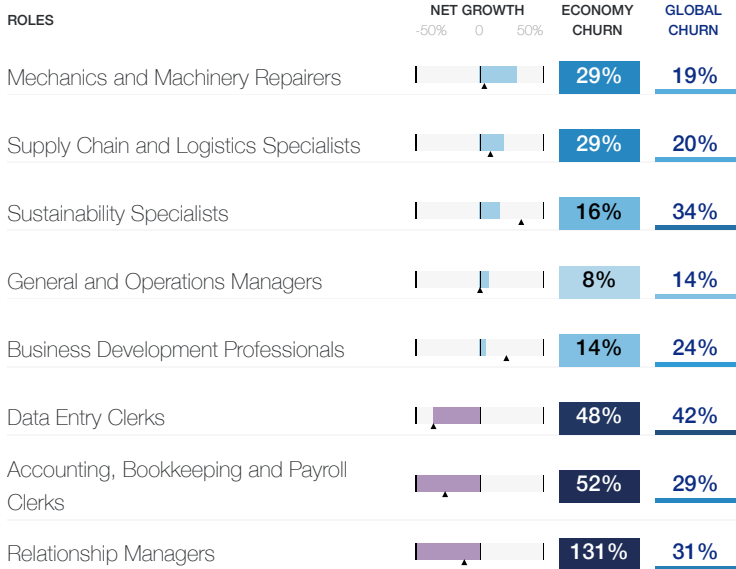
Five-year structural labour-force churn (percent)

19%

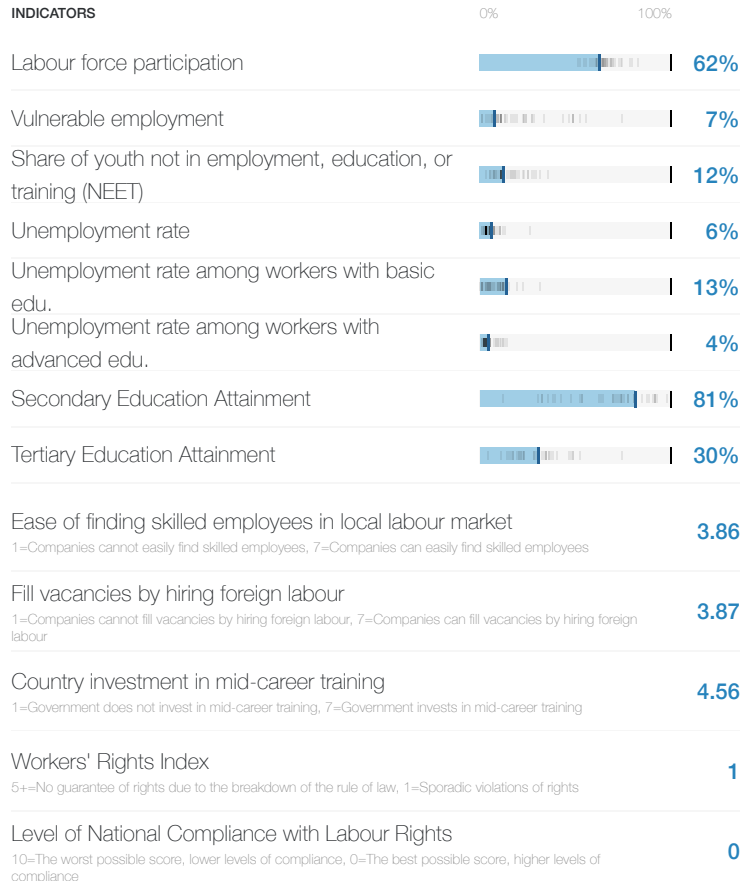
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



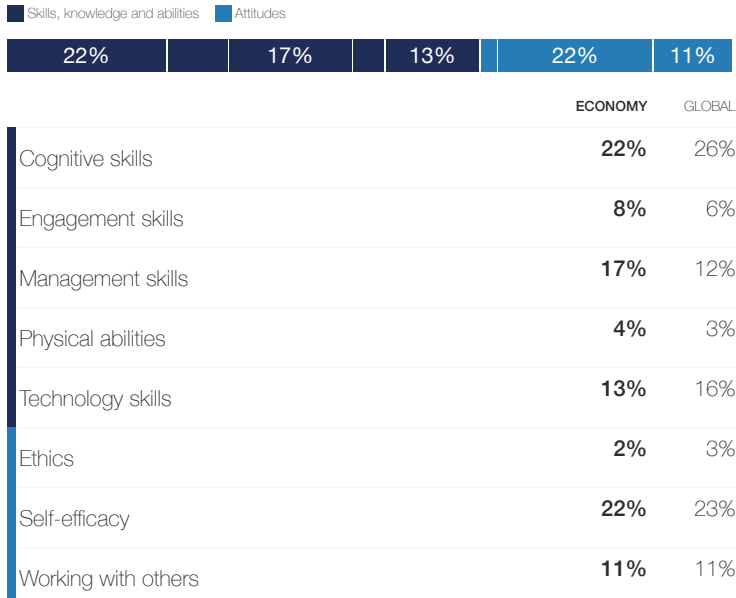
# Austria

6.6

## Skill outlook

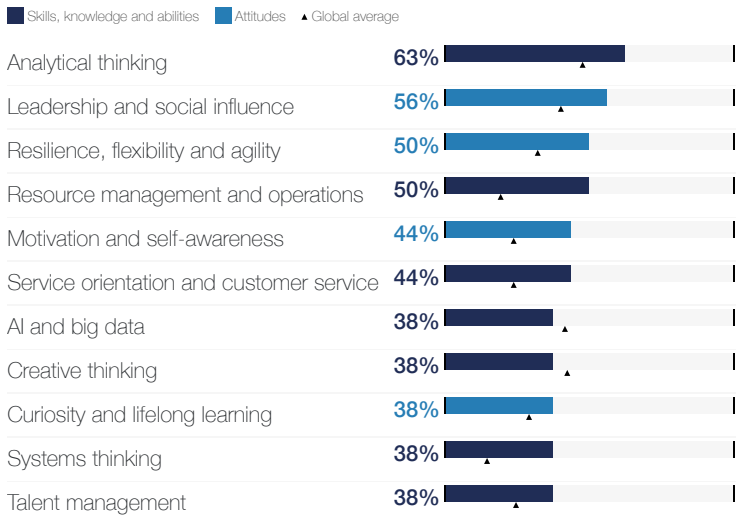
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

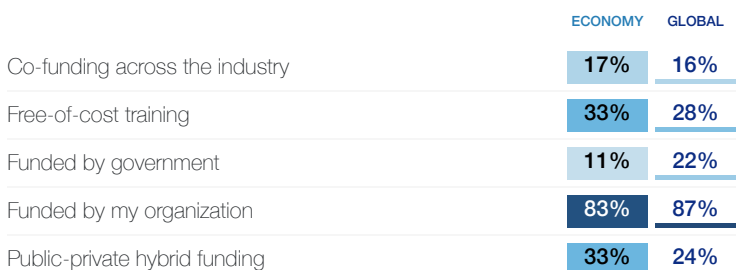
Skills required by the workforce that are expected to remain the same (share of all skills required)

59%

Global 56%

### Training funding

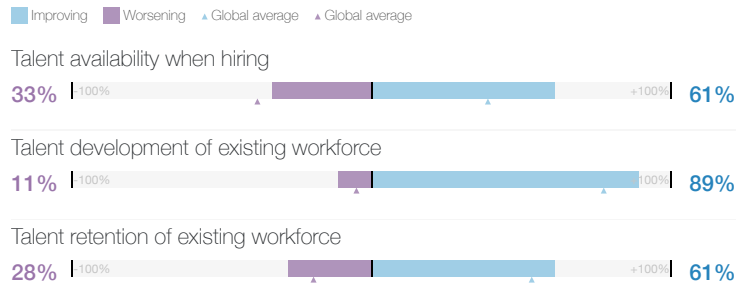
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

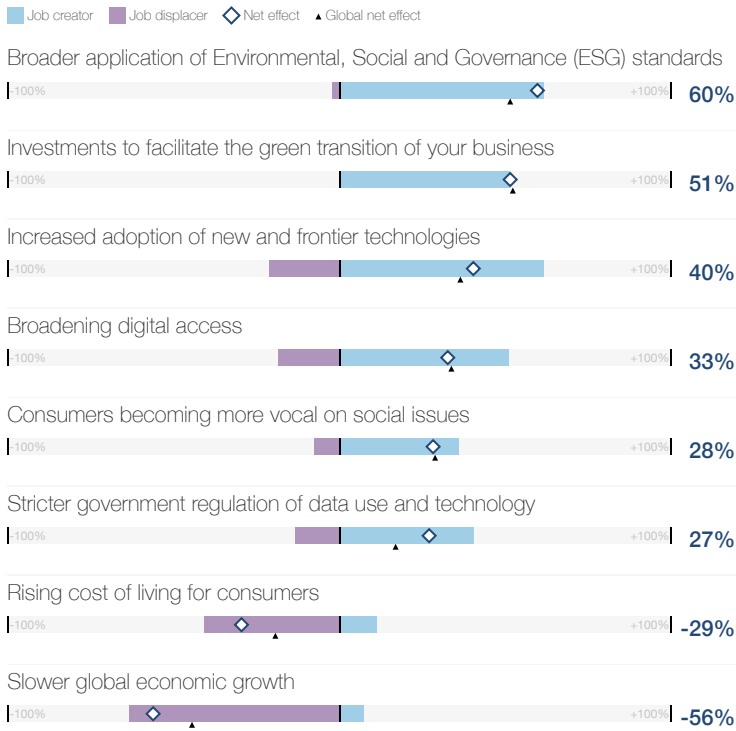
83%

Global 67%

Trend outlook

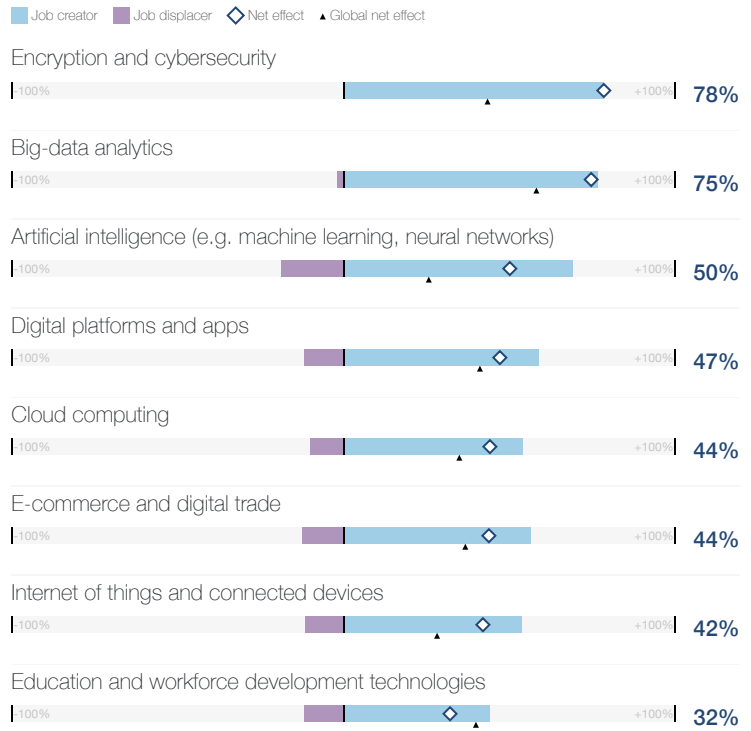
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

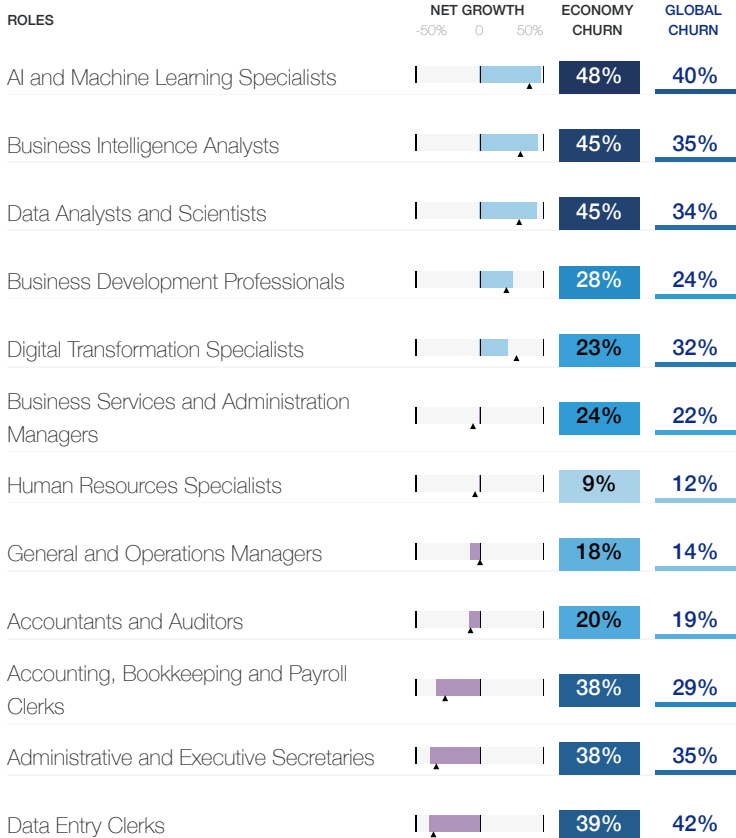
Five-year structural labour-force churn (percent)

26%

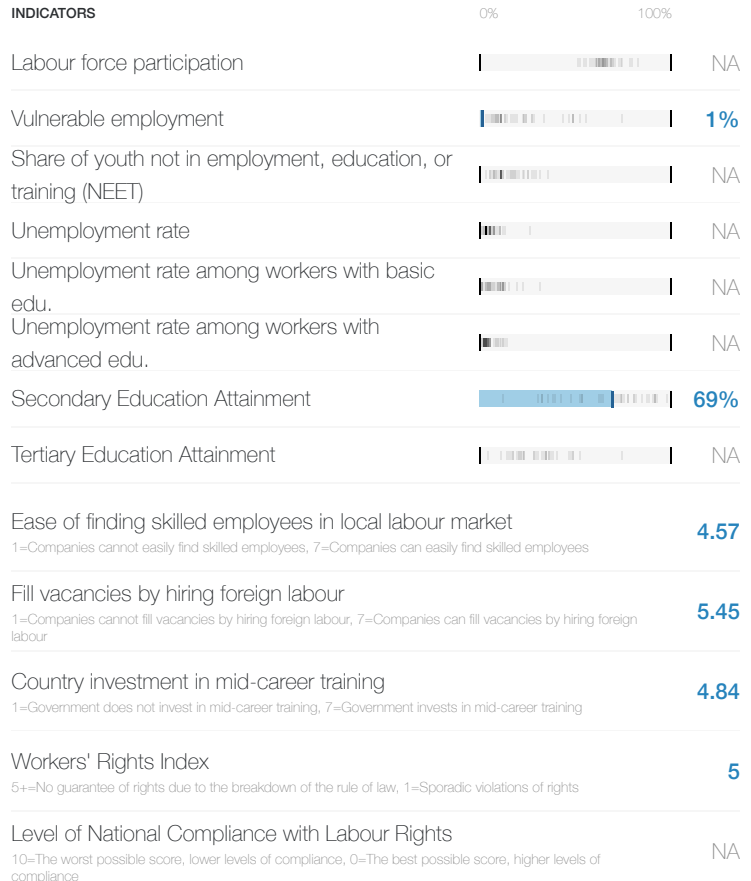
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



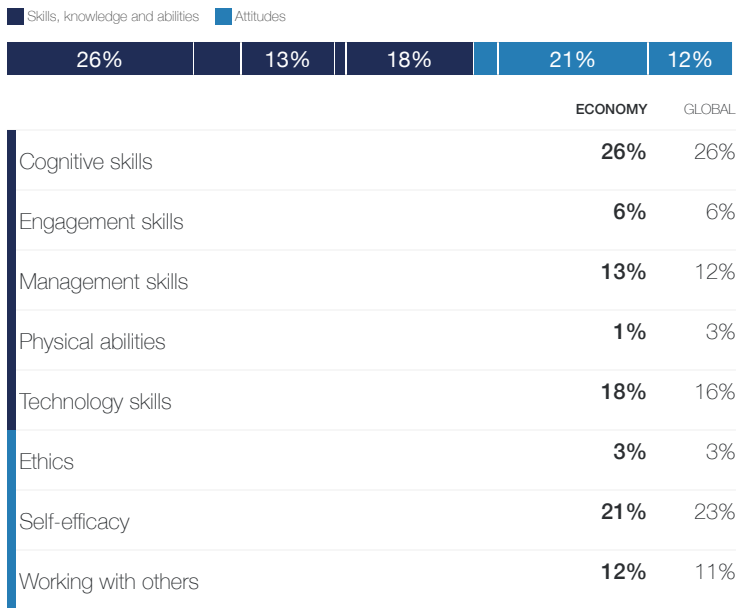
Contextual indicators



## Skill outlook

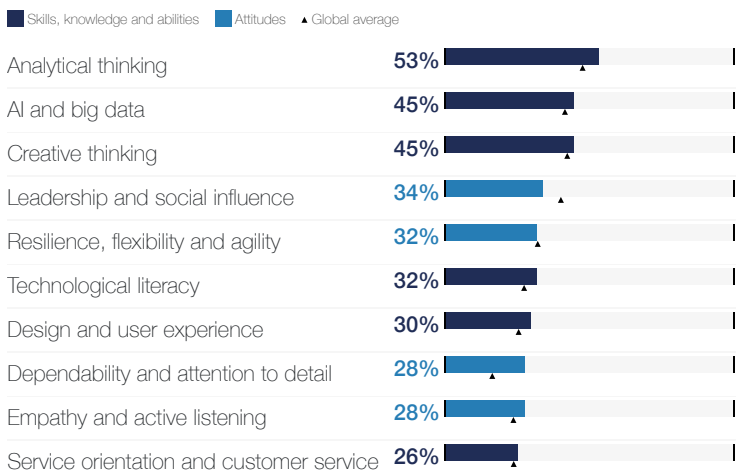
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

**56%**  
Global 56%

### Training funding

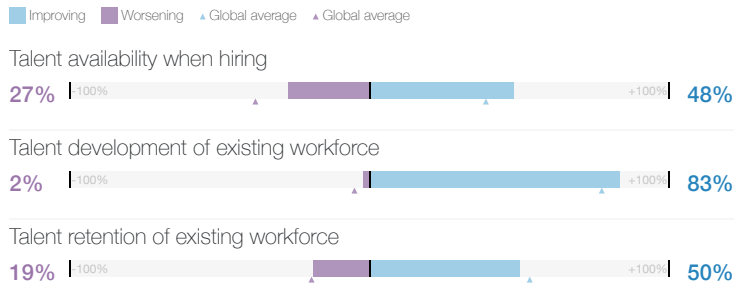
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



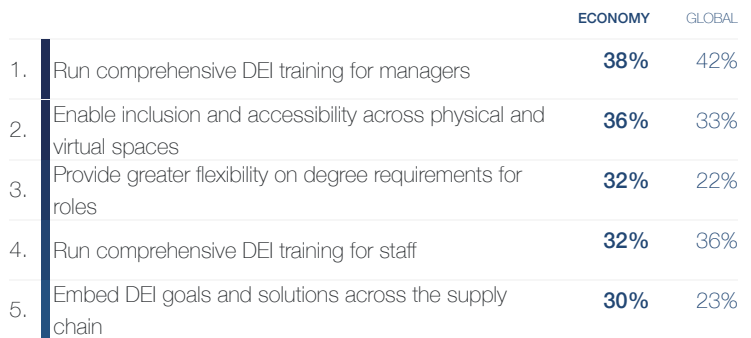
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

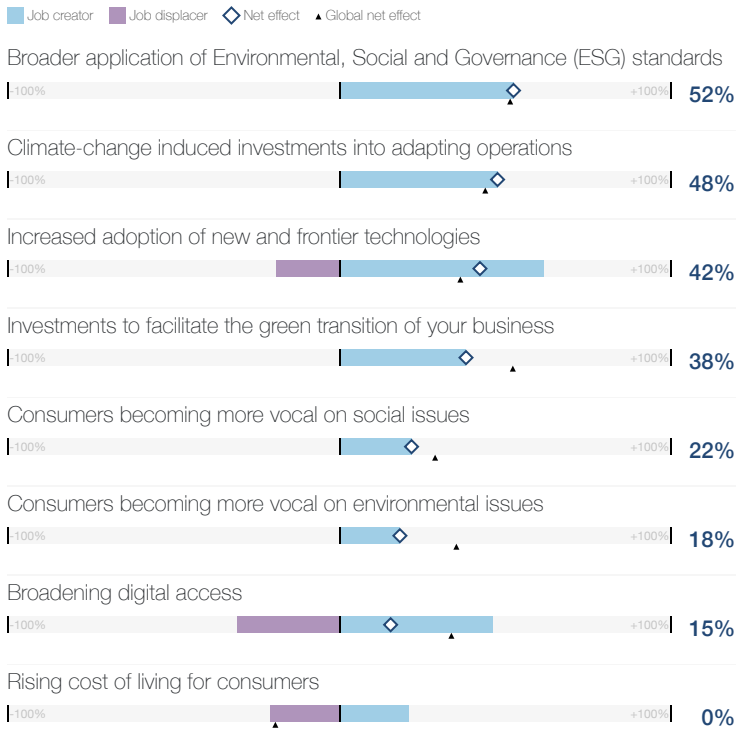
(share of organizations surveyed)

**75%**  
Global 67%

## Trend outlook

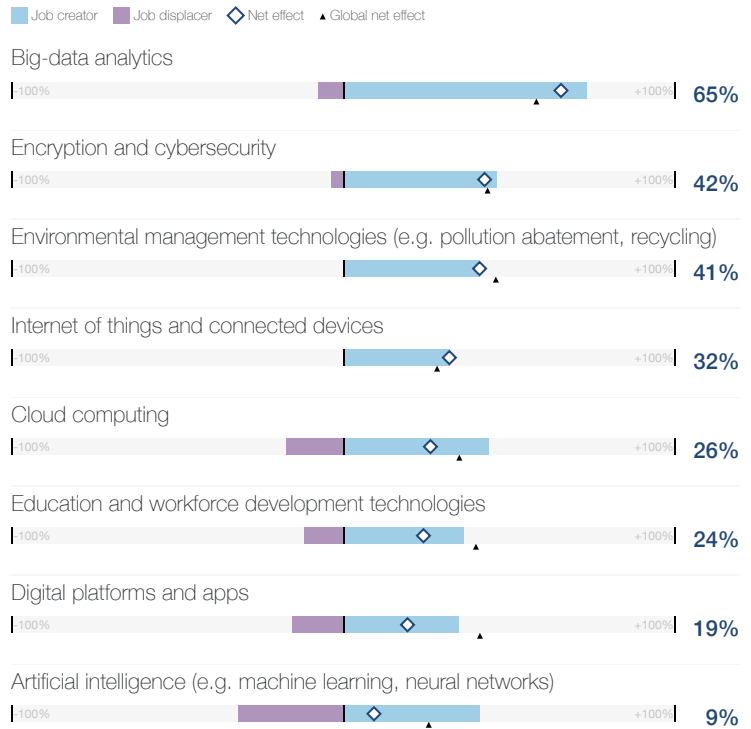
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

**19%**

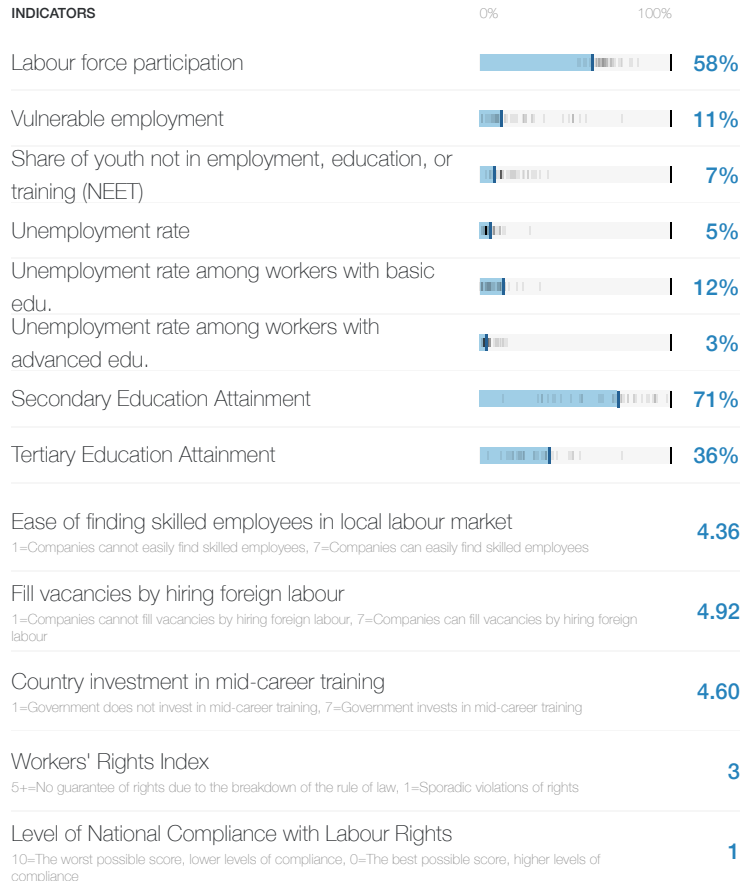
Global **23%**

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



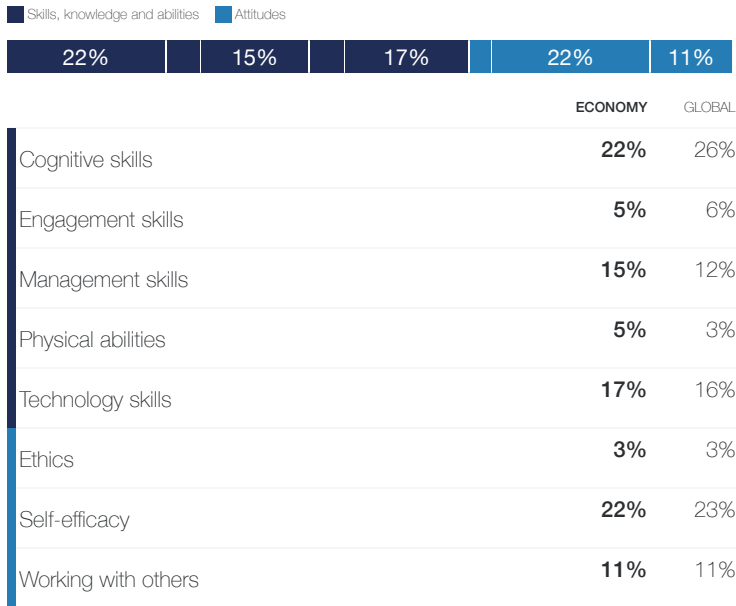
# Belgium

8.2

## Skill outlook

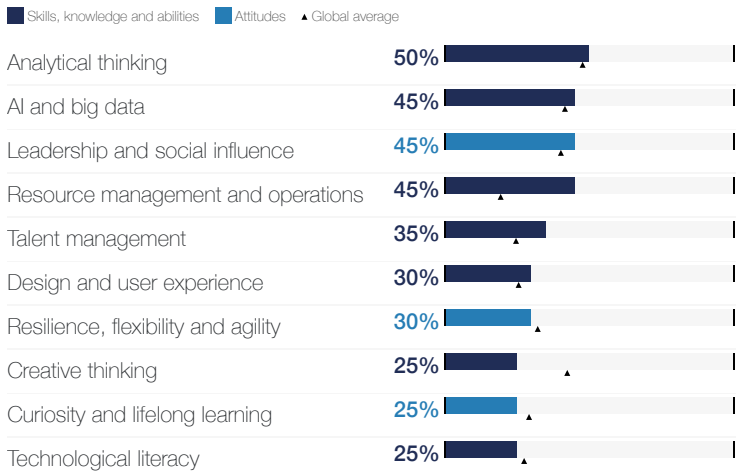
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

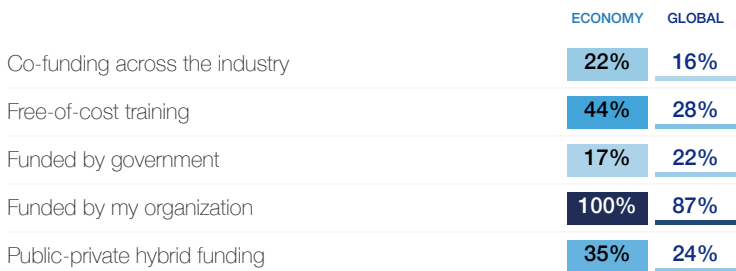
Skills required by the workforce that are expected to remain the same (share of all skills required)

**62%**

Global 56%

### Training funding

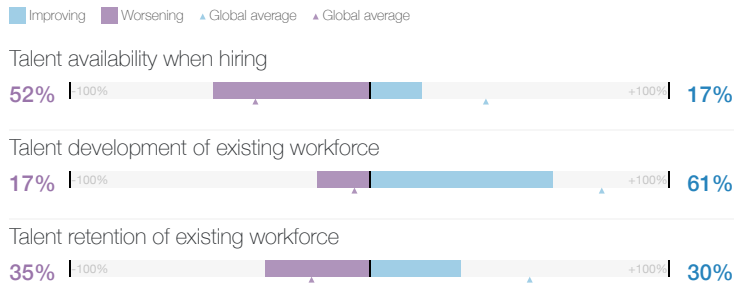
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

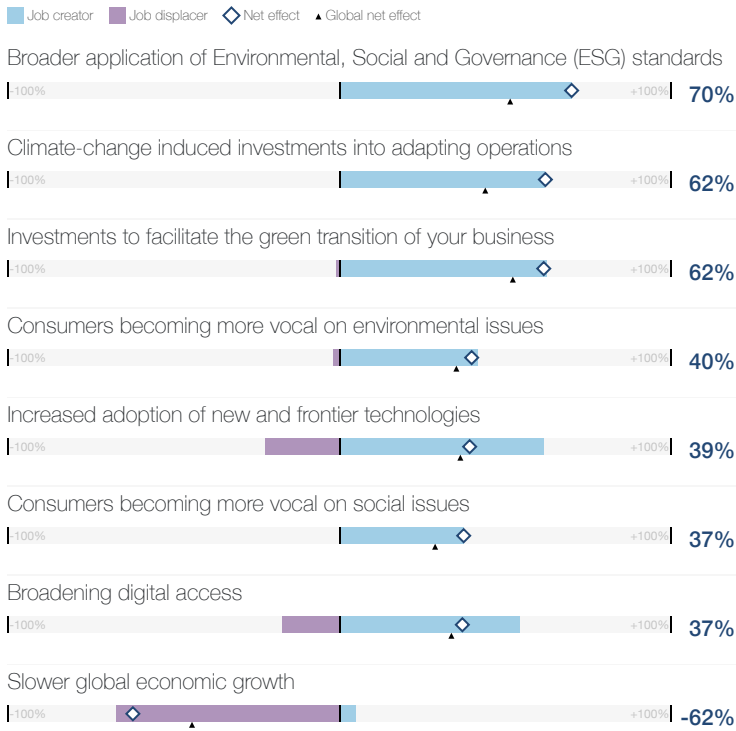
**74%**

Global 67%

Trend outlook

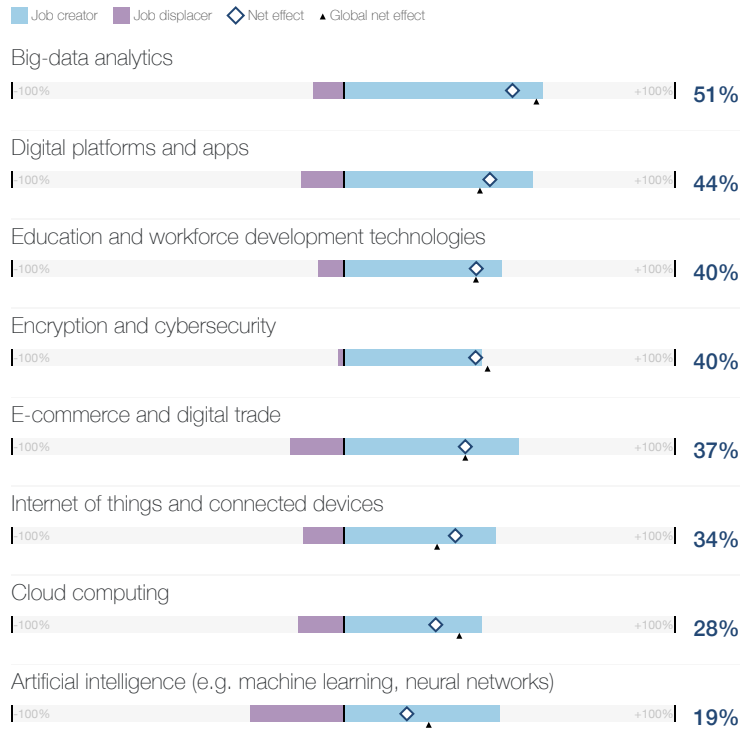
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

21%

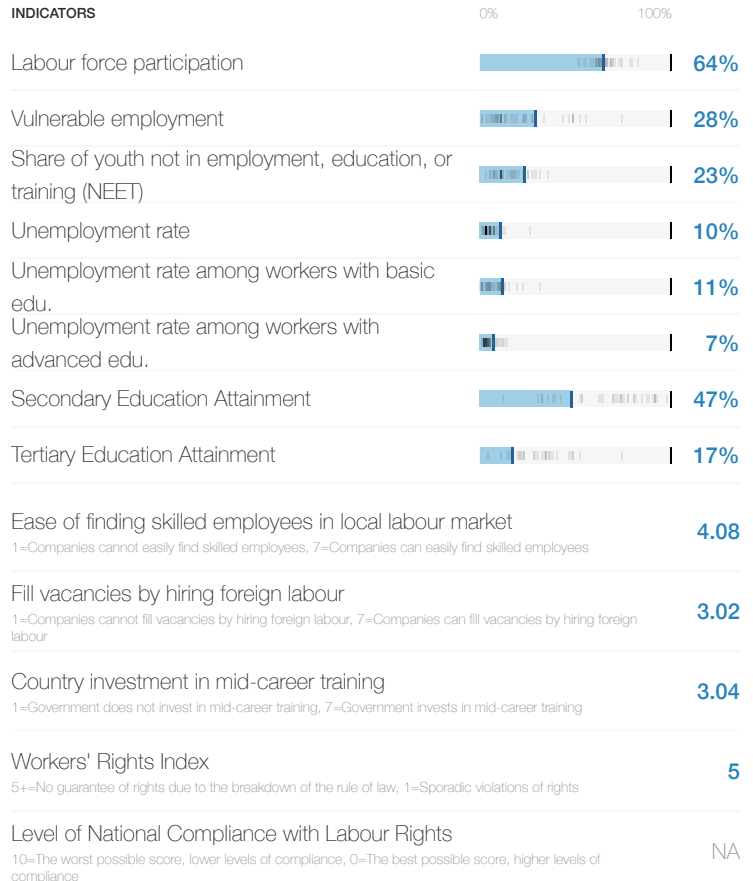
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



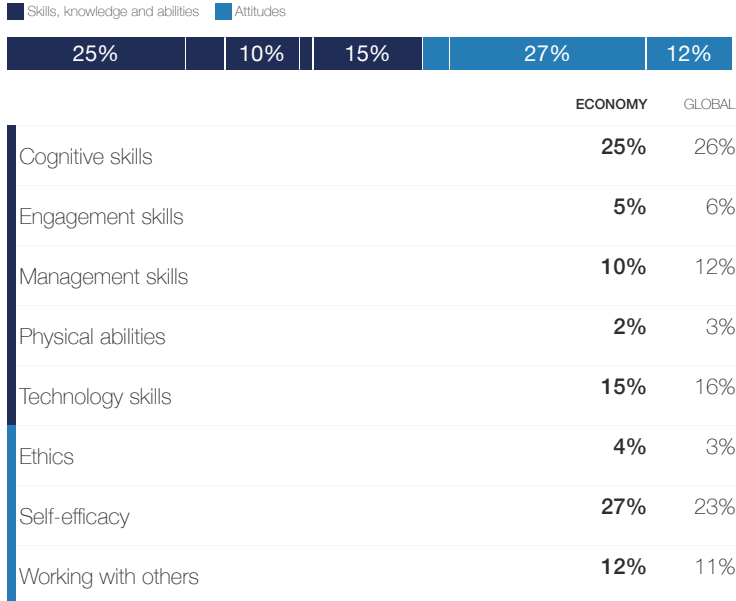
# Brazil

136.2

## Skill outlook

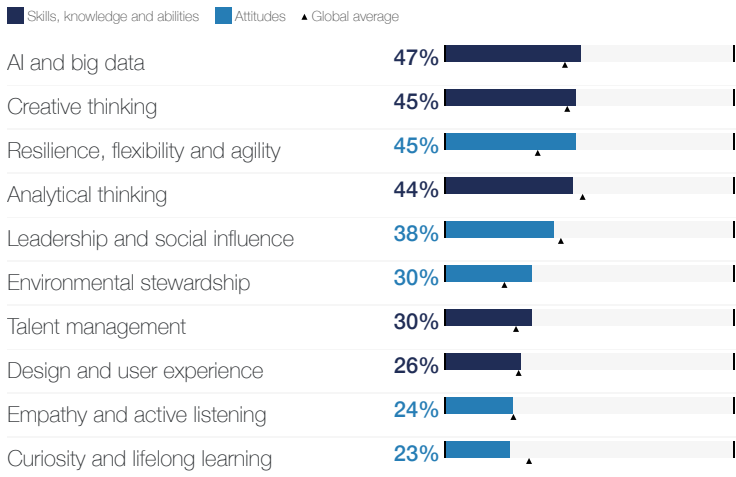
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

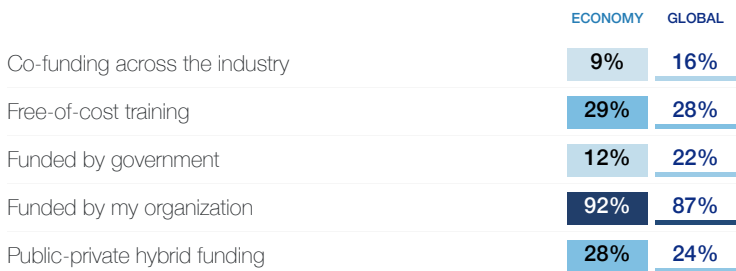
Skills required by the workforce that are expected to remain the same (share of all skills required)

**53%**

Global 56%

### Training funding

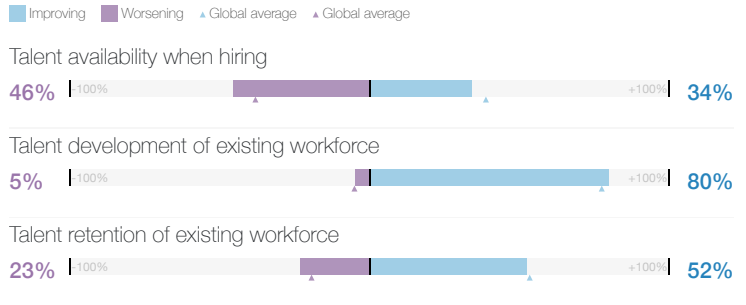
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



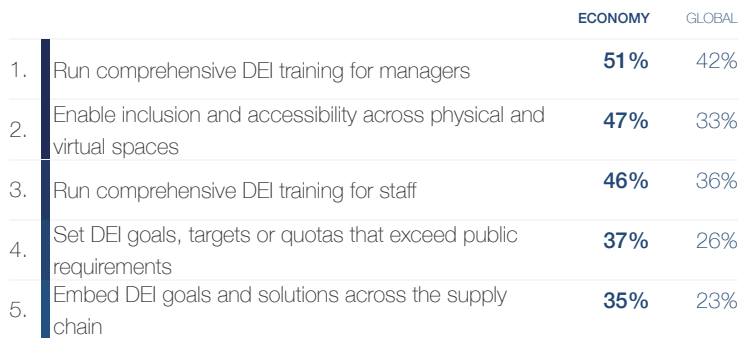
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

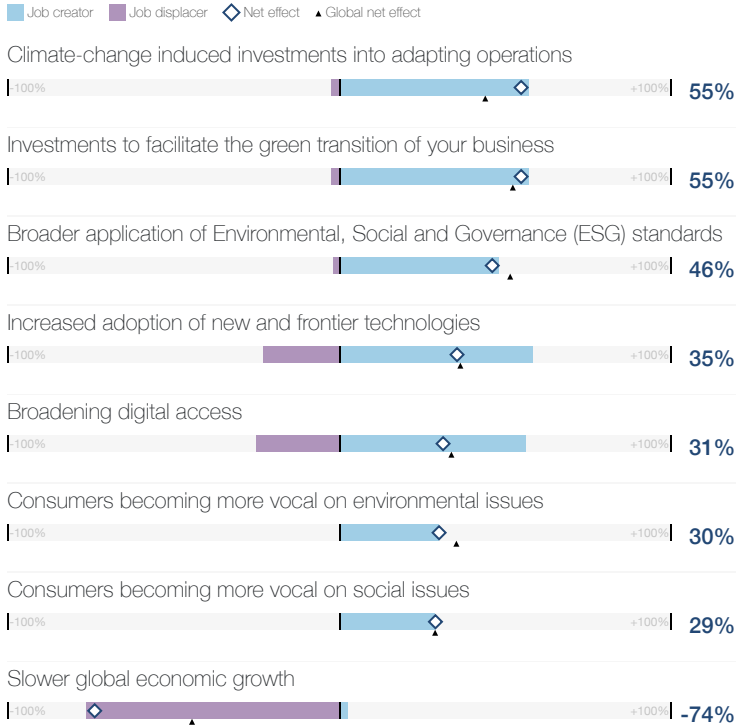
**81%**

Global 67%

Trend outlook

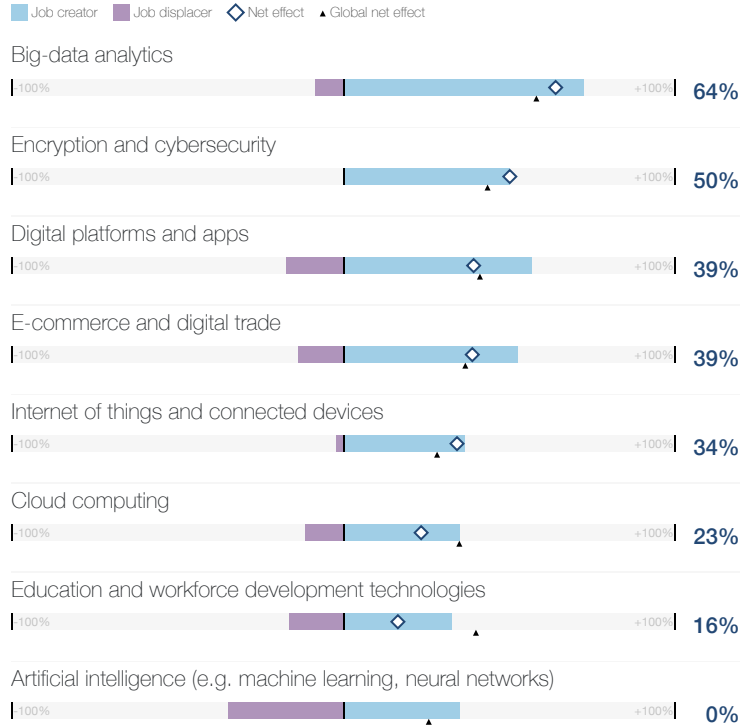
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

17%

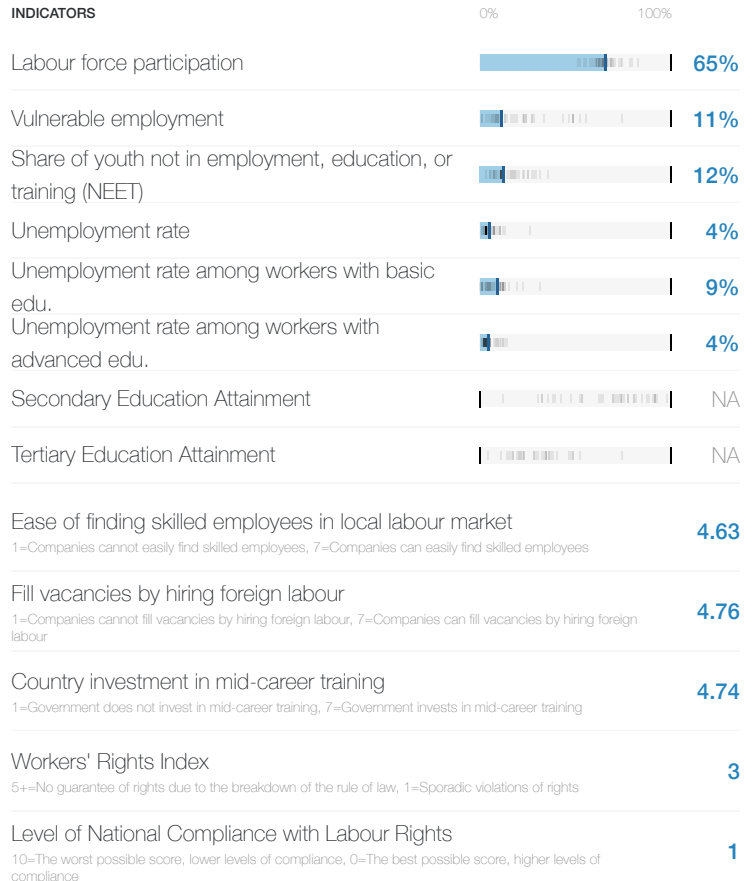
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



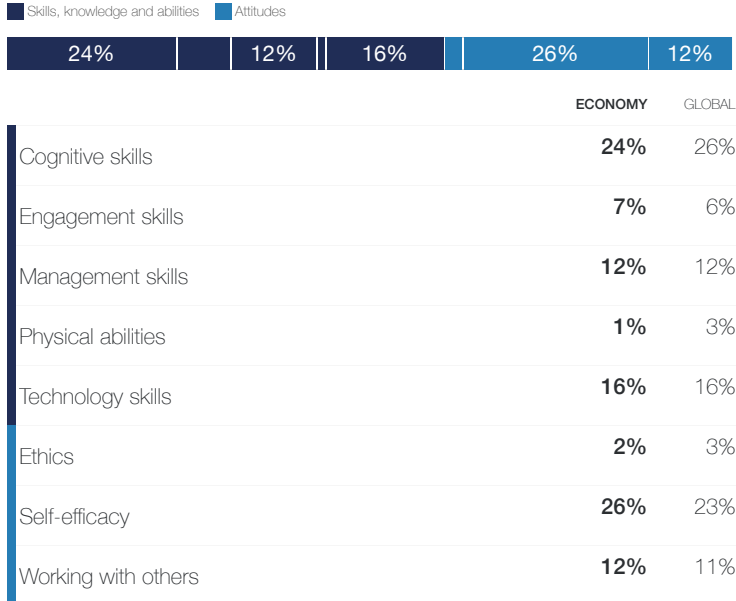
# Canada

27.3

## Skill outlook

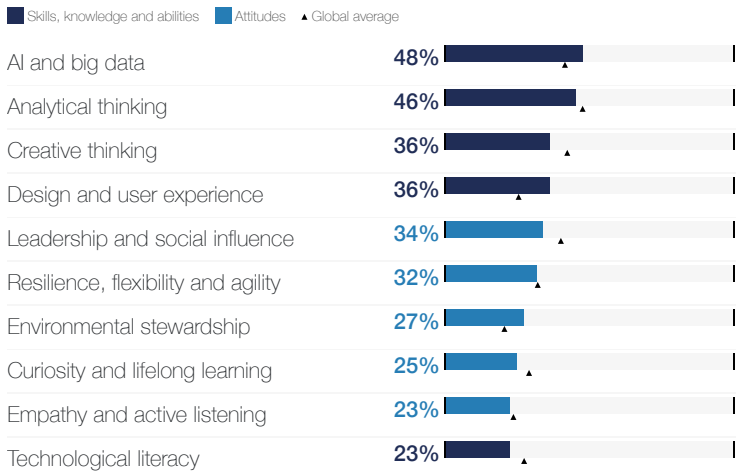
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

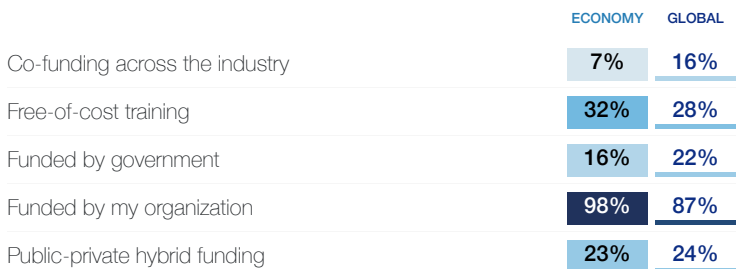
Skills required by the workforce that are expected to remain the same (share of all skills required)

58%

Global 56%

### Training funding

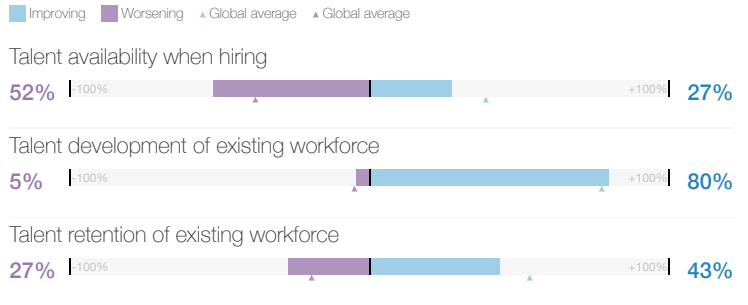
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



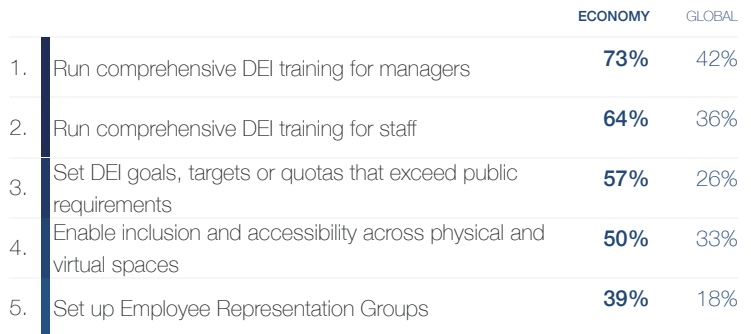
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

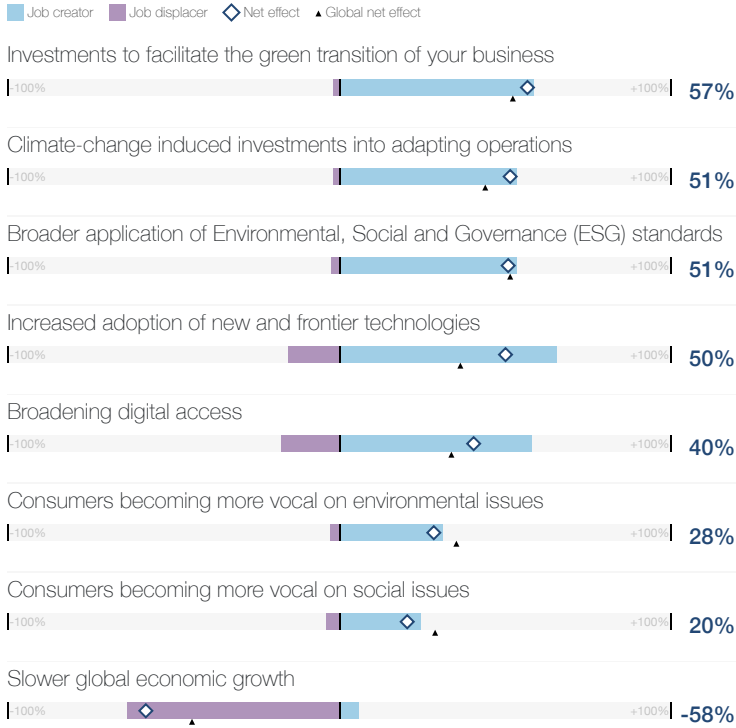
86%

Global 67%

Trend outlook

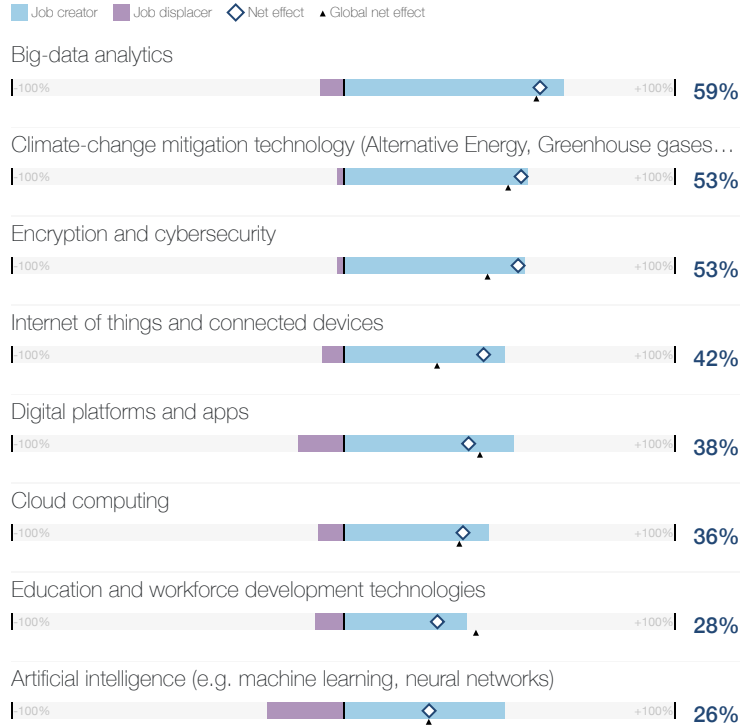
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

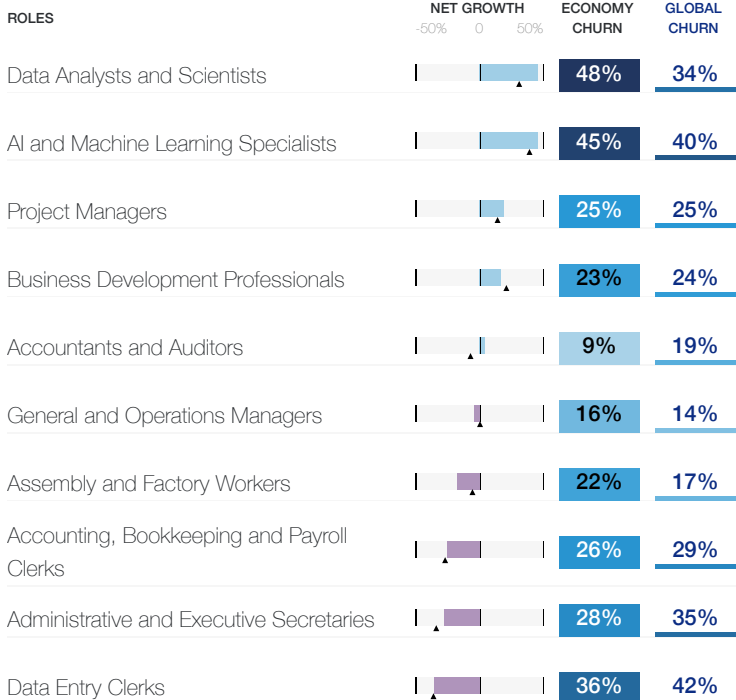
Five-year structural labour-force churn (percent)

23%

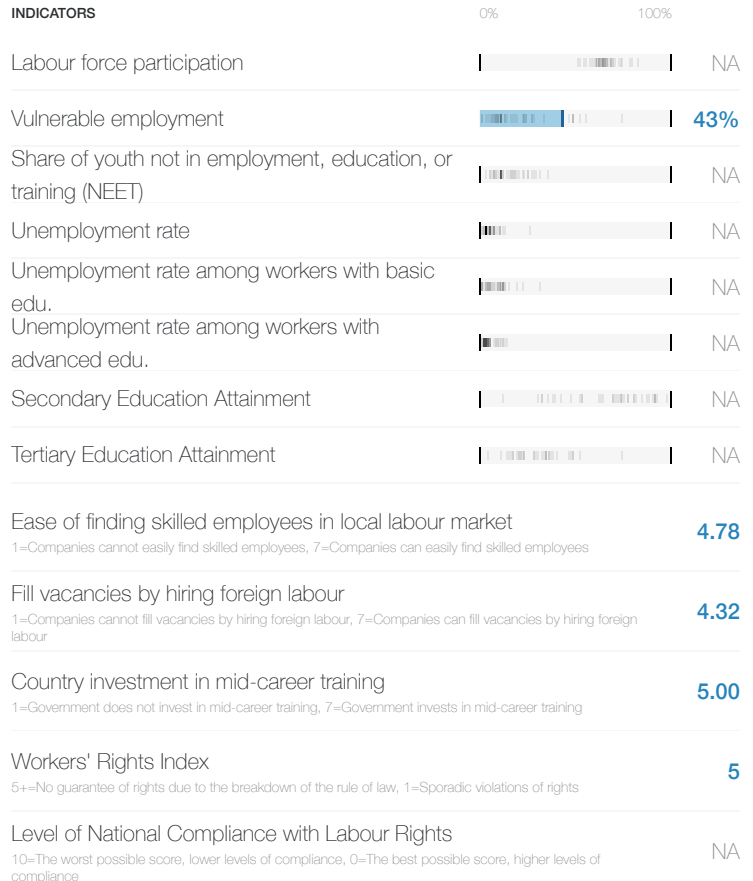
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



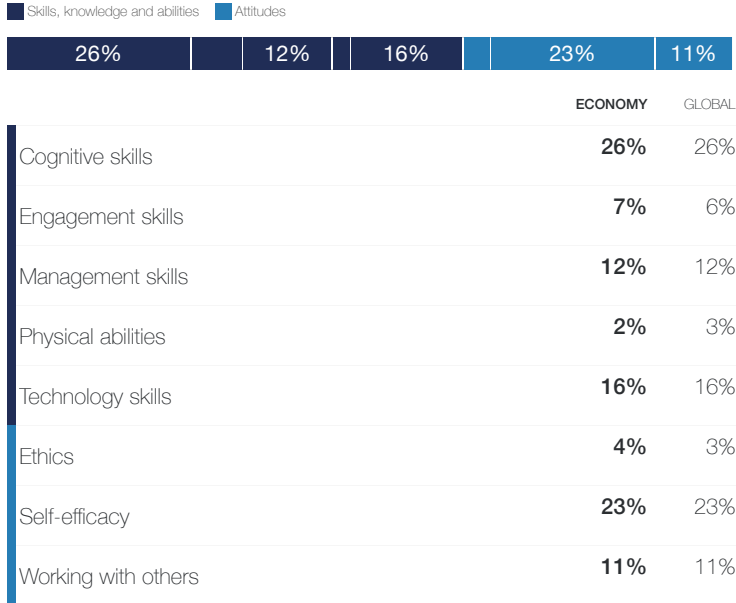
# China

1008.8

## Skill outlook

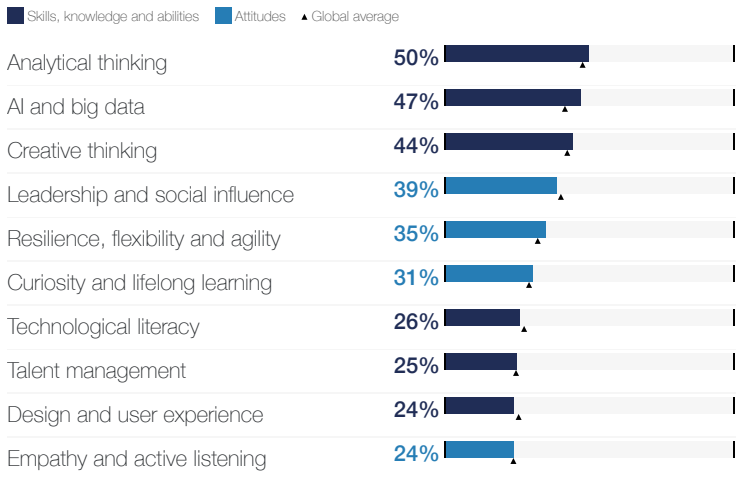
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

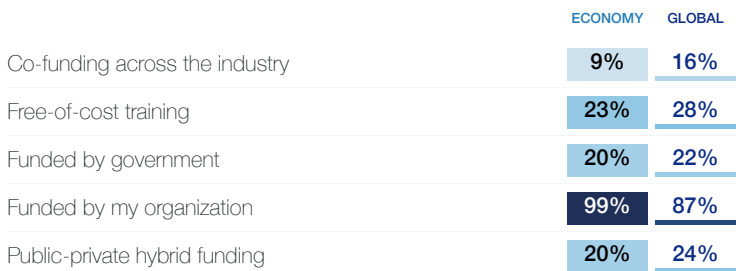
Skills required by the workforce that are expected to remain the same (share of all skills required)

58%

Global 56%

### Training funding

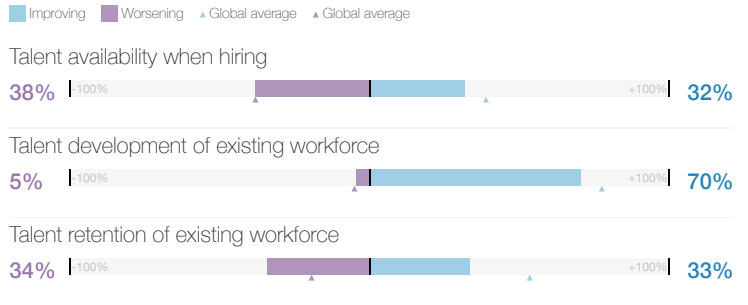
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



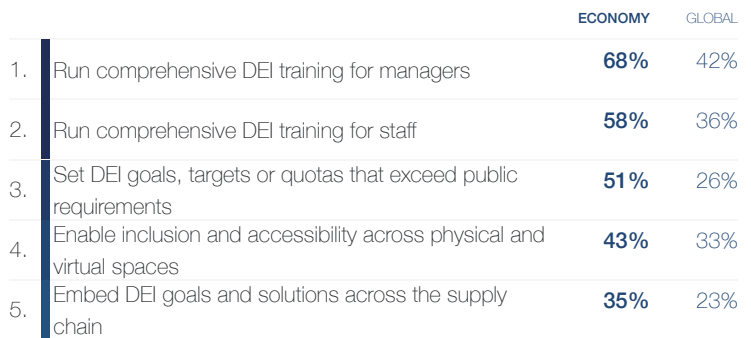
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

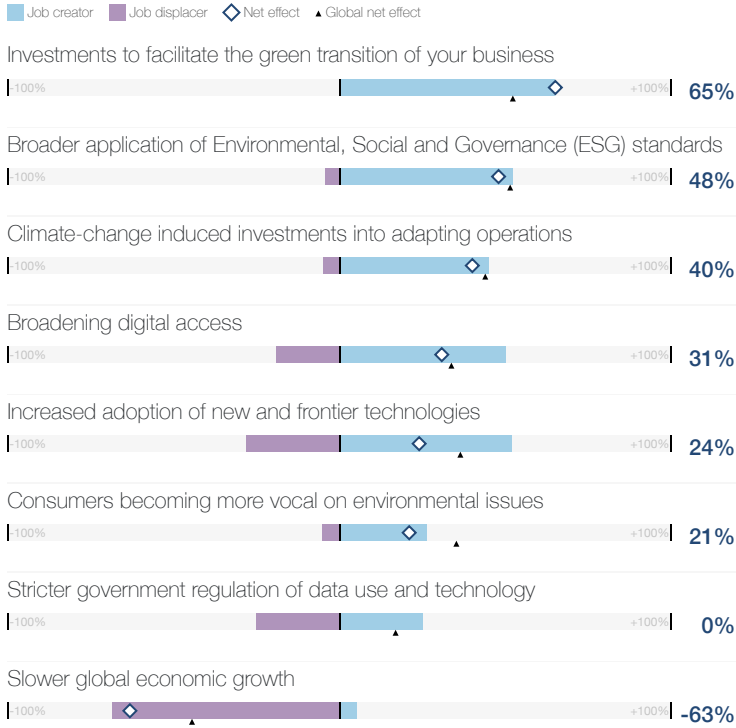
83%

Global 67%

Trend outlook

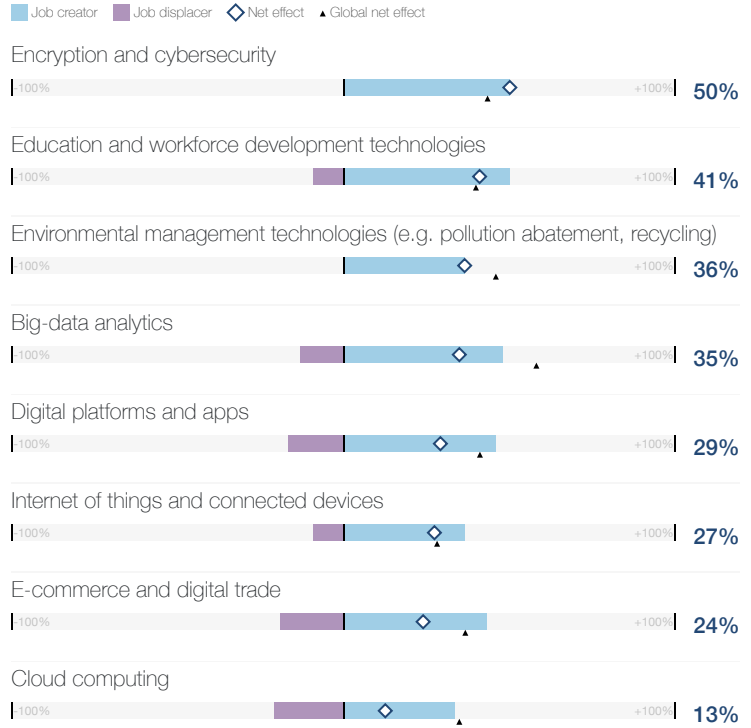
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

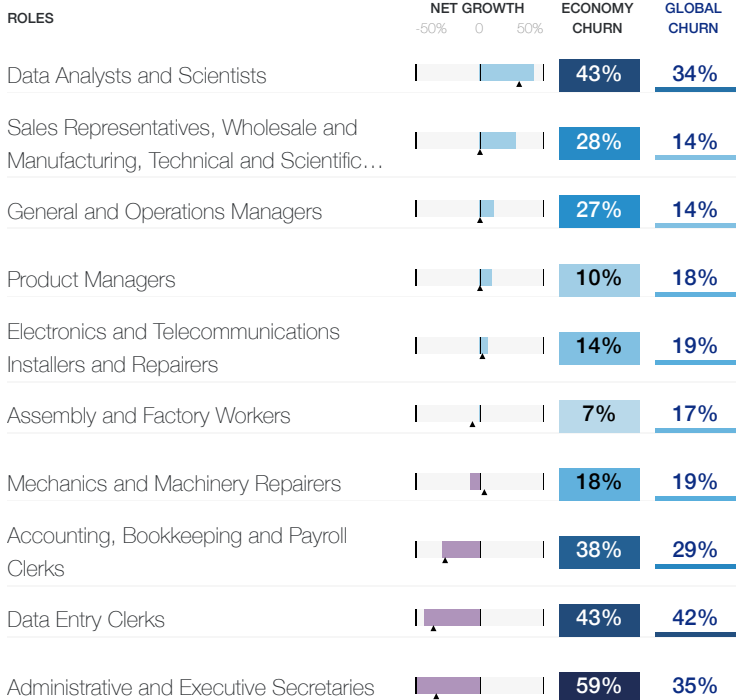
Five-year structural labour-force churn (percent)

22%

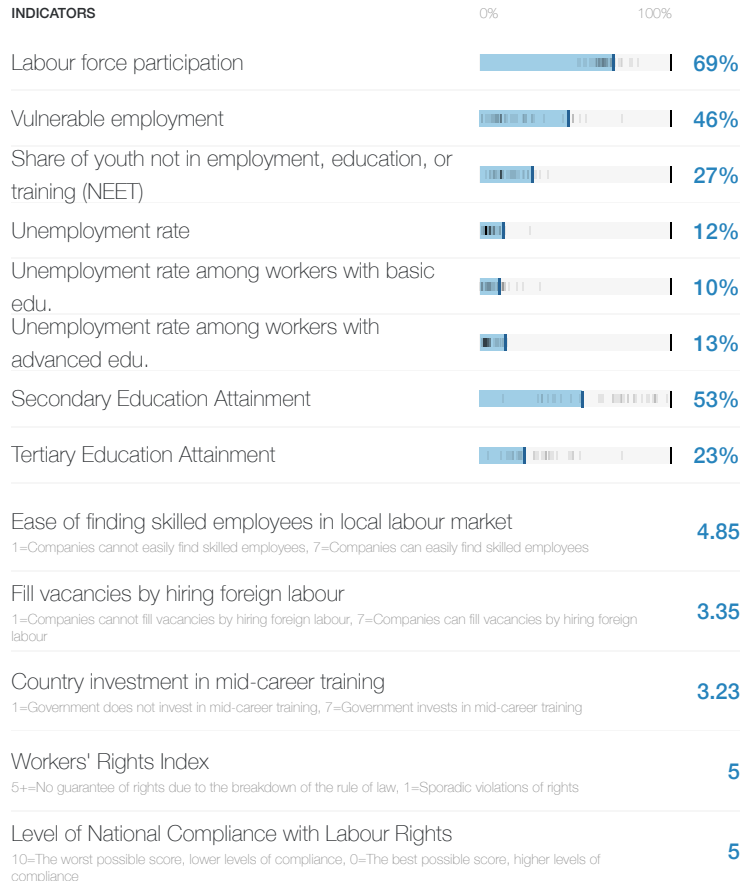
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



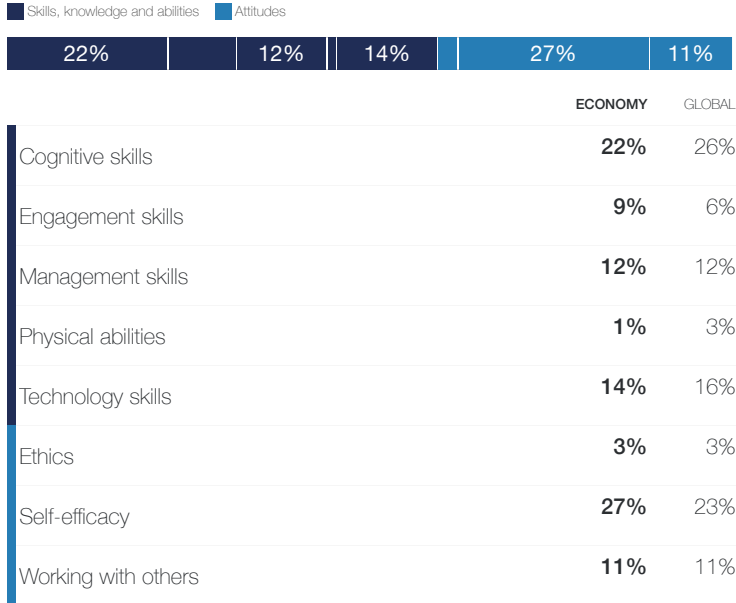
# Colombia

29.1

## Skill outlook

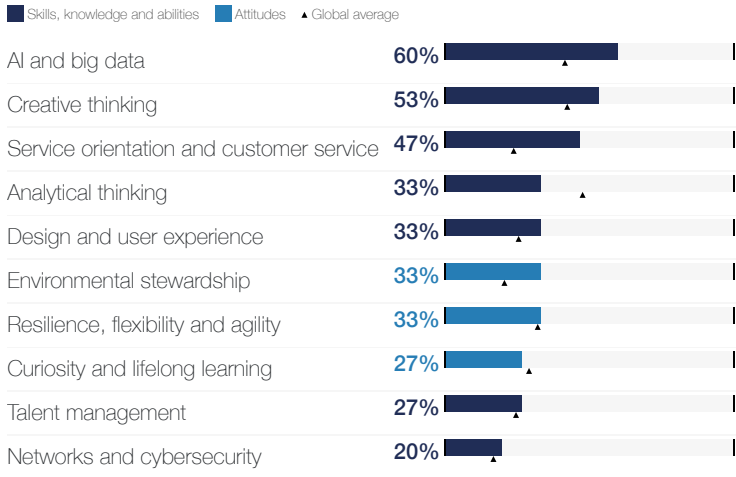
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

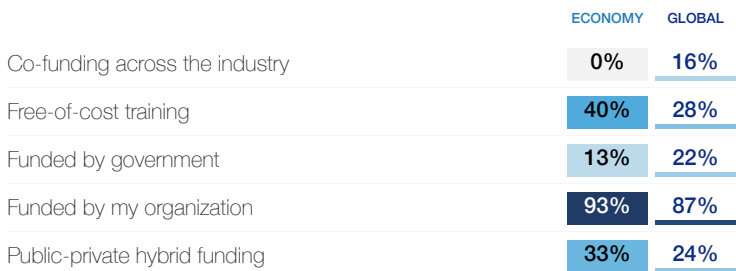
Skills required by the workforce that are expected to remain the same (share of all skills required)

61%

Global 56%

### Training funding

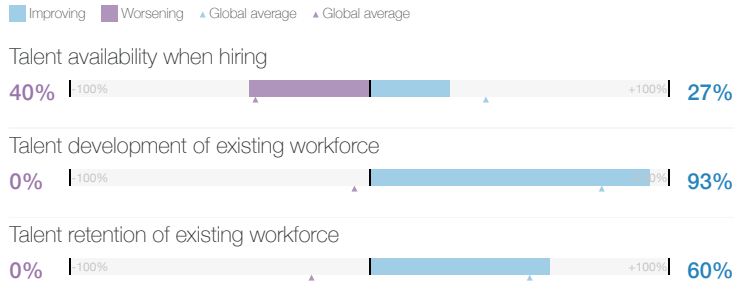
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

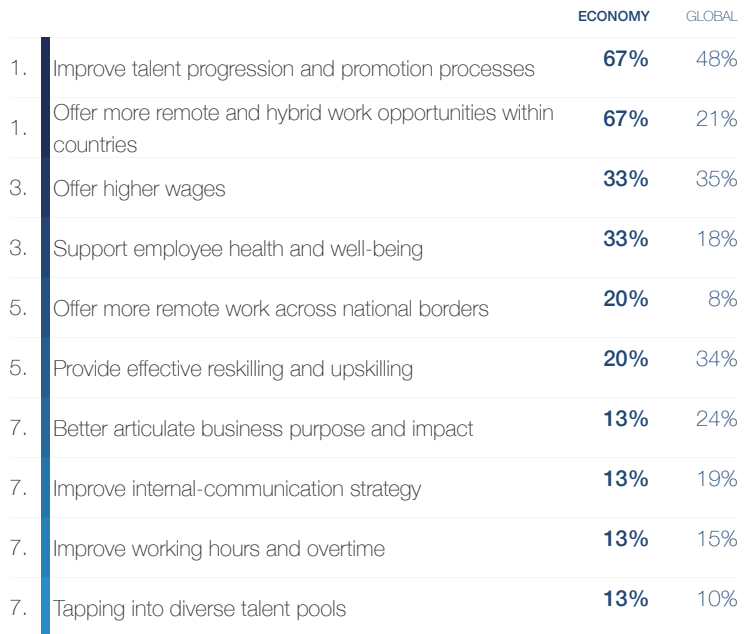
### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



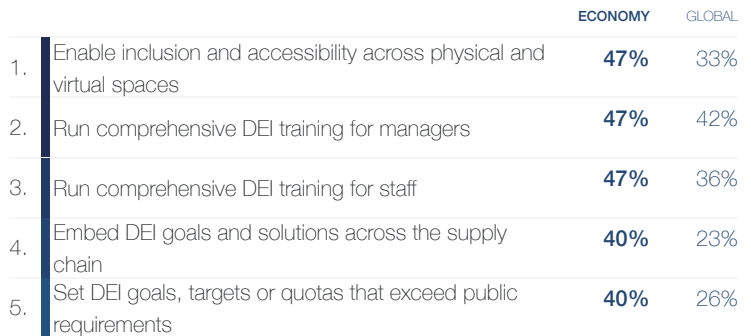
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

93%

Global 67%

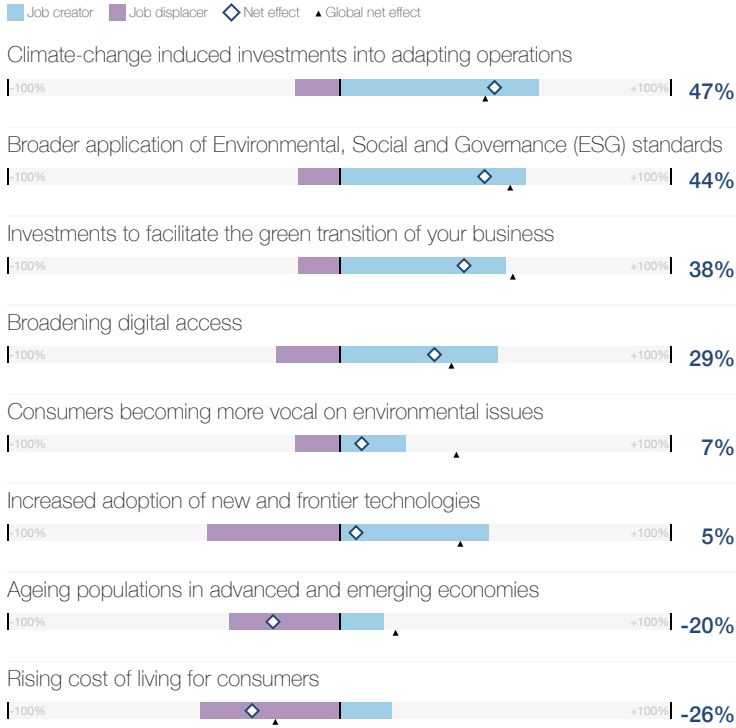
# Czech Republic

8.0

## Trend outlook

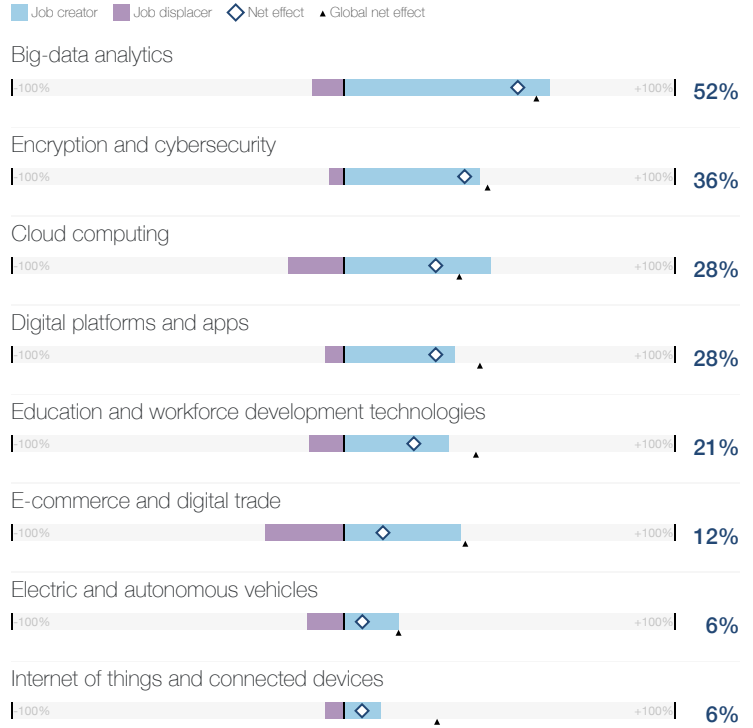
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

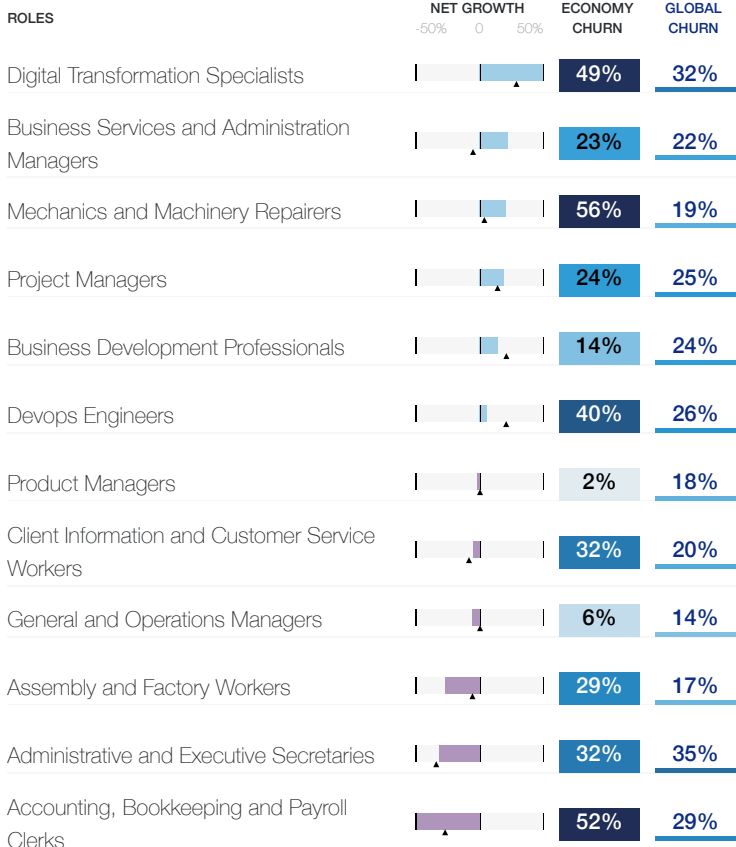
Five-year structural labour-force churn (percent)

24%

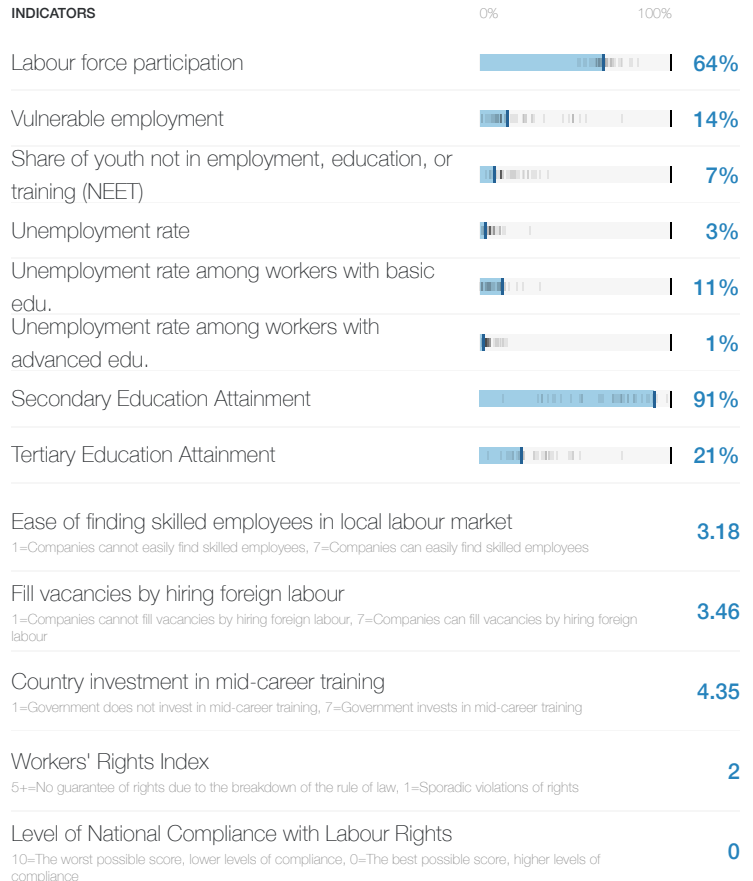
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



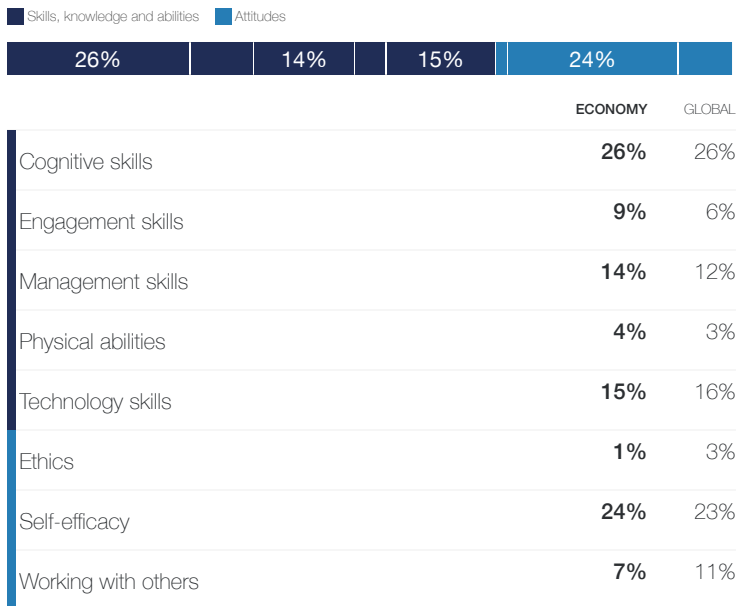
# Czech Republic

8.0

## Skill outlook

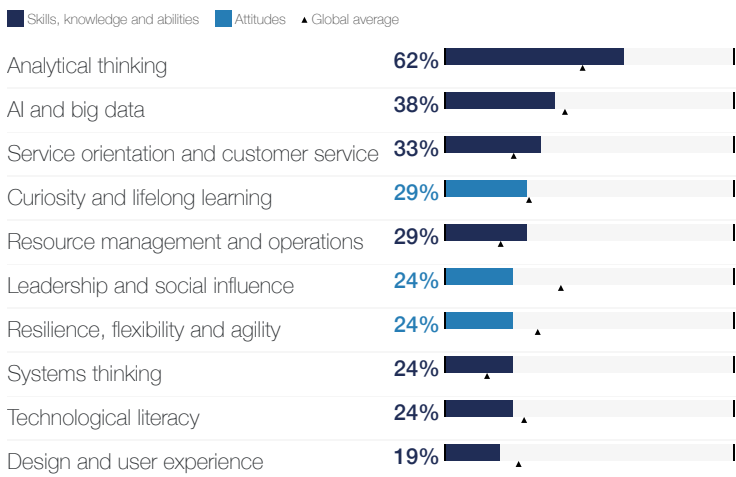
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



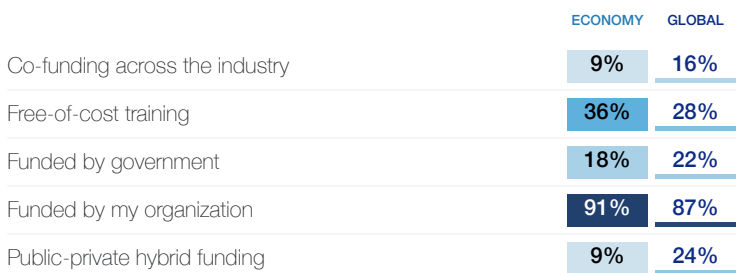
### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

**63%**  
Global 56%

### Training funding

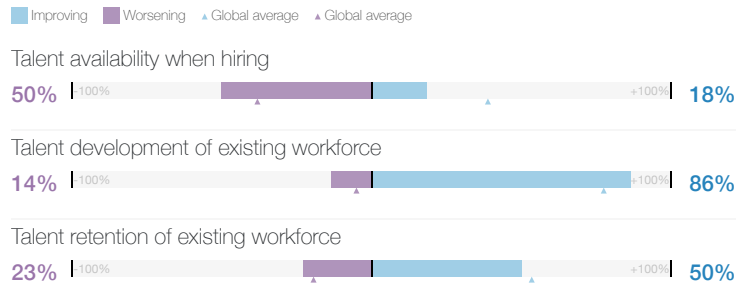
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



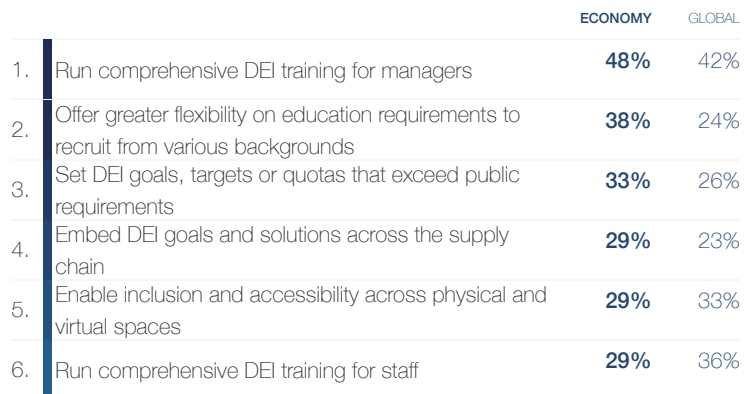
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

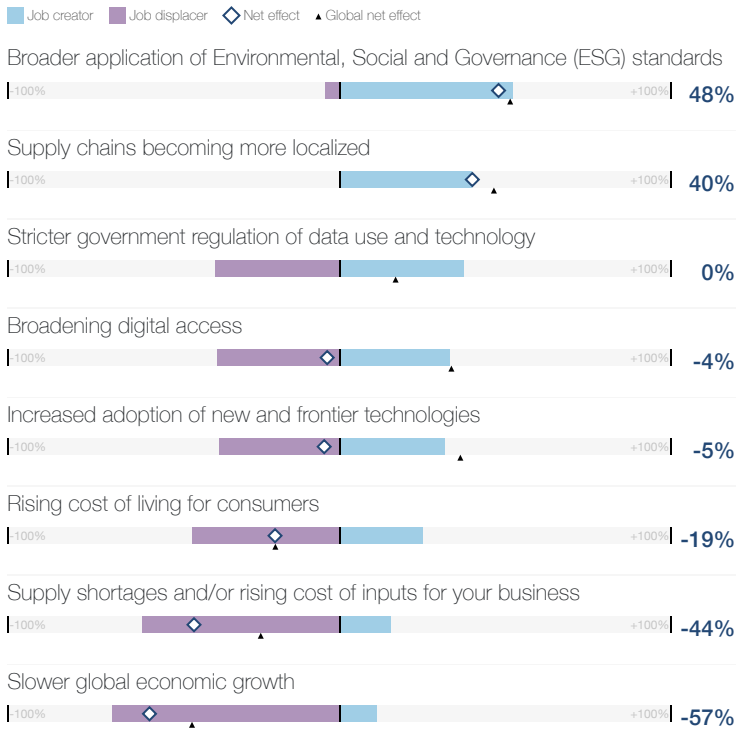
(share of organizations surveyed)

**86%**  
Global 67%

Trend outlook

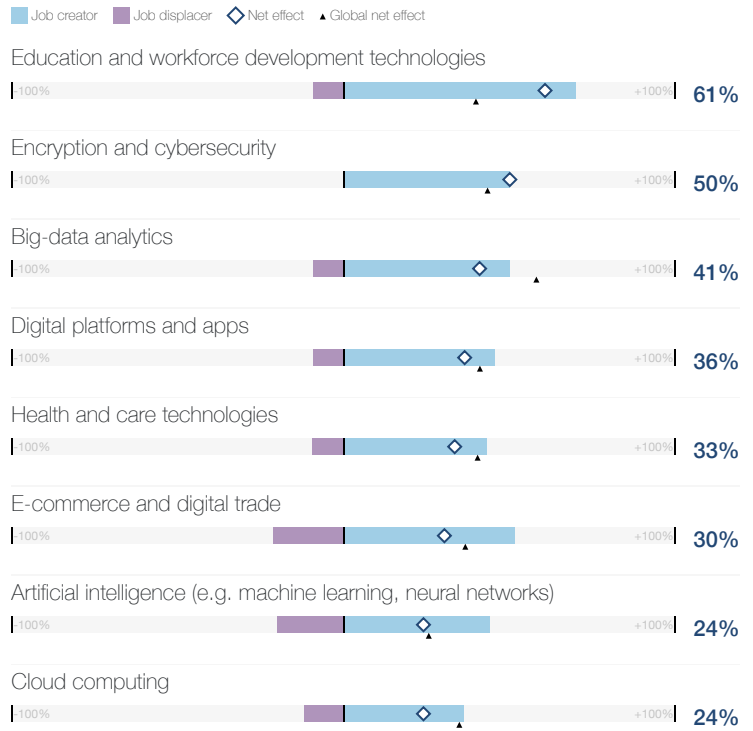
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

20%

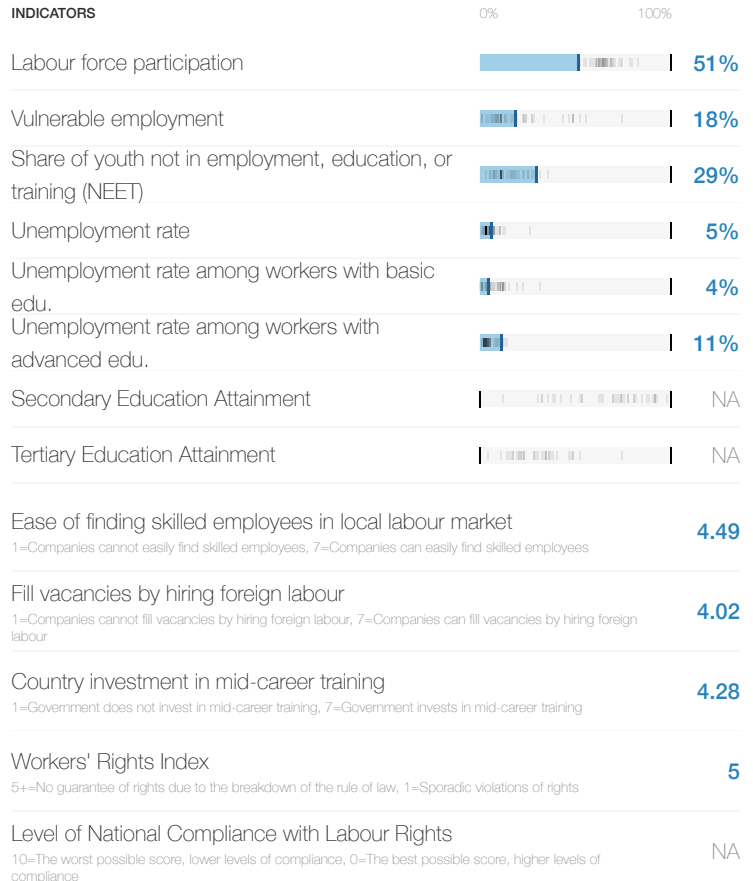
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



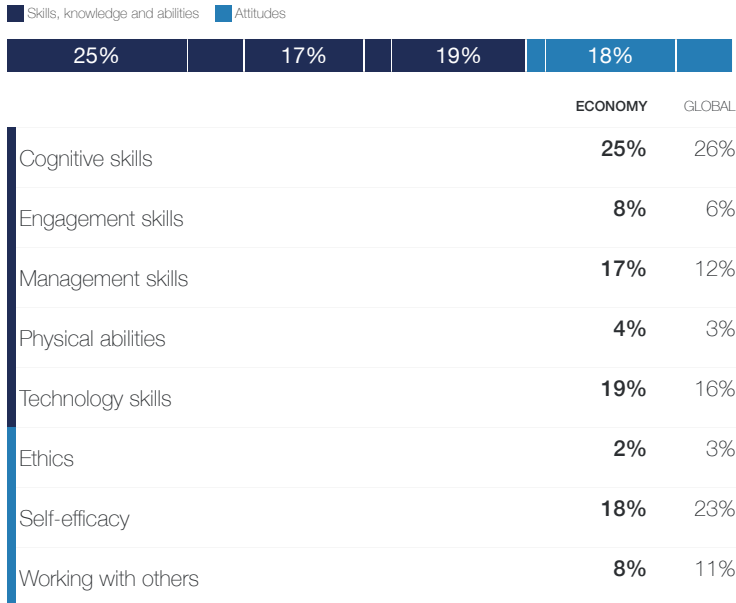
Contextual indicators



## Skill outlook

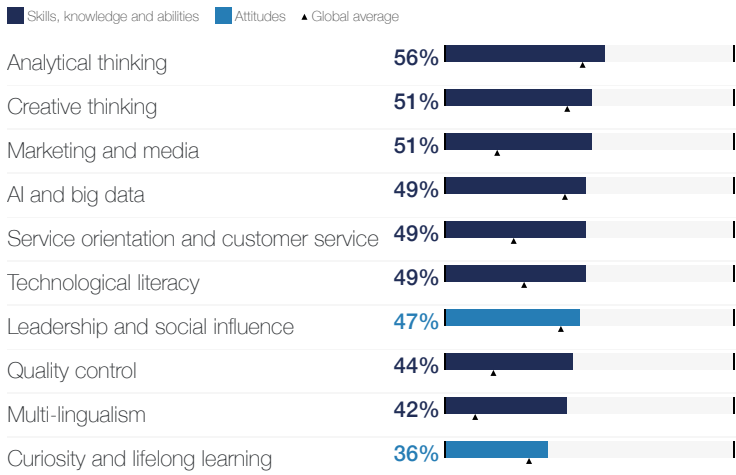
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

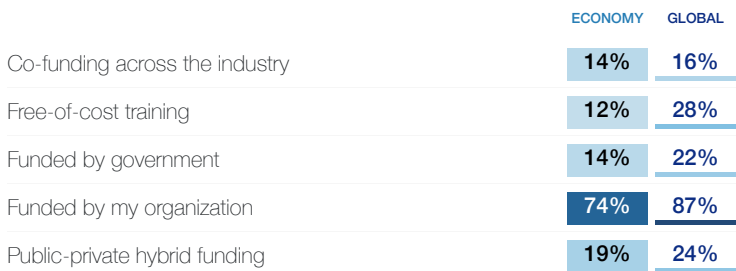
Skills required by the workforce that are expected to remain the same (share of all skills required)

**59%**

Global 56%

### Training funding

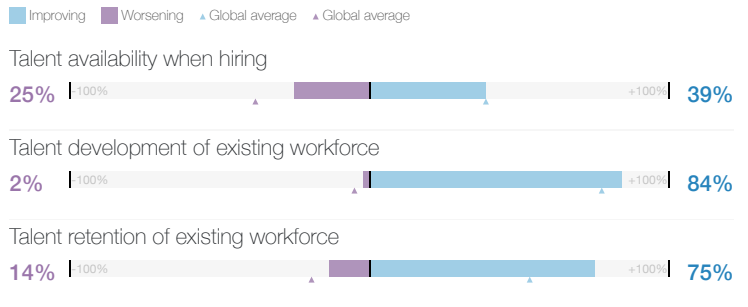
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



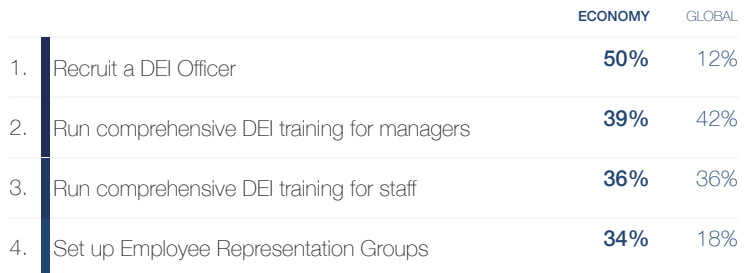
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

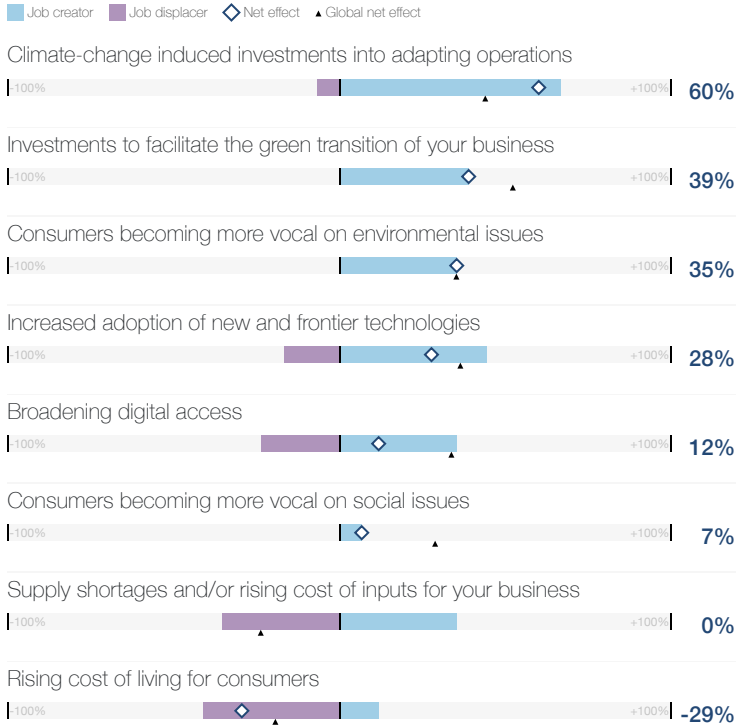
**66%**

Global 67%

Trend outlook

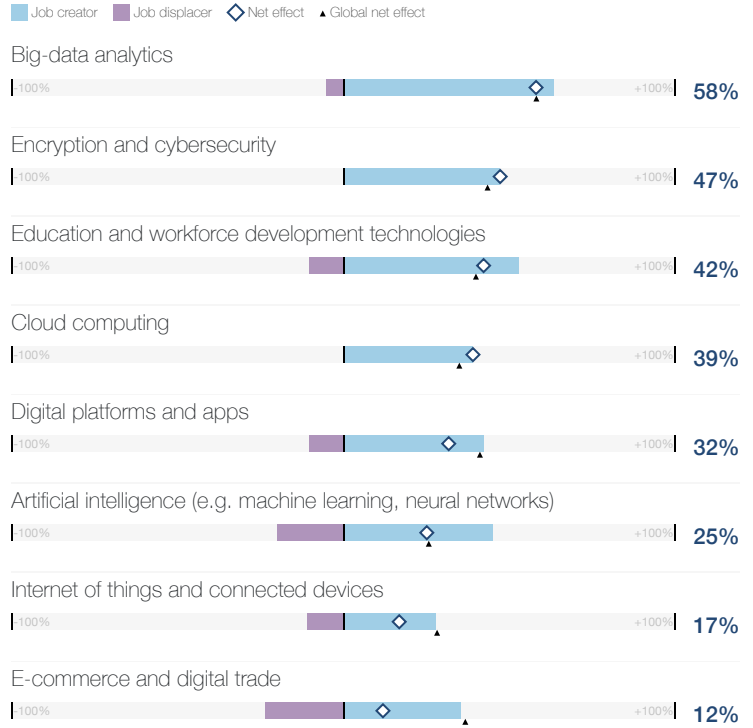
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

24%

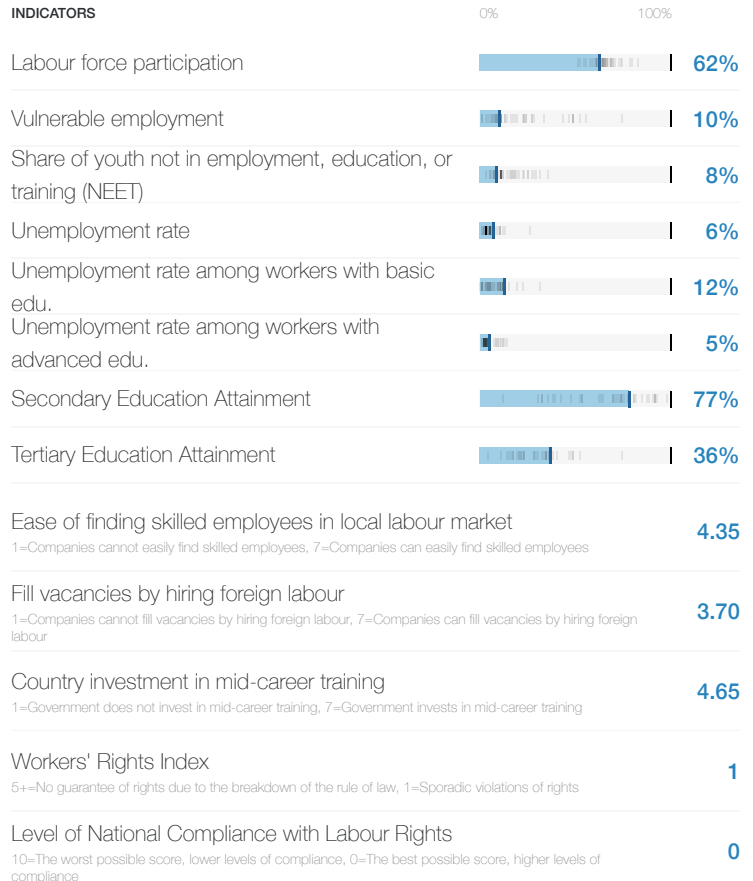
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



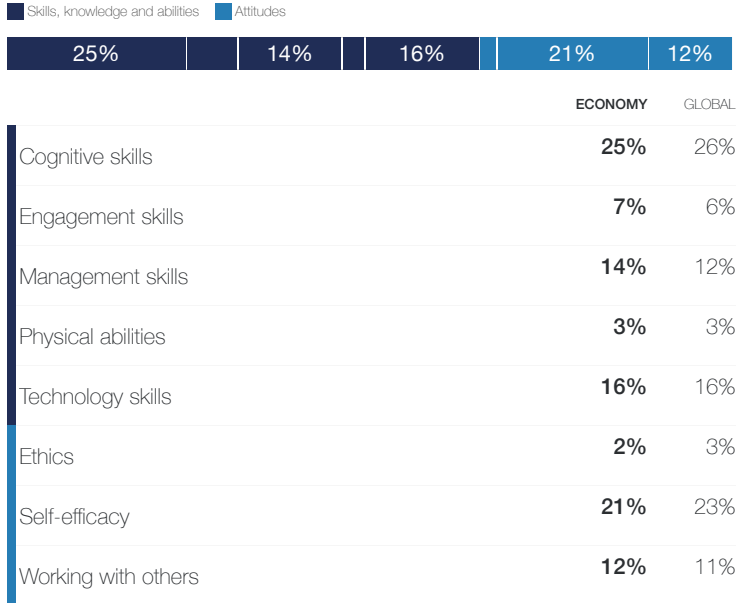
# Finland

4.0

## Skill outlook

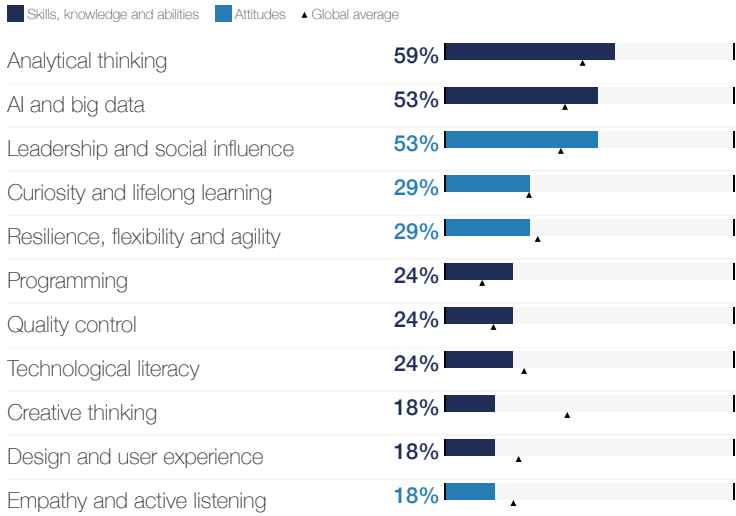
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

61%

Global 56%

### Training funding

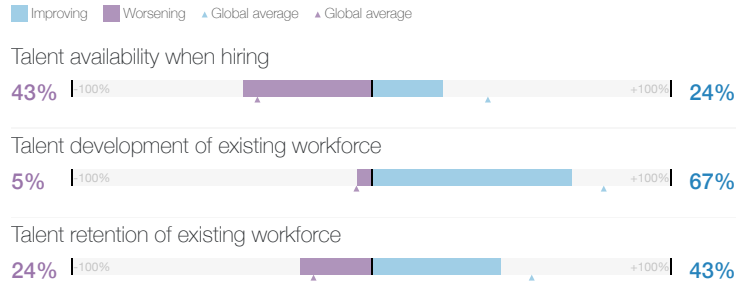
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

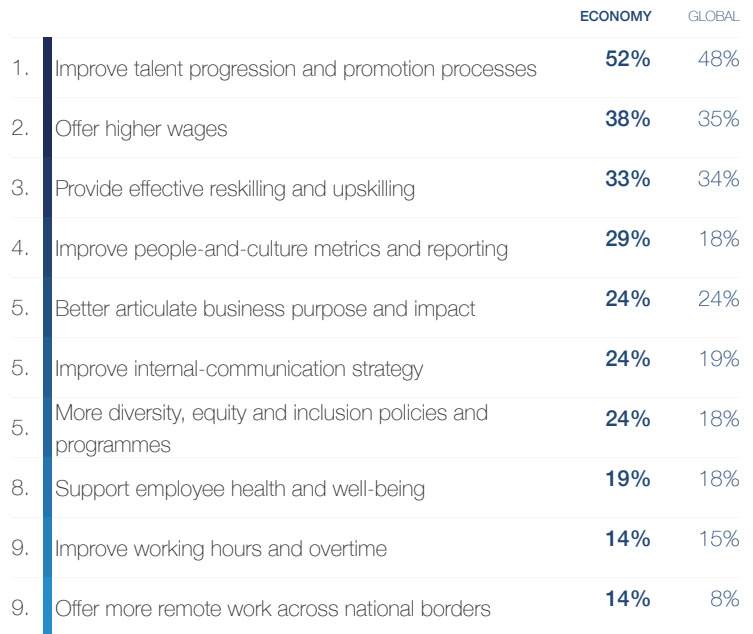
### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



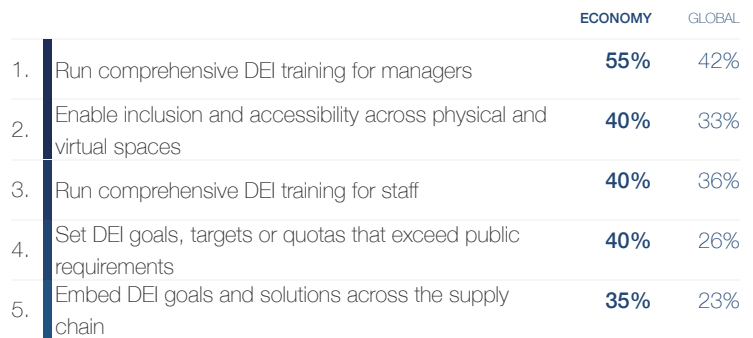
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

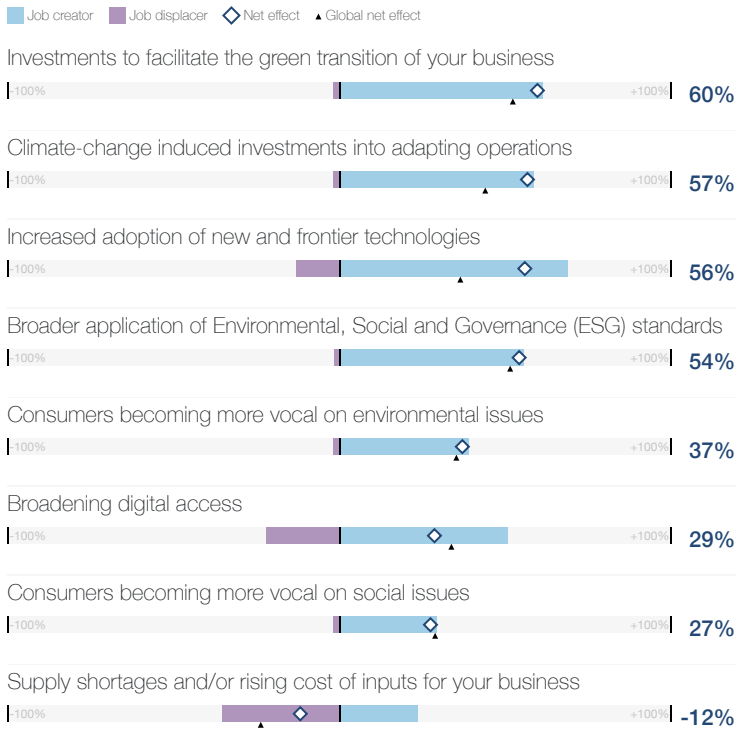
80%

Global 67%

Trend outlook

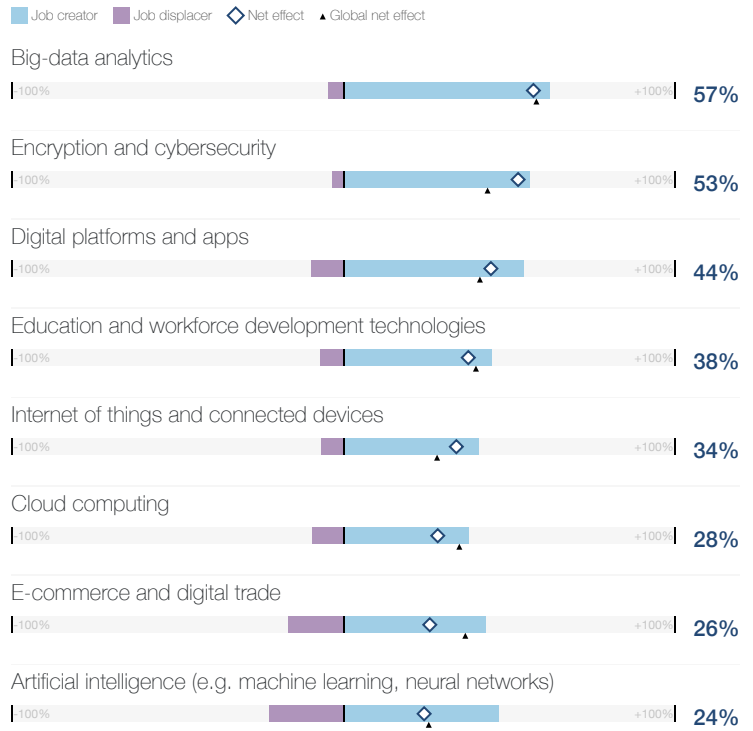
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

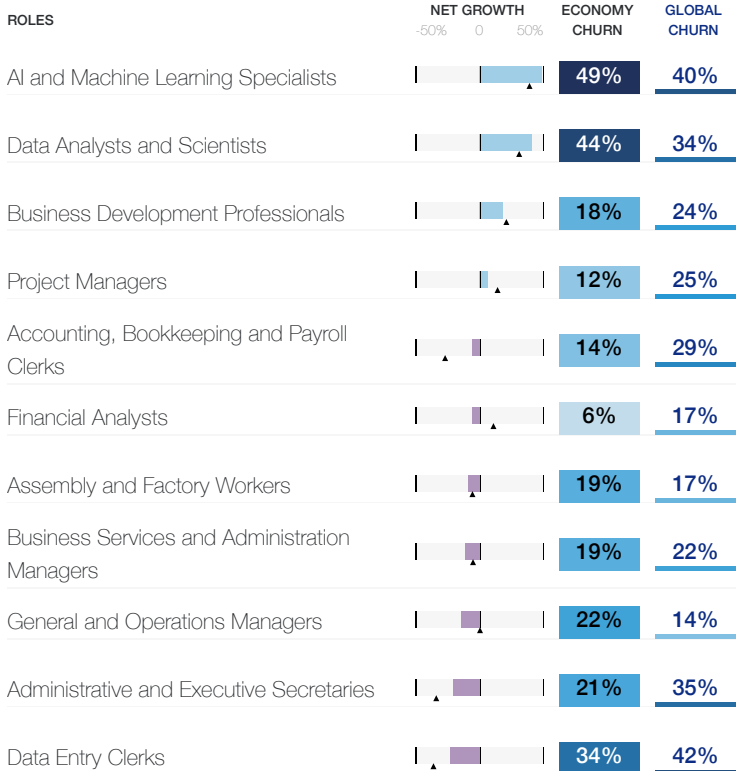
Five-year structural labour-force churn (percent)

19%

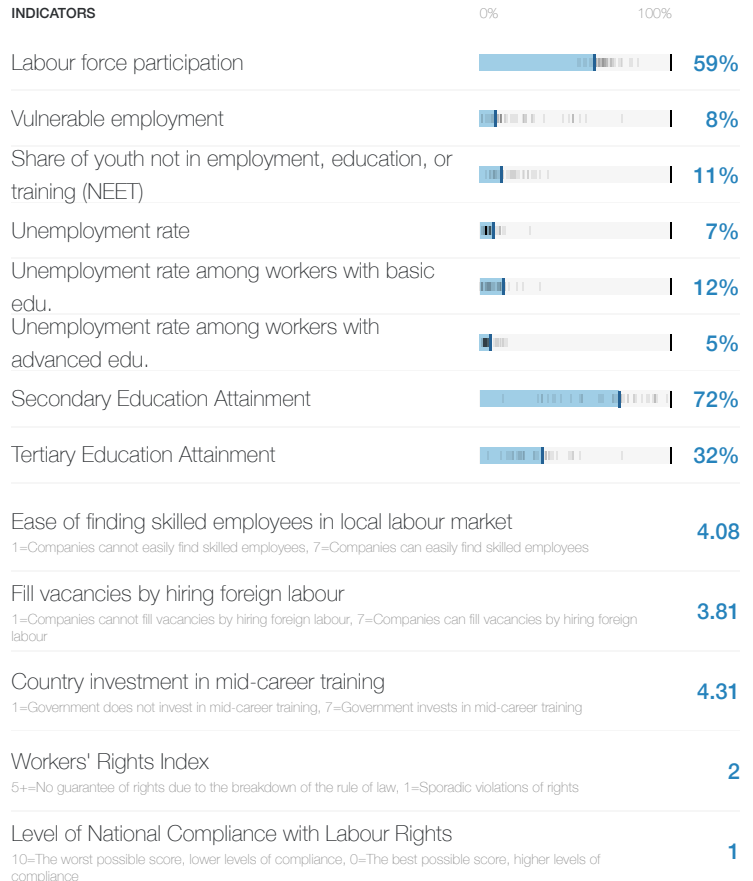
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



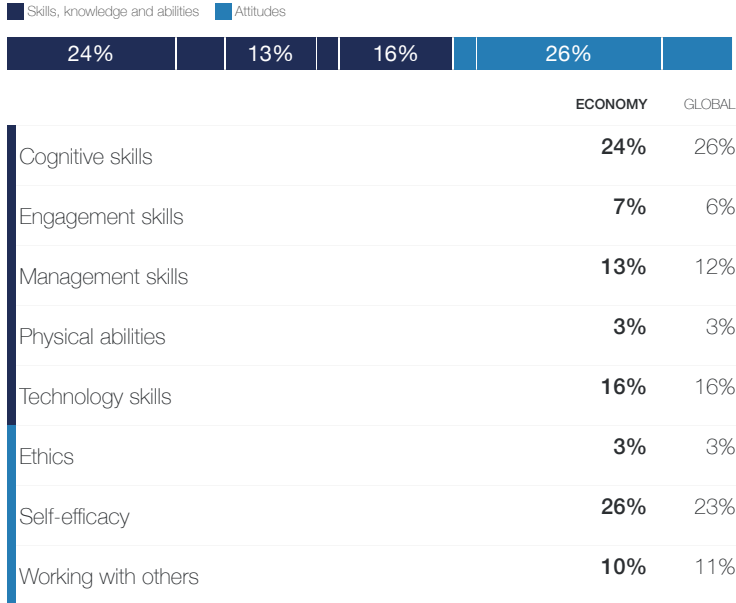
# France

46.6

## Skill outlook

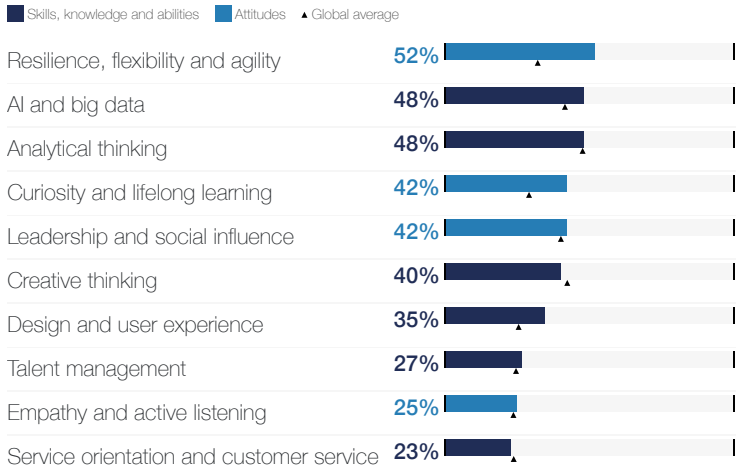
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

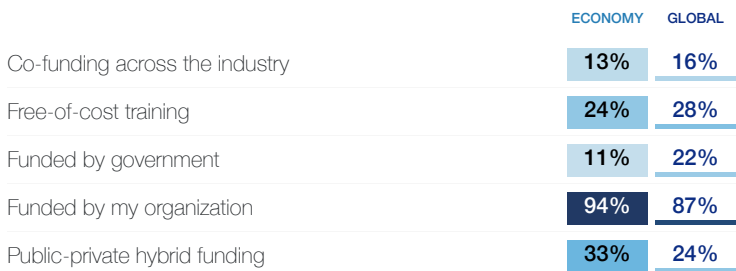
Skills required by the workforce that are expected to remain the same (share of all skills required)

54%

Global 56%

### Training funding

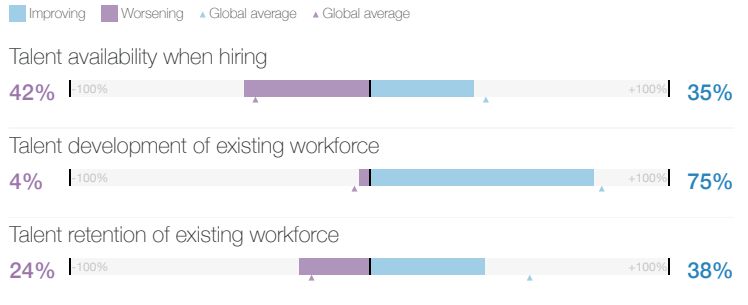
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



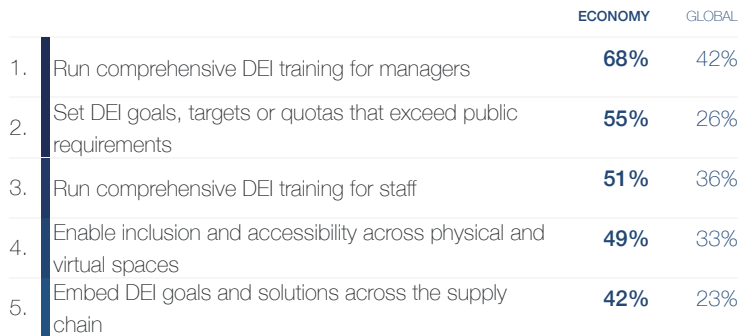
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

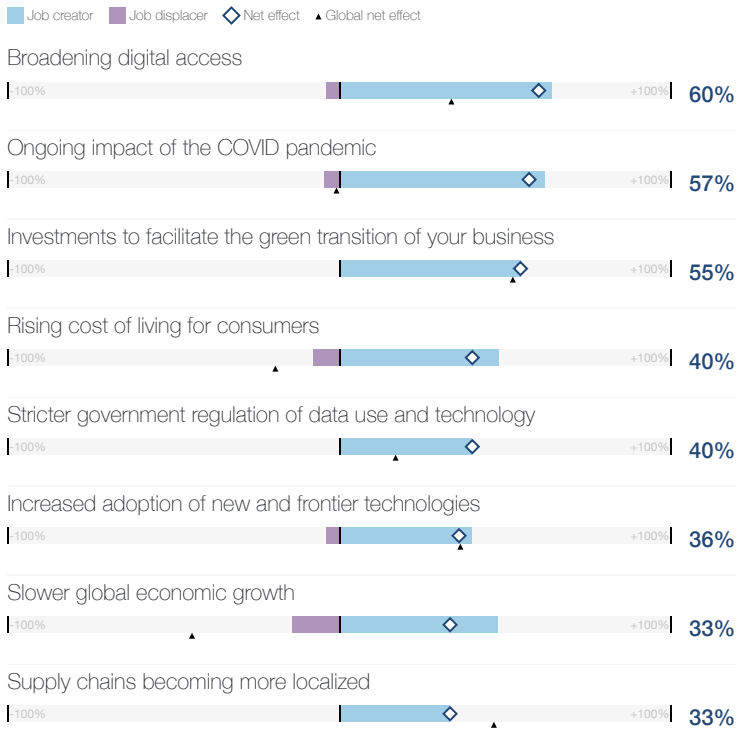
83%

Global 67%

Trend outlook

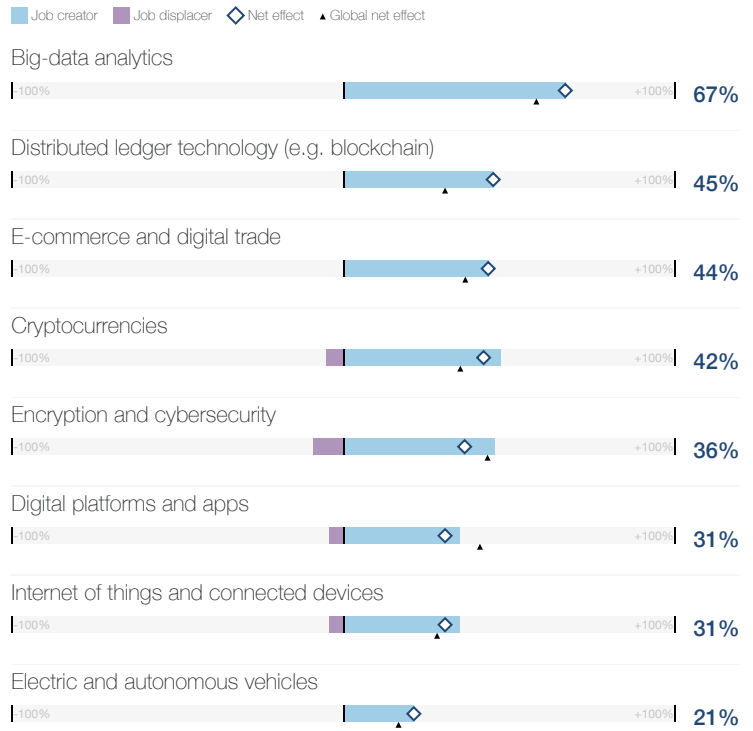
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

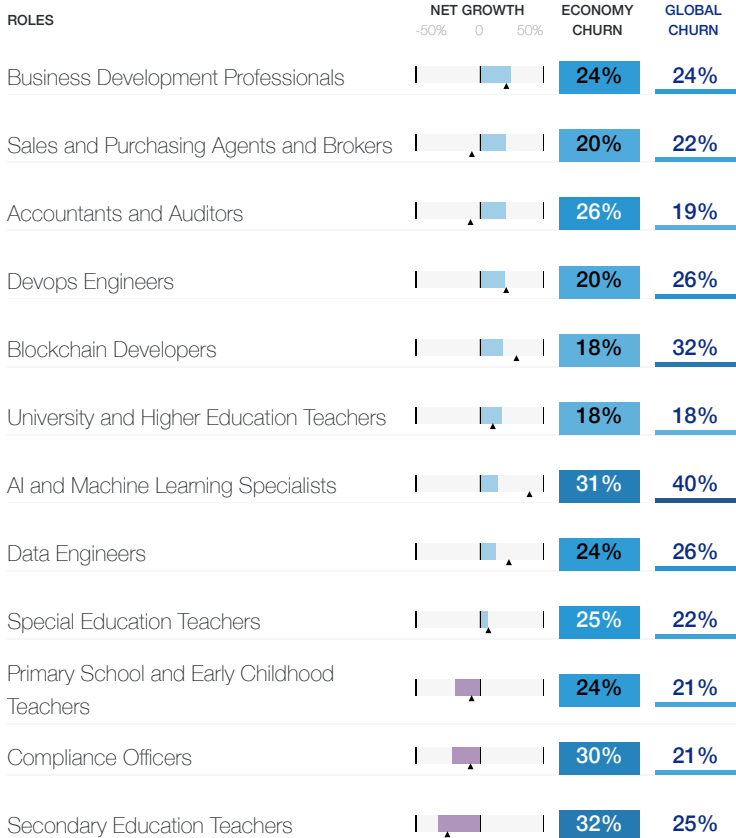
Five-year structural labour-force churn (percent)

27%

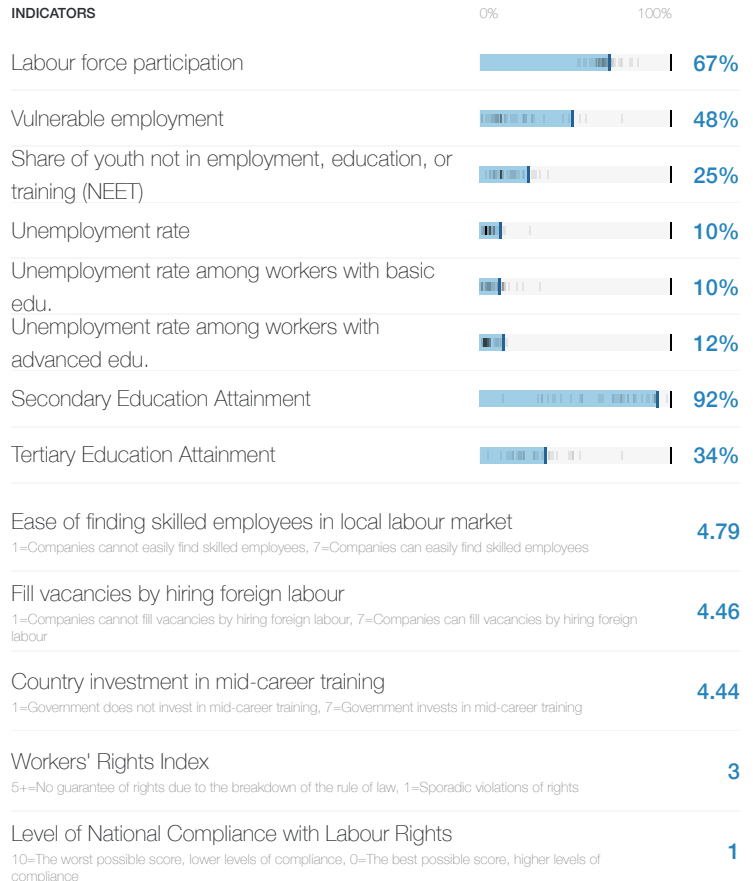
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



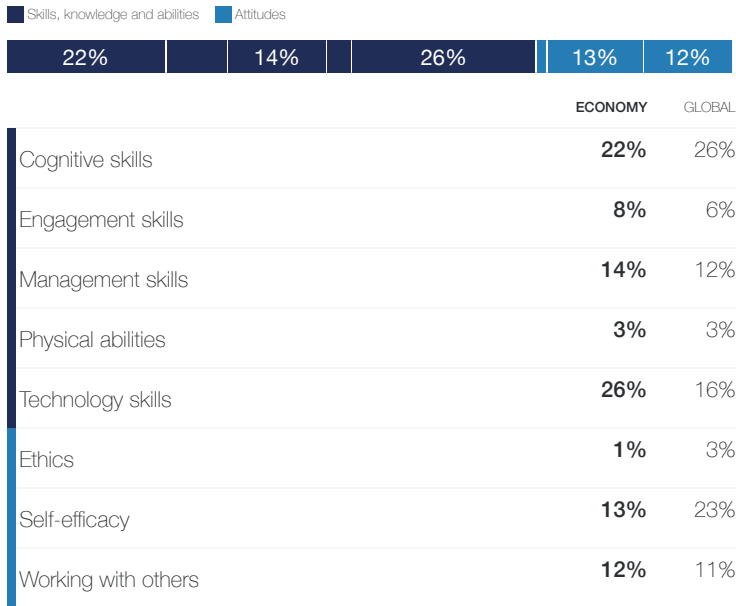
Contextual indicators



## Skill outlook

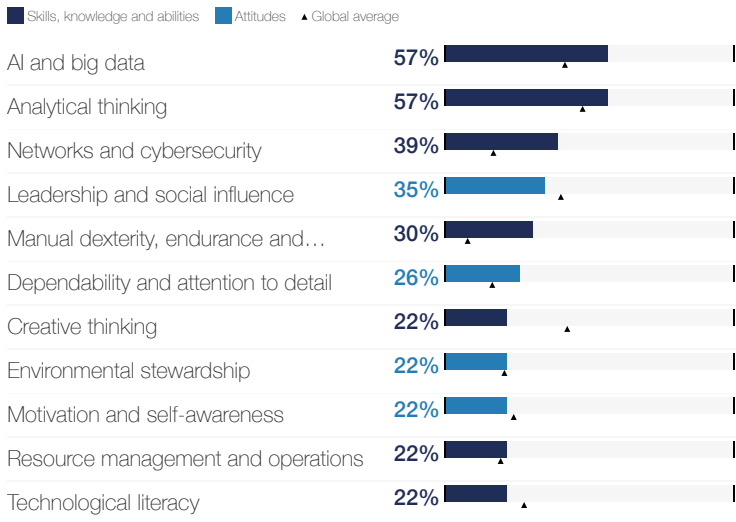
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

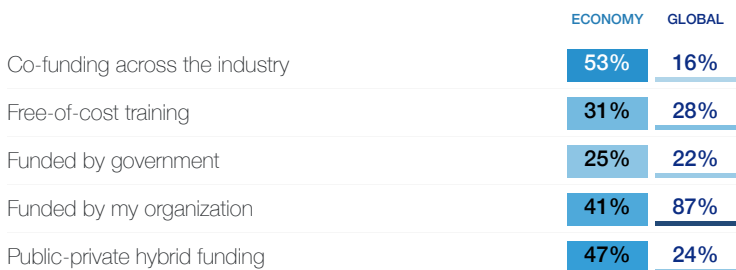
Skills required by the workforce that are expected to remain the same (share of all skills required)

61%

Global 56%

### Training funding

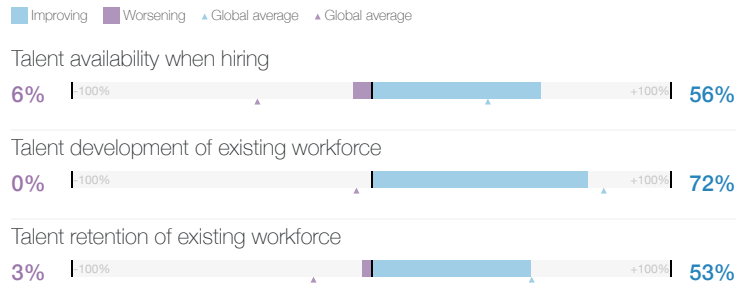
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



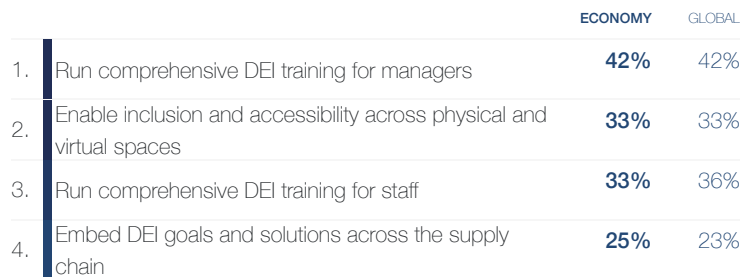
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

50%

Global 67%

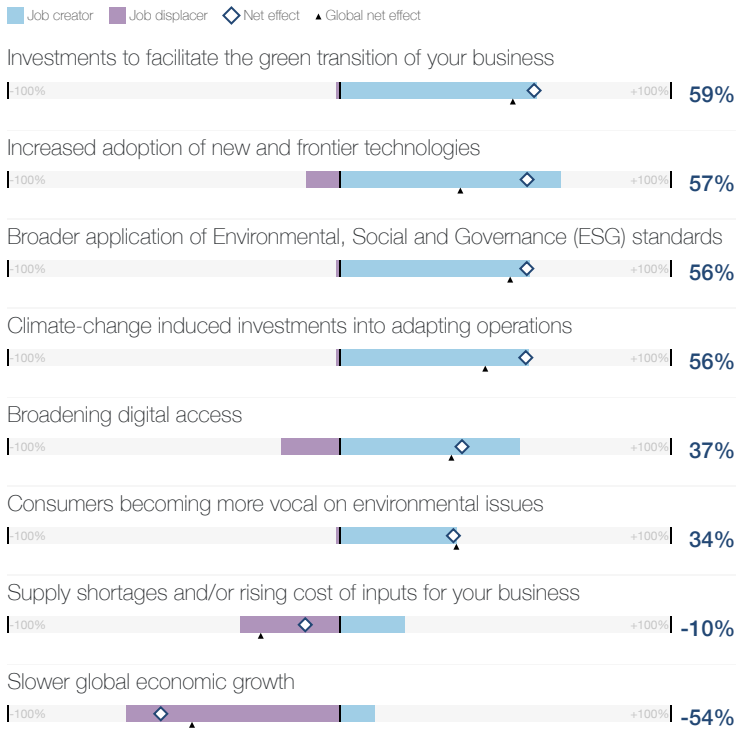
# Germany

62.8

## Trend outlook

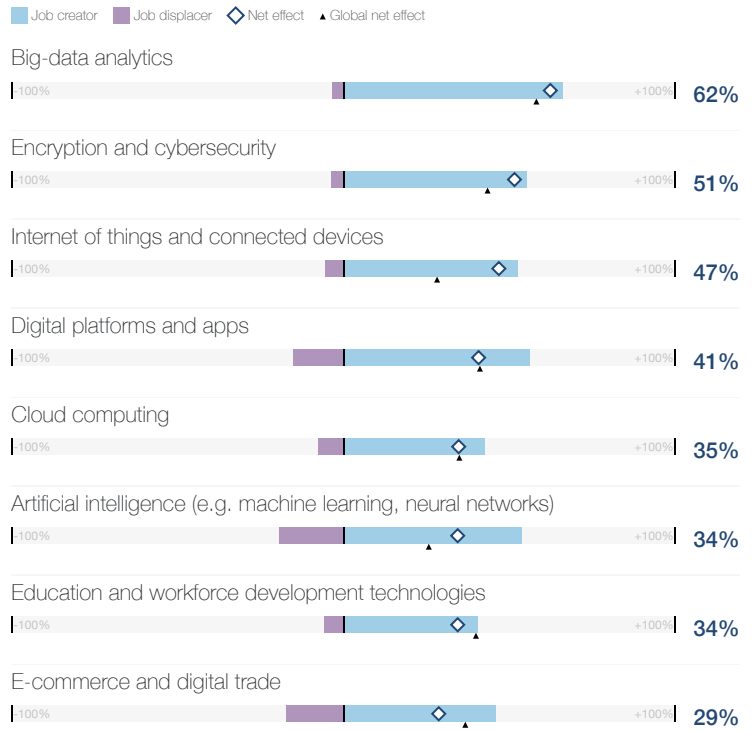
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

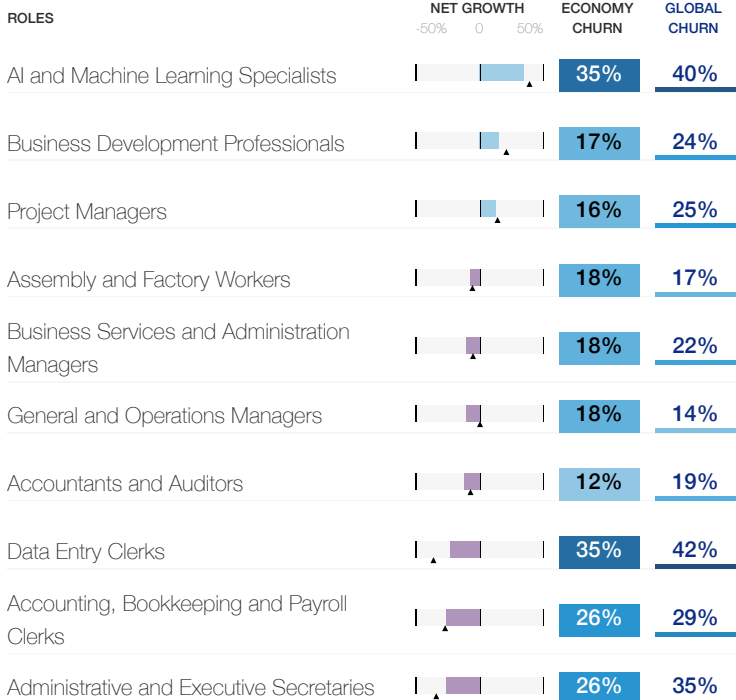
Five-year structural labour-force churn (percent)

19%

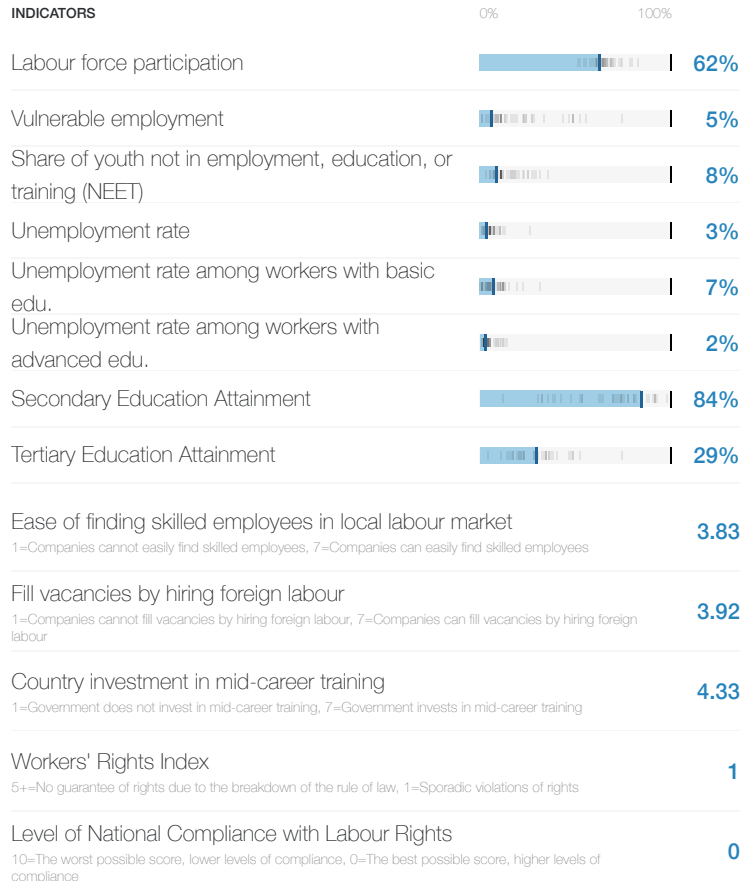
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



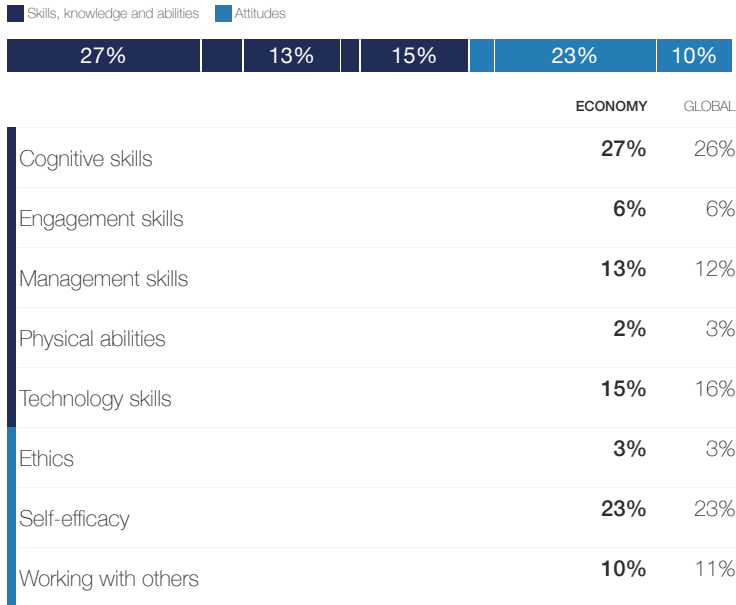
# Germany

62.8

## Skill outlook

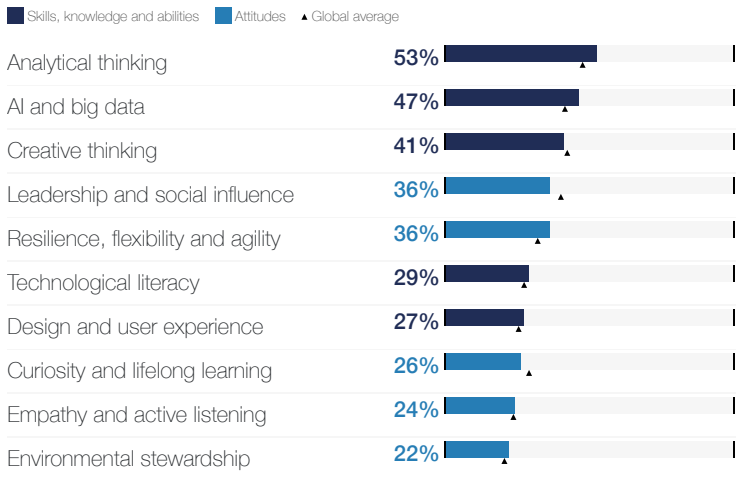
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

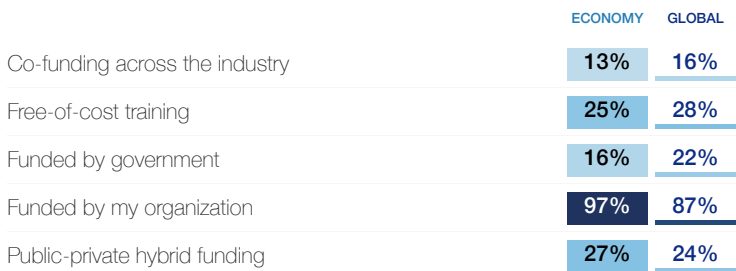
Skills required by the workforce that are expected to remain the same (share of all skills required)

57%

Global 56%

### Training funding

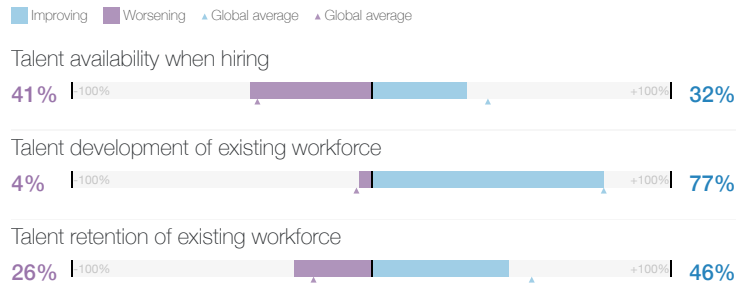
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



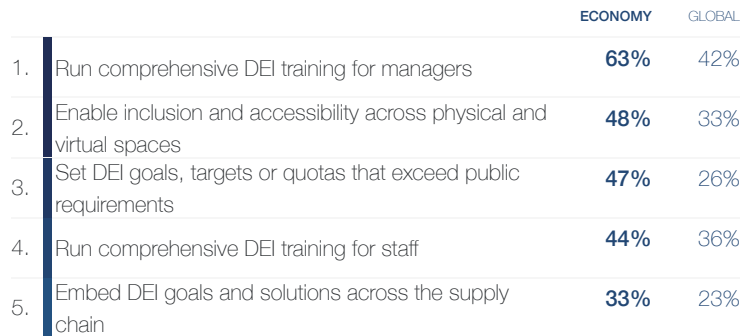
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

80%

Global 67%

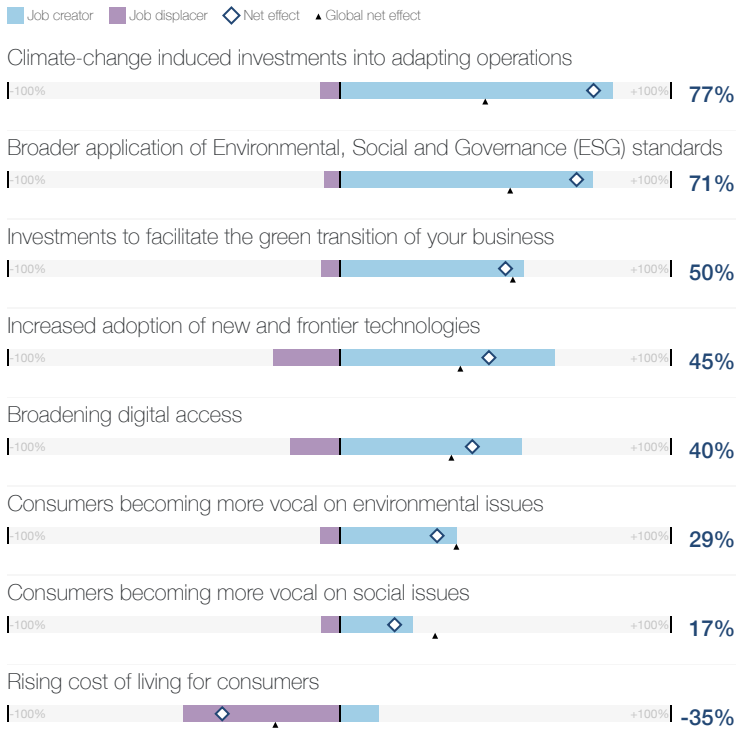
# Hong Kong SAR, China

5.9

## Trend outlook

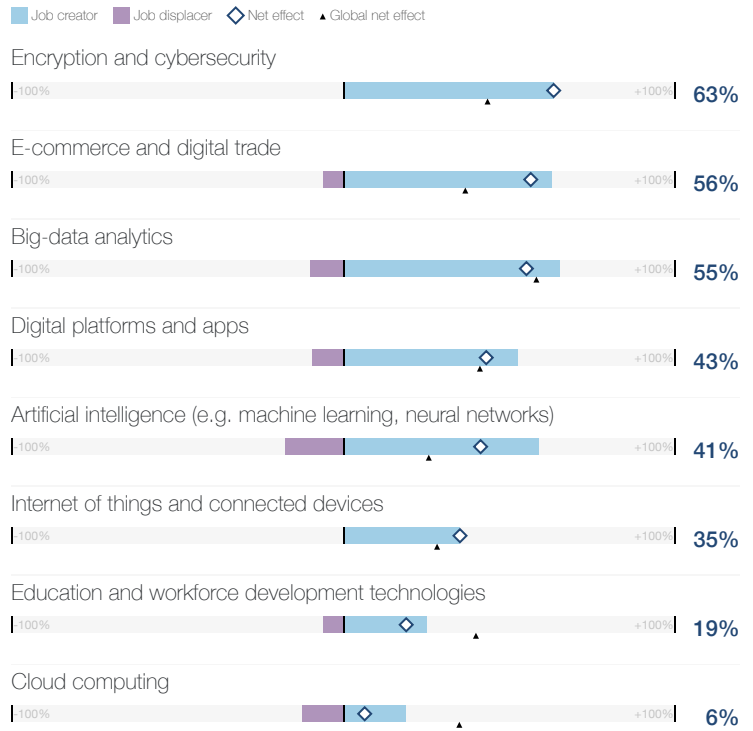
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

18%

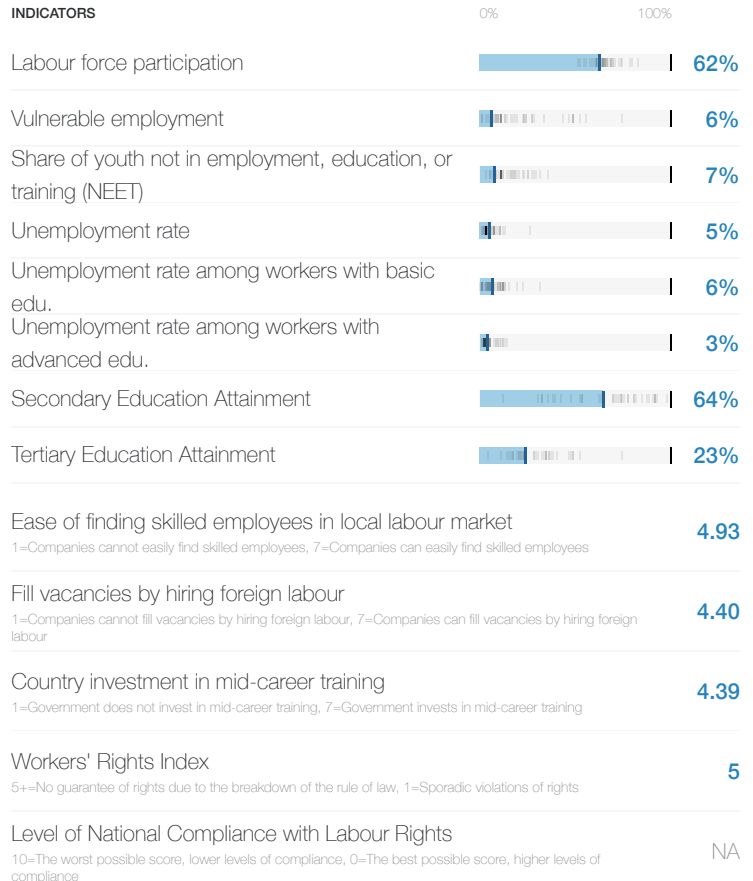
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



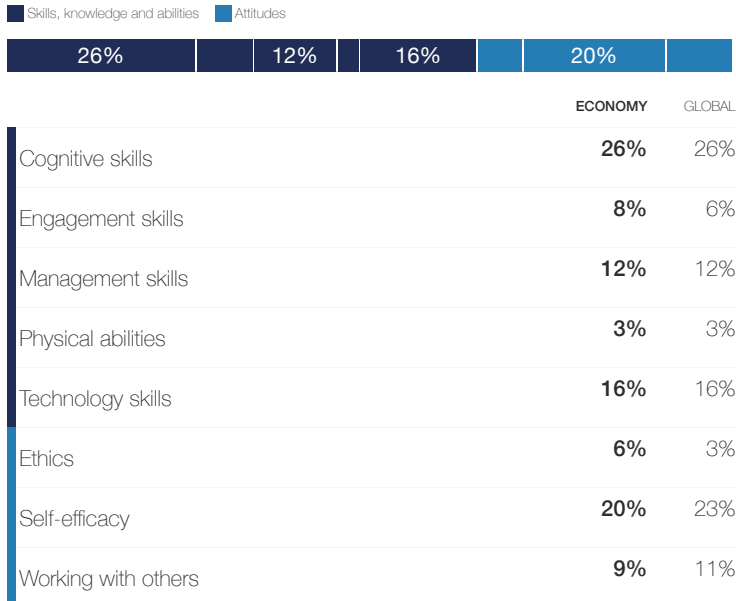
# Hong Kong SAR, China

5.9

## Skill outlook

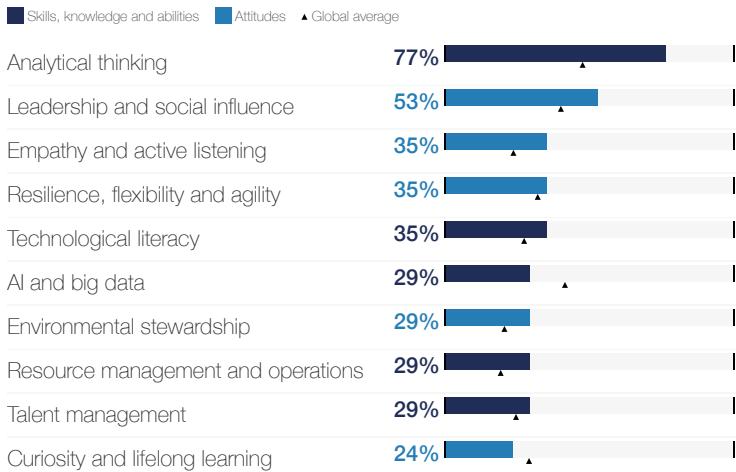
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

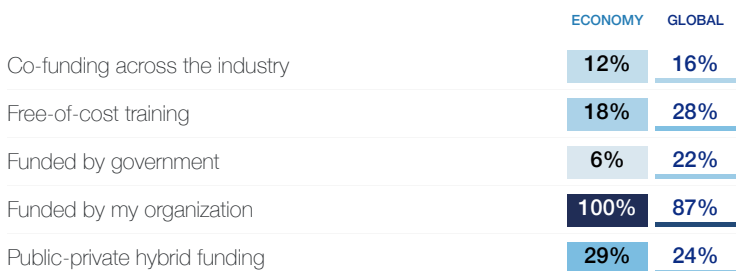
Skills required by the workforce that are expected to remain the same (share of all skills required)

59%

Global 56%

### Training funding

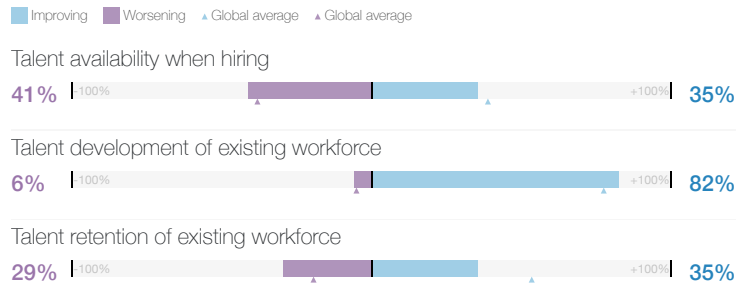
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



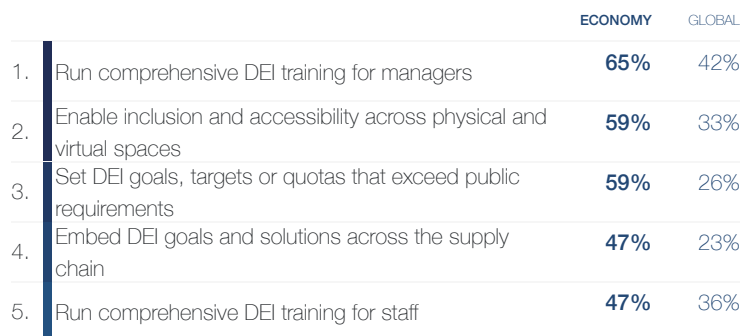
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

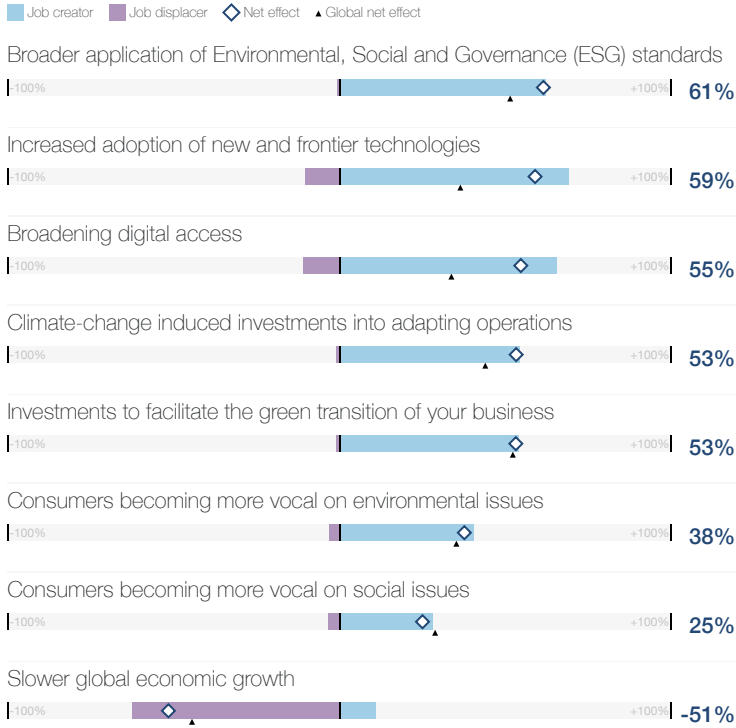
88%

Global 67%

Trend outlook

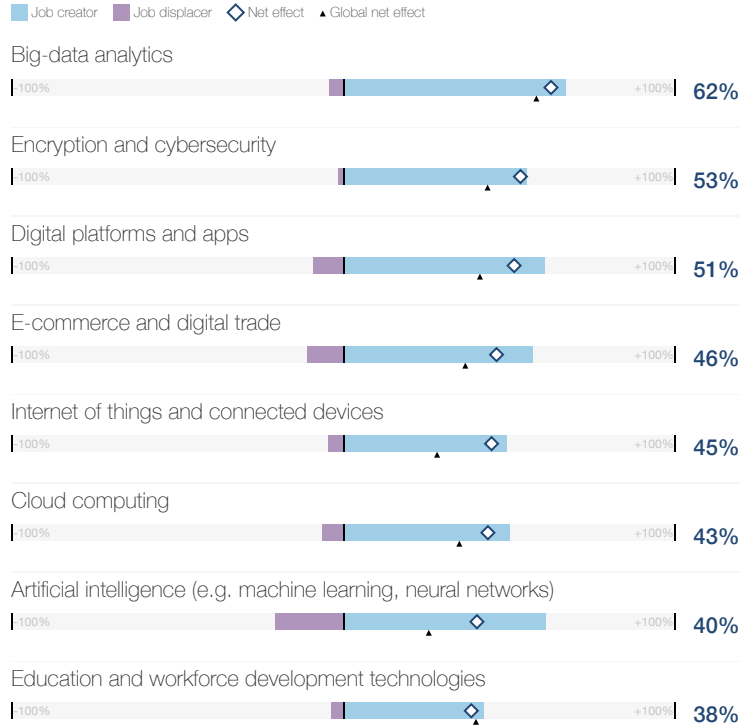
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

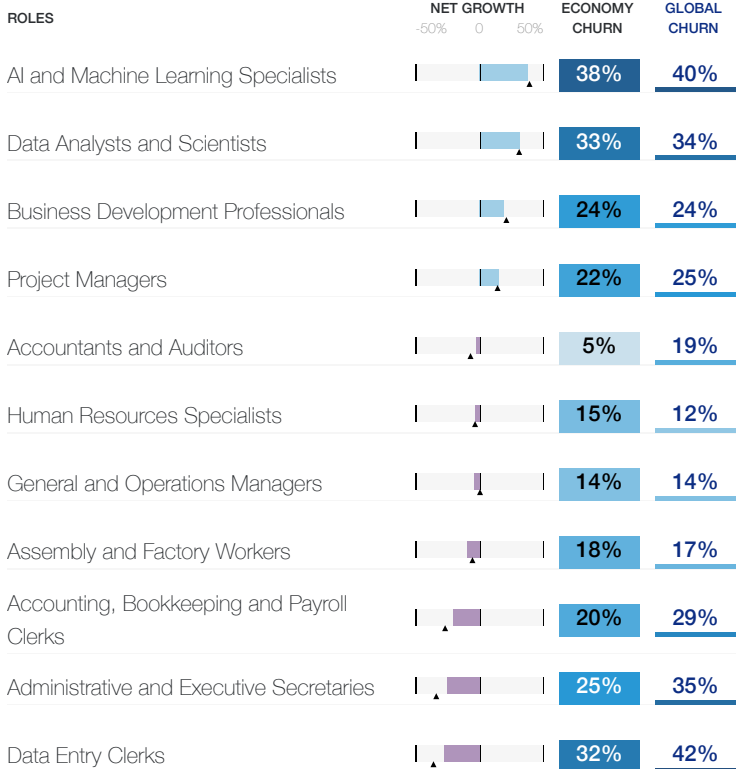
Five-year structural labour-force churn (percent)

22%

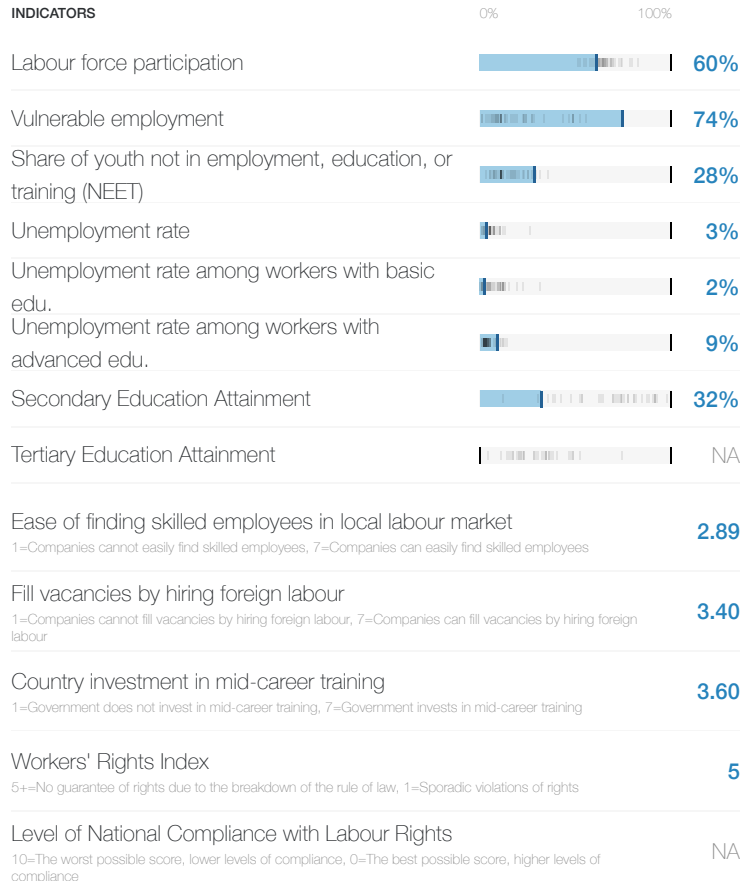
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



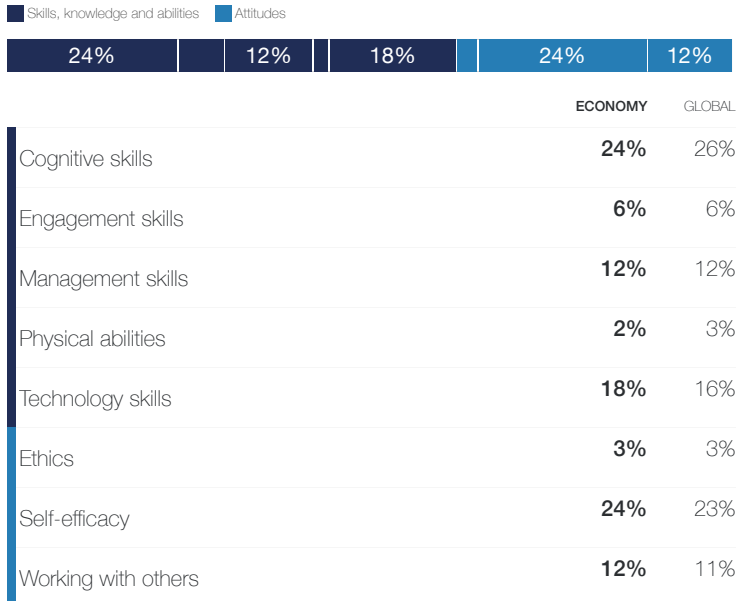
# India

679.4

## Skill outlook

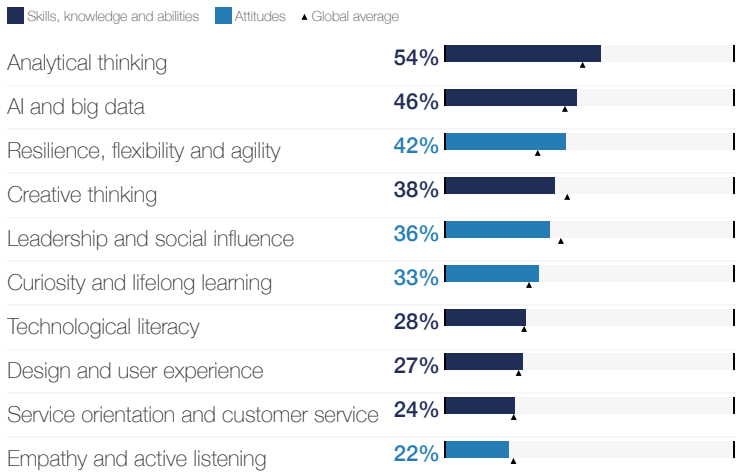
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

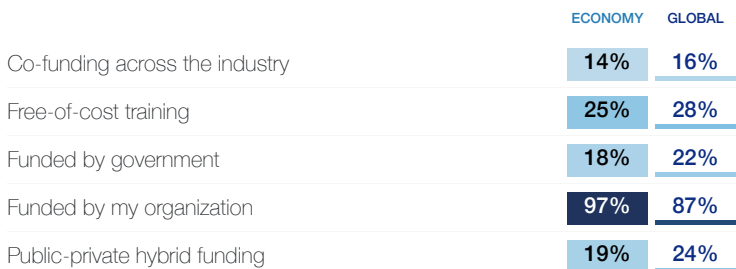
Skills required by the workforce that are expected to remain the same (share of all skills required)

54%

Global 56%

### Training funding

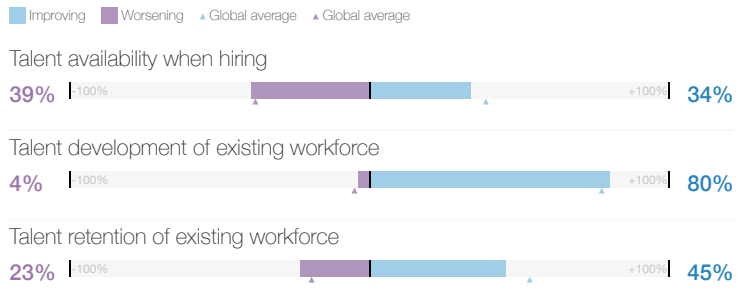
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



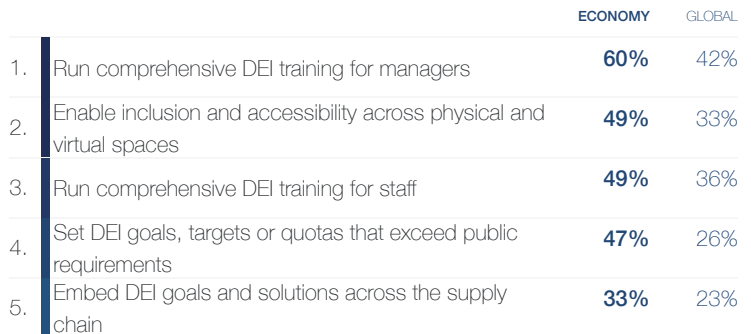
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

89%

Global 67%

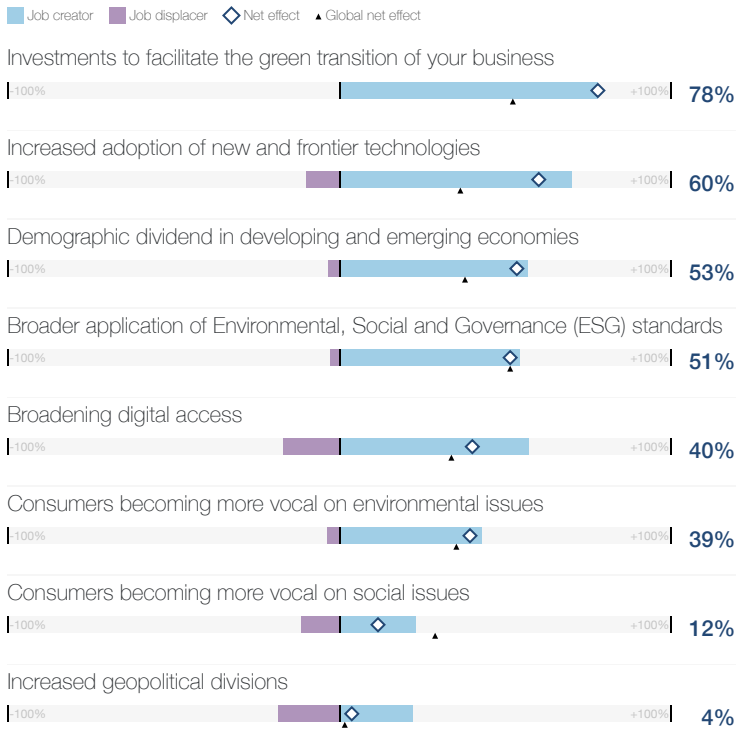
# Indonesia

164.6

## Trend outlook

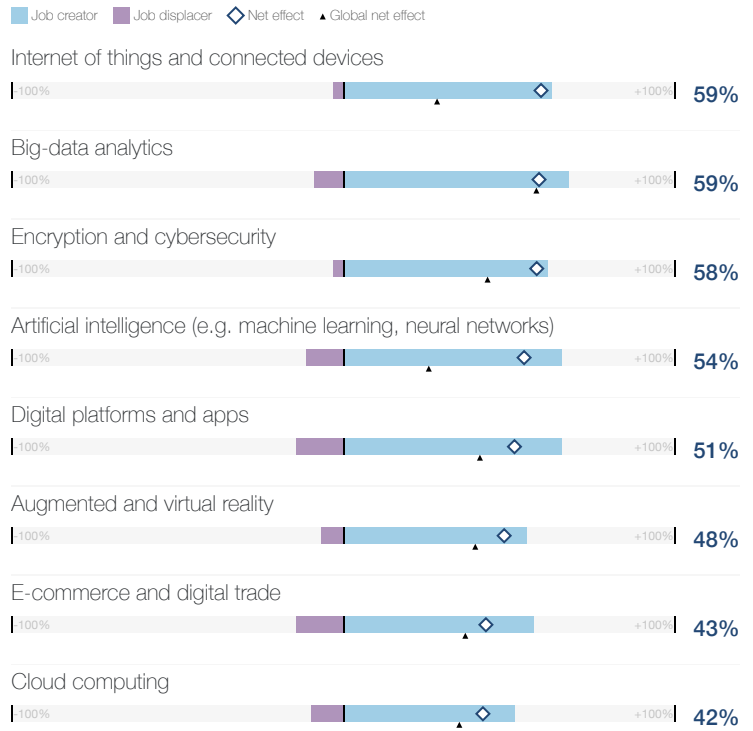
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

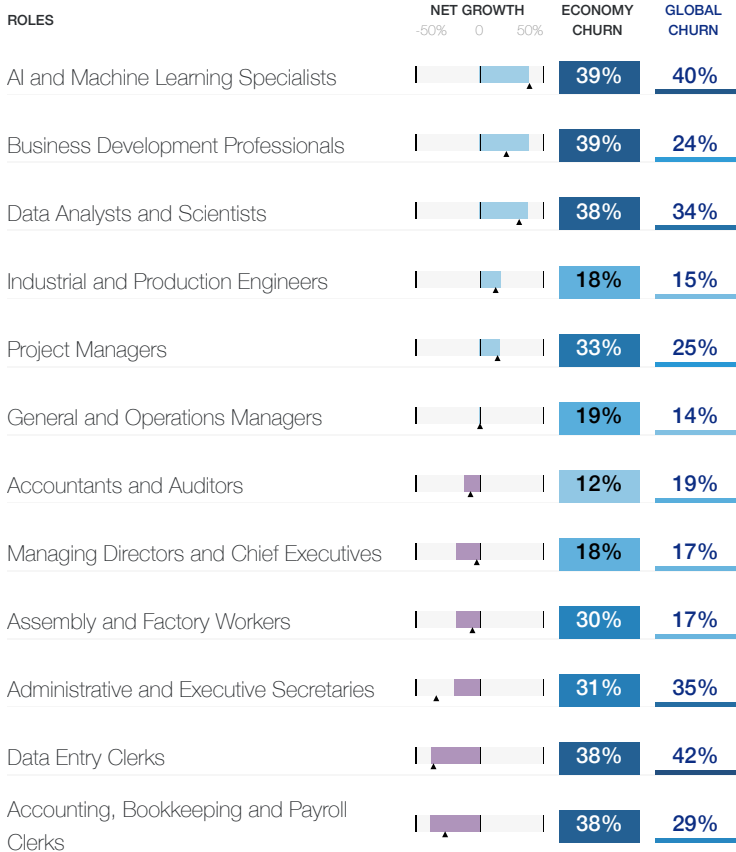
Five-year structural labour-force churn (percent)

**28%**

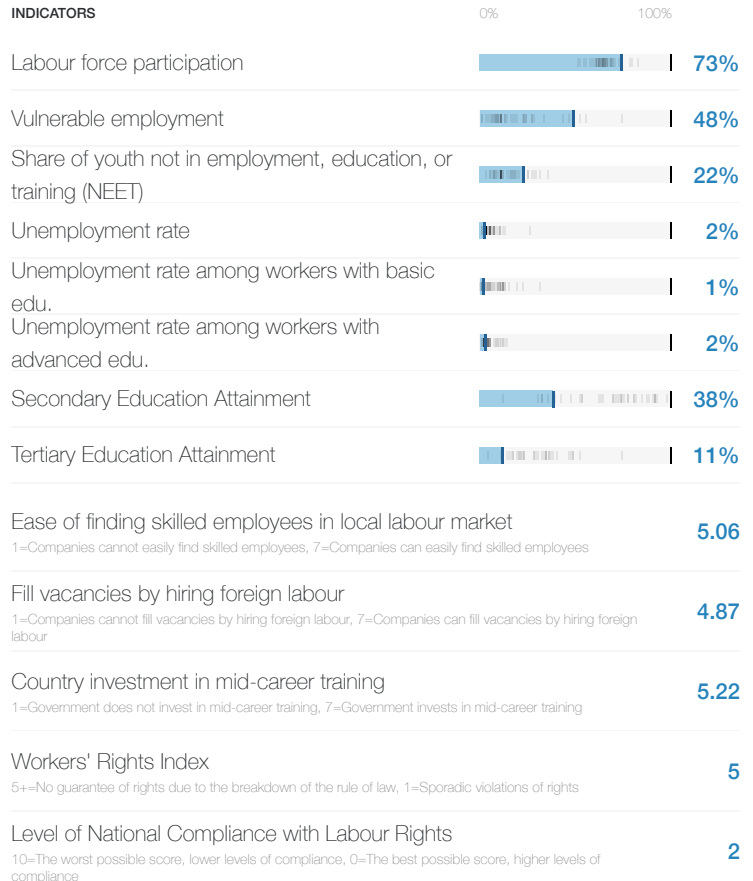
Global **23%**

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



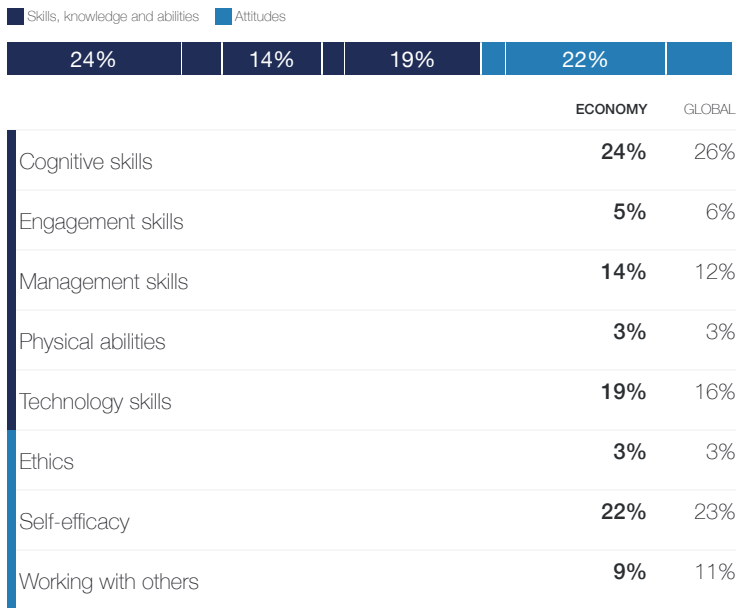
# Indonesia

164.6

## Skill outlook

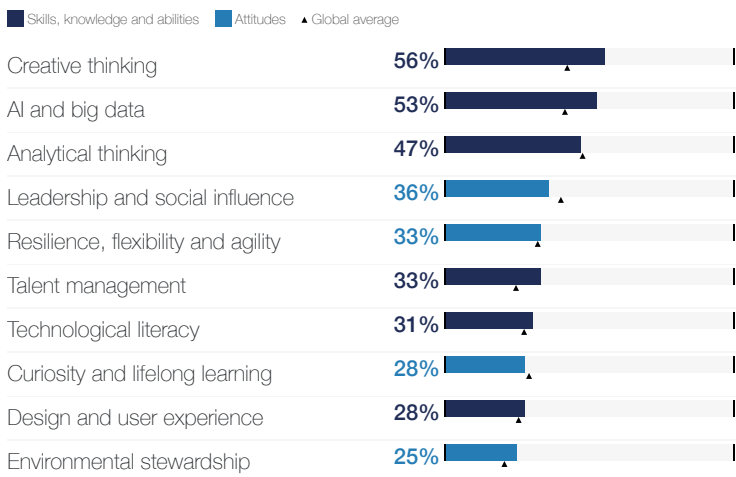
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

53%  
Global 56%

### Training funding

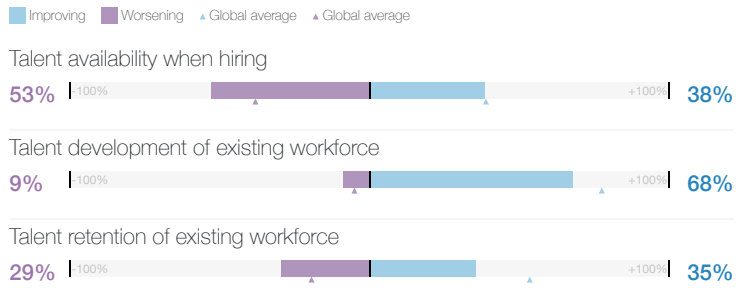
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

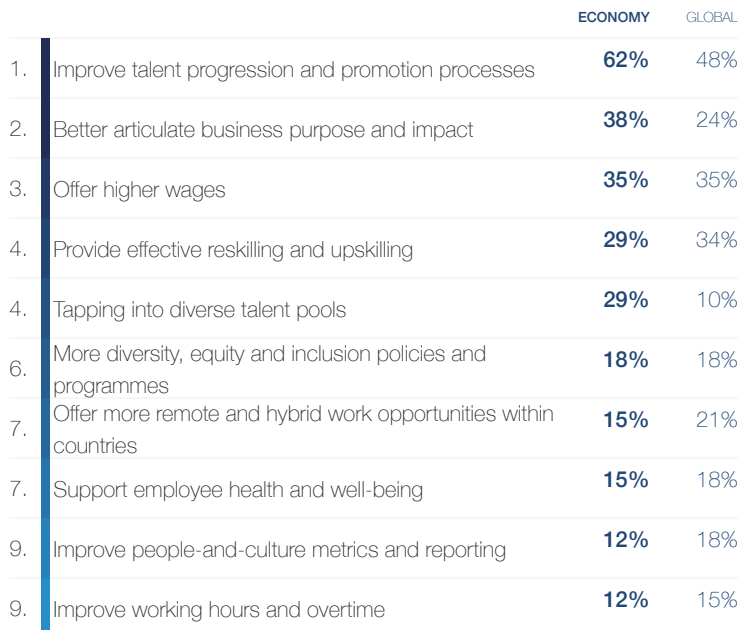
### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



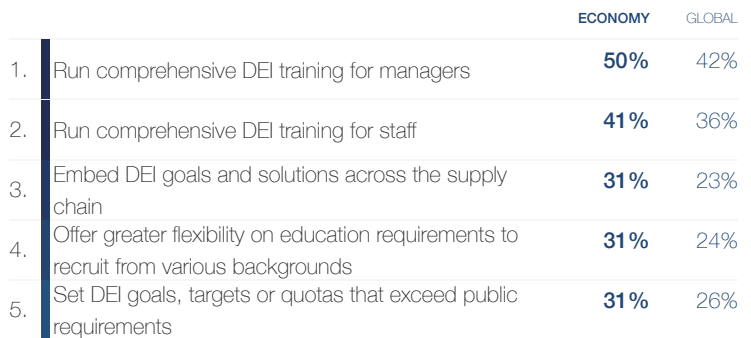
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

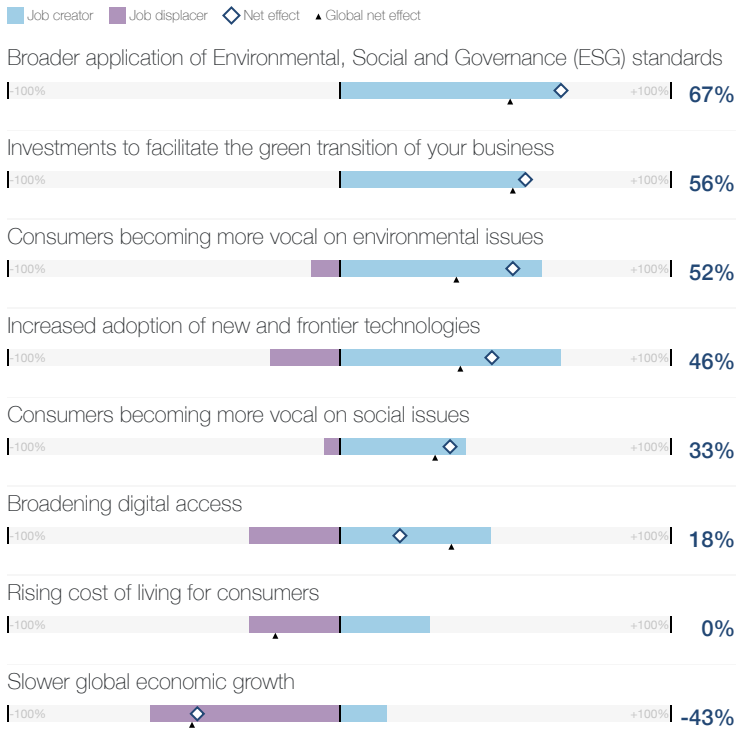
(share of organizations surveyed)

69%  
Global 67%

Trend outlook

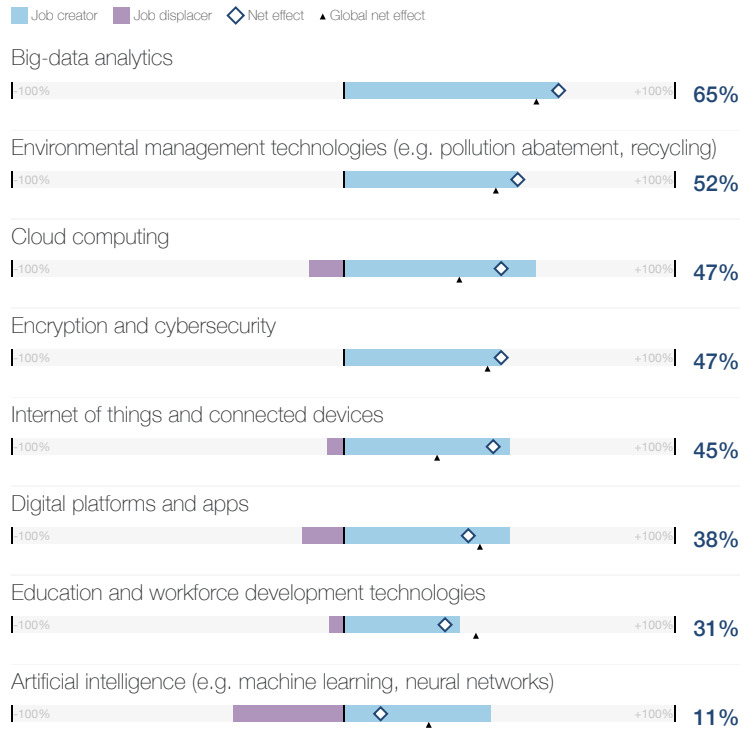
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

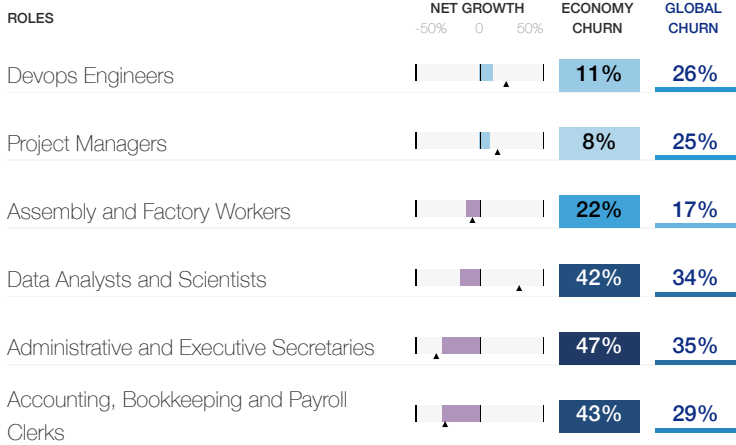
Five-year structural labour-force churn (percent)

19%

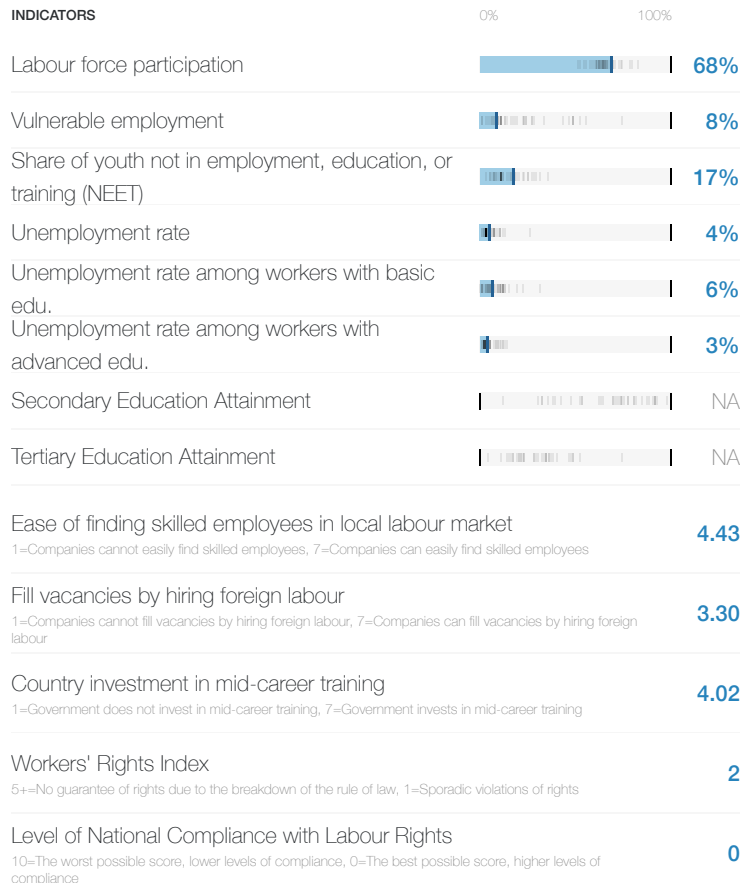
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



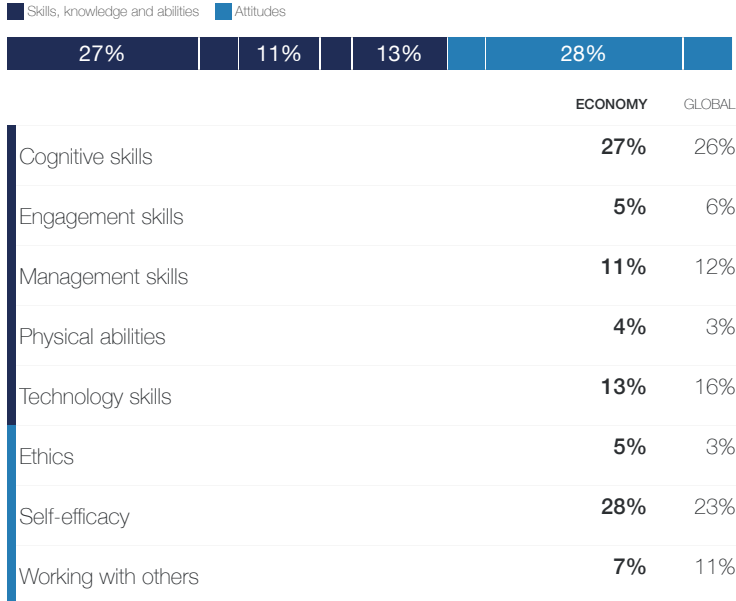
Contextual indicators



Skill outlook

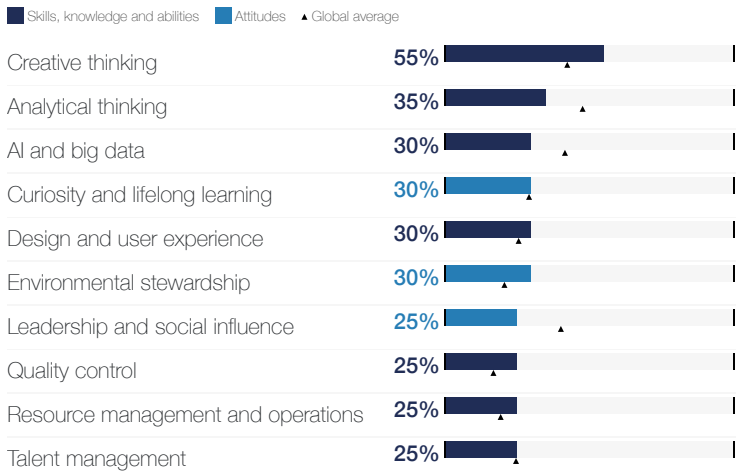
Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



Skill stability

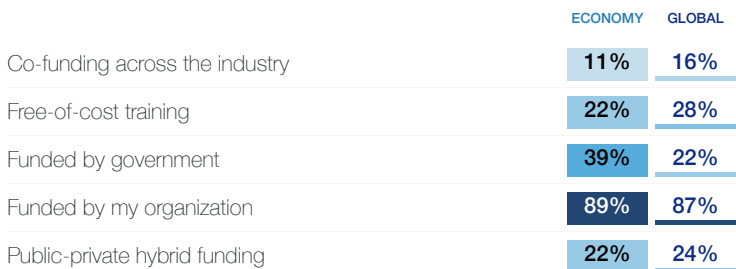
Skills required by the workforce that are expected to remain the same (share of all skills required)

56%

Global 56%

Training funding

Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



Workforce strategy outlook

Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



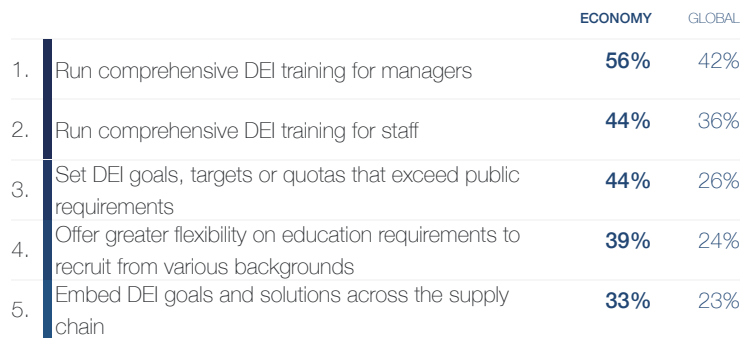
Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



Share of companies with DEI Programs

(share of organizations surveyed)

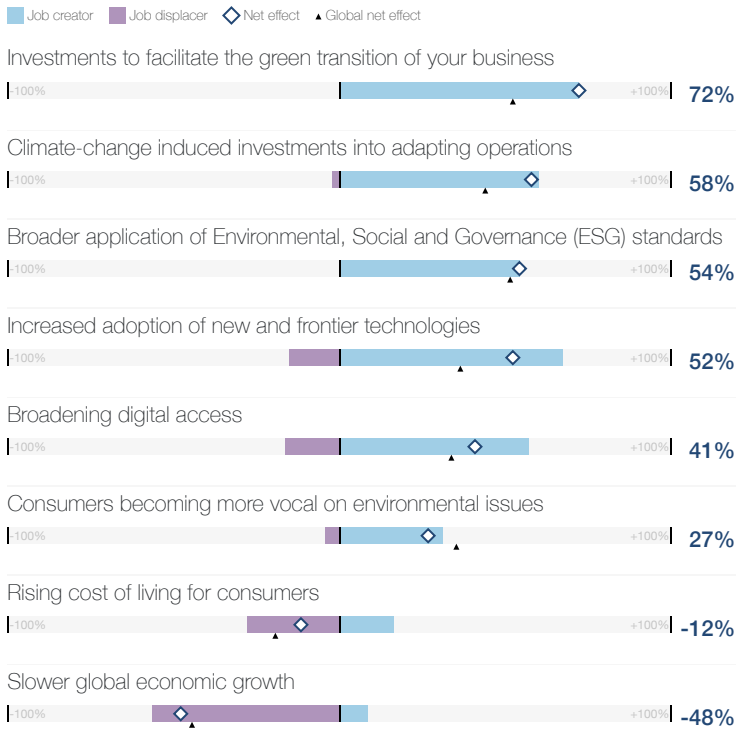
83%

Global 67%

Trend outlook

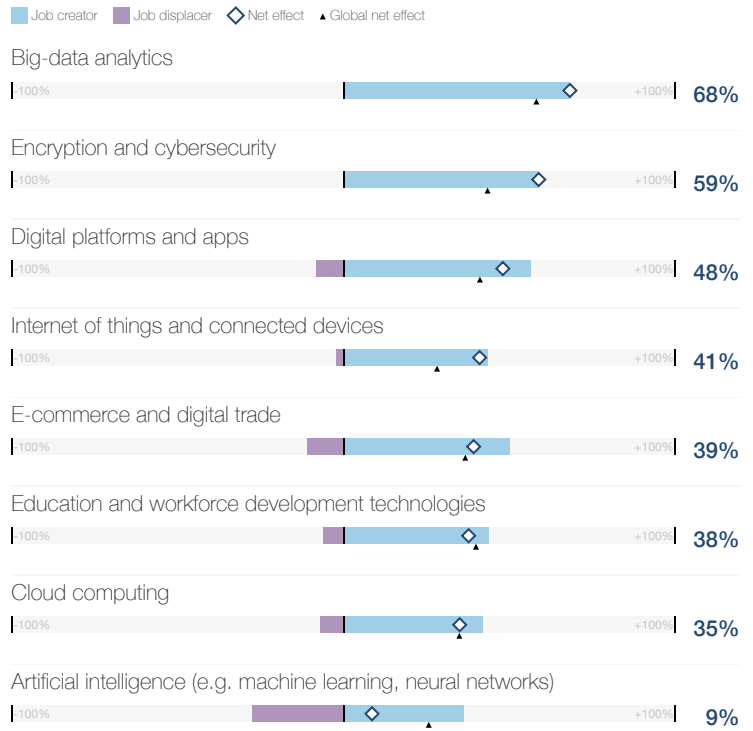
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

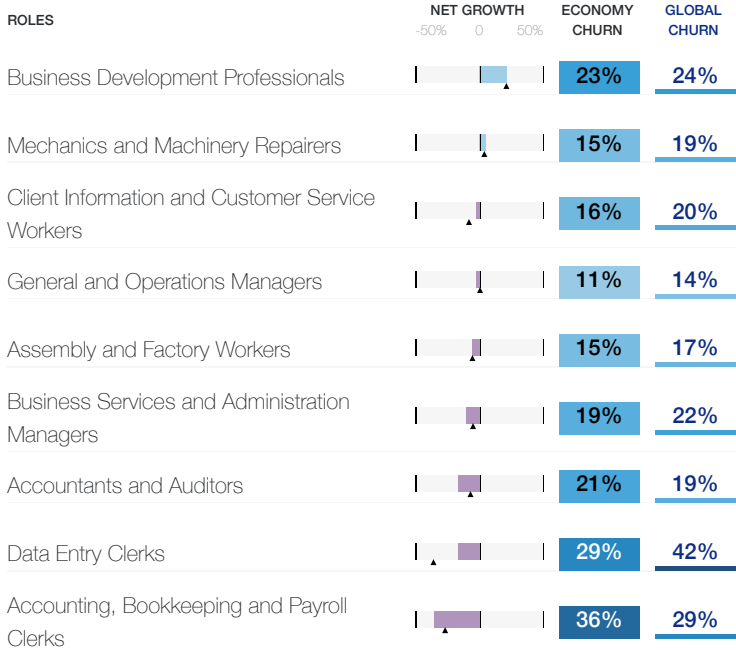
Five-year structural labour-force churn (percent)

20%

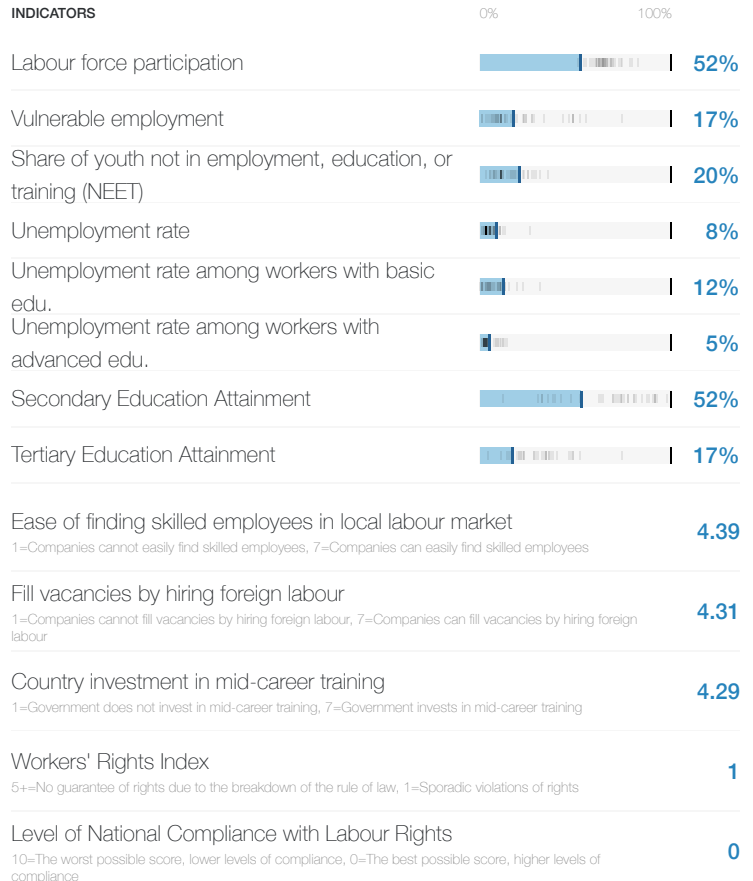
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



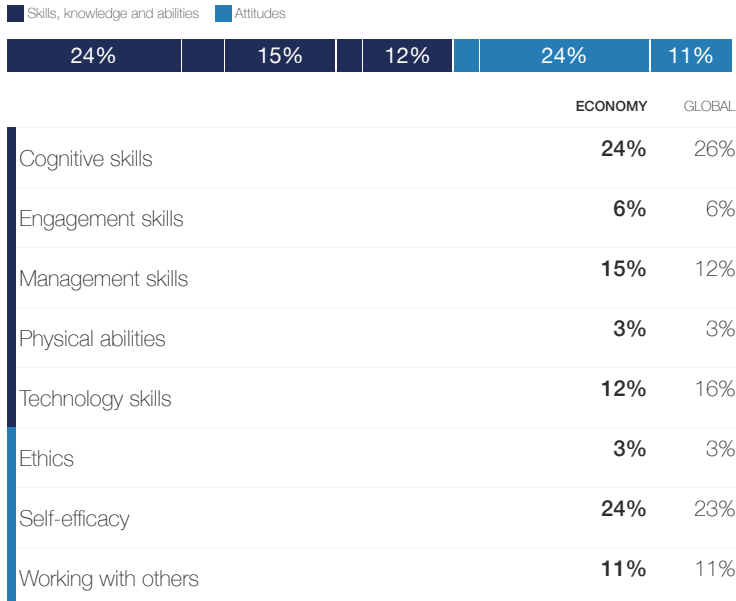
Contextual indicators



## Skill outlook

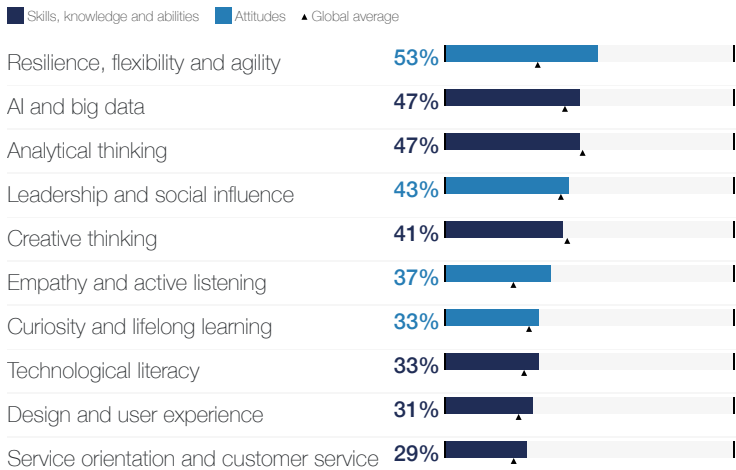
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

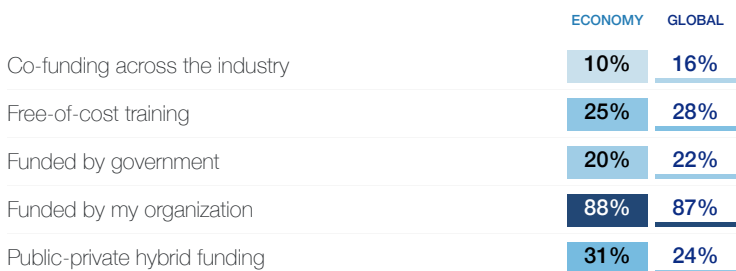
Skills required by the workforce that are expected to remain the same (share of all skills required)

**52%**

Global 56%

### Training funding

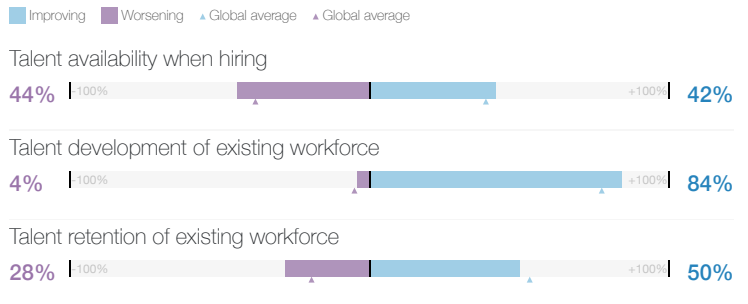
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



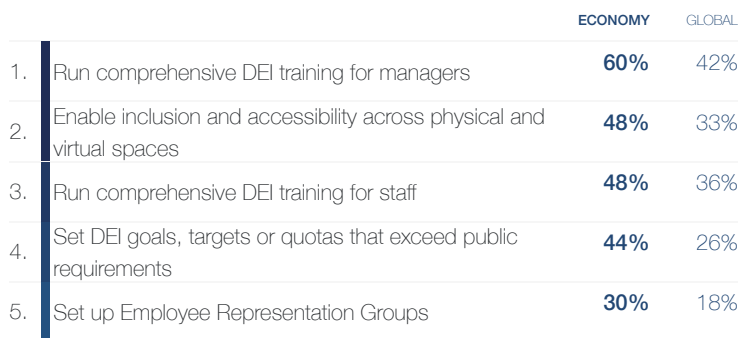
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

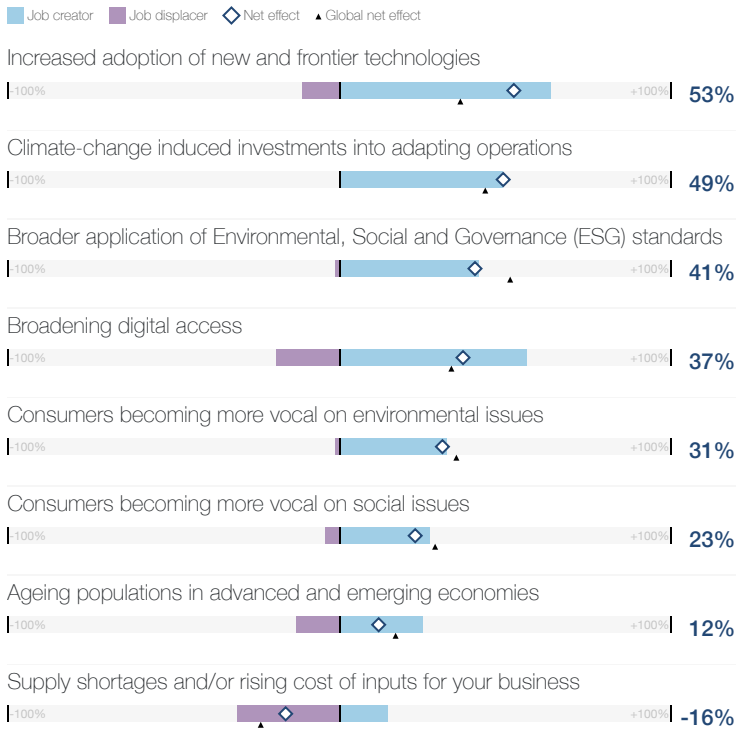
**84%**

Global 67%

Trend outlook

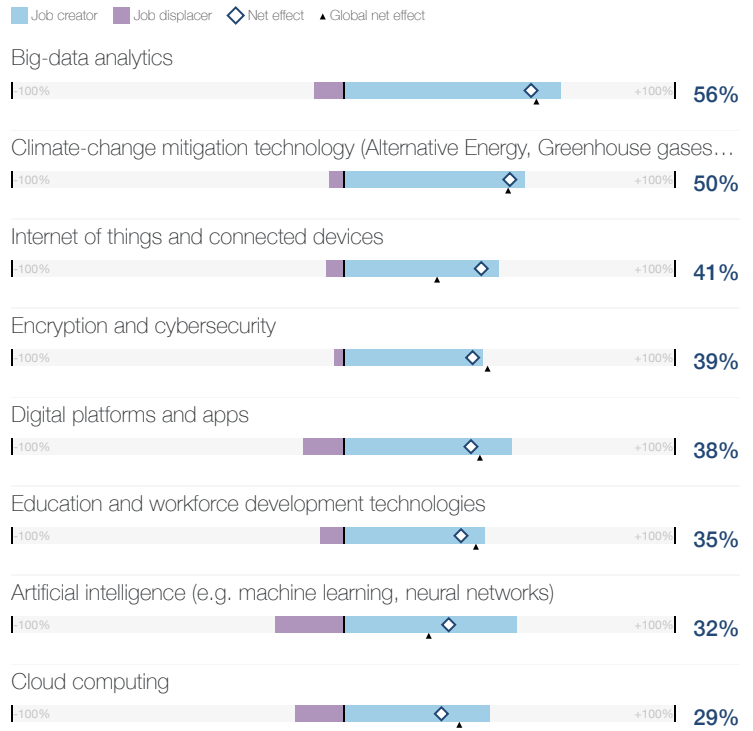
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

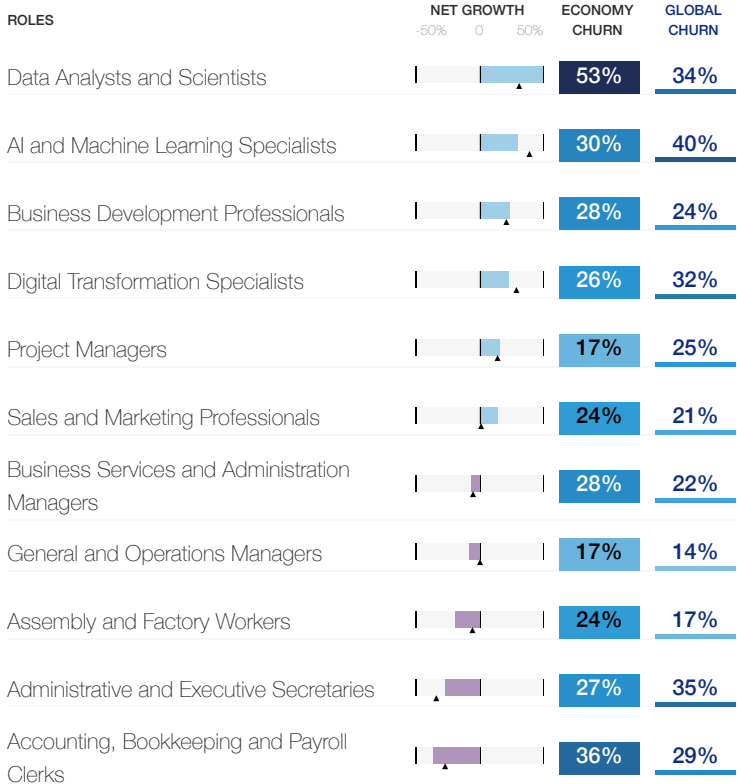
Five-year structural labour-force churn (percent)

24%

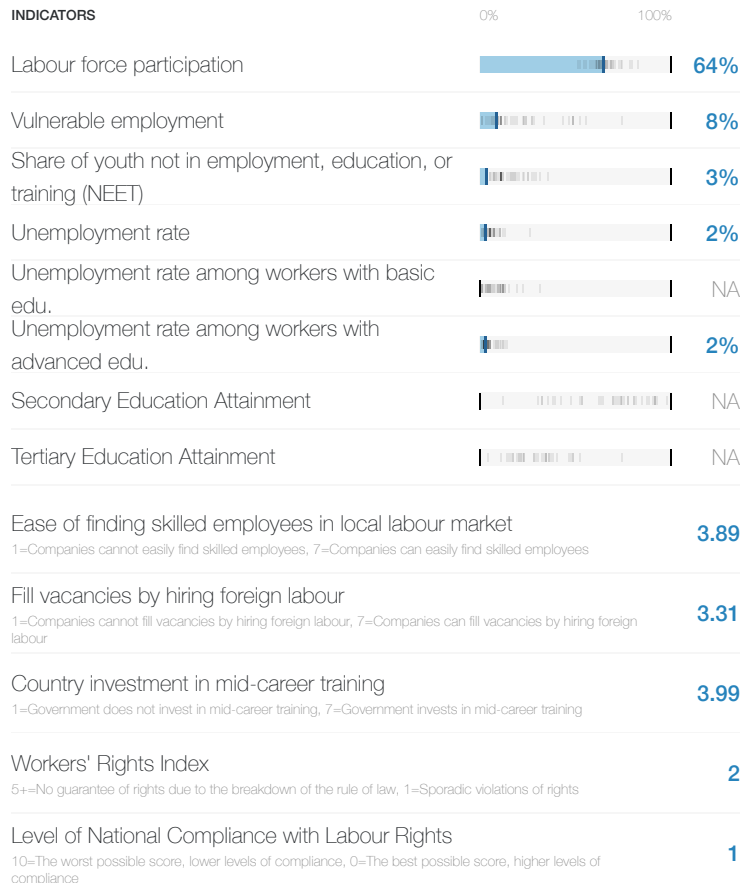
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



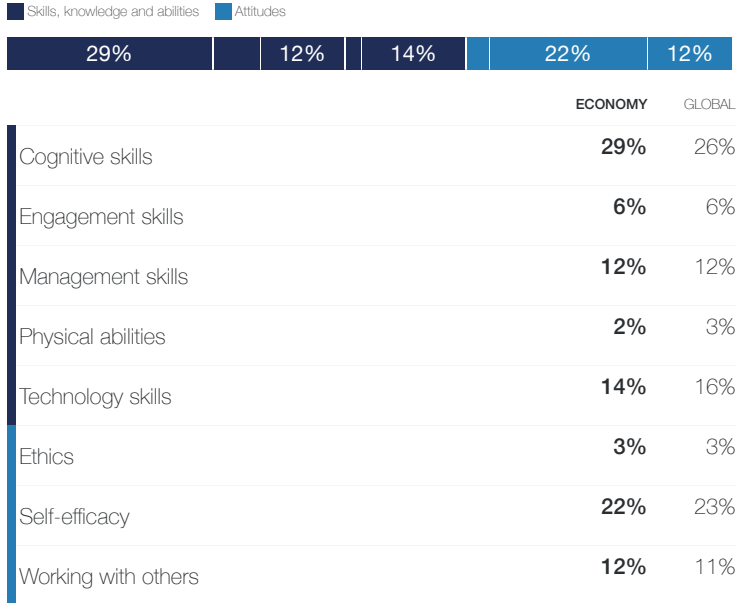
Contextual indicators



## Skill outlook

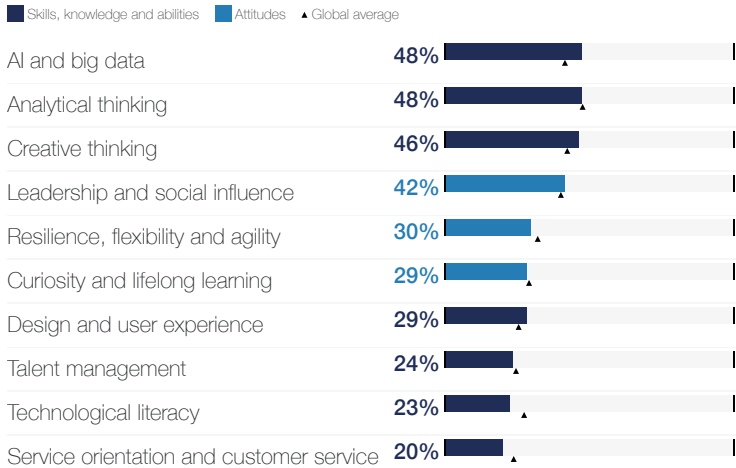
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

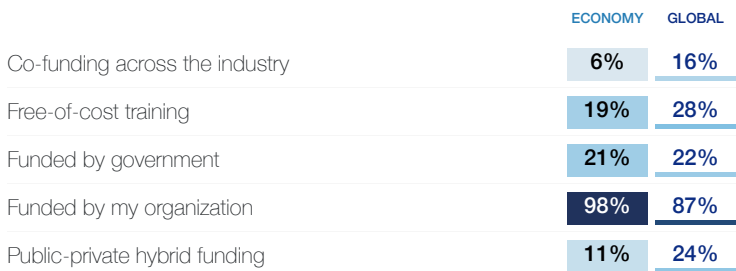
Skills required by the workforce that are expected to remain the same (share of all skills required)

60%

Global 56%

### Training funding

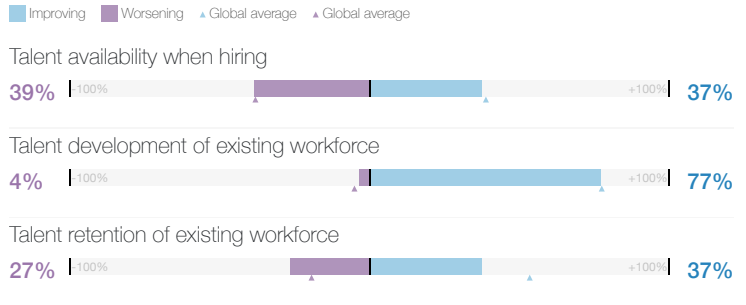
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



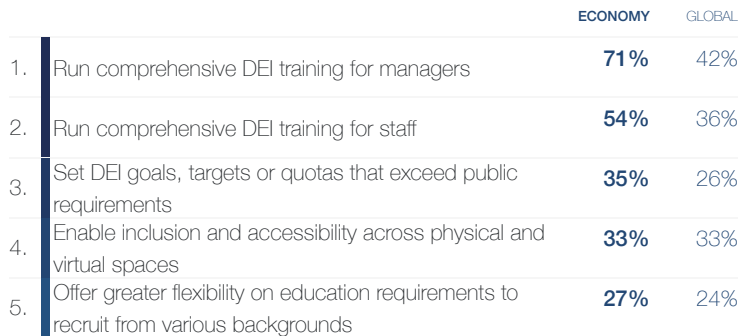
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

79%

Global 67%

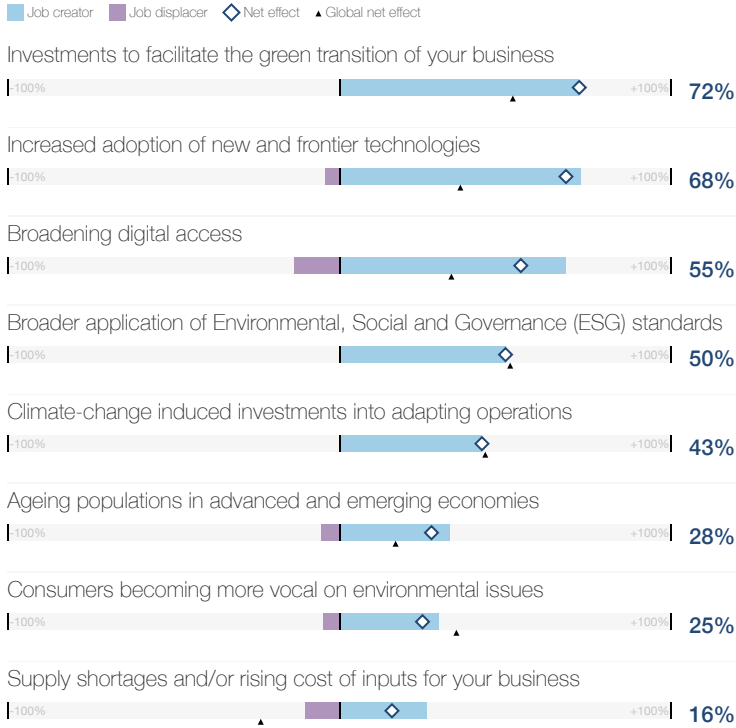
# Korea, Republic of

40.6

## Trend outlook

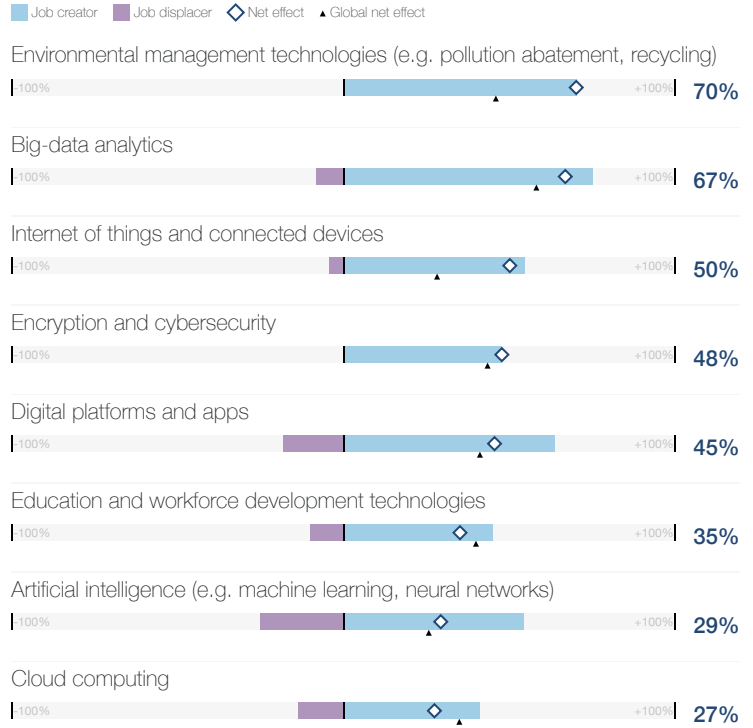
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

**23%**

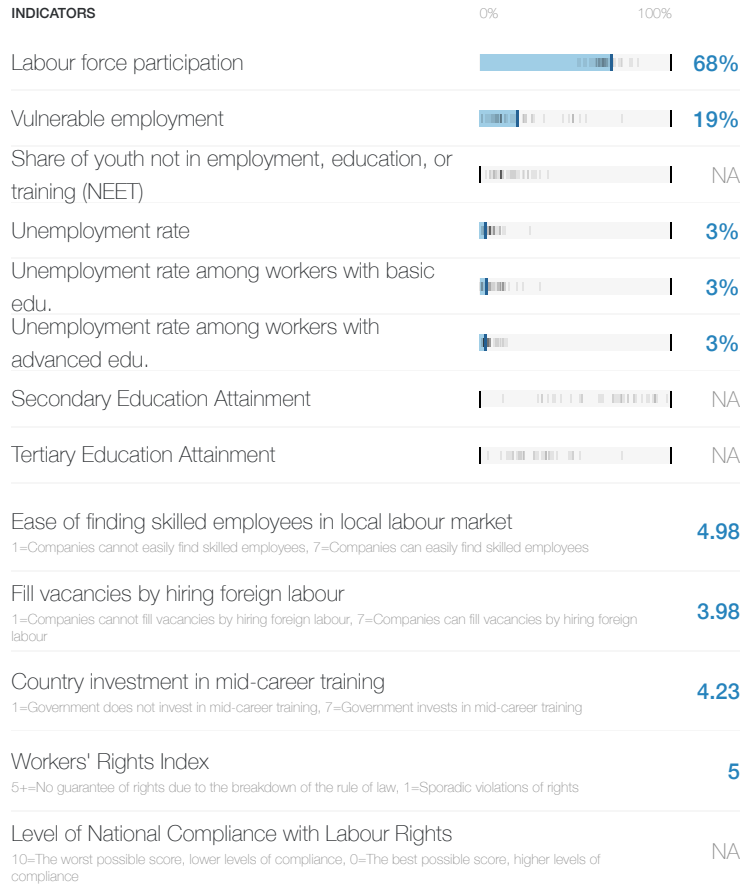
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



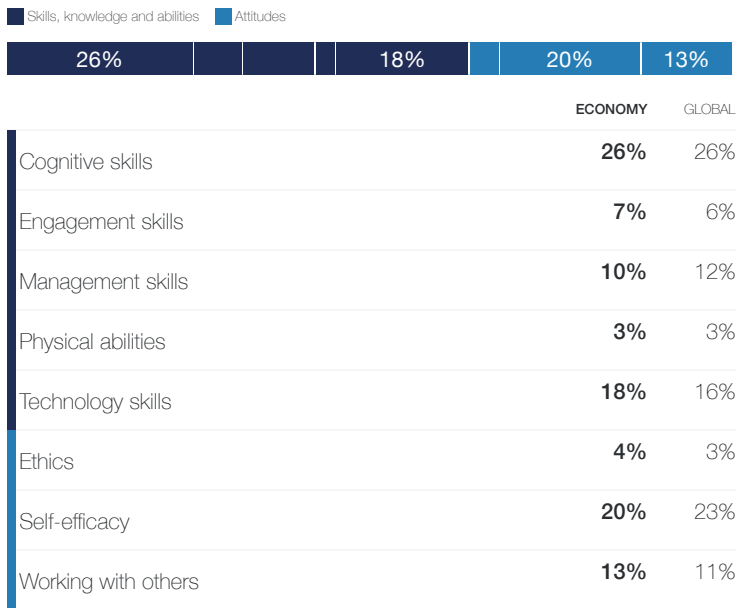
# Korea, Republic of

40.6

## Skill outlook

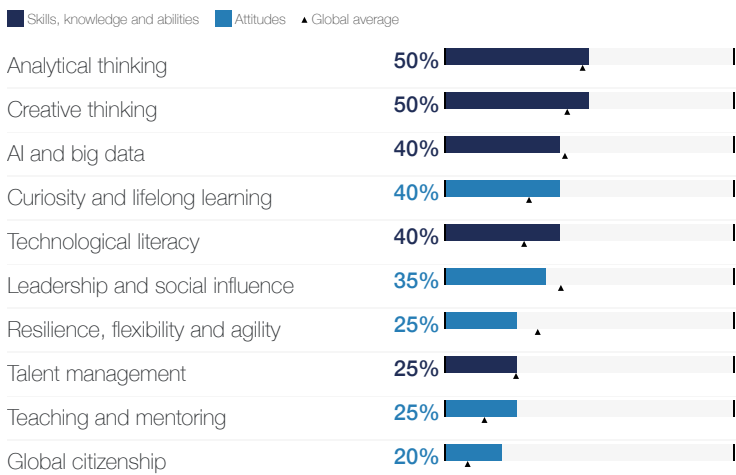
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

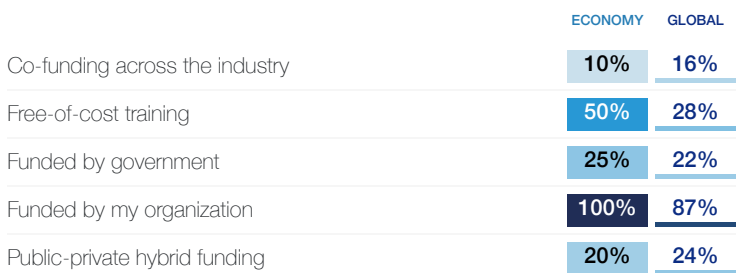
Skills required by the workforce that are expected to remain the same (share of all skills required)

55%

Global 56%

### Training funding

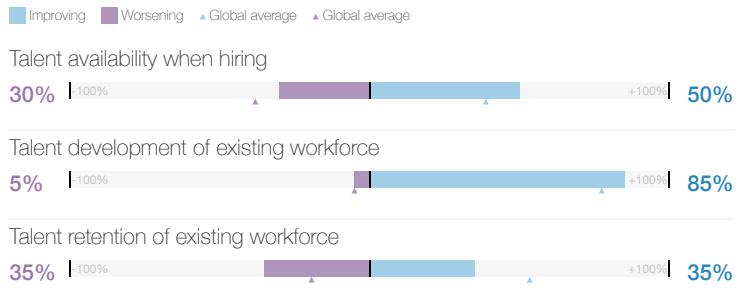
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



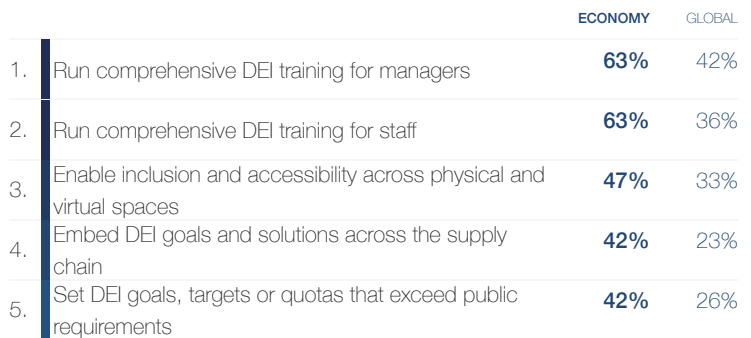
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

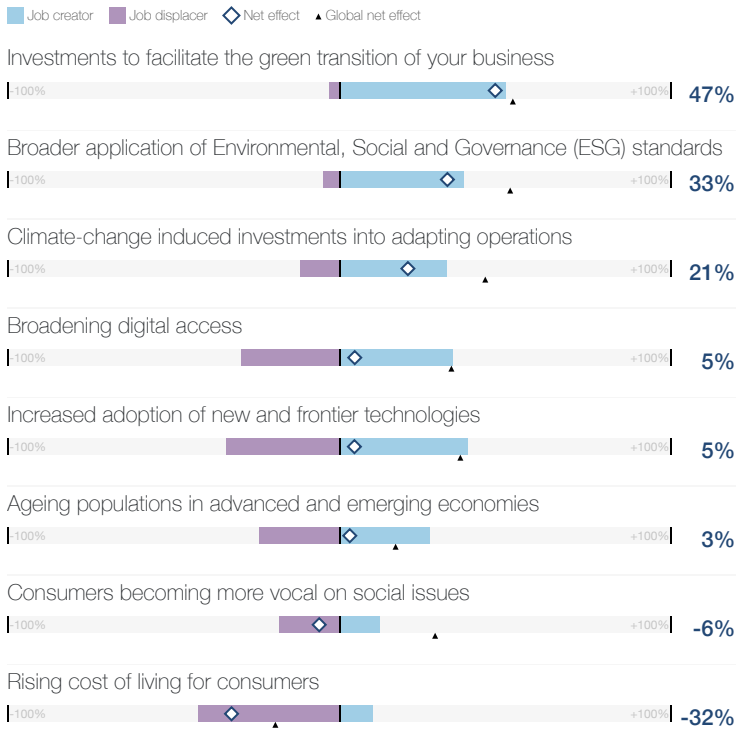
74%

Global 67%

Trend outlook

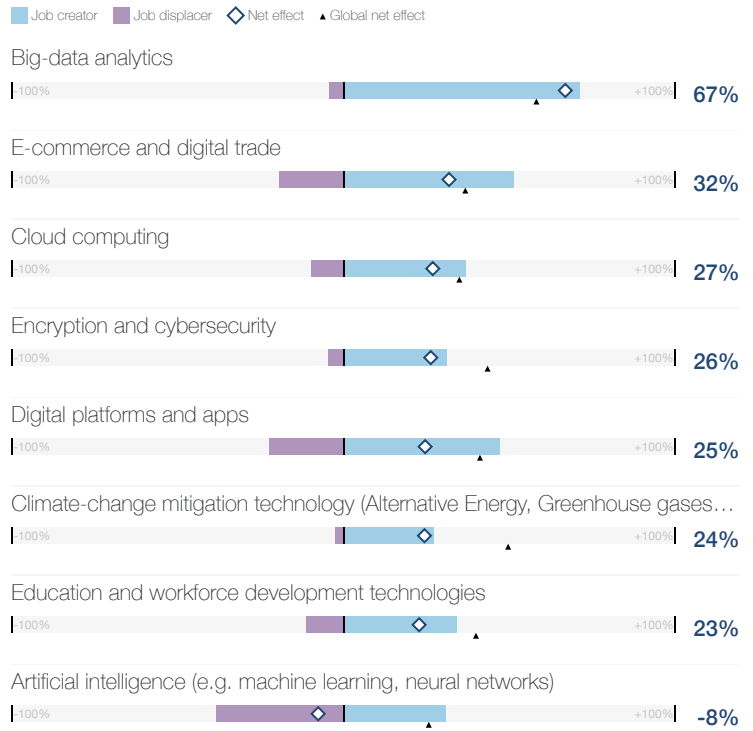
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



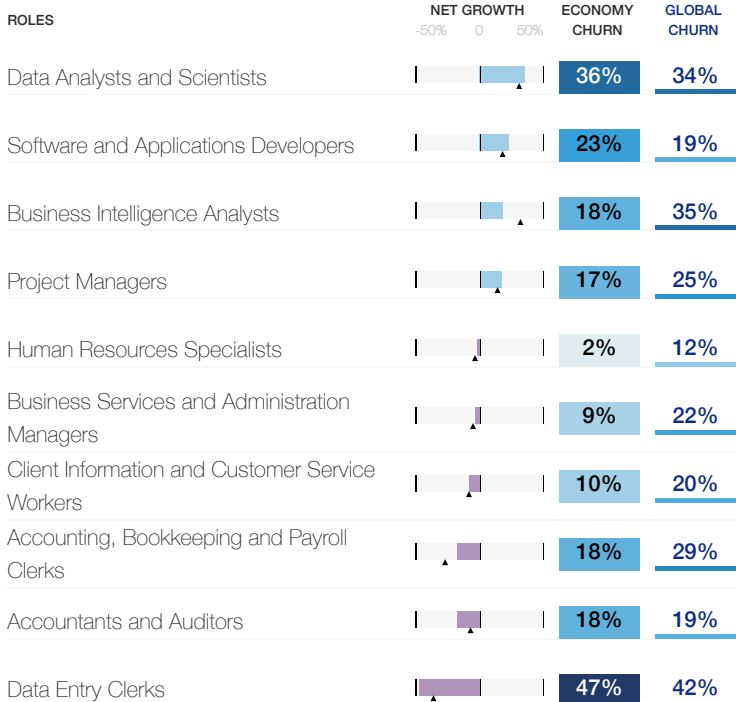
Role outlook

Churn in five years

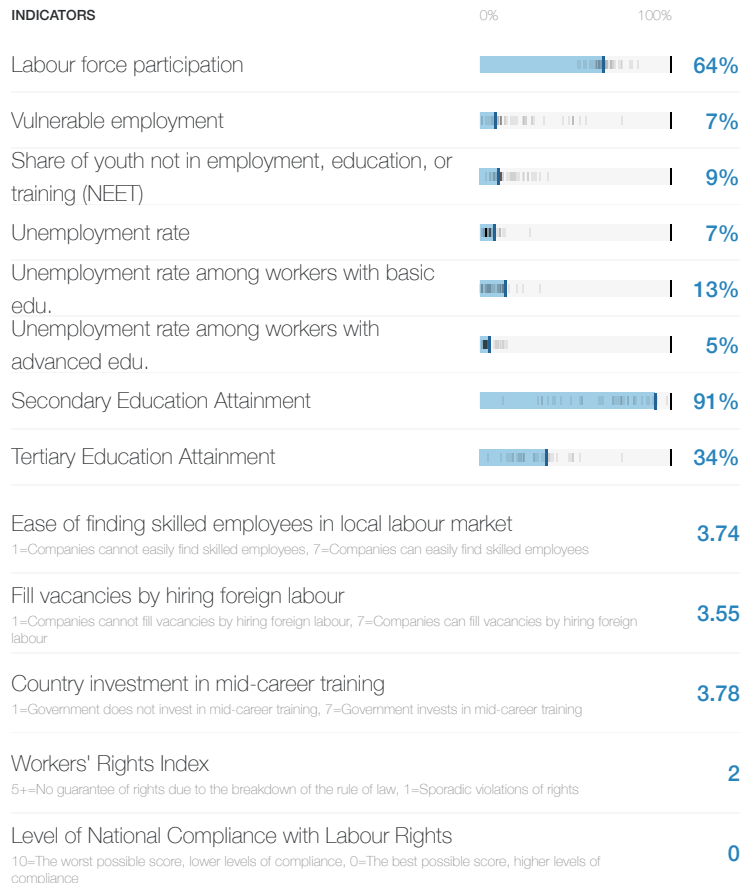
Five-year structural labour-force churn (percent) **22%** Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



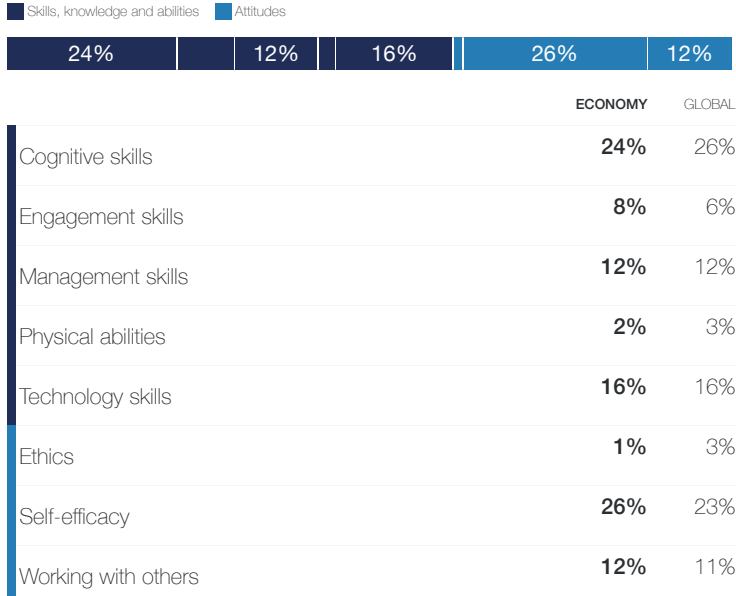
# Latvia

1.4

## Skill outlook

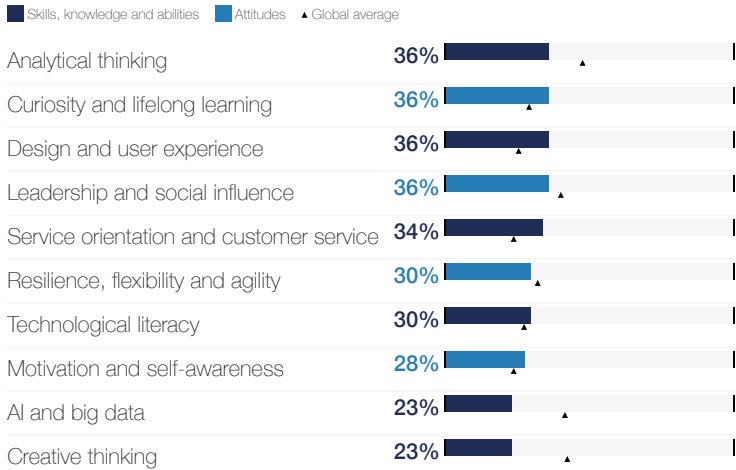
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

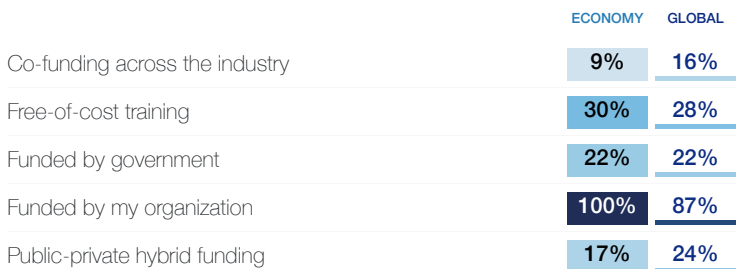
Skills required by the workforce that are expected to remain the same (share of all skills required)

63%

Global 56%

### Training funding

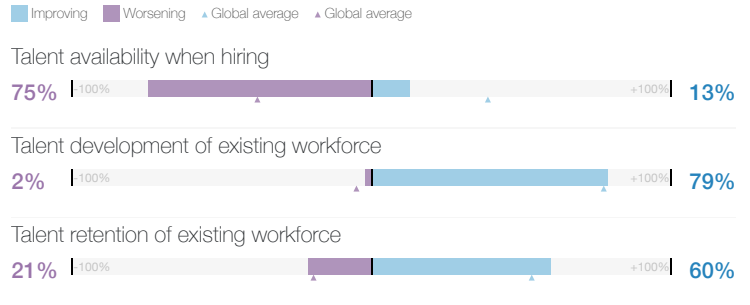
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



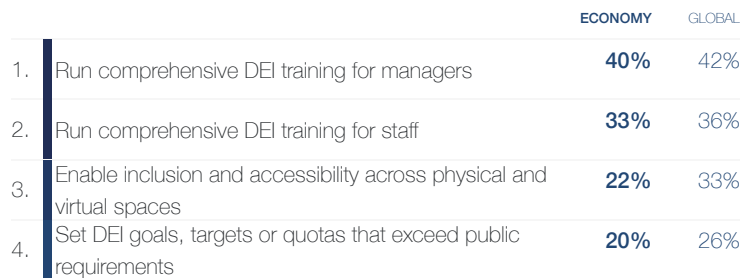
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

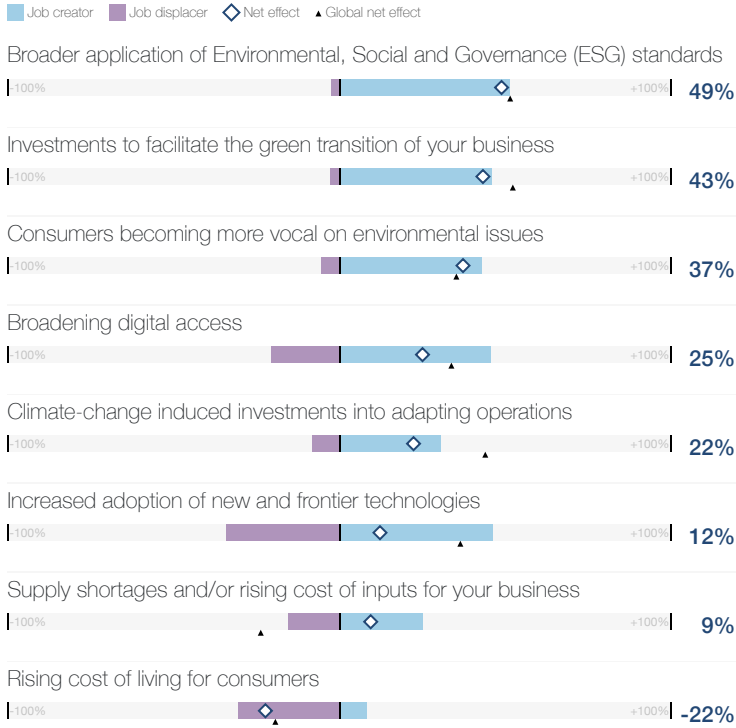
58%

Global 67%

Trend outlook

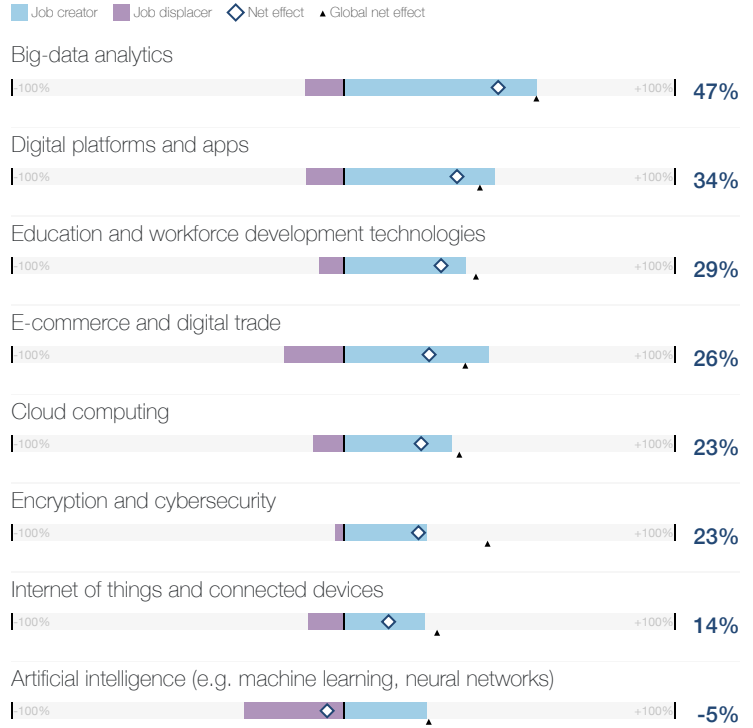
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

22%

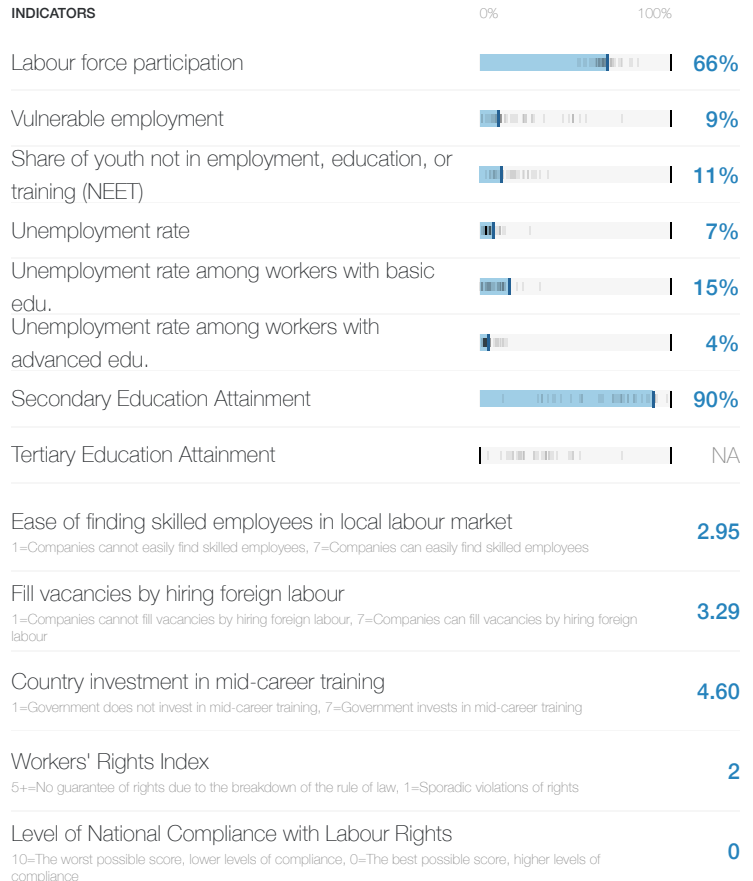
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



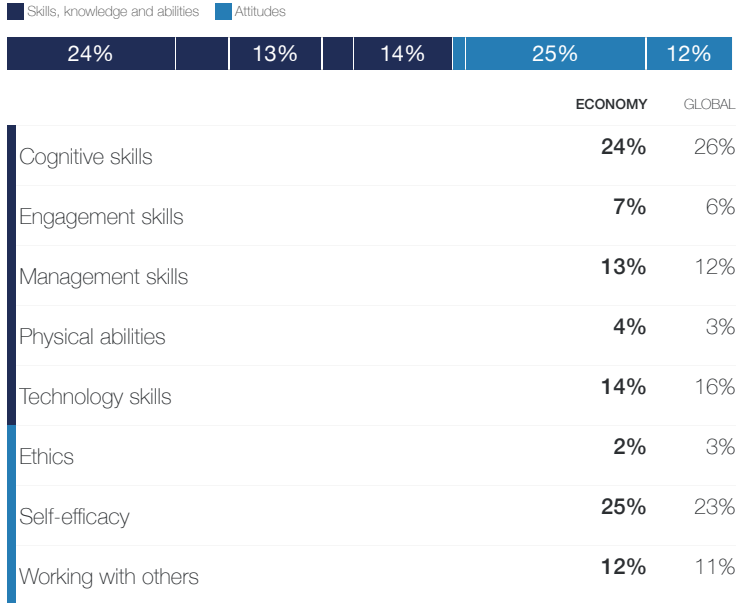
# Lithuania

2.1

## Skill outlook

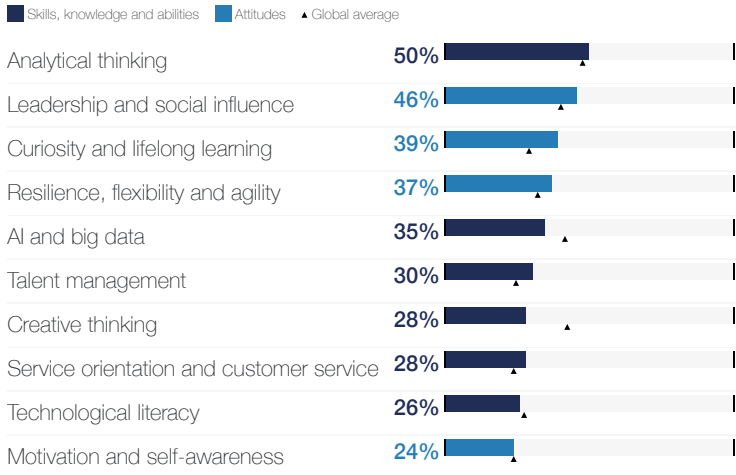
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

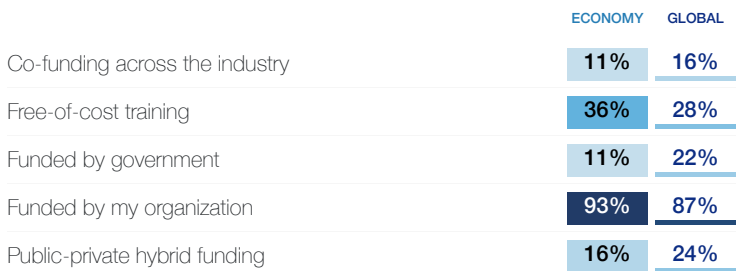
Skills required by the workforce that are expected to remain the same (share of all skills required)

58%

Global 56%

### Training funding

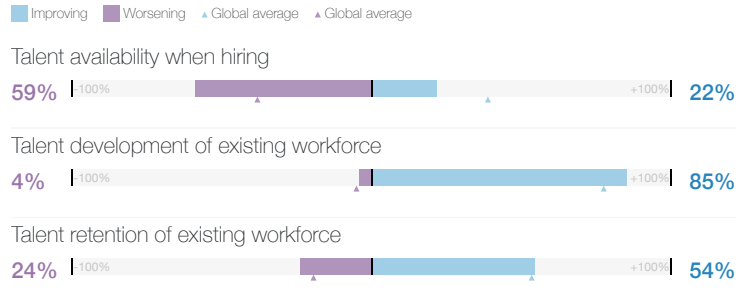
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



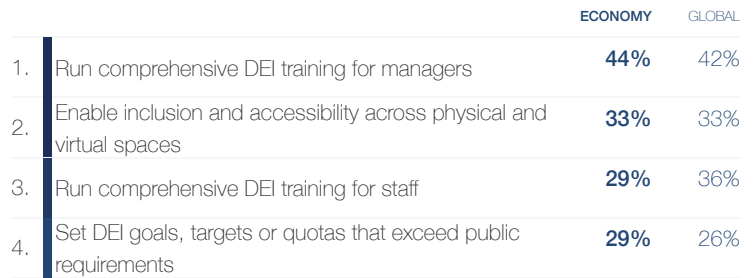
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

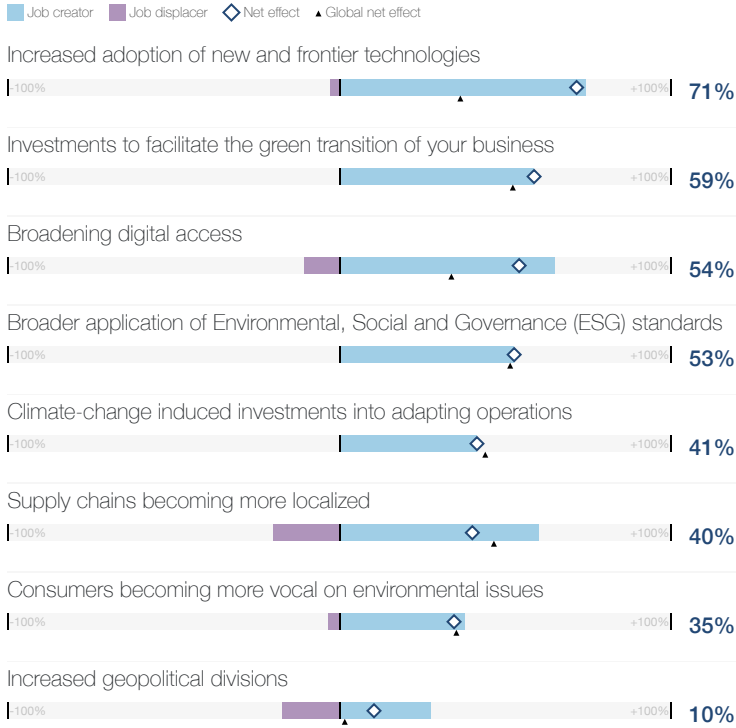
62%

Global 67%

Trend outlook

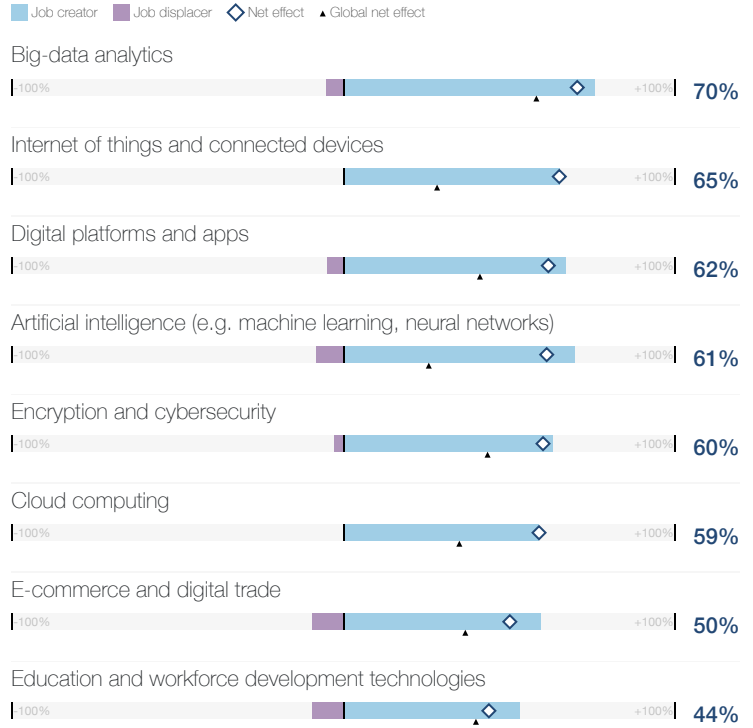
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

25%

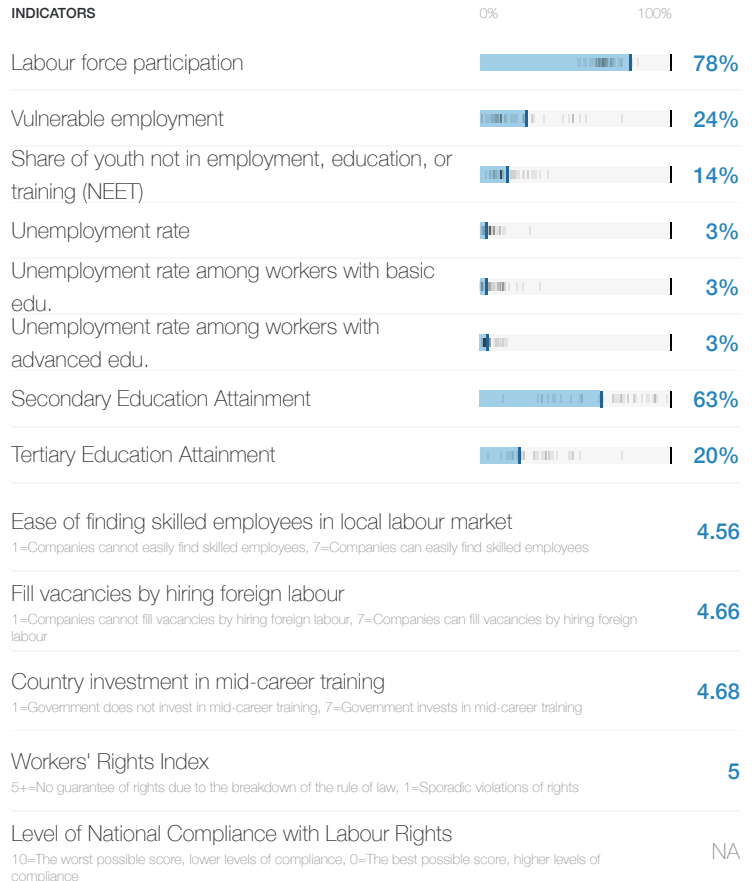
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



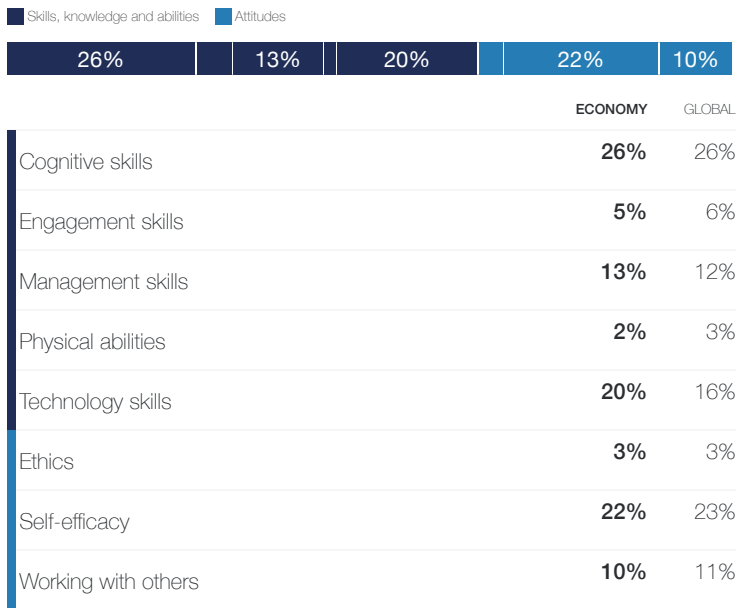
# Malaysia

16.8

## Skill outlook

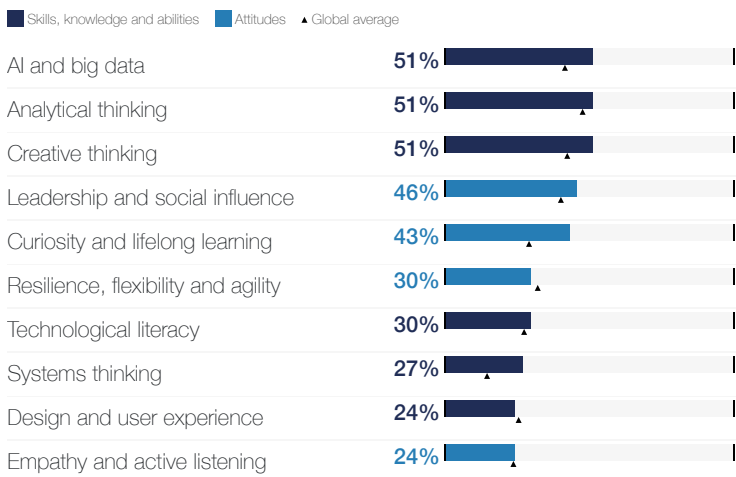
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

55%  
Global 56%

### Training funding

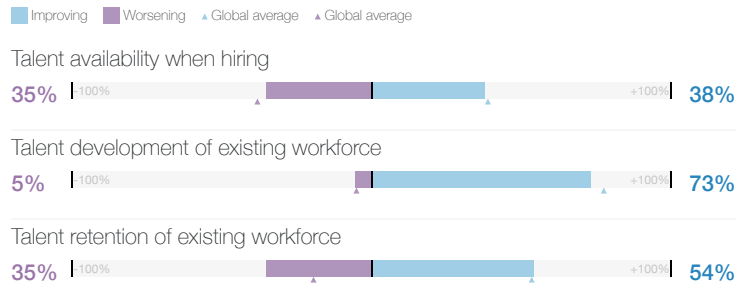
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



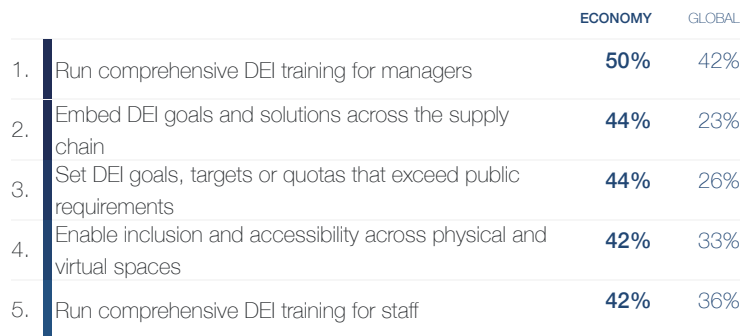
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

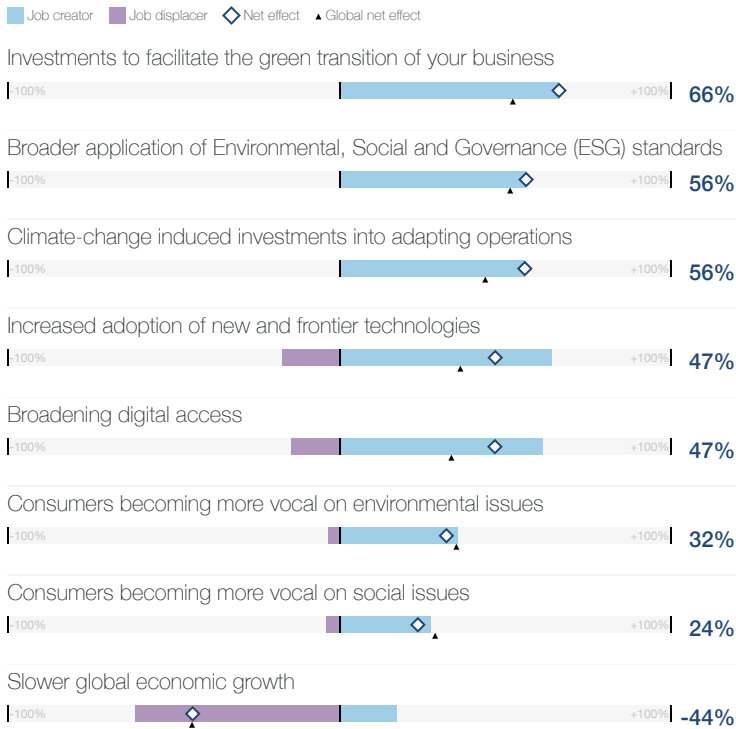
(share of organizations surveyed)

89%  
Global 67%

Trend outlook

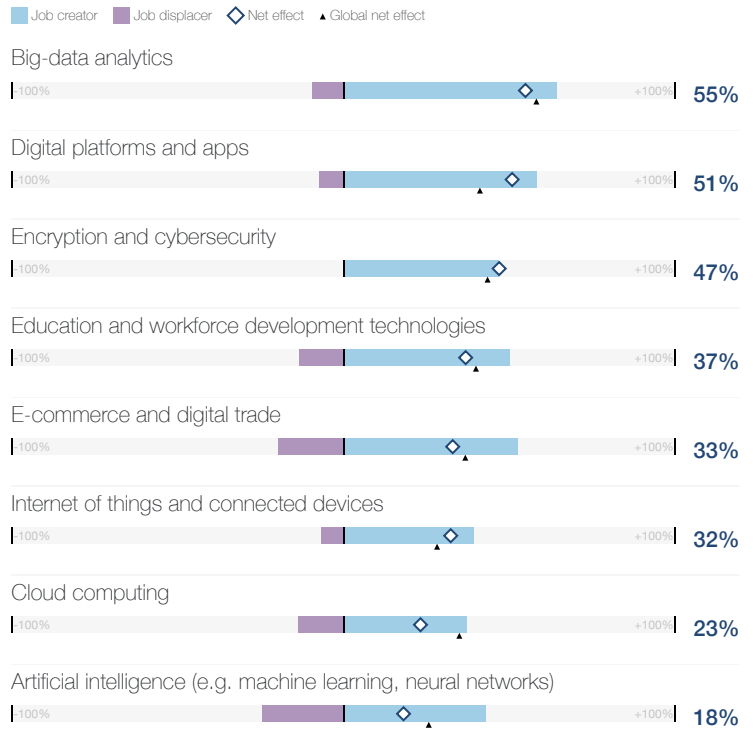
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

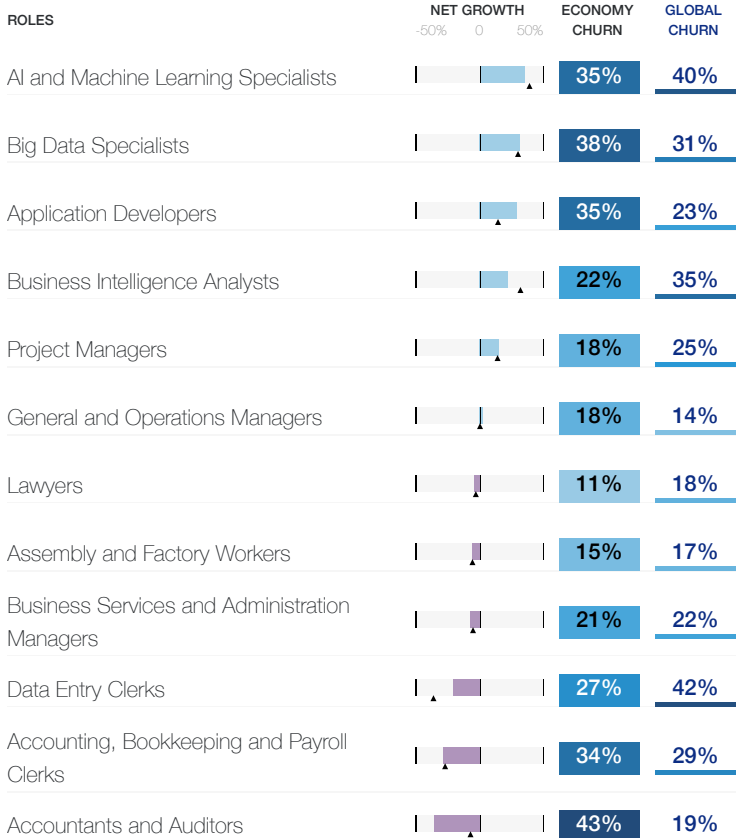
Five-year structural labour-force churn (percent)

21%

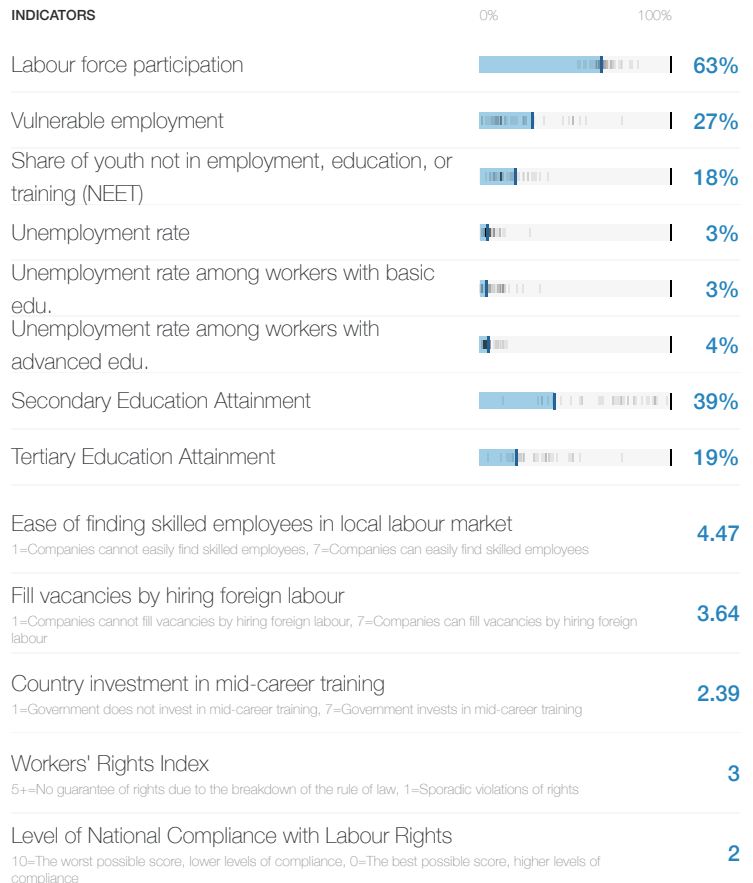
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



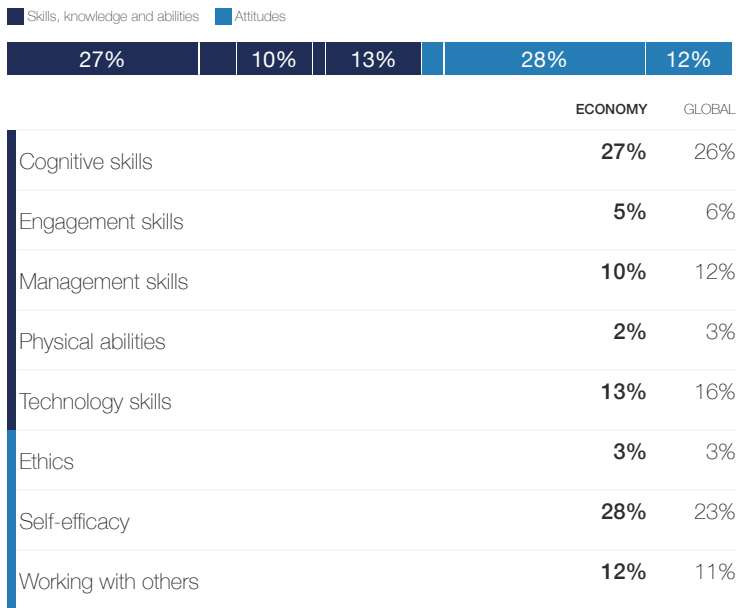
# Mexico

76.3

## Skill outlook

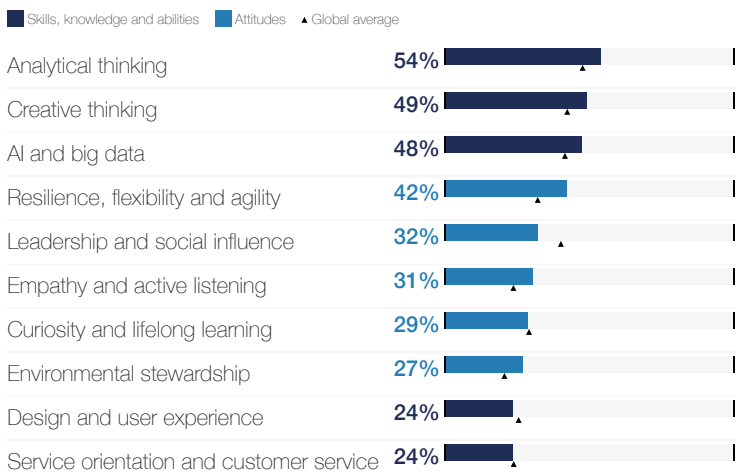
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

57%  
Global 56%

### Training funding

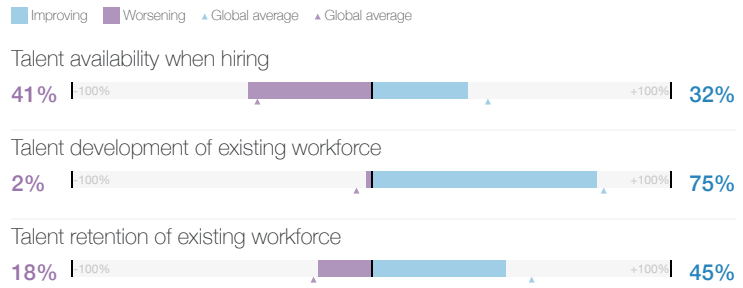
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



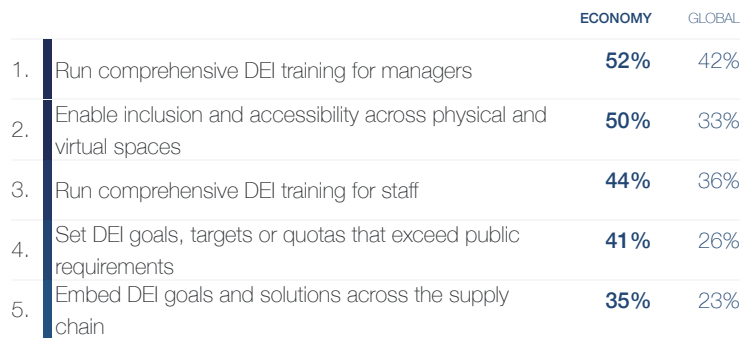
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

74%  
Global 67%

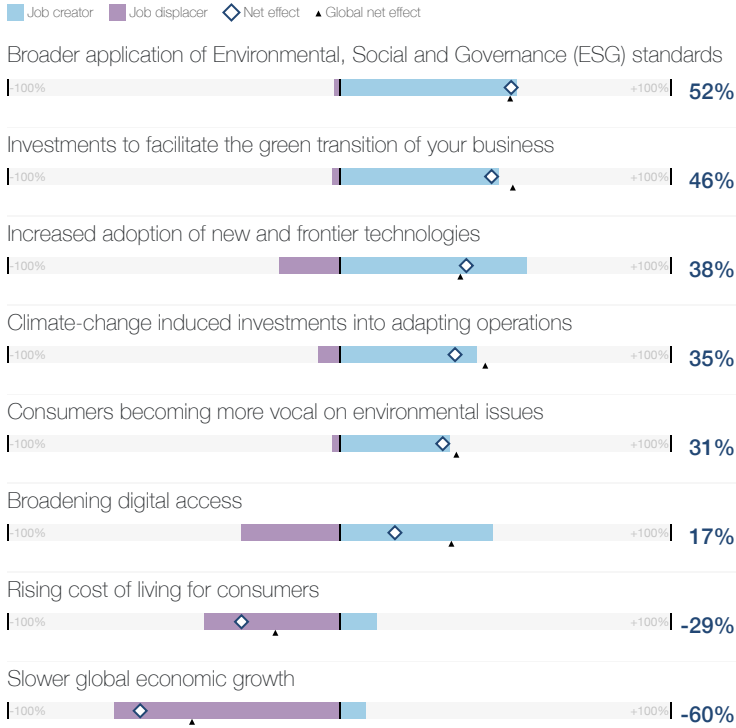
# Netherlands

12.4

## Trend outlook

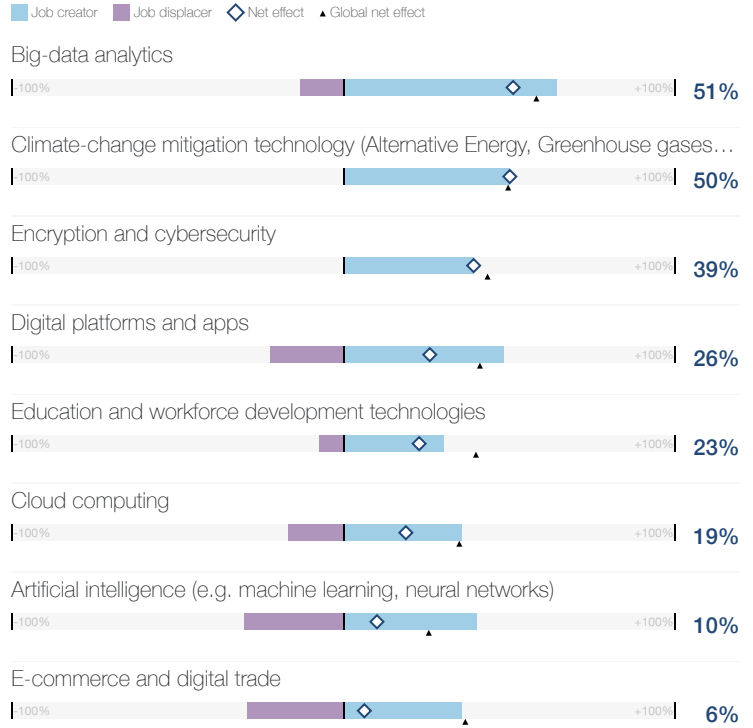
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

**21%**

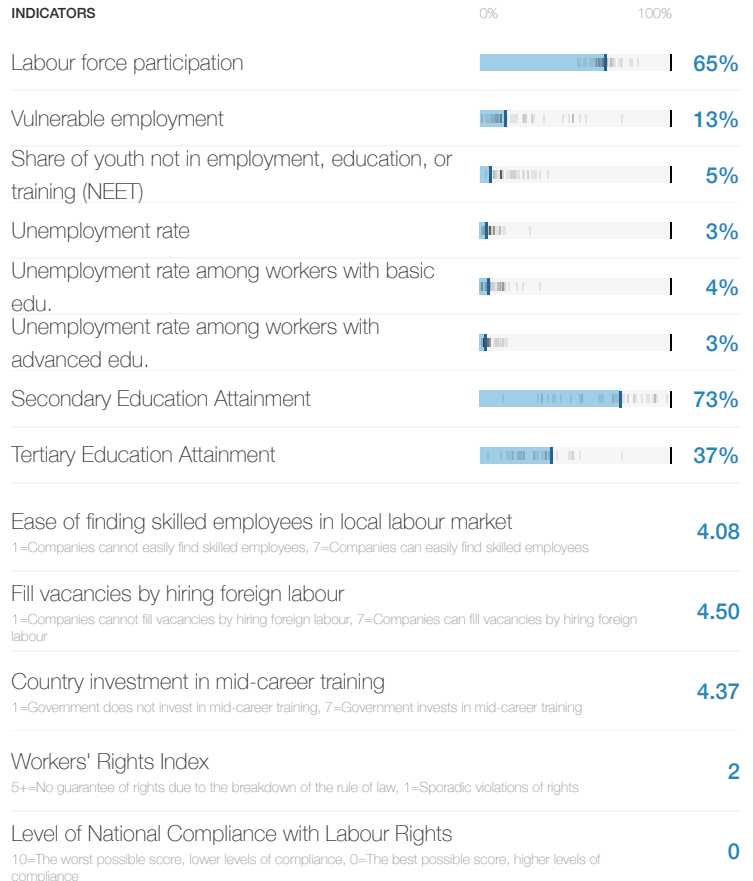
Global **23%**

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



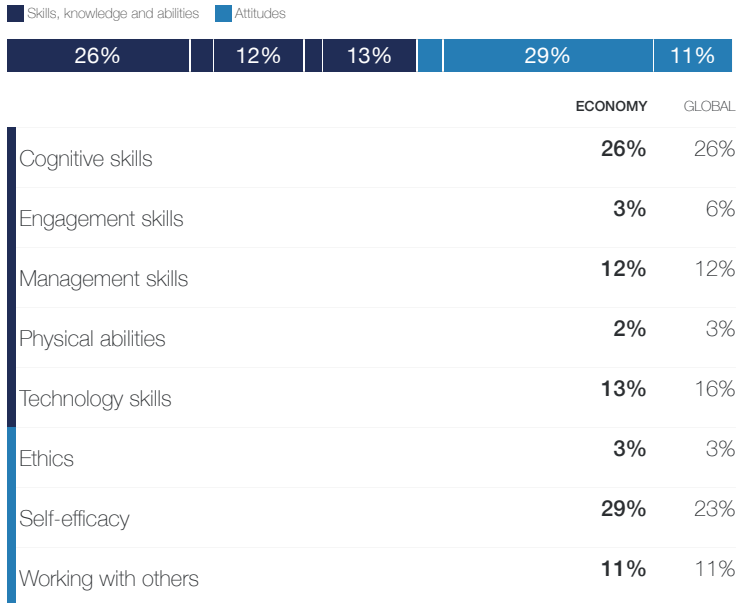
# Netherlands

12.4

## Skill outlook

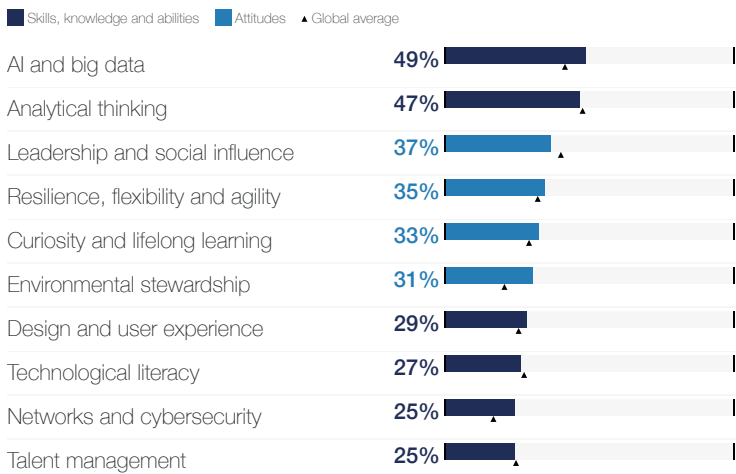
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

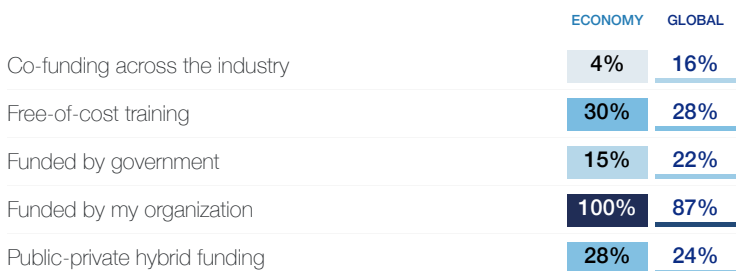
Skills required by the workforce that are expected to remain the same (share of all skills required)

55%

Global 56%

### Training funding

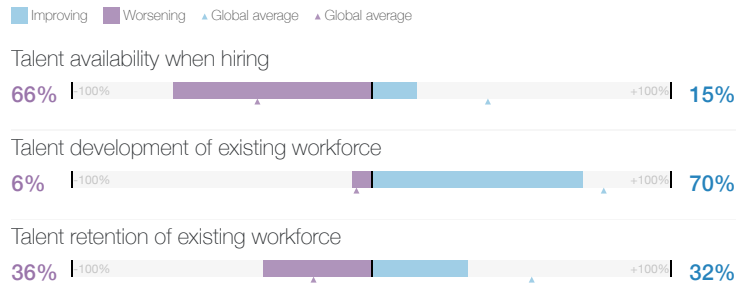
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



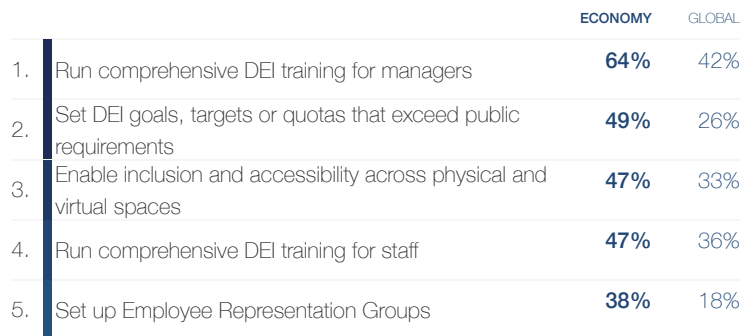
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

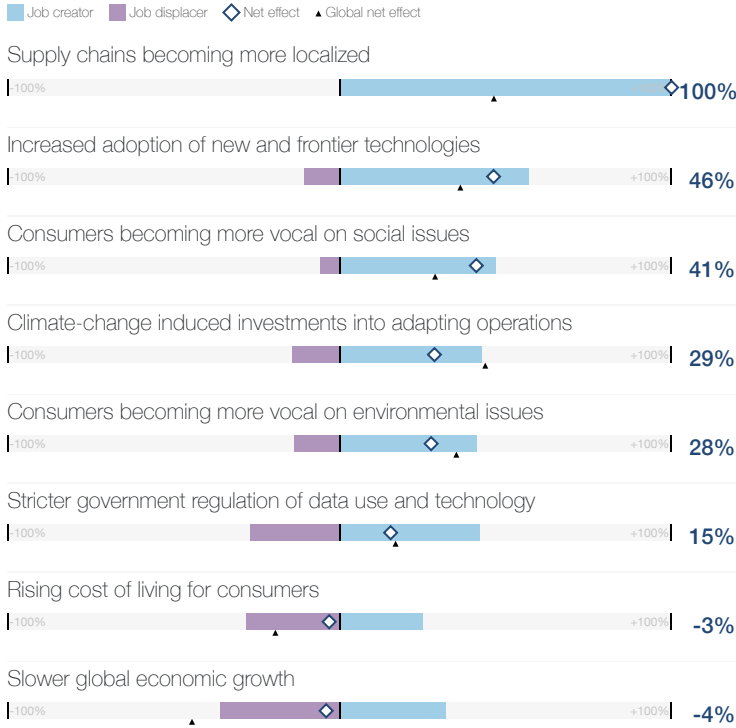
83%

Global 67%

## Trend outlook

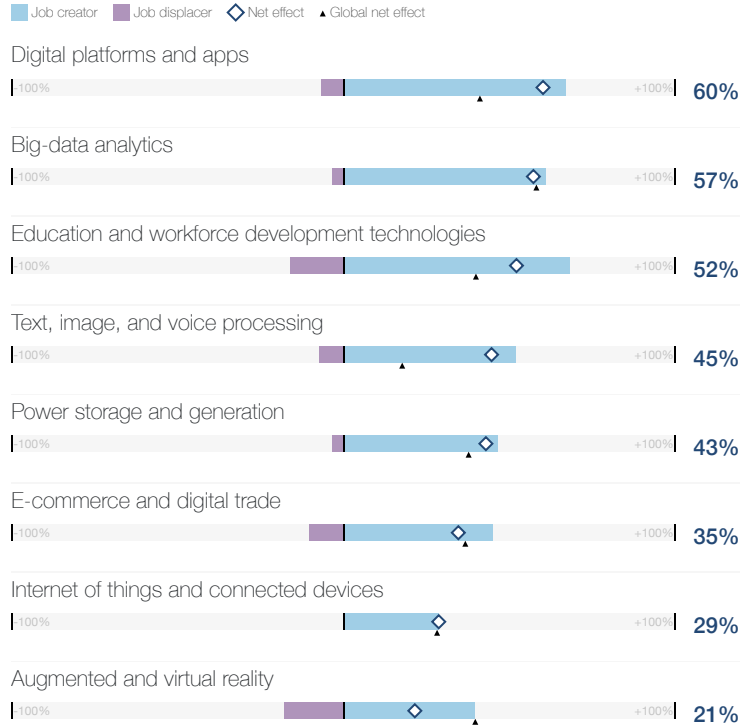
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

**30%**

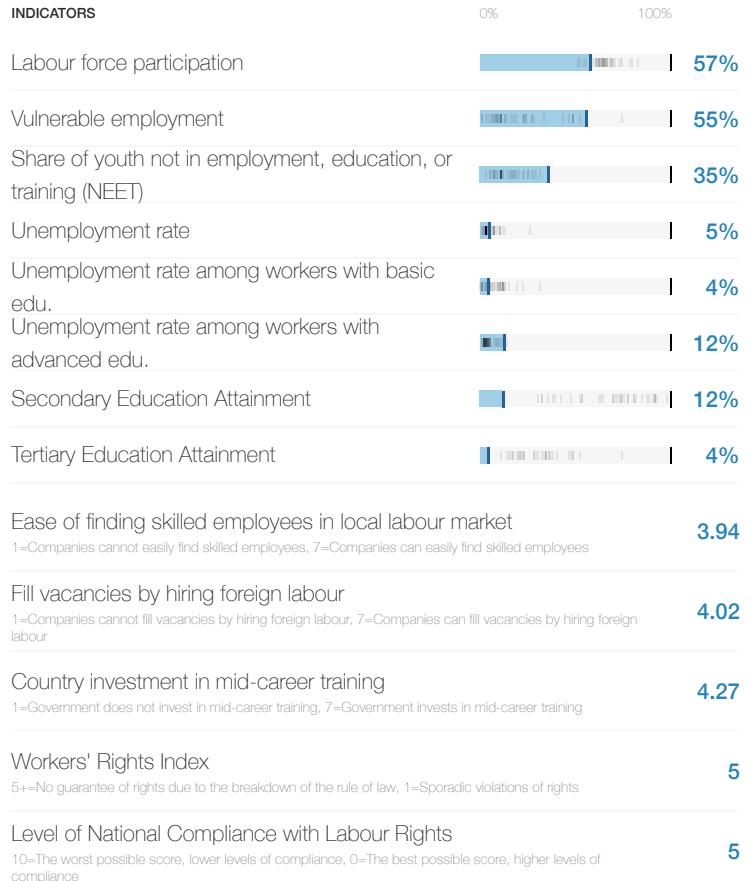
Global **23%**

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



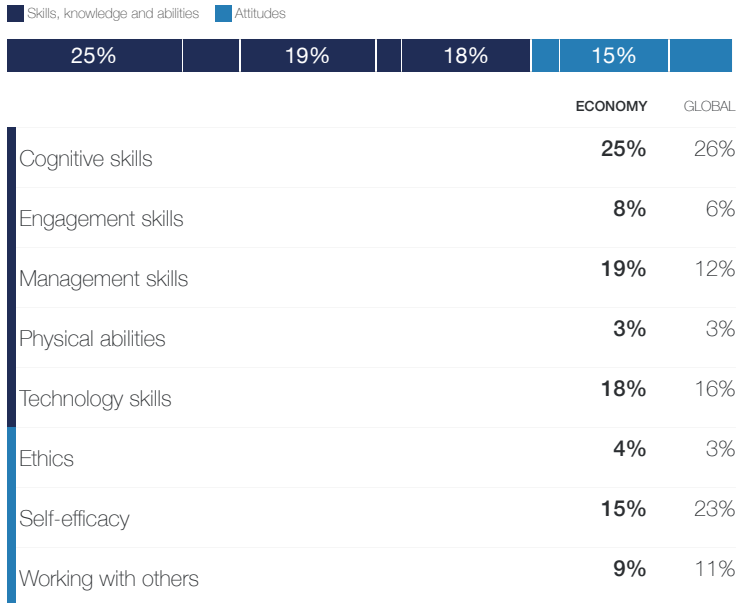
# Pakistan

85.8

## Skill outlook

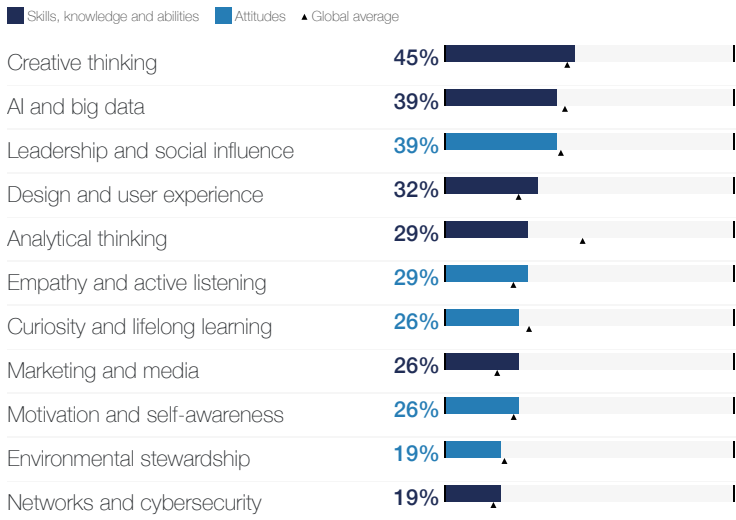
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

45%

Global 56%

### Training funding

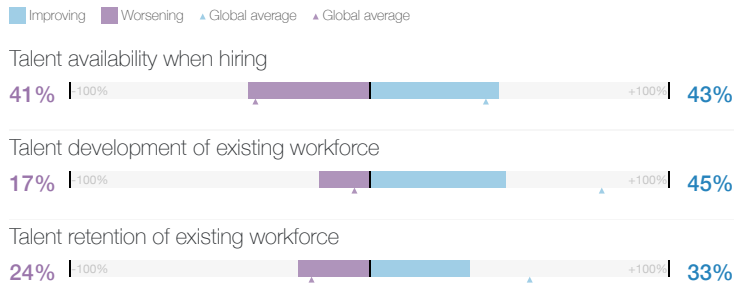
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

45%

Global 67%

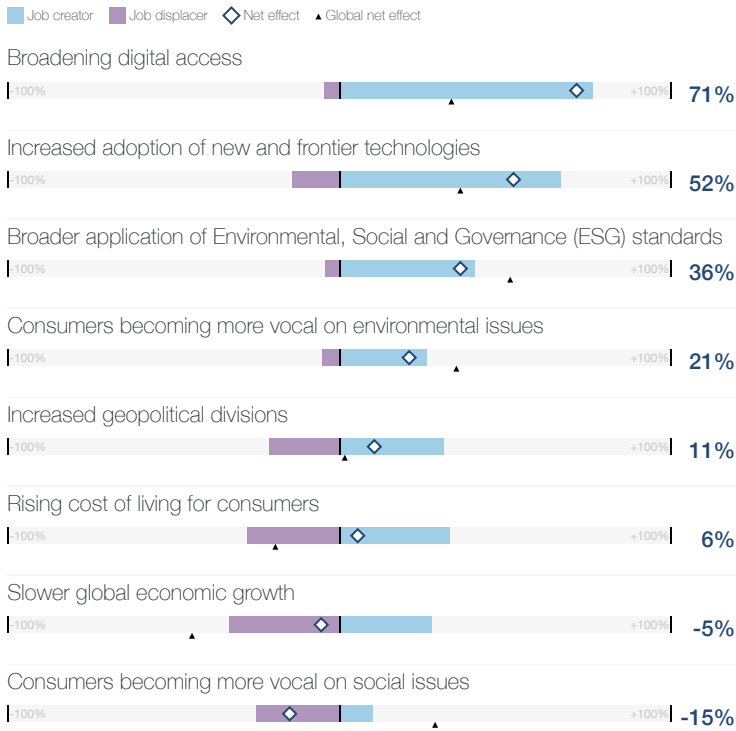
# Philippines

55.2

## Trend outlook

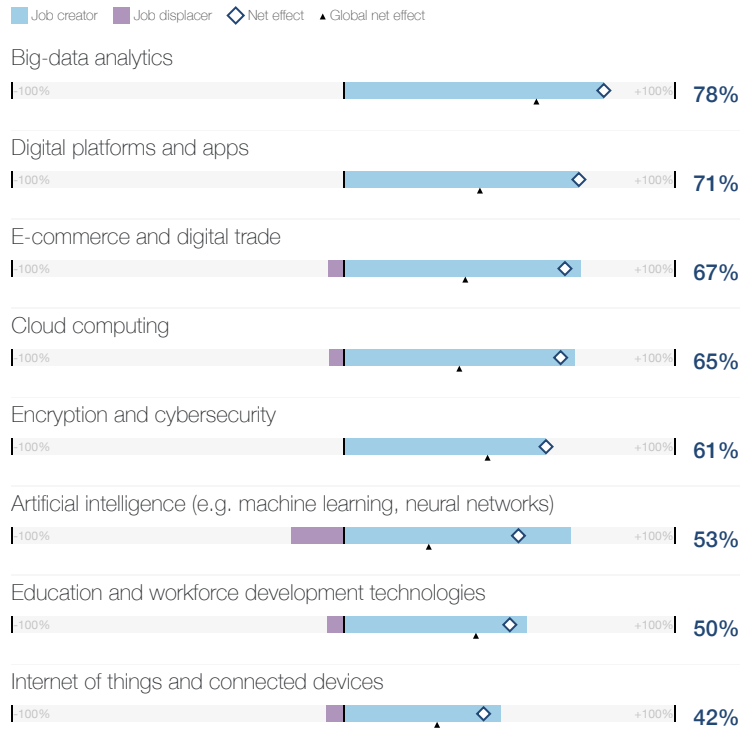
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

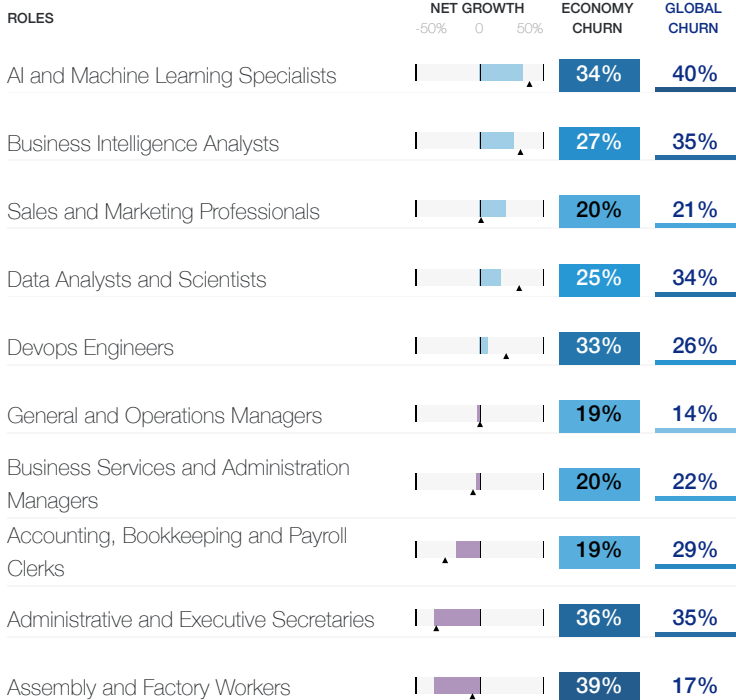
Five-year structural labour-force churn (percent)

26%

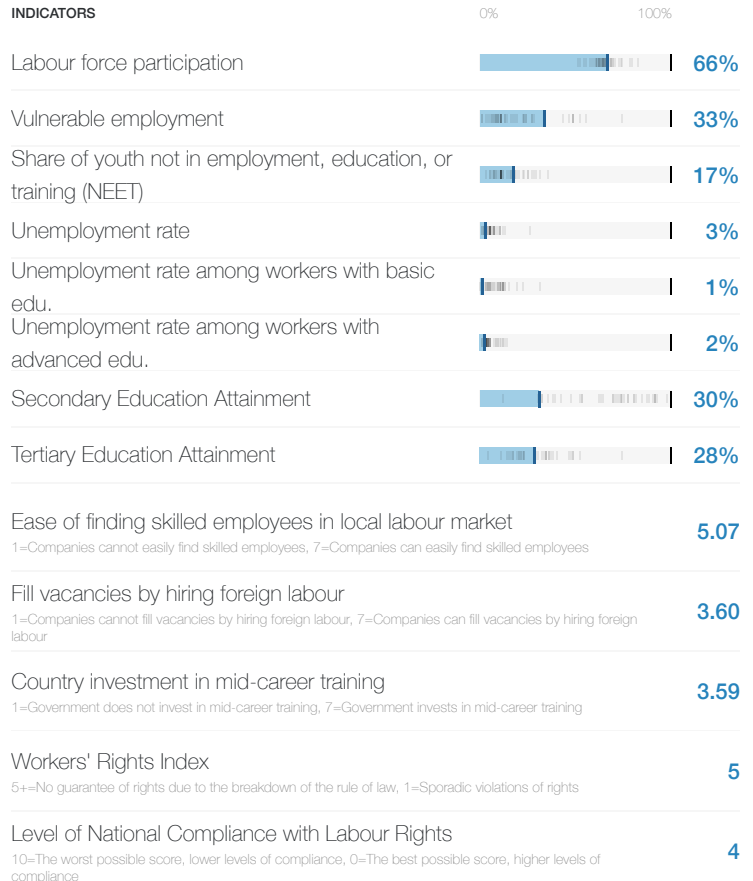
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



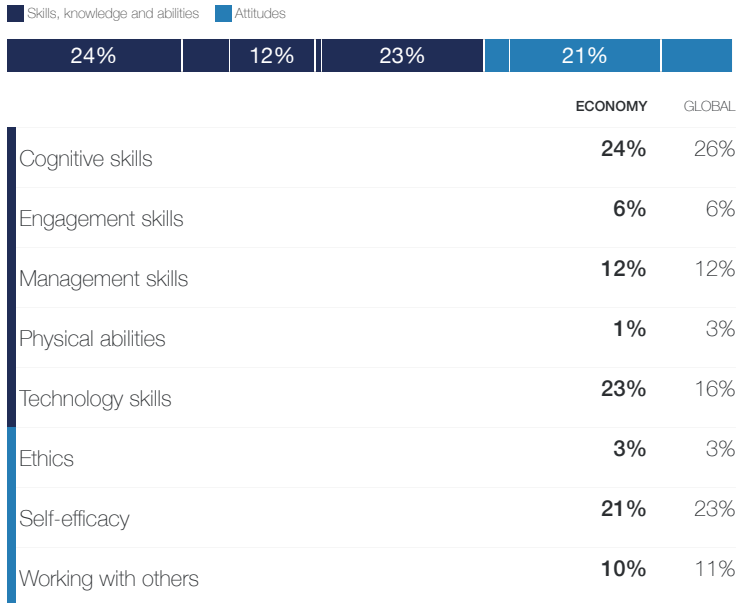
# Philippines

55.2

## Skill outlook

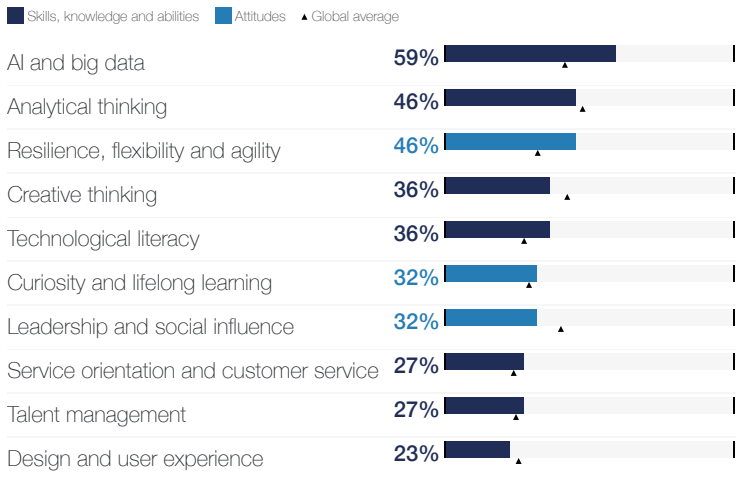
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



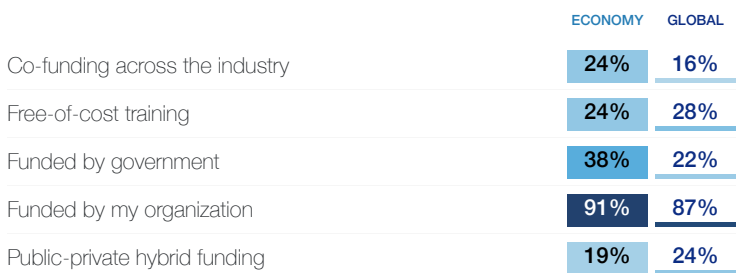
### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

**55%**  
Global 56%

### Training funding

Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



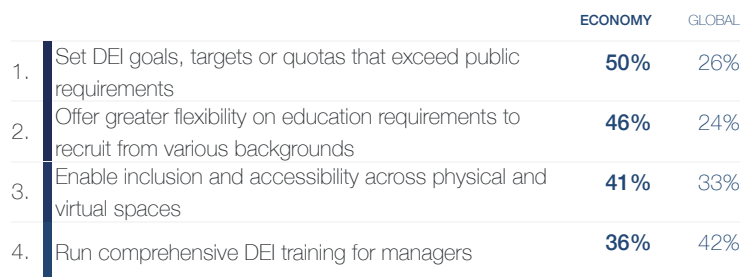
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

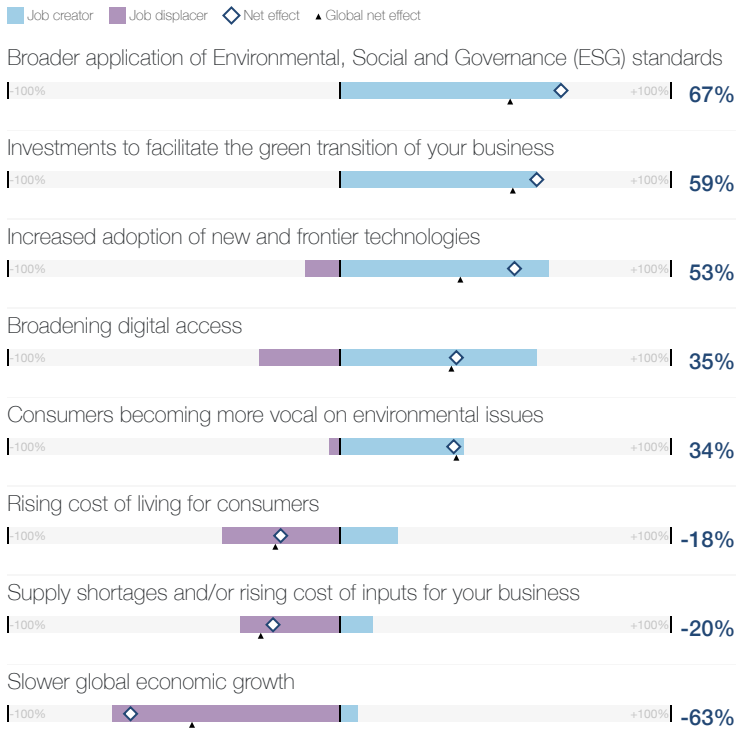
(share of organizations surveyed)

**64%**  
Global 67%

Trend outlook

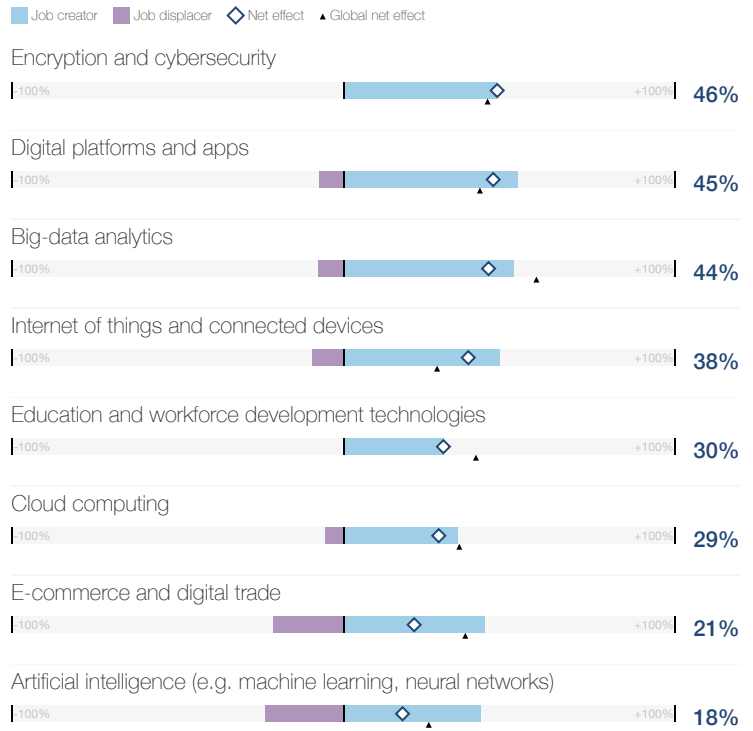
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

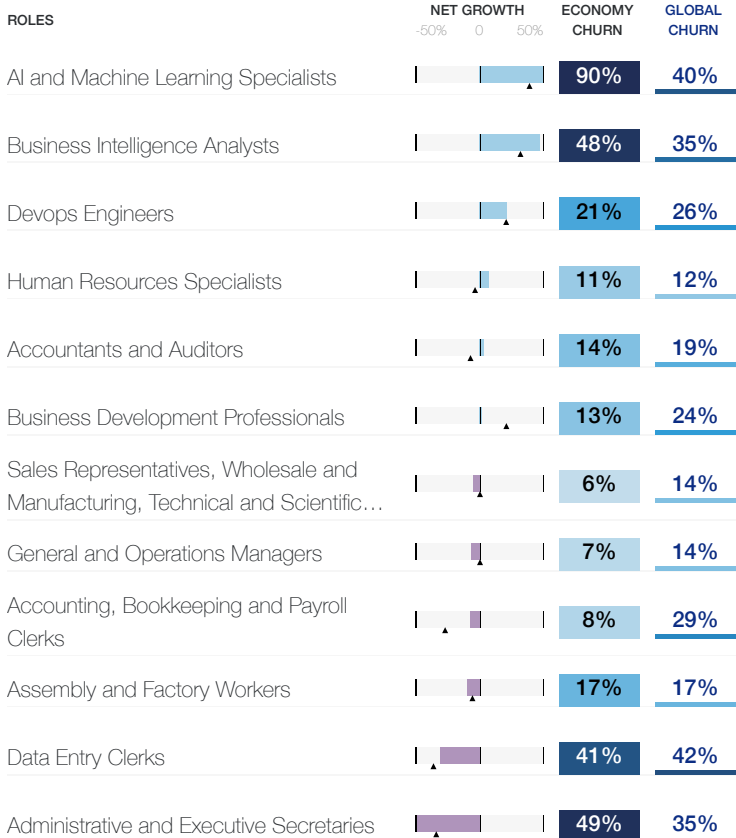
Five-year structural labour-force churn (percent)

21%

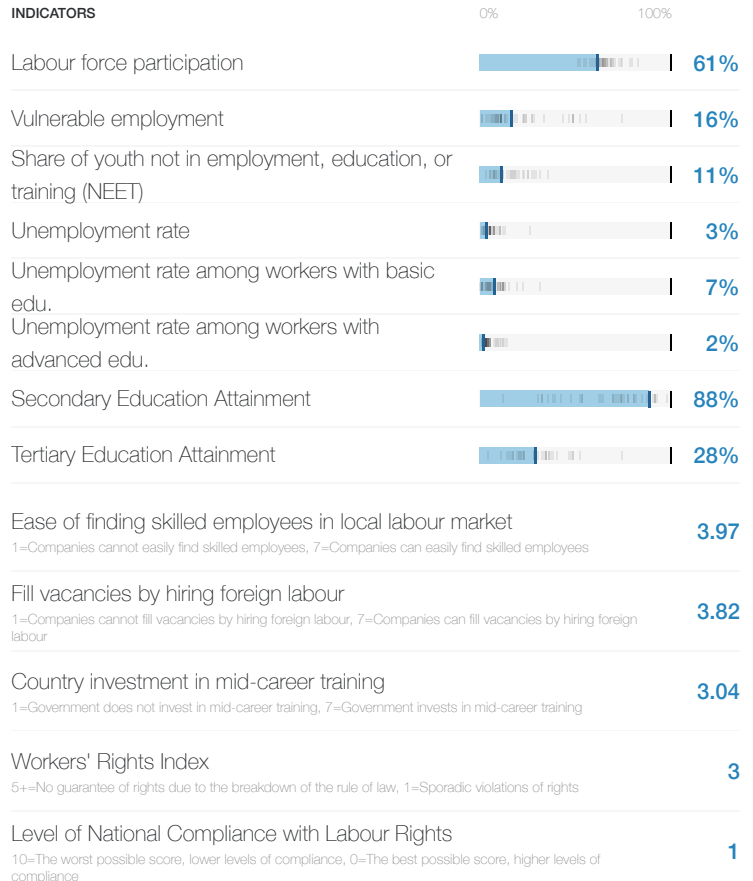
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



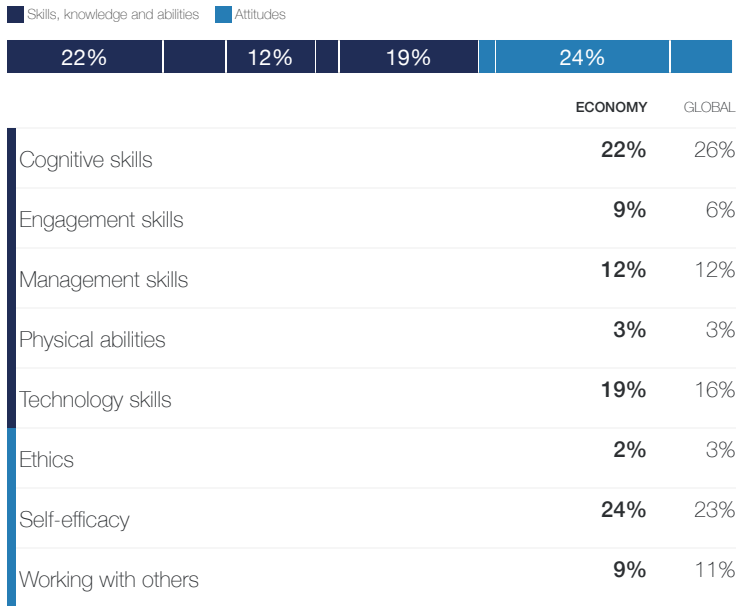
# Poland

26.7

## Skill outlook

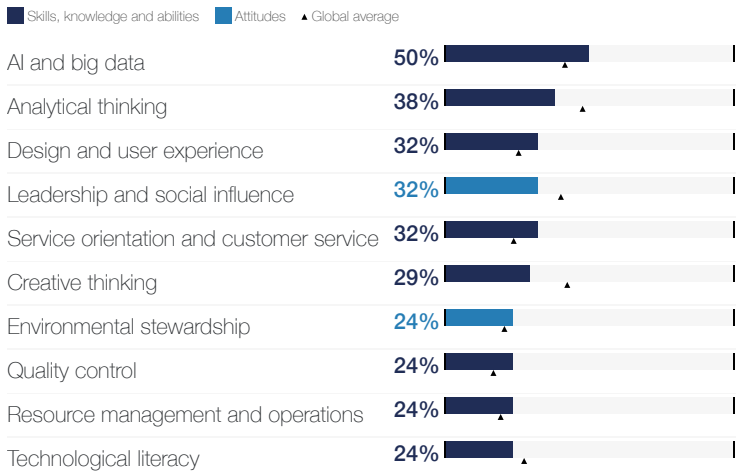
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



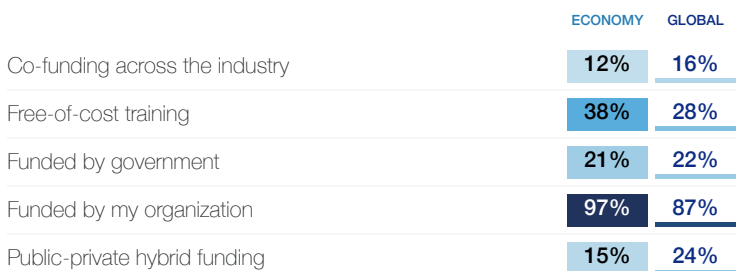
### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

**55%**  
Global 56%

### Training funding

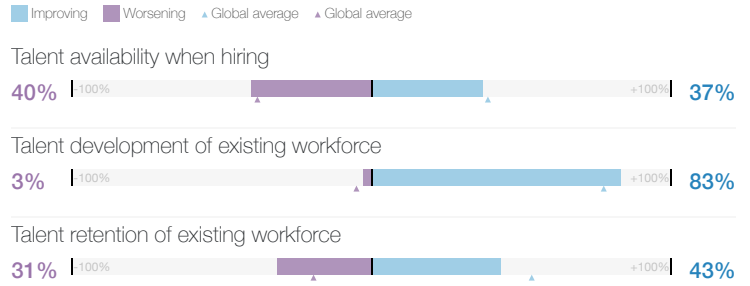
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

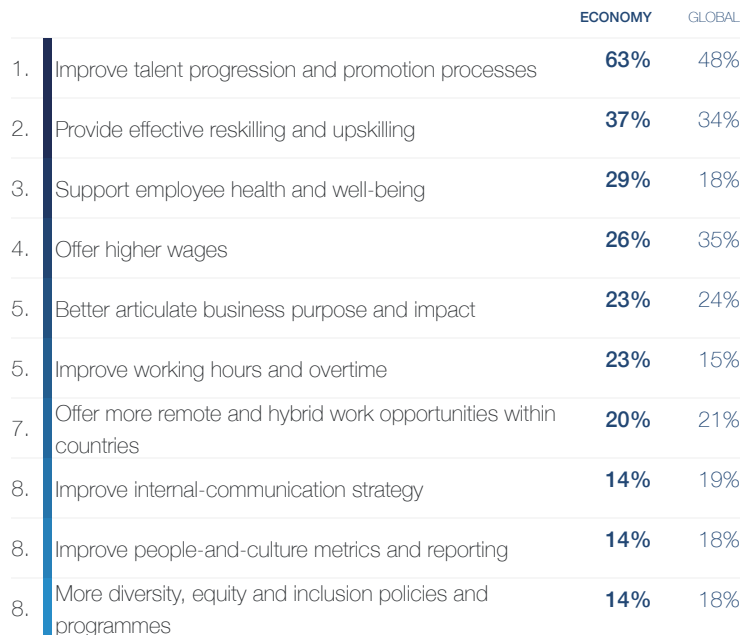
### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



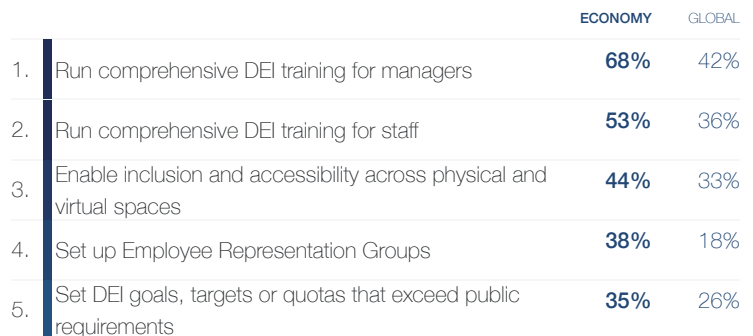
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

**79%**  
Global 67%

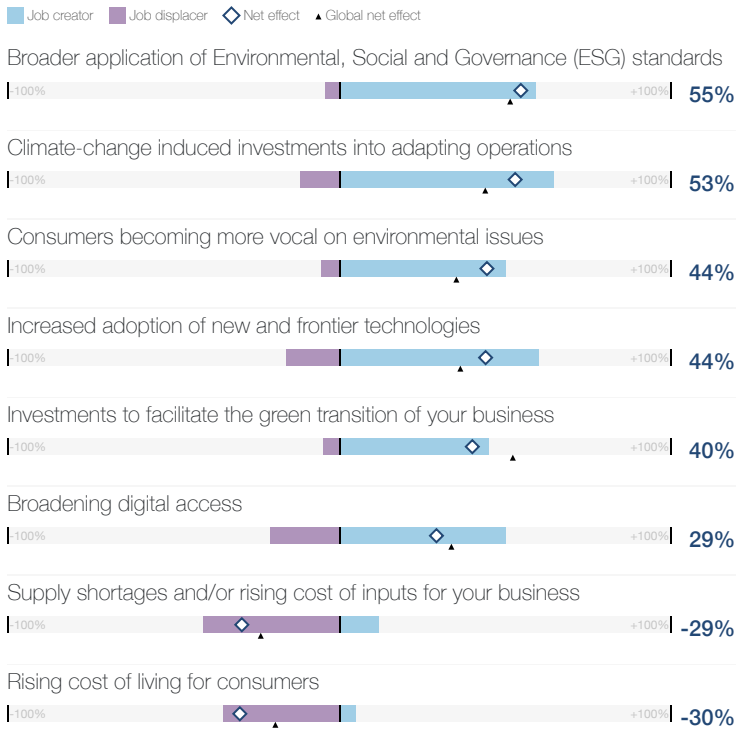
# Romania

14.1

## Trend outlook

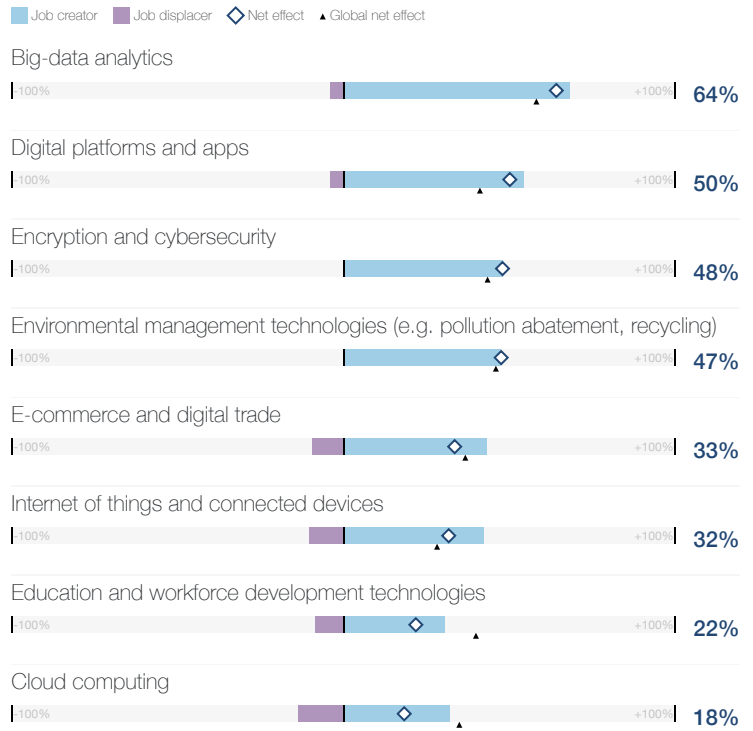
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

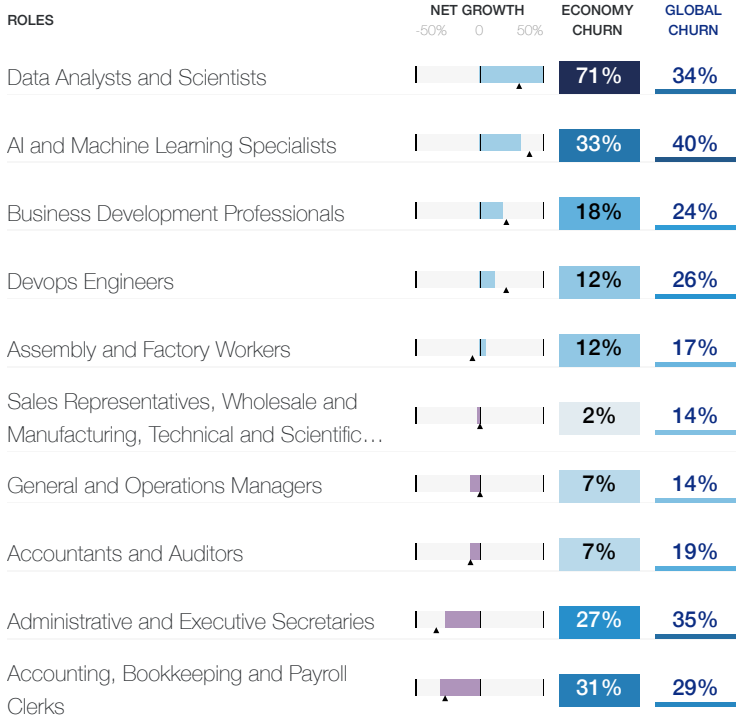
Five-year structural labour-force churn (percent)

18%

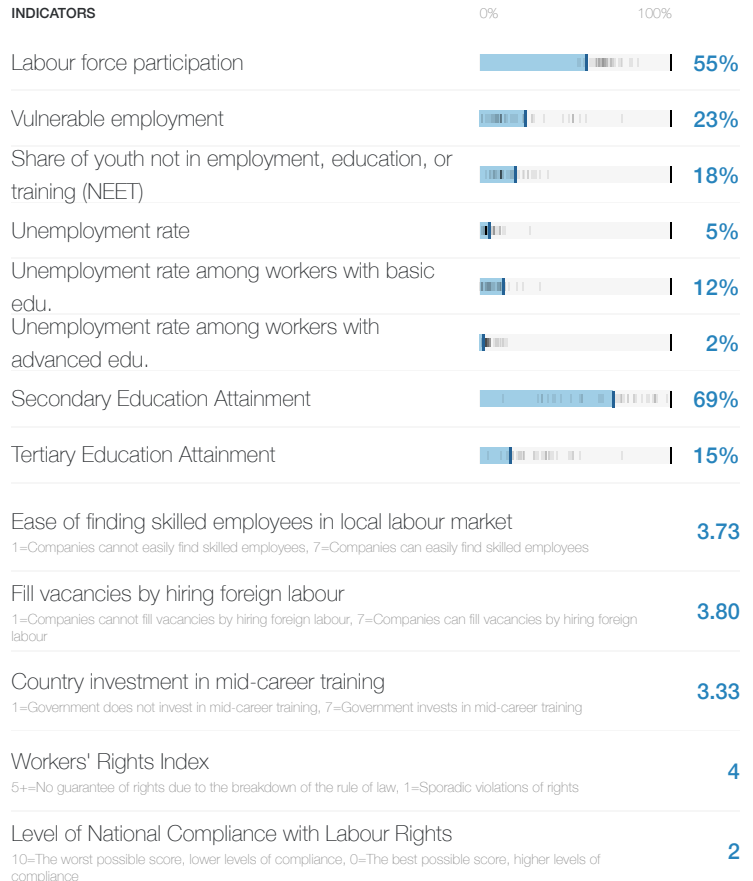
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



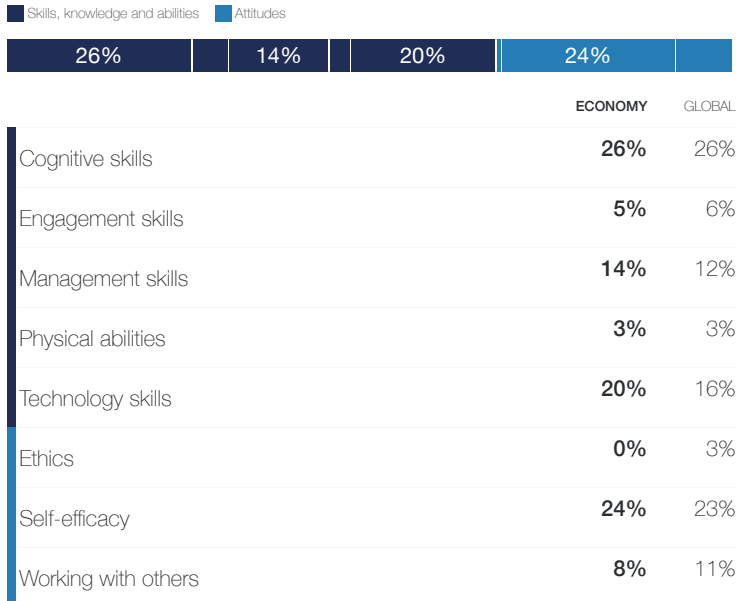
# Romania

14.1

## Skill outlook

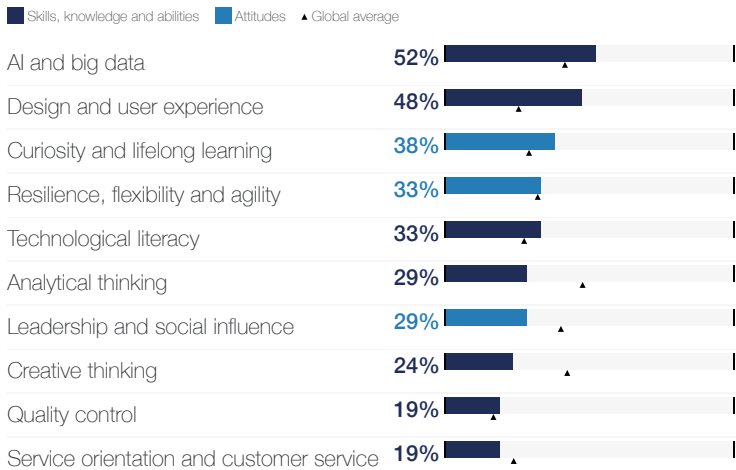
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

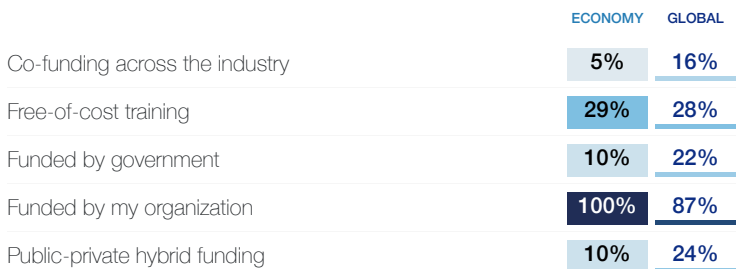
Skills required by the workforce that are expected to remain the same (share of all skills required)

54%

Global 56%

### Training funding

Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



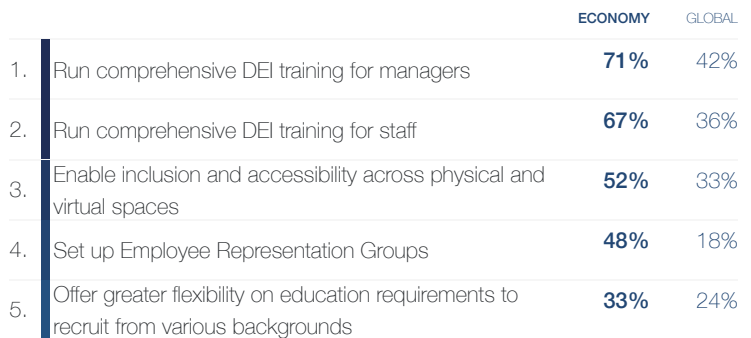
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

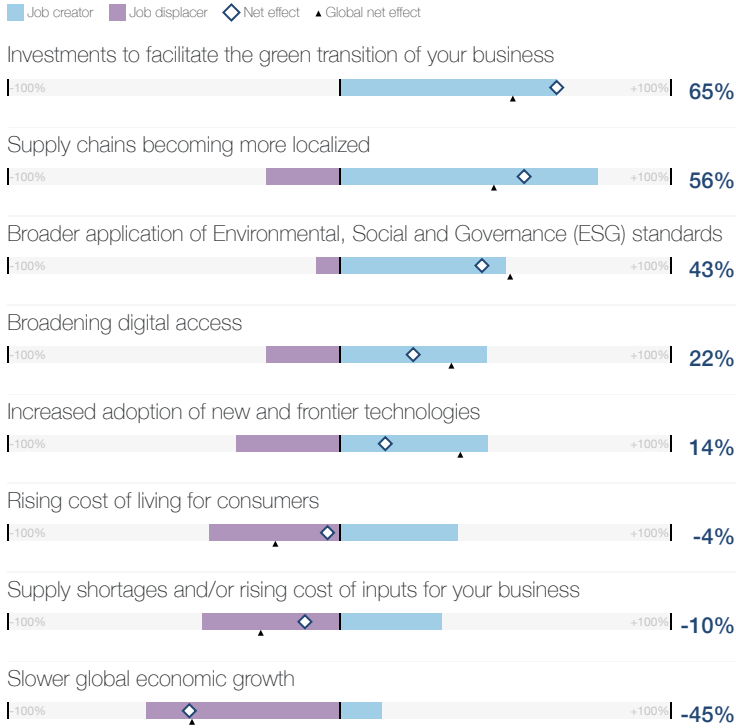
95%

Global 67%

Trend outlook

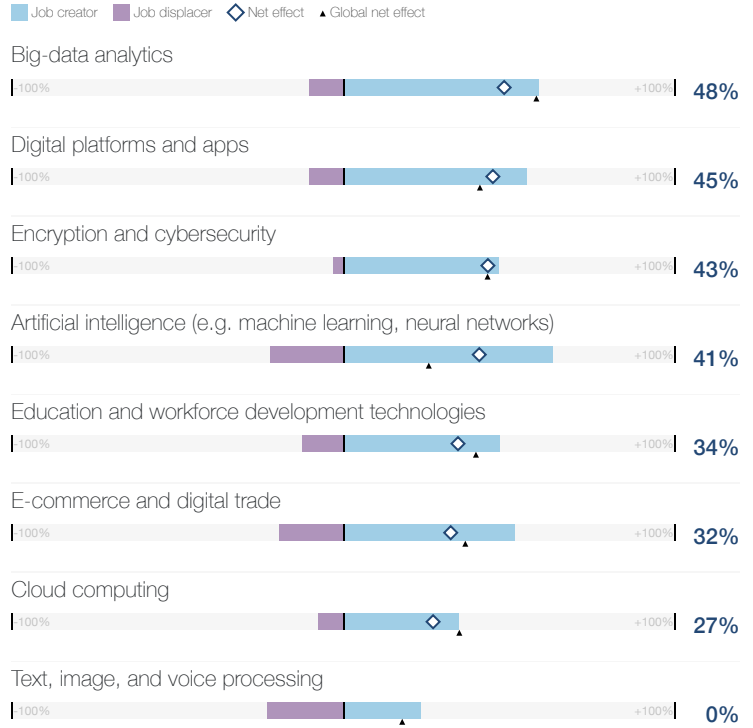
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

23%

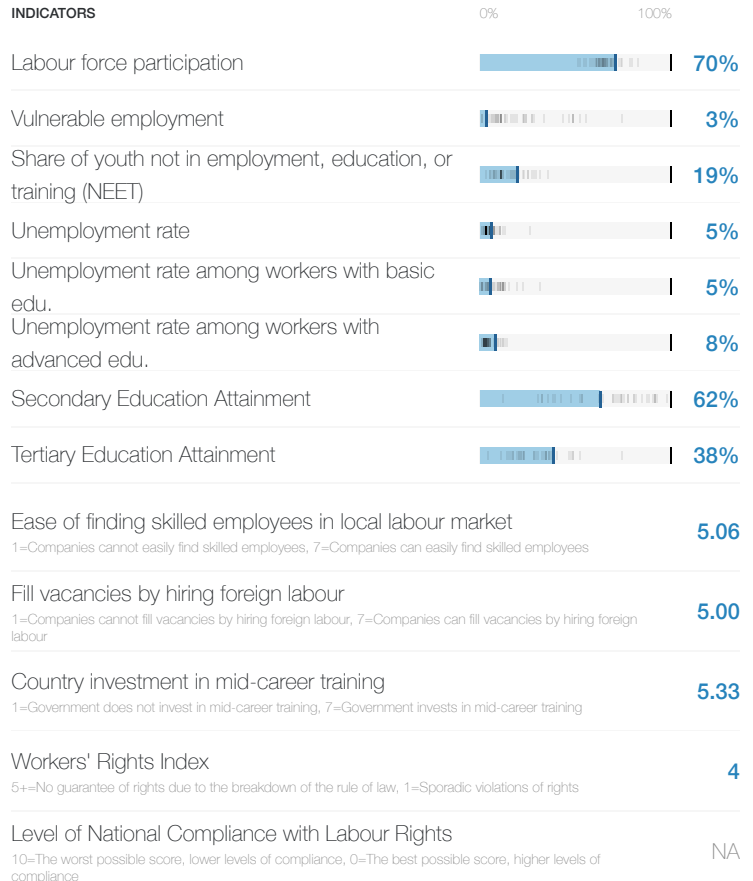
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



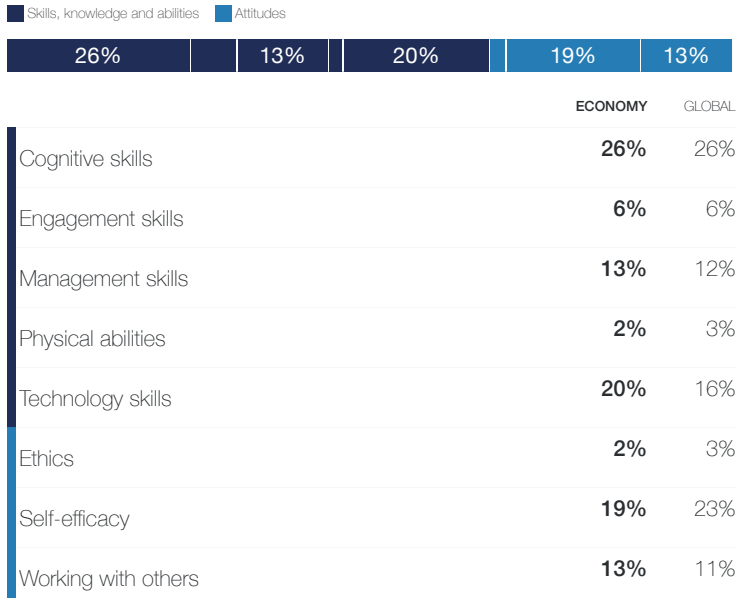
# Saudi Arabia

NA

## Skill outlook

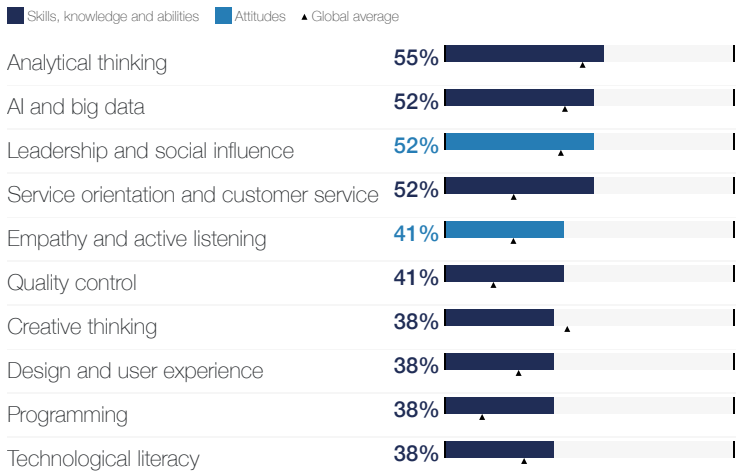
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



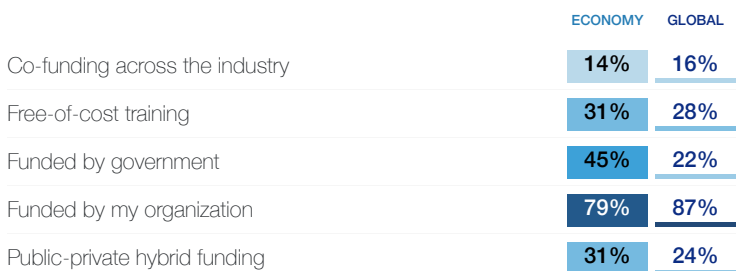
### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

**57%**  
Global 56%

### Training funding

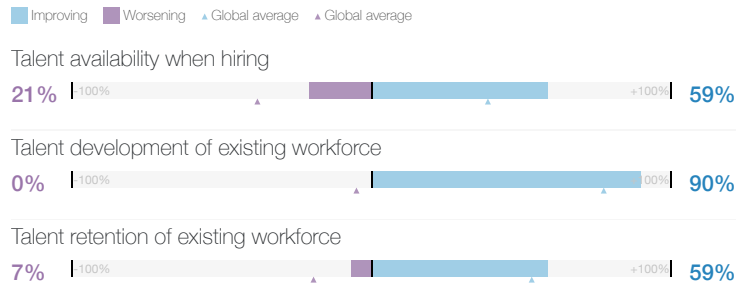
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



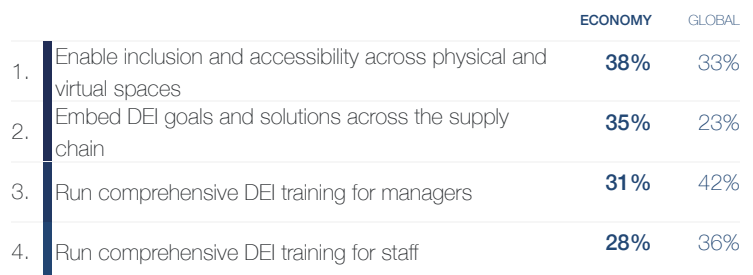
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

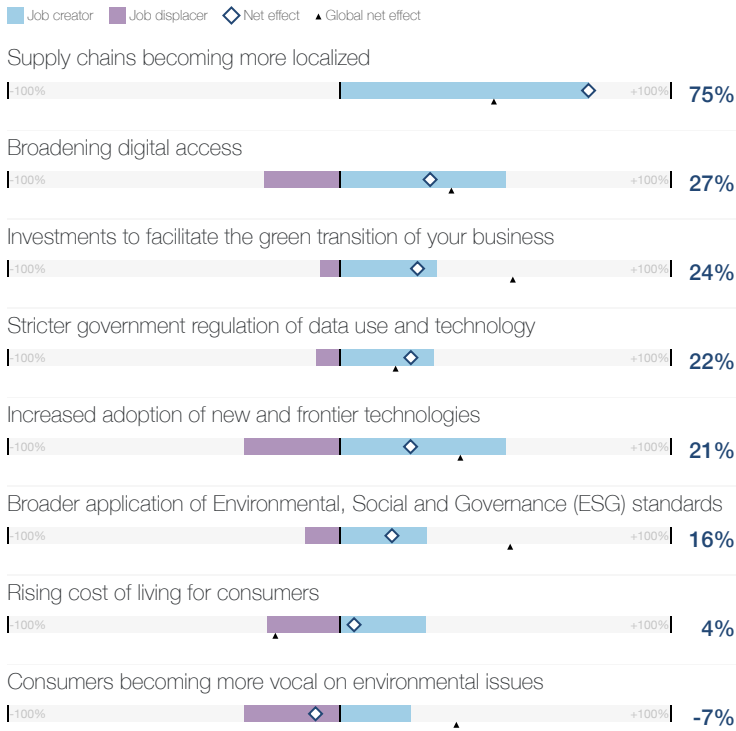
(share of organizations surveyed)

**72%**  
Global 67%

Trend outlook

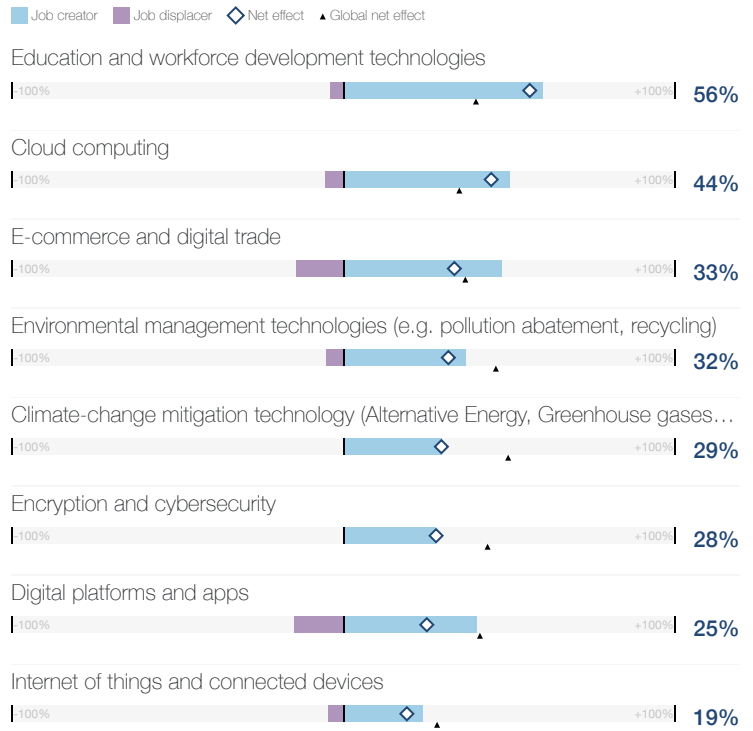
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

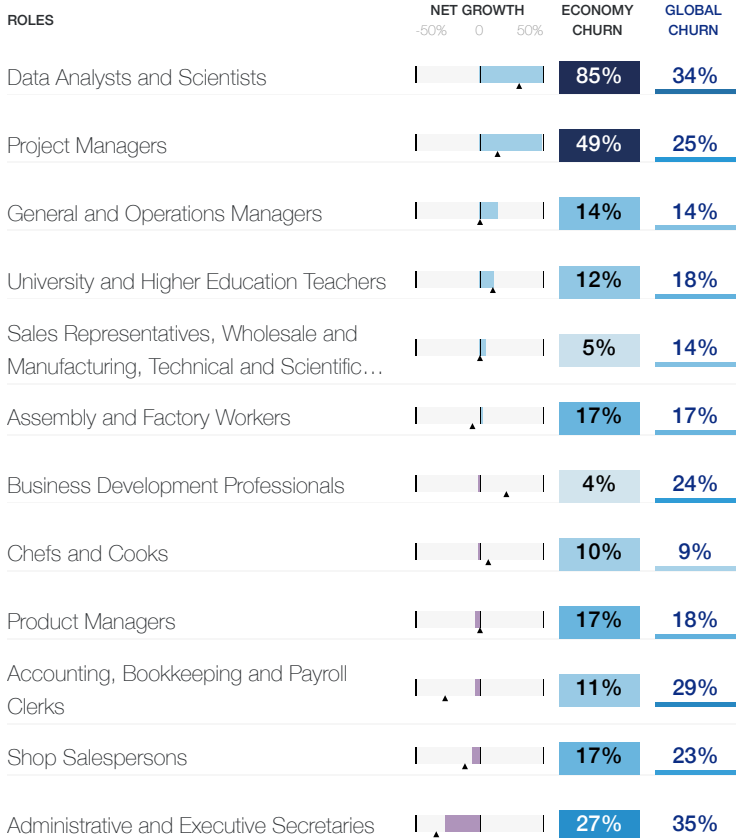
Five-year structural labour-force churn (percent)

17%

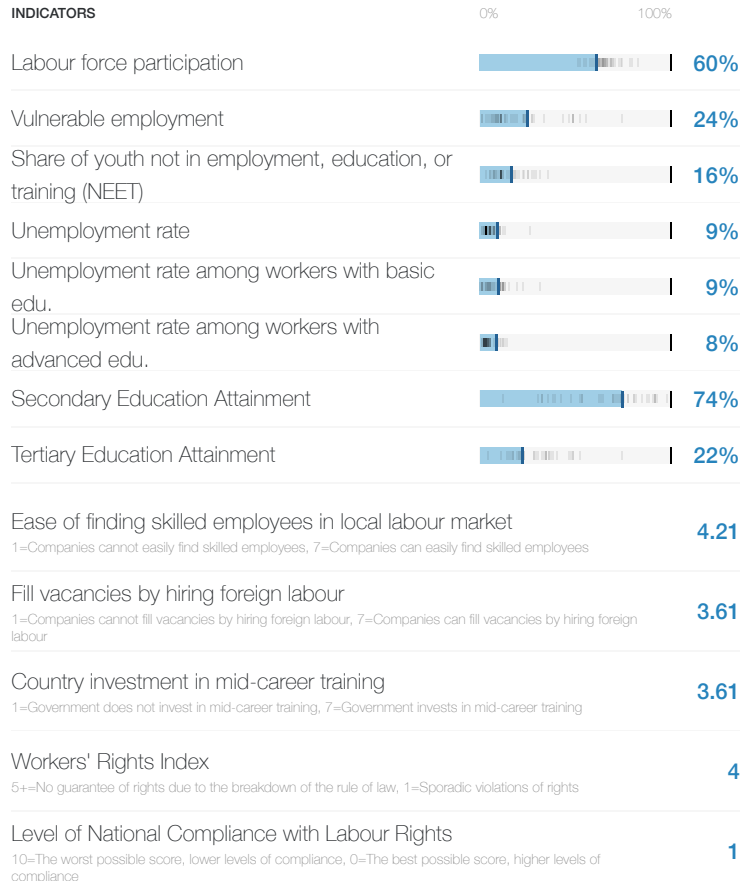
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



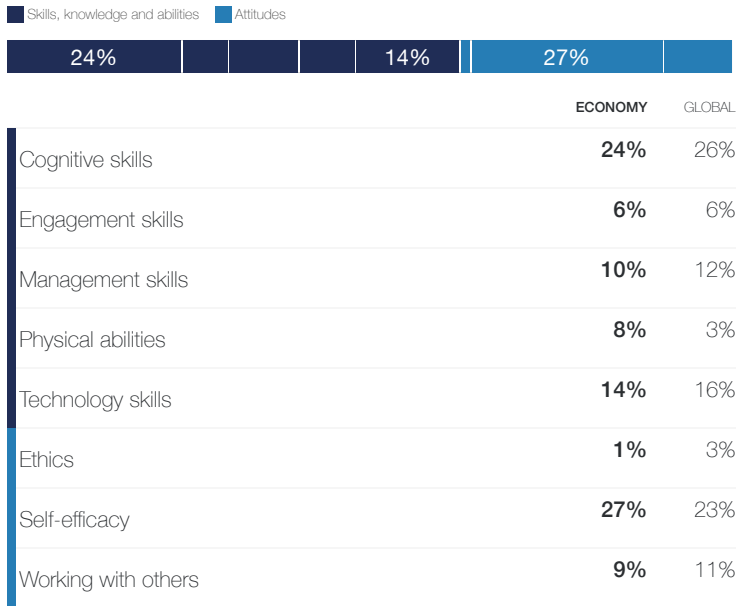
# Serbia

5.2

## Skill outlook

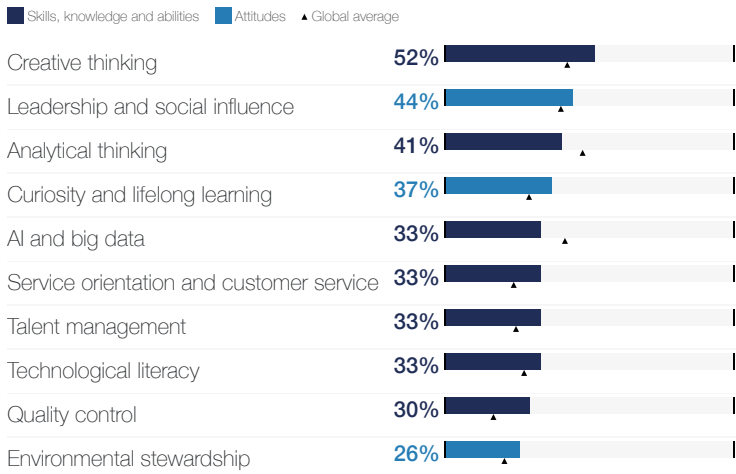
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

55%

Global 56%

### Training funding

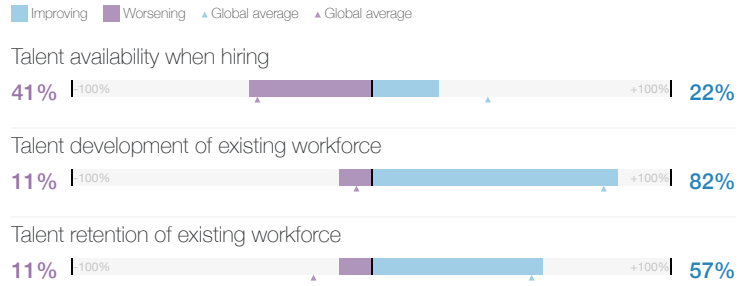
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

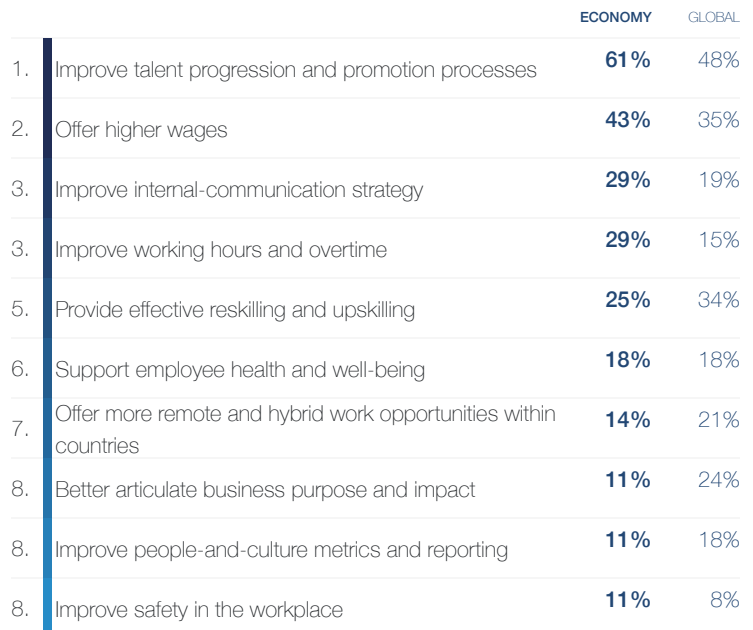
### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



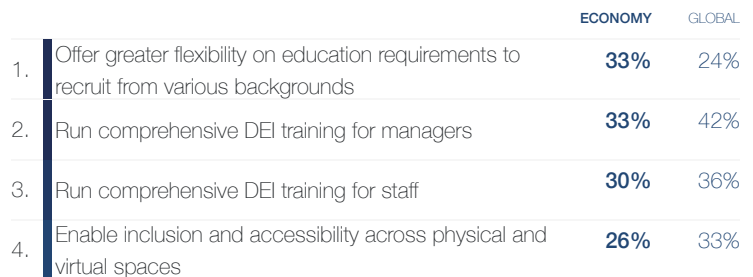
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

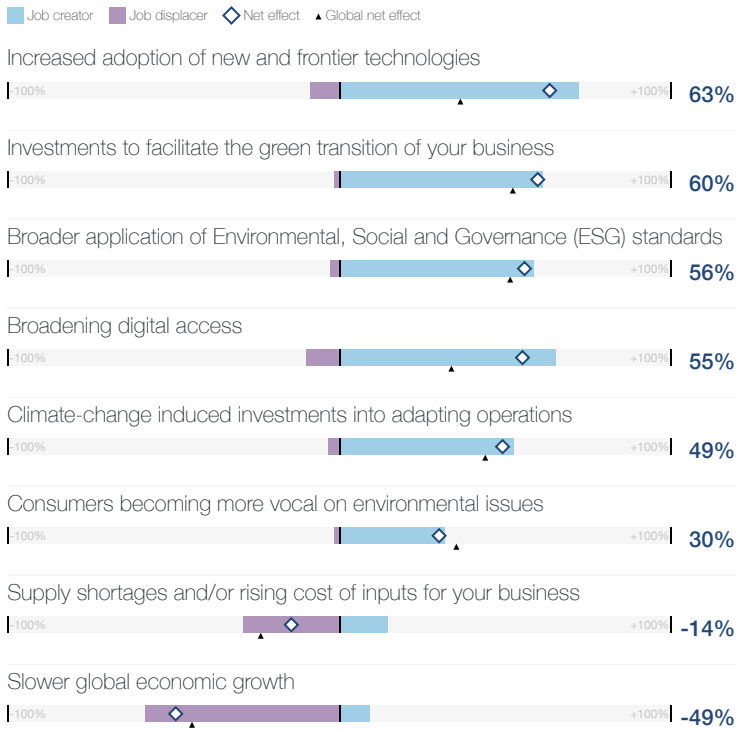
56%

Global 67%

Trend outlook

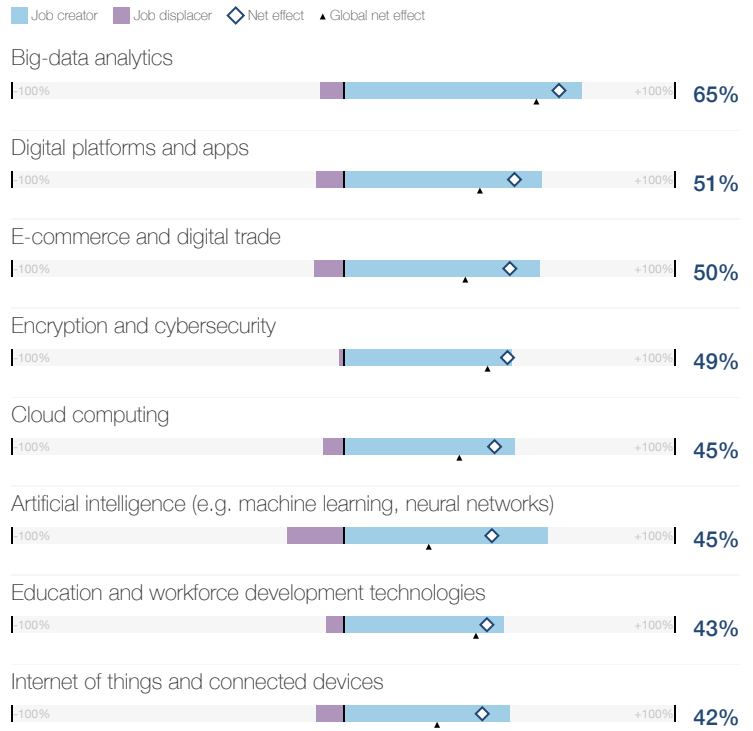
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

21%

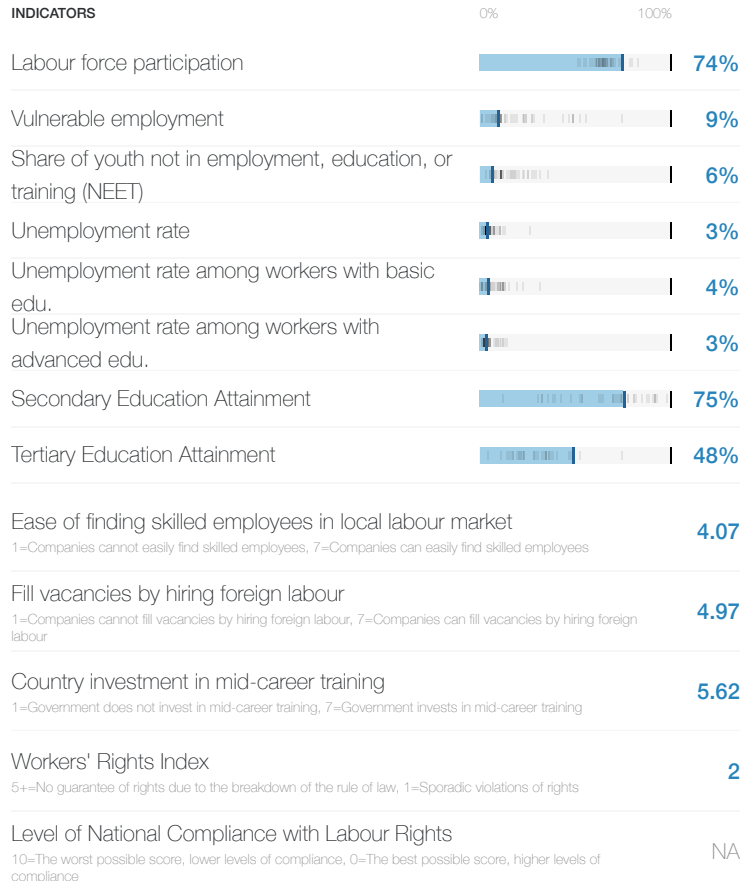
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



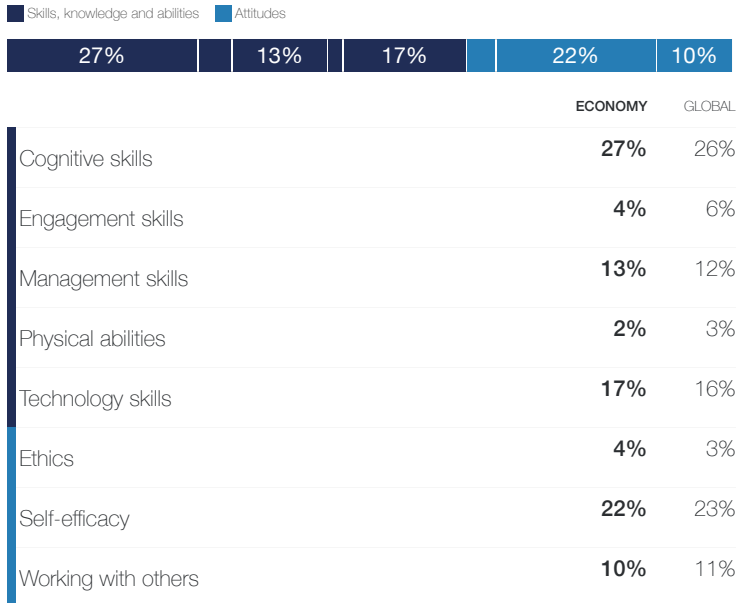
# Singapore

3.0

## Skill outlook

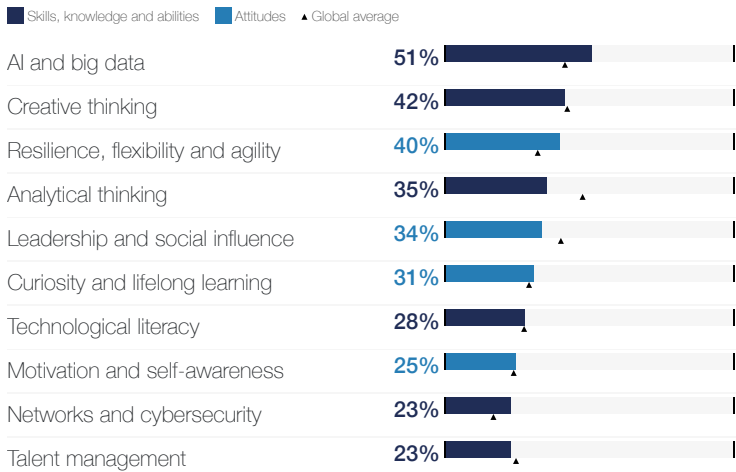
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

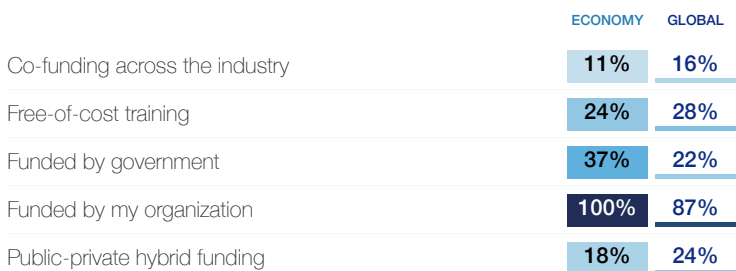
Skills required by the workforce that are expected to remain the same (share of all skills required)

59%

Global 56%

### Training funding

Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



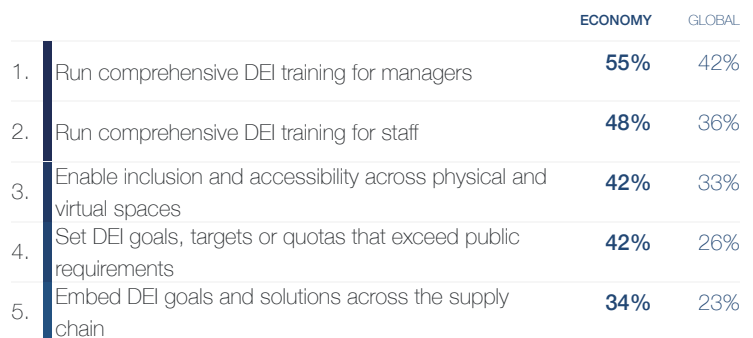
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

84%

Global 67%

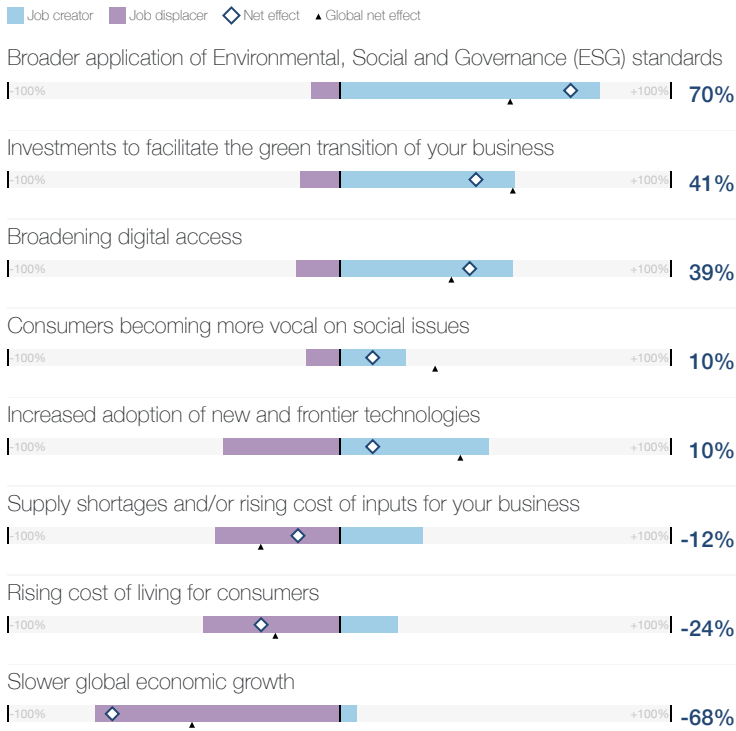
# South Africa

33.1

## Trend outlook

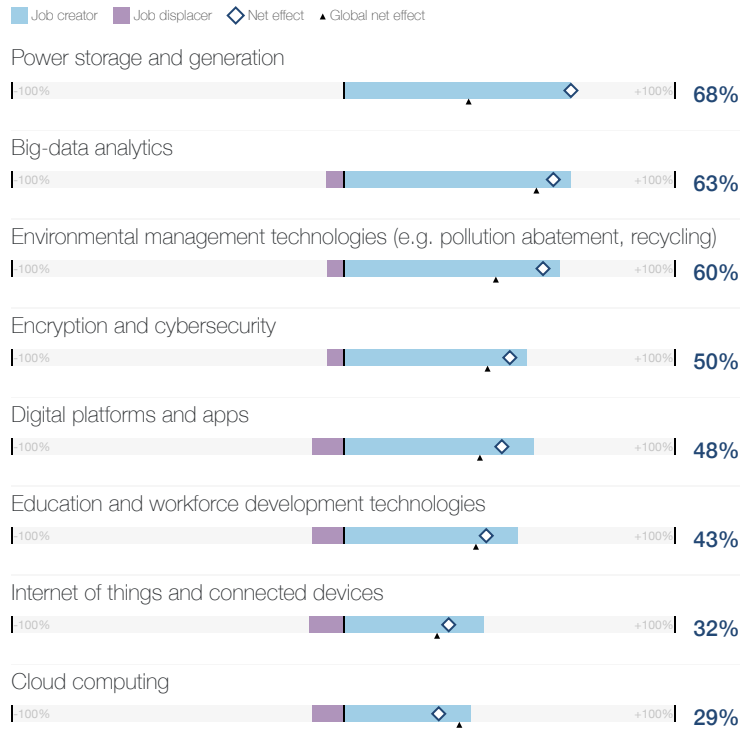
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

20%

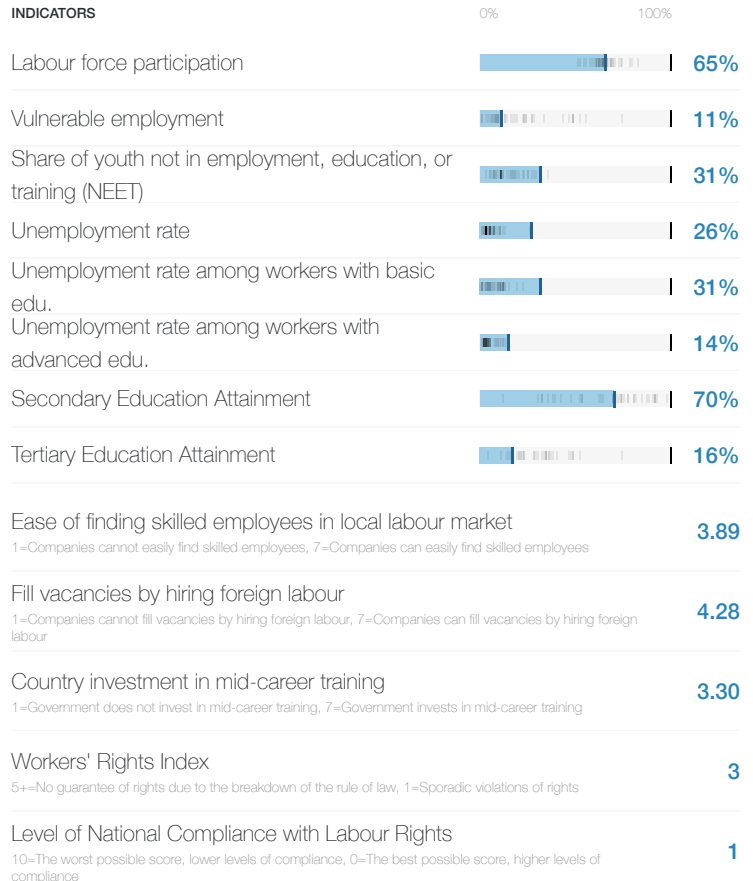
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



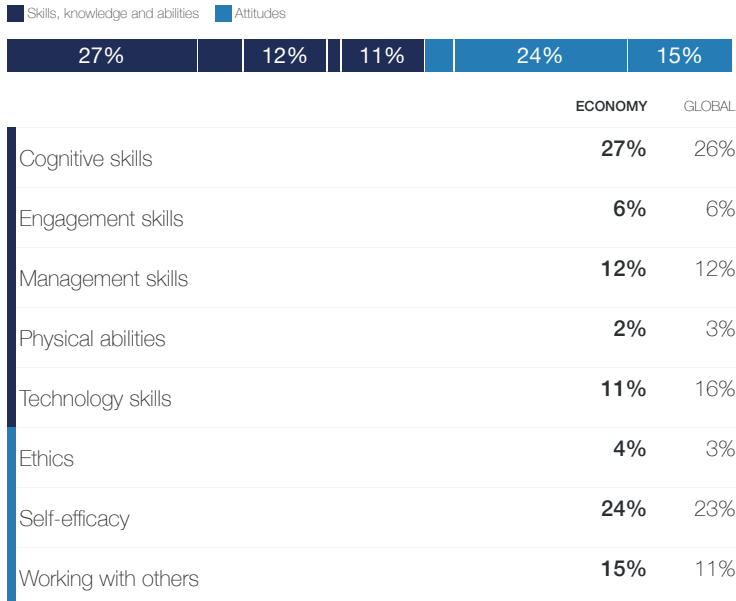
# South Africa

33.1

## Skill outlook

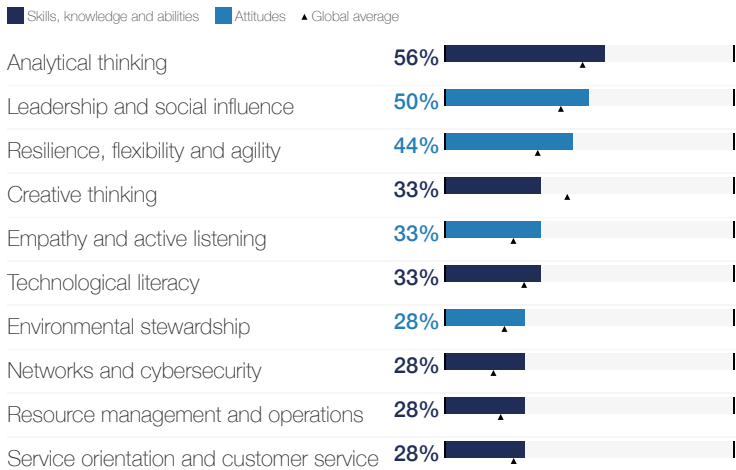
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

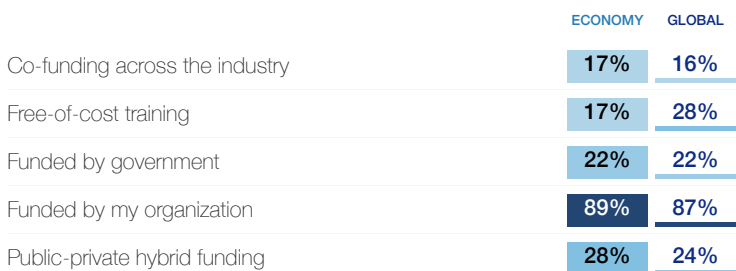
Skills required by the workforce that are expected to remain the same (share of all skills required)

56%

Global 56%

### Training funding

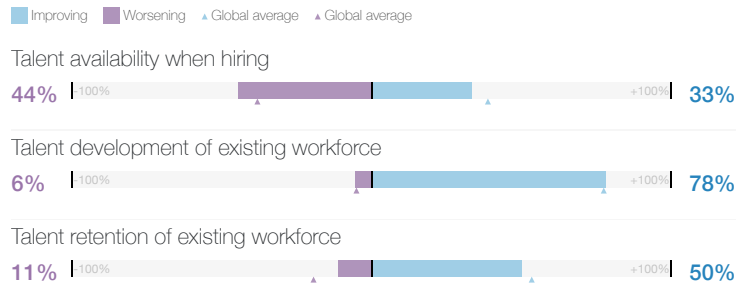
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



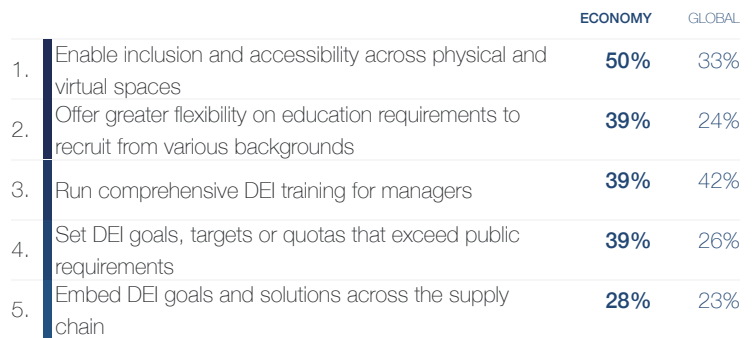
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

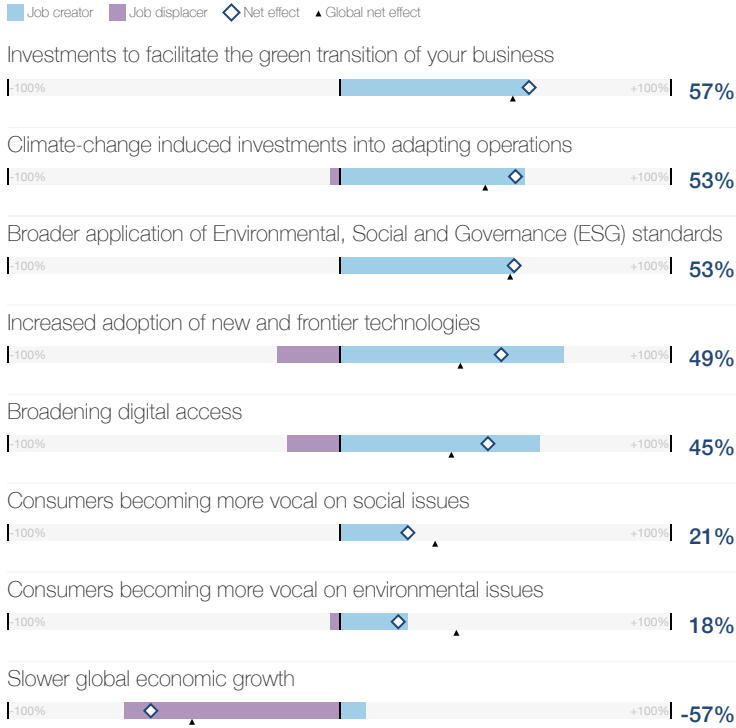
89%

Global 67%

Trend outlook

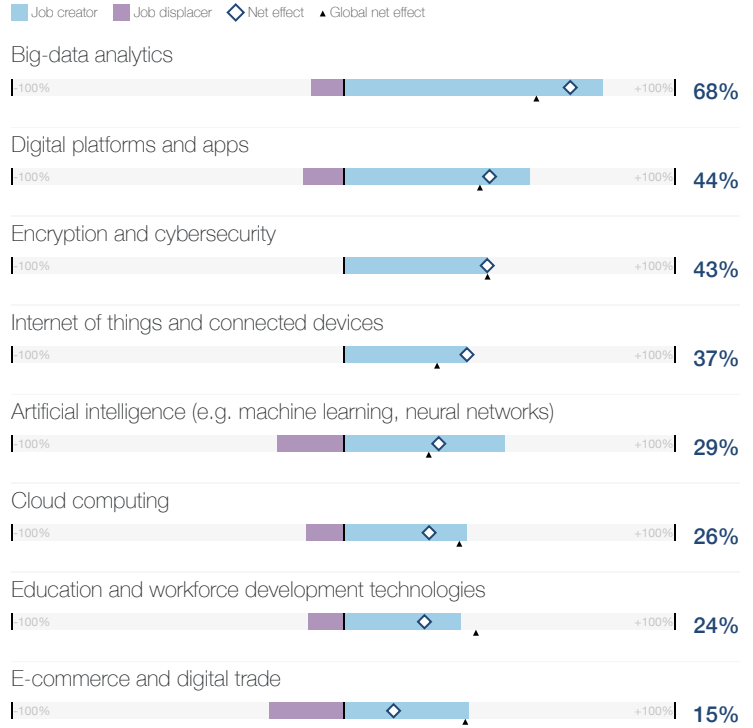
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

17%

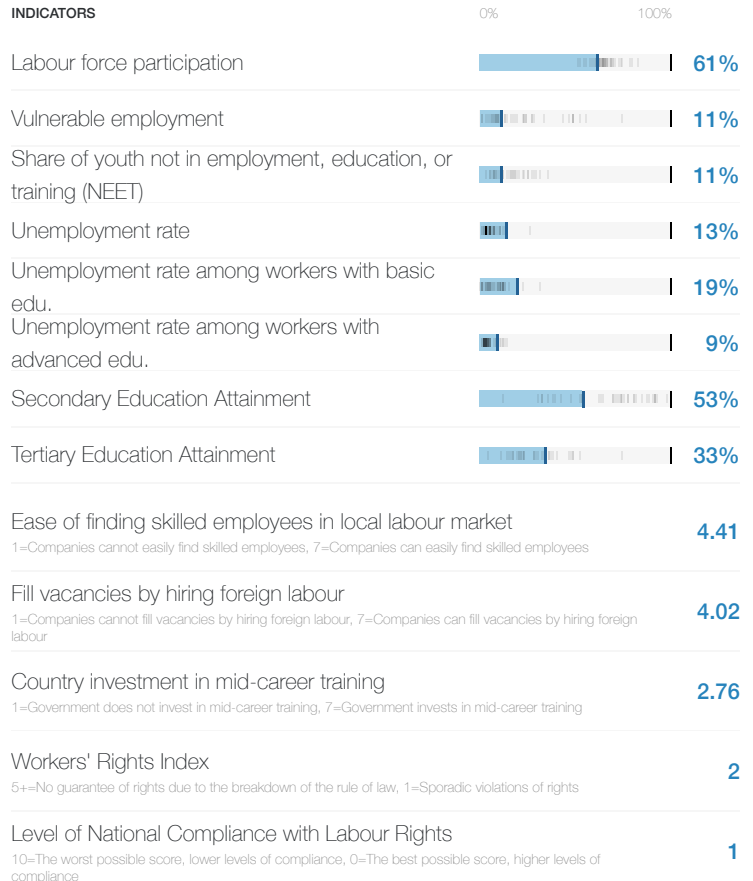
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



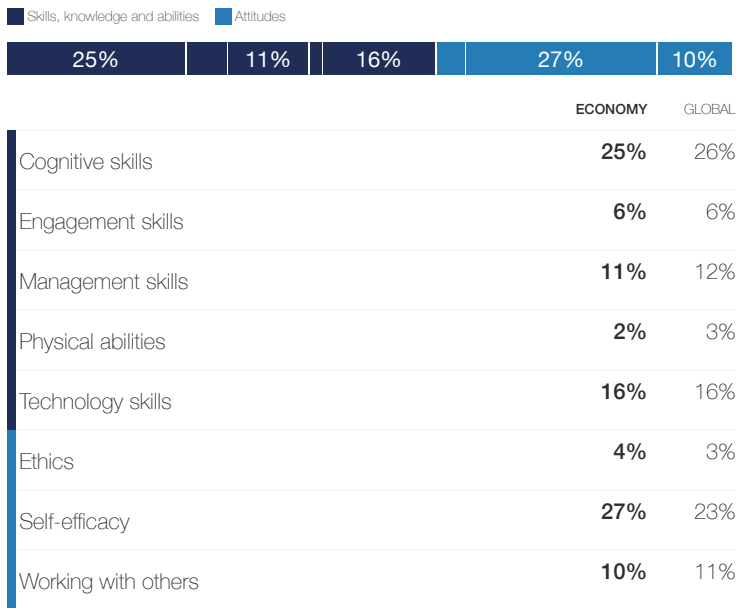
# Spain

35.3

## Skill outlook

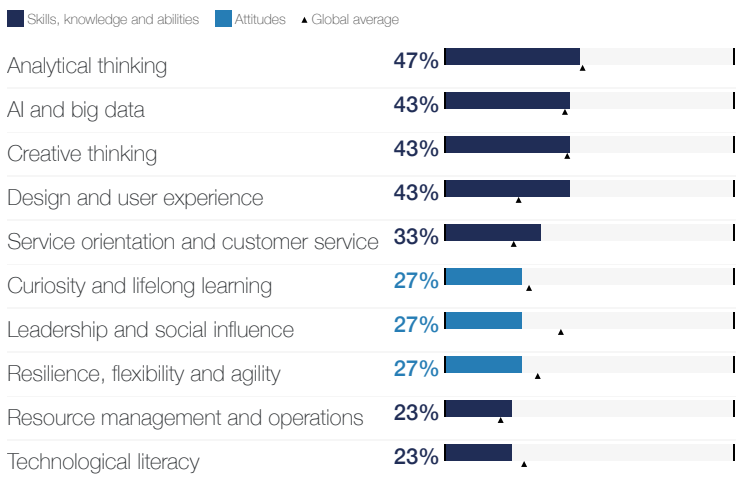
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

56%  
Global 56%

### Training funding

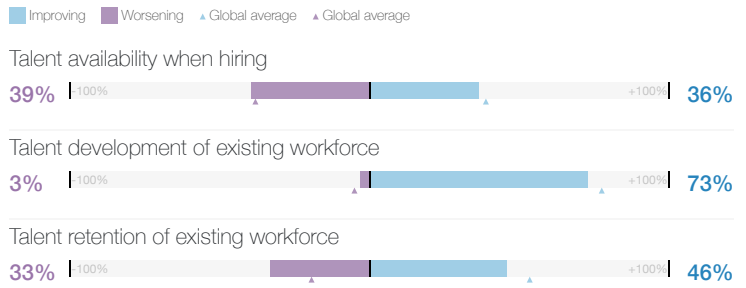
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



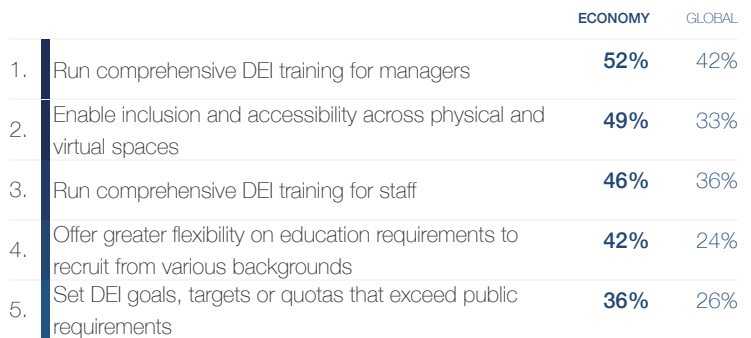
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

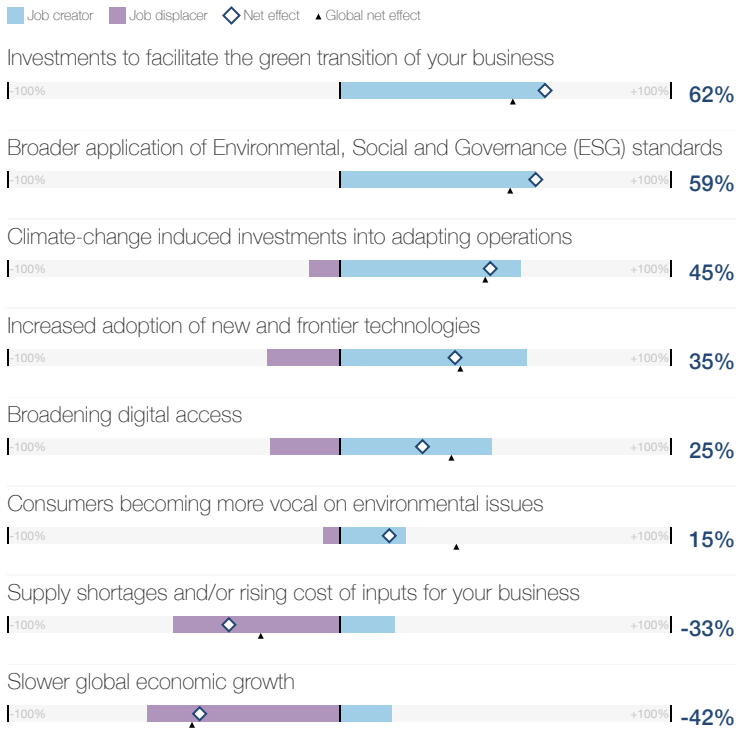
(share of organizations surveyed)

79%  
Global 67%

Trend outlook

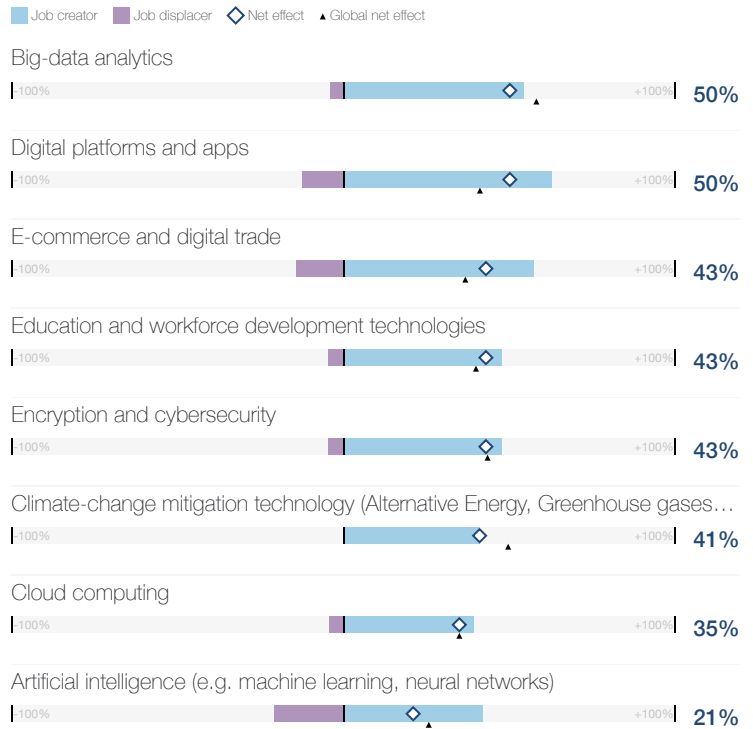
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

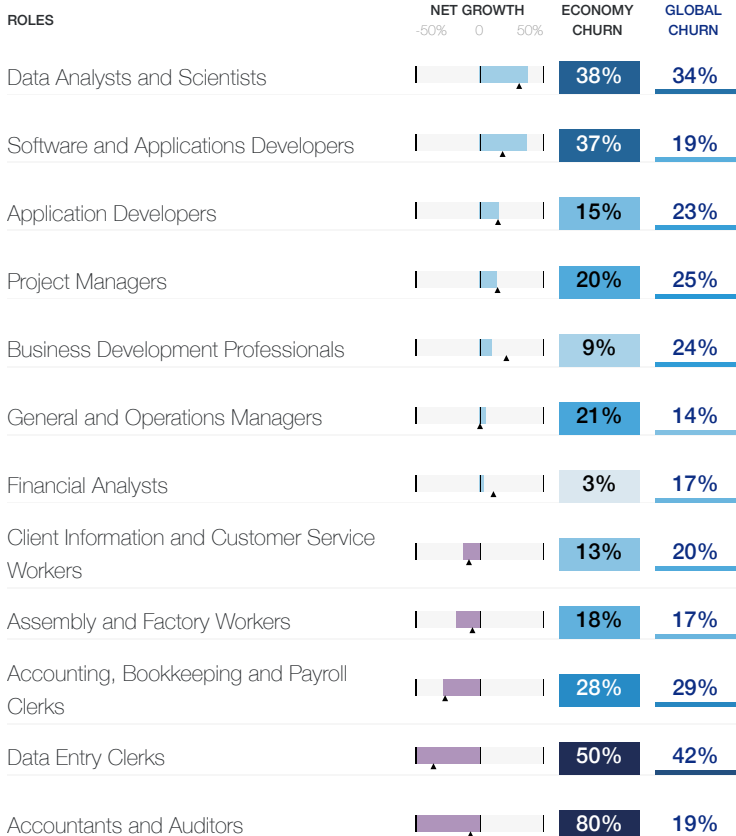
Five-year structural labour-force churn (percent)

24%

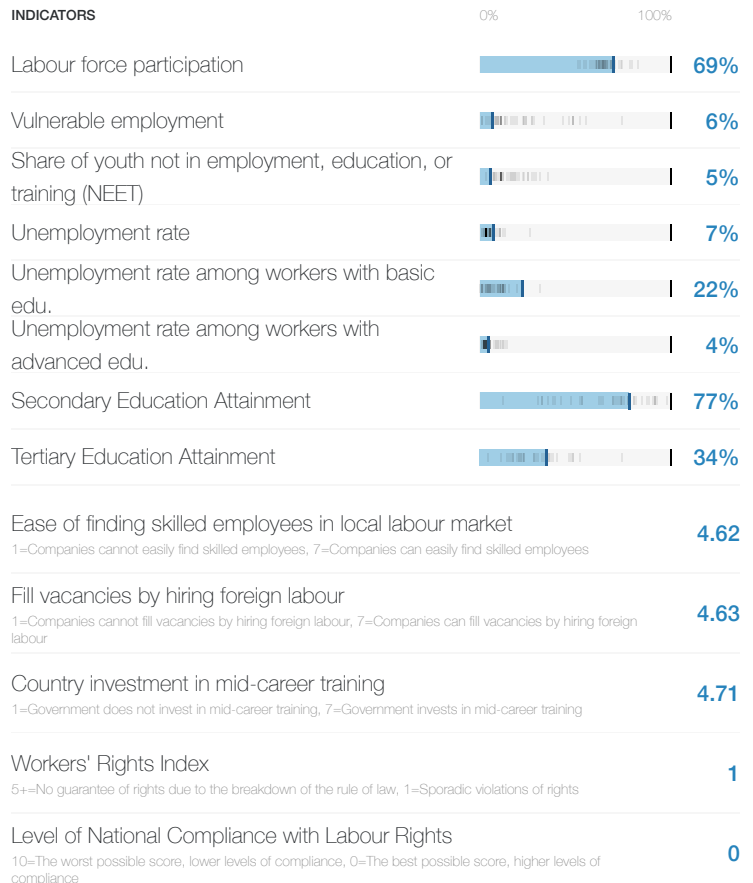
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



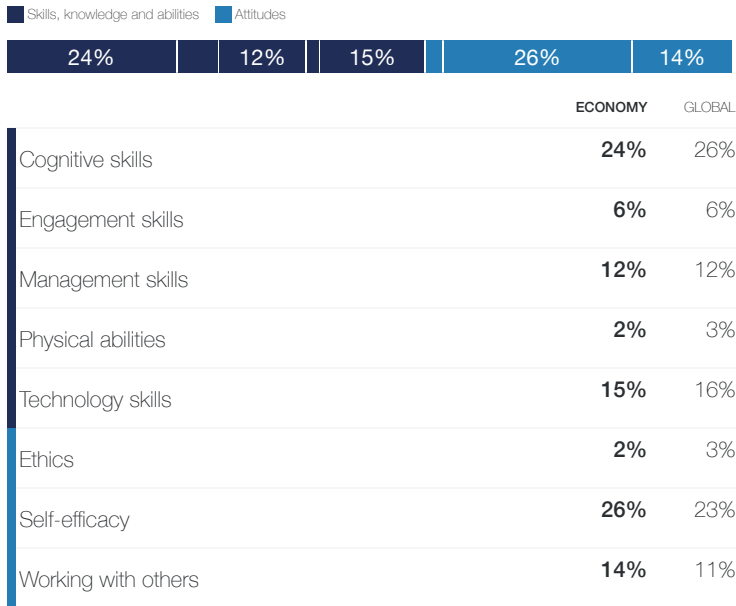
# Sweden

7.3

## Skill outlook

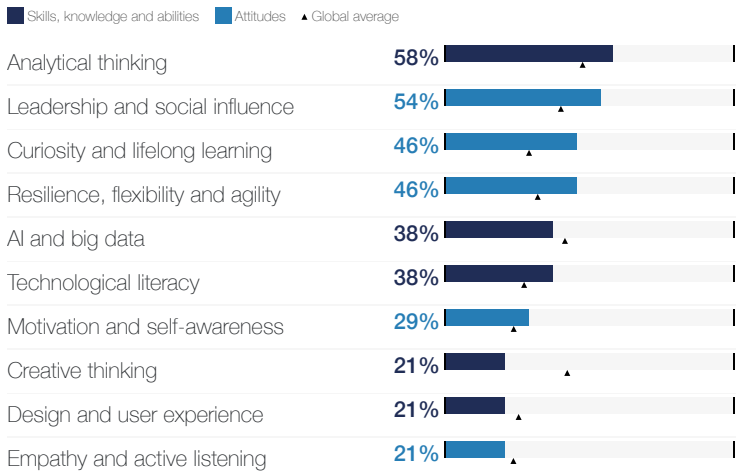
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

**58%**  
Global 56%

### Training funding

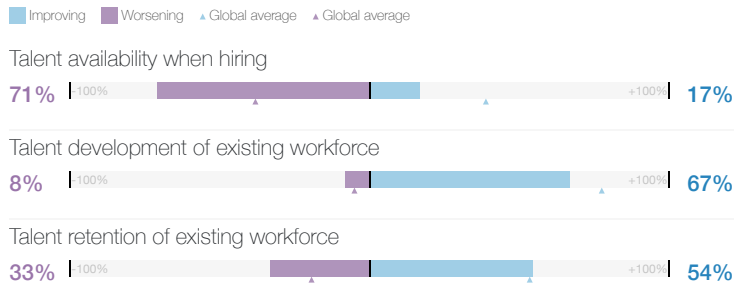
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

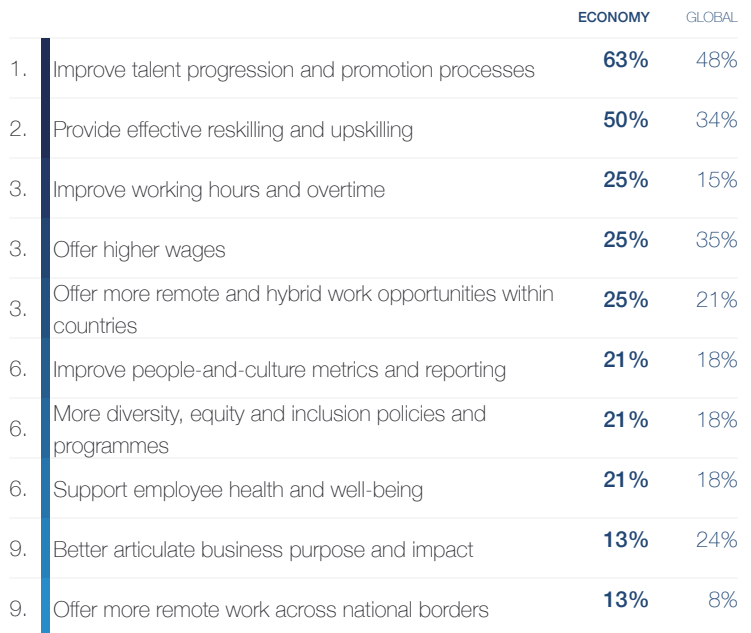
### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

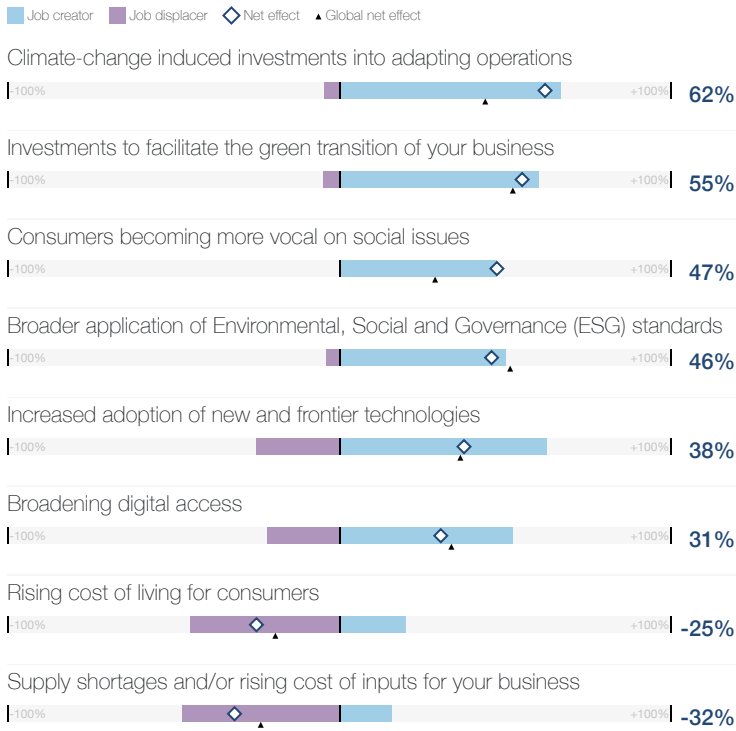
(share of organizations surveyed)

**77%**  
Global 67%

Trend outlook

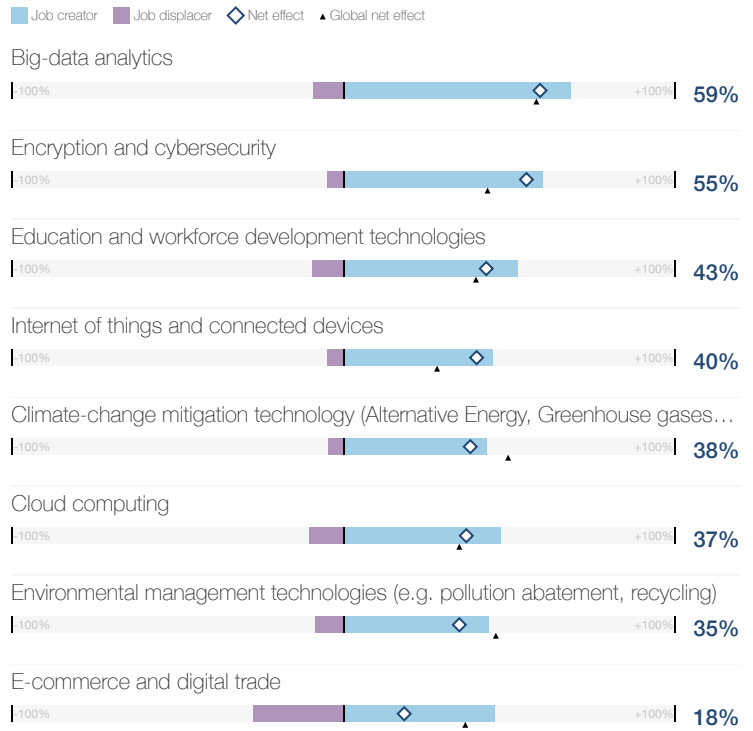
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

24%

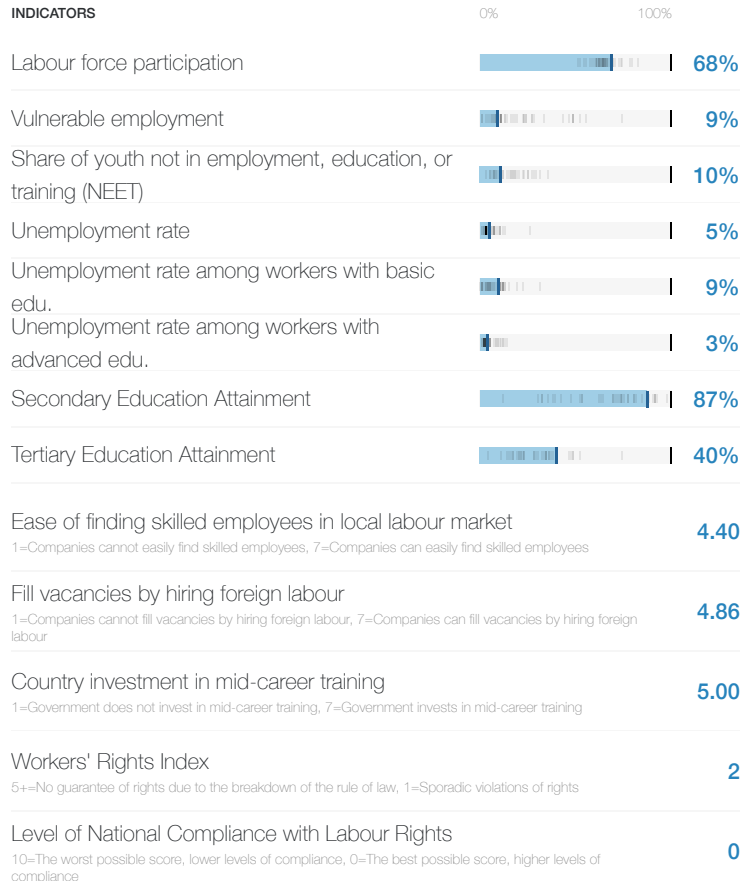
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



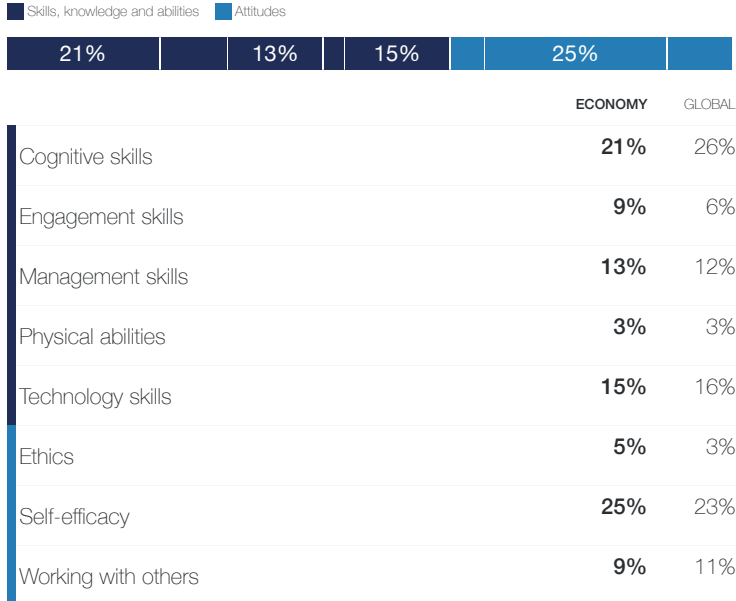
# Switzerland

6.4

## Skill outlook

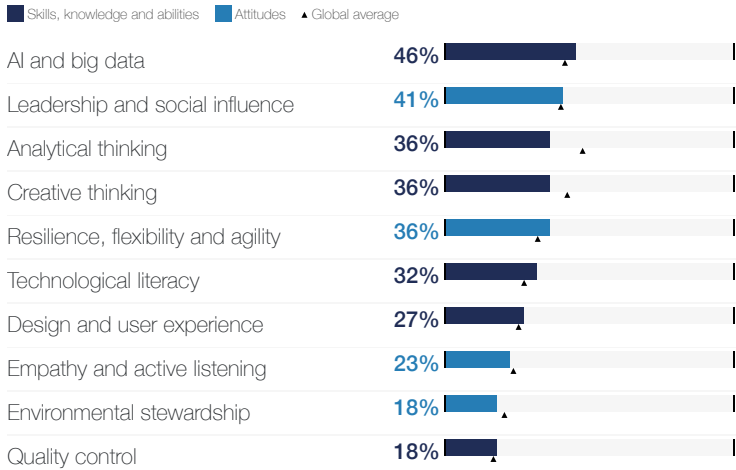
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

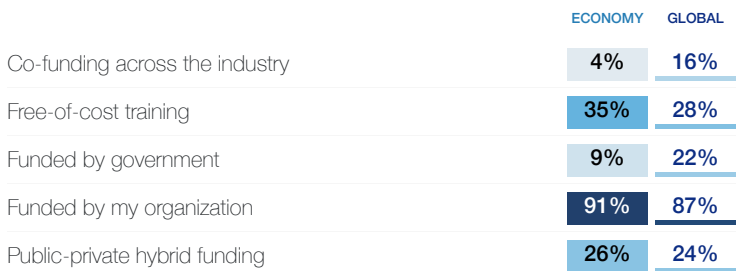
Skills required by the workforce that are expected to remain the same (share of all skills required)

53%

Global 56%

### Training funding

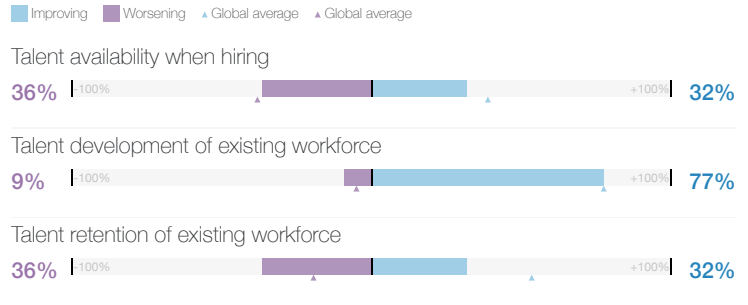
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



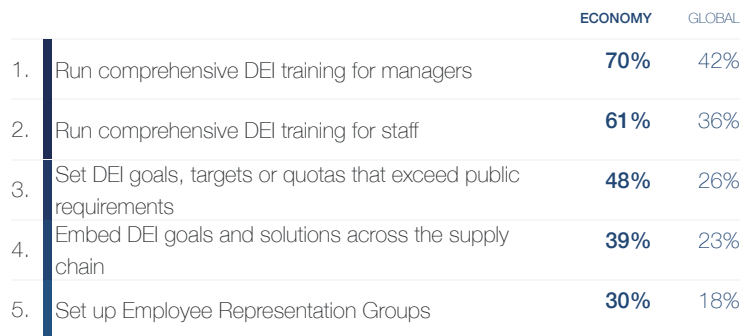
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

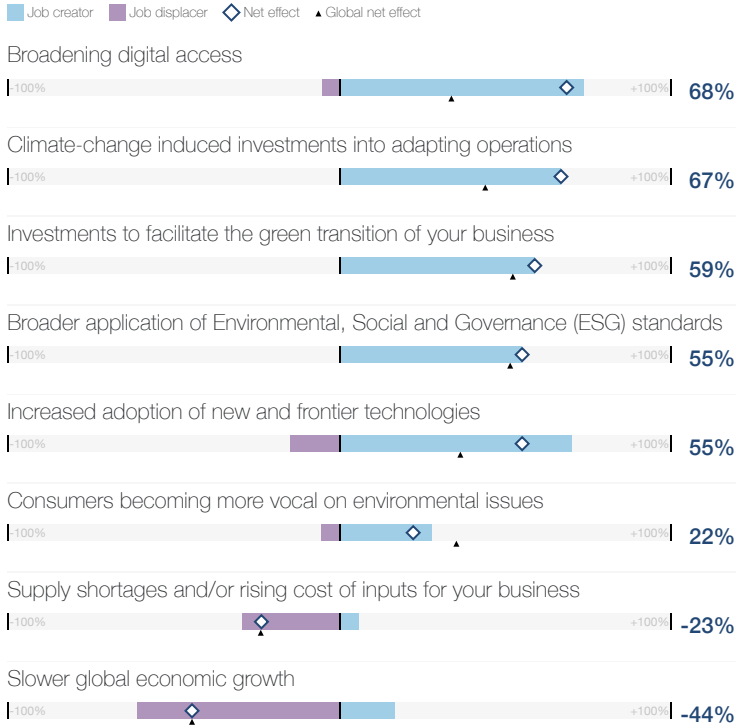
83%

Global 67%

Trend outlook

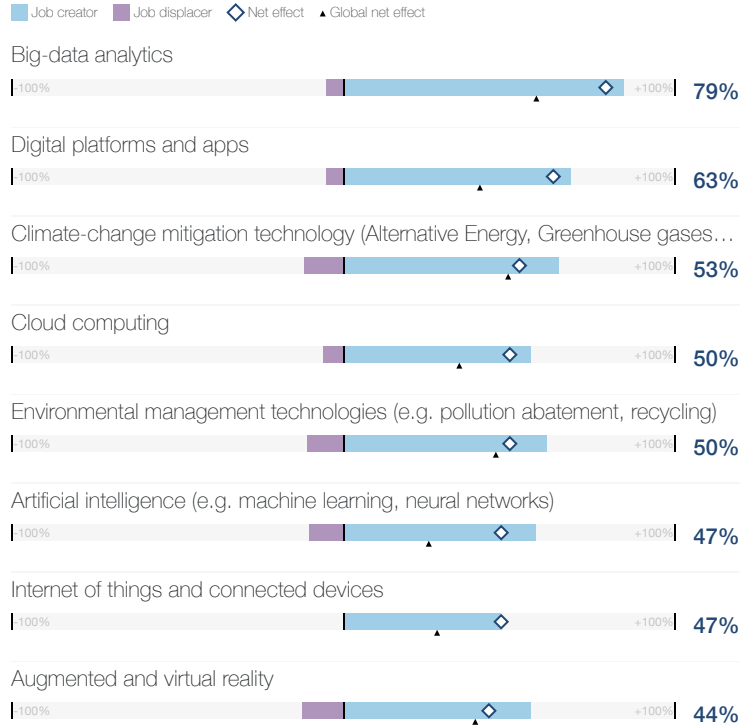
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

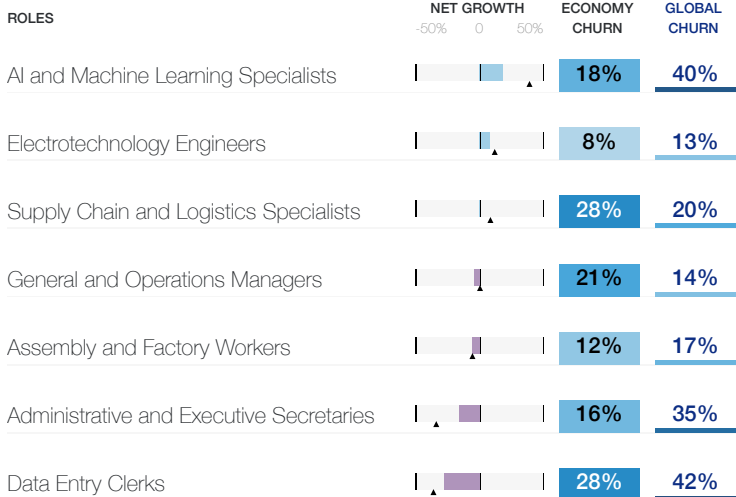
Five-year structural labour-force churn (percent)

15%

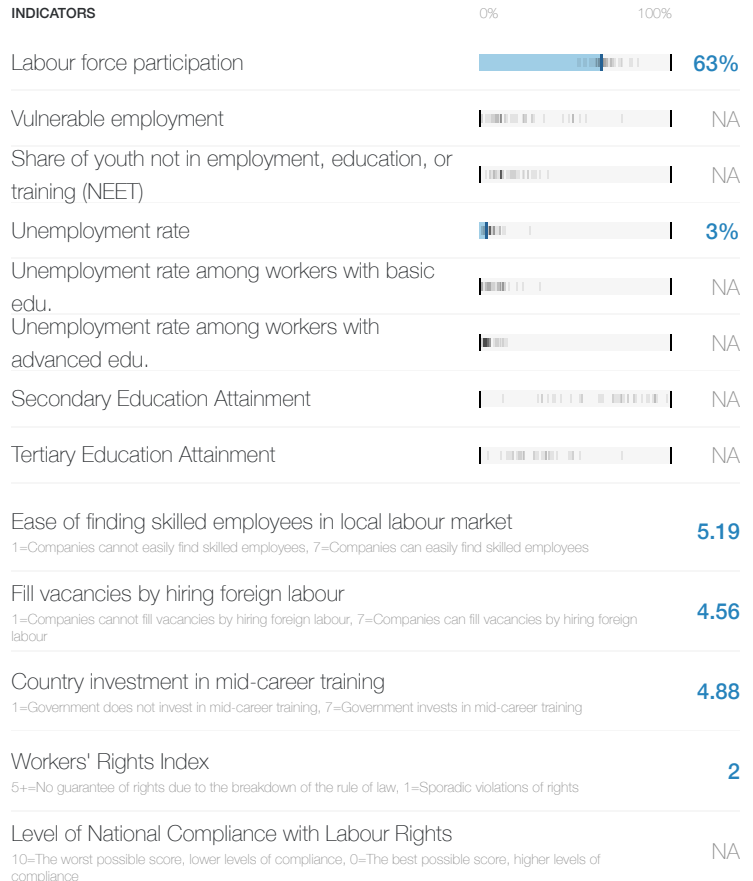
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



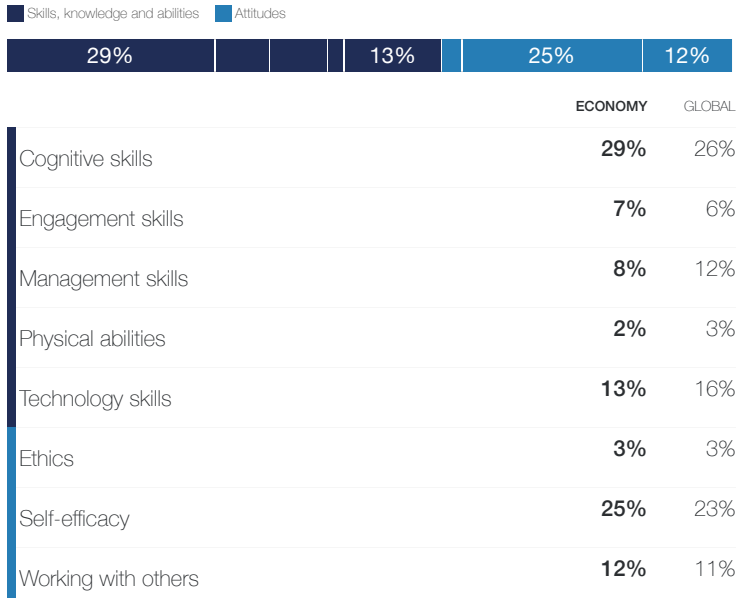
# Taiwan, China

17.6

## Skill outlook

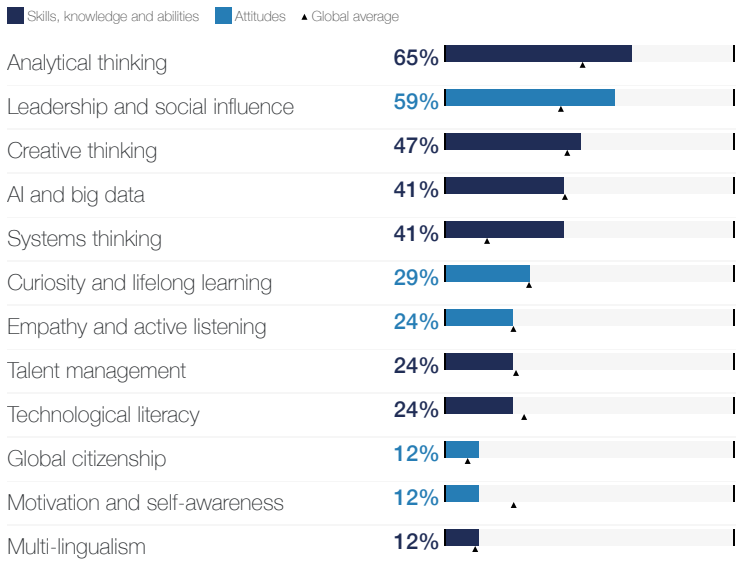
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

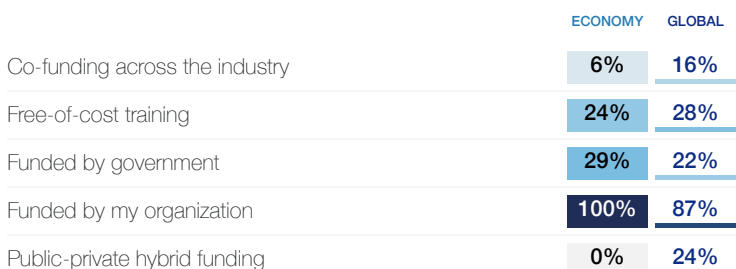
Skills required by the workforce that are expected to remain the same (share of all skills required)

54%

Global 56%

### Training funding

Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

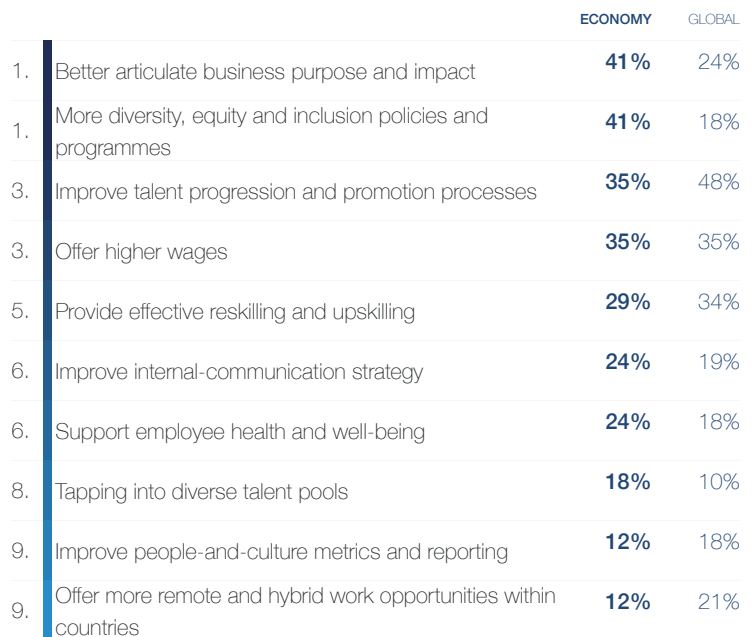
### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

71%

Global 67%

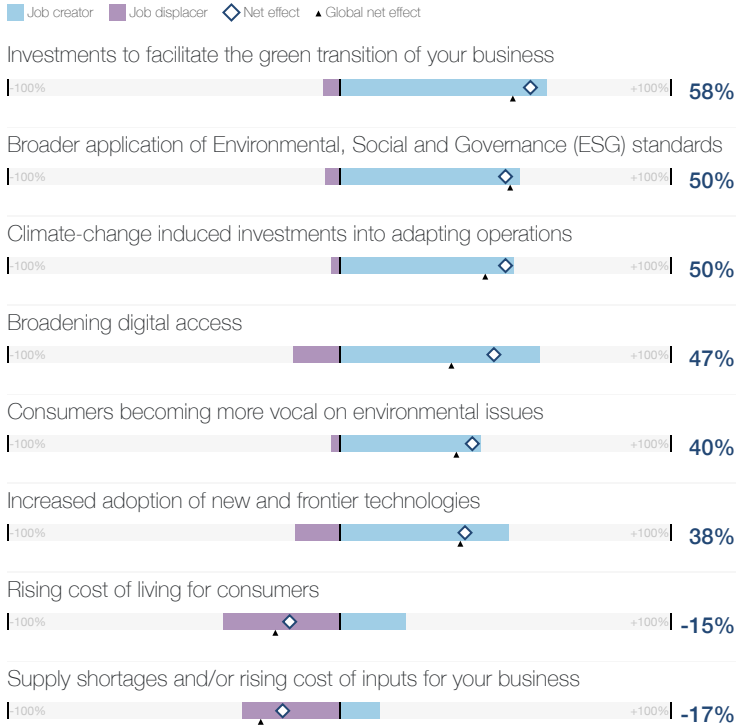
# Thailand

48.0

## Trend outlook

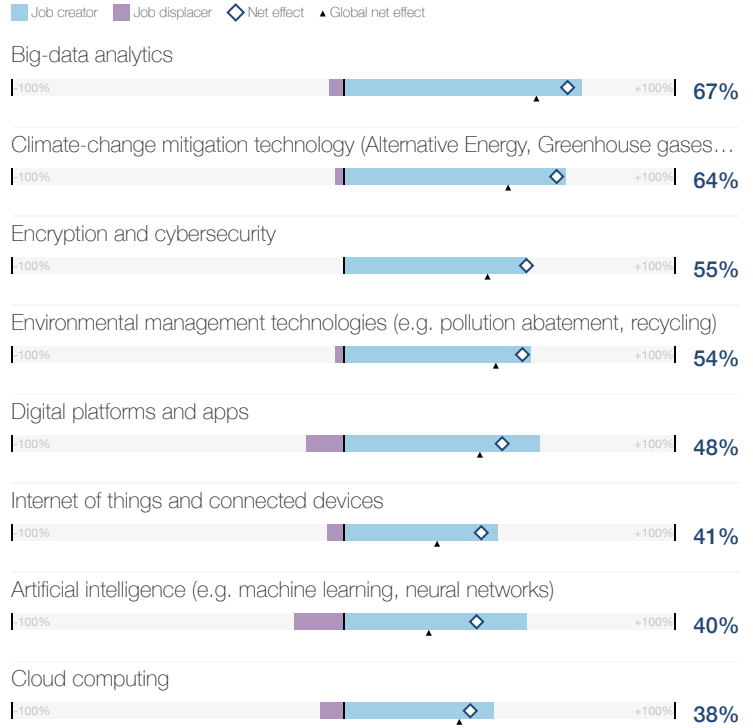
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

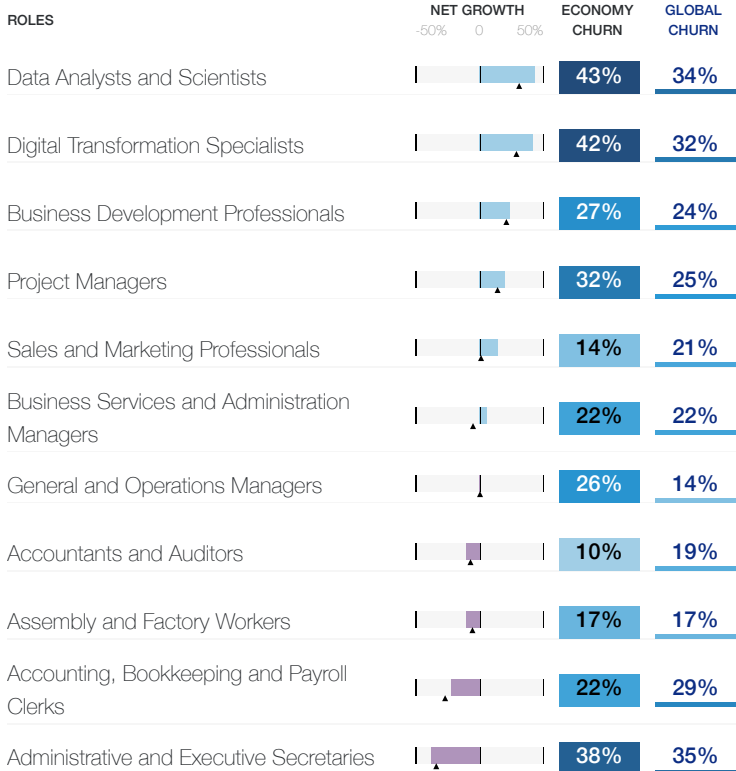
Five-year structural labour-force churn (percent)

24%

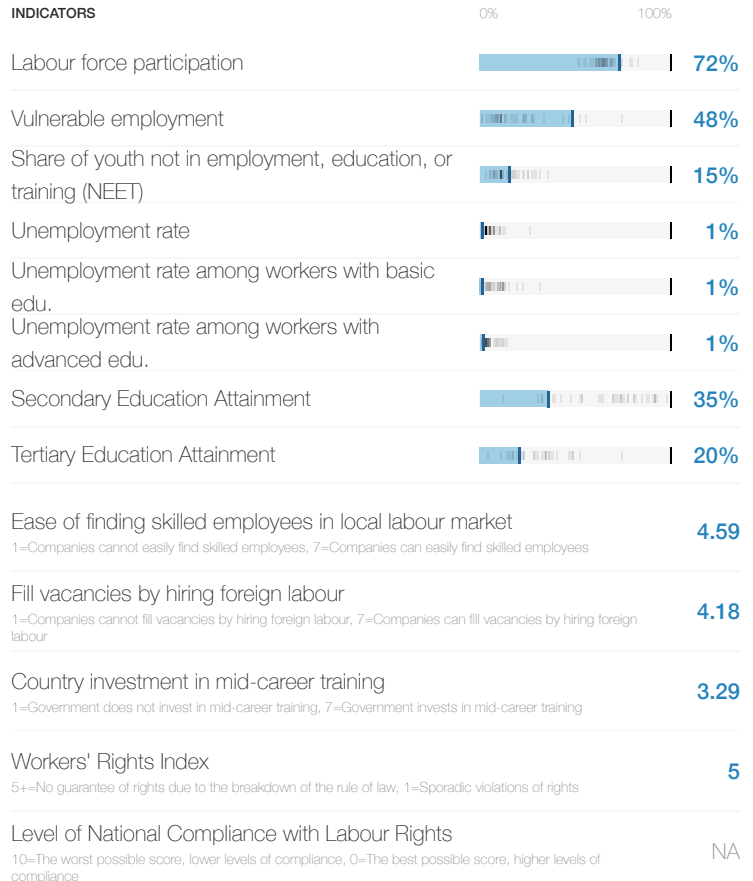
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



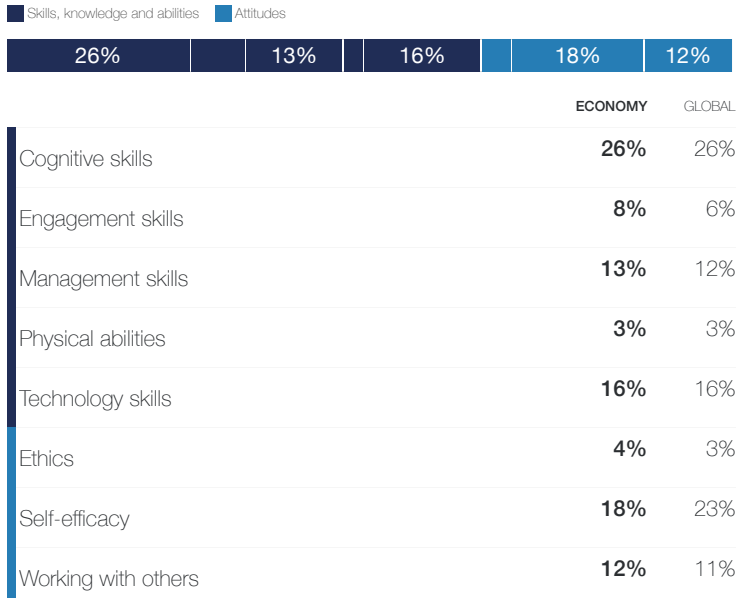
# Thailand

48.0

## Skill outlook

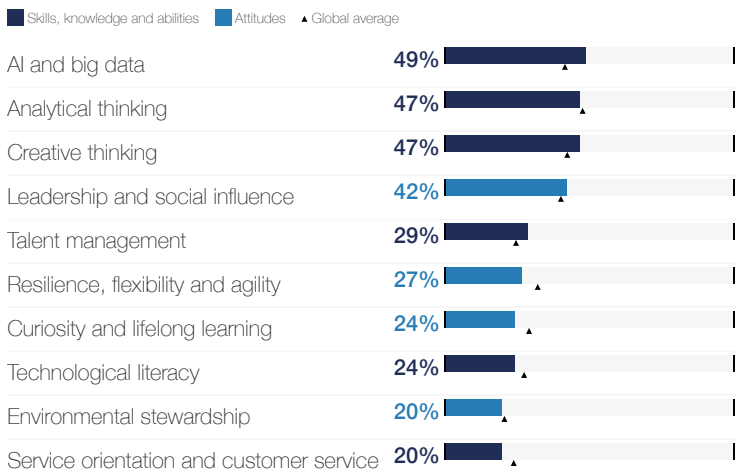
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

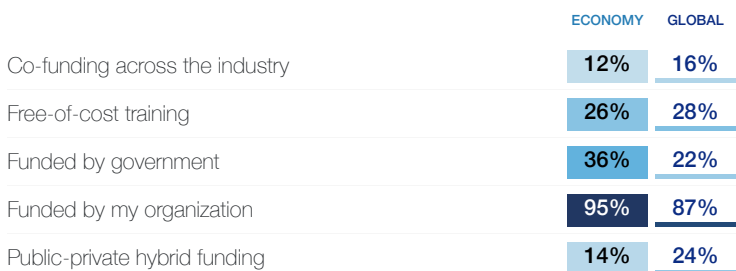
Skills required by the workforce that are expected to remain the same (share of all skills required)

60%

Global 56%

### Training funding

Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



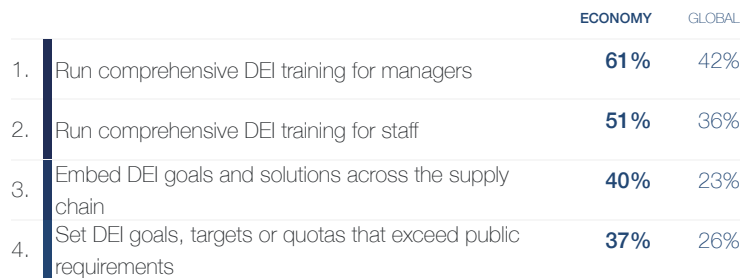
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

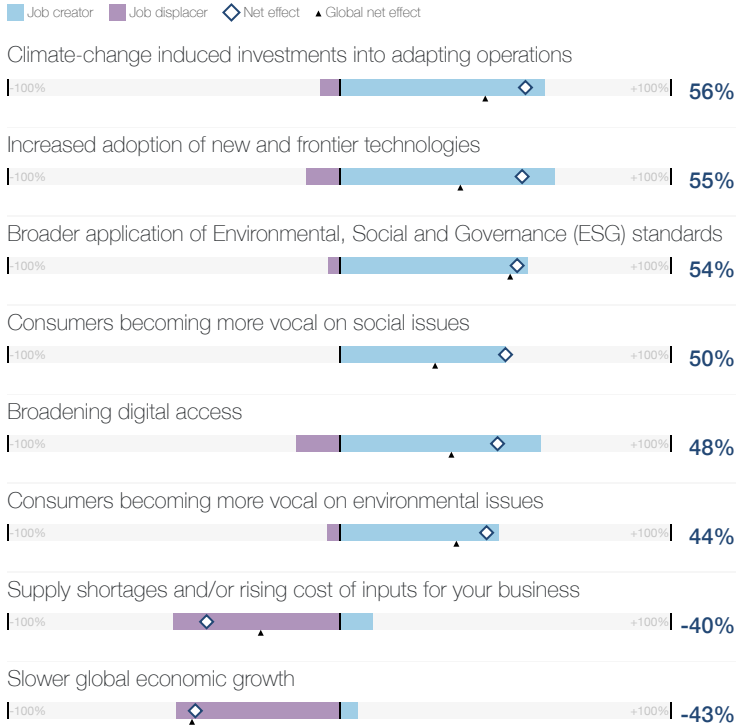
63%

Global 67%

Trend outlook

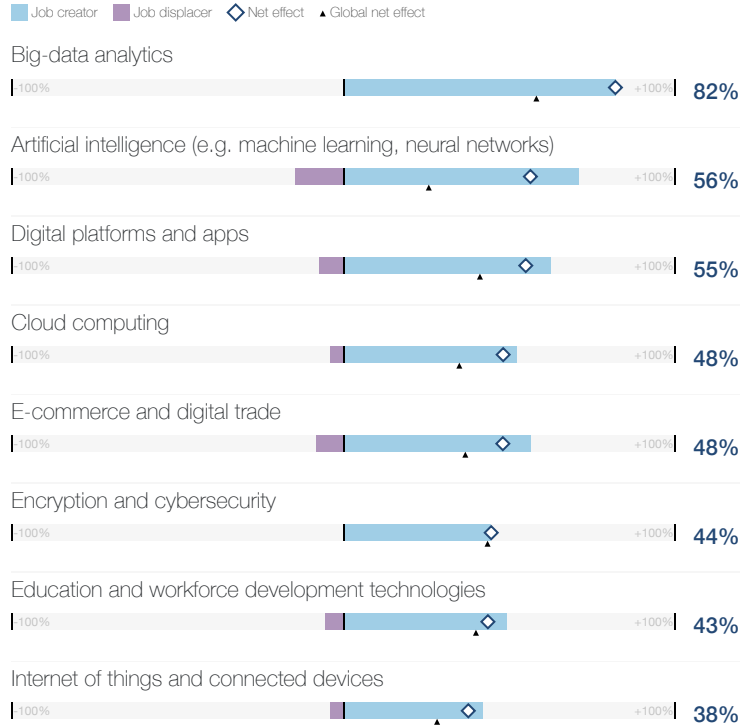
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

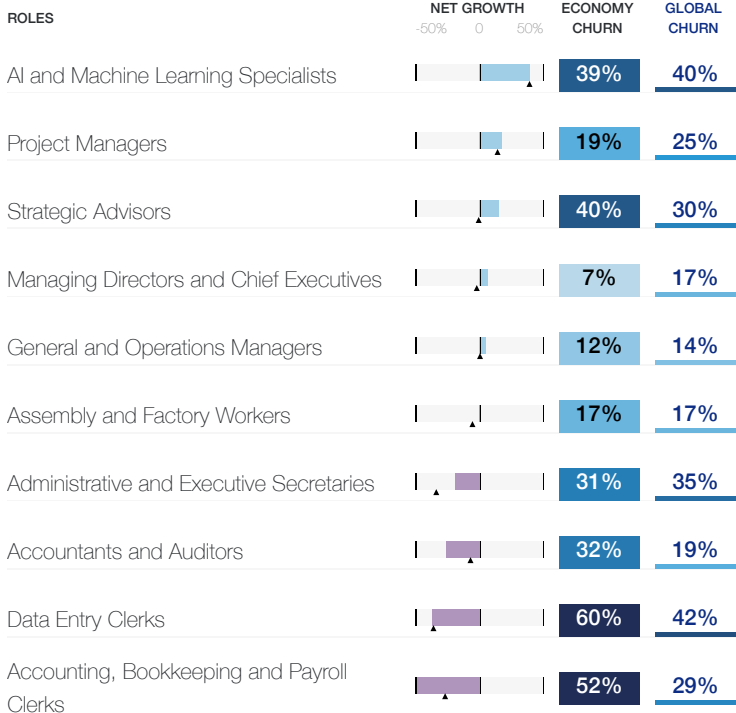
Five-year structural labour-force churn (percent)

26%

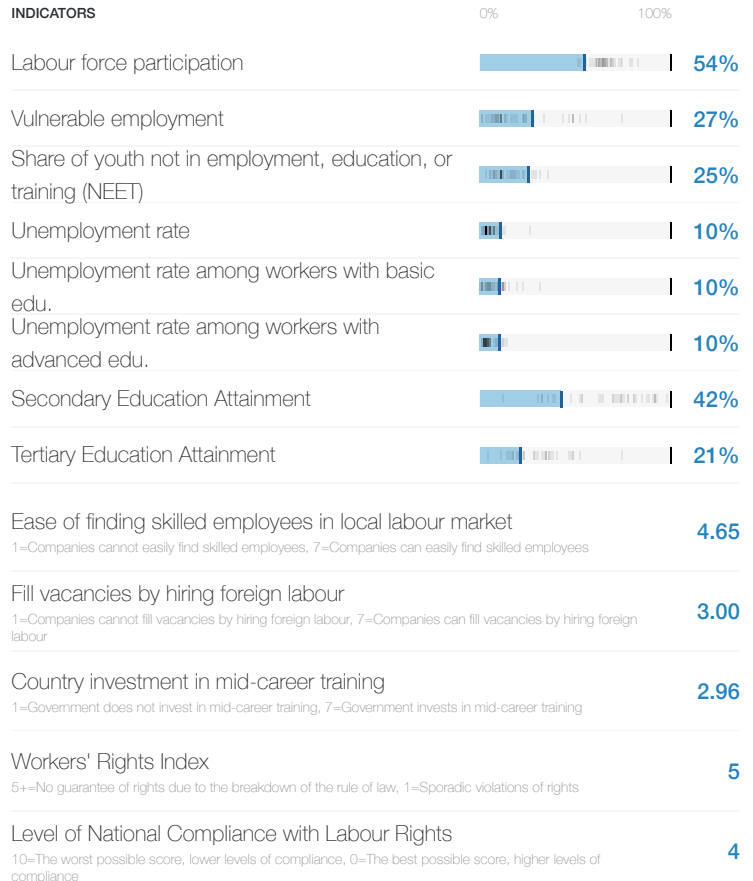
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



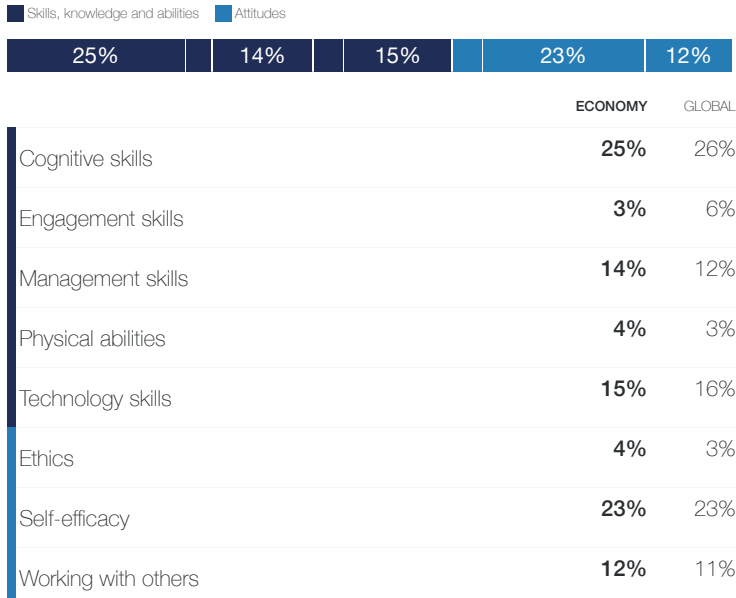
Contextual indicators



## Skill outlook

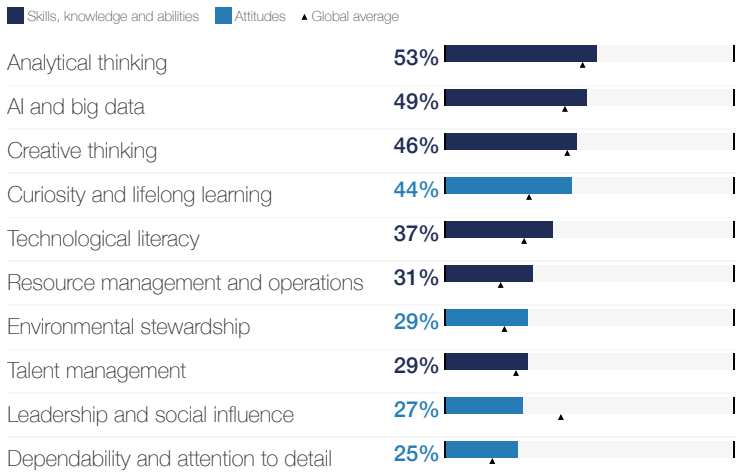
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

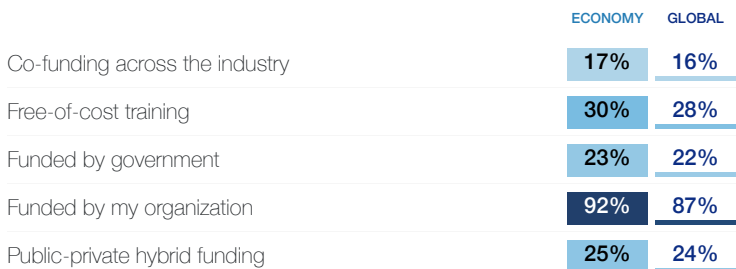
Skills required by the workforce that are expected to remain the same (share of all skills required)

**54%**

Global 56%

### Training funding

Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



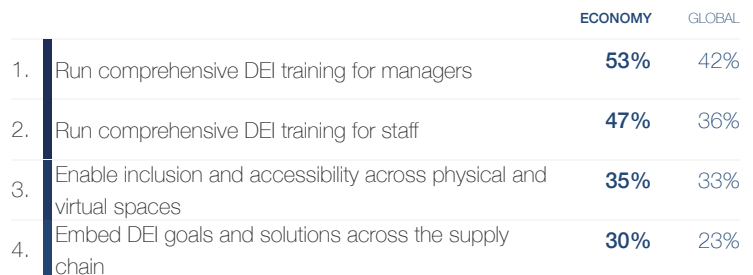
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

**67%**

Global 67%

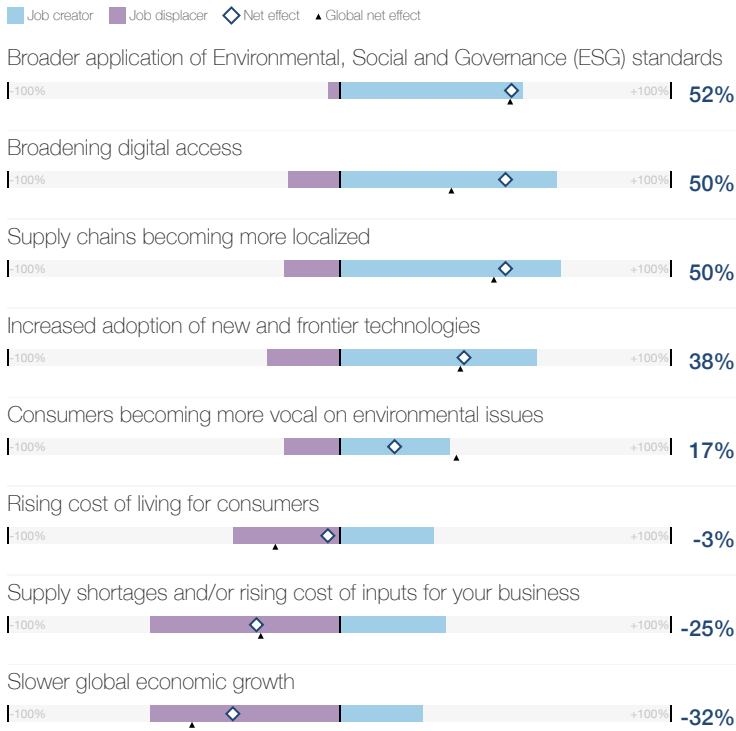
# United Arab Emirates

8.2

## Trend outlook

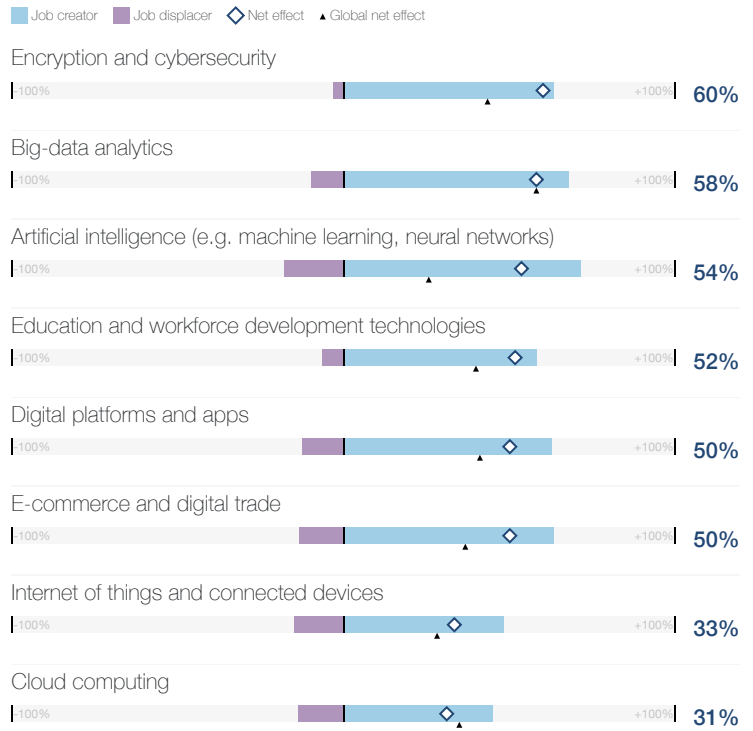
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

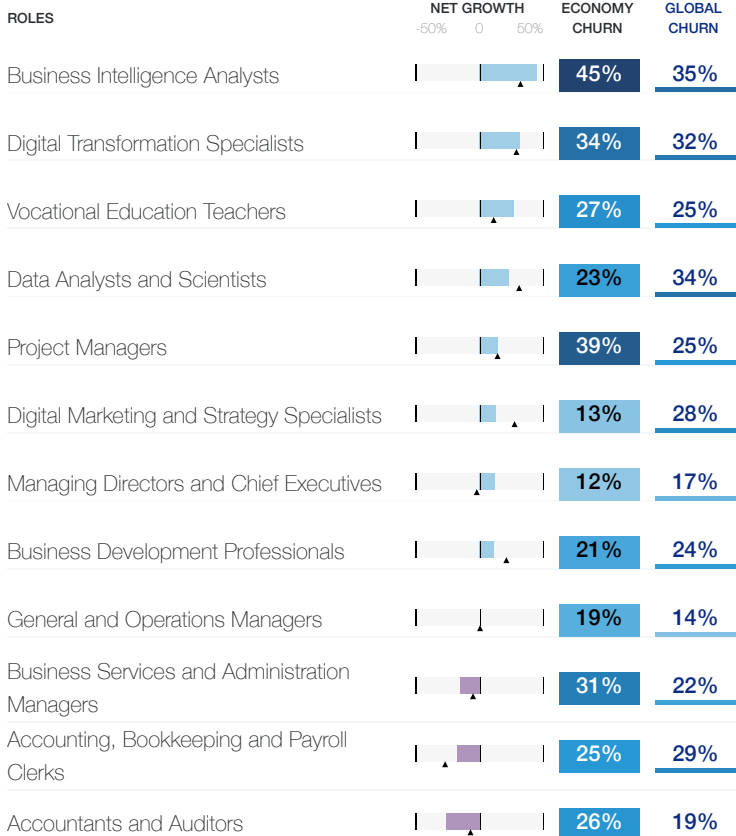
Five-year structural labour-force churn (percent)

**22%**

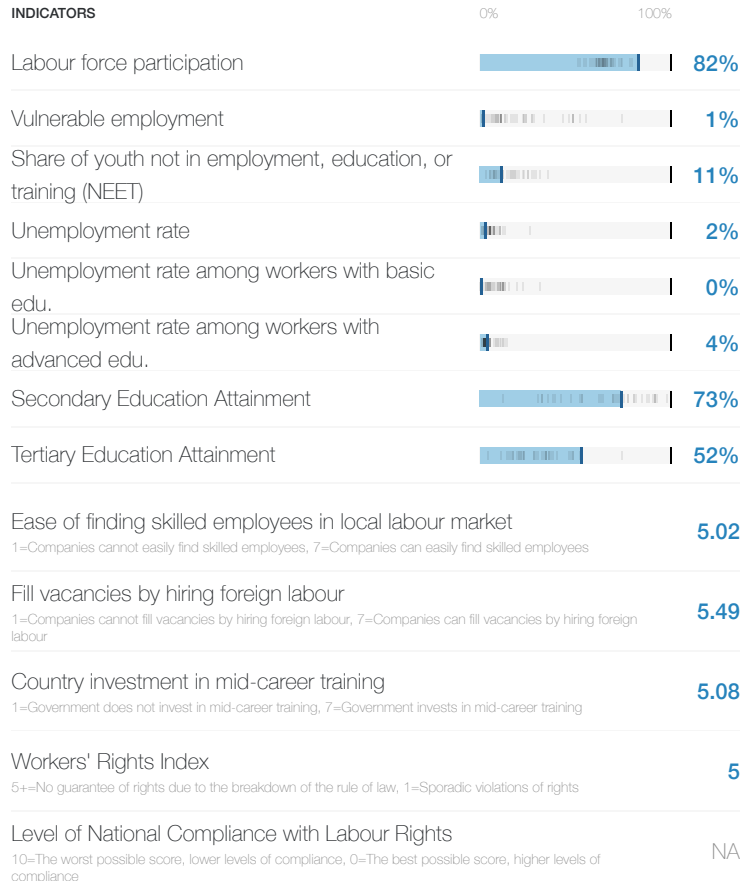
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



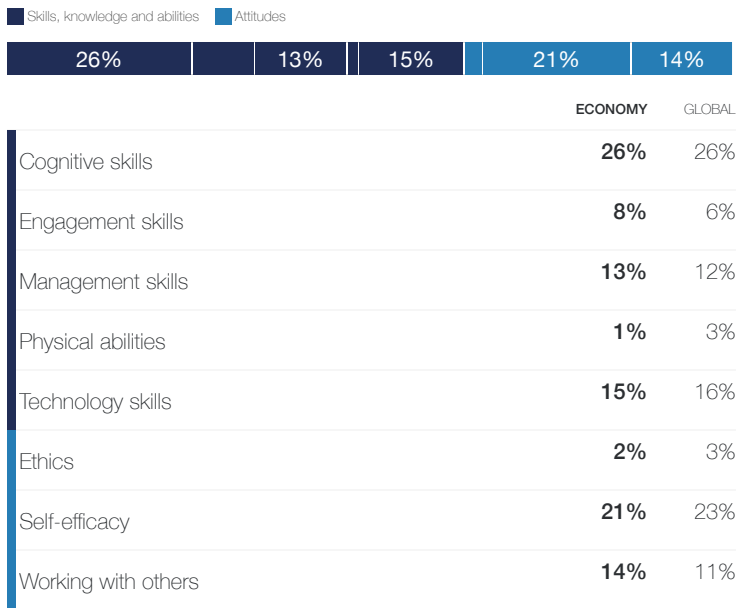
# United Arab Emirates

8.2

## Skill outlook

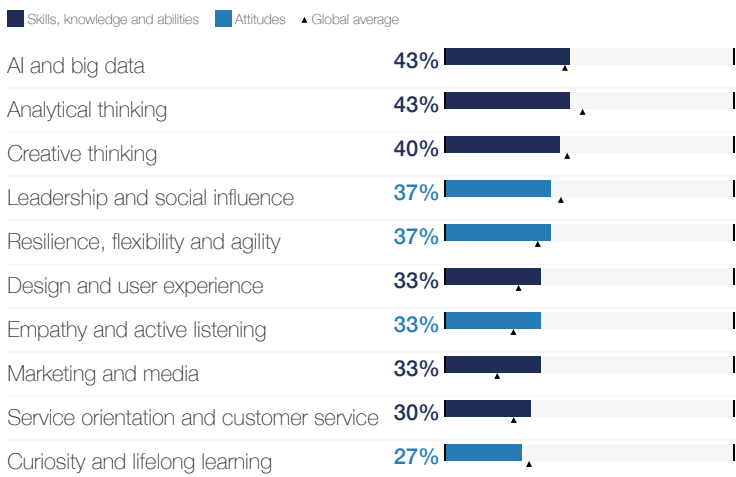
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

60%  
Global 56%

### Training funding

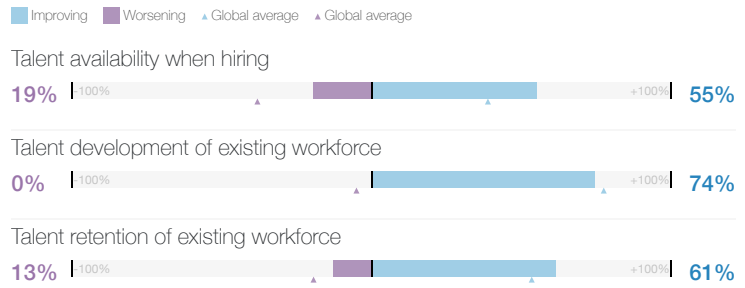
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

74%  
Global 67%

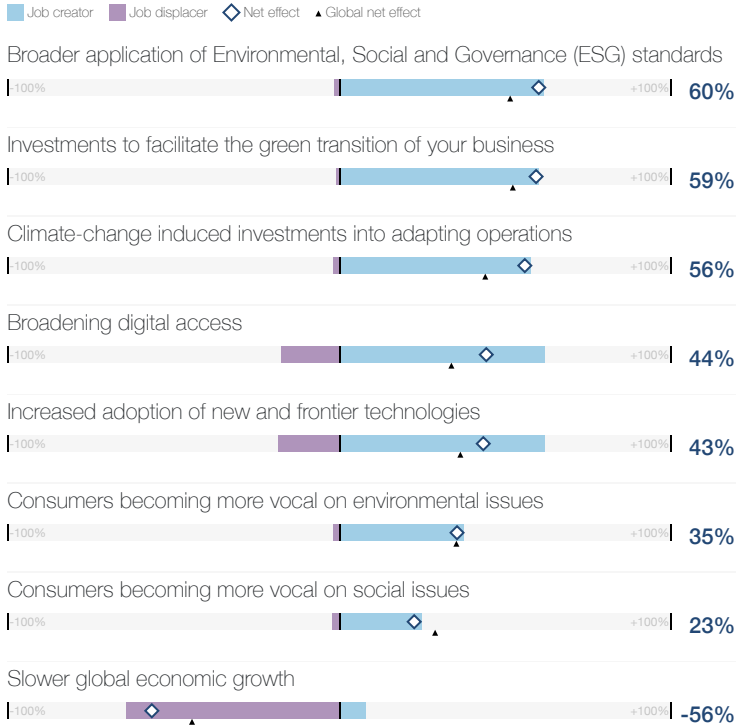
# United Kingdom

46.4

## Trend outlook

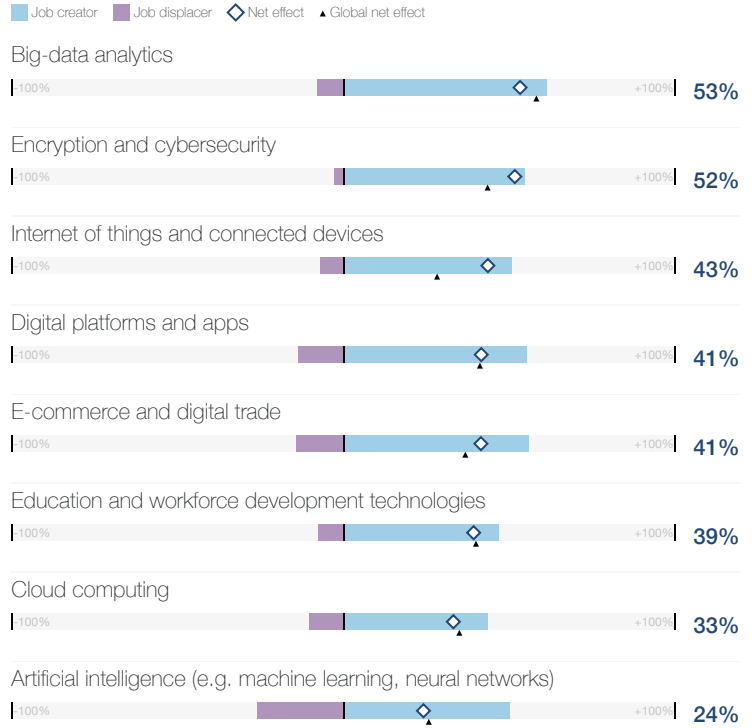
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

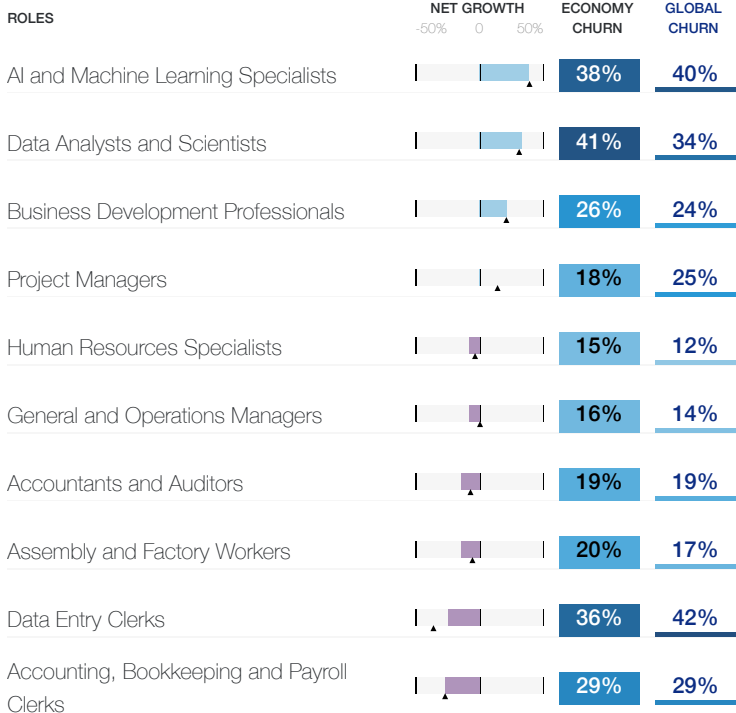
Five-year structural labour-force churn (percent)

21%

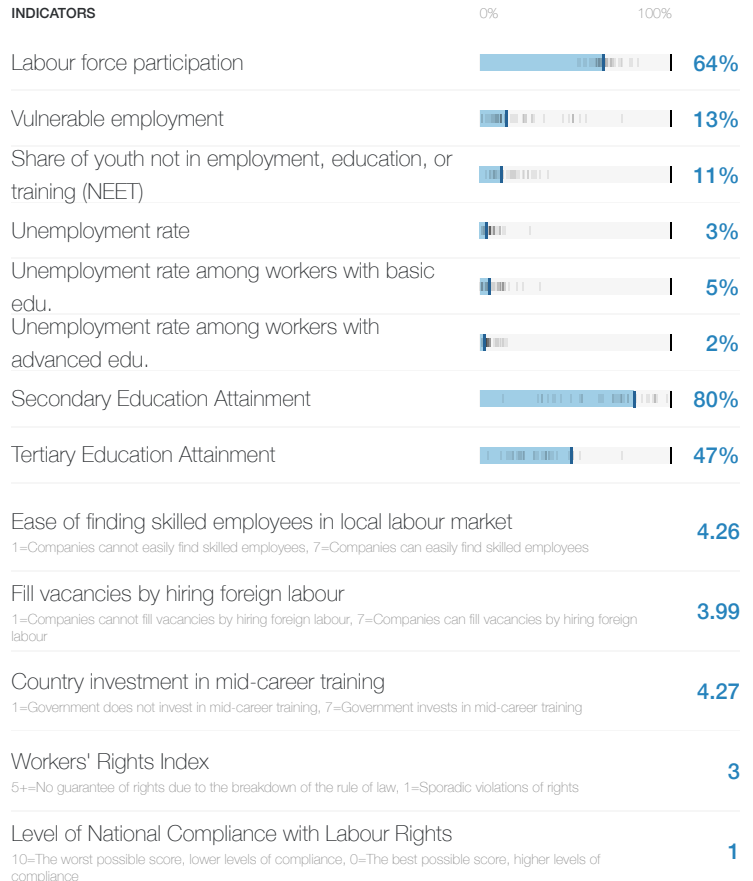
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



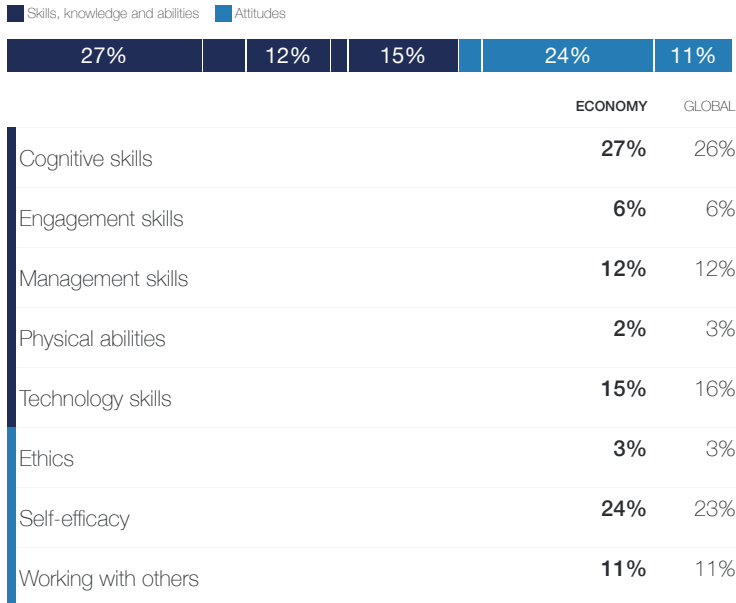
# United Kingdom

46.4

## Skill outlook

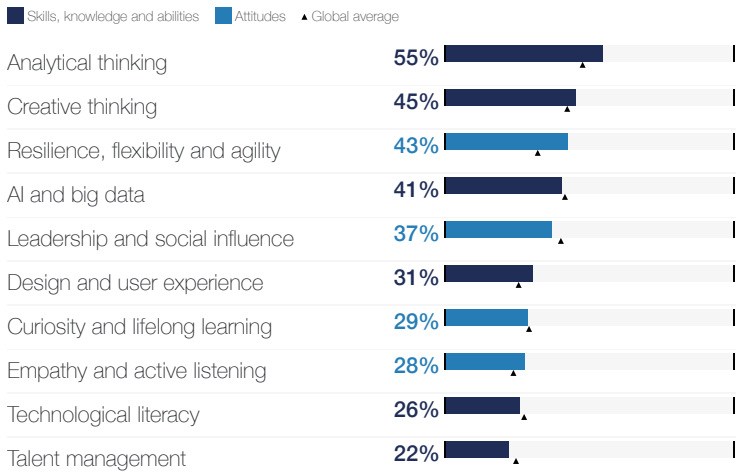
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

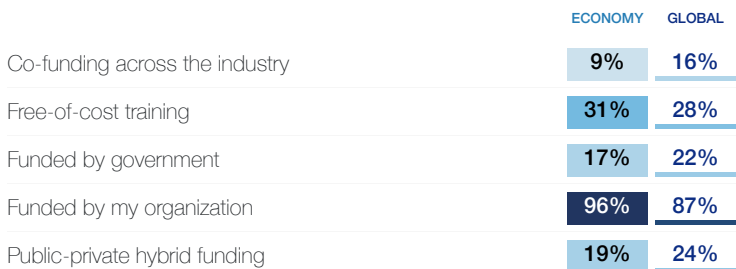
Skills required by the workforce that are expected to remain the same (share of all skills required)

56%

Global 56%

### Training funding

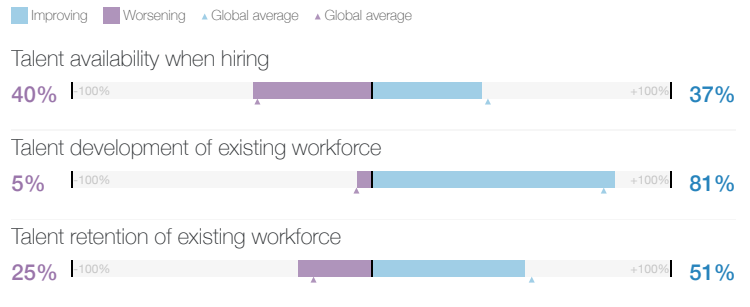
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



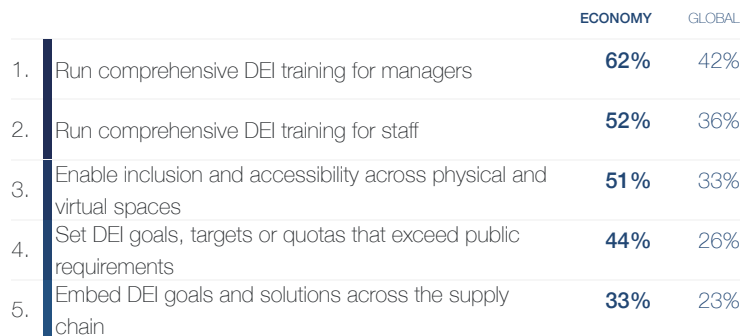
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

80%

Global 67%

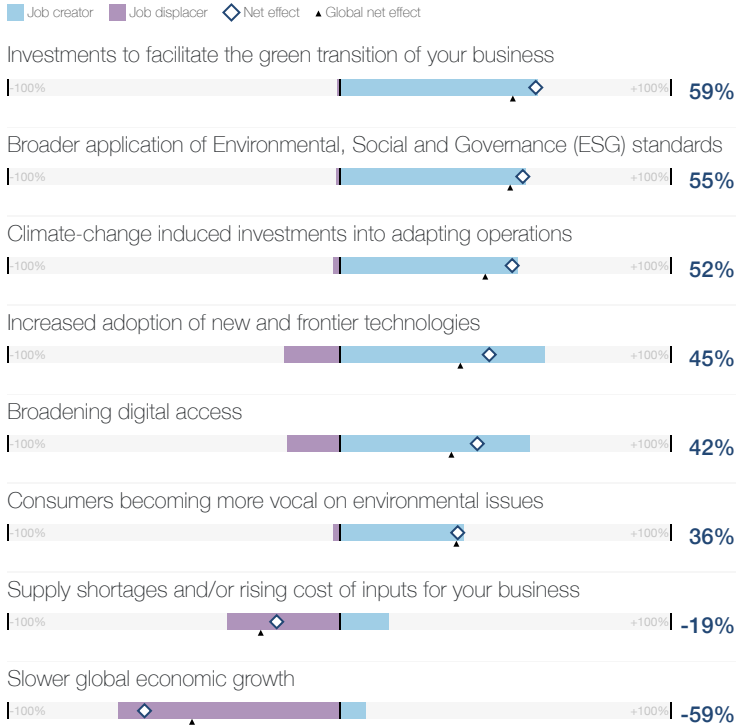
# United States of America

226.0

## Trend outlook

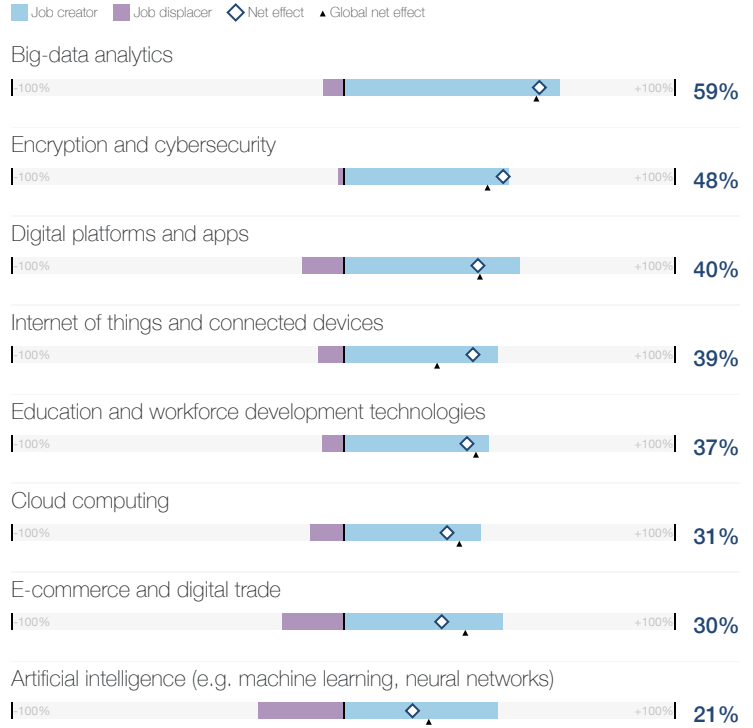
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

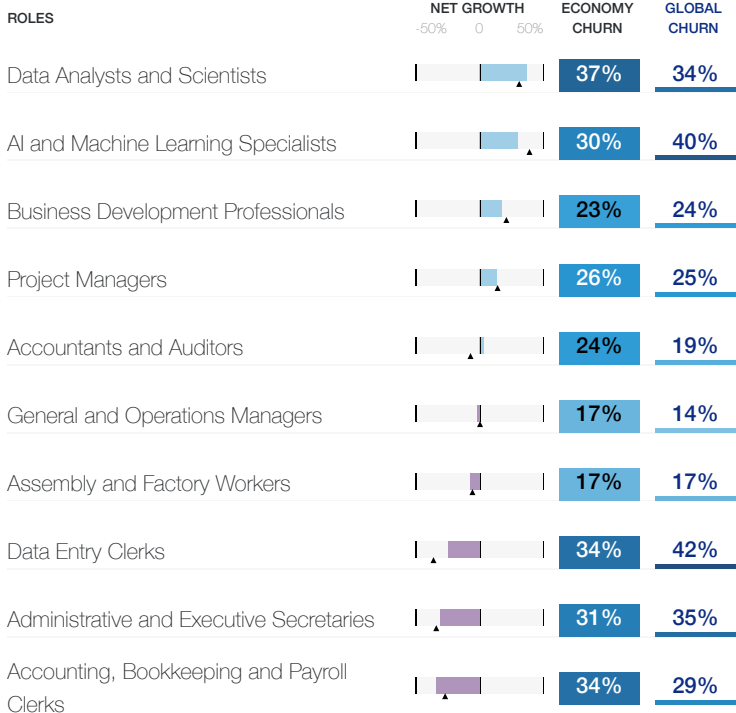
Five-year structural labour-force churn (percent)

21%

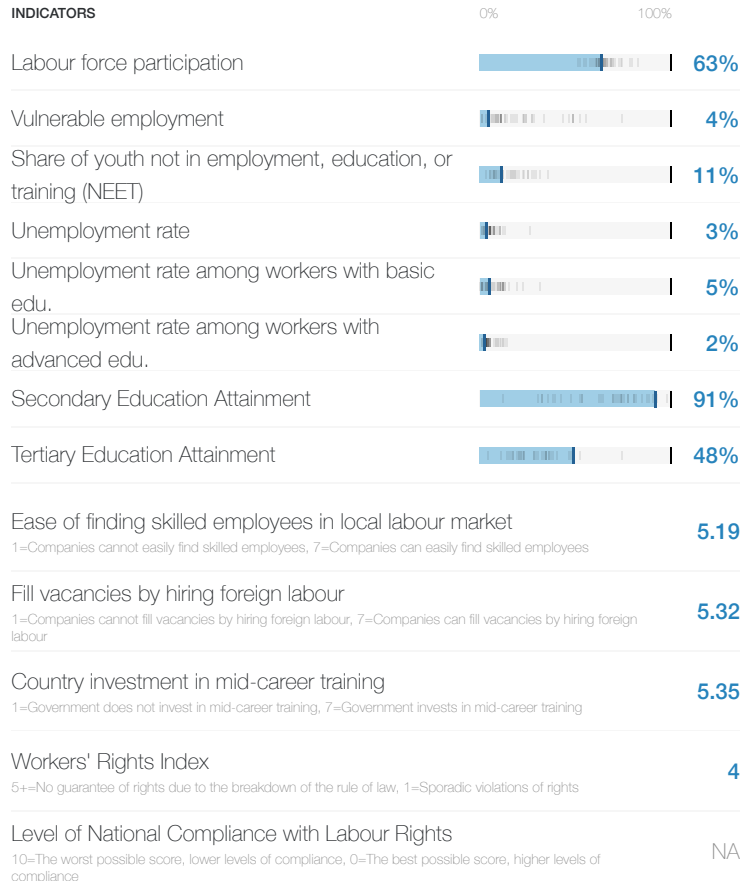
Global 23%

### Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Contextual indicators



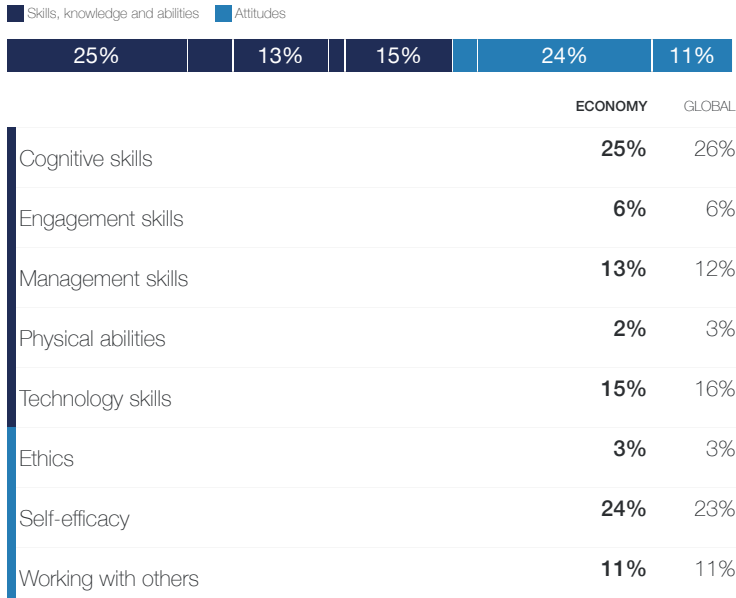
# United States of America

226.0

## Skill outlook

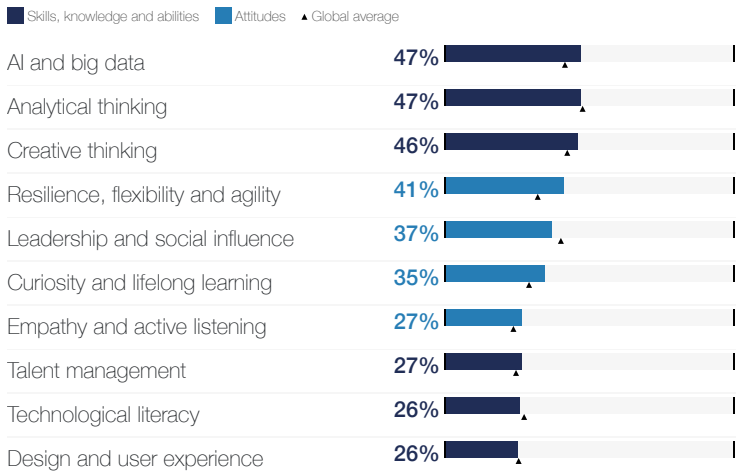
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

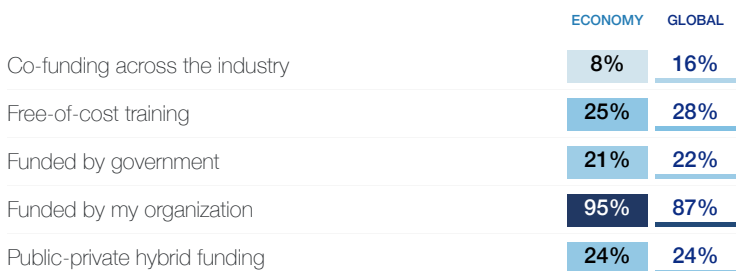
Skills required by the workforce that are expected to remain the same (share of all skills required)

58%

Global 56%

### Training funding

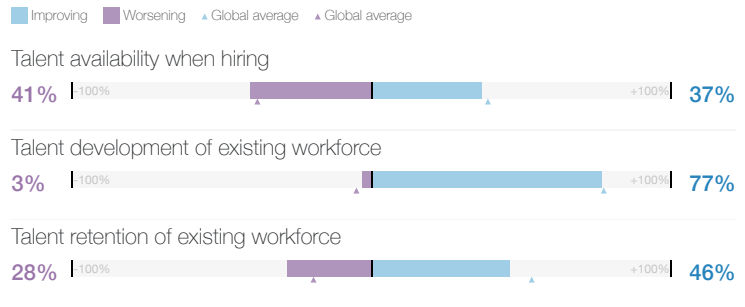
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



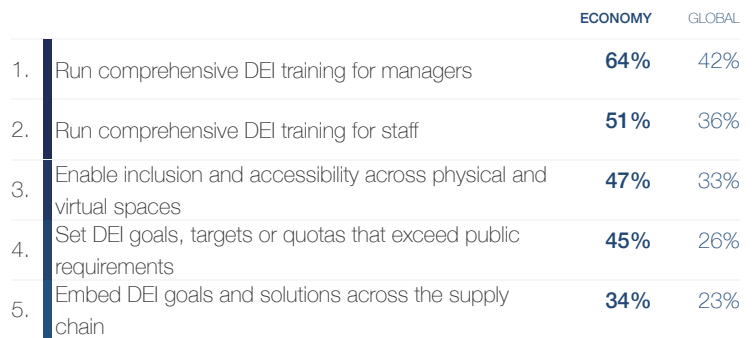
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

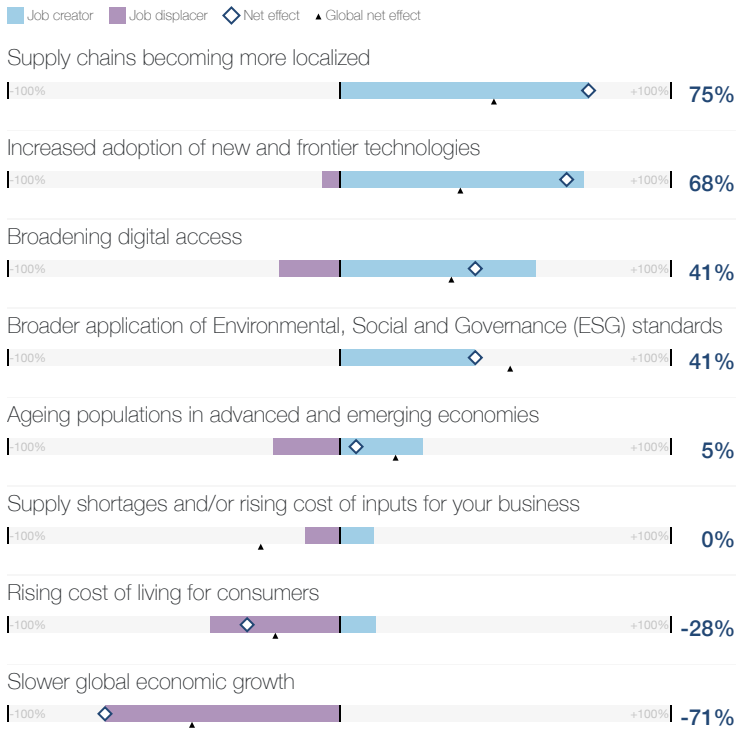
85%

Global 67%

Trend outlook

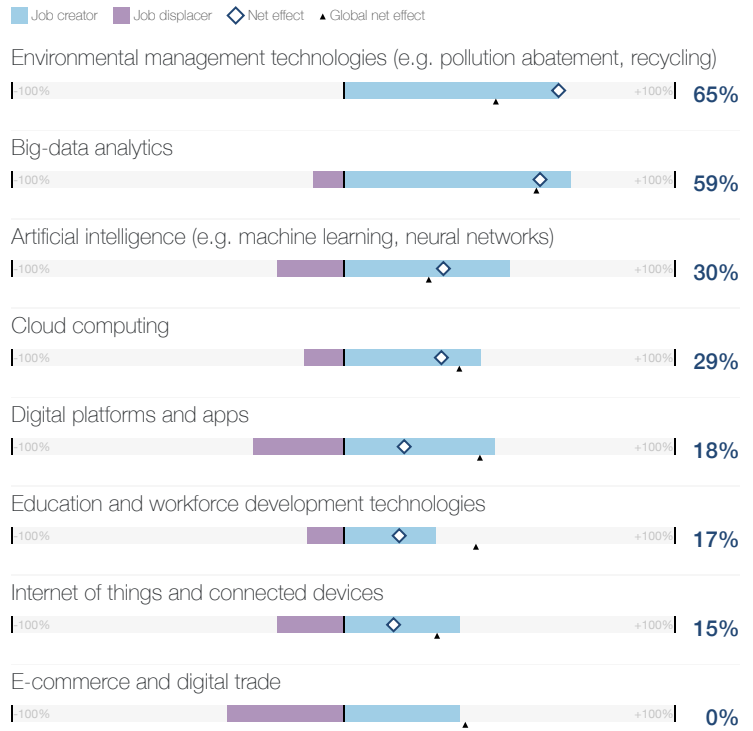
Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



Role outlook

Churn in five years

Five-year structural labour-force churn (percent)

21%

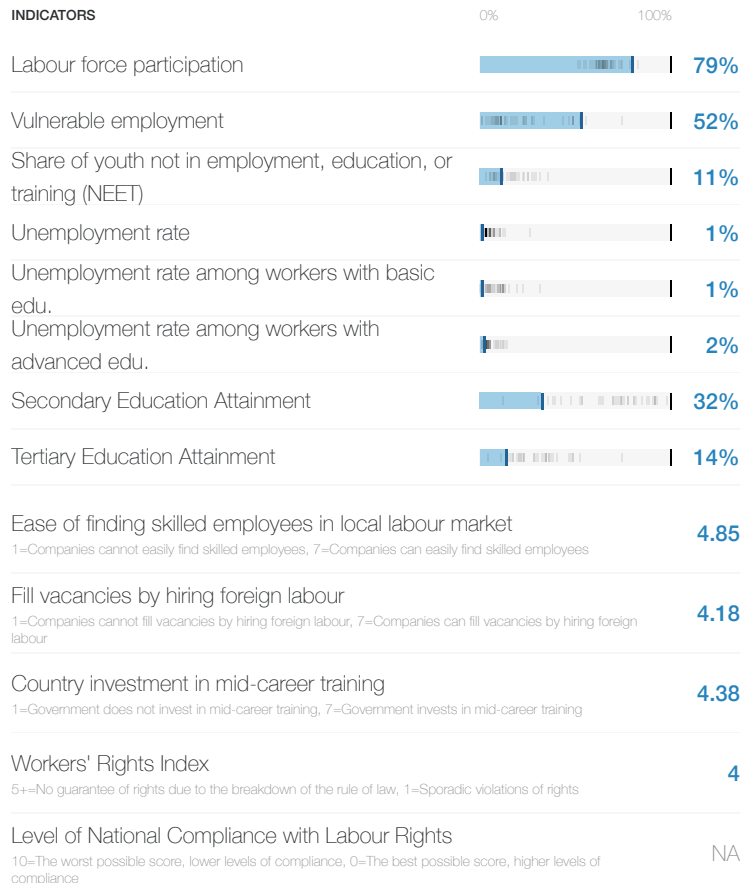
Global 23%

Key roles for business transformation

Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



Contextual indicators



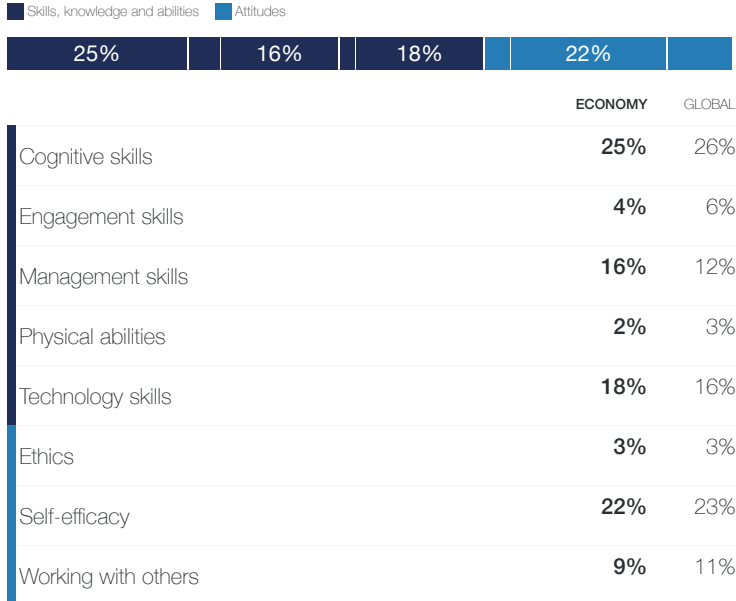
# Viet Nam

63.1

## Skill outlook

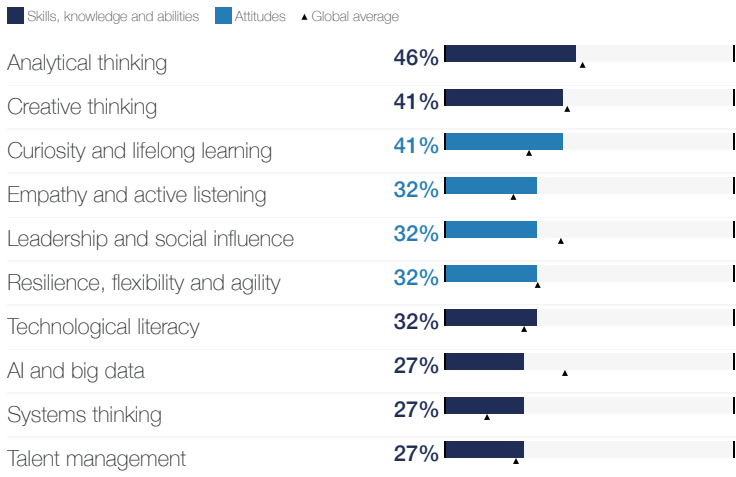
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

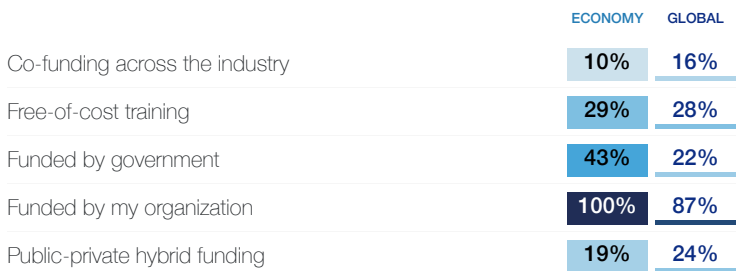
Skills required by the workforce that are expected to remain the same (share of all skills required)

61%

Global 56%

### Training funding

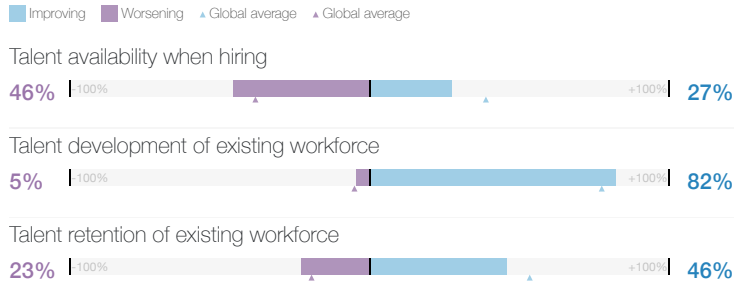
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



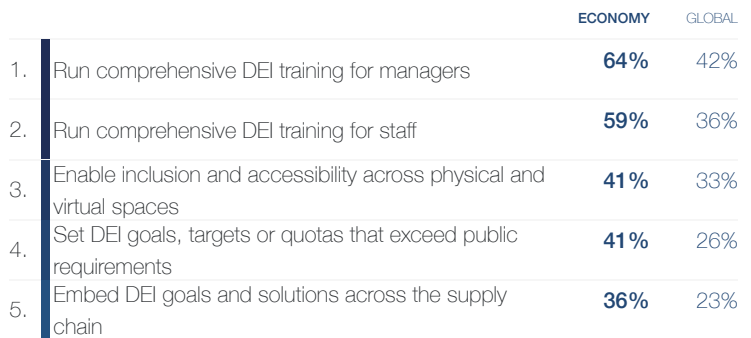
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

86%

Global 67%



# Industry Profile

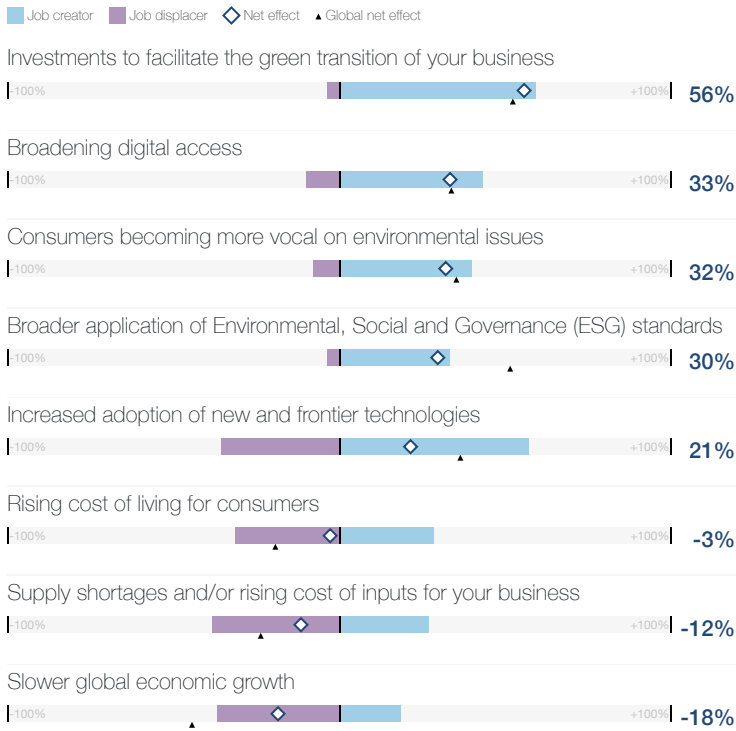
# Accommodation, Food, and Leisure

18.6

## Trend outlook

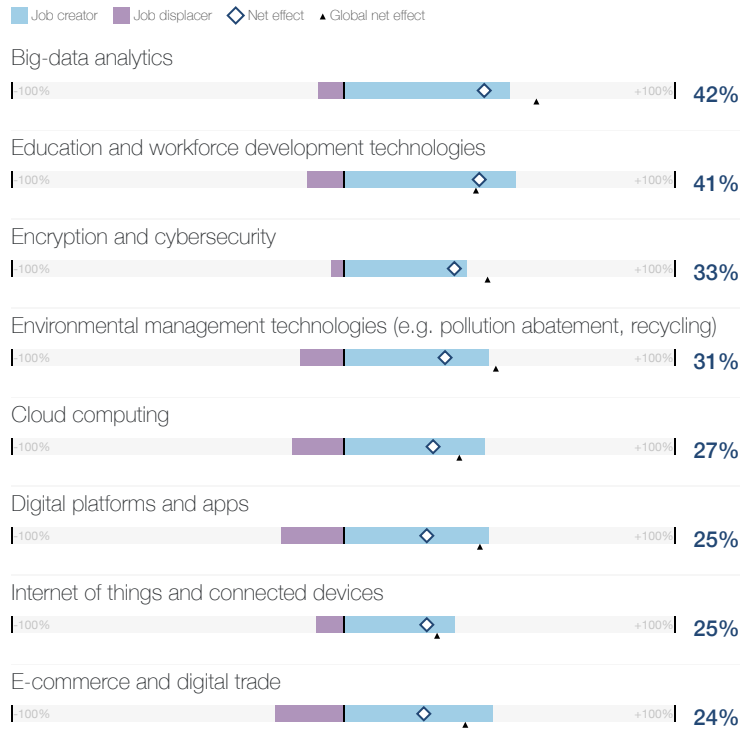
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

16%

Global 23%

### Key roles for business transformation

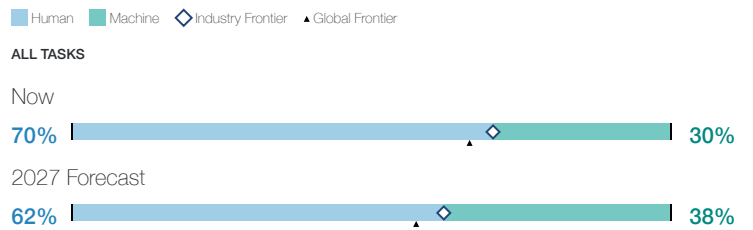
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

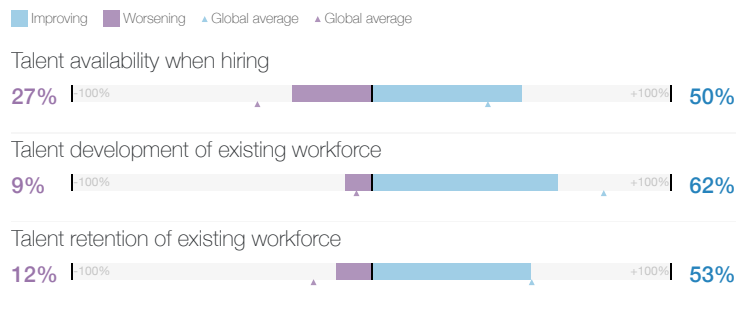
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



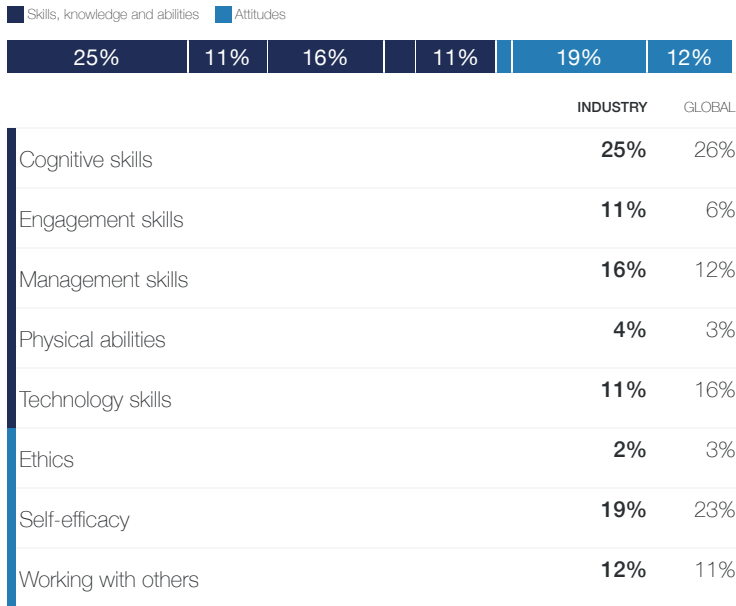
# Accommodation, Food, and Leisure

18.6

## Skill outlook

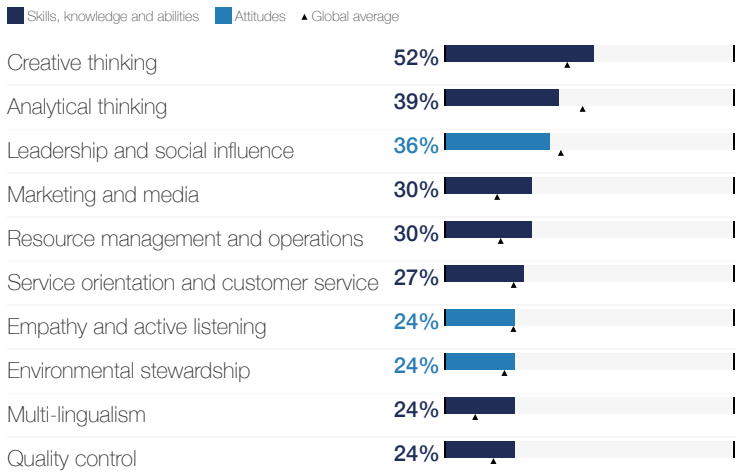
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

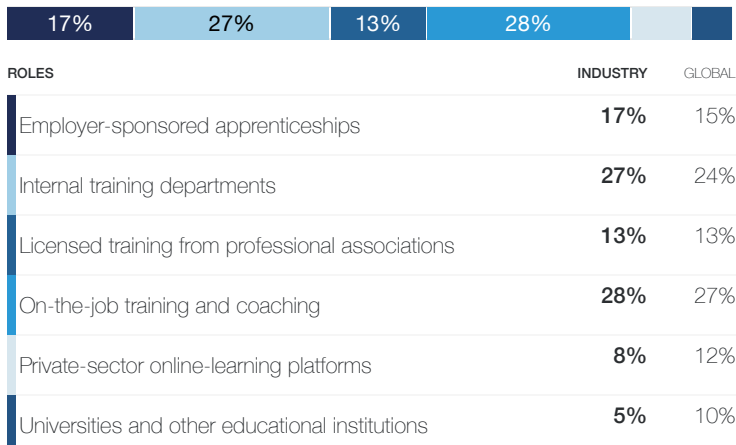
Skills required by the workforce that are expected to remain the same (share of all skills required)

62%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

64%

Global 67%

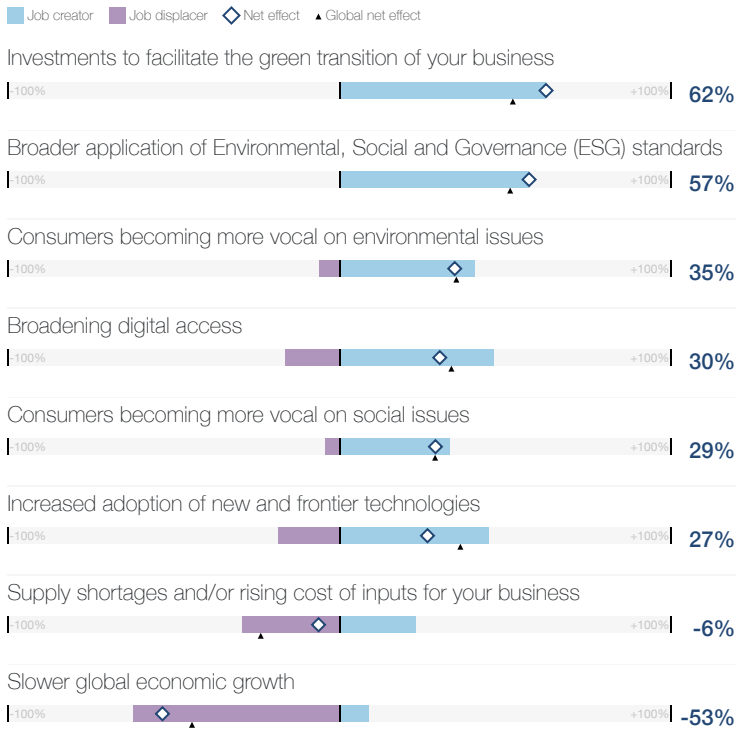
# Advanced manufacturing

29.9

## Trend outlook

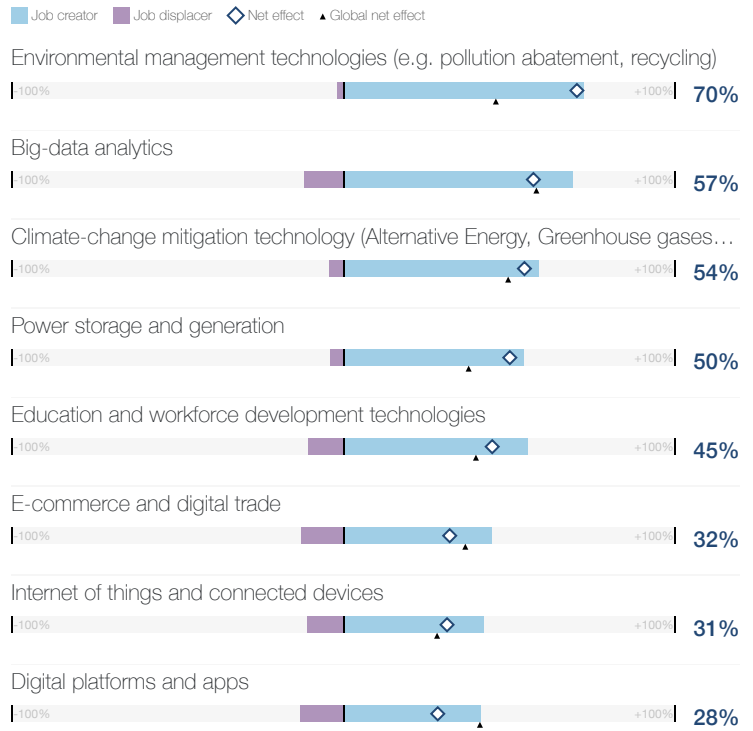
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

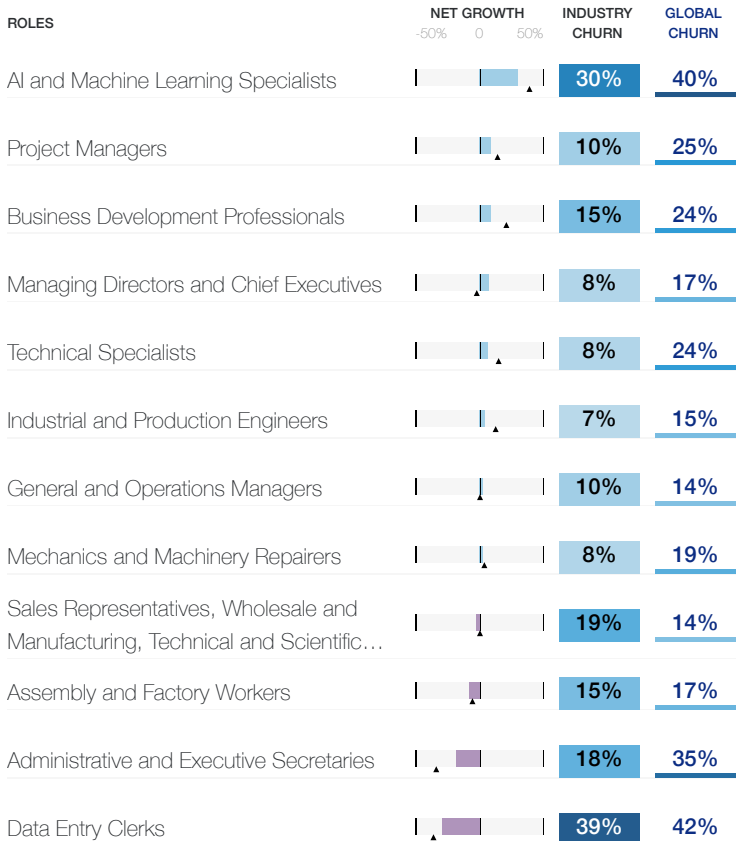
Five-year structural labour-force churn (percent)

16%

Global 23%

### Key roles for business transformation

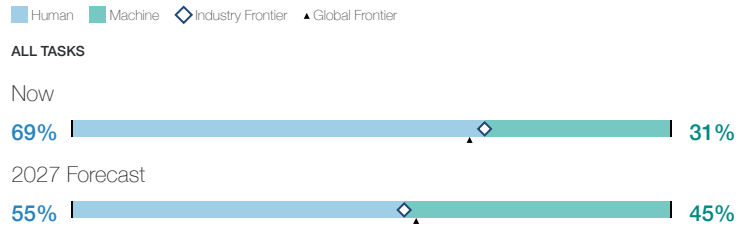
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

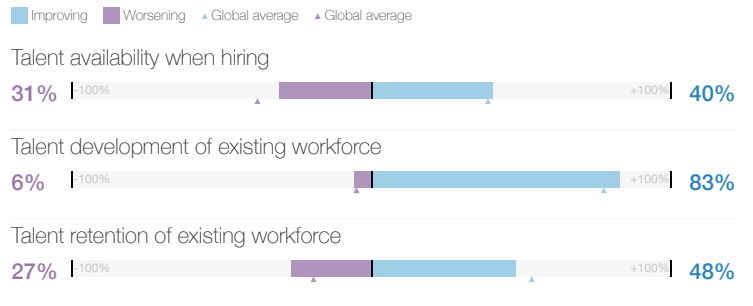
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



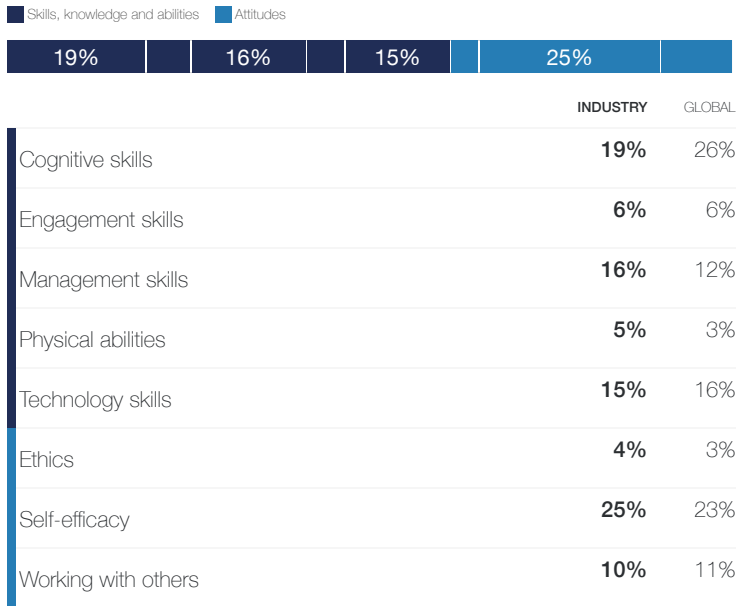
# Advanced manufacturing

29.9

## Skill outlook

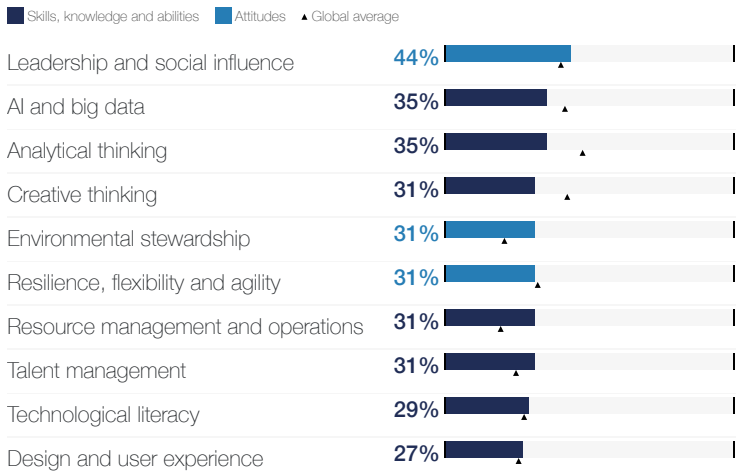
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

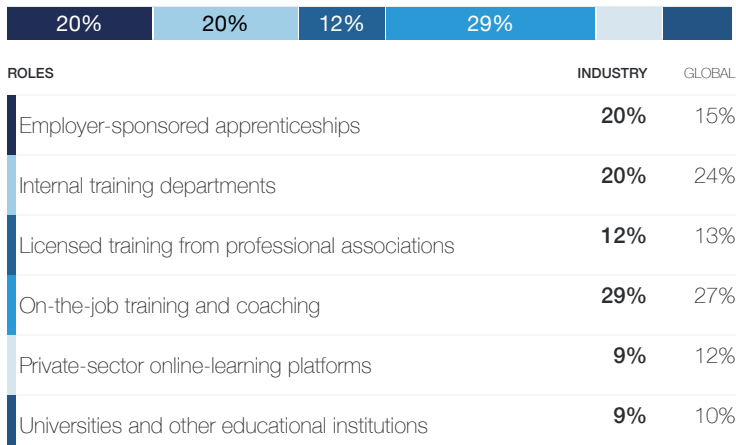
Skills required by the workforce that are expected to remain the same (share of all skills required)

60%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

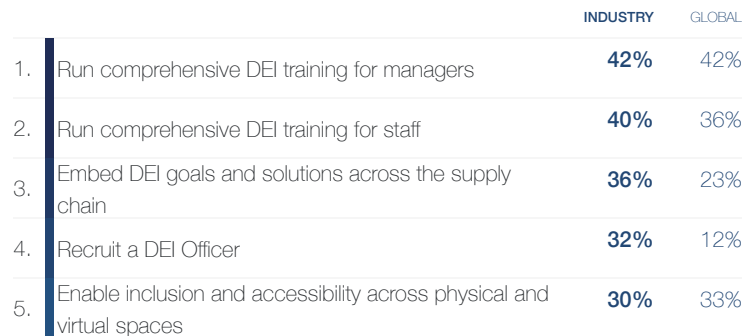
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

74%

Global 67%

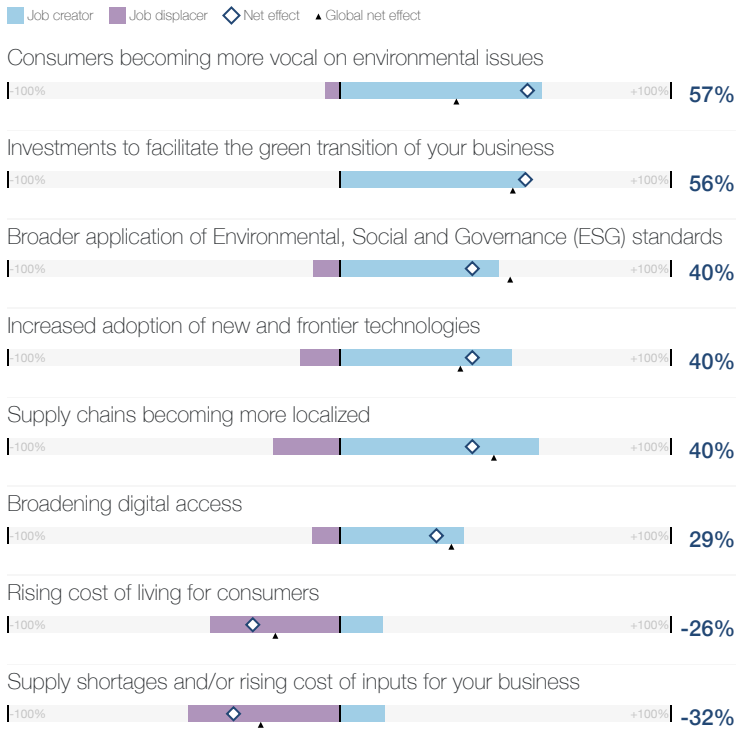
# Agriculture, forestry, and fishing

96.3

## Trend outlook

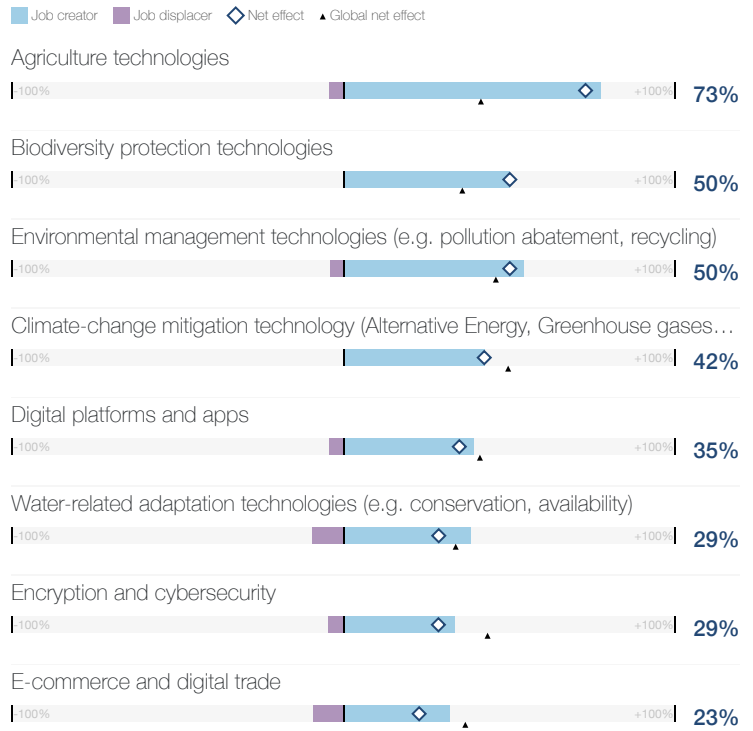
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

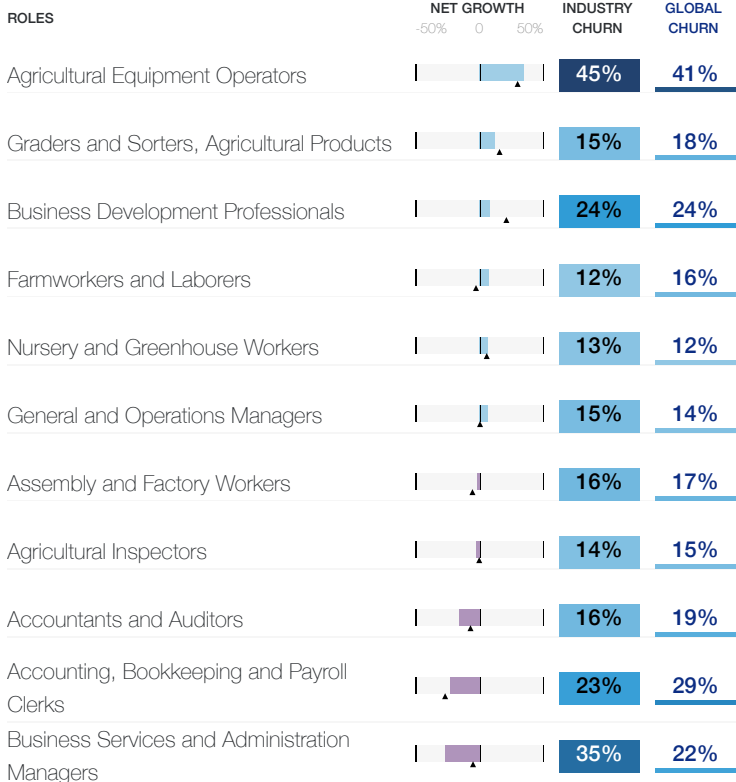
Five-year structural labour-force churn (percent)

23%

Global 23%

### Key roles for business transformation

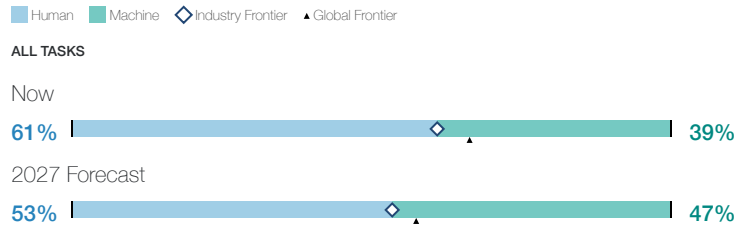
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

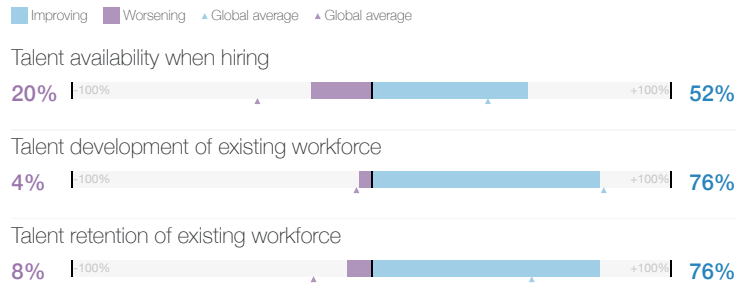
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



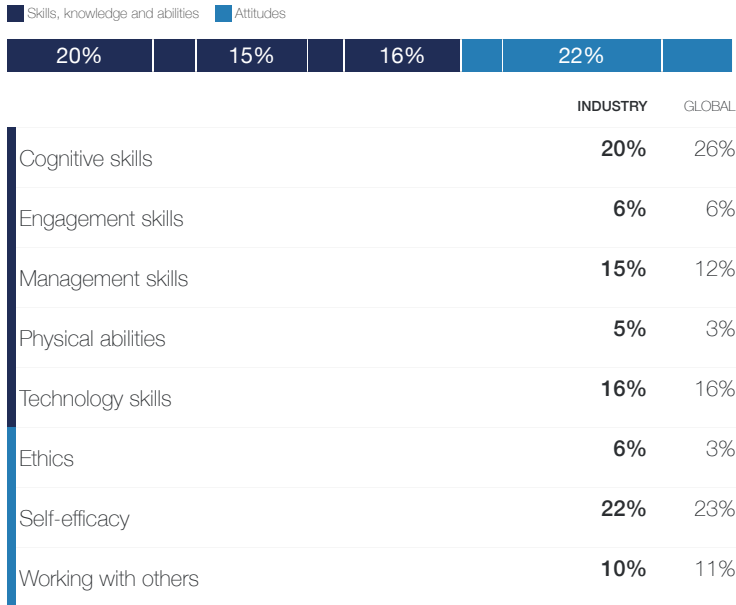
# Agriculture, forestry, and fishing

96.3

## Skill outlook

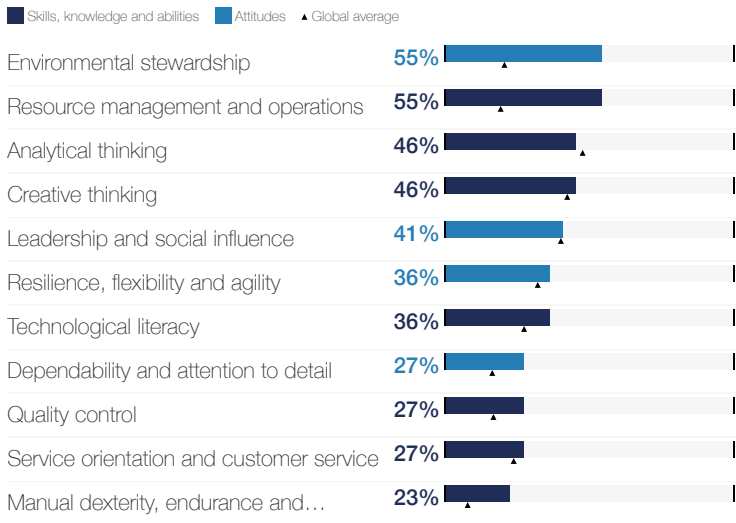
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

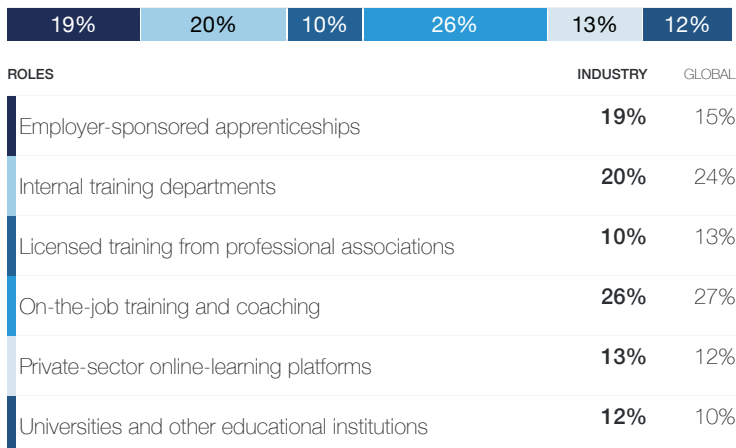
Skills required by the workforce that are expected to remain the same (share of all skills required)

62%

Global 56%

### Training type

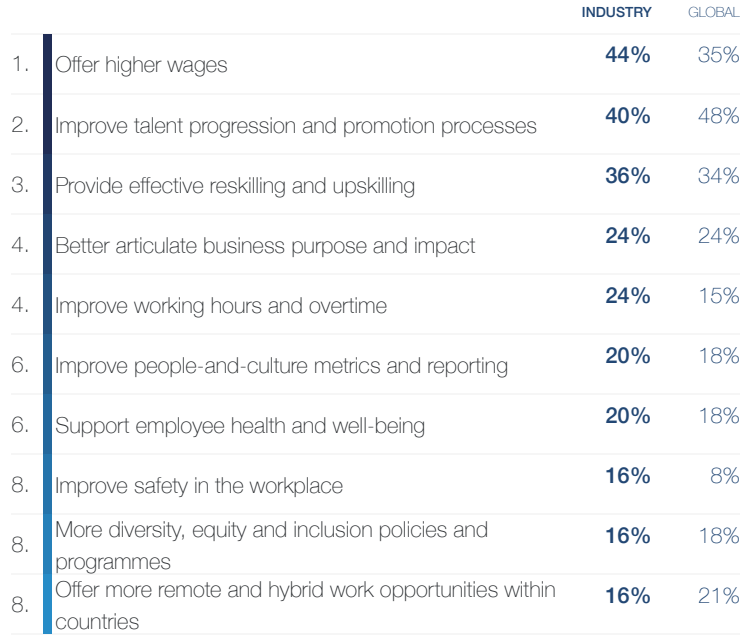
Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

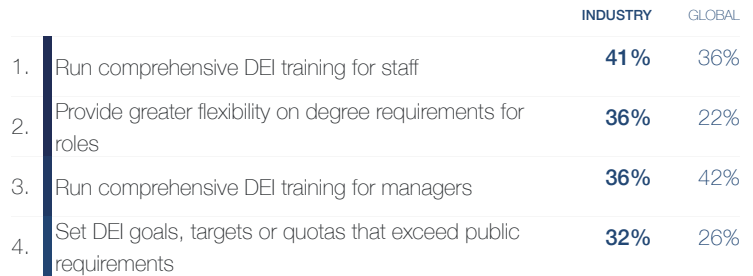
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

50%

Global 67%

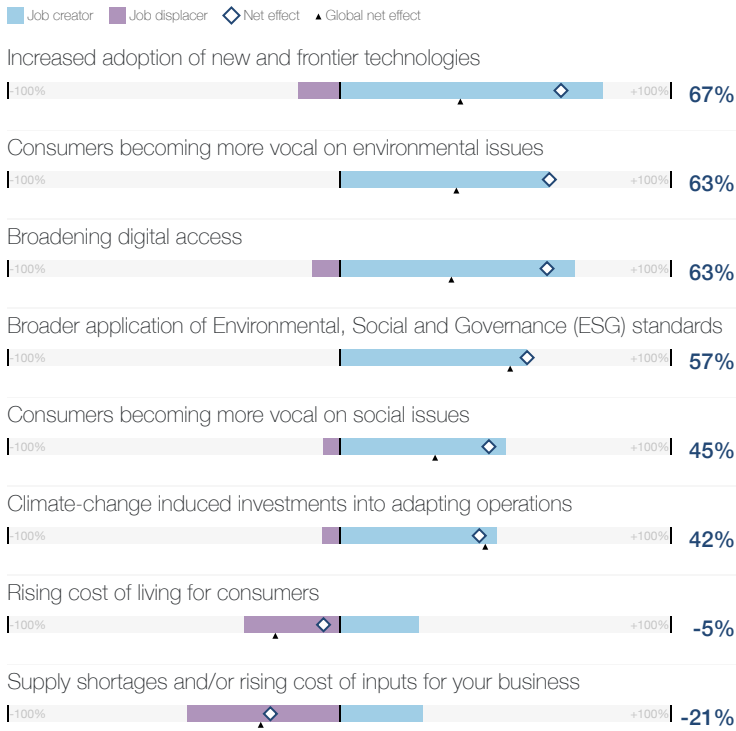
# Automotive and Aerospace

22.9

## Trend outlook

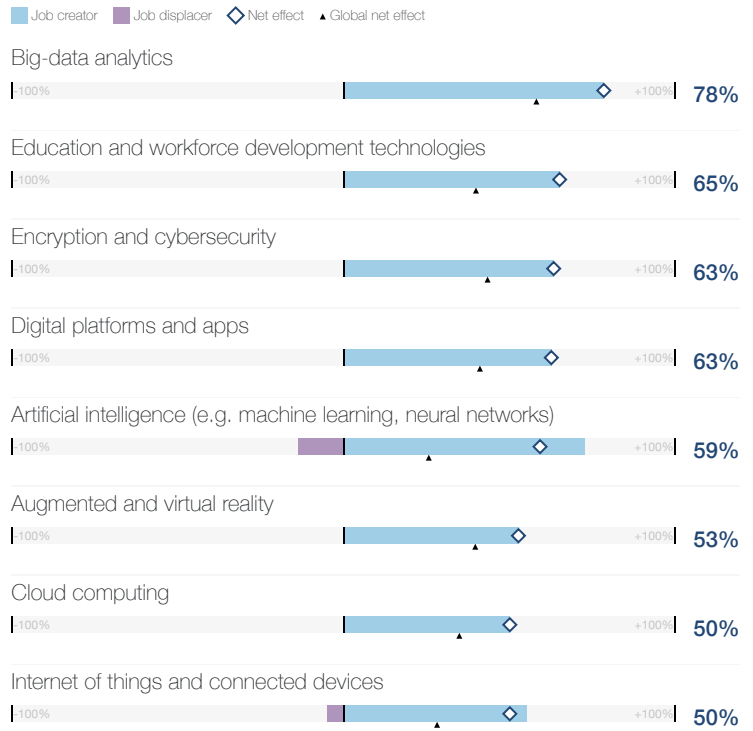
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

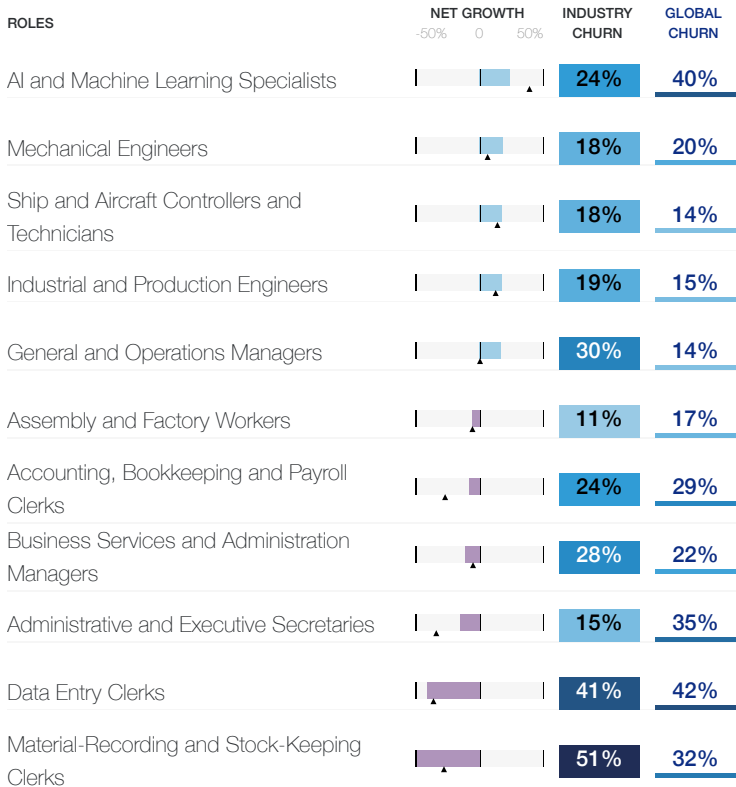
Five-year structural labour-force churn (percent)

19%

Global 23%

### Key roles for business transformation

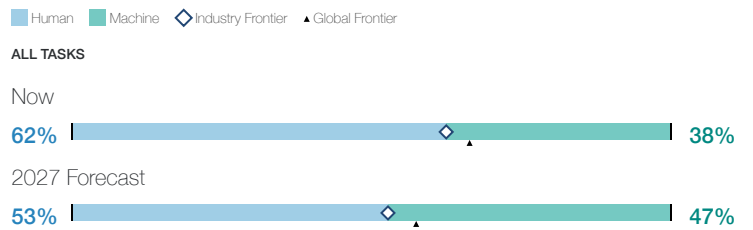
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

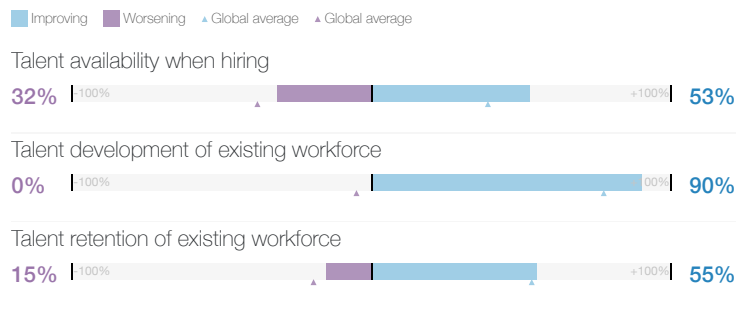
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



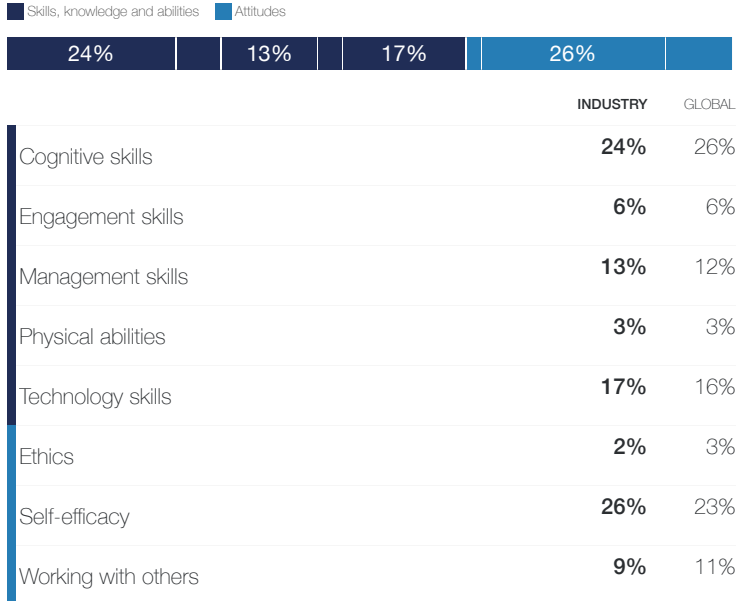
# Automotive and Aerospace

22.9

## Skill outlook

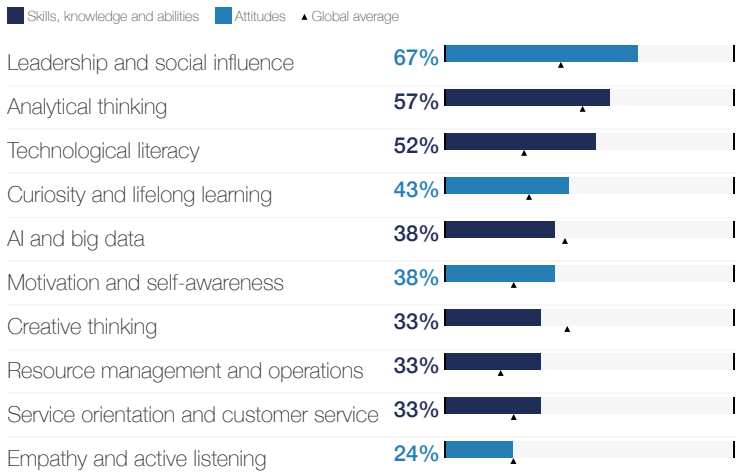
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

61%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	INDUSTRY	GLOBAL
Employer-sponsored apprenticeships	23%	15%
Internal training departments	29%	24%
Licensed training from professional associations	9%	13%
On-the-job training and coaching	26%	27%
Private-sector online-learning platforms	6%	12%
Universities and other educational institutions	7%	10%

## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Improve talent progression and promotion processes	65%	48%
2. Provide effective reskilling and upskilling	40%	34%
3. Offer higher wages	35%	35%
4. Better articulate business purpose and impact	25%	24%
4. Offer more remote and hybrid work opportunities within countries	25%	21%
6. Improve people-and-culture metrics and reporting	15%	18%
6. More diversity, equity and inclusion policies and programmes	15%	18%
6. Tapping into diverse talent pools	15%	10%
9. Improve internal-communication strategy	10%	19%
9. Support employee health and well-being	10%	18%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Run comprehensive DEI training for managers	70%	42%
2. Run comprehensive DEI training for staff	50%	36%
3. Enable inclusion and accessibility across physical and virtual spaces	40%	33%
4. Set up Employee Representation Groups	35%	18%
5. Provide greater flexibility on degree requirements for roles	30%	22%

### Share of companies with DEI Programs

(share of organizations surveyed)

85%

Global 67%

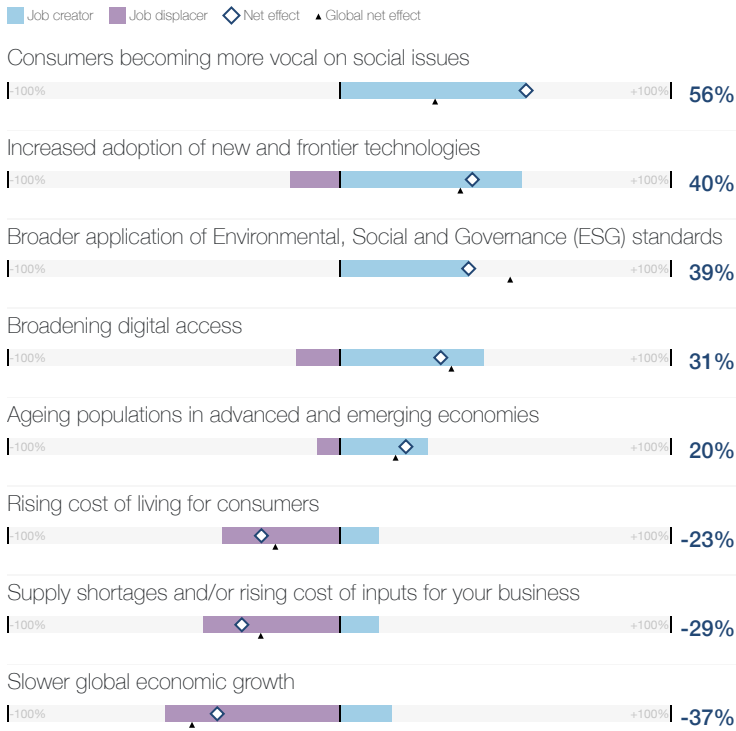
# Business support and premises maintenance services

23.8

## Trend outlook

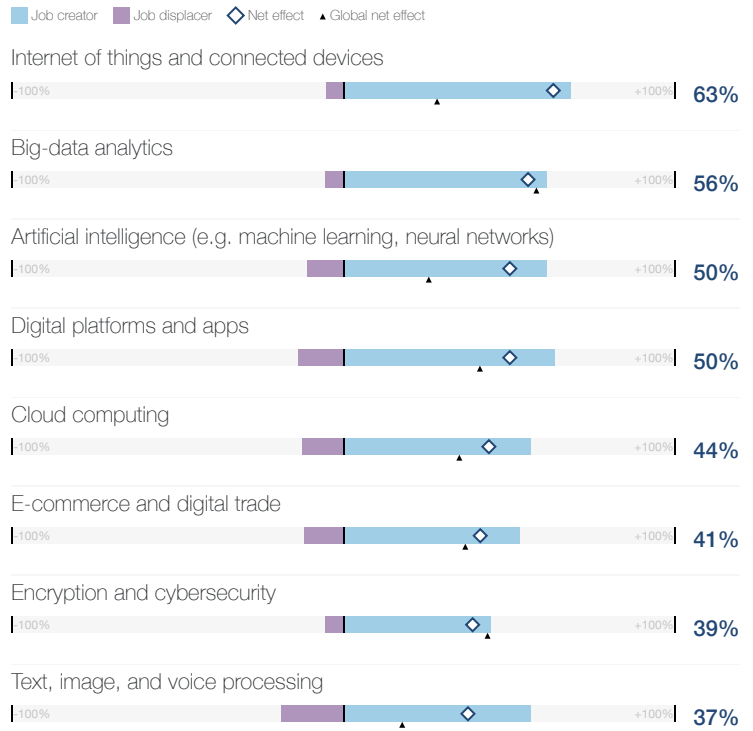
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

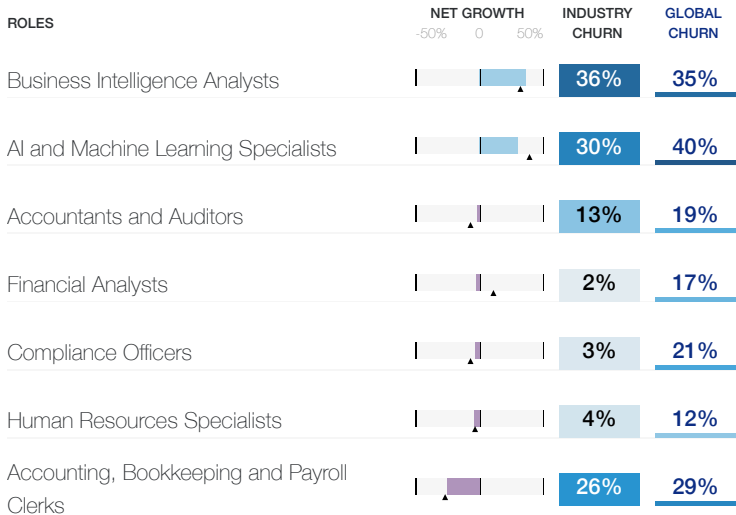
Five-year structural labour-force churn (percent)

21%

Global 23%

### Key roles for business transformation

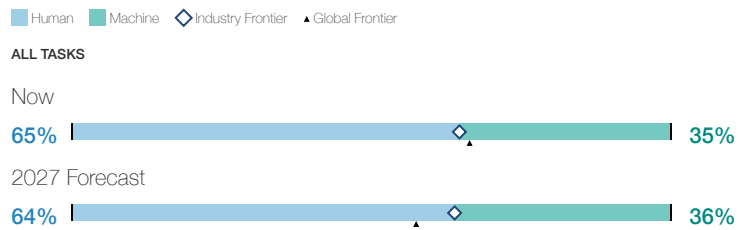
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

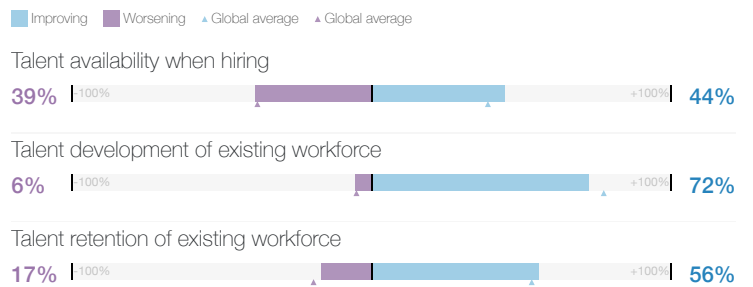
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



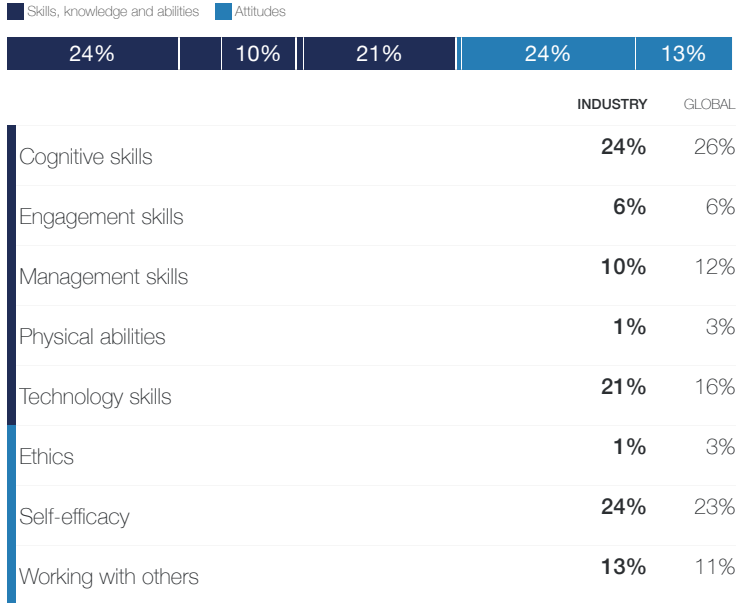
# Business support and premises maintenance services

23.8

## Skill outlook

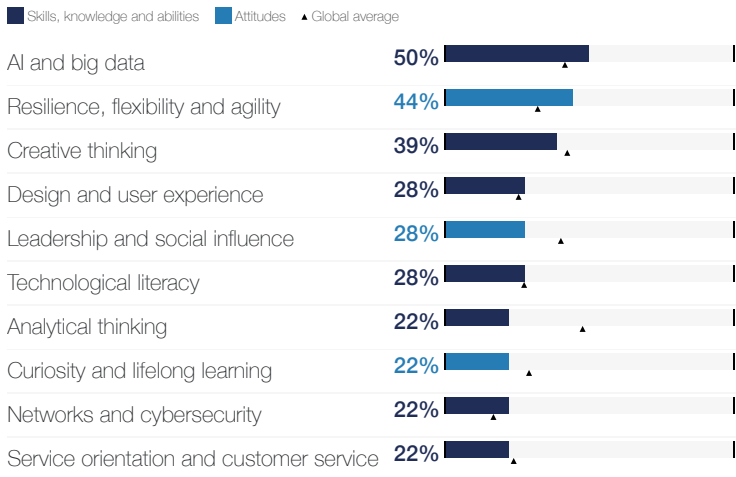
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

58%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	INDUSTRY	GLOBAL
Employer-sponsored apprenticeships	15%	15%
Internal training departments	25%	24%
Licensed training from professional associations	10%	13%
On-the-job training and coaching	32%	27%
Private-sector online-learning platforms	11%	12%
Universities and other educational institutions	6%	10%

## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Provide effective reskilling and upskilling	53%	34%
2. Improve talent progression and promotion processes	41%	48%
3. Better articulate business purpose and impact	29%	24%
3. More diversity, equity and inclusion policies and programmes	29%	18%
5. Offer higher wages	24%	35%
6. Improve internal-communication strategy	18%	19%
6. Offer more remote and hybrid work opportunities within countries	18%	21%
6. Offer more remote work across national borders	18%	8%
6. Support employee health and well-being	18%	18%
10. Improve safety in the workplace	12%	8%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Run comprehensive DEI training for managers	63%	42%
2. Run comprehensive DEI training for staff	56%	36%
3. Enable inclusion and accessibility across physical and virtual spaces	44%	33%
4. Embed DEI goals and solutions across the supply chain	38%	23%
5. Offer greater flexibility on education requirements to recruit from various backgrounds	31%	24%
6. Set DEI goals, targets or quotas that exceed public requirements	31%	26%

### Share of companies with DEI Programs

(share of organizations surveyed)

94%

Global 67%

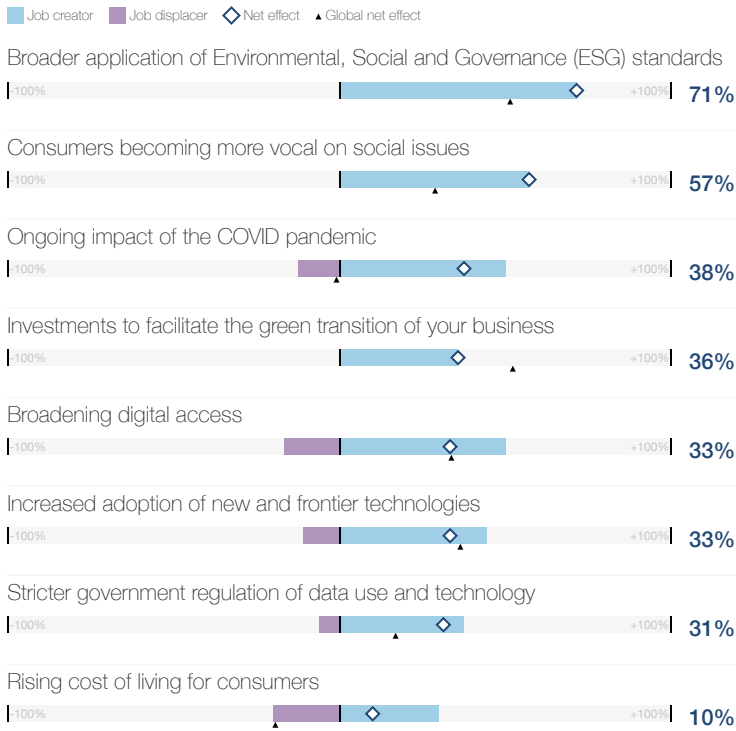
# Care, Personal Services and Wellbeing

114.4

## Trend outlook

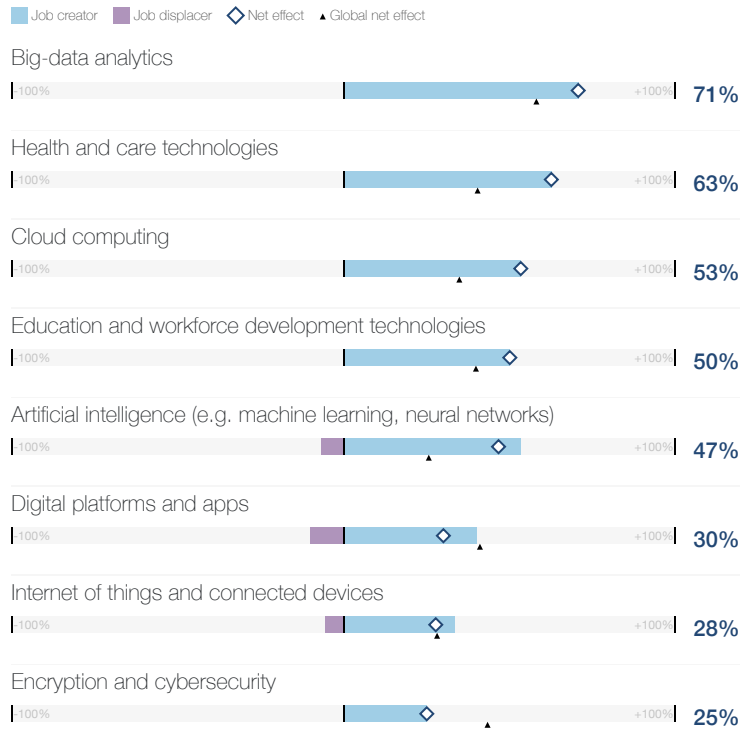
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

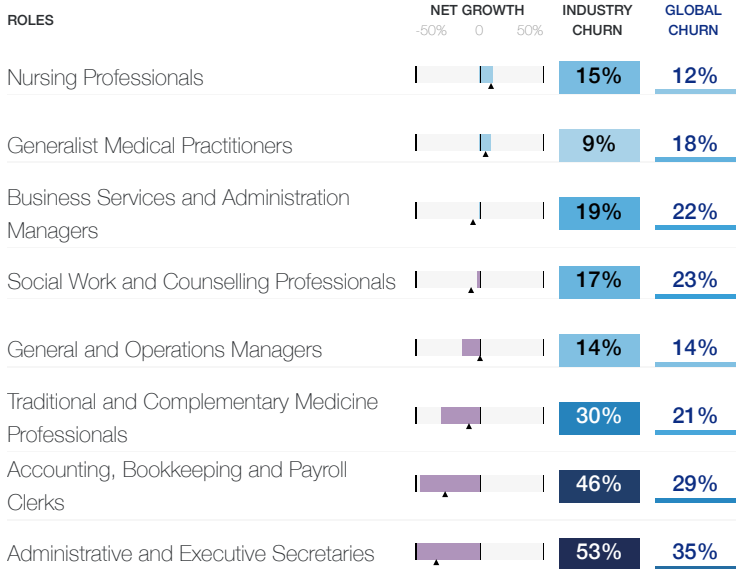
Five-year structural labour-force churn (percent)

**23%**

Global 23%

### Key roles for business transformation

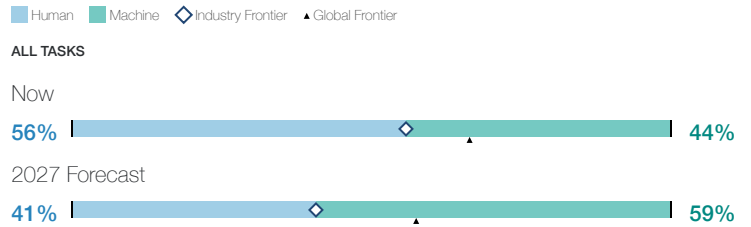
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

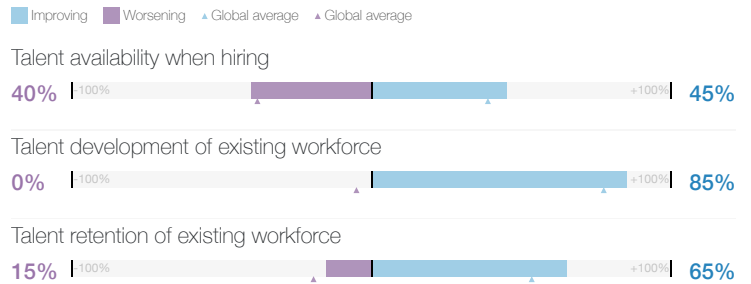
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



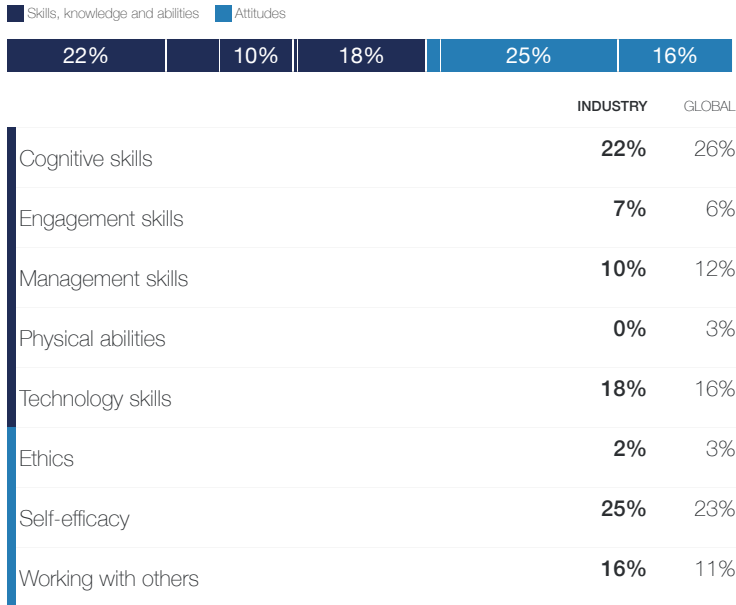
# Care, Personal Services and Wellbeing

114.4

## Skill outlook

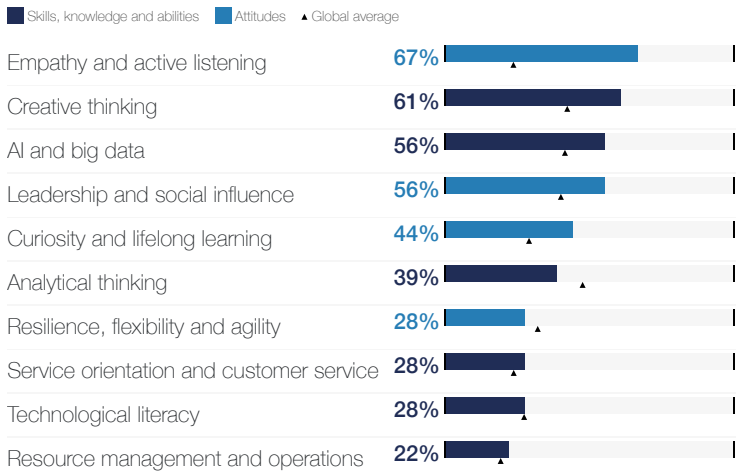
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

53%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	INDUSTRY	GLOBAL
Employer-sponsored apprenticeships	14%	15%
Internal training departments	25%	24%
Licensed training from professional associations	10%	13%
On-the-job training and coaching	20%	27%
Private-sector online-learning platforms	14%	12%
Universities and other educational institutions	17%	10%

## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Offer higher wages	45%	35%
2. Improve talent progression and promotion processes	35%	48%
3. Better articulate business purpose and impact	30%	24%
4. Provide effective reskilling and upskilling	25%	34%
5. Improve working hours and overtime	20%	15%
5. Support employee health and well-being	20%	18%
7. Improve people-and-culture metrics and reporting	15%	18%
7. Improve safety in the workplace	15%	8%
7. More diversity, equity and inclusion policies and programmes	15%	18%
7. Offer more remote and hybrid work opportunities within countries	15%	21%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Run comprehensive DEI training for staff	47%	36%
2. Run comprehensive DEI training for managers	41%	42%
3. Enable inclusion and accessibility across physical and virtual spaces	29%	33%
4. Offer greater flexibility on education requirements to recruit from various backgrounds	24%	24%
5. Set DEI goals, targets or quotas that exceed public requirements	24%	26%
6. Set up Employee Representation Groups	24%	18%

### Share of companies with DEI Programs

(share of organizations surveyed)

65%

Global 67%

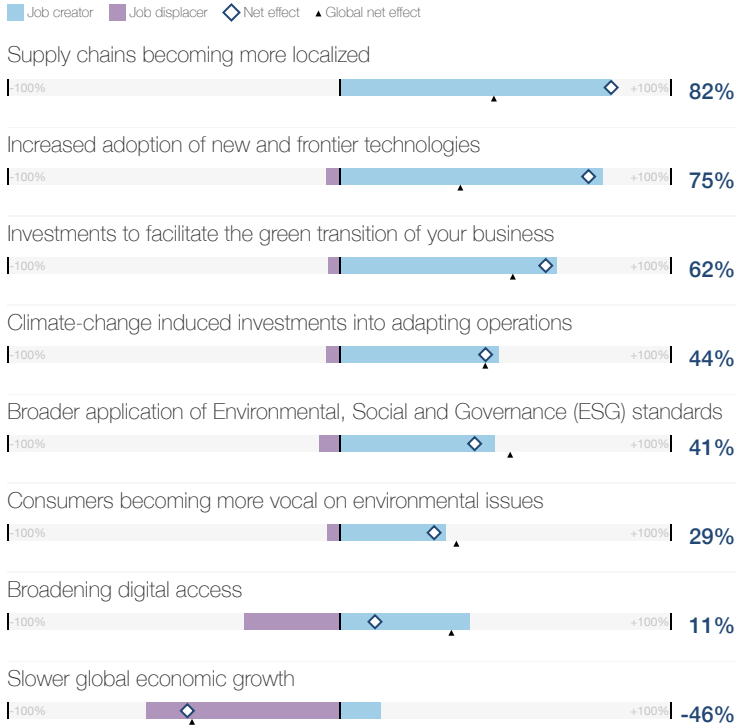
# Chemical and advanced materials

86.3

## Trend outlook

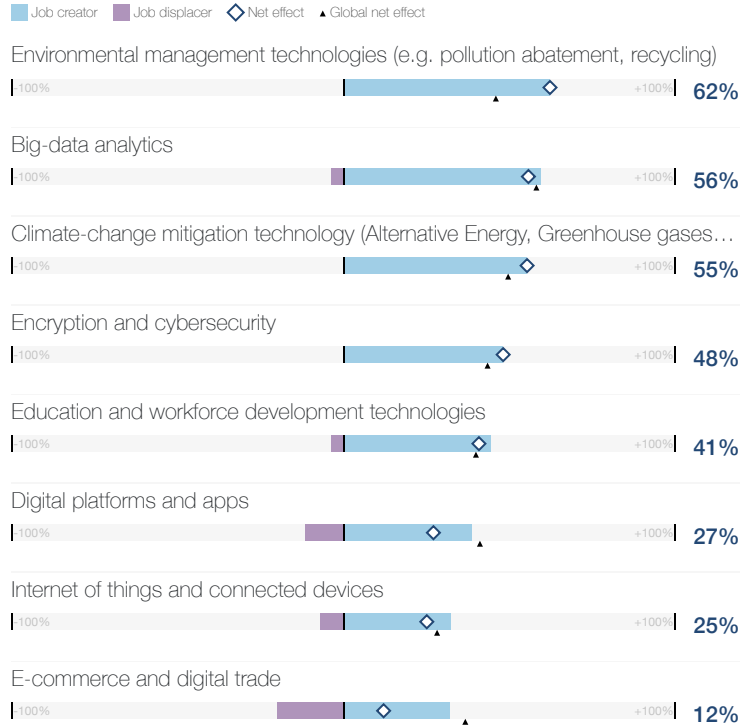
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

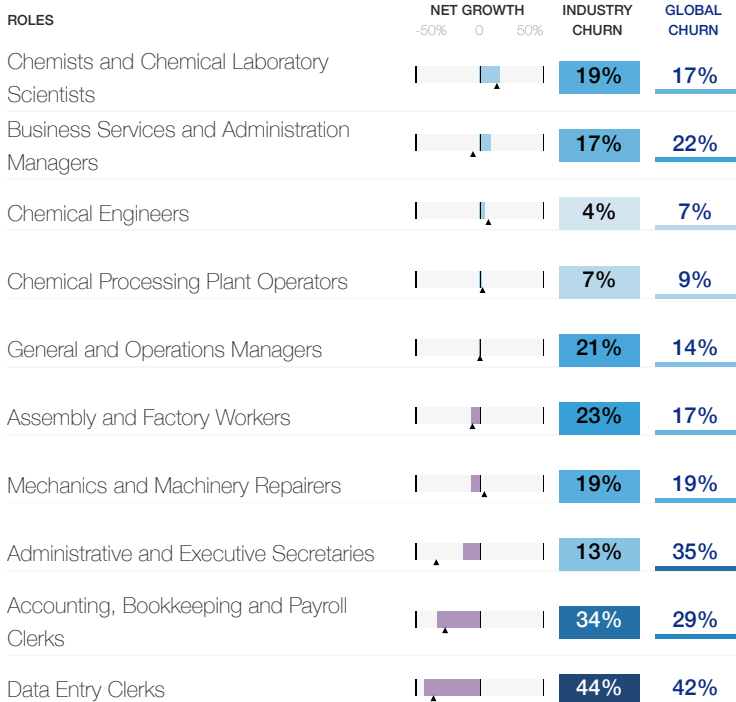
Five-year structural labour-force churn (percent)

18%

Global 23%

### Key roles for business transformation

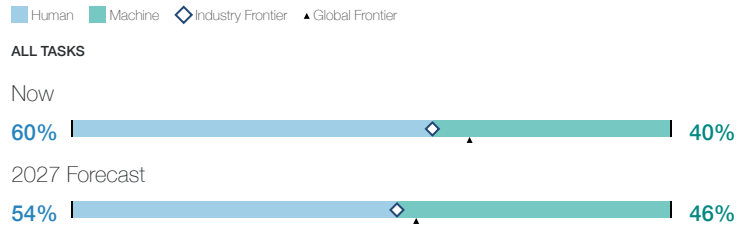
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

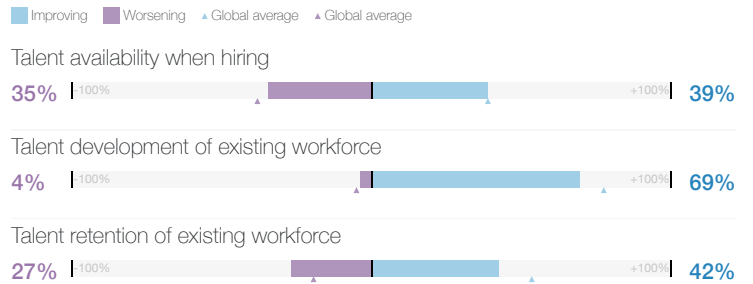
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



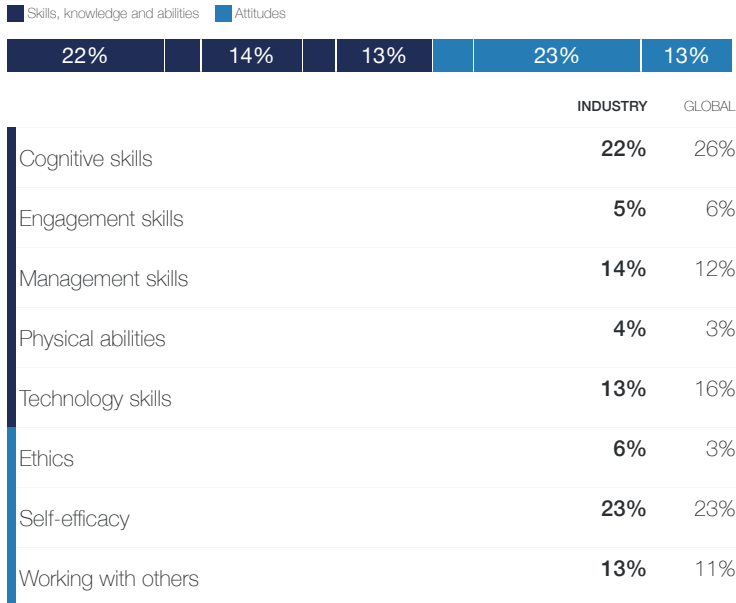
# Chemical and advanced materials

86.3

## Skill outlook

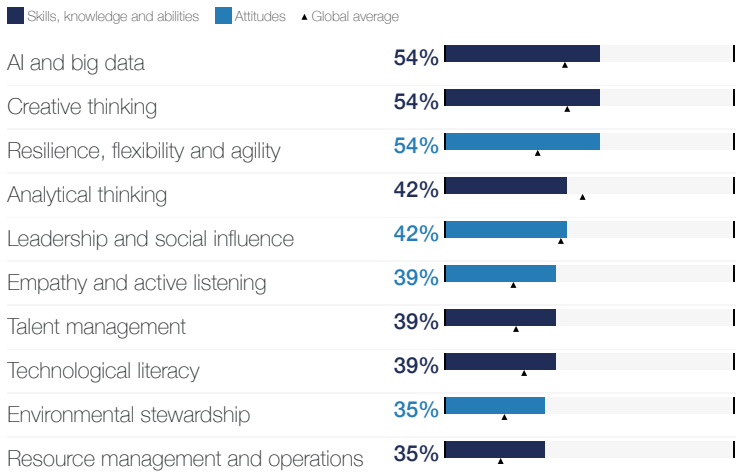
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

54%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	INDUSTRY	GLOBAL
Employer-sponsored apprenticeships	15%	15%
Internal training departments	23%	24%
Licensed training from professional associations	11%	13%
On-the-job training and coaching	29%	27%
Private-sector online-learning platforms	9%	12%
Universities and other educational institutions	12%	10%

## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Improve talent progression and promotion processes	48%	48%
2. Provide effective reskilling and upskilling	44%	34%
3. Better articulate business purpose and impact	28%	24%
4. Improve internal-communication strategy	24%	19%
4. Support employee health and well-being	24%	18%
6. More diversity, equity and inclusion policies and programmes	20%	18%
7. Improve people-and-culture metrics and reporting	16%	18%
7. Offer higher wages	16%	35%
7. Offer more remote and hybrid work opportunities within countries	16%	21%
10. Improve safety in the workplace	12%	8%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Run comprehensive DEI training for managers	60%	42%
2. Run comprehensive DEI training for staff	56%	36%
3. Embed DEI goals and solutions across the supply chain	40%	23%
4. Set DEI goals, targets or quotas that exceed public requirements	36%	26%
5. Enable inclusion and accessibility across physical and virtual spaces	32%	33%
6. Provide greater flexibility on degree requirements for roles	32%	22%

### Share of companies with DEI Programs

(share of organizations surveyed)

88%

Global 67%

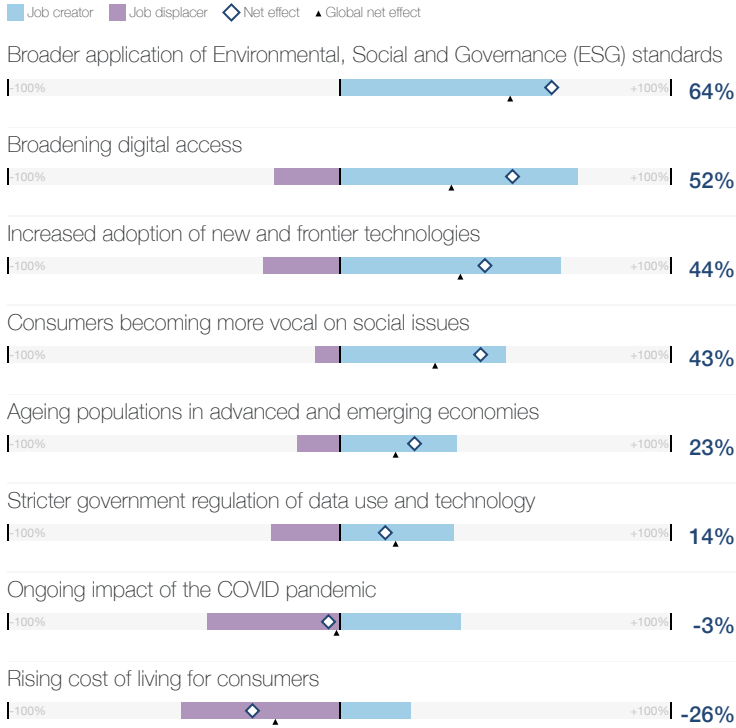
# Education and training

158.1

## Trend outlook

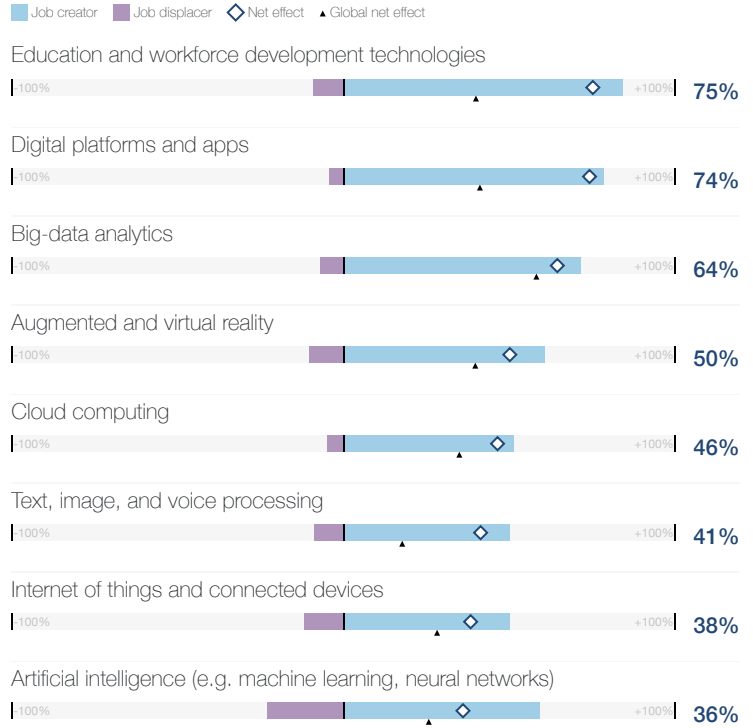
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

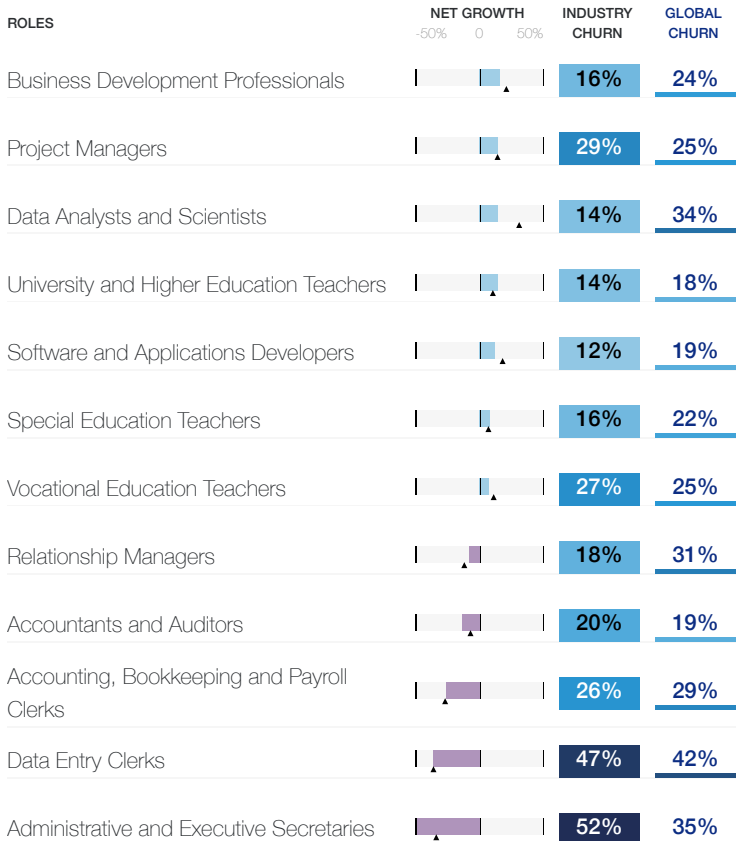
Five-year structural labour-force churn (percent)

**23%**

Global 23%

### Key roles for business transformation

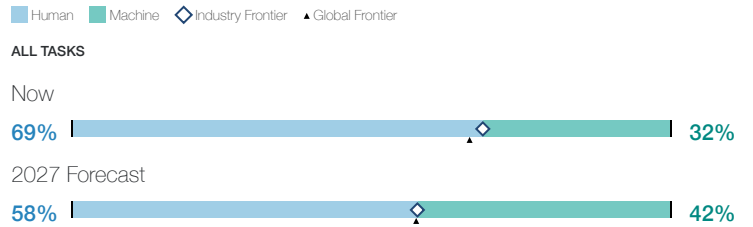
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

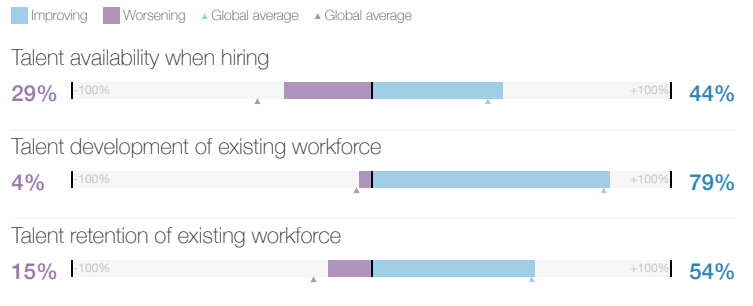
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



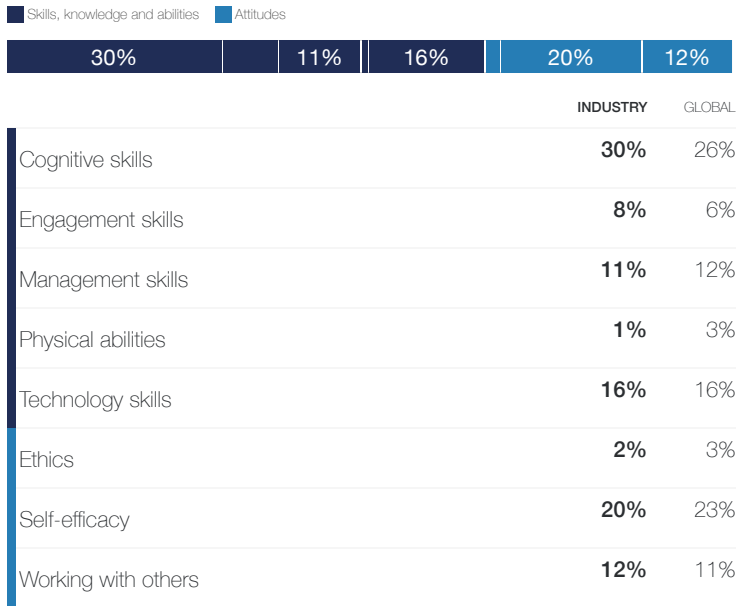
# Education and training

158.1

## Skill outlook

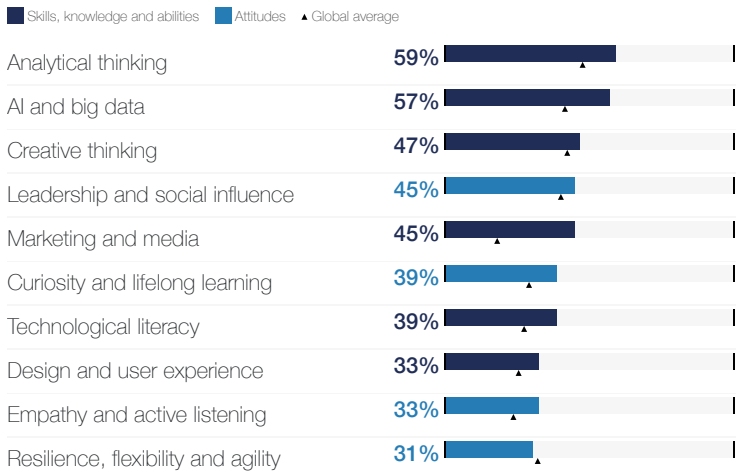
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

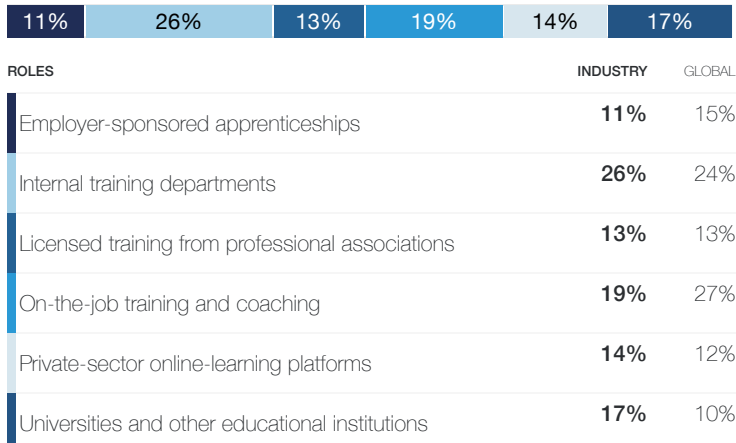
Skills required by the workforce that are expected to remain the same (share of all skills required)

52%

Global 56%

### Training type

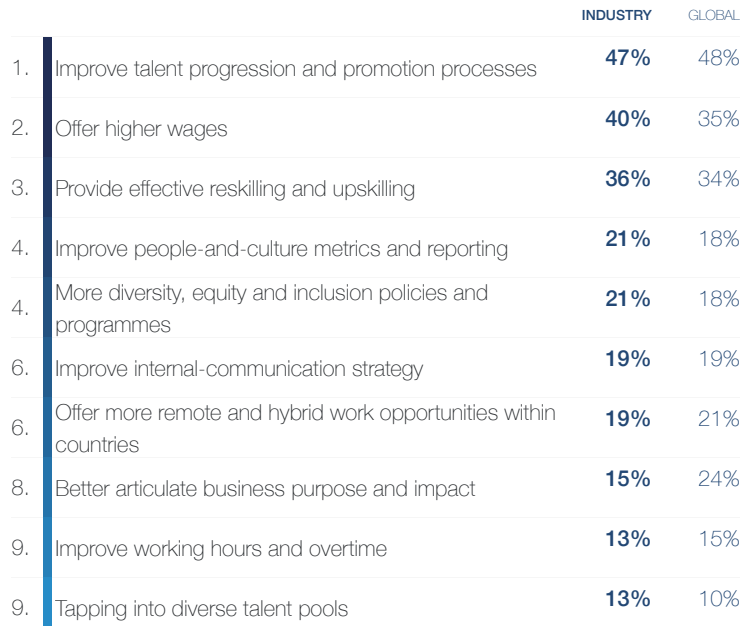
Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

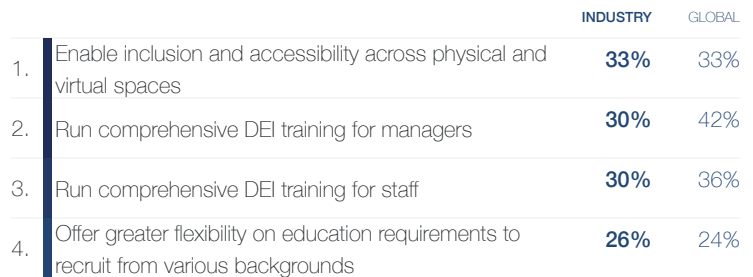
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

48%

Global 67%

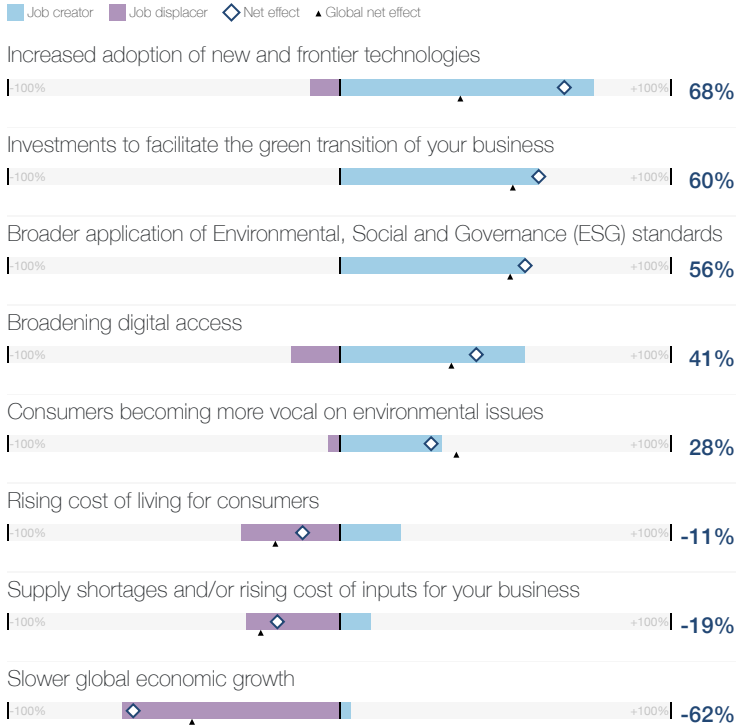
# Electronics

29.6

## Trend outlook

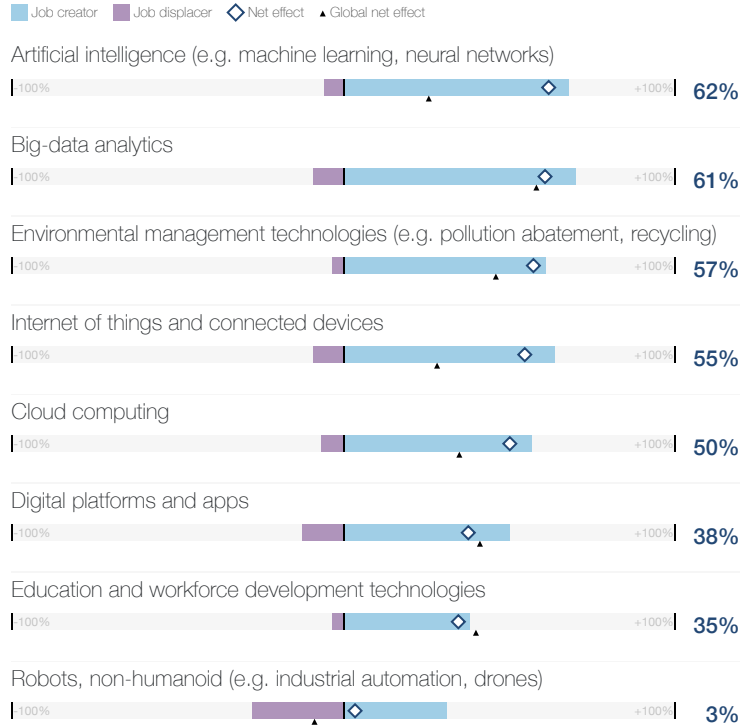
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

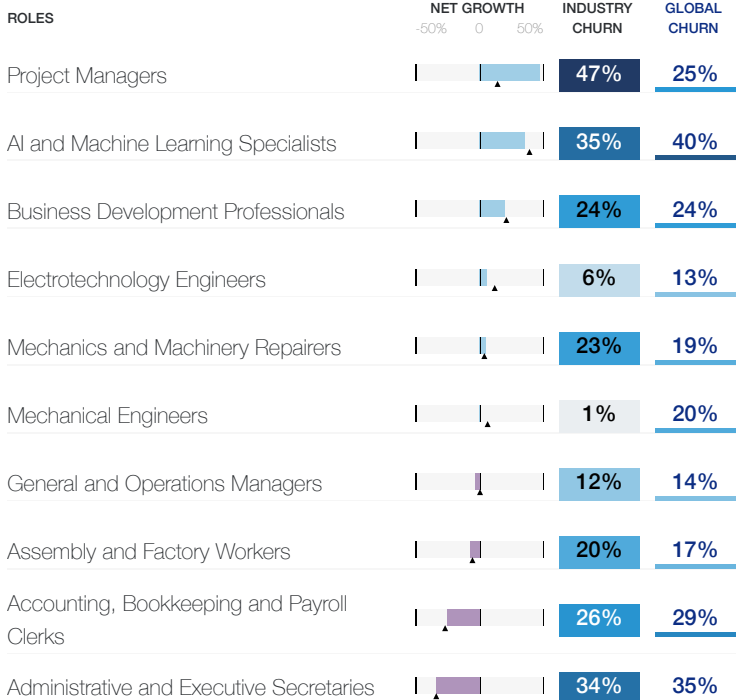
Five-year structural labour-force churn (percent)

18%

Global 23%

### Key roles for business transformation

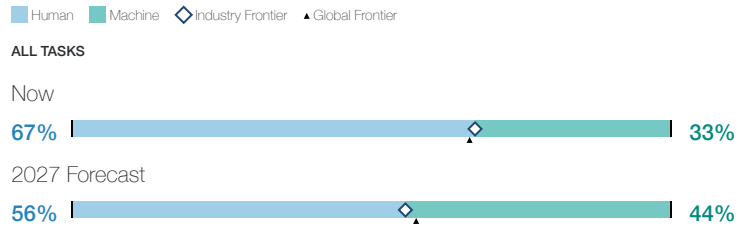
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

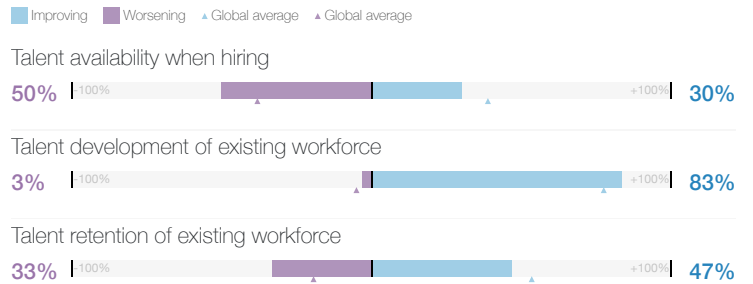
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



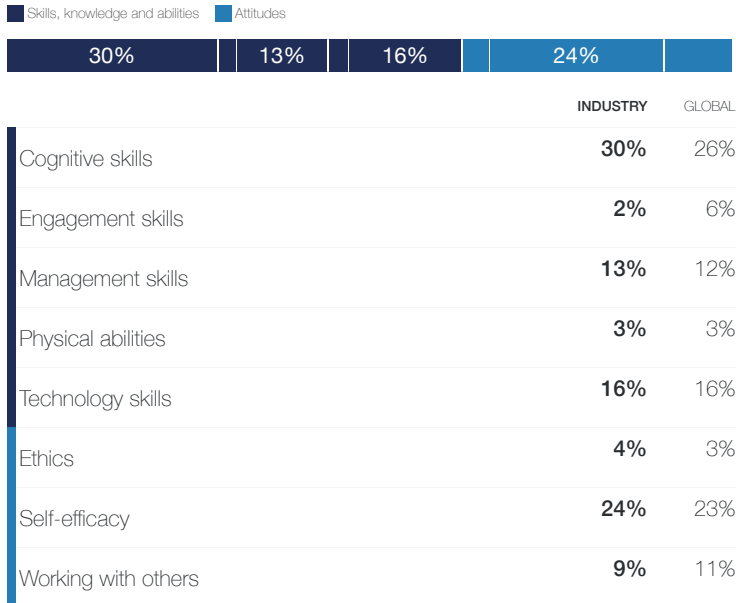
# Electronics

29.6

## Skill outlook

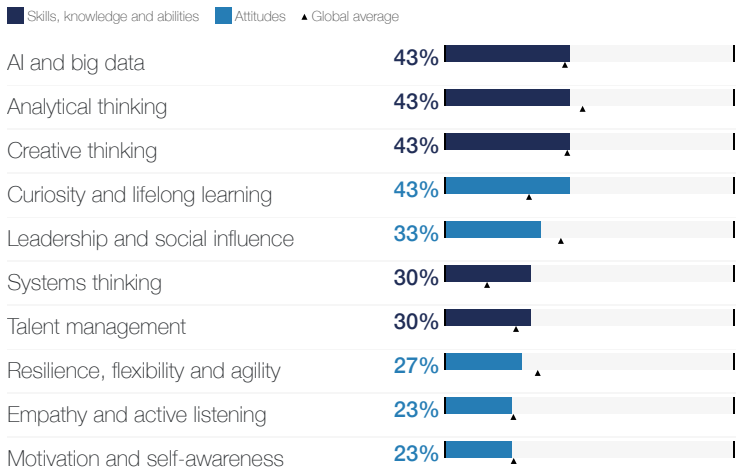
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)

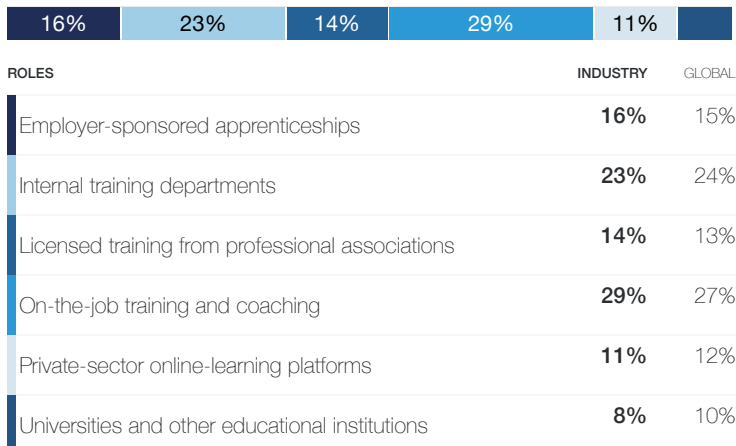


### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required) **56%** (Global 56%)

### Training type

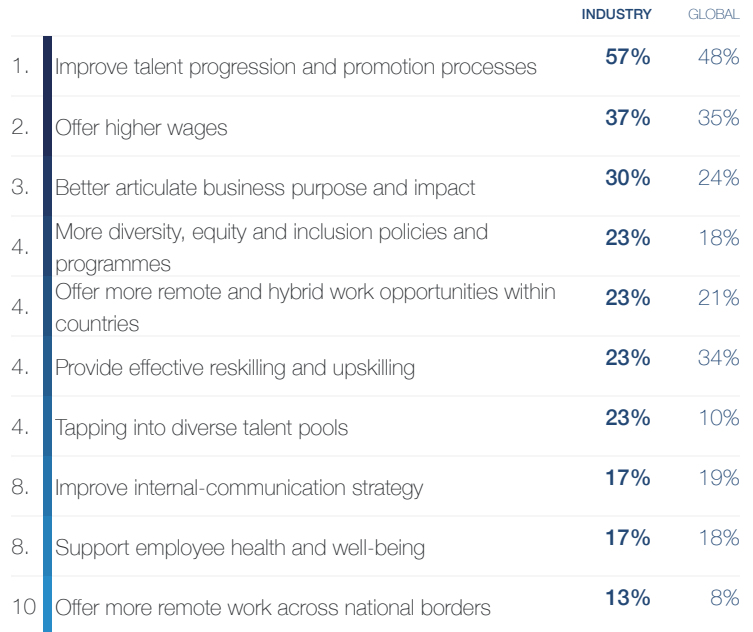
Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

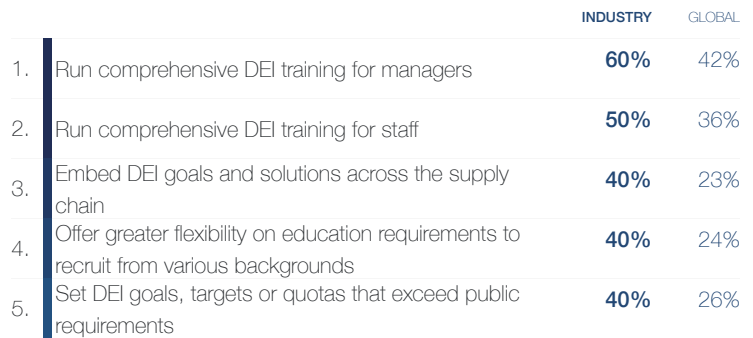
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed) **83%** (Global 67%)

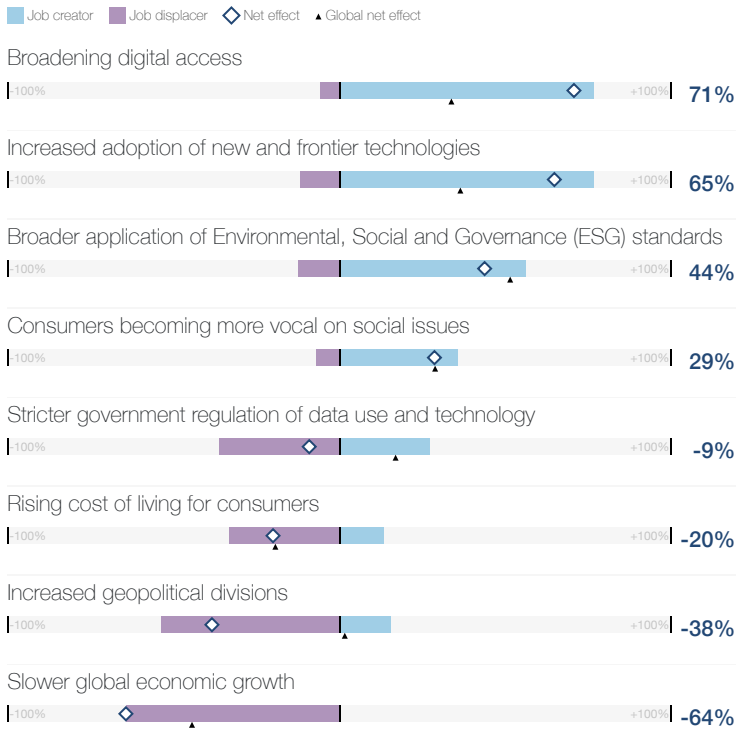
# Employment services

7.9

## Trend outlook

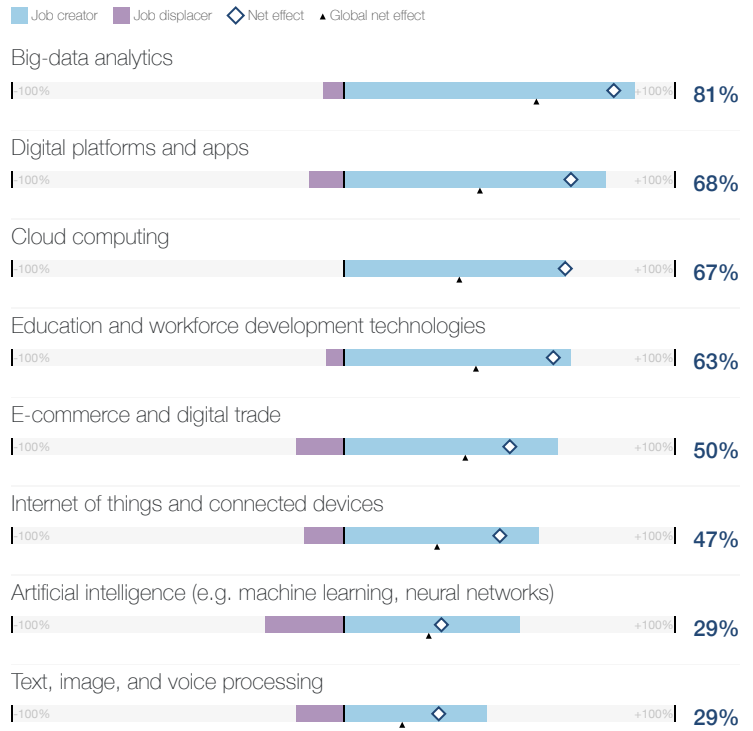
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

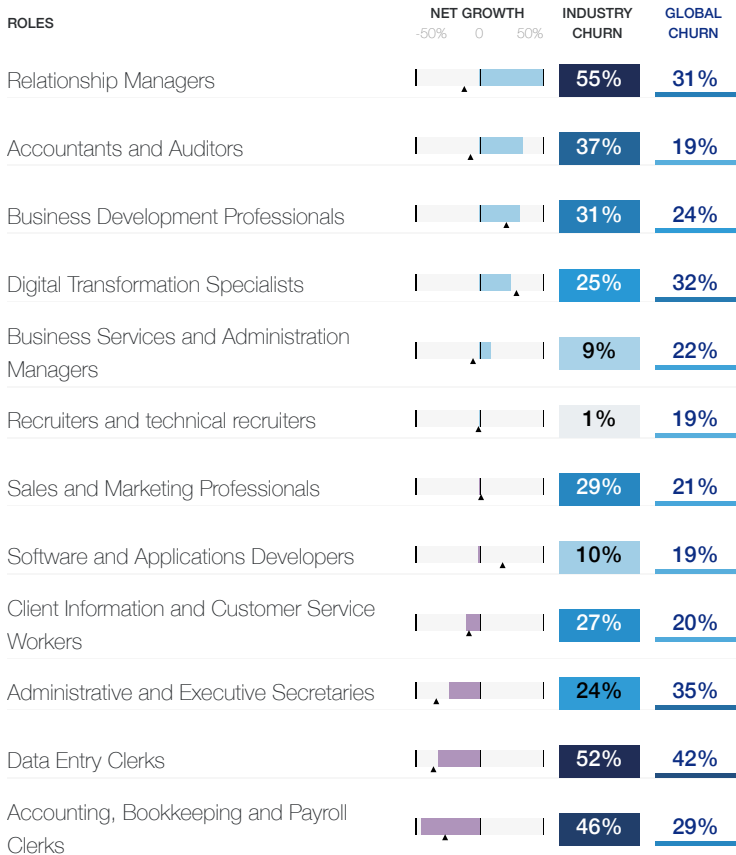
Five-year structural labour-force churn (percent)

24%

Global 23%

### Key roles for business transformation

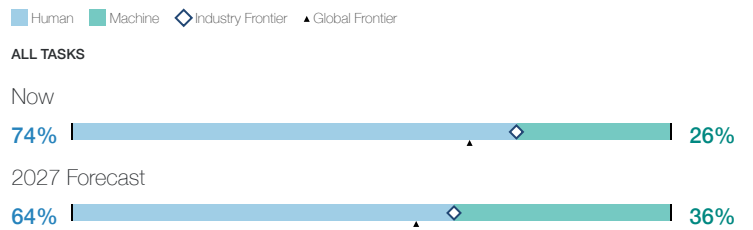
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

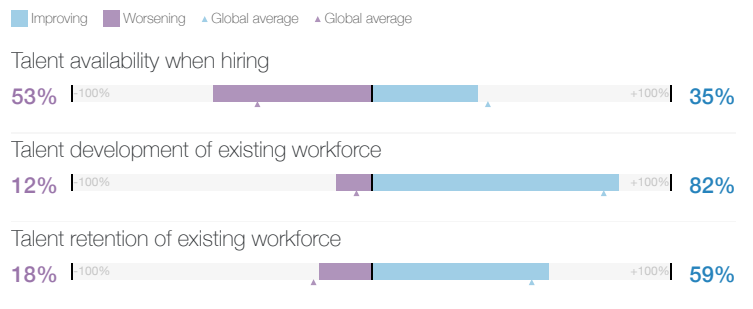
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



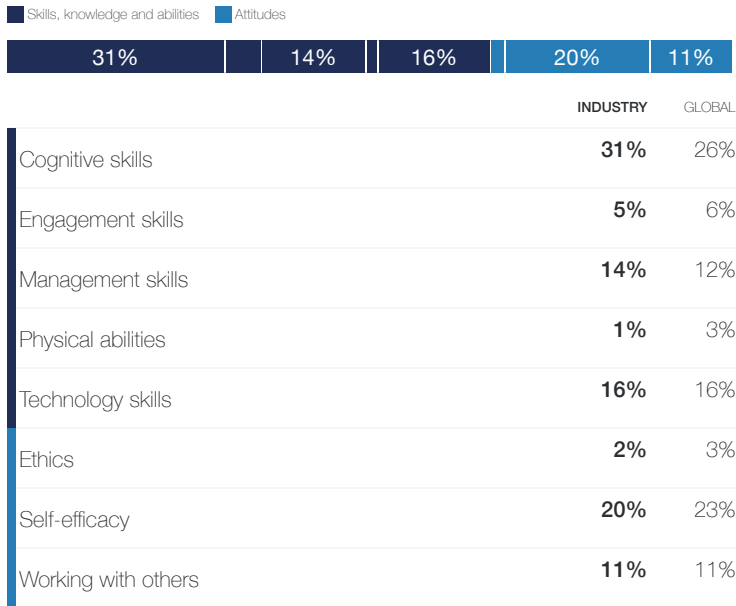
# Employment services

7.9

## Skill outlook

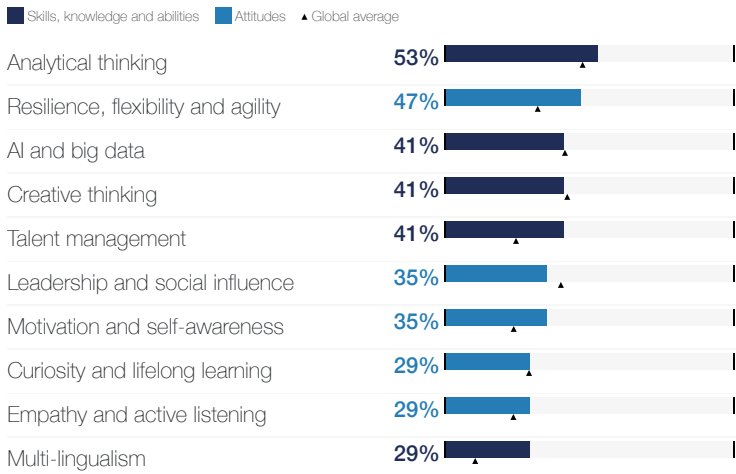
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

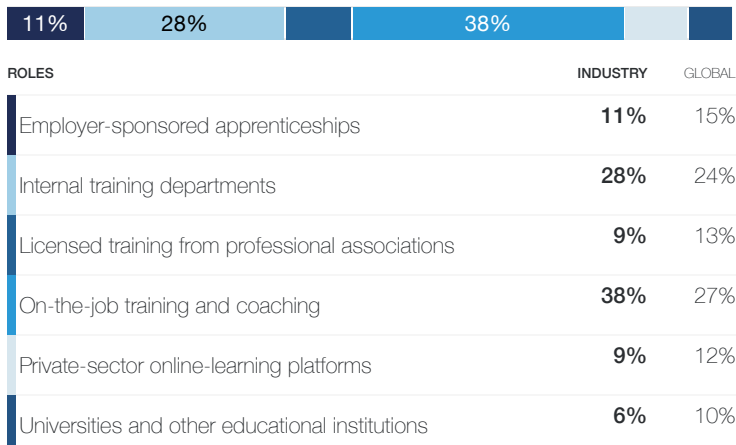
Skills required by the workforce that are expected to remain the same (share of all skills required)

50%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

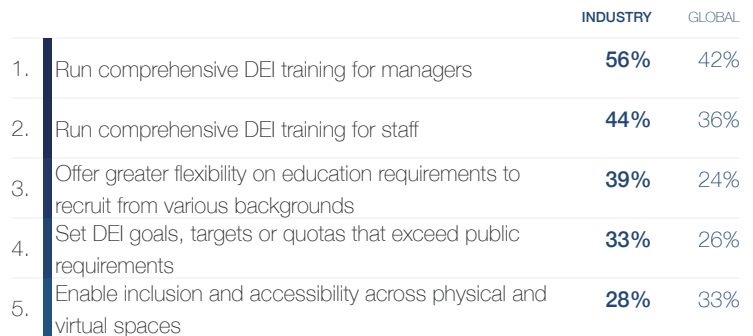
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

78%

Global 67%

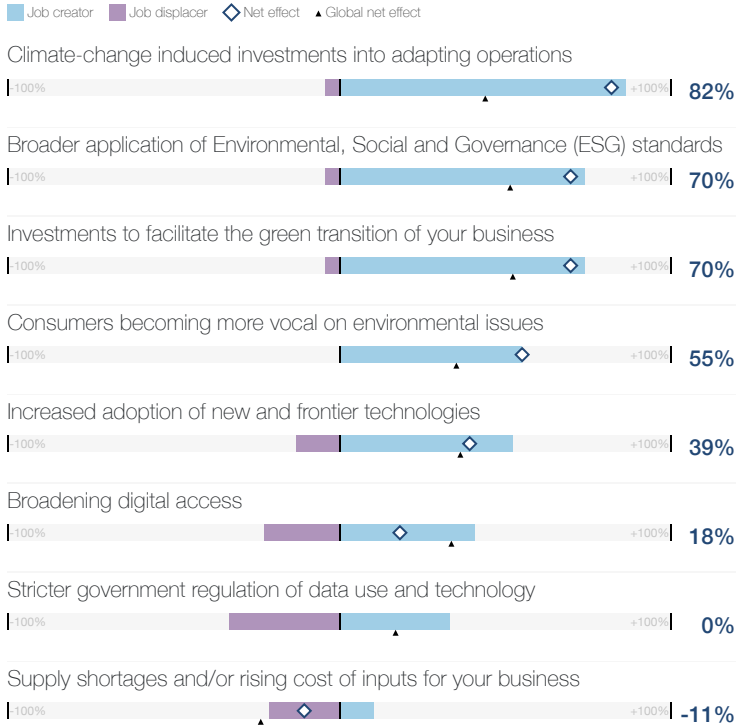
# Energy technology and utilities

5.3

## Trend outlook

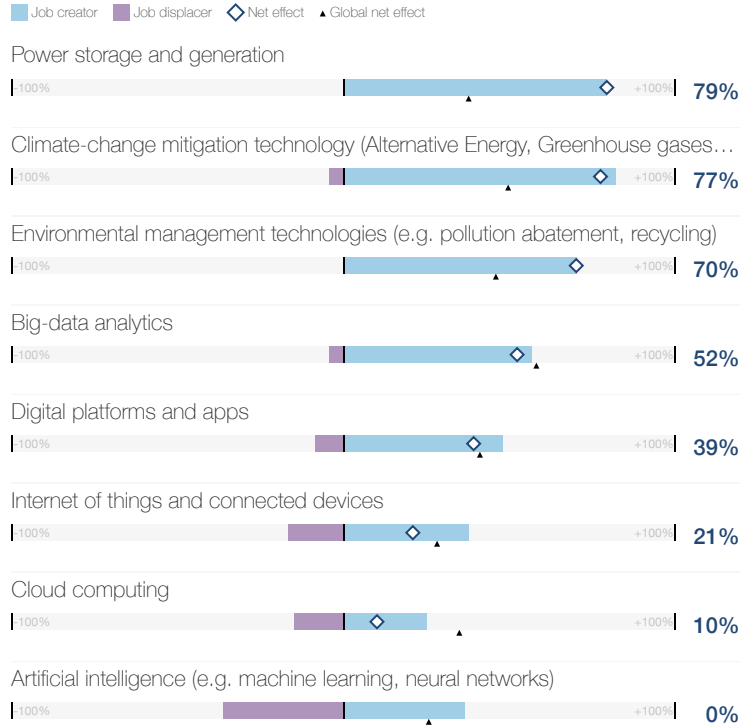
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

19%

Global 23%

### Key roles for business transformation

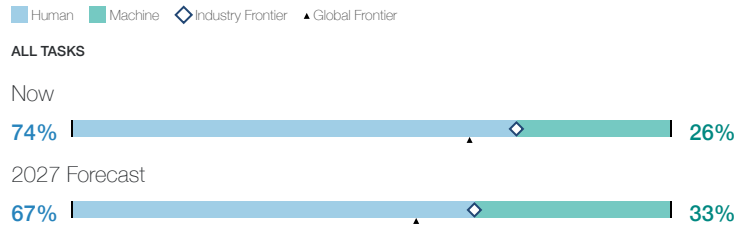
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

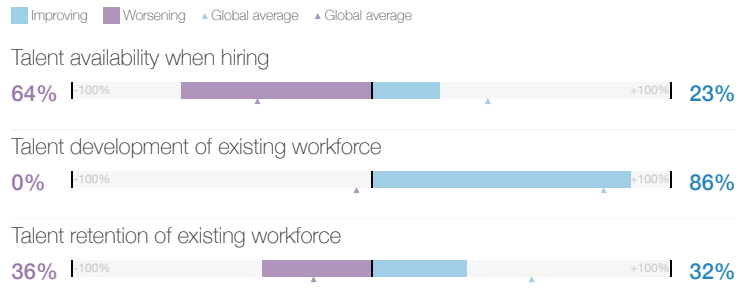
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



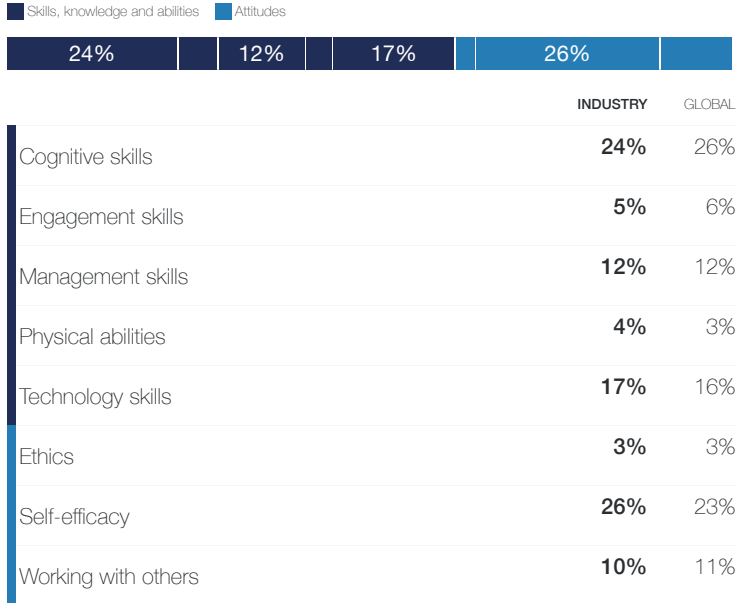
# Energy technology and utilities

5.3

## Skill outlook

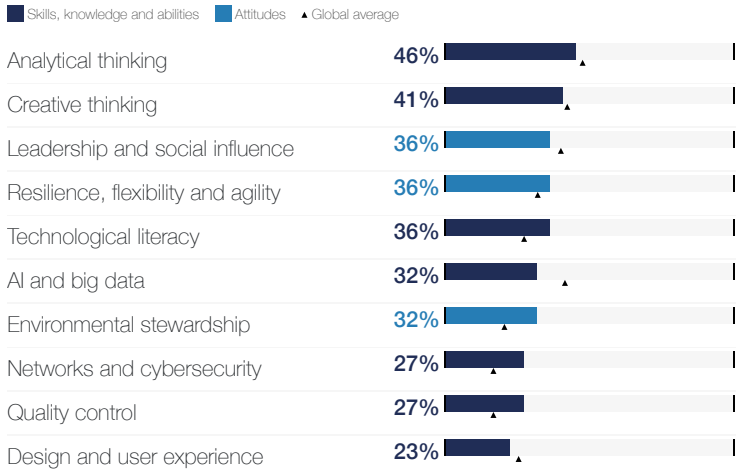
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

53%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	INDUSTRY	GLOBAL
Employer-sponsored apprenticeships	14%	15%
Internal training departments	26%	24%
Licensed training from professional associations	13%	13%
On-the-job training and coaching	27%	27%
Private-sector online-learning platforms	10%	12%
Universities and other educational institutions	9%	10%

## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Better articulate business purpose and impact	41%	24%
1. Improve talent progression and promotion processes	41%	48%
3. Improve internal-communication strategy	36%	19%
3. Provide effective reskilling and upskilling	36%	34%
5. More diversity, equity and inclusion policies and programmes	23%	18%
6. Improve people-and-culture metrics and reporting	18%	18%
6. Offer higher wages	18%	35%
6. Support employee health and well-being	18%	18%
9. Improve working hours and overtime	14%	15%
9. Offer more remote and hybrid work opportunities within countries	14%	21%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Run comprehensive DEI training for managers	41%	42%
2. Run comprehensive DEI training for staff	36%	36%
3. Set DEI goals, targets or quotas that exceed public requirements	32%	26%
4. Enable inclusion and accessibility across physical and virtual spaces	27%	33%

### Share of companies with DEI Programs

(share of organizations surveyed)

64%

Global 67%

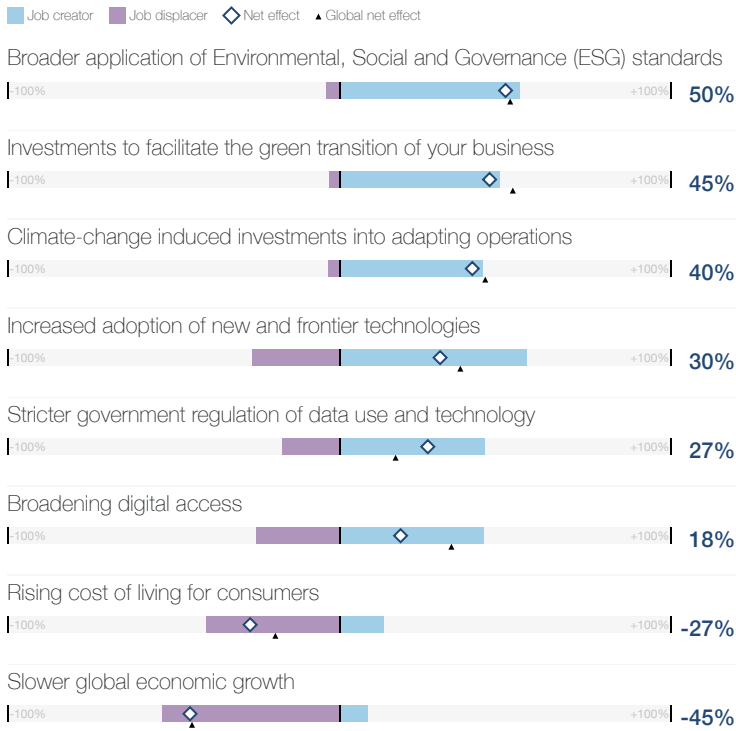
# Financial services and capital markets

31.9

## Trend outlook

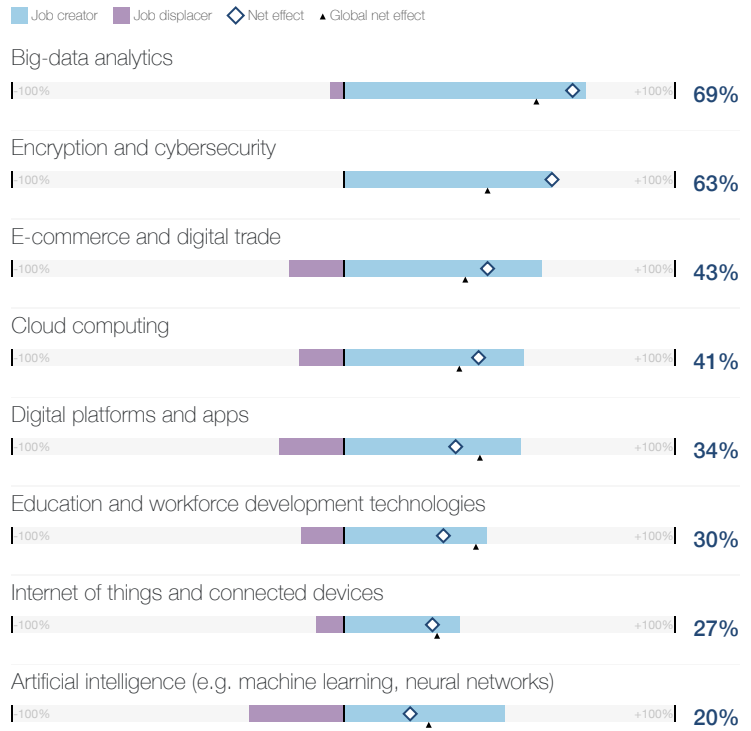
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

27%

Global 23%

### Key roles for business transformation

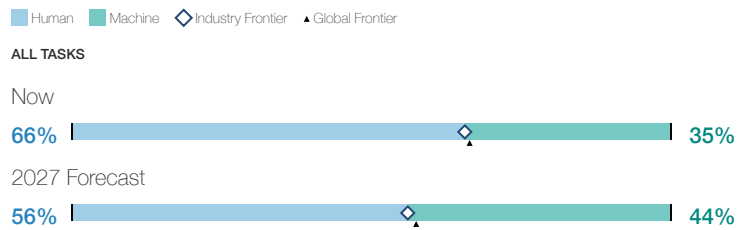
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

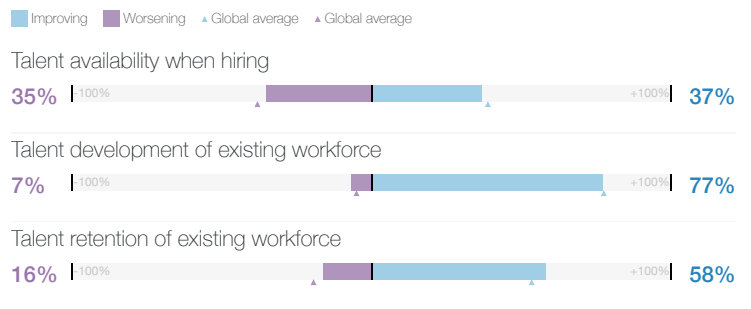
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



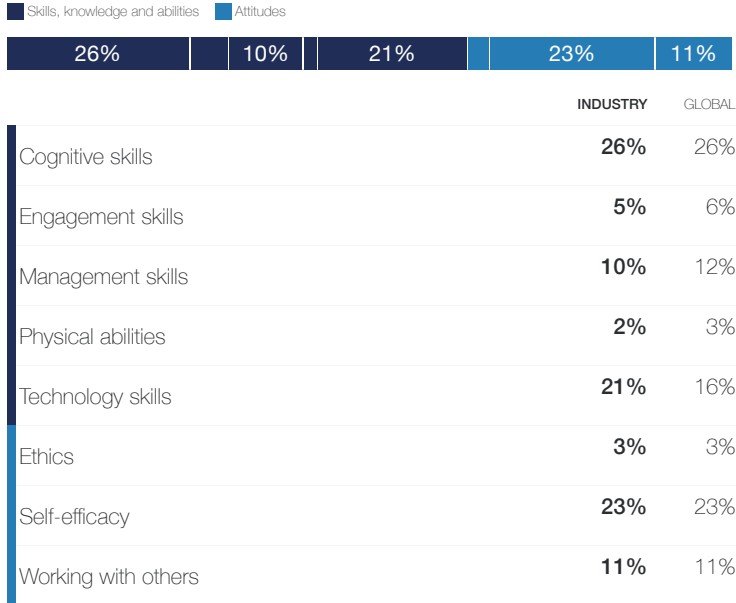
# Financial services and capital markets

31.9

## Skill outlook

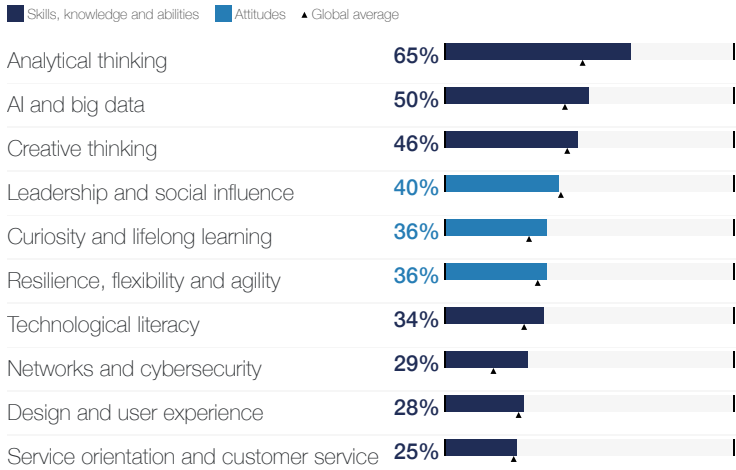
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

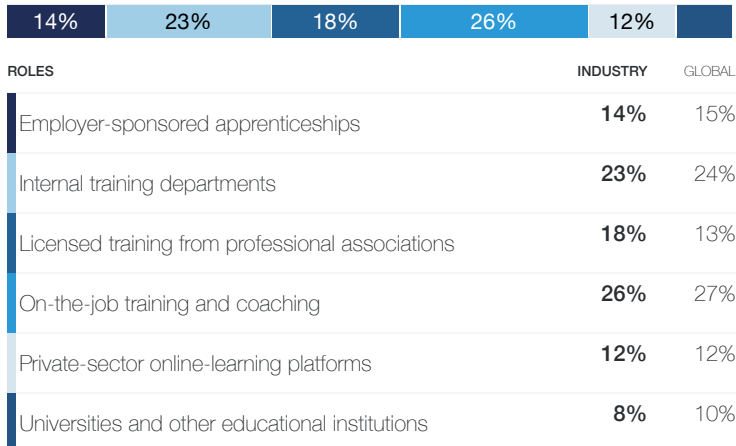
Skills required by the workforce that are expected to remain the same (share of all skills required)

58%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

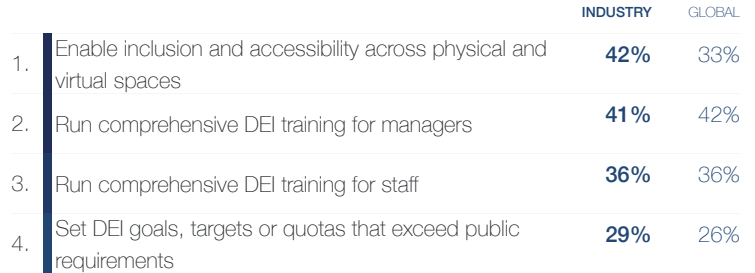
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

74%

Global 67%

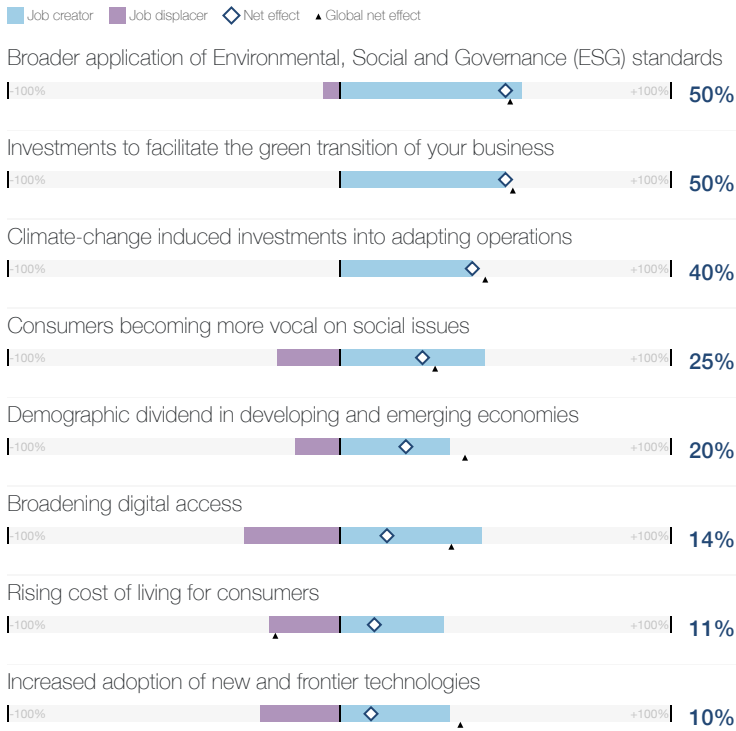
# Government and public sector

136.4

## Trend outlook

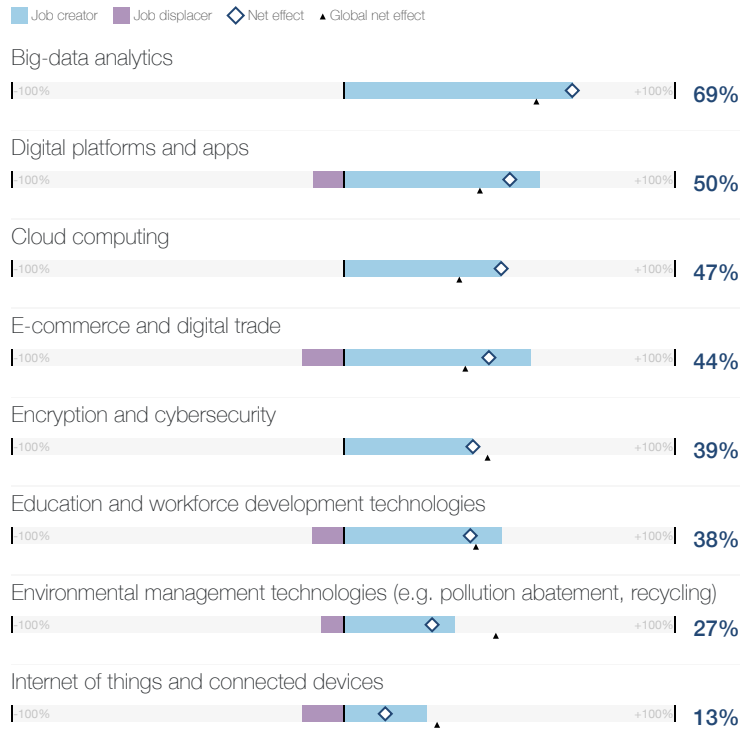
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

29%

Global 23%

### Key roles for business transformation

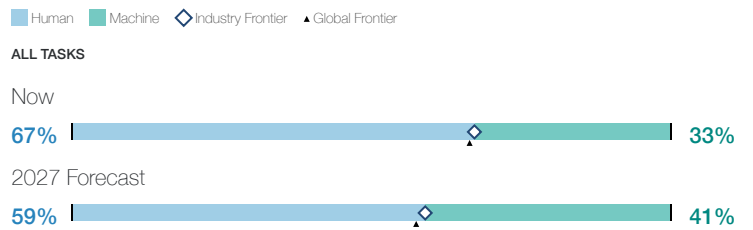
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

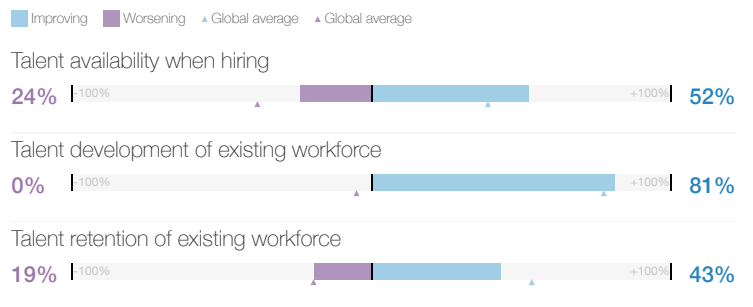
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



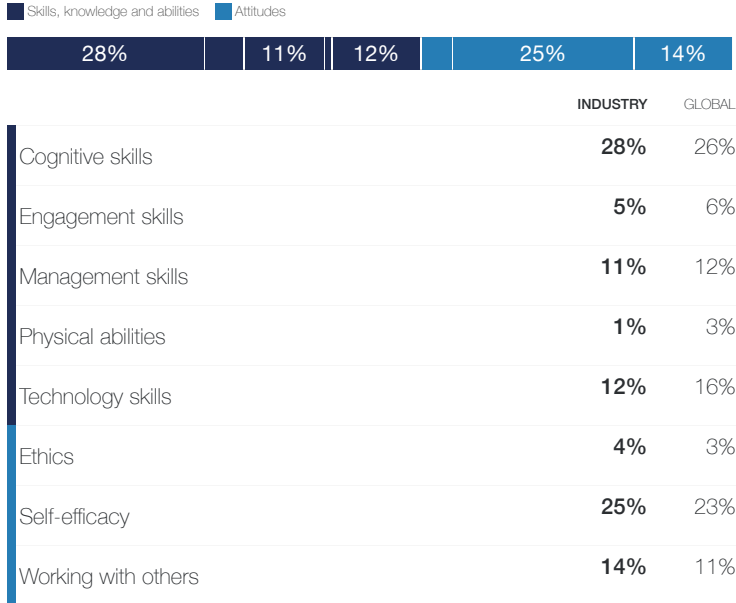
# Government and public sector

136.4

## Skill outlook

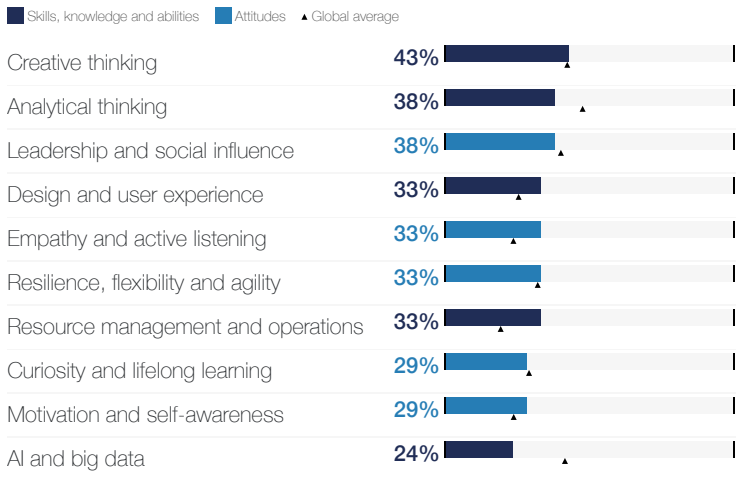
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

55%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	INDUSTRY	GLOBAL
Employer-sponsored apprenticeships	11%	15%
Internal training departments	21%	24%
Licensed training from professional associations	19%	13%
On-the-job training and coaching	27%	27%
Private-sector online-learning platforms	11%	12%
Universities and other educational institutions	11%	10%

## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Offer higher wages	52%	35%
2. Improve talent progression and promotion processes	48%	48%
2. Provide effective reskilling and upskilling	48%	34%
4. Offer more remote and hybrid work opportunities within countries	33%	21%
5. Improve internal-communication strategy	24%	19%
6. Support employee health and well-being	19%	18%
7. Better articulate business purpose and impact	10%	24%
7. Improve safety in the workplace	10%	8%
7. Improve working hours and overtime	10%	15%
7. Offer more remote work across national borders	10%	8%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Enable inclusion and accessibility across physical and virtual spaces	30%	33%
2. Run comprehensive DEI training for managers	30%	42%
3. Run comprehensive DEI training for staff	30%	36%
4. Provide greater flexibility on degree requirements for roles	25%	22%

### Share of companies with DEI Programs

(share of organizations surveyed)

55%

Global 67%

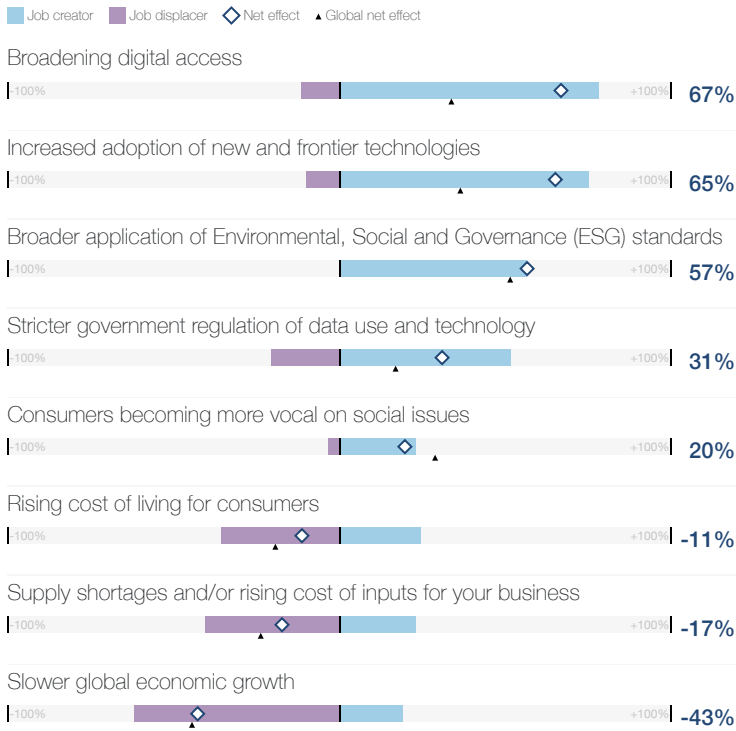
# Information and technology services

21.0

## Trend outlook

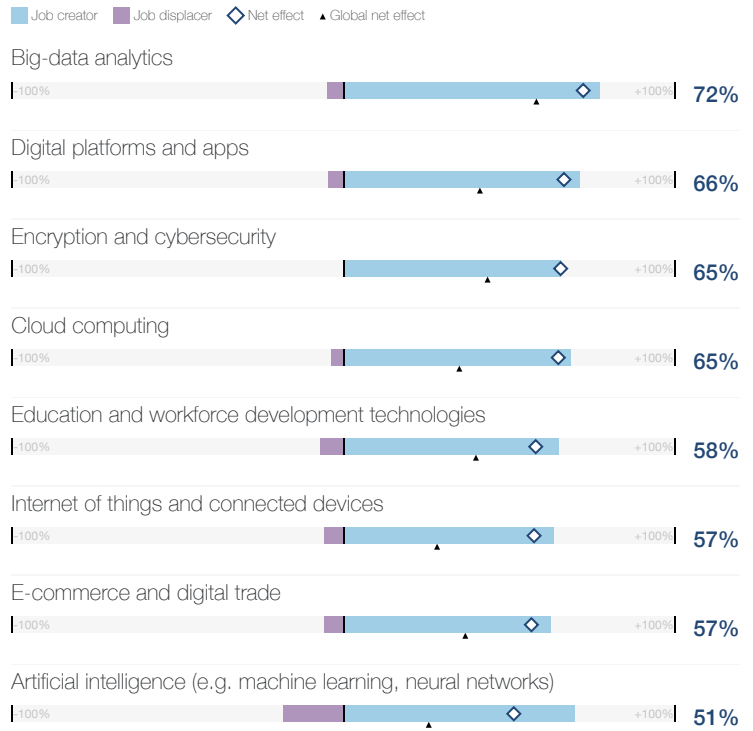
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

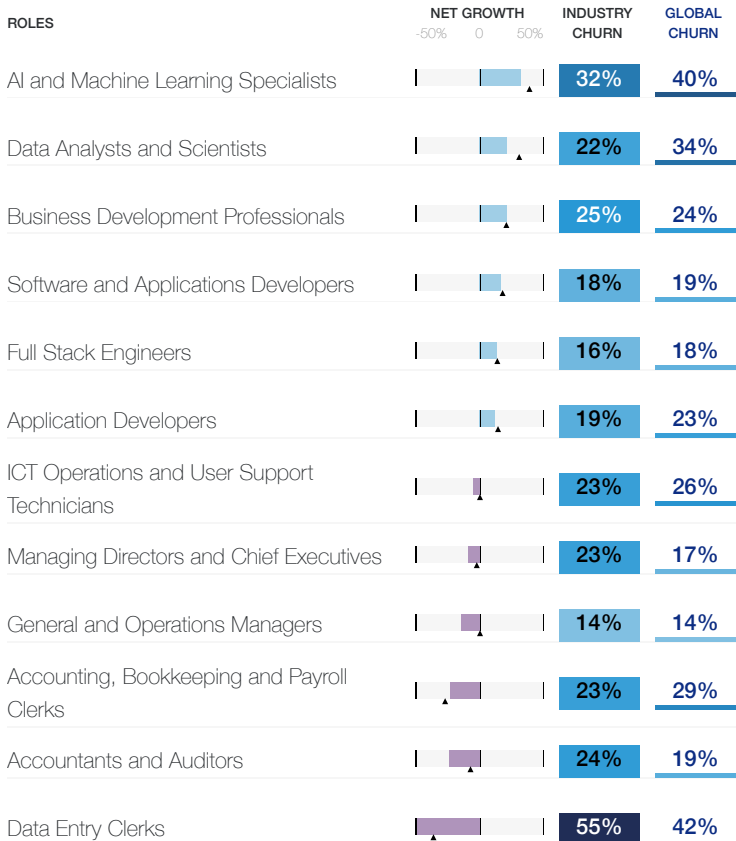
Five-year structural labour-force churn (percent)

26%

Global 23%

### Key roles for business transformation

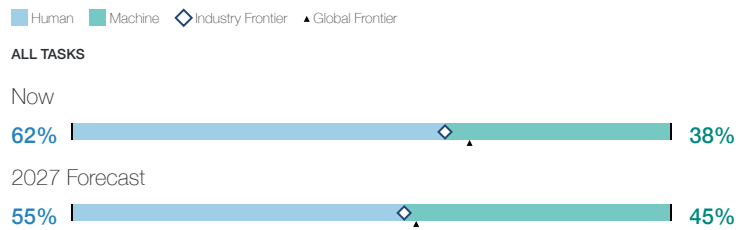
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

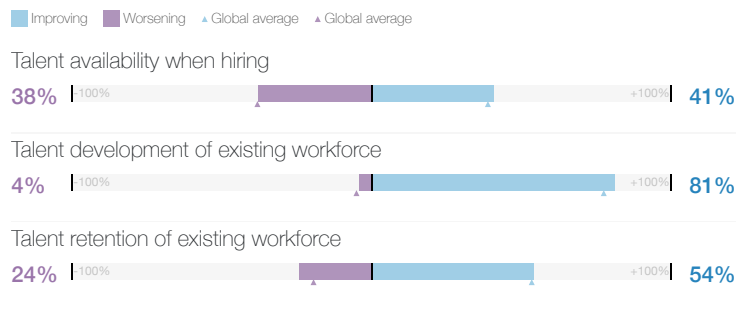
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



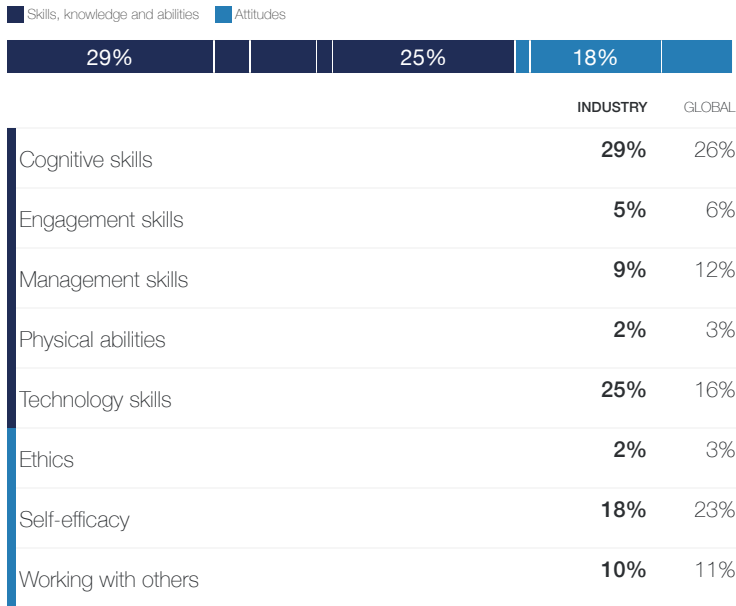
# Information and technology services

21.0

## Skill outlook

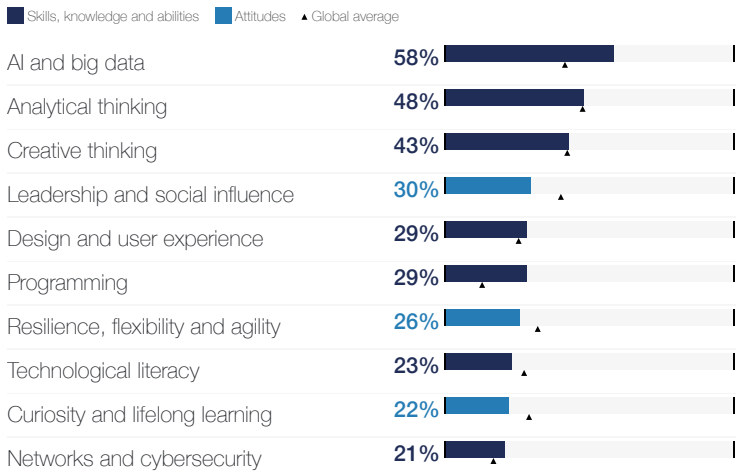
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

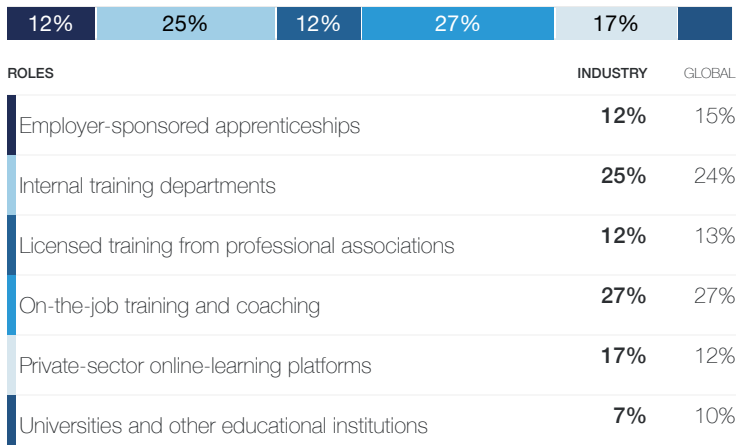
Skills required by the workforce that are expected to remain the same (share of all skills required)

57%

Global 56%

### Training type

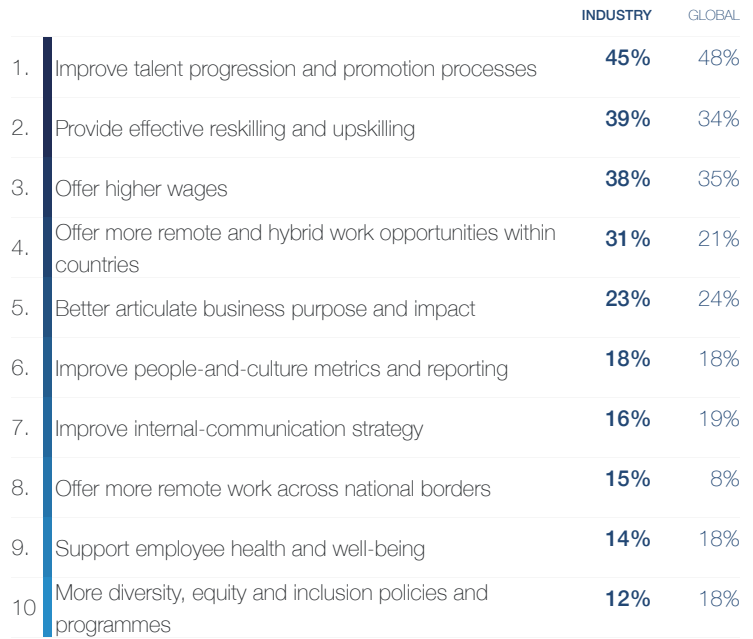
Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

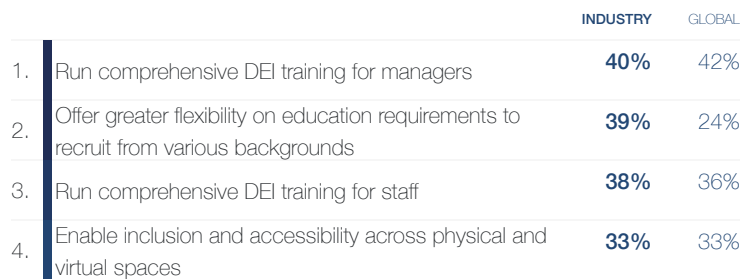
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

61%

Global 67%

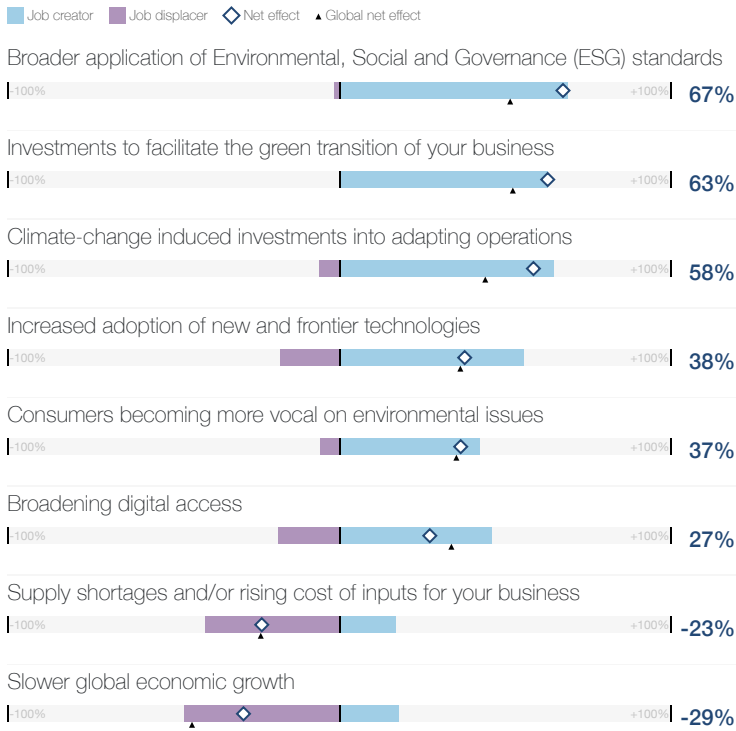
# Infrastructure

183.9

## Trend outlook

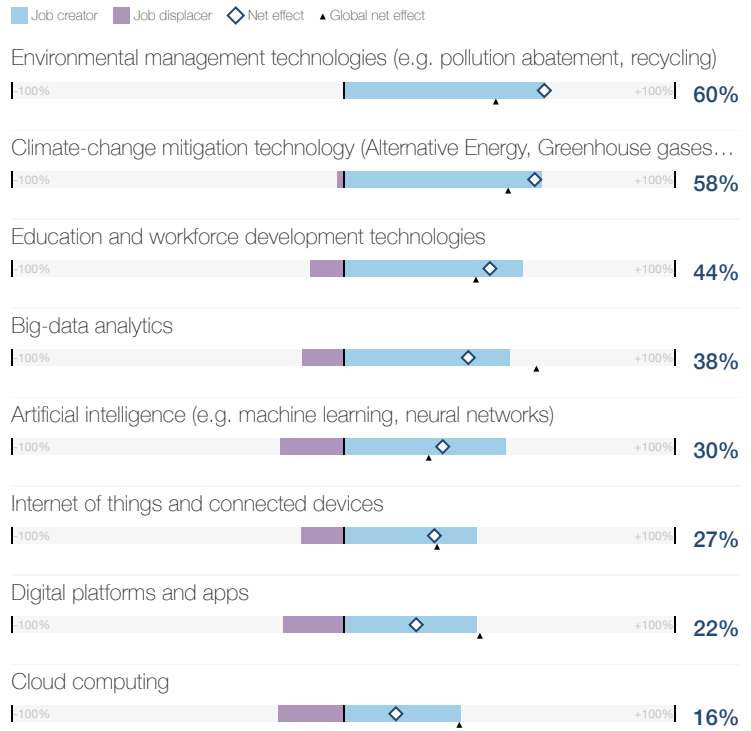
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

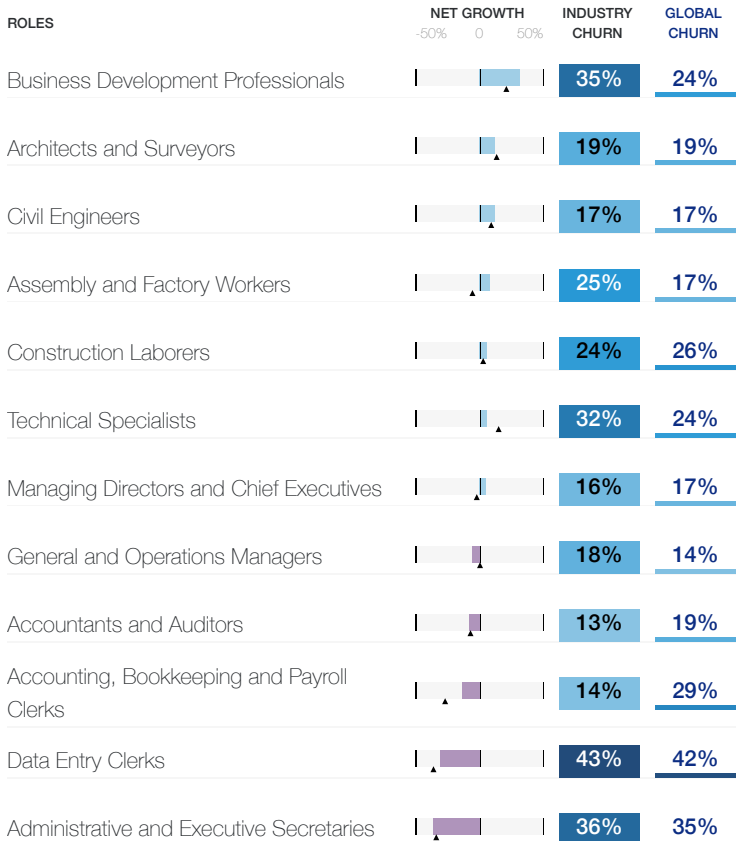
Five-year structural labour-force churn (percent)

22%

Global 23%

### Key roles for business transformation

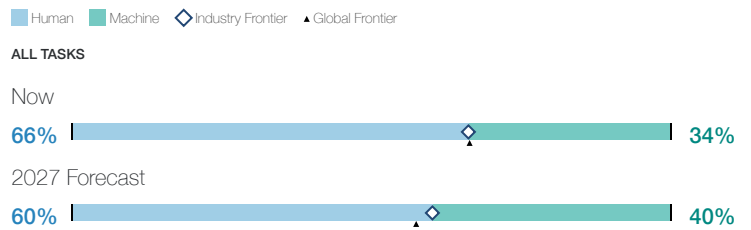
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

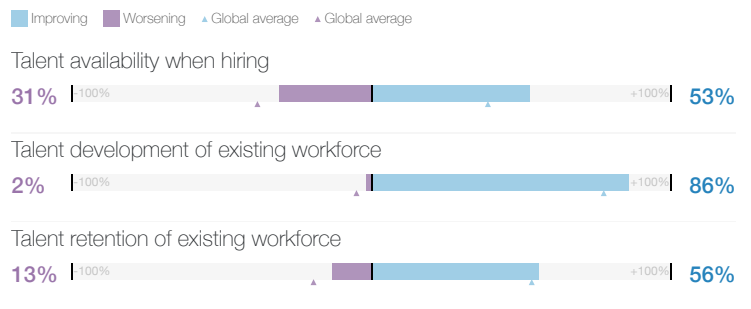
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



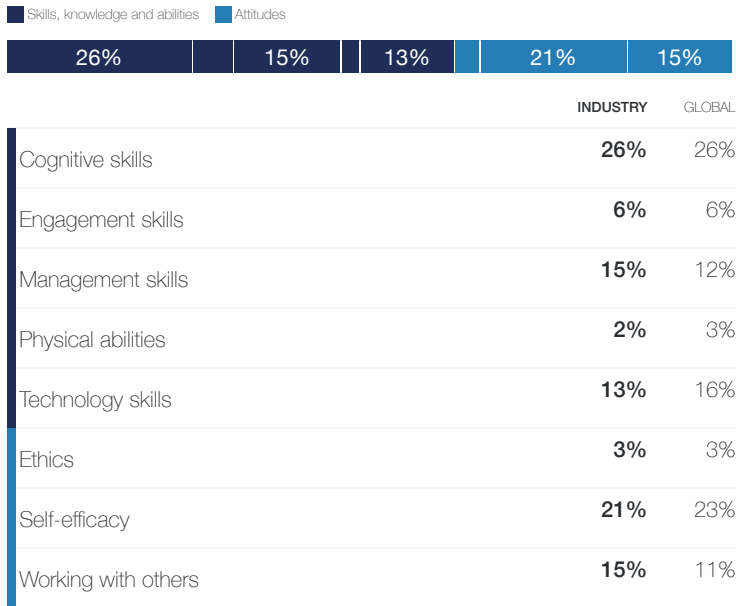
# Infrastructure

183.9

## Skill outlook

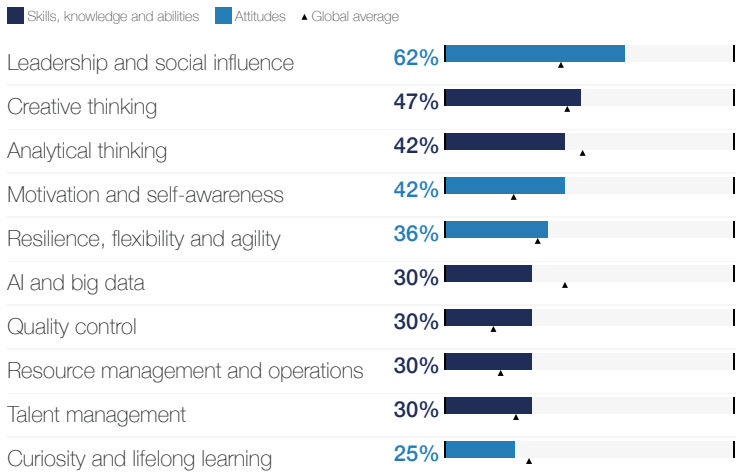
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

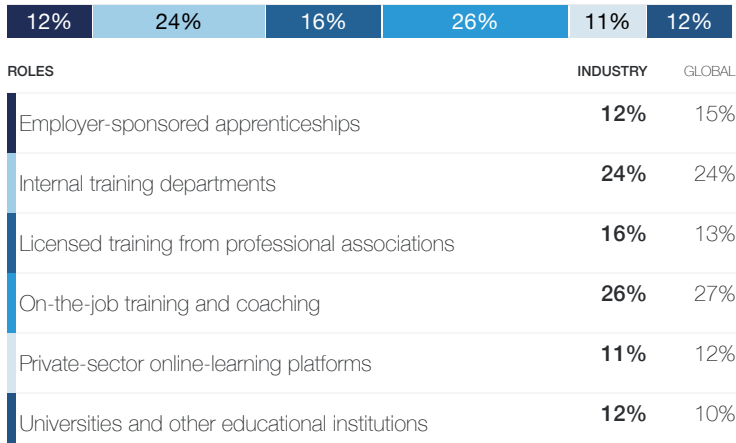
Skills required by the workforce that are expected to remain the same (share of all skills required)

56%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

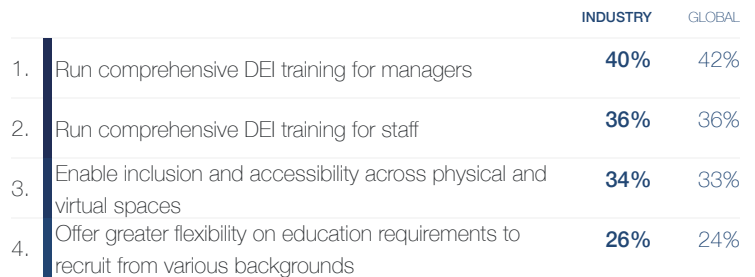
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

54%

Global 67%

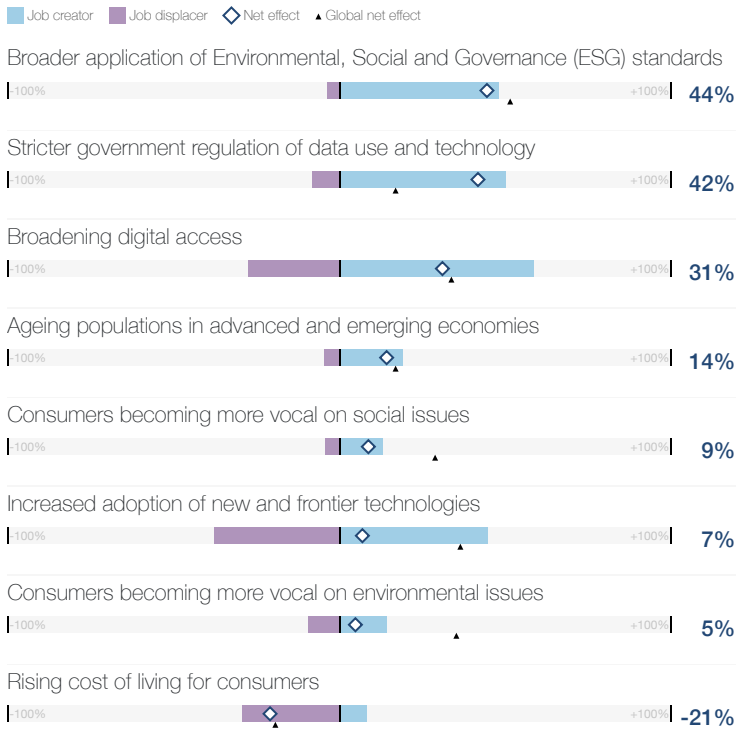
# Insurance and pensions management

16.0

## Trend outlook

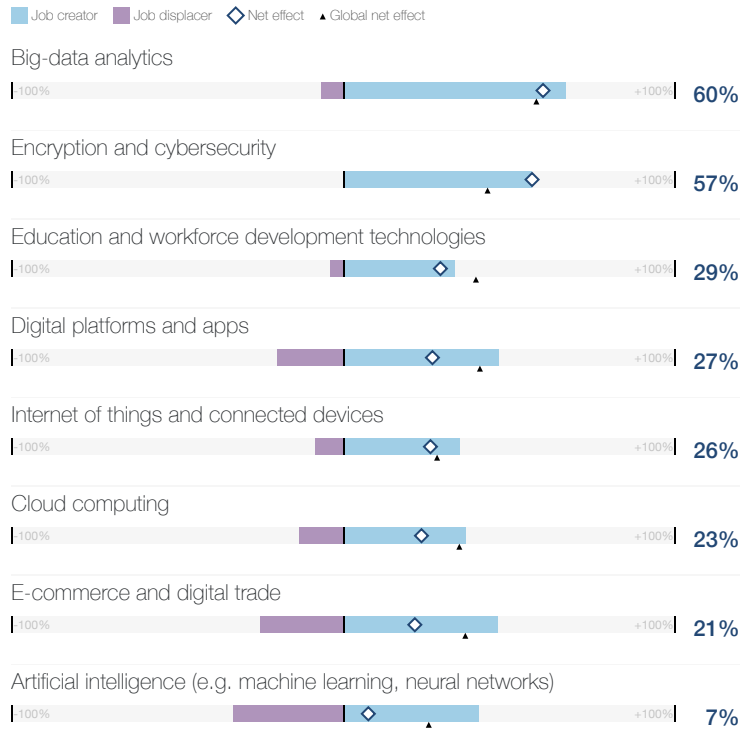
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

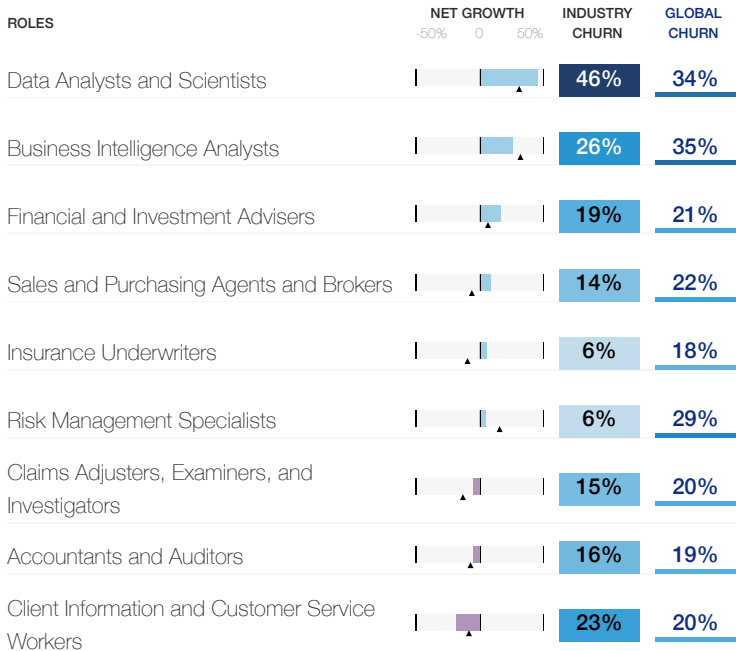
Five-year structural labour-force churn (percent)

22%

Global 23%

### Key roles for business transformation

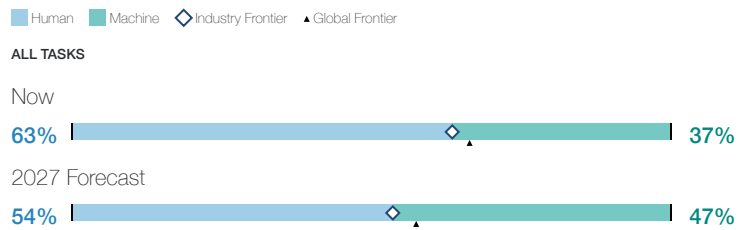
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

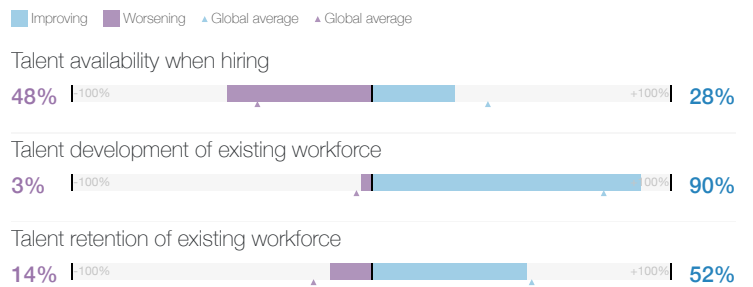
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



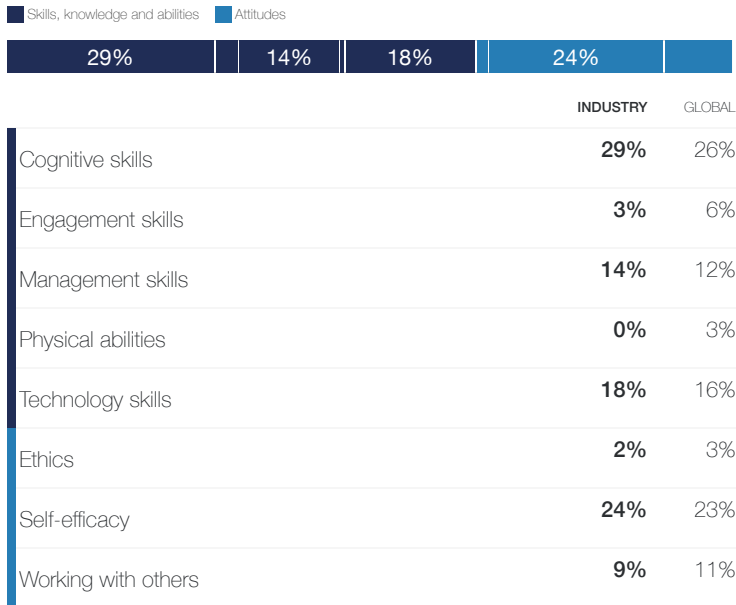
# Insurance and pensions management

16.0

## Skill outlook

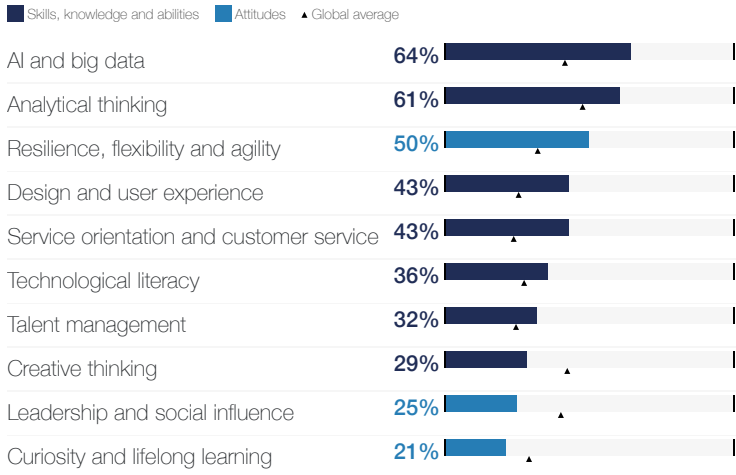
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)

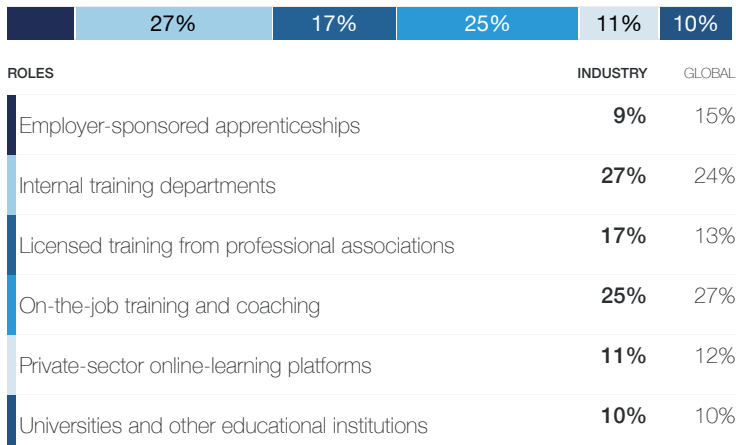


### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required) **58%** (Global 56%)

### Training type

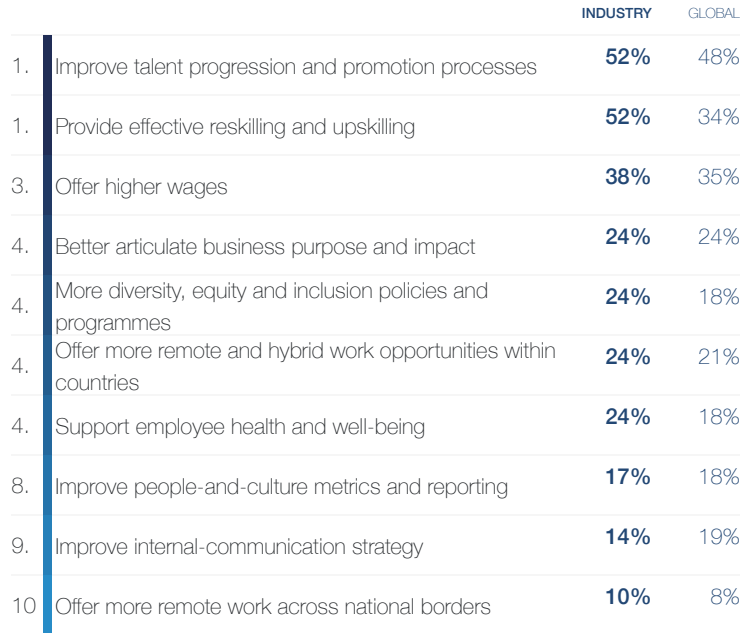
Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

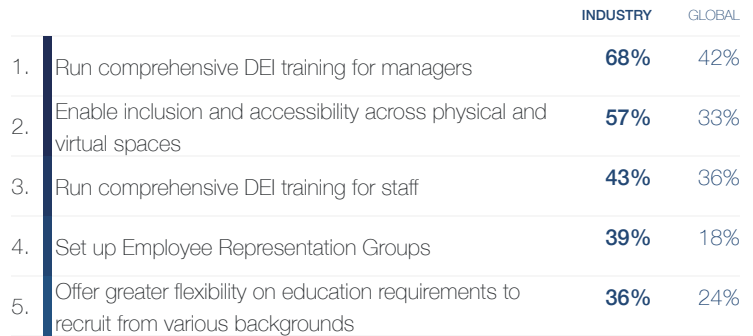
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed) **0%** (Global 67%)

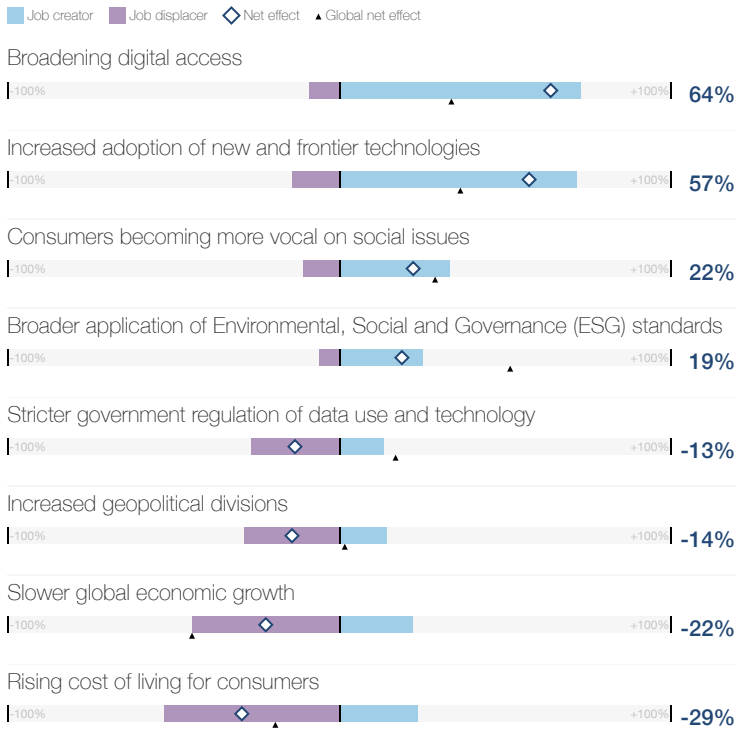
# Media, Entertainment and Sports

44.8

## Trend outlook

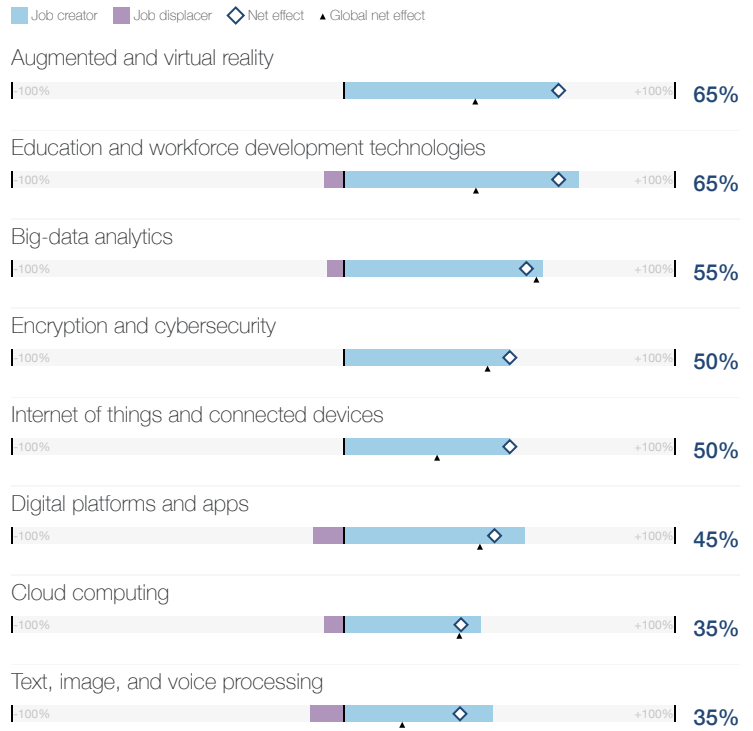
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

32%

Global 23%

### Key roles for business transformation

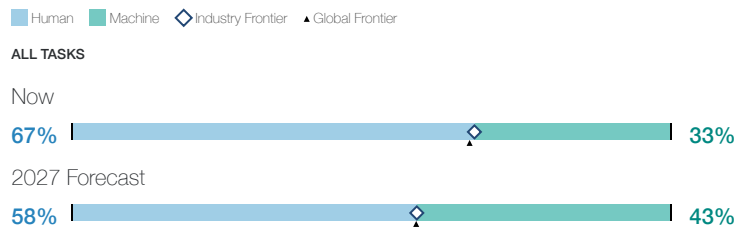
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

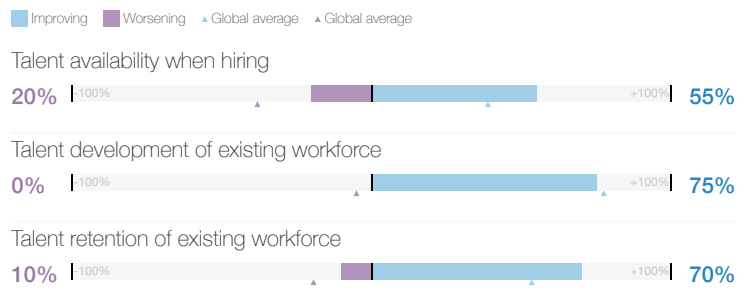
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



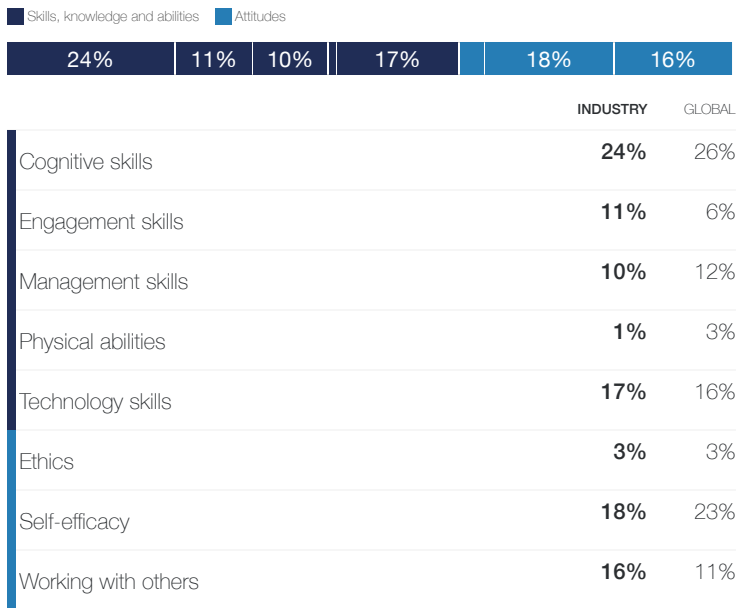
# Media, Entertainment and Sports

44.8

## Skill outlook

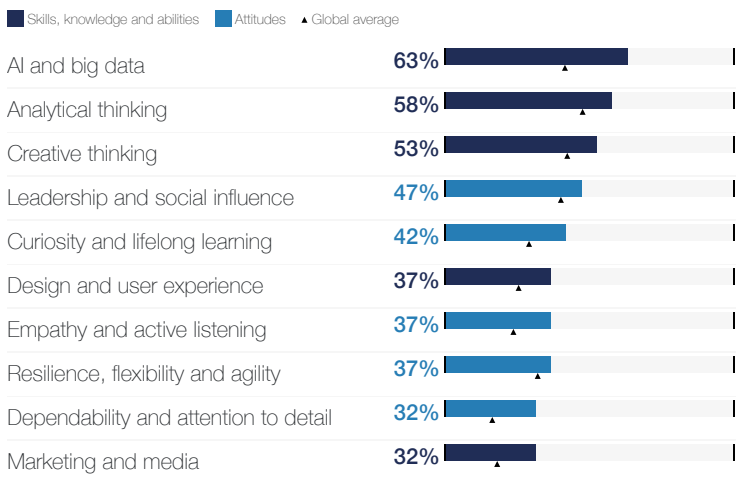
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

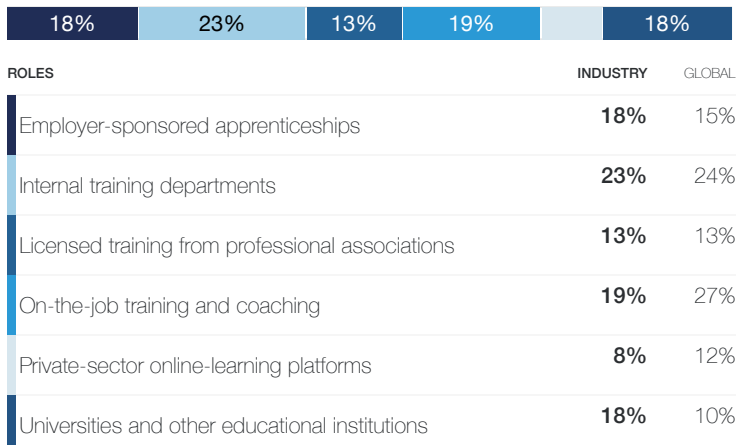
Skills required by the workforce that are expected to remain the same (share of all skills required)

50%

Global 56%

### Training type

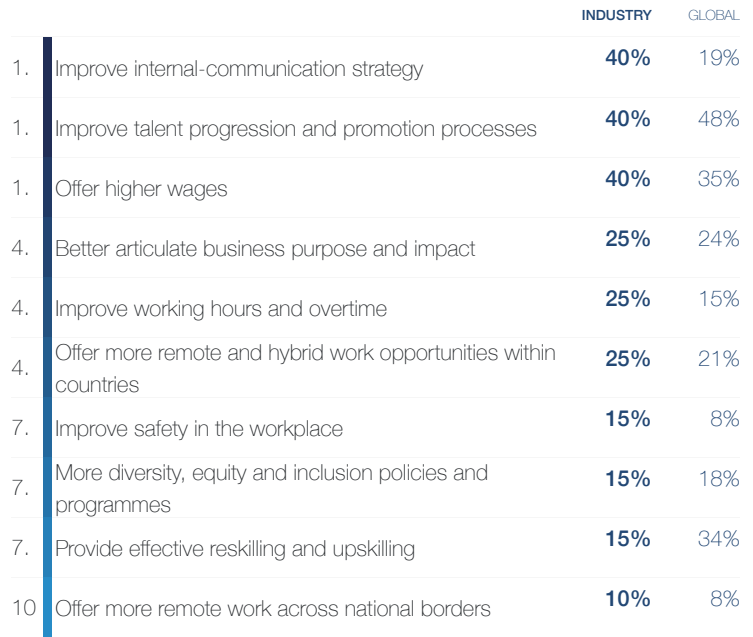
Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

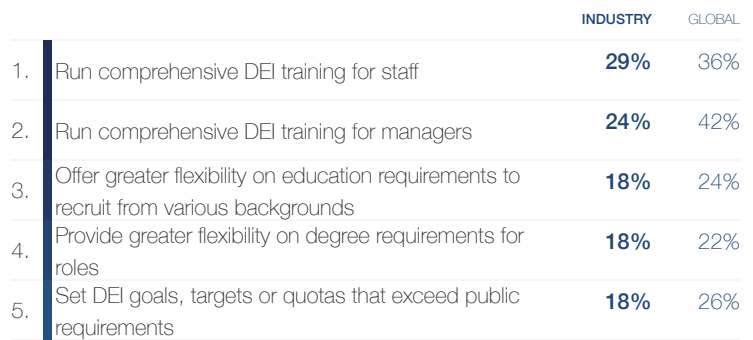
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

47%

Global 67%

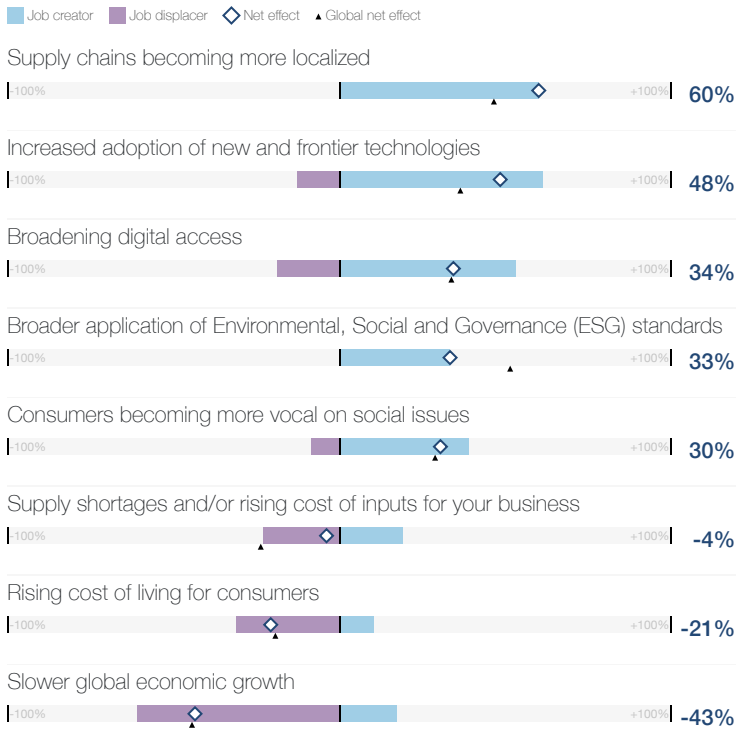
# Medical and healthcare services

40.8

## Trend outlook

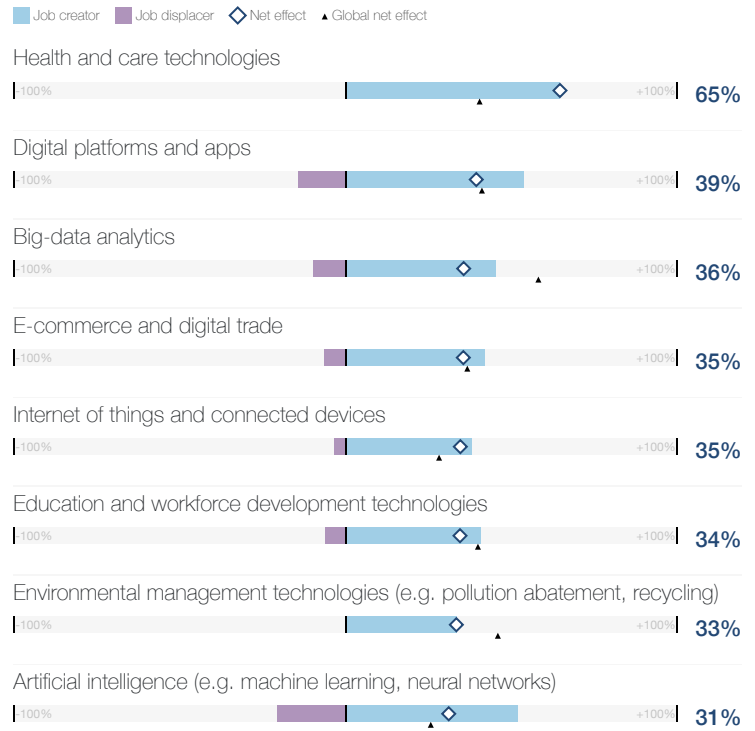
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

22%

Global 23%

### Key roles for business transformation

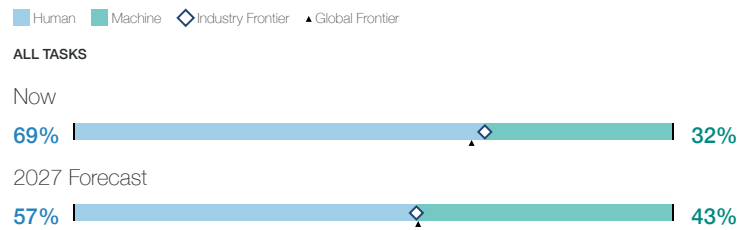
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

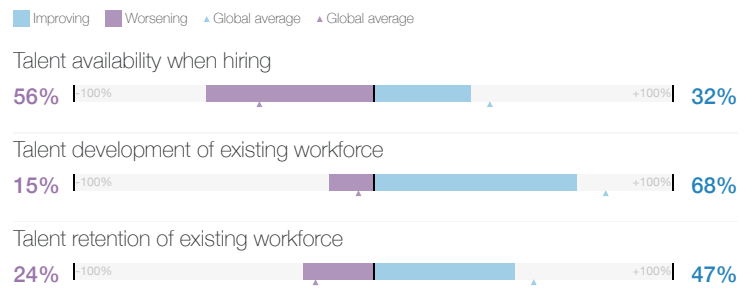
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



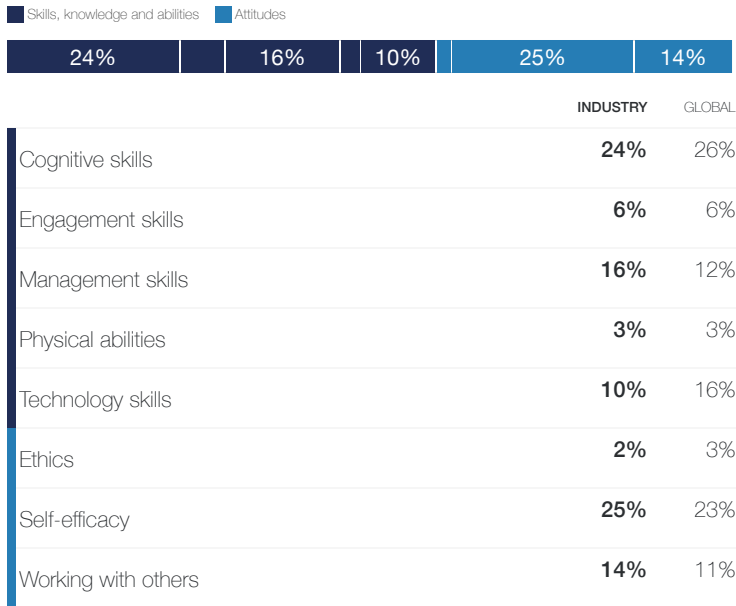
# Medical and healthcare services

40.8

## Skill outlook

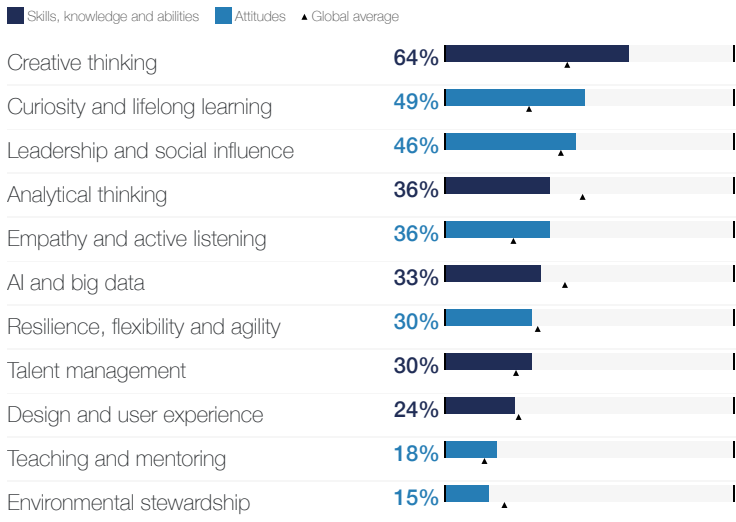
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

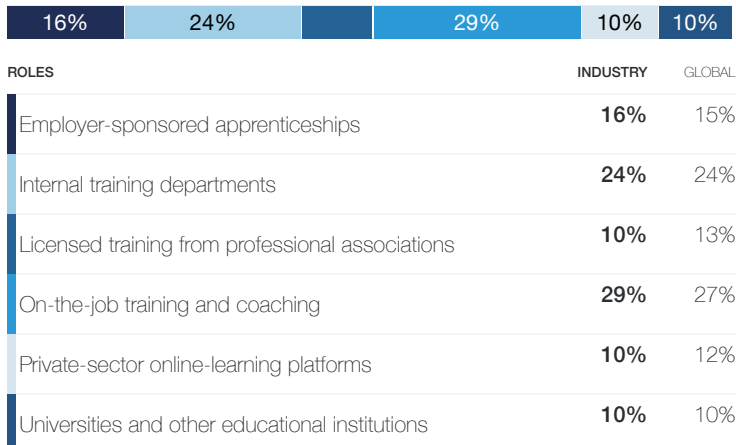
Skills required by the workforce that are expected to remain the same (share of all skills required)

51%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

56%

Global 67%

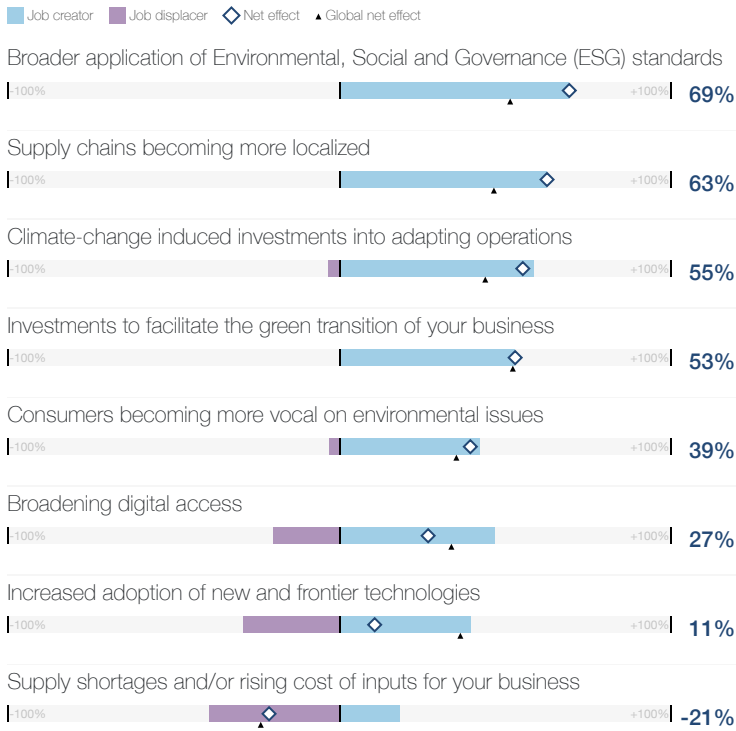
# Mining and Metals

9.1

## Trend outlook

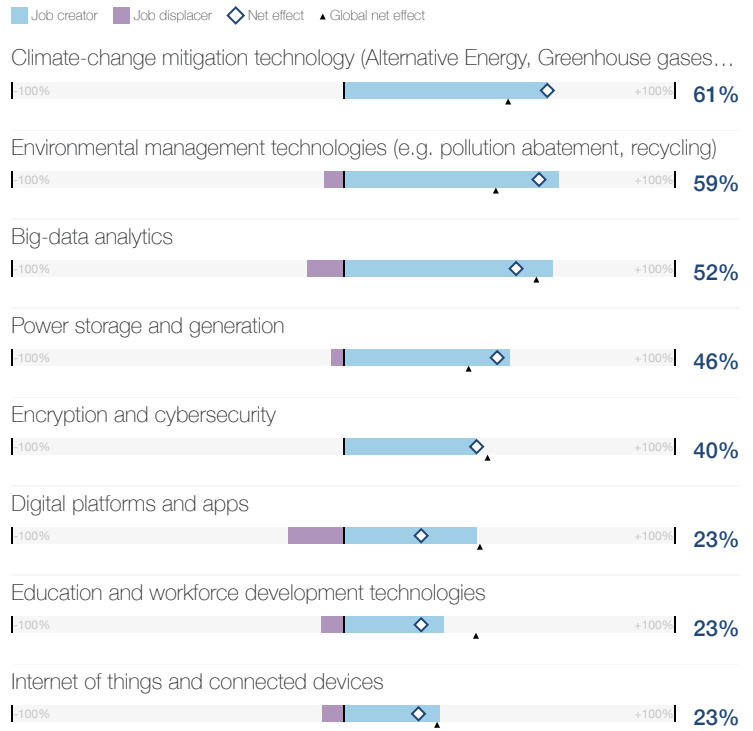
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

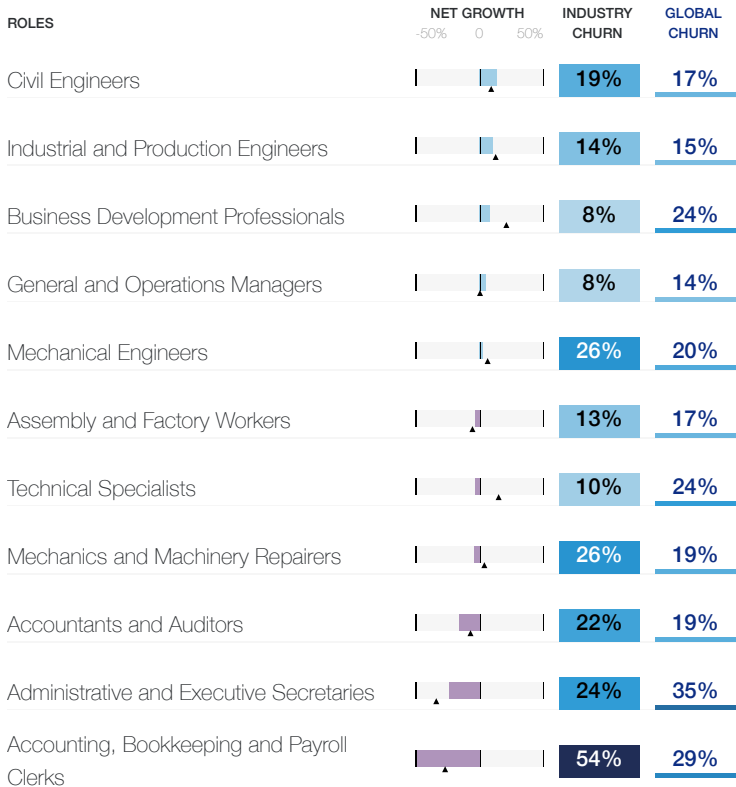
Five-year structural labour-force churn (percent)

19%

Global 23%

### Key roles for business transformation

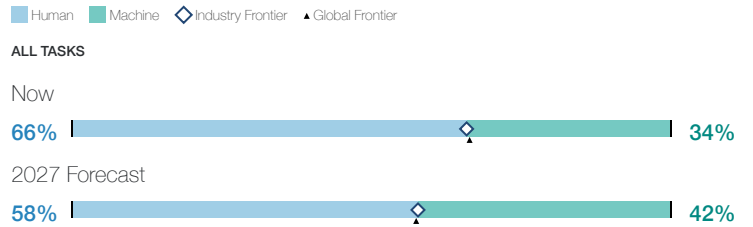
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

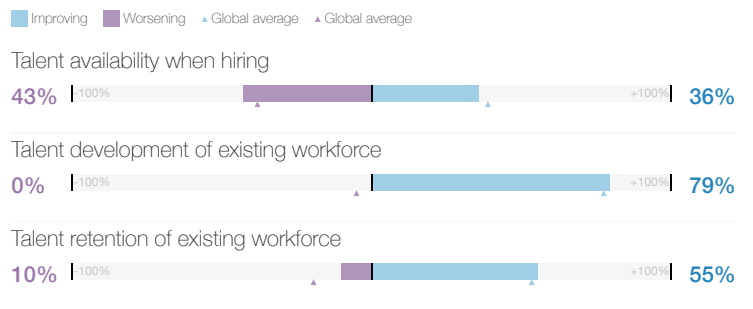
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



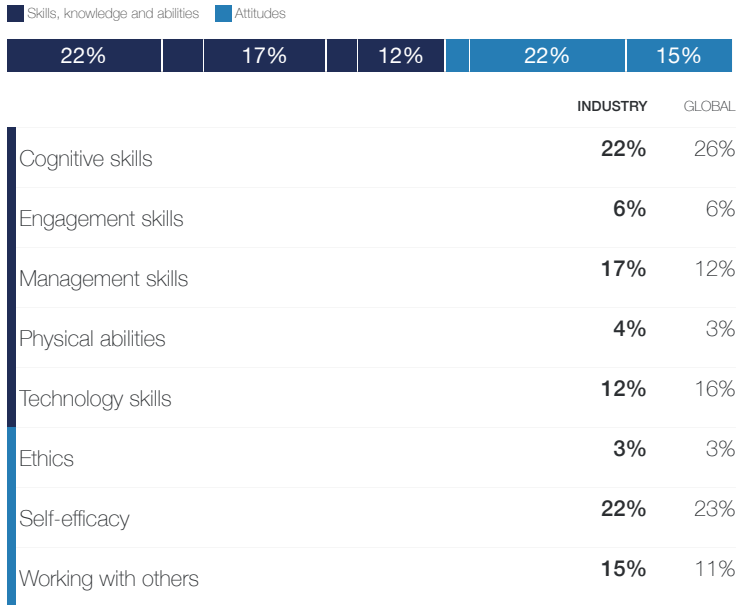
# Mining and Metals

9.1

## Skill outlook

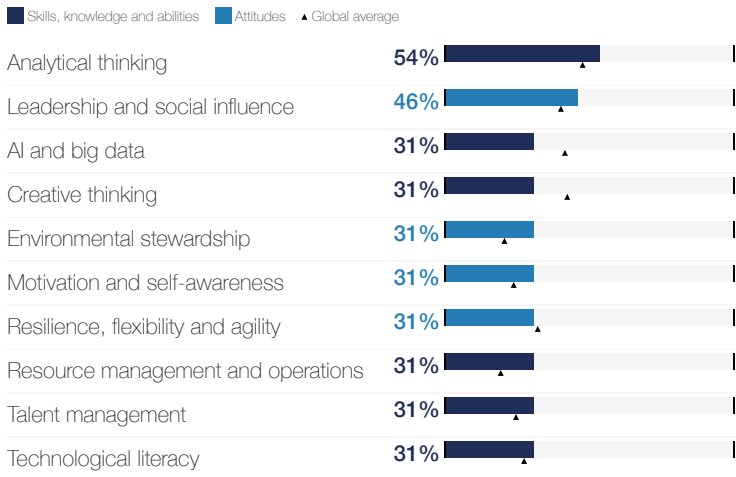
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

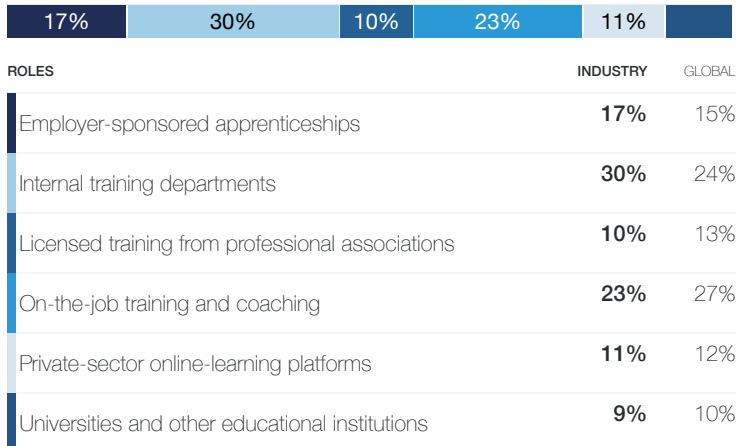
Skills required by the workforce that are expected to remain the same (share of all skills required)

57%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

68%

Global 67%

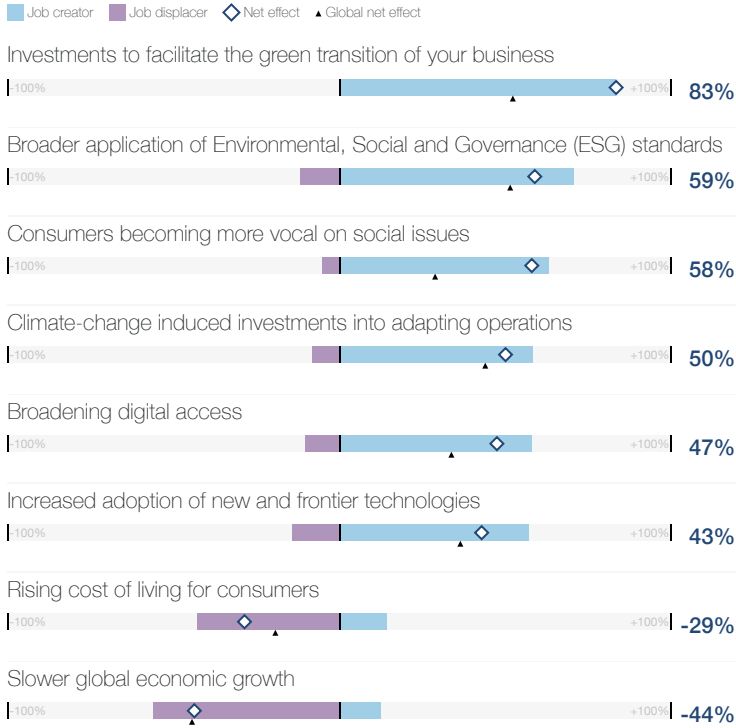
# Non-governmental and Membership Organisations

24.1

## Trend outlook

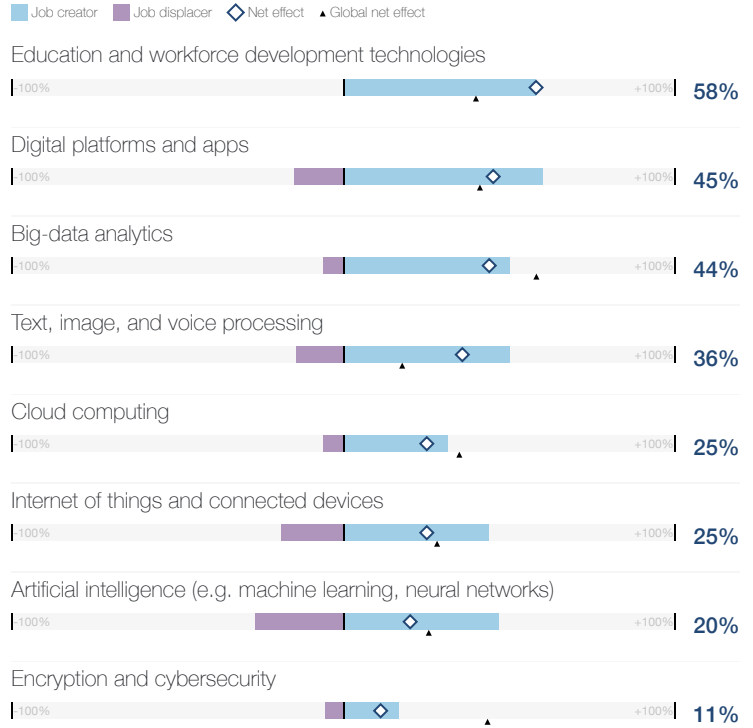
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

24%

Global 23%

### Key roles for business transformation

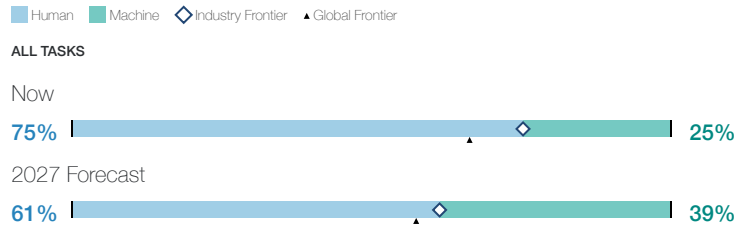
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)

ROLES	NET GROWTH	INDUSTRY CHURN	GLOBAL CHURN
	-50% 0 50%		
General and Operations Managers	▲	11%	14%
Project Managers	▲	9%	25%
Client Information and Customer Service Workers	▲	17%	20%
Social Work and Counselling Professionals	▲	7%	23%
Managing Directors and Chief Executives	▲	6%	17%
Relationship Managers	▲	11%	31%
Business Services and Administration Managers	▲	21%	22%
Lawyers	▲	32%	18%
Data Analysts and Scientists	▲	42%	34%
Accountants and Auditors	▲	32%	19%
Administrative and Executive Secretaries	▲	35%	35%
Accounting, Bookkeeping and Payroll Clerks	▲	62%	29%

## Human-machine frontier

### Human-machine frontier

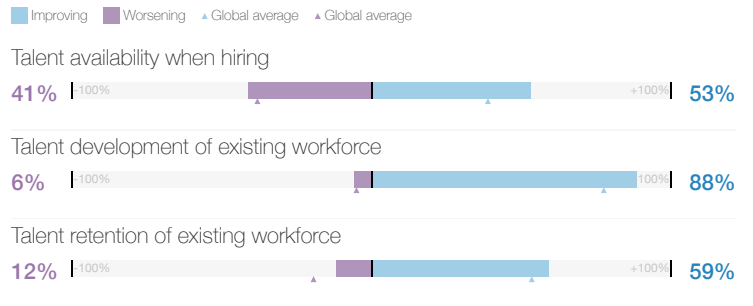
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



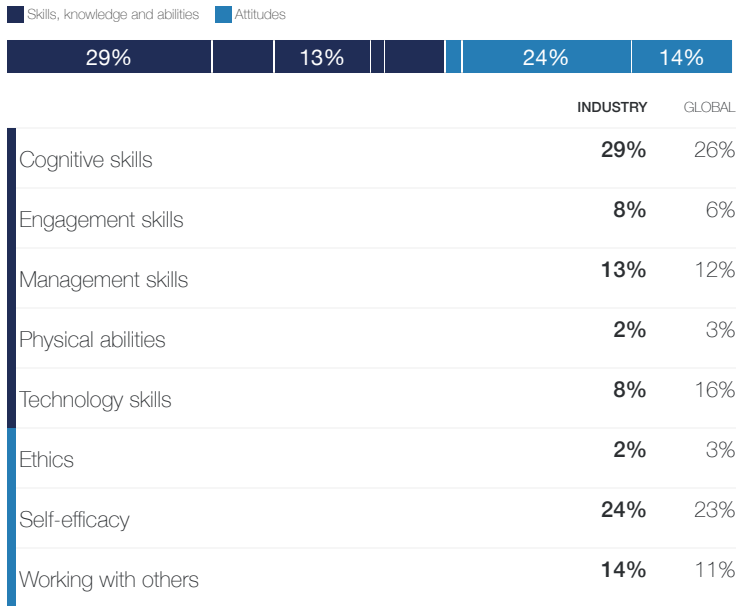
# Non-governmental and Membership Organisations

24.1

## Skill outlook

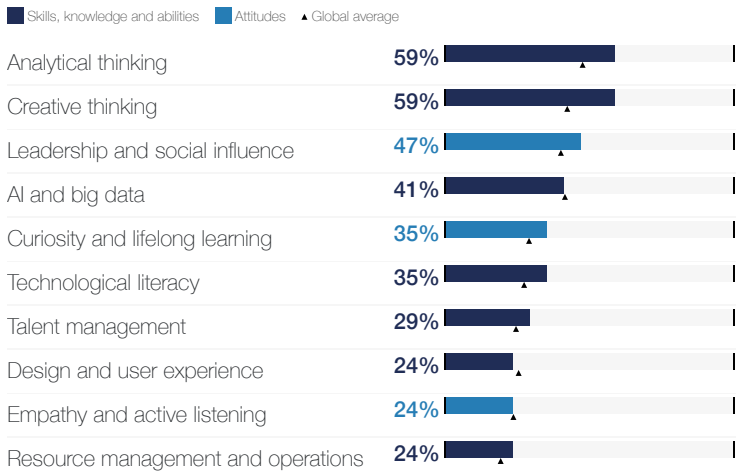
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

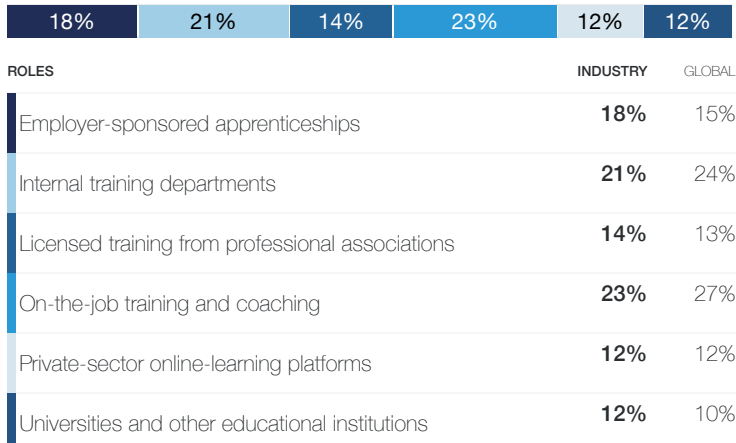
Skills required by the workforce that are expected to remain the same (share of all skills required)

49%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

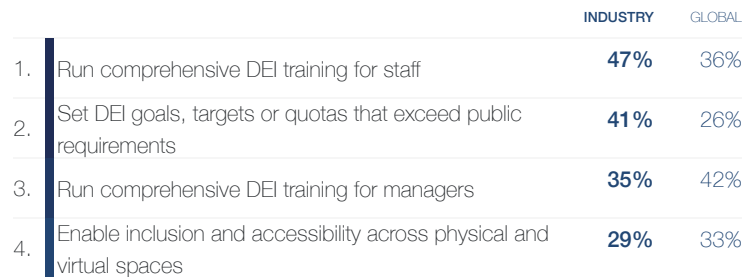
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

65%

Global 67%

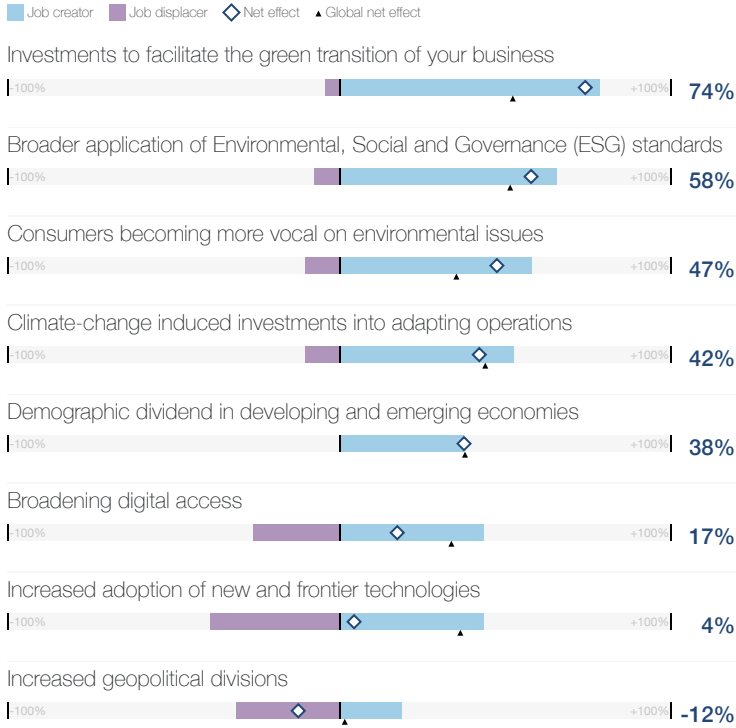
# Oil and gas

6.1

## Trend outlook

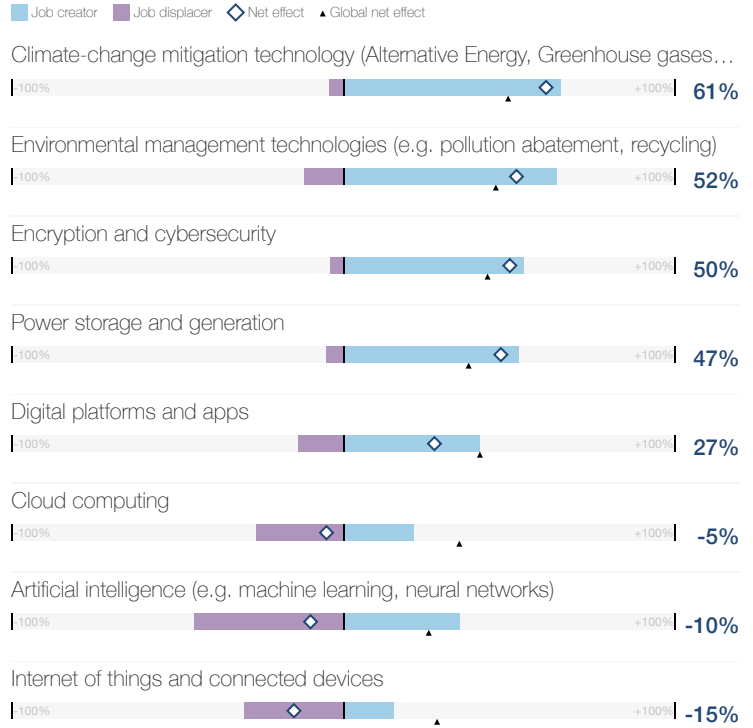
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

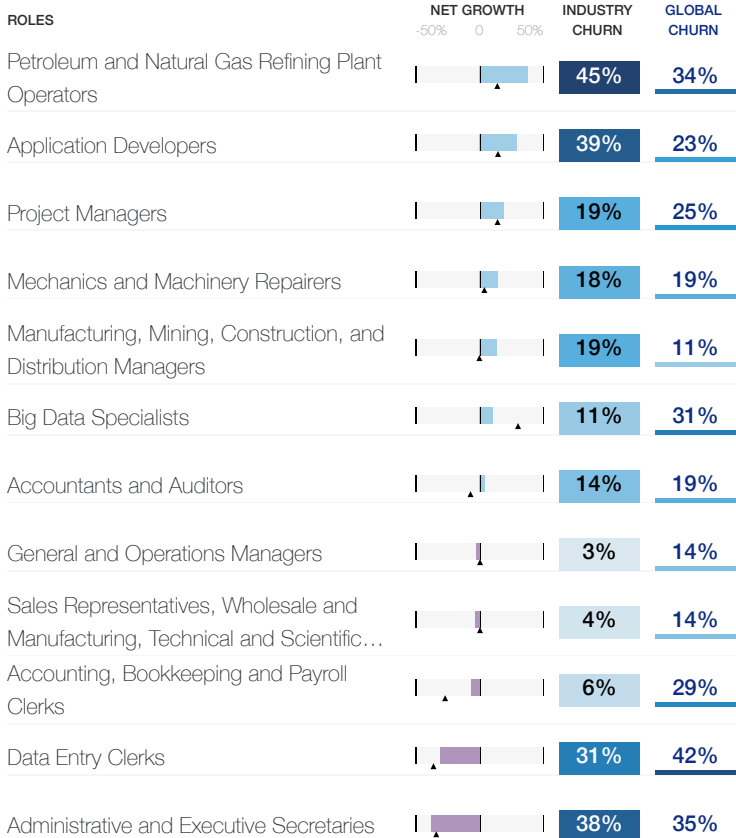
Five-year structural labour-force churn (percent)

20%

Global 23%

### Key roles for business transformation

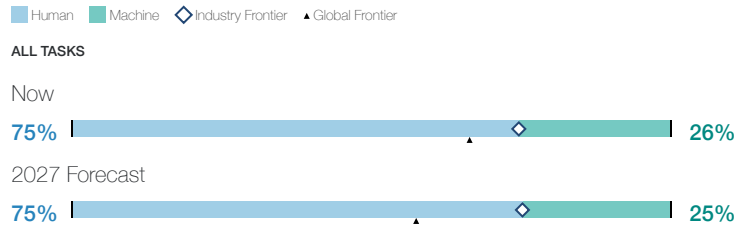
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

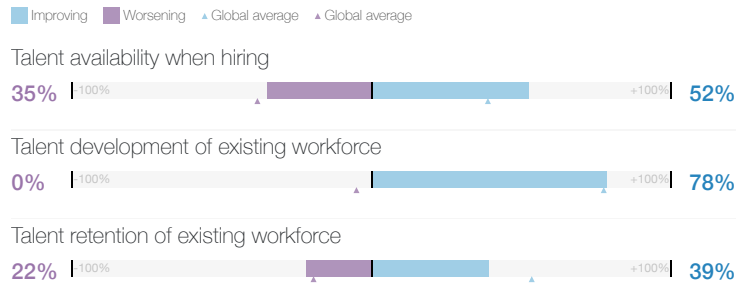
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



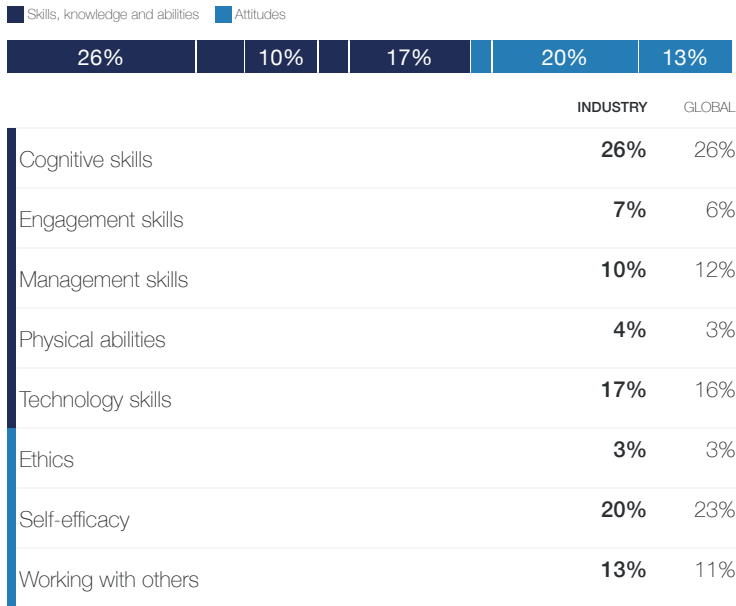
# Oil and gas

6.1

## Skill outlook

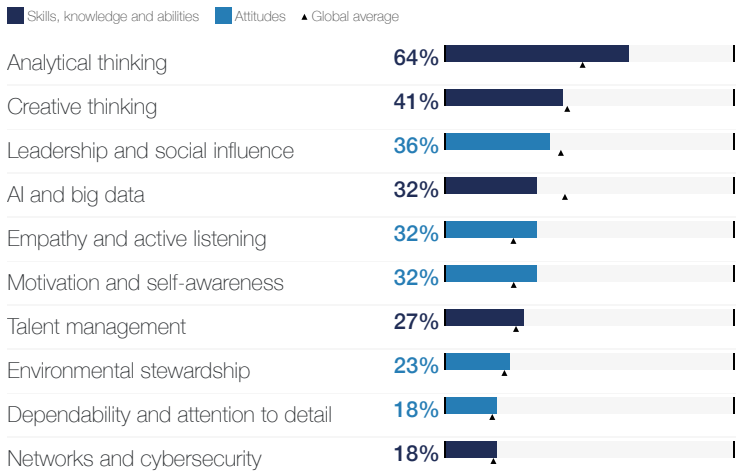
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

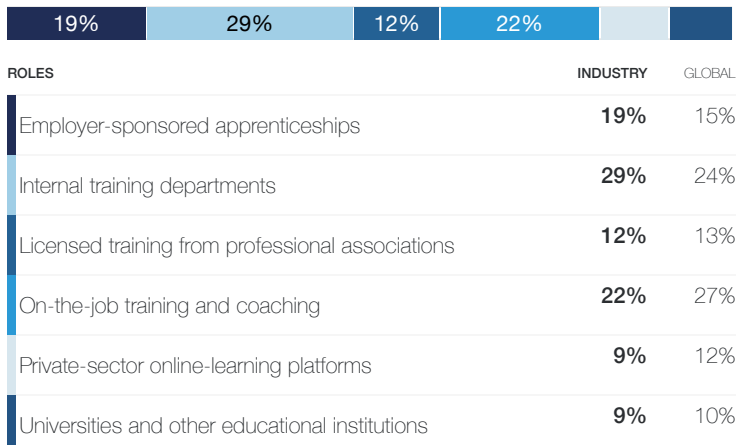
Skills required by the workforce that are expected to remain the same (share of all skills required)

**53%**

Global **56%**

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

**57%**

Global **67%**

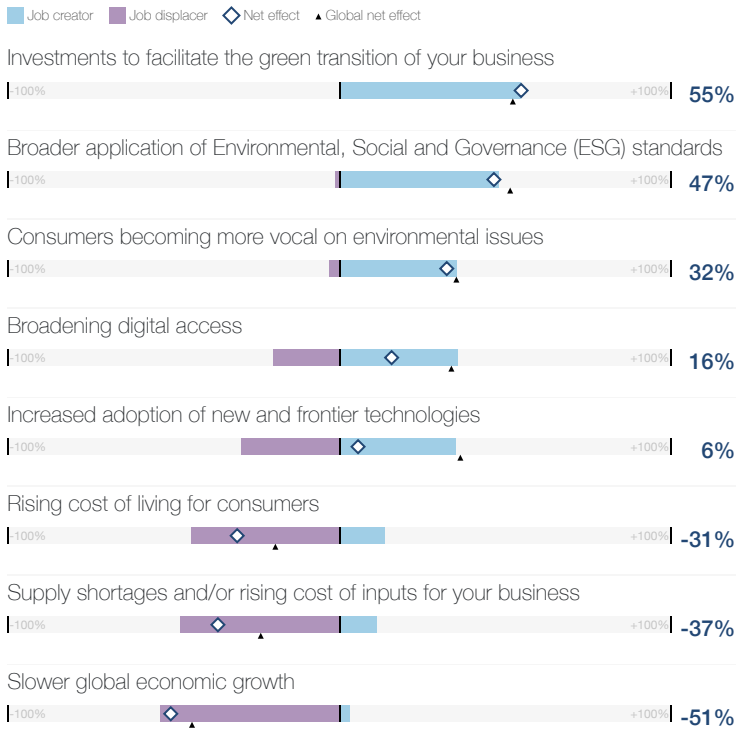
# Production of consumer goods

167.8

## Trend outlook

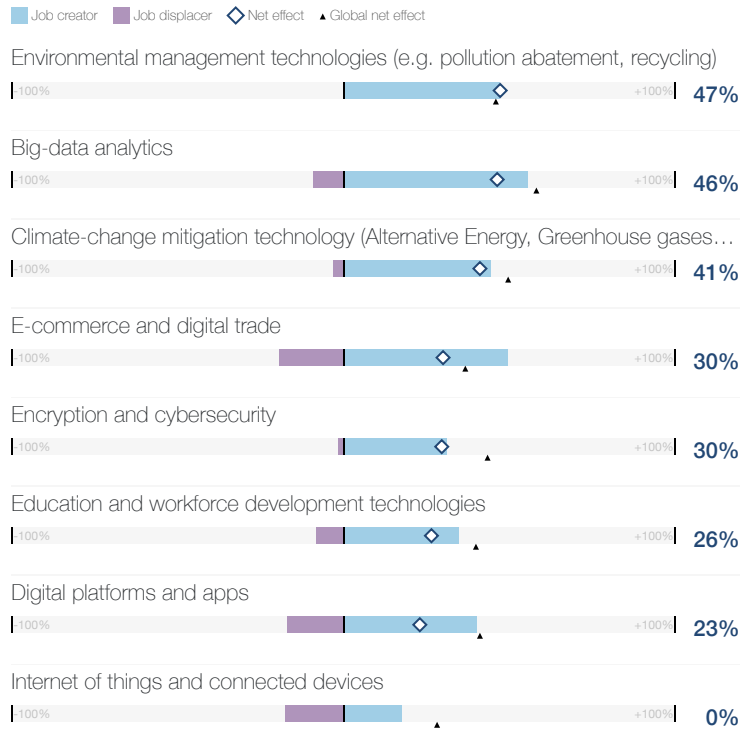
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



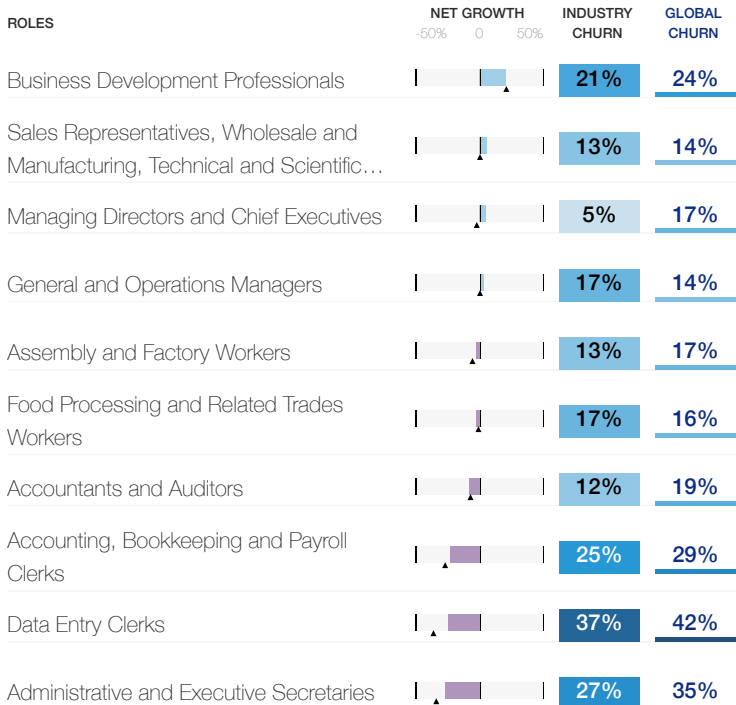
## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent) **21%** Global 23%

### Key roles for business transformation

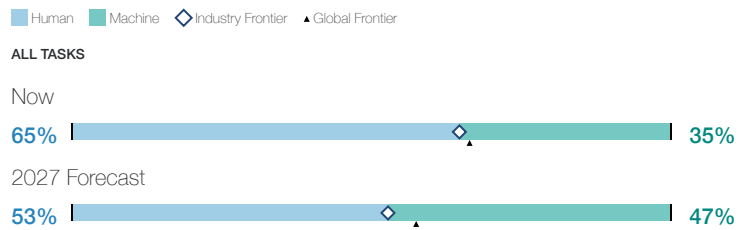
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

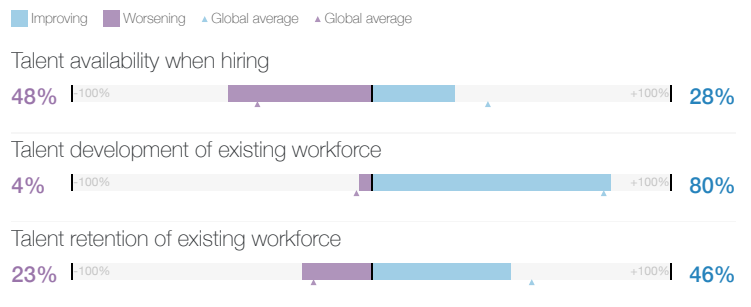
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



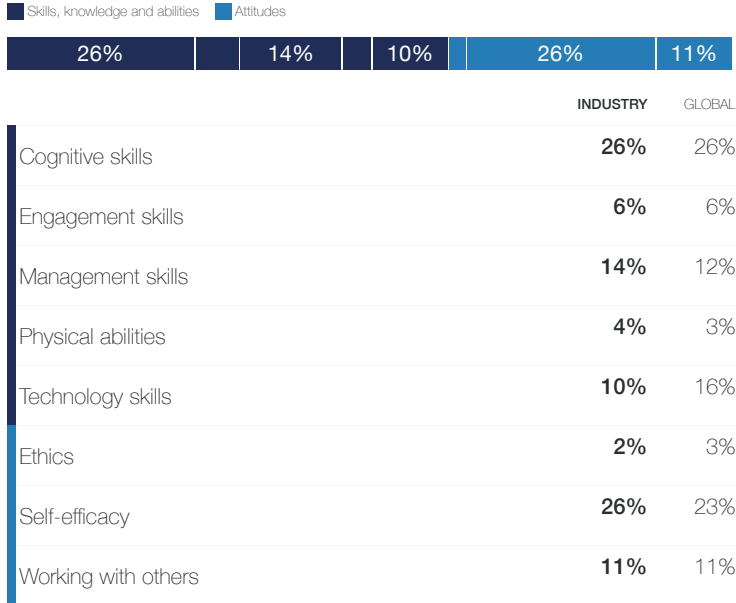
# Production of consumer goods

167.8

## Skill outlook

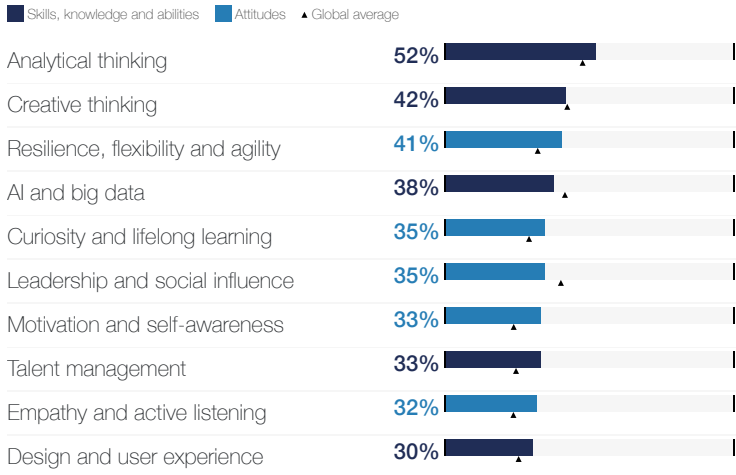
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

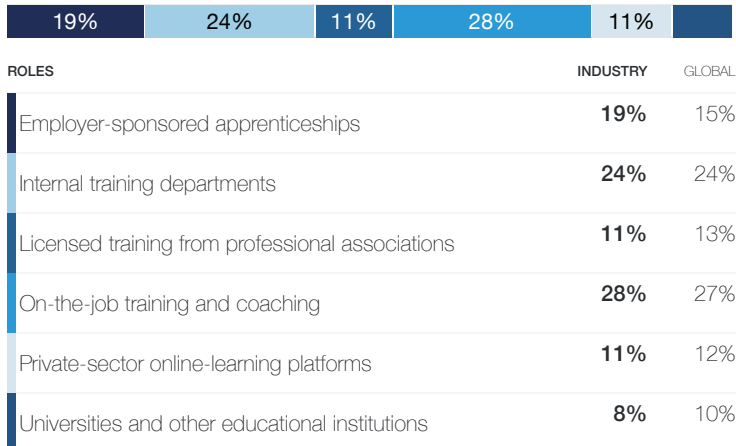
Skills required by the workforce that are expected to remain the same (share of all skills required)

59%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

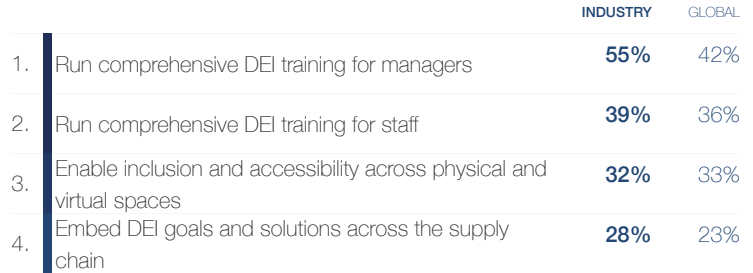
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

60%

Global 67%

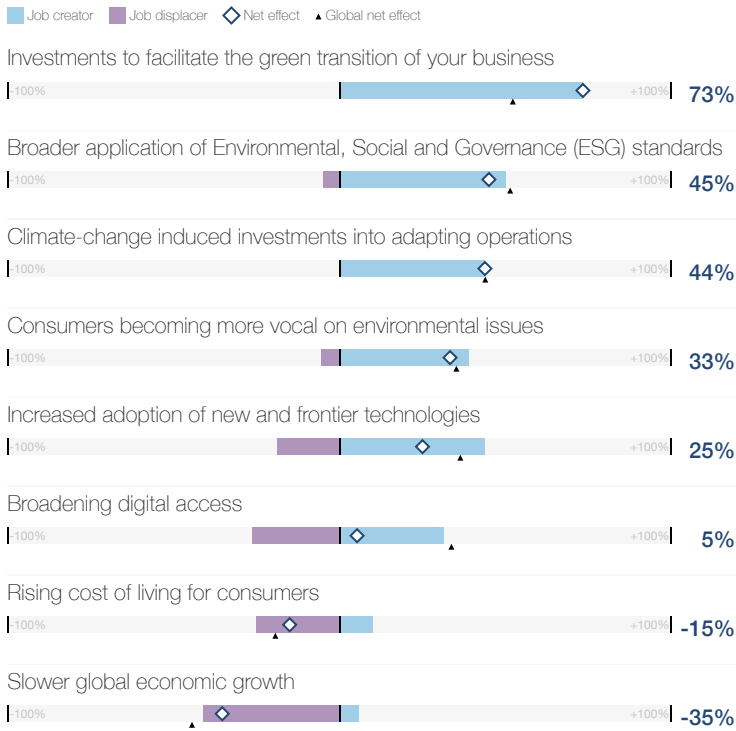
# Real estate

14.2

## Trend outlook

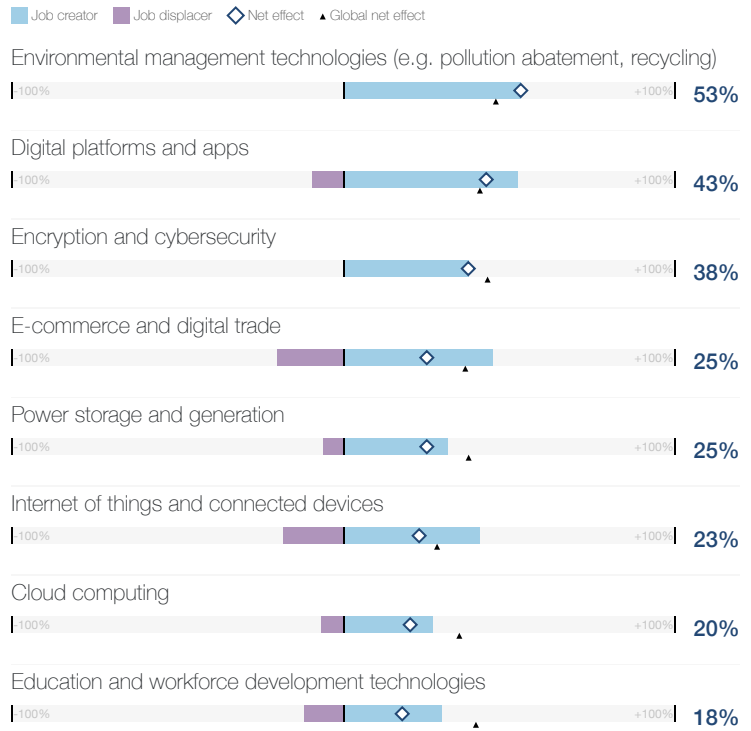
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

27%

Global 23%

### Key roles for business transformation

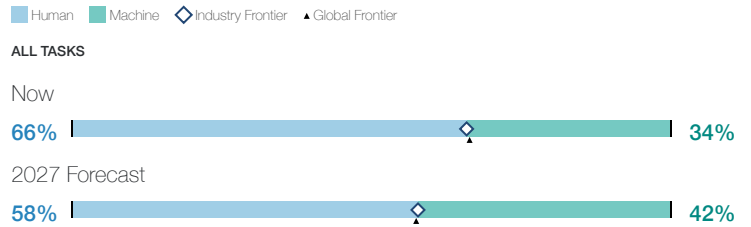
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

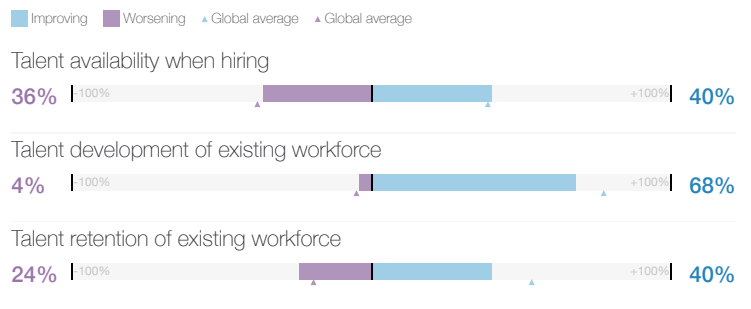
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



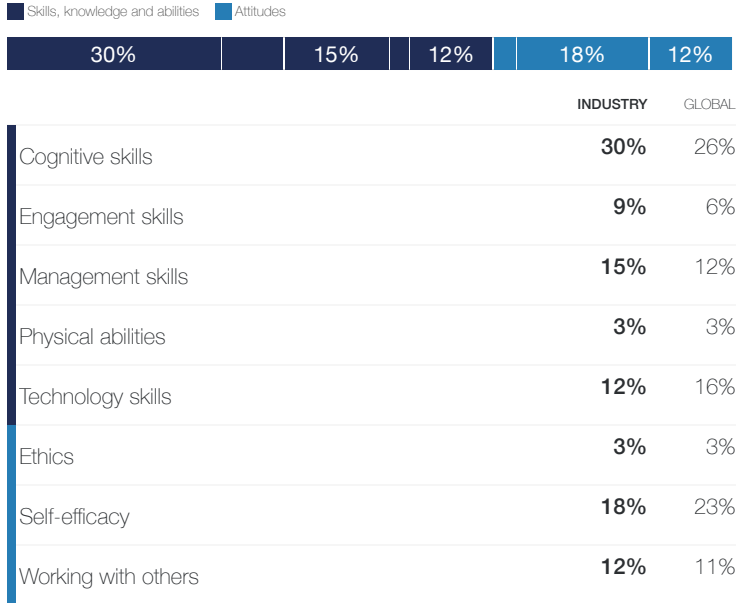
# Real estate

14.2

## Skill outlook

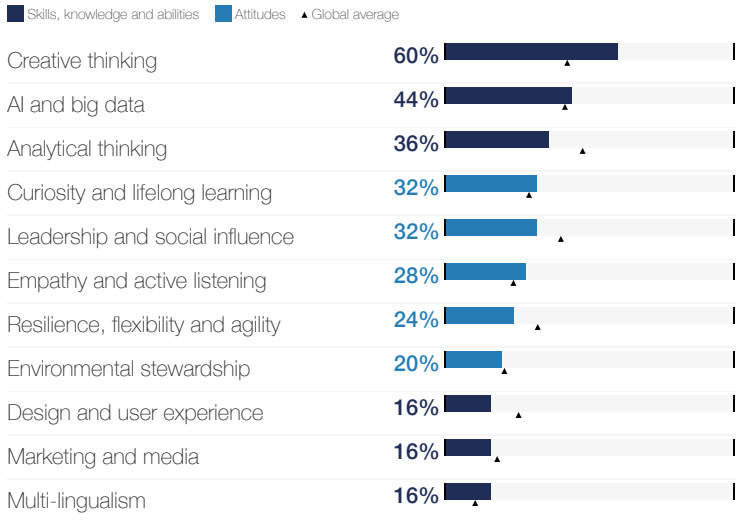
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

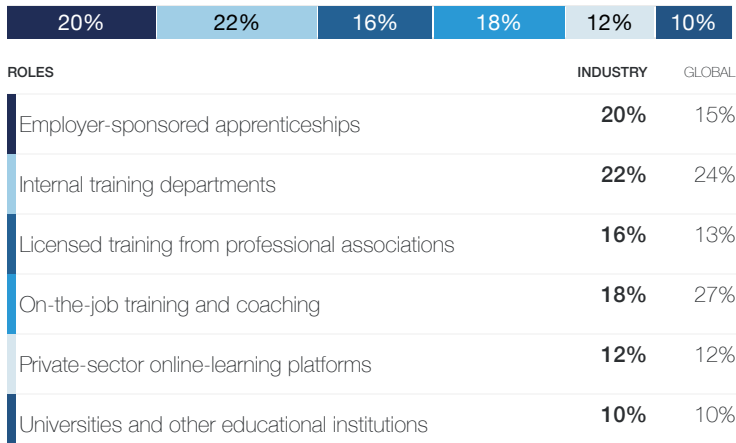
Skills required by the workforce that are expected to remain the same (share of all skills required)

**54%**

Global **56%**

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

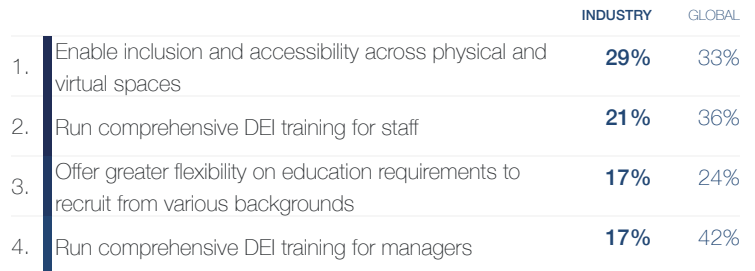
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

**38%**

Global **67%**

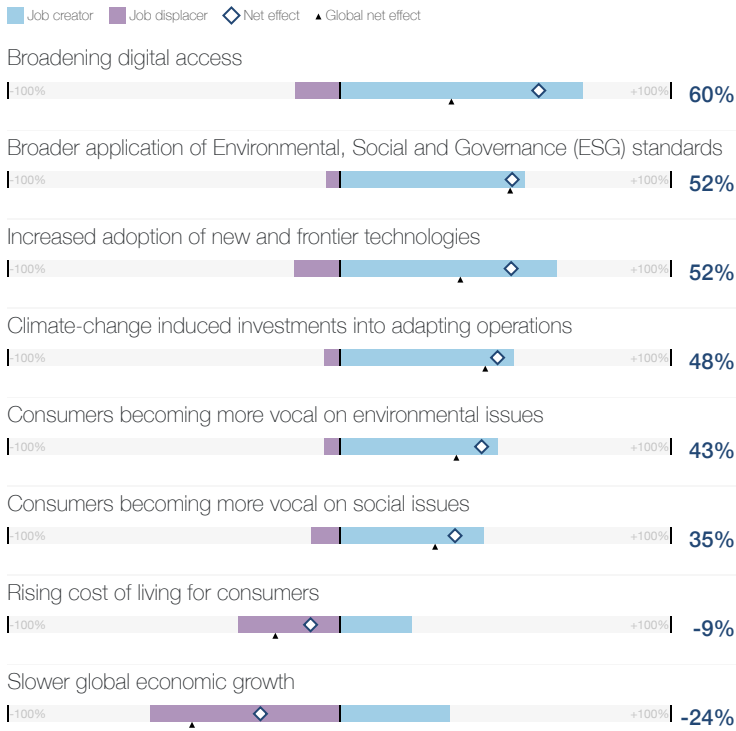
# Research, design and business management services

39.6

## Trend outlook

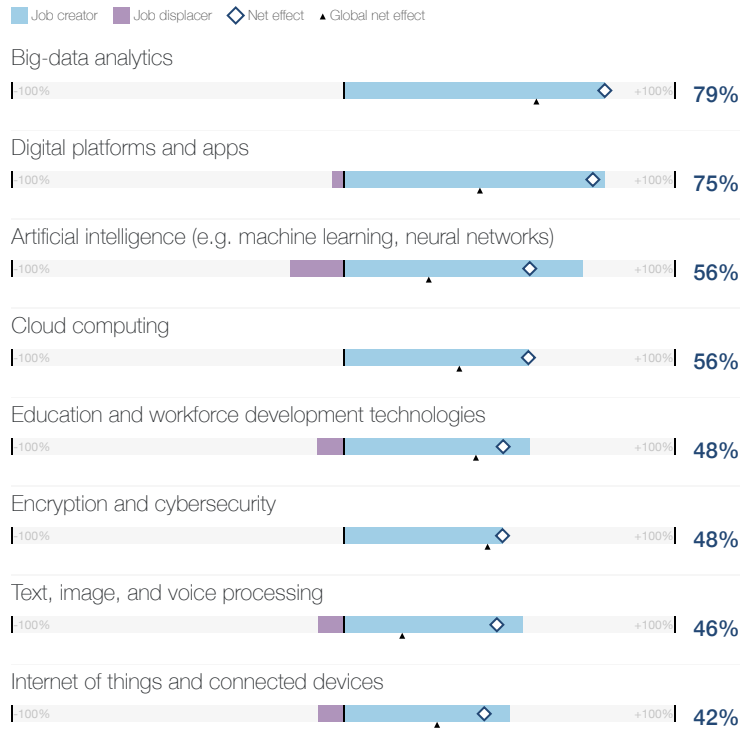
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

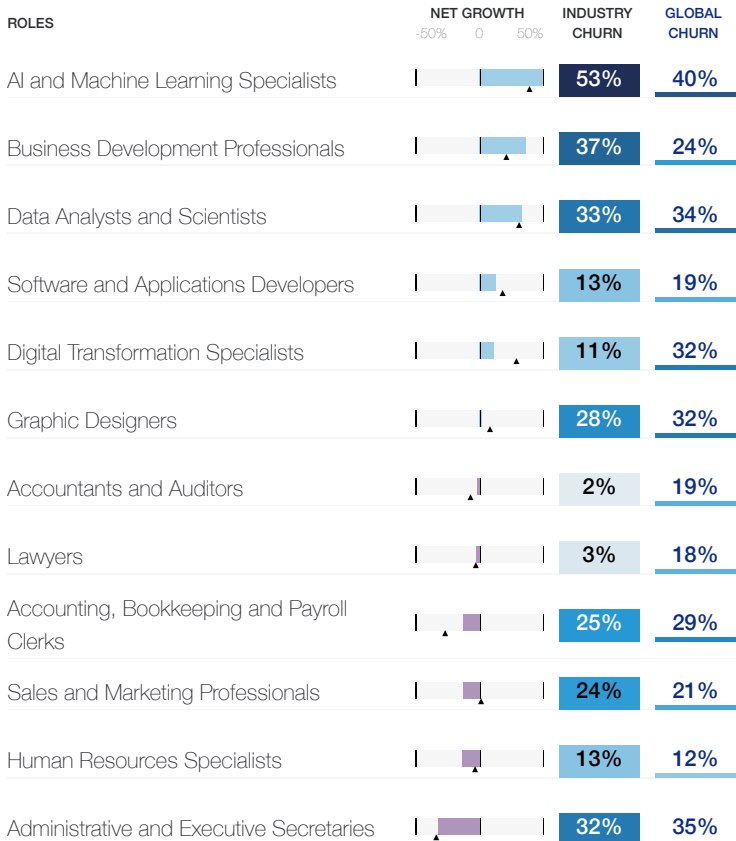
Five-year structural labour-force churn (percent)

22%

Global 23%

### Key roles for business transformation

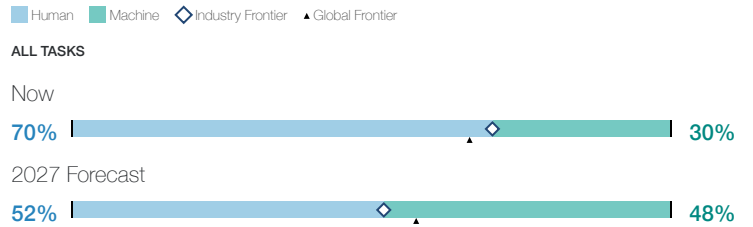
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

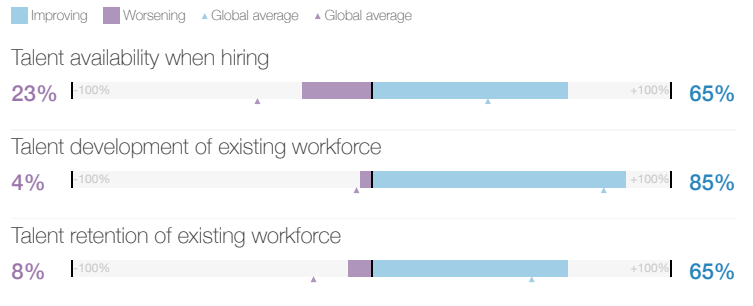
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



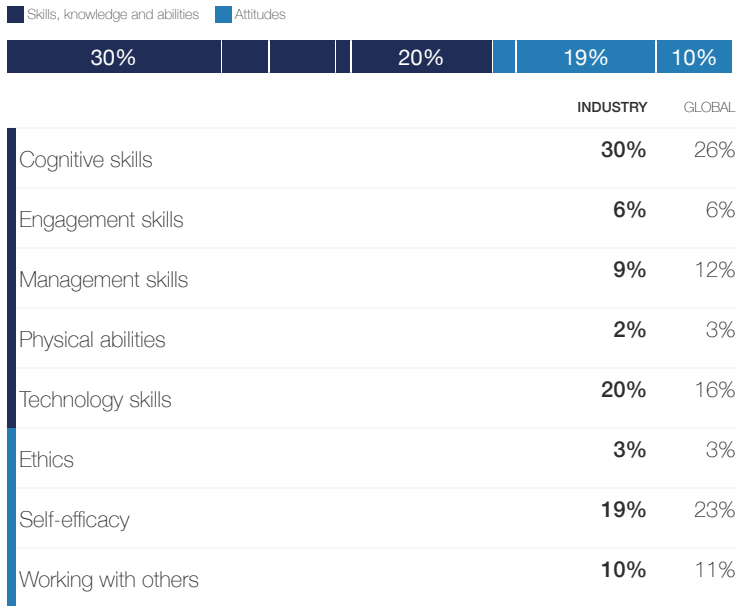
# Research, design and business management services

39.6

## Skill outlook

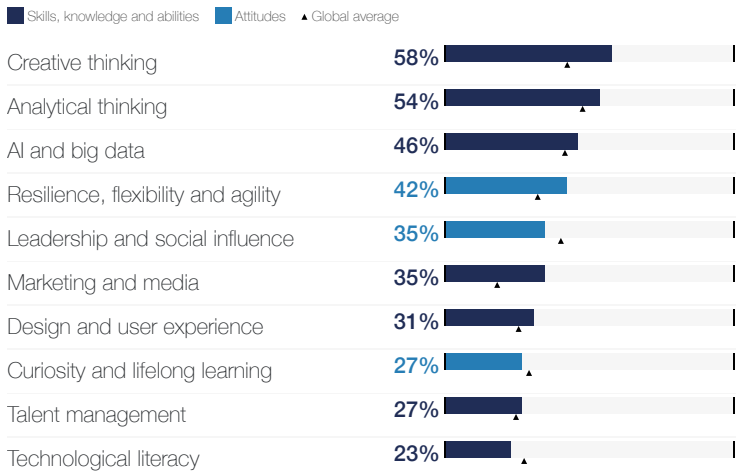
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

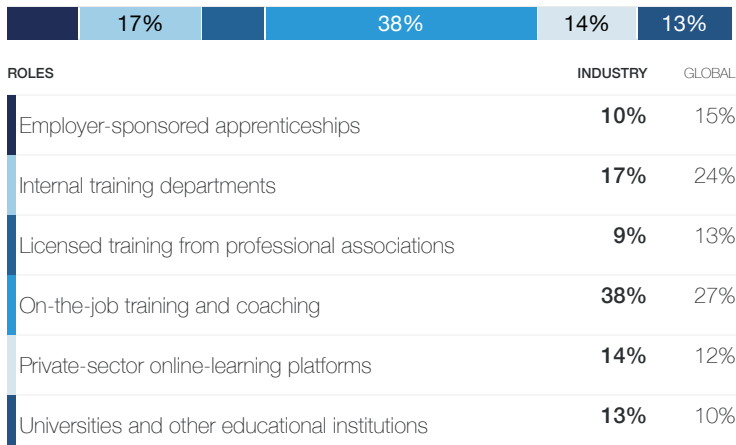
Skills required by the workforce that are expected to remain the same (share of all skills required)

50%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



## Workforce strategy outlook

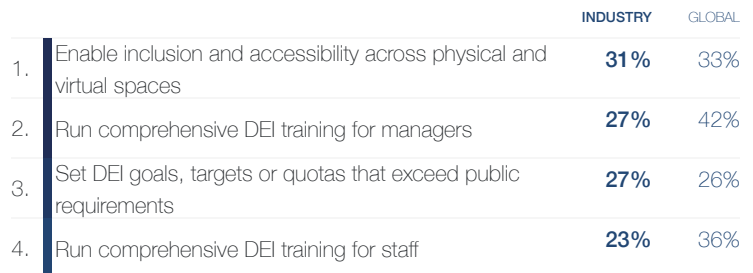
### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)



### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)



### Share of companies with DEI Programs

(share of organizations surveyed)

50%

Global 67%

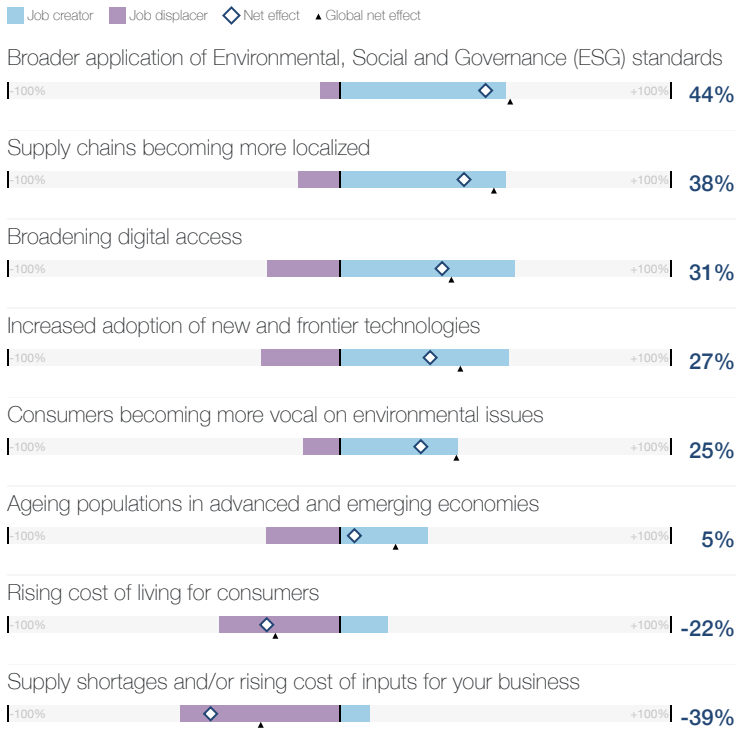
# Retail and wholesale of consumer goods

145.2

## Trend outlook

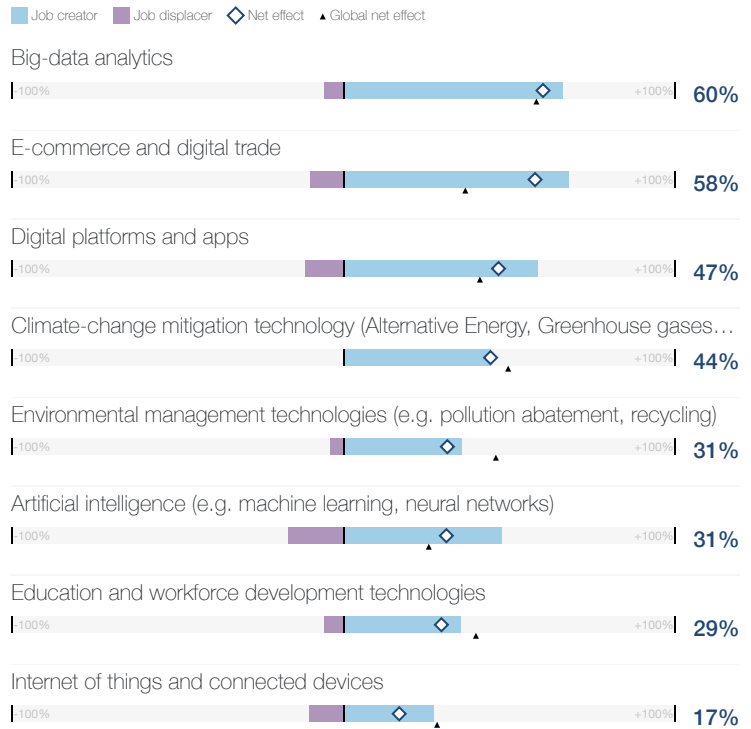
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

21%

Global 23%

### Key roles for business transformation

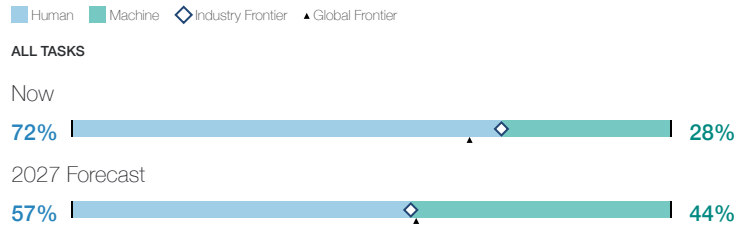
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Human-machine frontier

### Human-machine frontier

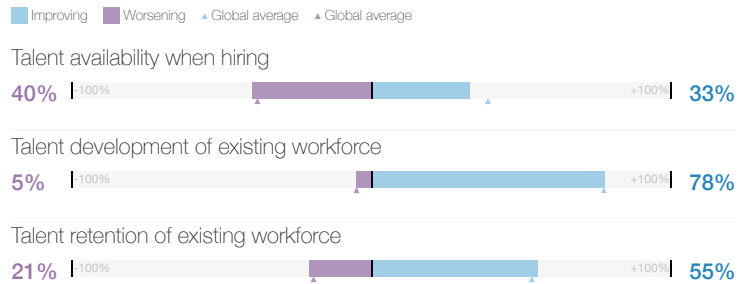
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



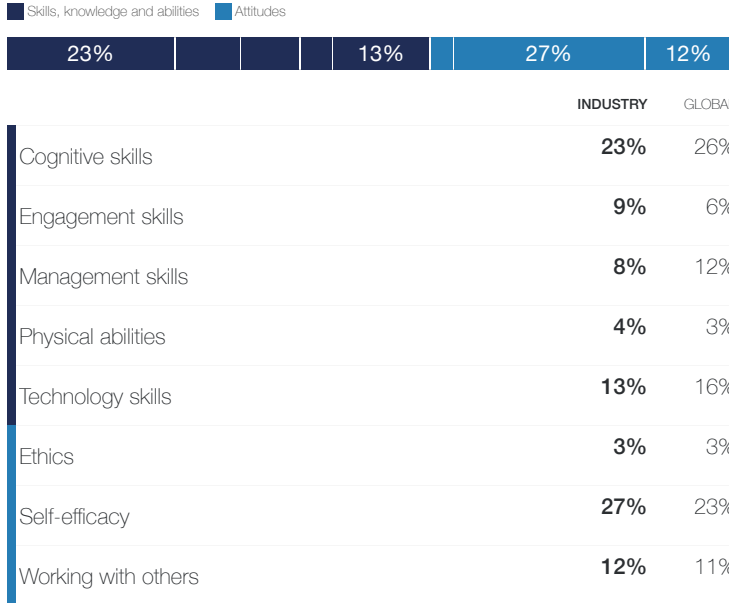
# Retail and wholesale of consumer goods

145.2

## Skill outlook

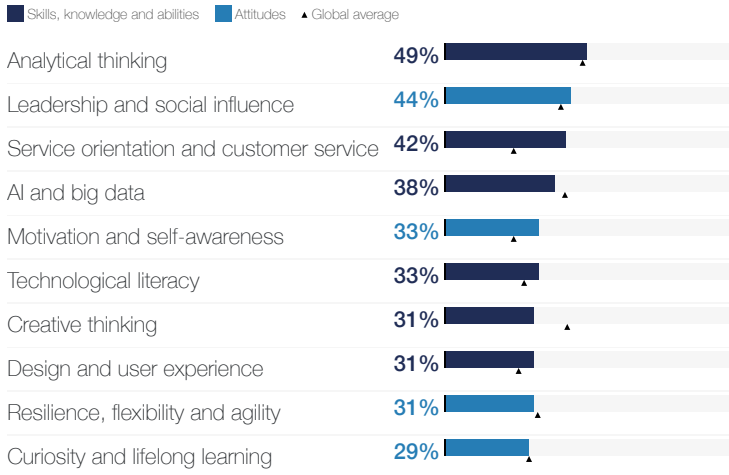
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

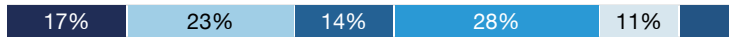
Skills required by the workforce that are expected to remain the same (share of all skills required)

54%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	INDUSTRY	GLOBAL
Employer-sponsored apprenticeships	17%	15%
Internal training departments	23%	24%
Licensed training from professional associations	14%	13%
On-the-job training and coaching	28%	27%
Private-sector online-learning platforms	11%	12%
Universities and other educational institutions	7%	10%

## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Improve talent progression and promotion processes	51%	48%
2. Offer higher wages	35%	35%
3. Improve working hours and overtime	30%	15%
4. Better articulate business purpose and impact	28%	24%
4. Improve internal-communication strategy	28%	19%
6. Provide effective reskilling and upskilling	26%	34%
7. More diversity, equity and inclusion policies and programmes	21%	18%
8. Improve people-and-culture metrics and reporting	16%	18%
8. Support employee health and well-being	16%	18%
10. Tapping into diverse talent pools	14%	10%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Run comprehensive DEI training for managers	45%	42%
2. Run comprehensive DEI training for staff	39%	36%
3. Enable inclusion and accessibility across physical and virtual spaces	30%	33%
4. Embed DEI goals and solutions across the supply chain	21%	23%
5. Provide greater flexibility on degree requirements for roles	21%	22%
6. Set DEI goals, targets or quotas that exceed public requirements	21%	26%

### Share of companies with DEI Programs

(share of organizations surveyed)

59%

Global 67%

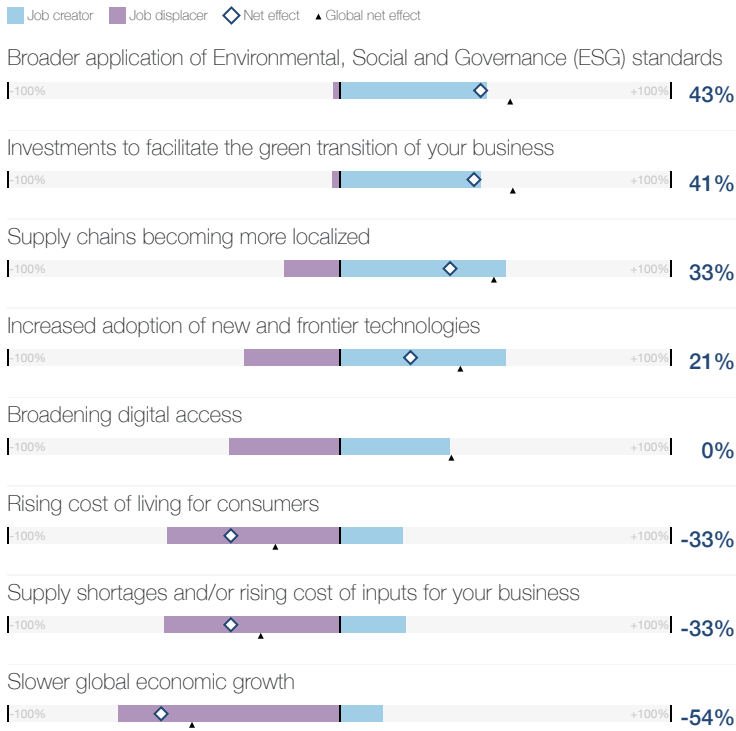
# Supply chain and transportation

245.6

## Trend outlook

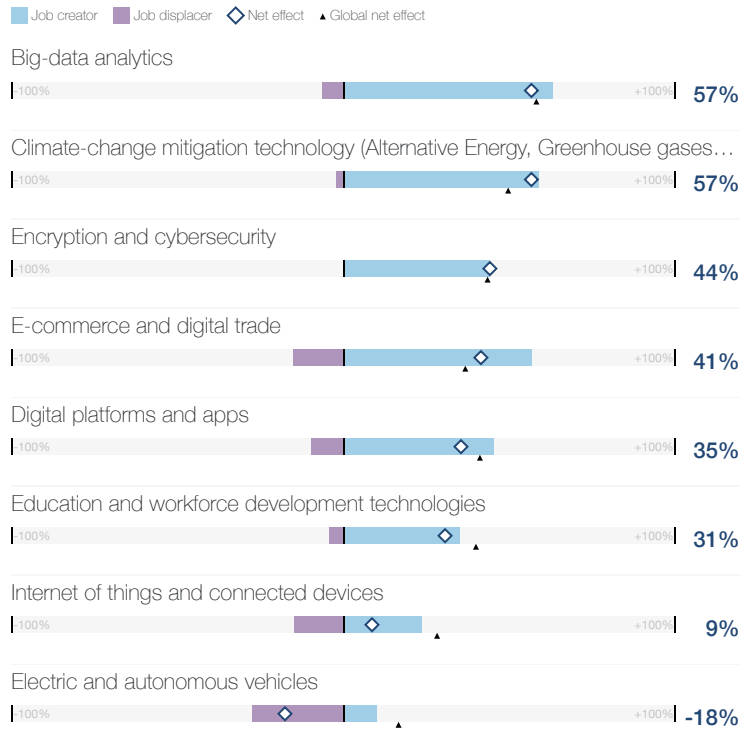
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

25%

Global 23%

### Key roles for business transformation

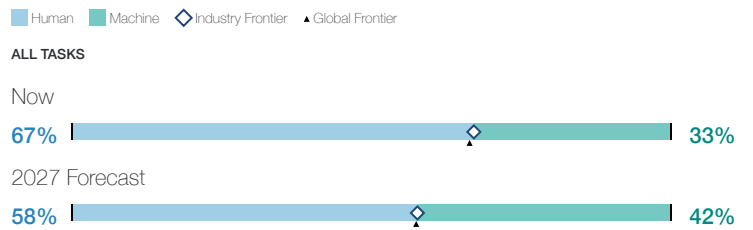
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)

ROLES	NET GROWTH	INDUSTRY CHURN	GLOBAL CHURN
	-50% 0 50%		
Business Development Professionals		24%	24%
Heavy Truck and Bus Drivers		26%	27%
Light Truck or Delivery Services Drivers		15%	18%
Managing Directors and Chief Executives		8%	17%
Supply Chain and Logistics Specialists		22%	20%
General and Operations Managers		18%	14%
Accountants and Auditors		13%	19%
Business Services and Administration Managers		23%	22%
Accounting, Bookkeeping and Payroll Clerks		41%	29%
Administrative and Executive Secretaries		54%	35%

## Human-machine frontier

### Human-machine frontier

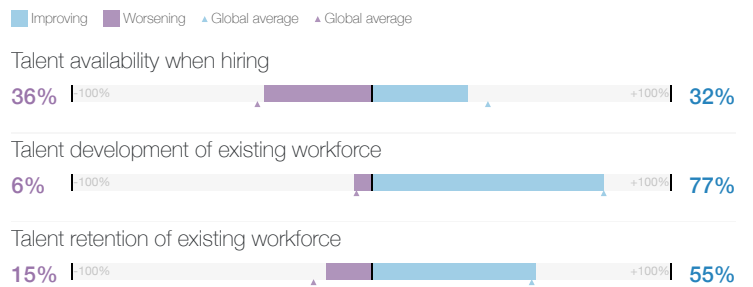
Tasks performed by humans and machines today and in 2027 (share of total)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



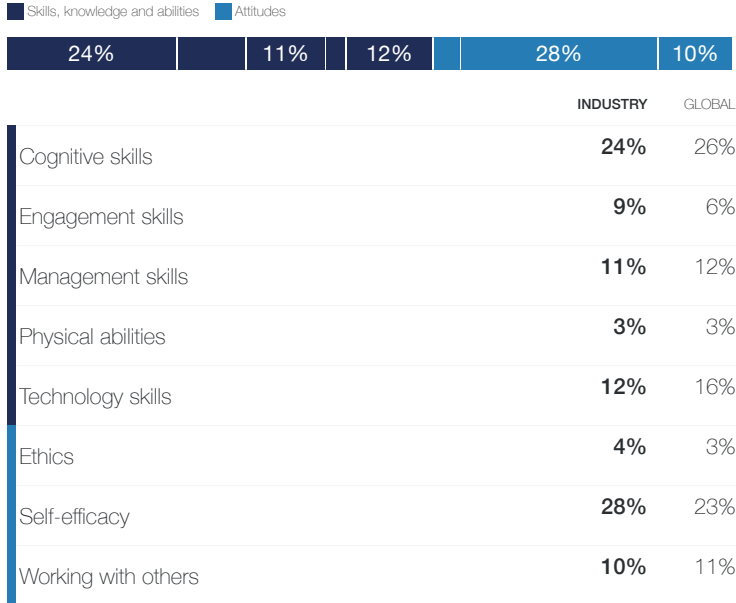
# Supply chain and transportation

245.6

## Skill outlook

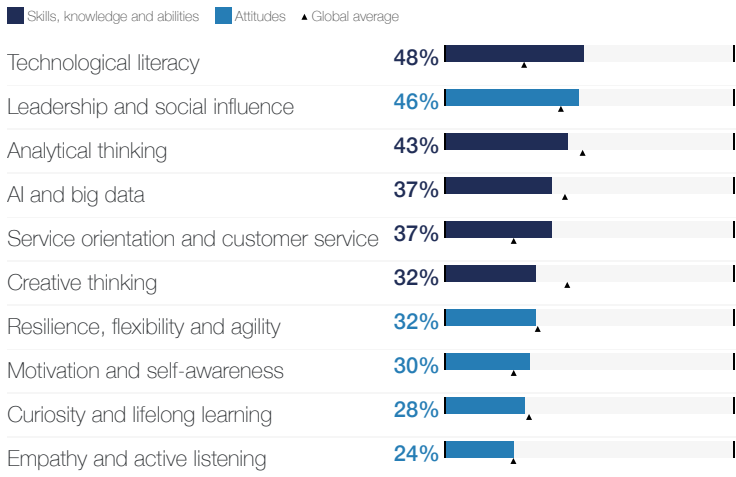
### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)



### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

60%

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	INDUSTRY	GLOBAL
Employer-sponsored apprenticeships	9%	15%
Internal training departments	26%	24%
Licensed training from professional associations	17%	13%
On-the-job training and coaching	29%	27%
Private-sector online-learning platforms	11%	12%
Universities and other educational institutions	7%	10%

## Workforce strategy outlook

### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Improve talent progression and promotion processes	49%	48%
2. Offer higher wages	37%	35%
3. Provide effective reskilling and upskilling	35%	34%
4. More diversity, equity and inclusion policies and programmes	26%	18%
5. Better articulate business purpose and impact	22%	24%
5. Improve people-and-culture metrics and reporting	22%	18%
5. Support employee health and well-being	22%	18%
8. Offer more remote and hybrid work opportunities within countries	20%	21%
9. Improve internal-communication strategy	14%	19%
10. Improve safety in the workplace	12%	8%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Run comprehensive DEI training for managers	47%	42%
2. Embed DEI goals and solutions across the supply chain	43%	23%
3. Run comprehensive DEI training for staff	39%	36%
4. Set DEI goals, targets or quotas that exceed public requirements	37%	26%
5. Enable inclusion and accessibility across physical and virtual spaces	33%	33%

### Share of companies with DEI Programs

(share of organizations surveyed)

78%

Global 67%



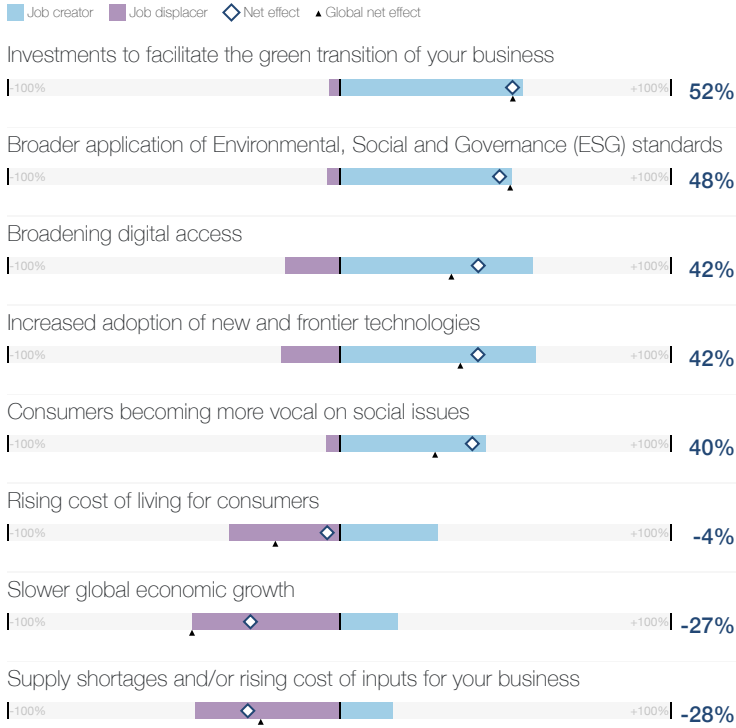
# Region Profiles

# Central Asia

## Trend outlook

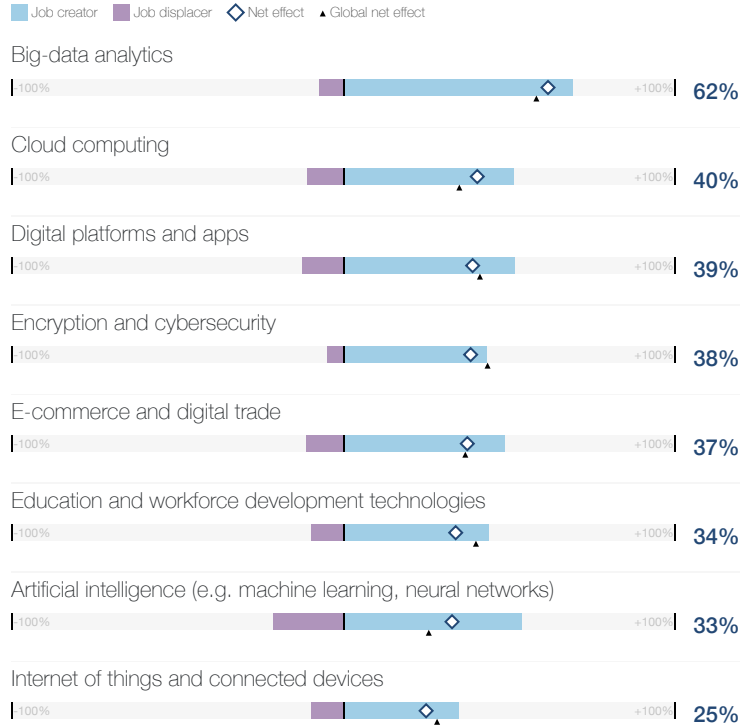
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

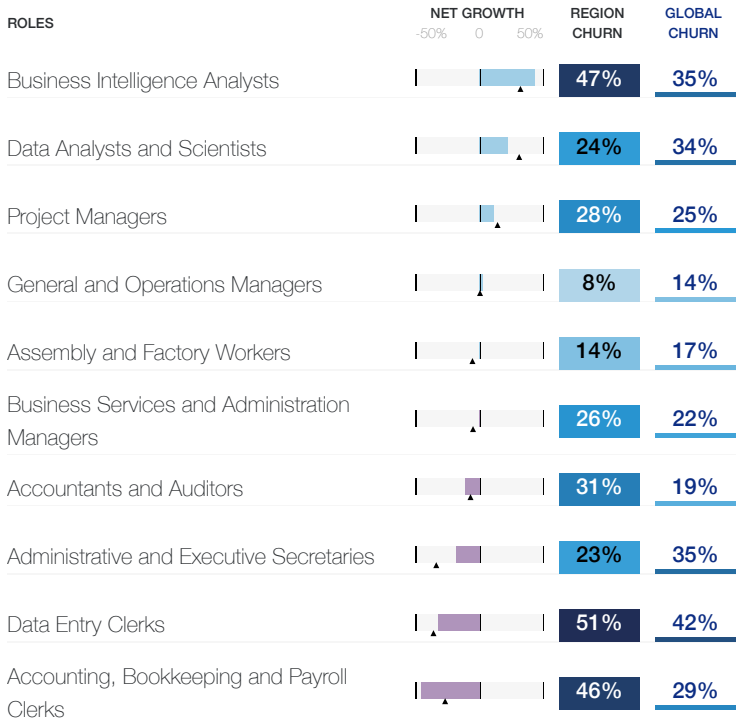
Five-year structural labour-force churn (percent)

**25%**

Global 23%

### Key roles for business transformation

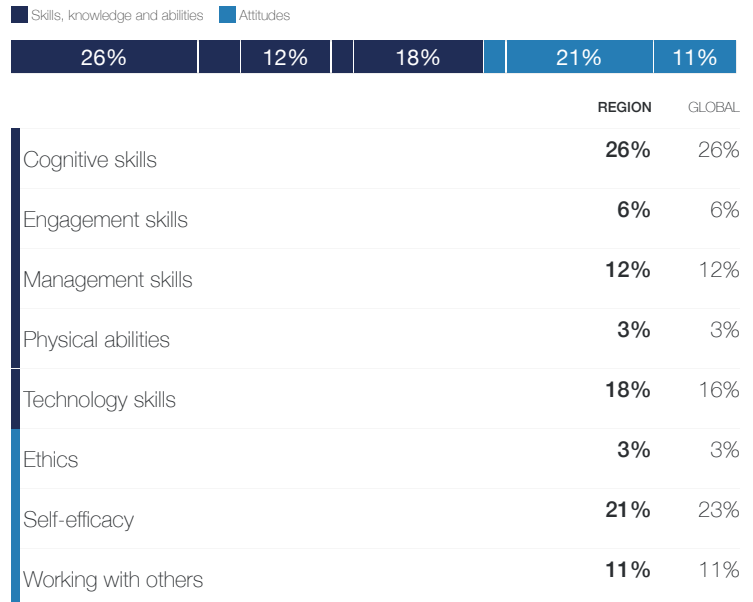
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Skill outlook

### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

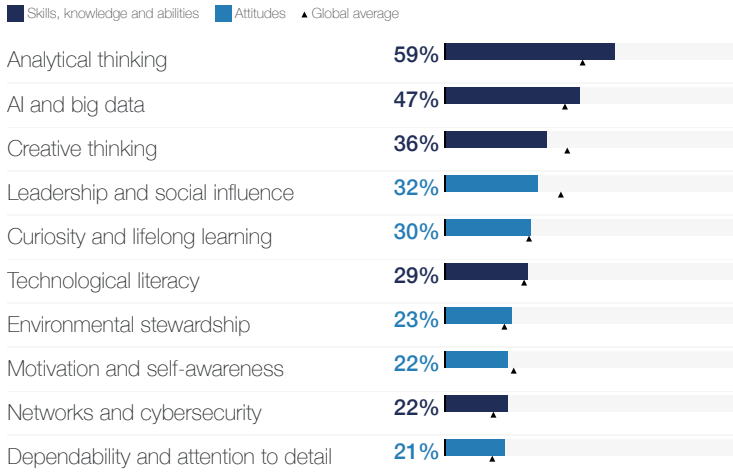


# Central Asia

## Skill outlook

### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

**53%**

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	REGION	GLOBAL
Employer-sponsored apprenticeships	14%	15%
Internal training departments	23%	24%
Licensed training from professional associations	15%	13%
On-the-job training and coaching	22%	27%
Private-sector online-learning platforms	16%	12%
Universities and other educational institutions	11%	10%

### Training funding

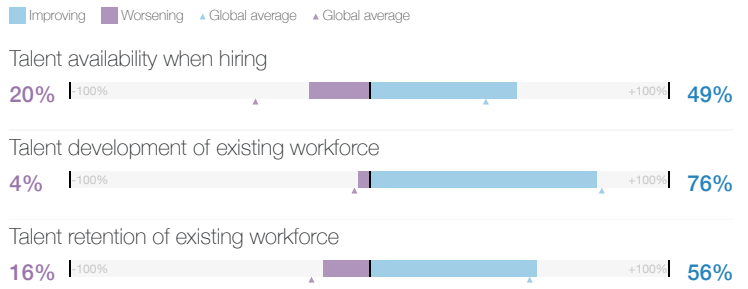
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)

	REGION	GLOBAL
Co-funding across the industry	25%	16%
Free-of-cost training	31%	28%
Funded by government	22%	22%
Funded by my organization	74%	87%
Public-private hybrid funding	37%	24%

## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Offer higher wages	48%	35%
2. Improve talent progression and promotion processes	46%	48%
3. Provide effective reskilling and upskilling	29%	34%
4. Improve working hours and overtime	22%	15%
5. Improve internal-communication strategy	19%	19%
6. Improve people-and-culture metrics and reporting	18%	18%
6. Support employee health and well-being	18%	18%
8. Offer more remote and hybrid work opportunities within countries	17%	21%
9. More diversity, equity and inclusion policies and programmes	17%	18%
10. Improve safety in the workplace	16%	8%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	REGION	GLOBAL
1. Run comprehensive DEI training for managers	35%	42%
2. Run comprehensive DEI training for staff	32%	36%
3. Enable inclusion and accessibility across physical and virtual spaces	31%	33%
4. Embed DEI goals and solutions across the supply chain	23%	23%

### Share of companies with DEI Programs

(share of organizations surveyed)

**53%**

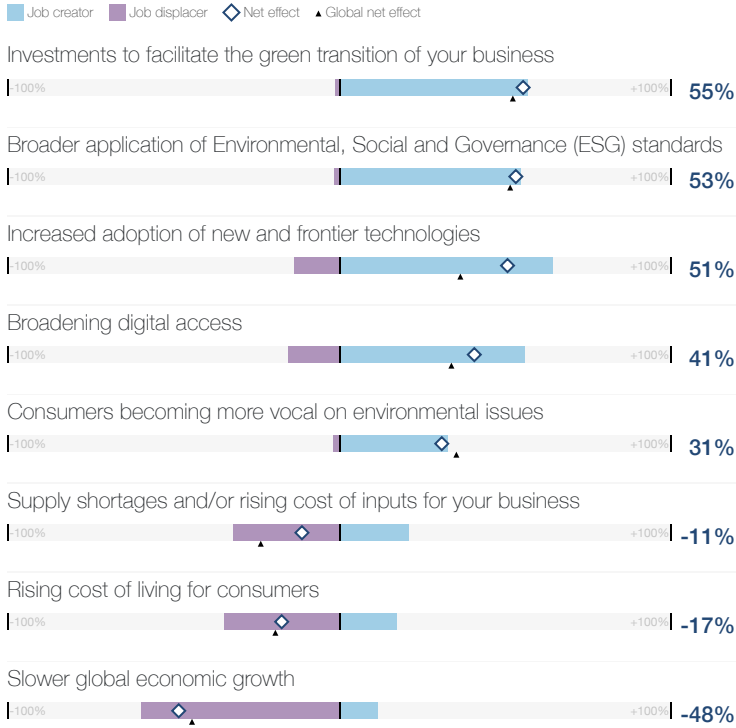
Global 67%

# East Asia and the Pacific

## Trend outlook

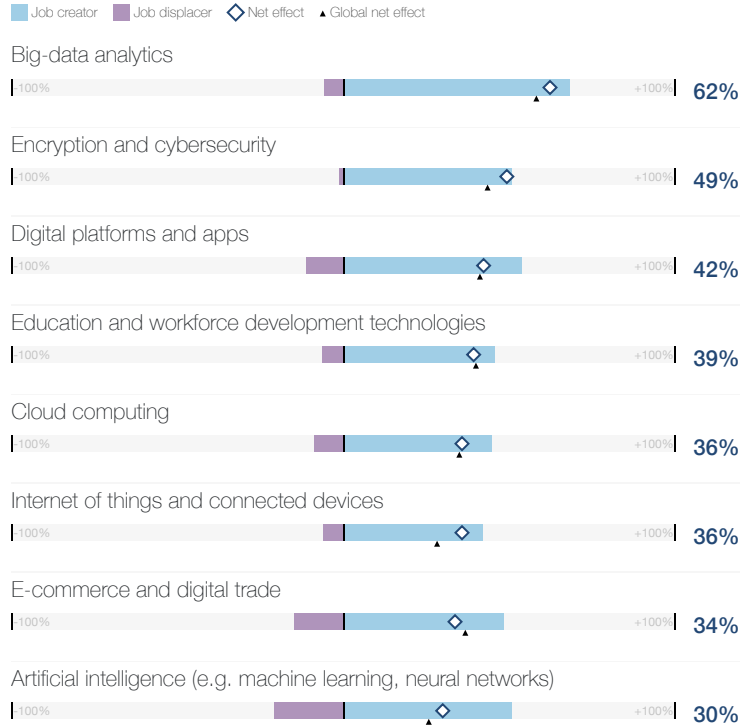
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

**22%**

Global 23%

### Key roles for business transformation

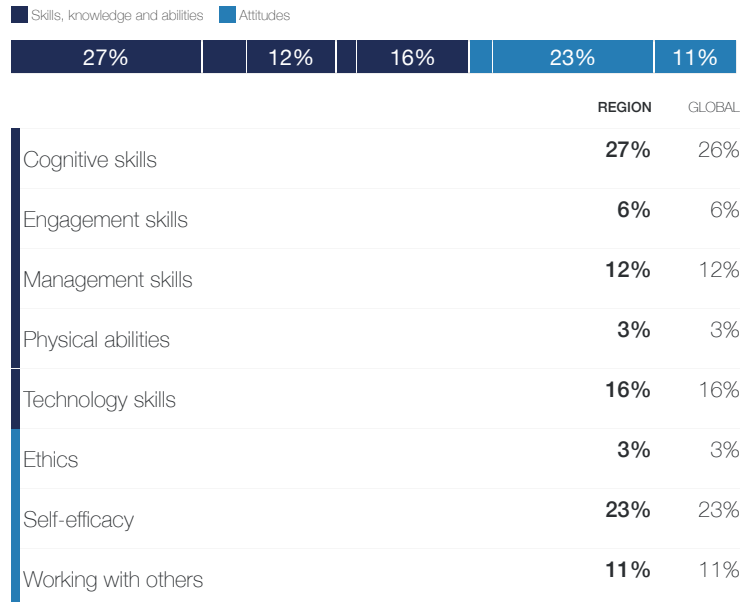
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Skill outlook

### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

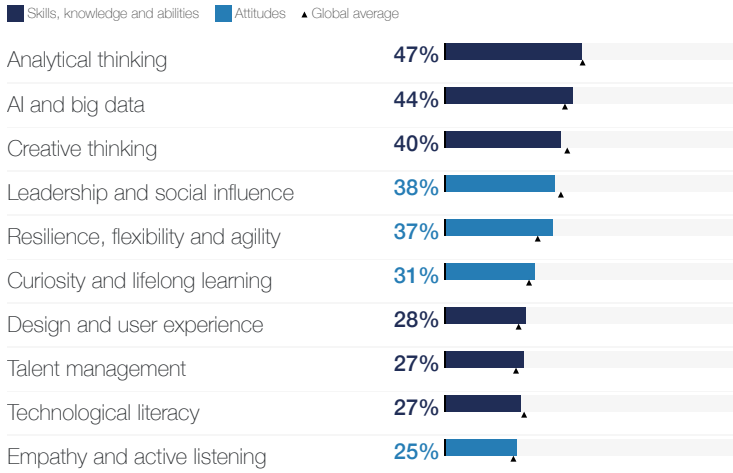


# East Asia and the Pacific

## Skill outlook

### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

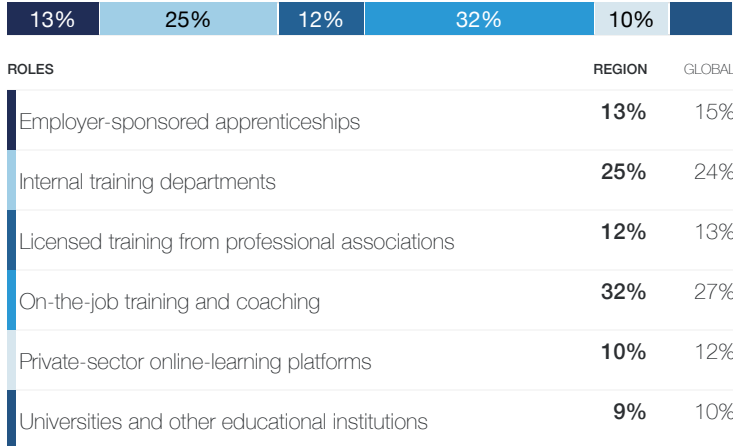
Skills required by the workforce that are expected to remain the same (share of all skills required)

**58%**

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



### Training funding

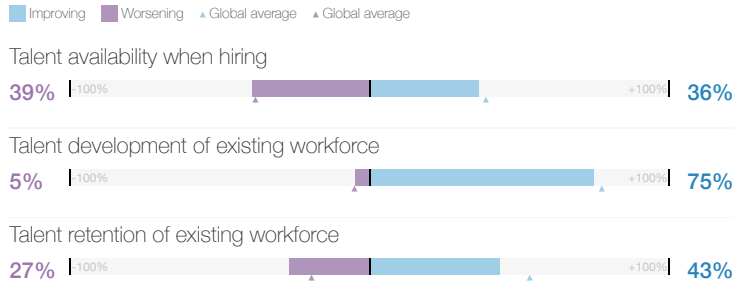
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY (%)	GLOBAL (%)
1. Improve talent progression and promotion processes	49%	48%
2. Offer higher wages	34%	35%
3. Provide effective reskilling and upskilling	33%	34%
4. Better articulate business purpose and impact	31%	24%
5. More diversity, equity and inclusion policies and programmes	23%	18%
6. Offer more remote and hybrid work opportunities within countries	20%	21%
7. Support employee health and well-being	18%	18%
8. Improve people-and-culture metrics and reporting	17%	18%
9. Tapping into diverse talent pools	17%	10%
10. Improve internal-communication strategy	16%	19%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	REGION (%)	GLOBAL (%)
1. Run comprehensive DEI training for managers	56%	42%
2. Run comprehensive DEI training for staff	45%	36%
3. Enable inclusion and accessibility across physical and virtual spaces	40%	33%
4. Set DEI goals, targets or quotas that exceed public requirements	39%	26%
5. Embed DEI goals and solutions across the supply chain	32%	23%

### Share of companies with DEI Programs

(share of organizations surveyed)

**77%**

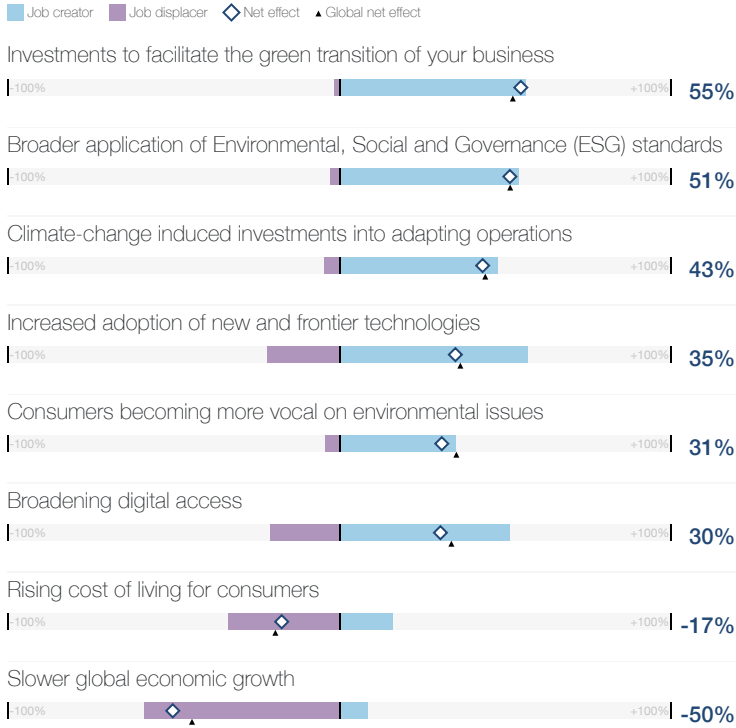
Global 67%

# Europe

## Trend outlook

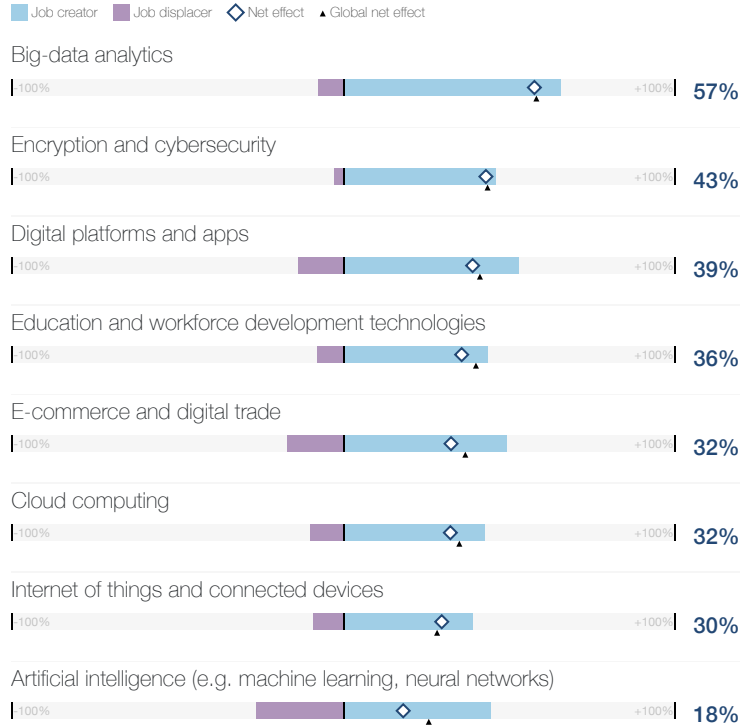
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

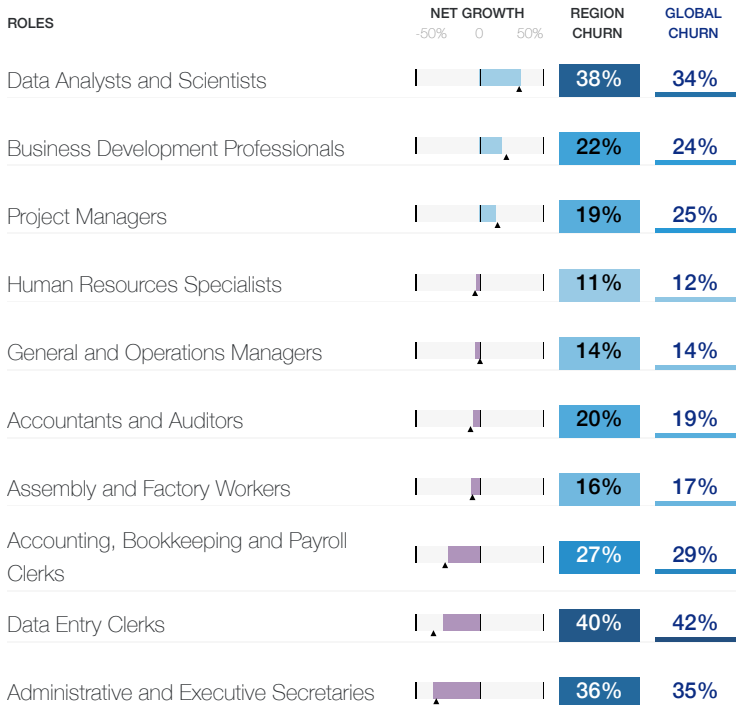
Five-year structural labour-force churn (percent)

**21%**

Global 23%

### Key roles for business transformation

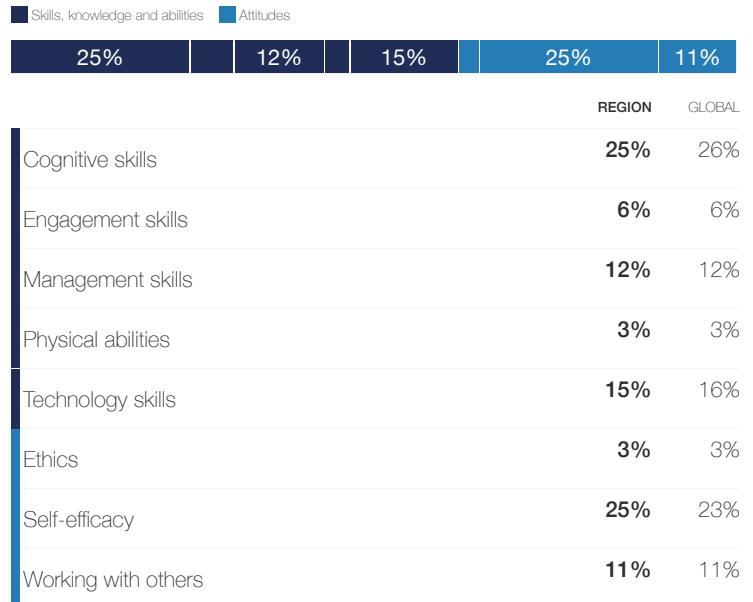
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Skill outlook

### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

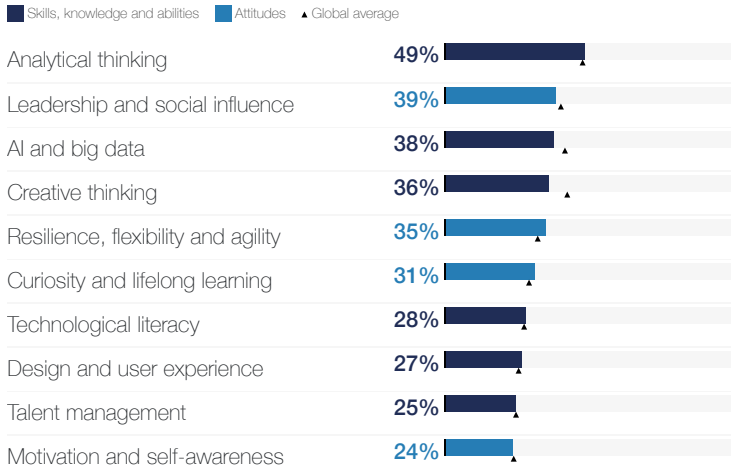


# Europe

## Skill outlook

### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

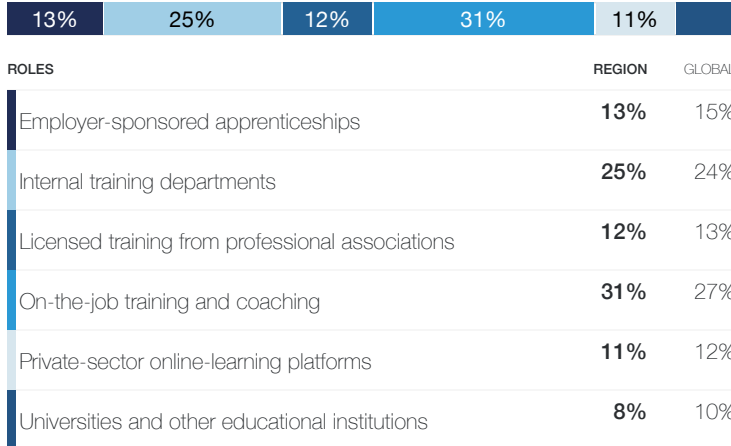
Skills required by the workforce that are expected to remain the same (share of all skills required)

**58%**

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



### Training funding

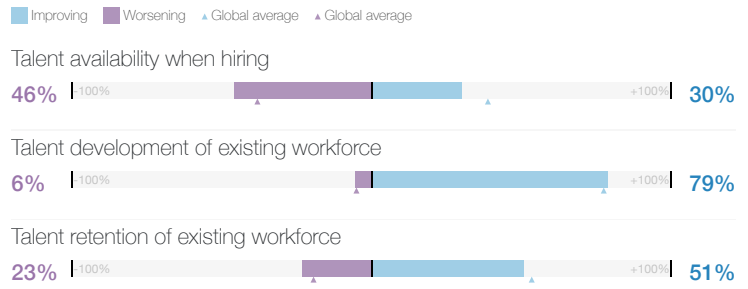
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Improve talent progression and promotion processes	52%	48%
2. Provide effective reskilling and upskilling	34%	34%
3. Offer higher wages	33%	35%
4. Better articulate business purpose and impact	24%	24%
5. Offer more remote and hybrid work opportunities within countries	22%	21%
6. More diversity, equity and inclusion policies and programmes	22%	18%
6. Support employee health and well-being	22%	18%
8. Improve internal-communication strategy	18%	19%
9. Improve people-and-culture metrics and reporting	15%	18%
9. Improve working hours and overtime	15%	15%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	REGION	GLOBAL
1. Run comprehensive DEI training for managers	53%	42%
2. Run comprehensive DEI training for staff	45%	36%
3. Enable inclusion and accessibility across physical and virtual spaces	37%	33%
4. Set DEI goals, targets or quotas that exceed public requirements	34%	26%
5. Embed DEI goals and solutions across the supply chain	28%	23%

### Share of companies with DEI Programs

(share of organizations surveyed)

**73%**

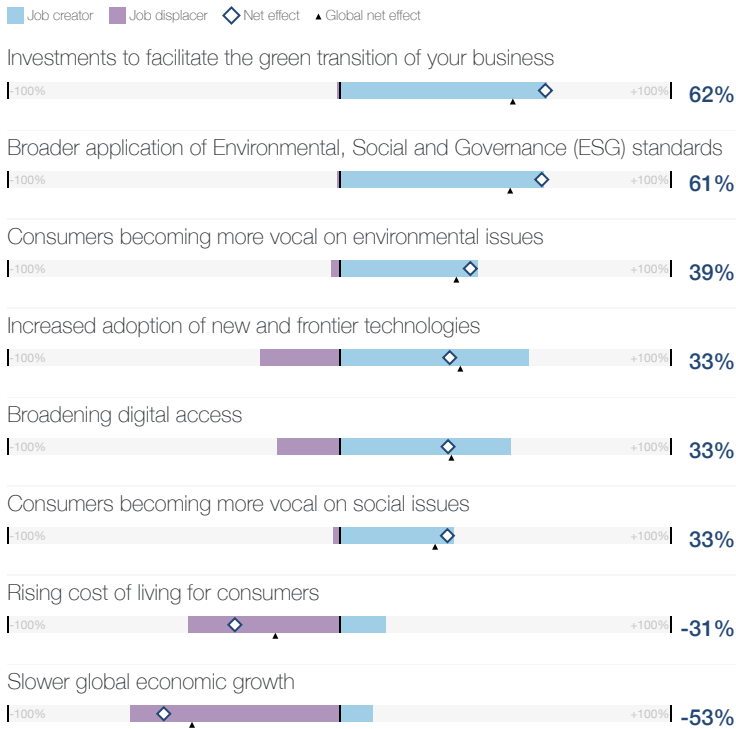
Global 67%

# Latin America and the Caribbean

## Trend outlook

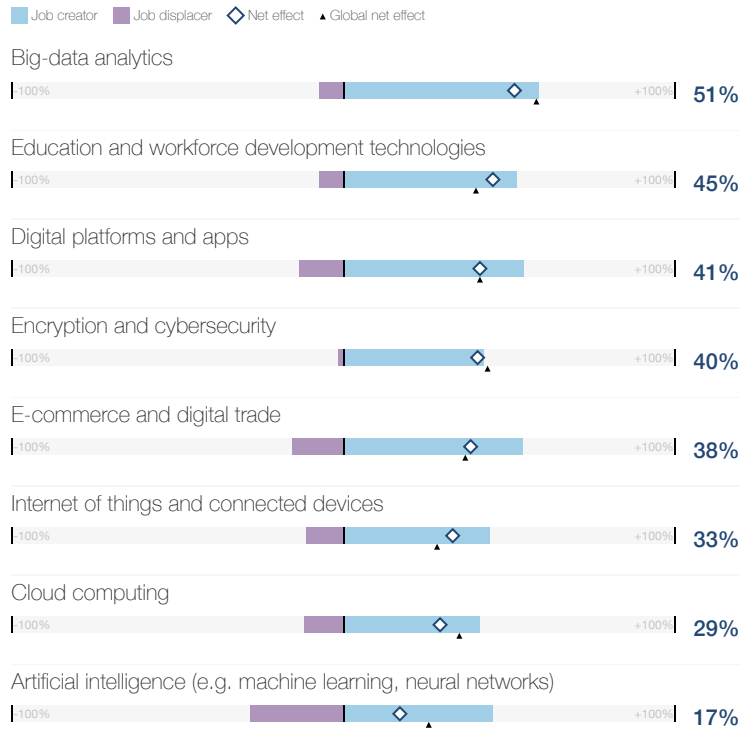
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

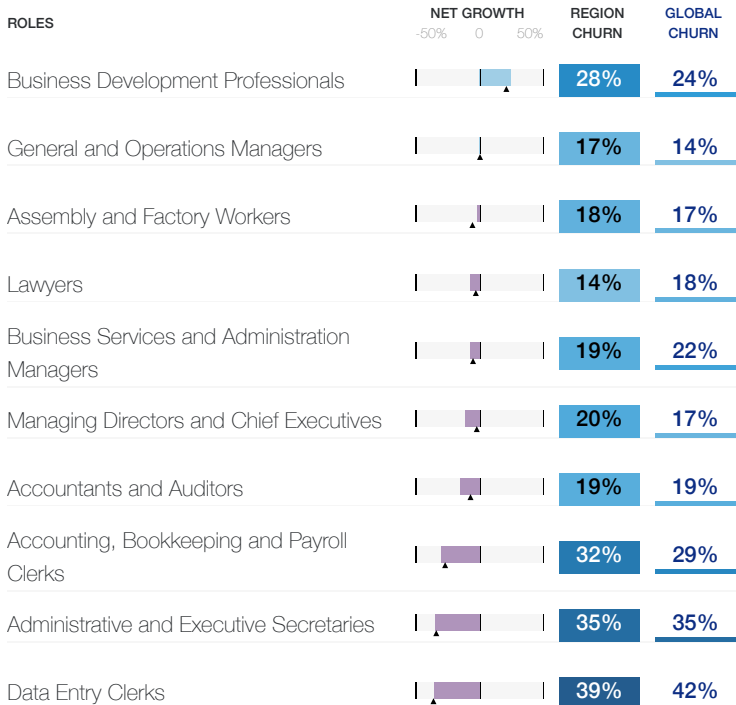
Five-year structural labour-force churn (percent)

**22%**

Global 23%

### Key roles for business transformation

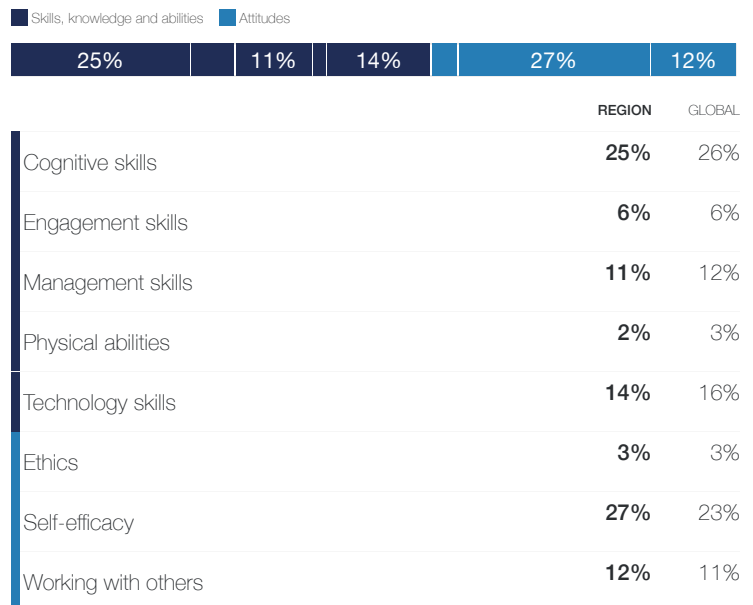
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Skill outlook

### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

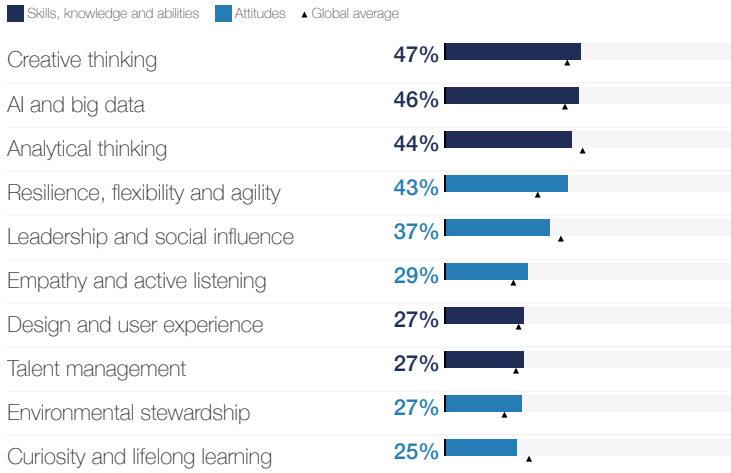


# Latin America and the Caribbean

## Skill outlook

### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

**55%**

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



#### ROLES

Role	Region (%)	Global (%)
Employer-sponsored apprenticeships	17%	15%
Internal training departments	26%	24%
Licensed training from professional associations	9%	13%
On-the-job training and coaching	23%	27%
Private-sector online-learning platforms	12%	12%
Universities and other educational institutions	12%	10%

### Training funding

Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)

Funding Source	Region (%)	Global (%)
Co-funding across the industry	11%	16%
Free-of-cost training	27%	28%
Funded by government	13%	22%
Funded by my organization	88%	87%
Public-private hybrid funding	29%	24%

## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

Practice	Industry (%)	Global (%)
1. Improve talent progression and promotion processes	53%	48%
2. Offer higher wages	31%	35%
3. Better articulate business purpose and impact	31%	24%
4. Offer more remote and hybrid work opportunities within countries	27%	21%
5. Provide effective reskilling and upskilling	26%	34%
6. Support employee health and well-being	23%	18%
7. Improve people-and-culture metrics and reporting	20%	18%
8. Improve internal-communication strategy	18%	19%
9. More diversity, equity and inclusion policies and programmes	17%	18%
10. Tapping into diverse talent pools	10%	10%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

Component	Region (%)	Global (%)
1. Run comprehensive DEI training for managers	46%	42%
2. Enable inclusion and accessibility across physical and virtual spaces	44%	33%
3. Run comprehensive DEI training for staff	42%	36%
4. Set DEI goals, targets or quotas that exceed public requirements	33%	26%
5. Embed DEI goals and solutions across the supply chain	30%	23%

### Share of companies with DEI Programs

(share of organizations surveyed)

**77%**

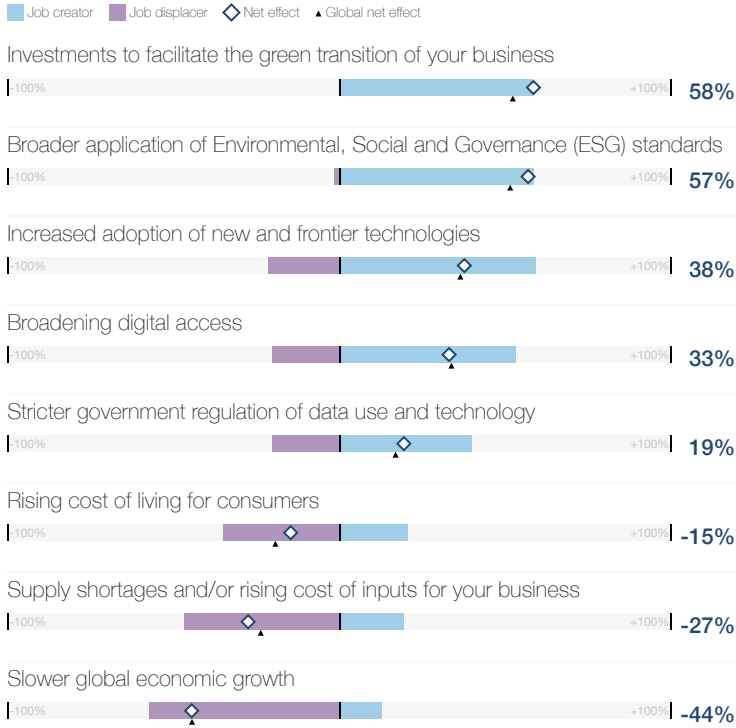
Global 67%

# Middle East and North Africa

## Trend outlook

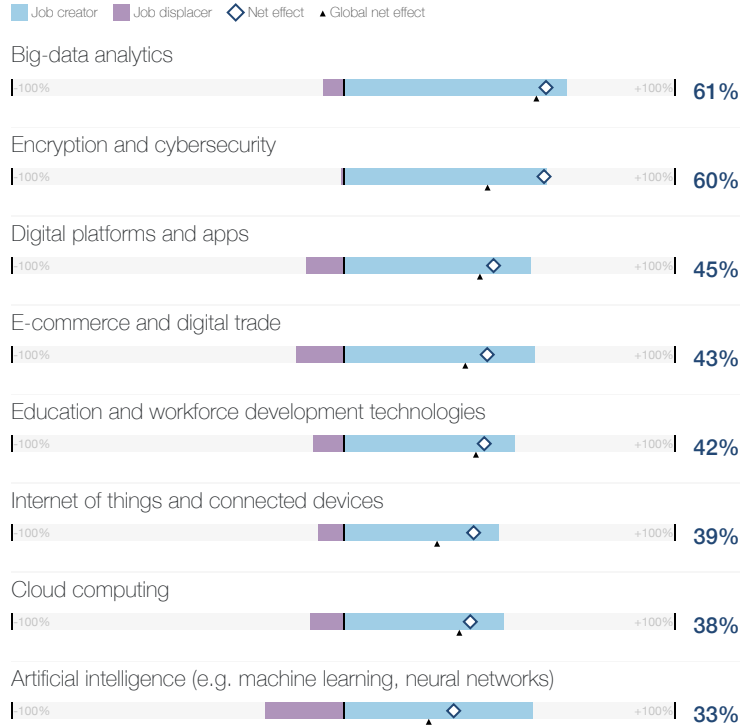
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

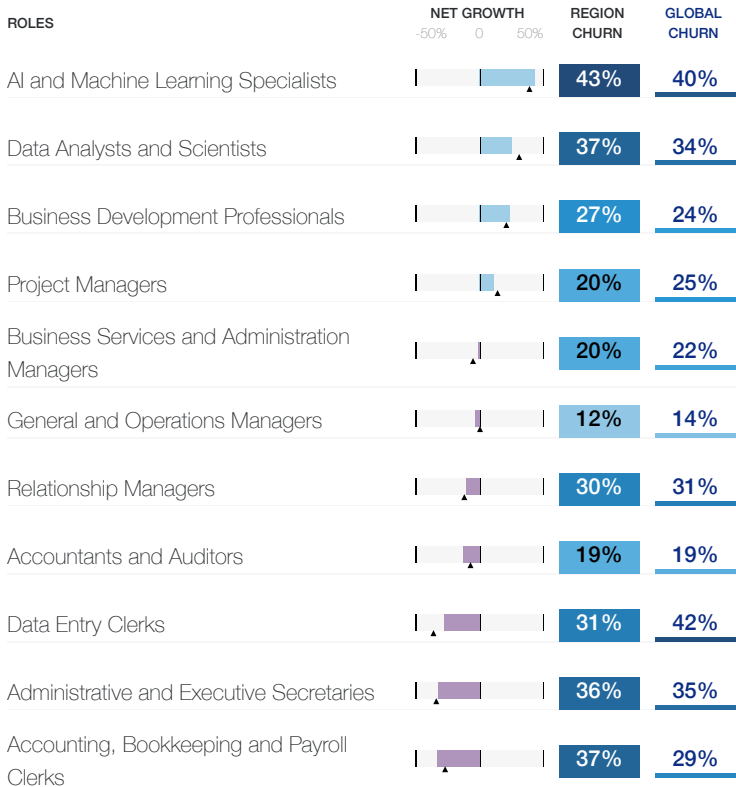
Five-year structural labour-force churn (percent)

**21%**

Global 23%

### Key roles for business transformation

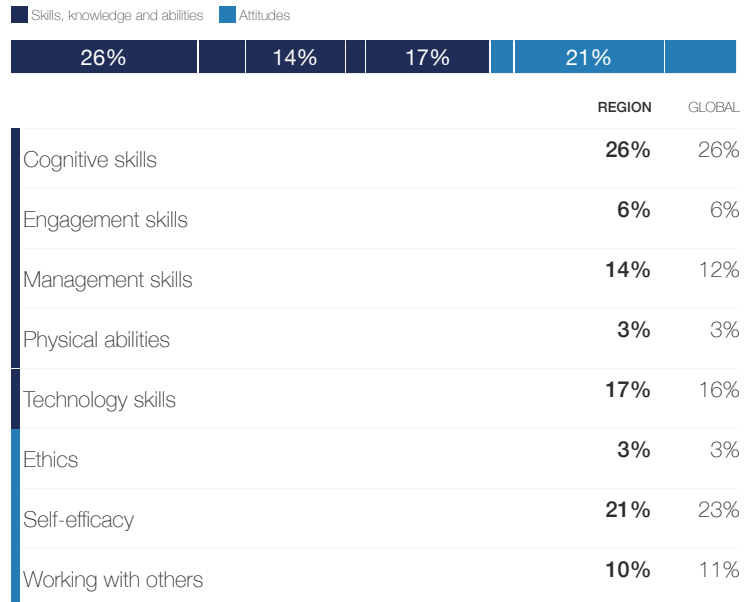
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Skill outlook

### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

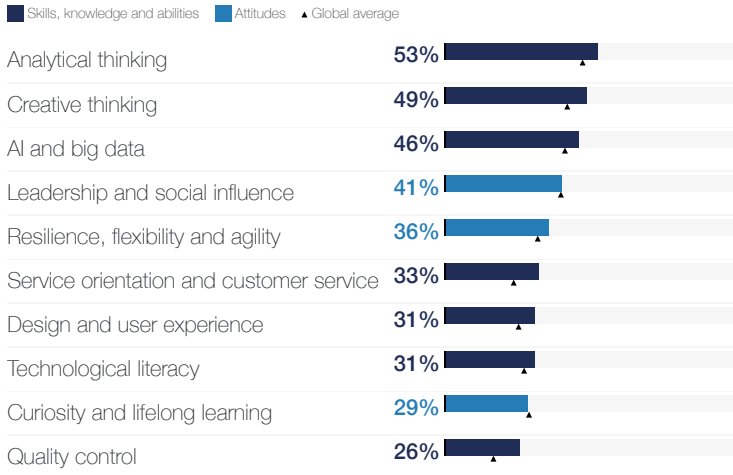


# Middle East and North Africa

## Skill outlook

### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

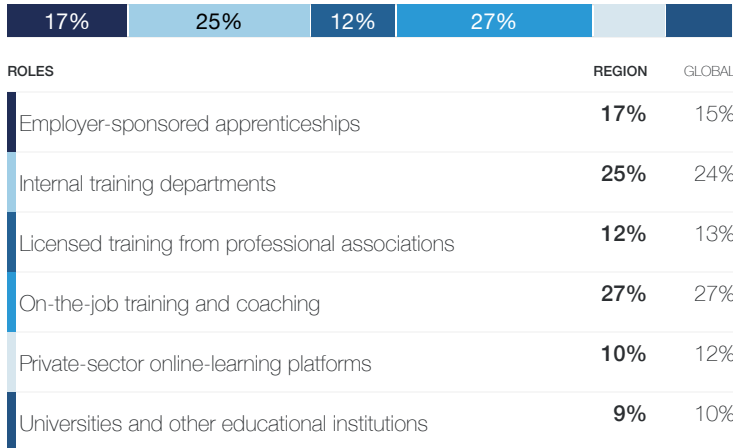
Skills required by the workforce that are expected to remain the same (share of all skills required)

**57%**

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



### Training funding

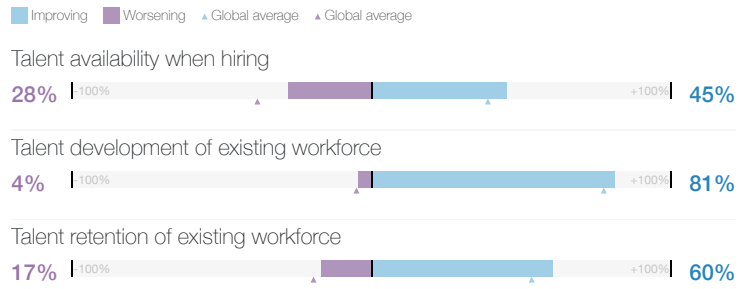
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY (%)	GLOBAL (%)
1. Offer higher wages	47%	35%
2. Improve talent progression and promotion processes	46%	48%
3. Provide effective reskilling and upskilling	32%	34%
4. Improve people-and-culture metrics and reporting	22%	18%
5. Support employee health and well-being	18%	18%
6. Better articulate business purpose and impact	17%	24%
7. Offer more remote and hybrid work opportunities within countries	16%	21%
8. Improve internal-communication strategy	16%	19%
9. More diversity, equity and inclusion policies and programmes	15%	18%
10. Improve working hours and overtime	14%	15%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	REGION (%)	GLOBAL (%)
1. Run comprehensive DEI training for managers	40%	42%
2. Run comprehensive DEI training for staff	35%	36%
3. Enable inclusion and accessibility across physical and virtual spaces	28%	33%
4. Embed DEI goals and solutions across the supply chain	25%	23%
5. Provide greater flexibility on degree requirements for roles	25%	22%

### Share of companies with DEI Programs

(share of organizations surveyed)

**73%**

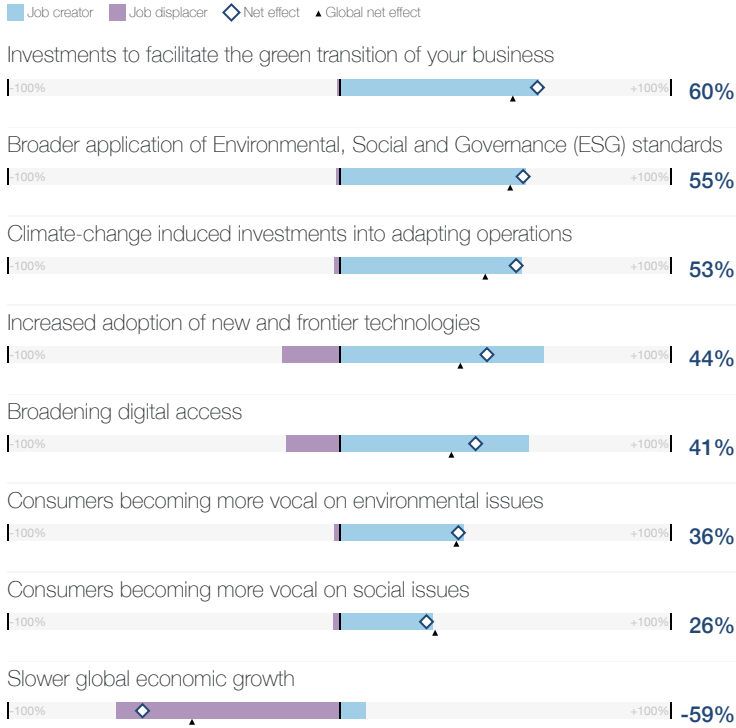
Global 67%

# North America

## Trend outlook

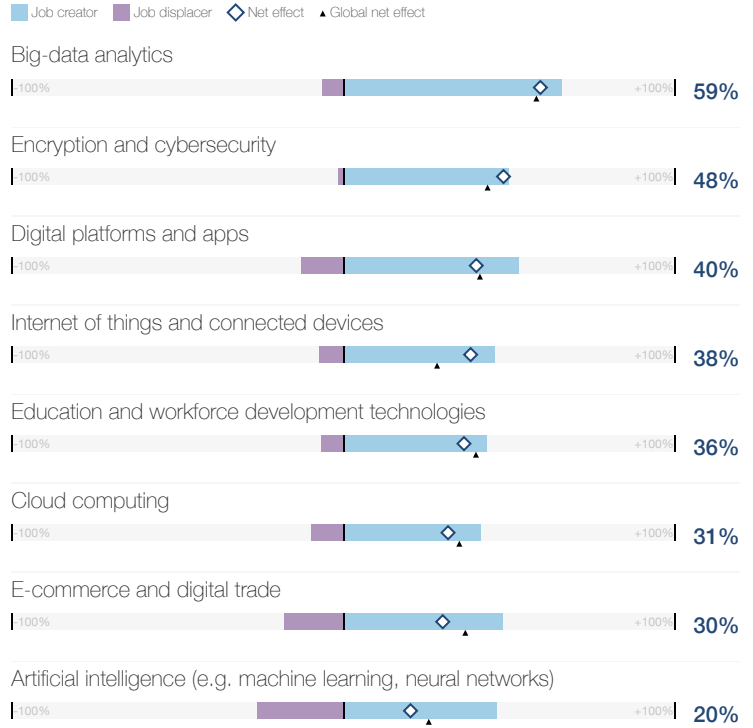
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

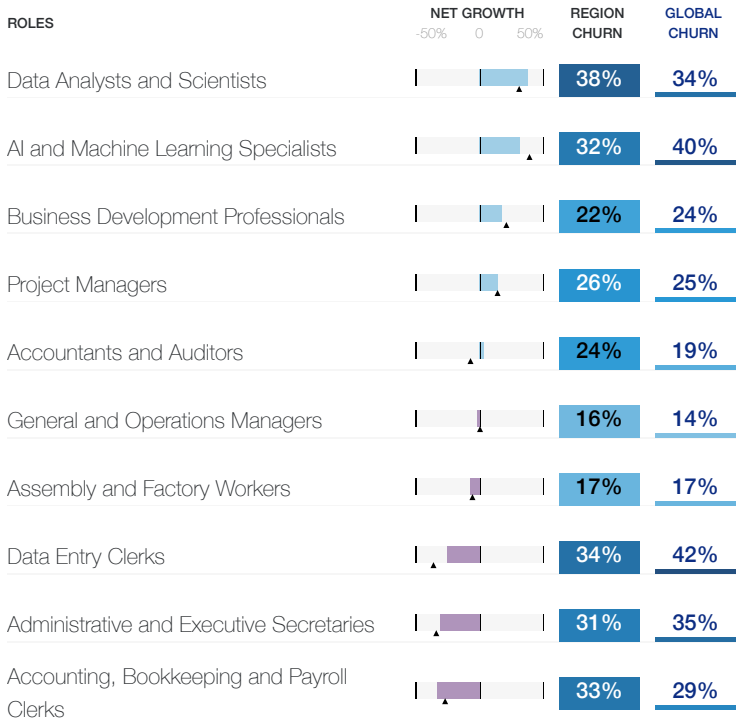
Five-year structural labour-force churn (percent)

**21%**

Global 23%

### Key roles for business transformation

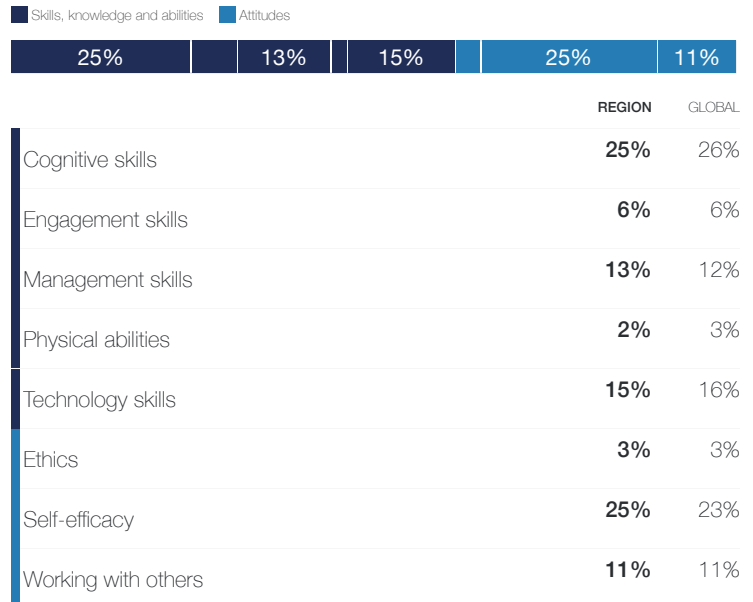
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Skill outlook

### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

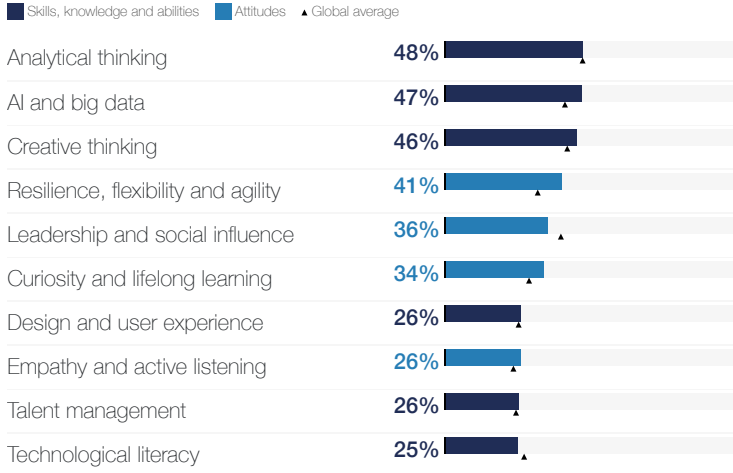


# North America

## Skill outlook

### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

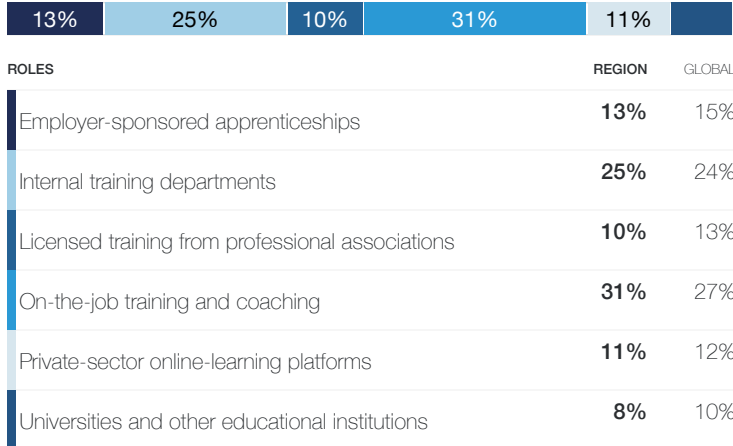
Skills required by the workforce that are expected to remain the same (share of all skills required)

**58%**

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



### Training funding

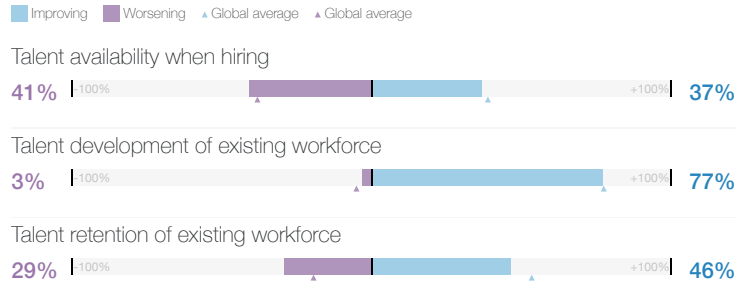
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Improve talent progression and promotion processes	54%	48%
2. Offer higher wages	31%	35%
3. Provide effective reskilling and upskilling	30%	34%
4. Better articulate business purpose and impact	29%	24%
5. More diversity, equity and inclusion policies and programmes	28%	18%
6. Offer more remote and hybrid work opportunities within countries	23%	21%
7. Support employee health and well-being	19%	18%
8. Improve people-and-culture metrics and reporting	18%	18%
9. Tapping into diverse talent pools	15%	10%
10. Improve internal-communication strategy	14%	19%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	REGION	GLOBAL
1. Run comprehensive DEI training for managers	64%	42%
2. Run comprehensive DEI training for staff	52%	36%
3. Enable inclusion and accessibility across physical and virtual spaces	47%	33%
4. Set DEI goals, targets or quotas that exceed public requirements	45%	26%
5. Embed DEI goals and solutions across the supply chain	34%	23%

### Share of companies with DEI Programs

(share of organizations surveyed)

**85%**

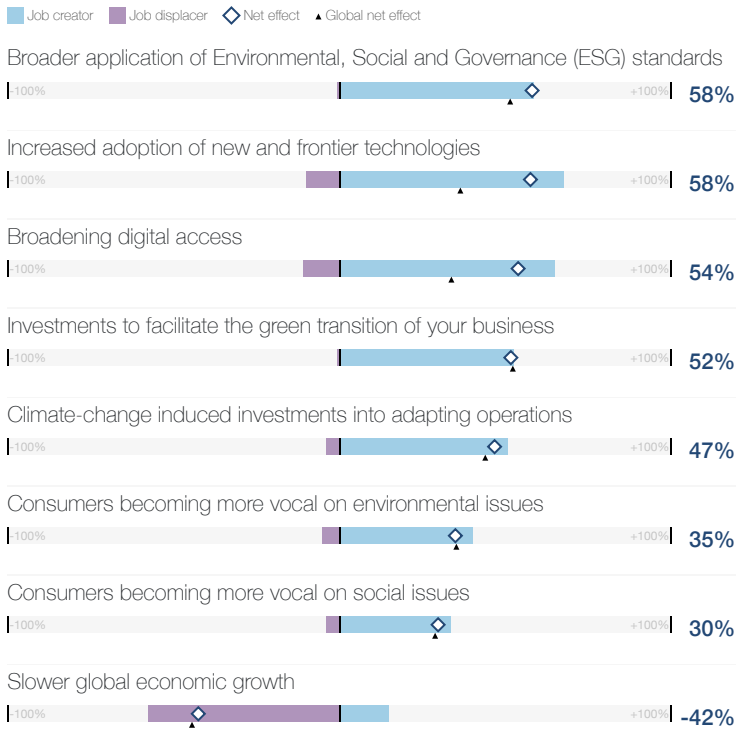
Global 67%

# South Asia

## Trend outlook

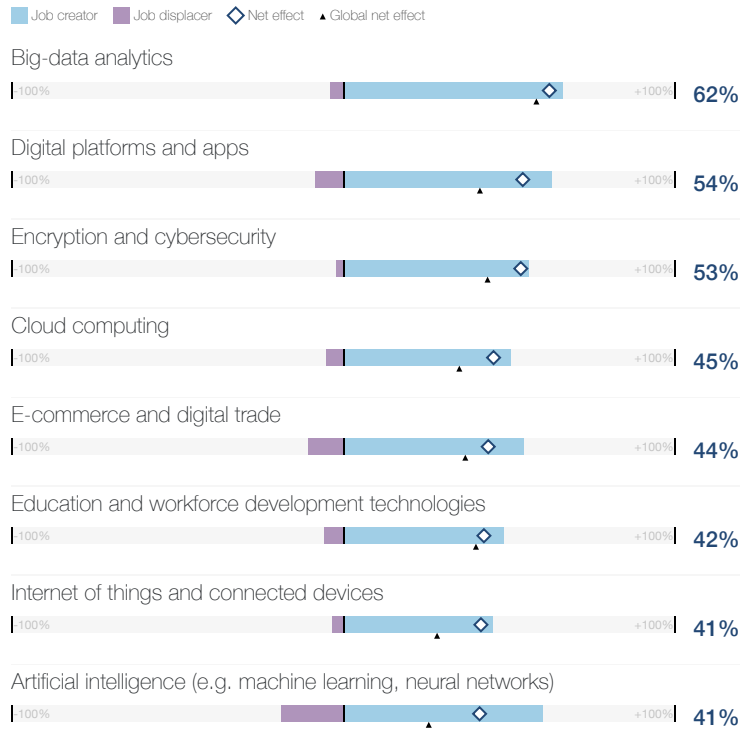
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

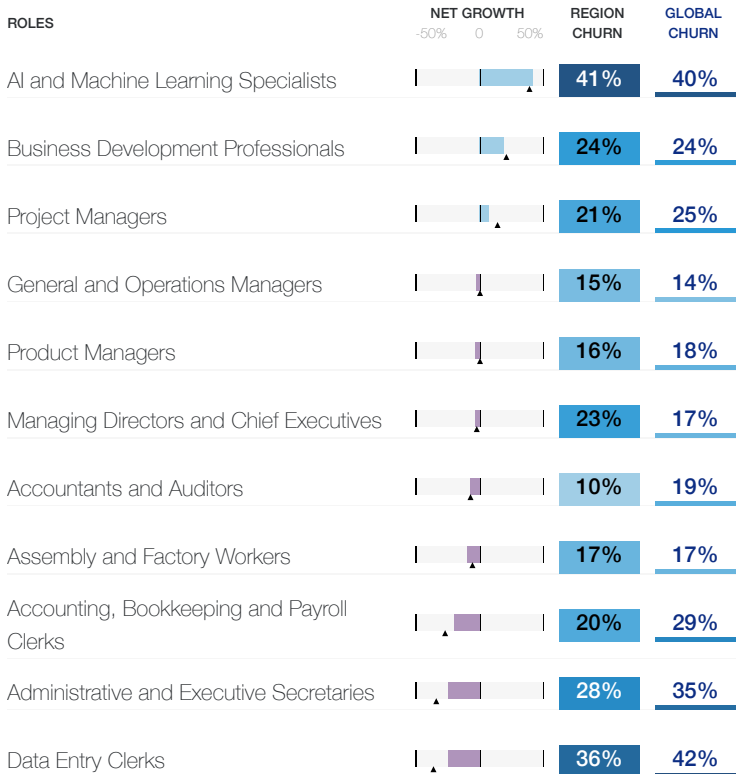
Five-year structural labour-force churn (percent)

**24%**

Global 23%

### Key roles for business transformation

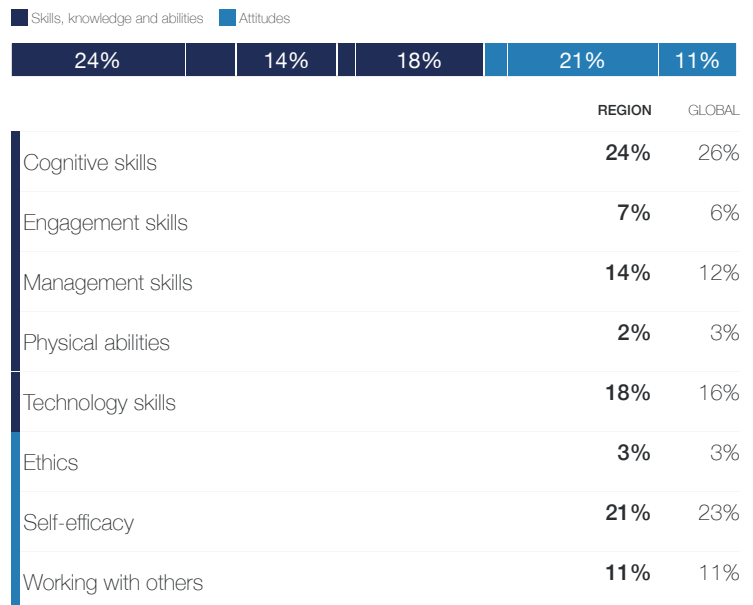
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Skill outlook

### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

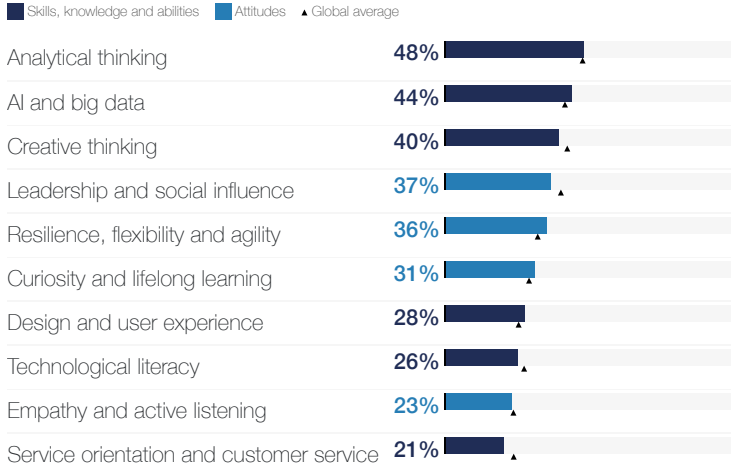


# South Asia

## Skill outlook

### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

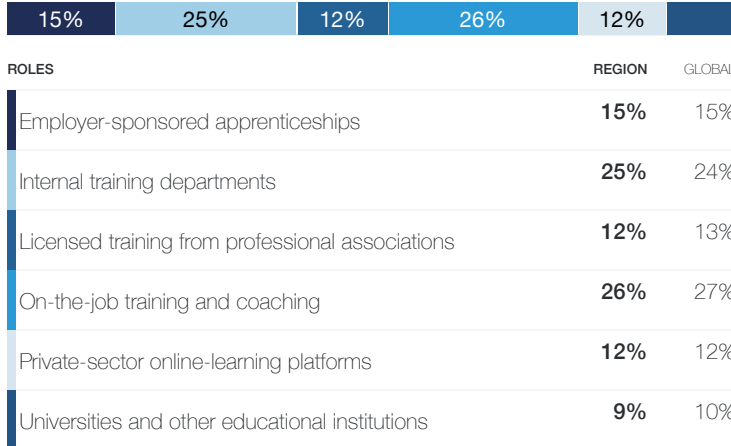
Skills required by the workforce that are expected to remain the same (share of all skills required)

**52%**

Global 56%

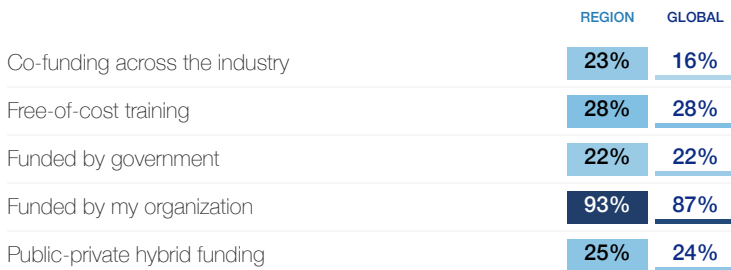
### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



### Training funding

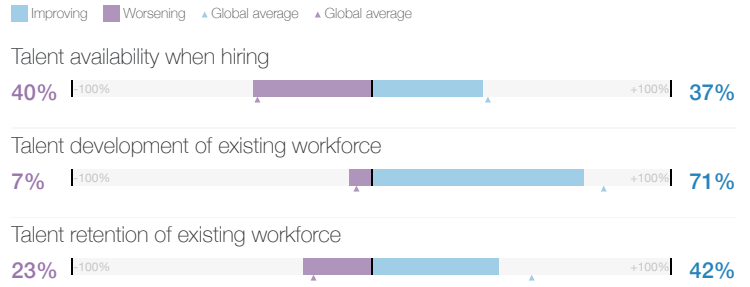
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)



## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

Practice	Industry	Global
1. Improve talent progression and promotion processes	46%	48%
2. Provide effective reskilling and upskilling	35%	34%
3. Better articulate business purpose and impact	28%	24%
3. More diversity, equity and inclusion policies and programmes	28%	18%
5. Offer more remote and hybrid work opportunities within countries	25%	21%
6. Improve people-and-culture metrics and reporting	25%	18%
7. Offer higher wages	22%	35%
8. Support employee health and well-being	19%	18%
9. Improve internal-communication strategy	18%	19%
10. Improve working hours and overtime	12%	15%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

Component	Region	Global
1. Run comprehensive DEI training for managers	47%	42%
2. Enable inclusion and accessibility across physical and virtual spaces	43%	33%
3. Run comprehensive DEI training for staff	40%	36%
4. Set DEI goals, targets or quotas that exceed public requirements	38%	26%
5. Offer greater flexibility on education requirements to recruit from various backgrounds	34%	24%

### Share of companies with DEI Programs

(share of organizations surveyed)

**77%**

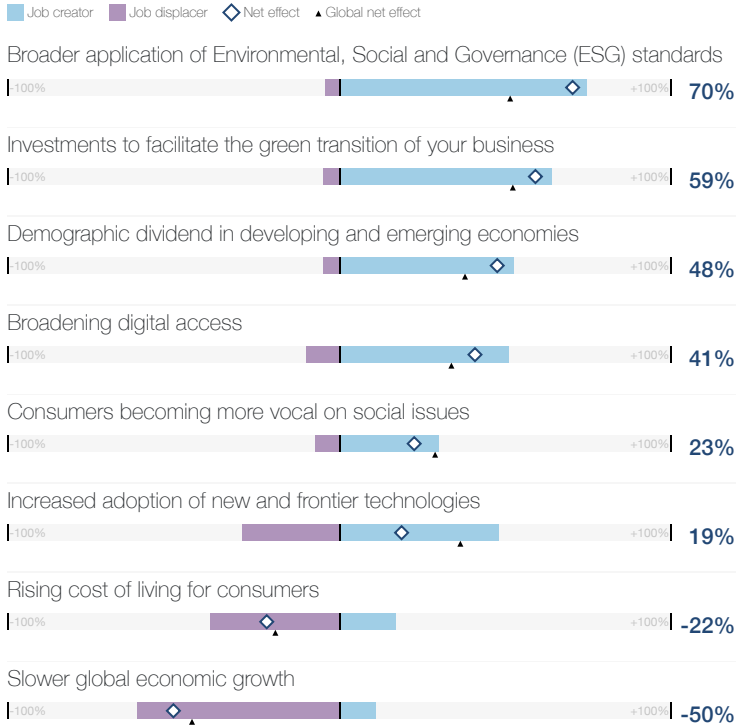
Global 67%

# Sub-Saharan Africa

## Trend outlook

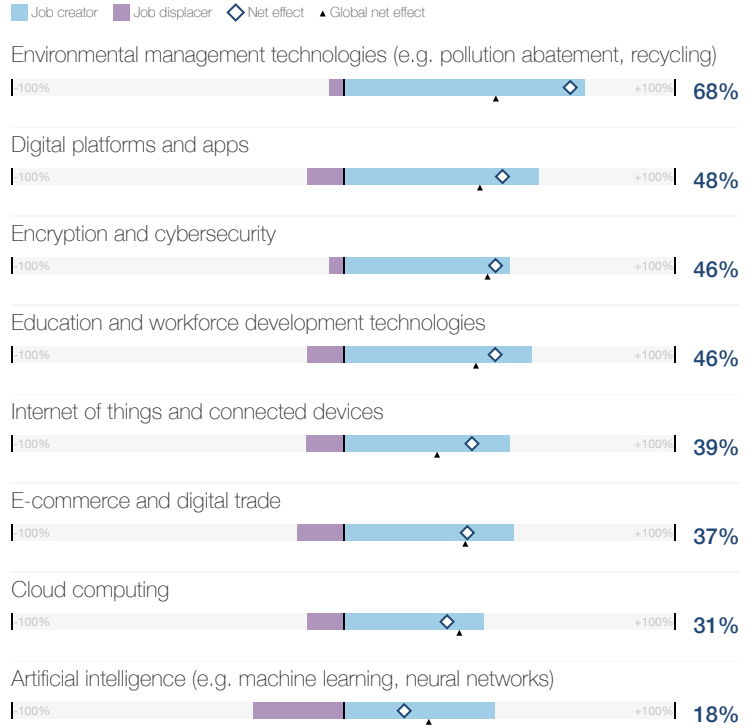
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

Five-year structural labour-force churn (percent)

**23%**

Global 23%

### Key roles for business transformation

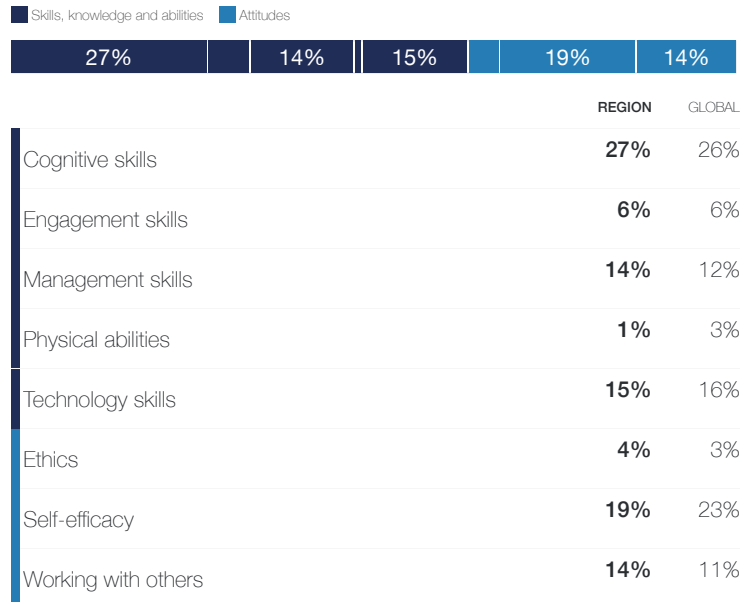
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Skill outlook

### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

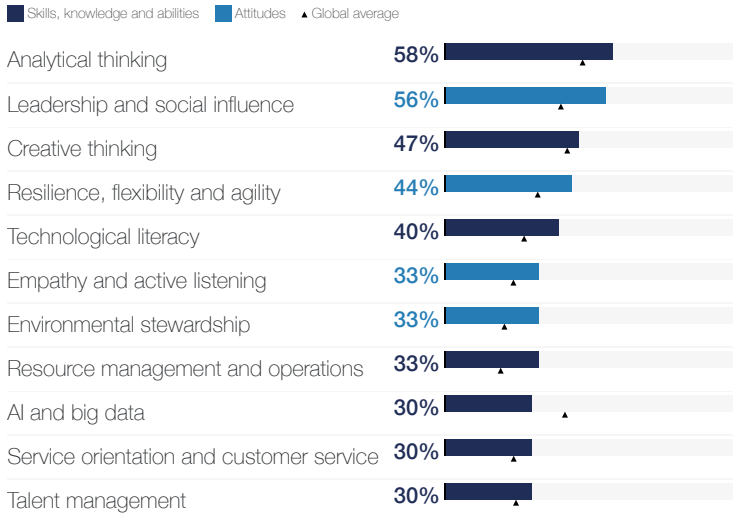


# Sub-Saharan Africa

## Skill outlook

### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

**55%**

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	REGION	GLOBAL
Employer-sponsored apprenticeships	18%	15%
Internal training departments	29%	24%
Licensed training from professional associations	12%	13%
On-the-job training and coaching	24%	27%
Private-sector online-learning platforms	7%	12%
Universities and other educational institutions	10%	10%

### Training funding

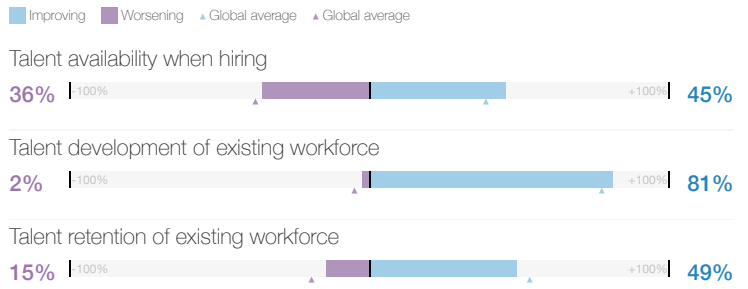
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)

	REGION	GLOBAL
Co-funding across the industry	10%	16%
Free-of-cost training	20%	28%
Funded by government	29%	22%
Funded by my organization	85%	87%
Public-private hybrid funding	24%	24%

## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Improve talent progression and promotion processes	50%	48%
2. Offer higher wages	38%	35%
3. Provide effective reskilling and upskilling	33%	34%
4. Better articulate business purpose and impact	21%	24%
4. Support employee health and well-being	21%	18%
6. More diversity, equity and inclusion policies and programmes	19%	18%
7. Improve internal-communication strategy	17%	19%
7. Remove degree requirements and conduct skills-based hiring	17%	6%
9. Offer more remote and hybrid work opportunities within countries	14%	21%
9. Tapping into diverse talent pools	14%	10%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	REGION	GLOBAL
1. Enable inclusion and accessibility across physical and virtual spaces	43%	33%
2. Run comprehensive DEI training for managers	36%	42%
3. Offer greater flexibility on education requirements to recruit from various backgrounds	29%	24%
4. Run comprehensive DEI training for staff	29%	36%
5. Set DEI goals, targets or quotas that exceed public requirements	29%	26%

### Share of companies with DEI Programs

(share of organizations surveyed)

**81%**

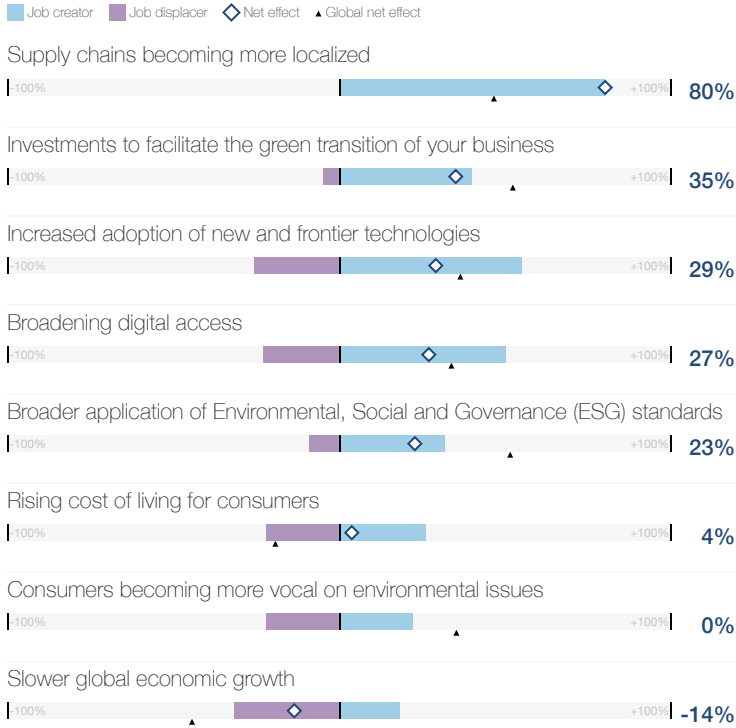
Global 67%

# Western Balkans

## Trend outlook

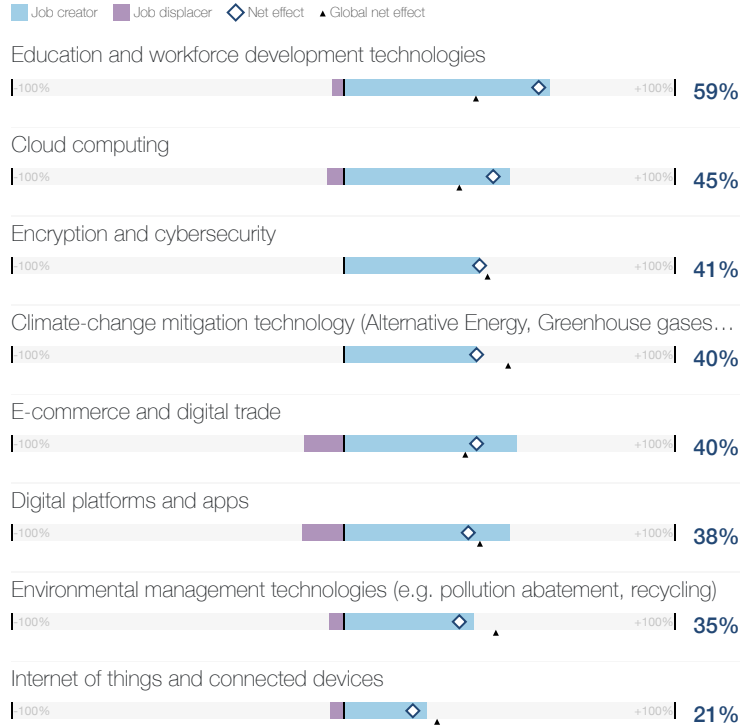
### Global trends and their impact on job creation

Trends most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



### Technologies and their impact on job creation

Technologies most likely to drive industry transformation and their expected impact job creation, ordered by net effect (share of organizations surveyed)



## Role outlook

### Churn in five years

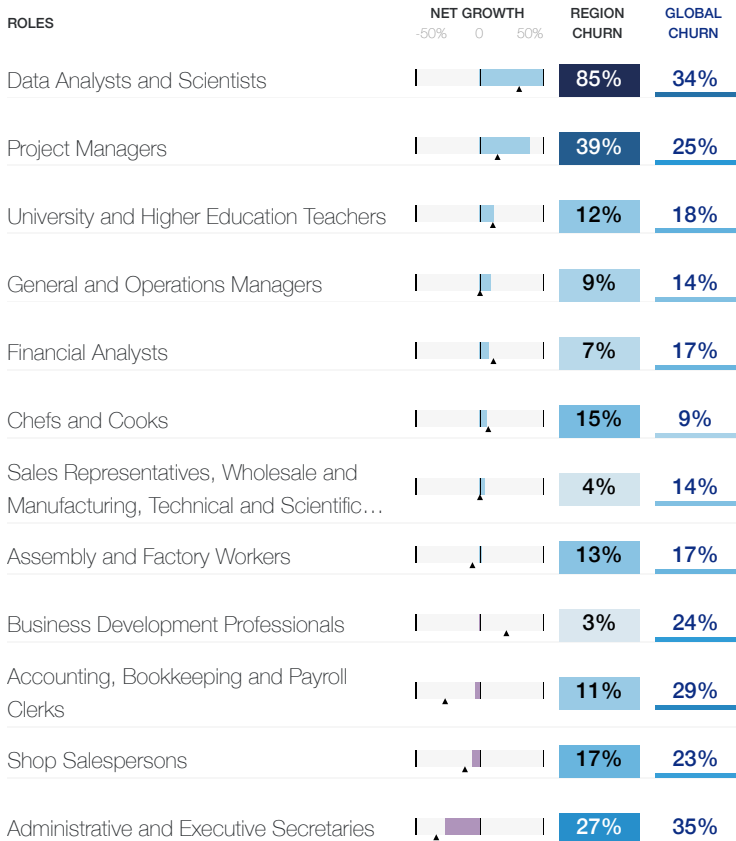
Five-year structural labour-force churn (percent)

**17%**

Global 23%

### Key roles for business transformation

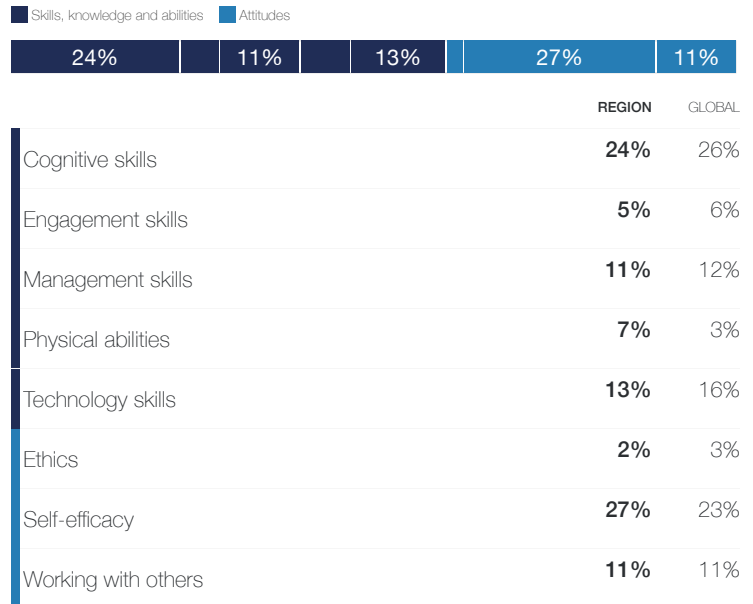
Roles most selected by organizations surveyed (as either growing, stable or declining), ordered by net role growth, and their net growth and structural churn (percent)



## Skill outlook

### Core skills

Skills needed to perform well in key, stable roles within the company (share of organizations surveyed)

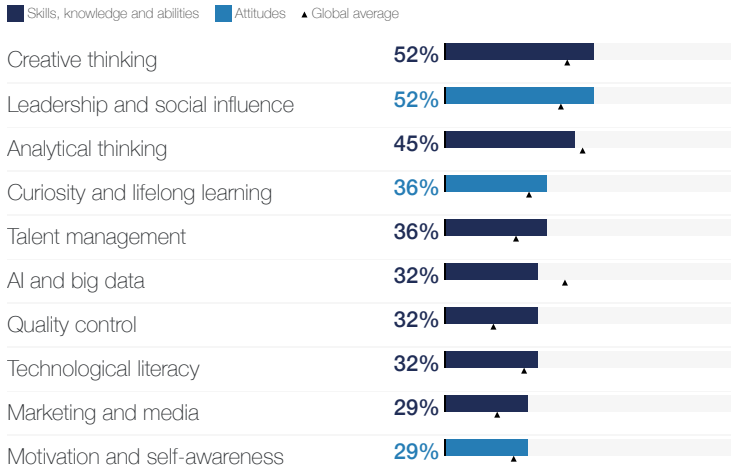


# Western Balkans

## Skill outlook

### Reskilling skill focus

Skills most prioritized for reskilling and upskilling in the next five years (share of organizations surveyed)



### Skill stability

Skills required by the workforce that are expected to remain the same (share of all skills required)

**55%**

Global 56%

### Training type

Types of training prioritized by organizations surveyed for future reskilling and upskilling (share of organizations surveyed)



ROLES	REGION	GLOBAL
Employer-sponsored apprenticeships	23%	15%
Internal training departments	19%	24%
Licensed training from professional associations	11%	13%
On-the-job training and coaching	27%	27%
Private-sector online-learning platforms	9%	12%
Universities and other educational institutions	10%	10%

### Training funding

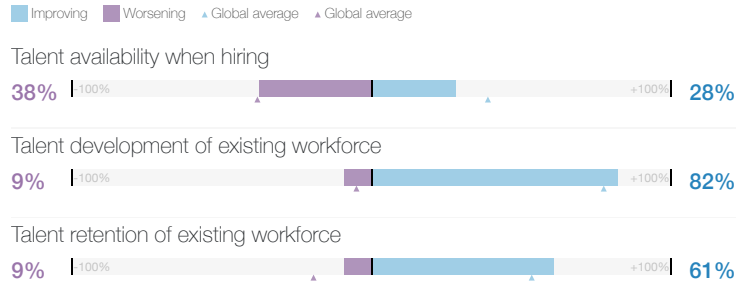
Preferred sources of funding for training, upskilling and reskilling efforts (share of organizations surveyed)

	REGION	GLOBAL
Co-funding across the industry	15%	16%
Free-of-cost training	42%	28%
Funded by government	9%	22%
Funded by my organization	88%	87%
Public-private hybrid funding	9%	24%

## Workforce strategy outlook

### Talent outlook in 2027

Expected change in talent availability, development and retention in the next five years (share of organizations surveyed)



### Business practices to improve talent availability

Top practices with the greatest potential to improve talent availability (share of organizations surveyed)

	INDUSTRY	GLOBAL
1. Improve talent progression and promotion processes	58%	48%
2. Offer higher wages	46%	35%
3. Improve internal-communication strategy	33%	19%
4. Improve working hours and overtime	27%	15%
4. Provide effective reskilling and upskilling	27%	34%
6. Support employee health and well-being	18%	18%
7. Better articulate business purpose and impact	15%	24%
8. Offer more remote and hybrid work opportunities within countries	12%	21%
8. Supplement childcare for working parents	12%	3%
10. Improve people-and-culture metrics and reporting	9%	18%

### Key components of DEI programmes

Most common components of DEI programmes (share of organizations surveyed)

	REGION	GLOBAL
1. Run comprehensive DEI training for managers	38%	42%
2. Run comprehensive DEI training for staff	34%	36%
3. Offer greater flexibility on education requirements to recruit from various backgrounds	28%	24%
4. Enable inclusion and accessibility across physical and virtual spaces	25%	33%

### Share of companies with DEI Programs

(share of organizations surveyed)

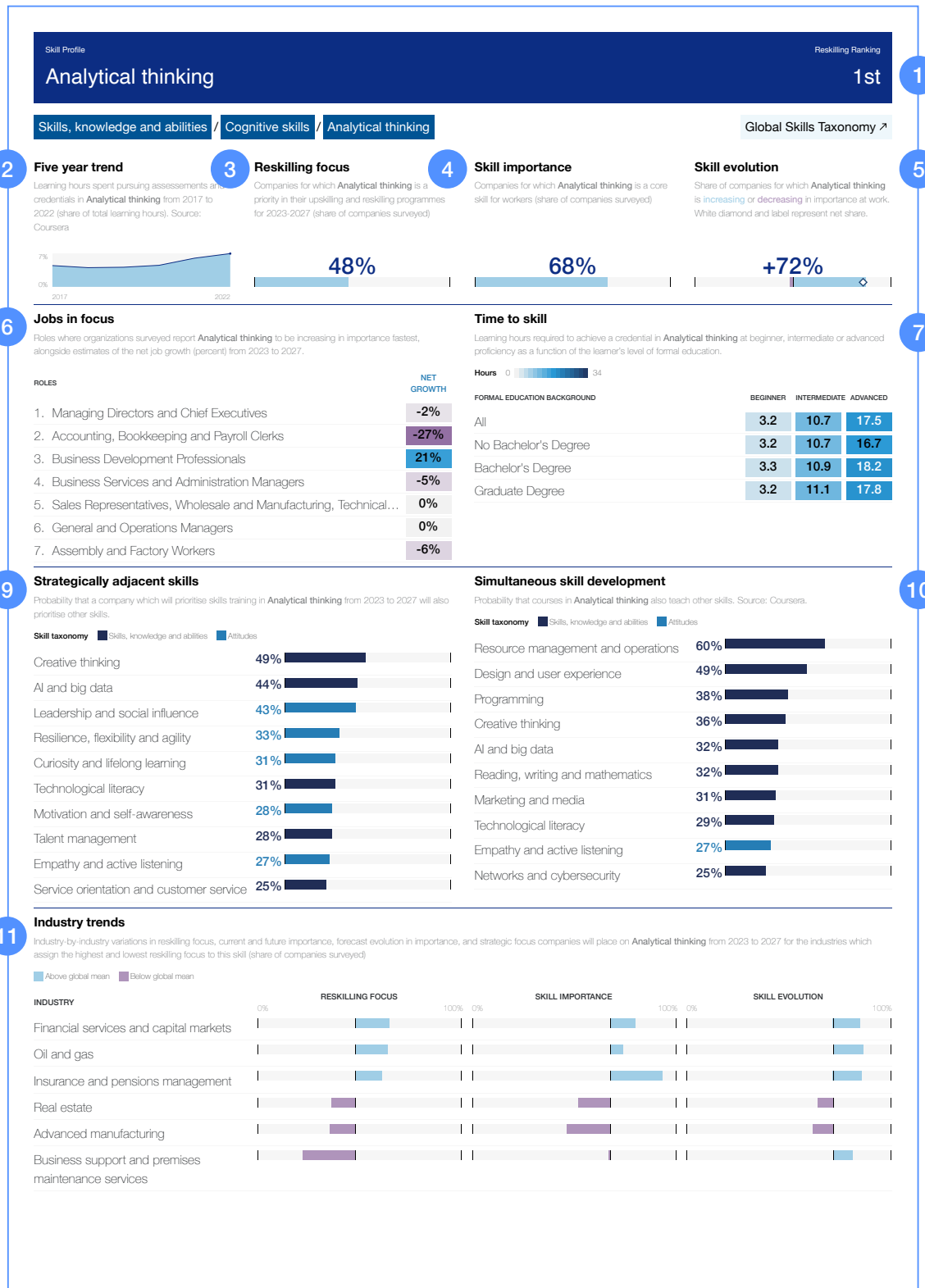
**53%**

Global 67%

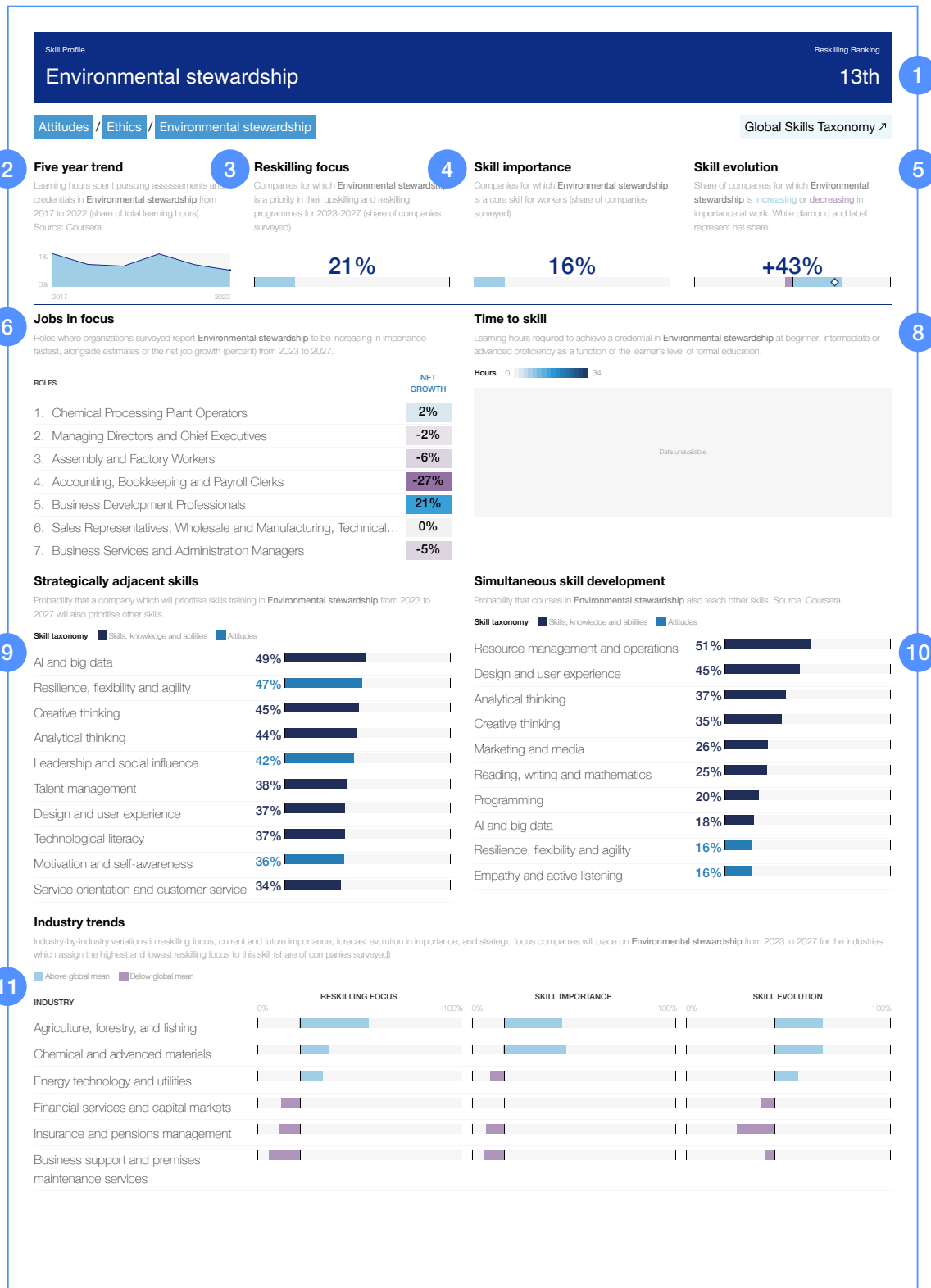


# Skill Profiles

# Skill Profiles



# Skill Profiles



## 1. Reskilling skill focus ranking

This is the aggregated ranking using the Borda method of rankings supplied by surveyed companies regarding their reskilling and upskilling priorities for 2023-2027, based on responses to the question, “Keeping in mind your current strategic direction, please select and rank the skill clusters on which you are focusing your organisation’s reskilling and upskilling efforts in the next five years”. As respondents selected and ranked different numbers of skill clusters, the Borda method aggregates results assigning to each skills cluster ranked by the respondent a score equal to the total number of skill clusters in the list (26) minus the rank assigned by the respondent. For example, a skill cluster ranked 7th by a respondent would receive a score equal to 19. Scores are then added together and final results used to rank all skills clusters.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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## 2. Five-year trend

This line chart shows the evolution of the share of learning hours spent pursuing credentials in each level-3 skill in the Global Skills Taxonomy on Coursera’s online learning platform from 2017 to 2022.

**Period:** 2017-2022

**Source:** Coursera

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## 3. Skill importance

This shows the share of surveyed companies for which the particular skill is a core skill for key roles with a stable outlook, based on responses to the question, “What are the core skills workers currently need to perform well in the key roles with a stable outlook?”.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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## 4. Skill evolution

This shows the expected increase or decrease in use of a particular skill for the key roles that have a stable outlook in the organization. It is based on responses to the question, “For the key roles with a stable outlook, would you expect an increase or decrease in the use of the following skills?”. The net effect is calculated by the share of respondents who select a particular skill as exhibiting increasing or slightly increasing use, minus the share of respondents who select a particular skill as

experiencing decreasing or slightly decreasing use.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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## 5. Reskilling focus

This shows the share of companies for which the particular skill is a priority in their upskilling and reskilling programmes in the next five years, based on responses to the question, “Keeping in mind your current strategic direction, please select the skill clusters on which you are focusing your organization’s reskilling and upskilling efforts in the next five years”.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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## 6. Jobs in focus

This table shows the top roles where survey respondents report the particular skill to be increasing in importance fastest, alongside the net growth at the role level in the next five years. The top roles are based on the roles selected in response to the question, “Please provide examples of mass employment roles in your organization that are expected to have a stable employment outlook in the next five years”, joined by the share of skill evolution, based on responses to the question, “For the key roles with a stable outlook, would you expect an increase or decrease in the use of the following skills?”. Net growth is calculated based on the respondent-reported role proportion in the organization now and in 2027.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

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## 7. Time to skill

The median number of learning hours taken by learners to successfully complete credentials teaching this skill on the Coursera learning platform, as a function of the relative skill proficiency of the credential and the learner’s self-reported level of formal education, when it is known.

**Period:** 2022-2023

**Source:** Coursera

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## 8. Strategically adjacent skills

Conditional probability that a company will prioritize

workforce development in this skill, given that it will prioritize workforce development in the skill named in the profile. The probability is calculated based on responses to the question, “Keeping in mind your current strategic direction, please select the skill clusters on which you are focusing your organization’s reskilling and upskilling efforts in the next five years”

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

.....

### 9. Simultaneous skill acquisition

Conditional probability that a course on the Coursera learning platform teaches this skill given that it teaches the skill named in the profile.

**Period:** 2022-2023

**Source:** Coursera

.....

### 10. Industry trends:

This table shows variations between sectors in the reskilling focus, current importance and evolving importance of the named skill. Among the 27 industries accessible within the data, the top three and bottom three industries are visualised, according to the reskilling focus from 2023 to 2027.

**Period:** 2022-2023

**Source:** World Economic Forum, Future of Jobs Survey

## Analytical thinking

1st

Skills, knowledge and abilities / Cognitive skills / Analytical thinking

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Analytical thinking** from 2017 to 2022 (share of total learning hours). Source: Coursera



## Reskilling focus

Companies for which **Analytical thinking** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

48%

## Skill importance

Companies for which **Analytical thinking** is a core skill for workers (share of companies surveyed)

68%

## Skill evolution

Share of companies for which **Analytical thinking** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+72%

## Jobs in focus

Roles where organizations surveyed report **Analytical thinking** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

## ROLES

Role	NET GROWTH
1. Managing Directors and Chief Executives	-2%
2. Accounting, Bookkeeping and Payroll Clerks	-27%
3. Business Development Professionals	21%
4. Business Services and Administration Managers	-5%
5. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
6. General and Operations Managers	0%
7. Assembly and Factory Workers	-6%

## Time to skill

Learning hours required to achieve a credential in **Analytical thinking** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34

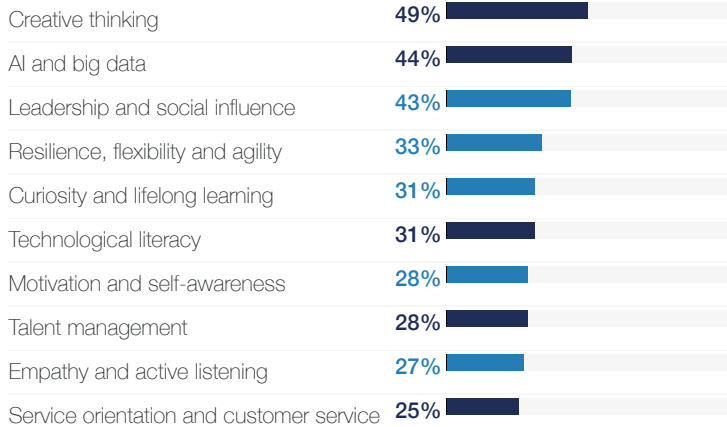
## FORMAL EDUCATION BACKGROUND

Formal Education Background	BEGINNER	INTERMEDIATE	ADVANCED
All	3.2	10.7	17.5
No Bachelor's Degree	3.2	10.7	16.7
Bachelor's Degree	3.3	10.9	18.2
Graduate Degree	3.2	11.1	17.8

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Analytical thinking** from 2023 to 2027 will also prioritise other skills.

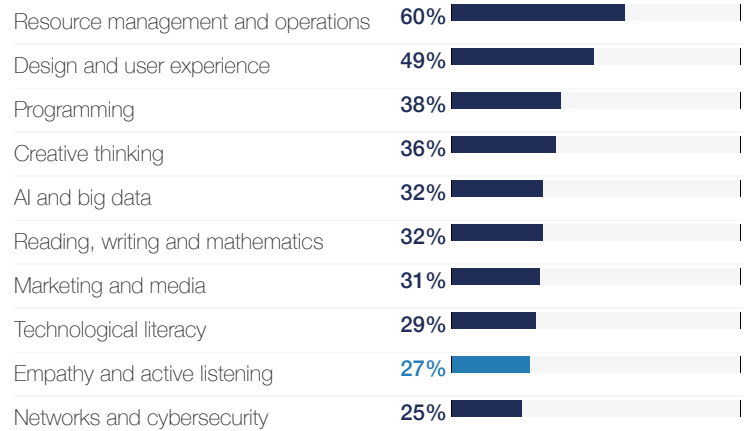
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes



## Simultaneous skill development

Probability that courses in **Analytical thinking** also teach other skills. Source: Coursera.

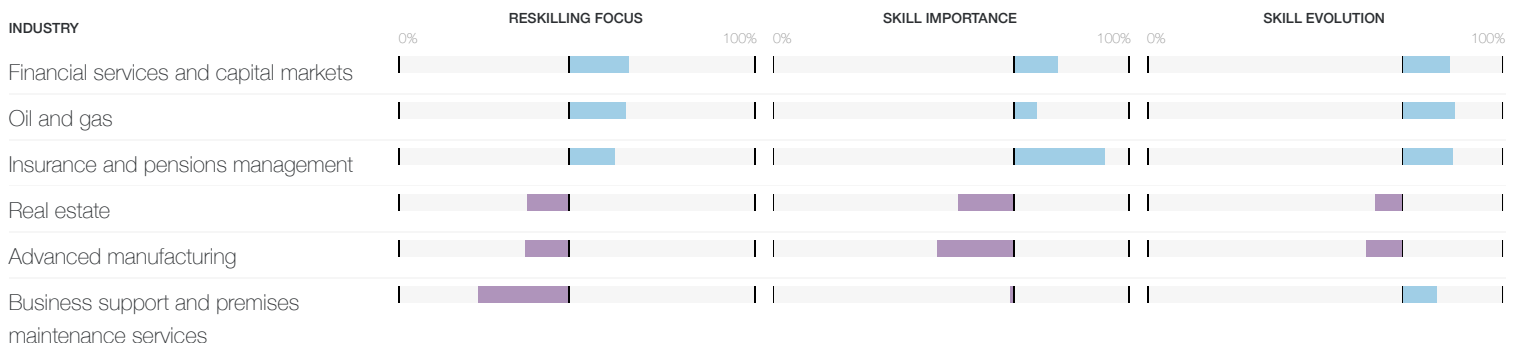
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes



## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Analytical thinking** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean



## Creative thinking

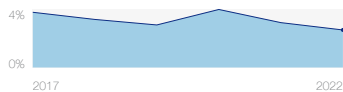
2nd

Skills, knowledge and abilities / Cognitive skills / Creative thinking

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Creative thinking** from 2017 to 2022 (share of total learning hours). Source: Coursera



## Reskilling focus

Companies for which **Creative thinking** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

42%

## Skill importance

Companies for which **Creative thinking** is a core skill for workers (share of companies surveyed)

56%

## Skill evolution

Share of companies for which **Creative thinking** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+73%

## Jobs in focus

Roles where organizations surveyed report **Creative thinking** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

## ROLES

	NET GROWTH
1. Managing Directors and Chief Executives	-2%
2. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
3. General and Operations Managers	0%
4. Business Services and Administration Managers	-5%
5. Business Development Professionals	21%
6. Accounting, Bookkeeping and Payroll Clerks	-27%
7. Assembly and Factory Workers	-6%

## Time to skill

Learning hours required to achieve a credential in **Creative thinking** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34

## FORMAL EDUCATION BACKGROUND

	BEGINNER	INTERMEDIATE	ADVANCED
All	2.7	10.2	20.2
No Bachelor's Degree	2.9	8.3	20.5
Bachelor's Degree	2.7	10.6	18.6
Graduate Degree	2.7	10.7	23.6

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Creative thinking** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Analytical thinking	55%
AI and big data	44%
Leadership and social influence	43%
Curiosity and lifelong learning	35%
Resilience, flexibility and agility	35%
Empathy and active listening	31%
Talent management	31%
Design and user experience	29%
Technological literacy	29%
Motivation and self-awareness	27%

## Simultaneous skill development

Probability that courses in **Creative thinking** also teach other skills. Source: Coursera.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Resource management and operations	84%
Marketing and media	56%
Empathy and active listening	54%
Design and user experience	54%
Analytical thinking	44%
Leadership and social influence	40%
Systems thinking	32%
Reading, writing and mathematics	23%
Programming	21%
Technological literacy	21%

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Creative thinking** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean

INDUSTRY	RESKILLING FOCUS	SKILL IMPORTANCE	SKILL EVOLUTION
Medical and healthcare services	Above global mean	Above global mean	Above global mean
Care, Personal Services and Wellbeing	Above global mean	Below global mean	Above global mean
Real estate	Above global mean	Above global mean	Above global mean
Retail and wholesale of consumer goods	Below global mean	Above global mean	Above global mean
Mining and Metals	Below global mean	Below global mean	Below global mean
Insurance and pensions management	Below global mean	Above global mean	Above global mean

## AI and big data

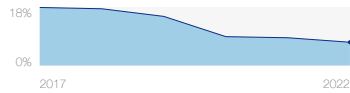
3rd

Skills, knowledge and abilities / Technology skills / AI and big data

Global Skills Taxonomy ↗

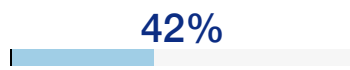
## Five year trend

Learning hours spent pursuing assessments and credentials in AI and big data from 2017 to 2022 (share of total learning hours). Source: Coursera



## Reskilling focus

Companies for which AI and big data is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



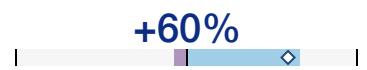
## Skill importance

Companies for which AI and big data is a core skill for workers (share of companies surveyed)



## Skill evolution

Share of companies for which AI and big data is increasing or decreasing in importance at work. White diamond and label represent net share.



## Jobs in focus

Roles where organizations surveyed report AI and big data to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Business Development Professionals	21%
2. Accounting, Bookkeeping and Payroll Clerks	-27%
3. Business Services and Administration Managers	-5%
4. Managing Directors and Chief Executives	-2%
5. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
6. General and Operations Managers	0%
7. Assembly and Factory Workers	-6%

## Time to skill

Learning hours required to achieve a credential in AI and big data at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34

## FORMAL EDUCATION BACKGROUND

	BEGINNER	INTERMEDIATE	ADVANCED
All	4.9	17.9	30.0
No Bachelor's Degree	4.4	16.9	26.2
Bachelor's Degree	5.0	18.7	32.1
Graduate Degree	5.2	21.0	34.0

## Strategically adjacent skills

Probability that a company which will prioritise skills training in AI and big data from 2023 to 2027 will also prioritise other skills.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill taxonomy	Percentage
Analytical thinking	50%
Creative thinking	45%
Leadership and social influence	35%
Design and user experience	35%
Technological literacy	32%
Resilience, flexibility and agility	32%
Curiosity and lifelong learning	30%
Networks and cybersecurity	30%
Talent management	28%
Service orientation and customer service	25%

## Simultaneous skill development

Probability that courses in AI and big data also teach other skills. Source: Coursera.

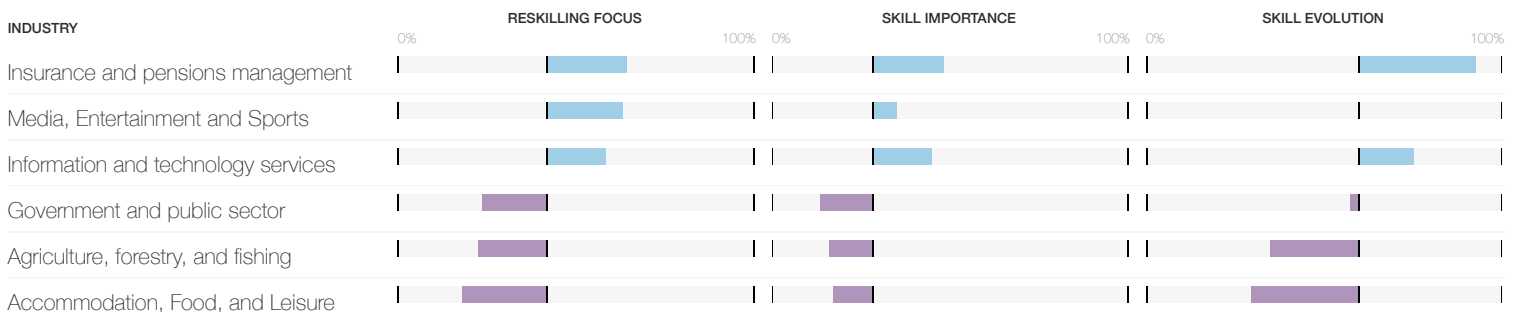
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill taxonomy	Percentage
Programming	55%
Analytical thinking	42%
Reading, writing and mathematics	38%
Networks and cybersecurity	37%
Design and user experience	34%
Resource management and operations	31%
Technological literacy	26%
Marketing and media	17%
Empathy and active listening	16%
Creative thinking	16%

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on AI and big data from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean



## Leadership and social influence

4th

Attitudes / Working with others / Leadership and social influence

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Leadership and social influence** from 2017 to 2022 (share of total learning hours).  
Source: Coursera



## Reskilling focus

Companies for which **Leadership and social influence** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

40%

## Skill importance

Companies for which **Leadership and social influence** is a core skill for workers (share of companies surveyed)

39%

## Skill evolution

Share of companies for which **Leadership and social influence** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+53%

## Jobs in focus

Roles where organizations surveyed report **Leadership and social influence** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

## ROLES

Role	NET GROWTH
1. General and Operations Managers	0%
2. Business Development Professionals	21%
3. Managing Directors and Chief Executives	-2%
4. Accounting, Bookkeeping and Payroll Clerks	-27%
5. Business Services and Administration Managers	-5%
6. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
7. Assembly and Factory Workers	-6%

## Time to skill

Learning hours required to achieve a credential in **Leadership and social influence** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34

## FORMAL EDUCATION BACKGROUND

Formal Education Background	BEGINNER	INTERMEDIATE	ADVANCED
All	2.5	8.9	15.9
No Bachelor's Degree	2.9	7.8	9.0
Bachelor's Degree	2.6	9.1	18.4
Graduate Degree	2.4	9.1	14.7

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Leadership and social influence** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill	Percentage
Analytical thinking	51%
Creative thinking	45%
Resilience, flexibility and agility	38%
Talent management	38%
AI and big data	37%
Curiosity and lifelong learning	36%
Technological literacy	32%
Motivation and self-awareness	32%
Empathy and active listening	30%
Design and user experience	26%

## Simultaneous skill development

Probability that courses in **Leadership and social influence** also teach other skills. Source: Coursera.

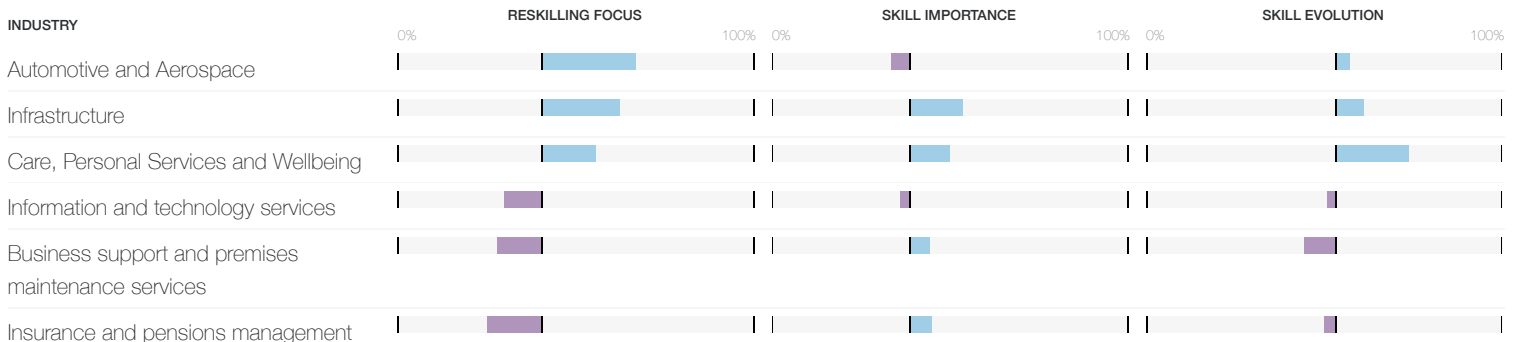
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill	Percentage
Empathy and active listening	97%
Resource management and operations	81%
Creative thinking	68%
Marketing and media	47%
Design and user experience	43%
Analytical thinking	36%
Systems thinking	29%
Global citizenship	27%
Curiosity and lifelong learning	24%
Talent management	22%

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Leadership and social influence** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean



## Resilience, flexibility and agility

5th

Attitudes / Self-efficacy / Resilience, flexibility and agility

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in Resilience, flexibility and agility from 2017 to 2022 (share of total learning hours).  
Source: Coursera



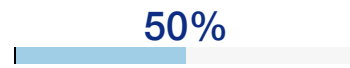
## Reskilling focus

Companies for which Resilience, flexibility and agility is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



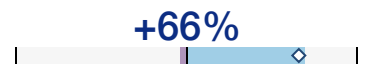
## Skill importance

Companies for which Resilience, flexibility and agility is a core skill for workers (share of companies surveyed)



## Skill evolution

Share of companies for which Resilience, flexibility and agility is increasing or decreasing in importance at work. White diamond and label represent net share.



## Jobs in focus

Roles where organizations surveyed report Resilience, flexibility and agility to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
2. Chemical Processing Plant Operators	2%
3. Accounting, Bookkeeping and Payroll Clerks	-27%
4. General and Operations Managers	0%
5. Managing Directors and Chief Executives	-2%
6. Assembly and Factory Workers	-6%
7. Business Development Professionals	21%

## Time to skill

Learning hours required to achieve a credential in Resilience, flexibility and agility at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours	BEGINNER	INTERMEDIATE	ADVANCED
All	3.6	8.8	9.9
No Bachelor's Degree	3.9	8.8	9.6
Bachelor's Degree	3.7	9.2	10.5
Graduate Degree	3.1	9.0	10.1

## Strategically adjacent skills

Probability that a company which will prioritise skills training in Resilience, flexibility and agility from 2023 to 2027 will also prioritise other skills.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
Analytical thinking	49%	
Leadership and social influence	48%	
Creative thinking	46%	
Curiosity and lifelong learning	43%	
AI and big data	41%	
Technological literacy	40%	
Talent management	37%	
Empathy and active listening	36%	
Motivation and self-awareness	35%	
Service orientation and customer service	33%	

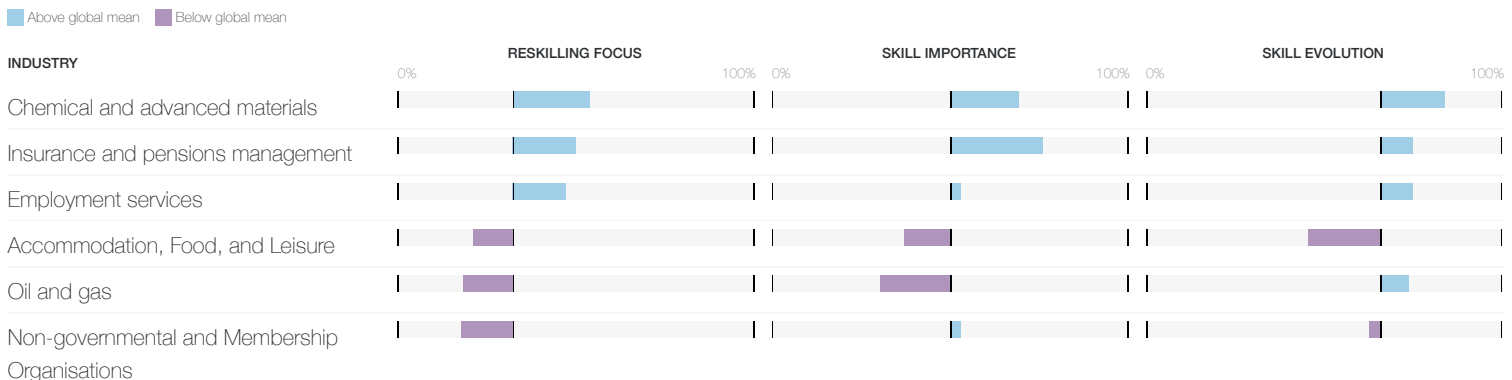
## Simultaneous skill development

Probability that courses in Resilience, flexibility and agility also teach other skills. Source: Coursera.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
Resource management and operations	92%	
Creative thinking	92%	
Empathy and active listening	67%	
Marketing and media	58%	
Leadership and social influence	53%	
Design and user experience	44%	
Analytical thinking	41%	
Systems thinking	28%	
Reading, writing and mathematics	25%	
Programming	19%	

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on Resilience, flexibility and agility from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)



## Curiosity and lifelong learning

6th

Attitudes / Self-efficacy / Curiosity and lifelong learning

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Curiosity and lifelong learning** from 2017 to 2022 (share of total learning hours).  
Source: Coursera



## Reskilling focus

Companies for which **Curiosity and lifelong learning** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

29%

## Skill importance

Companies for which **Curiosity and lifelong learning** is a core skill for workers (share of companies surveyed)

46%

## Skill evolution

Share of companies for which **Curiosity and lifelong learning** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+67%

## Jobs in focus

Roles where organizations surveyed report **Curiosity and lifelong learning** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES

ROLES	NET GROWTH
1. Shop Salespersons	-11%
2. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
3. Accounting, Bookkeeping and Payroll Clerks	-27%
4. Assembly and Factory Workers	-6%
5. General and Operations Managers	0%
6. Business Development Professionals	21%
7. Business Services and Administration Managers	-5%

## Time to skill

Learning hours required to achieve a credential in **Curiosity and lifelong learning** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34

FORMAL EDUCATION BACKGROUND

FORMAL EDUCATION BACKGROUND	BEGINNER	INTERMEDIATE	ADVANCED
All	2.9	9.9	15.1
No Bachelor's Degree	3.1	9.2	12.5
Bachelor's Degree	3.1	9.8	12.6
Graduate Degree	2.8	10.8	17.1

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Curiosity and lifelong learning** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill taxonomy	Percentage
Creative thinking	51%
Analytical thinking	50%
Leadership and social influence	50%
Resilience, flexibility and agility	47%
AI and big data	43%
Empathy and active listening	39%
Technological literacy	37%
Talent management	34%
Motivation and self-awareness	33%
Service orientation and customer service	31%

## Simultaneous skill development

Probability that courses in **Curiosity and lifelong learning** also teach other skills. Source: Coursera.

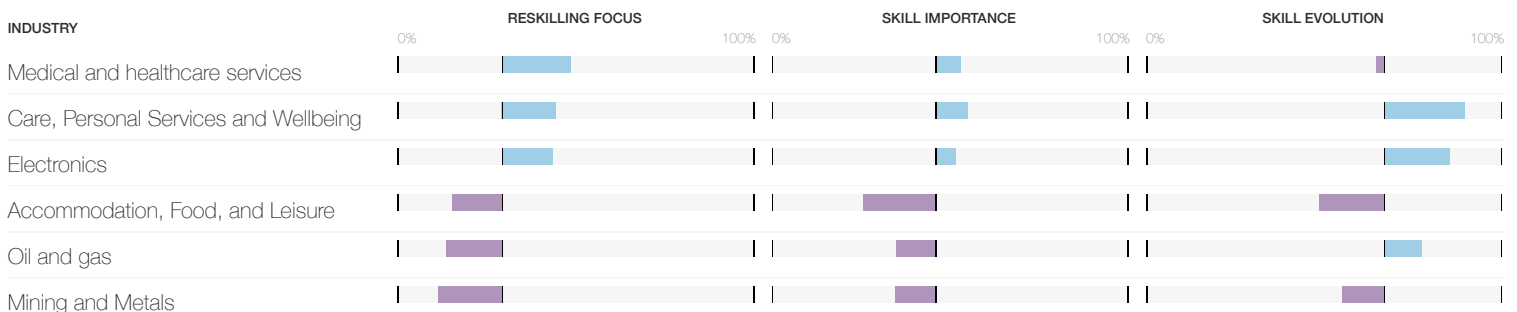
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill taxonomy	Percentage
Empathy and active listening	83%
Creative thinking	80%
Leadership and social influence	76%
Resource management and operations	75%
Talent management	39%
Design and user experience	37%
Marketing and media	35%
Analytical thinking	28%
Teaching and mentoring	26%
Resilience, flexibility and agility	19%

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Curiosity and lifelong learning** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean



## Technological literacy

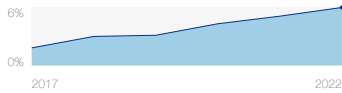
7th

Skills, knowledge and abilities / Technology skills / Technological literacy

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Technological literacy** from 2017 to 2022 (share of total learning hours). Source: Coursera



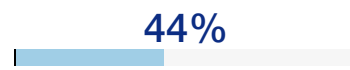
## Reskilling focus

Companies for which **Technological literacy** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



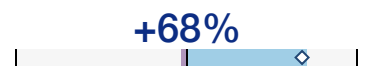
## Skill importance

Companies for which **Technological literacy** is a core skill for workers (share of companies surveyed)



## Skill evolution

Share of companies for which **Technological literacy** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.



## Jobs in focus

Roles where organizations surveyed report **Technological literacy** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
2. General and Operations Managers	0%
3. Business Development Professionals	21%
4. Business Services and Administration Managers	-5%
5. Assembly and Factory Workers	-6%
6. Managing Directors and Chief Executives	-2%
7. Accounting, Bookkeeping and Payroll Clerks	-27%

## Time to skill

Learning hours required to achieve a credential in **Technological literacy** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours	BEGINNER	INTERMEDIATE	ADVANCED
All	2.8	8.9	17.0
No Bachelor's Degree	2.7	9.1	15.9
Bachelor's Degree	3.0	8.9	16.7
Graduate Degree	2.8	9.5	18.5

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Technological literacy** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
Analytical thinking	53%	
AI and big data	48%	
Leadership and social influence	47%	
Resilience, flexibility and agility	47%	
Creative thinking	44%	
Curiosity and lifelong learning	39%	
Service orientation and customer service	38%	
Talent management	36%	
Design and user experience	32%	
Motivation and self-awareness	32%	

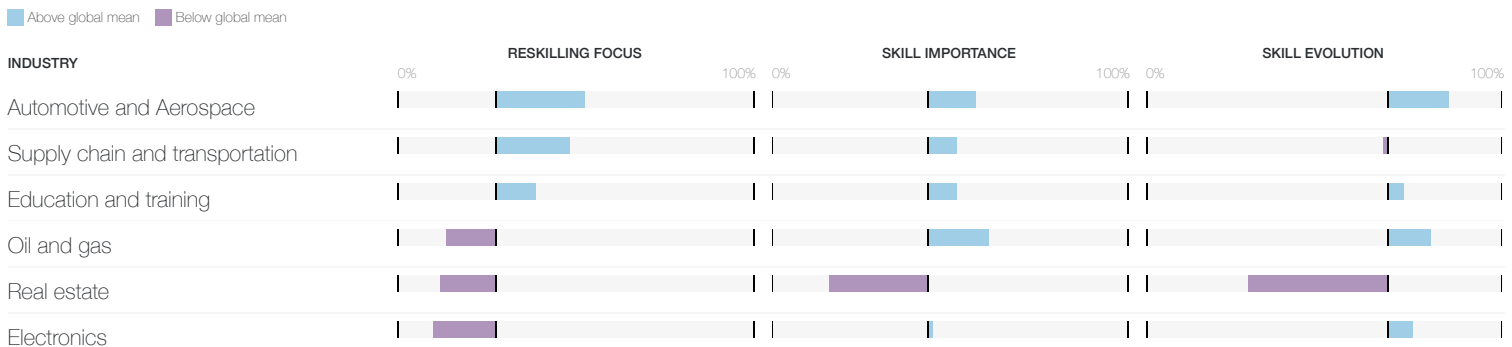
## Simultaneous skill development

Probability that courses in **Technological literacy** also teach other skills. Source: Coursera.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
Design and user experience	59%	
Programming	51%	
Networks and cybersecurity	46%	
Resource management and operations	41%	
Analytical thinking	34%	
Marketing and media	31%	
AI and big data	23%	
Empathy and active listening	21%	
Creative thinking	19%	
Reading, writing and mathematics	19%	

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Technological literacy** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)



# Design and user experience

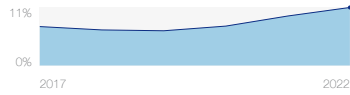
8th

Skills, knowledge and abilities / Technology skills / Design and user experience

Global Skills Taxonomy ↗

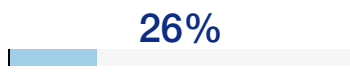
### Five year trend

Learning hours spent pursuing assessments and credentials in **Design and user experience** from 2017 to 2022 (share of total learning hours). Source: Coursera



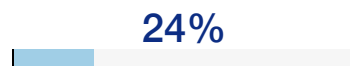
### Reskilling focus

Companies for which **Design and user experience** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



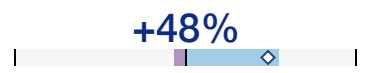
### Skill importance

Companies for which **Design and user experience** is a core skill for workers (share of companies surveyed)



### Skill evolution

Share of companies for which **Design and user experience** is increasing or decreasing in importance at work. White diamond and label represent net share.



### Jobs in focus

Roles where organizations surveyed report **Design and user experience** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Business Development Professionals	21%
2. Accounting, Bookkeeping and Payroll Clerks	-27%
3. Business Services and Administration Managers	-5%
4. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
5. Managing Directors and Chief Executives	-2%
6. Assembly and Factory Workers	-6%
7. General and Operations Managers	0%

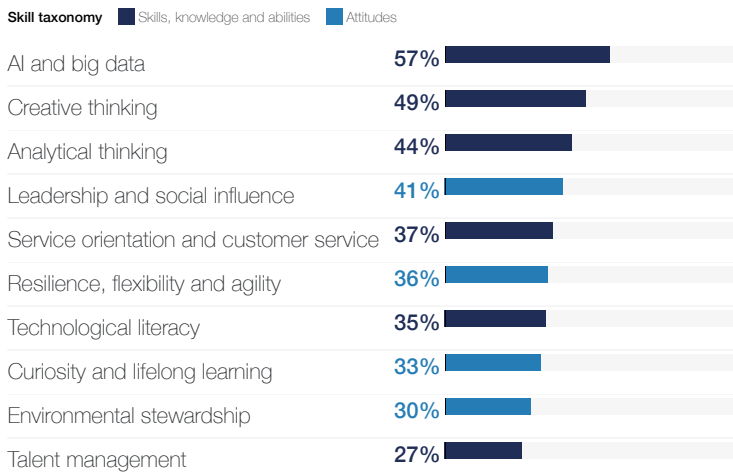
### Time to skill

Learning hours required to achieve a credential in **Design and user experience** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours	BEGINNER	INTERMEDIATE	ADVANCED
All	3.2	10.4	16.2
No Bachelor's Degree	3.3	10.5	14.2
Bachelor's Degree	3.2	10.2	15.0
Graduate Degree	3.1	11.6	18.2

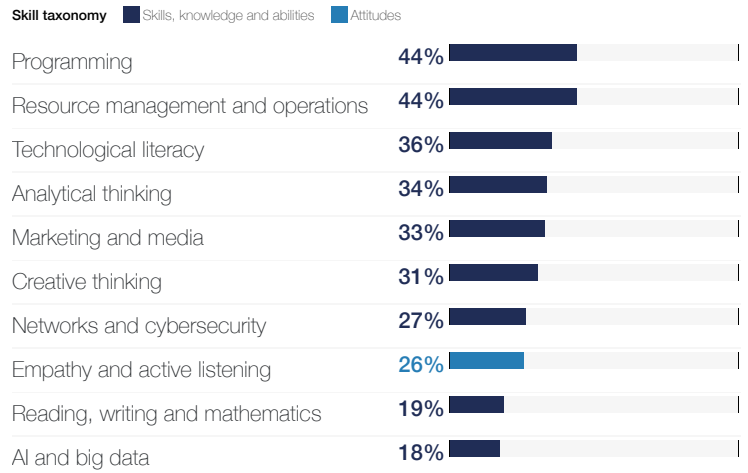
### Strategically adjacent skills

Probability that a company which will prioritise skills training in **Design and user experience** from 2023 to 2027 will also prioritise other skills.



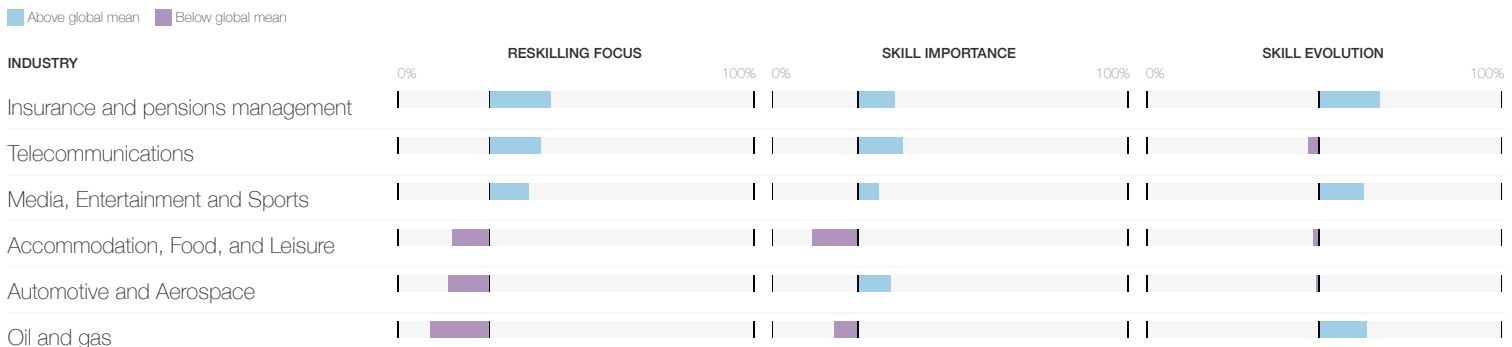
### Simultaneous skill development

Probability that courses in **Design and user experience** also teach other skills. Source: Coursera.



### Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Design and user experience** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)



# Motivation and self-awareness

9th

Attitudes / Self-efficacy / Motivation and self-awareness

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Motivation and self-awareness** from 2017 to 2022 (share of total learning hours).  
Source: Coursera



## Reskilling focus

Companies for which **Motivation and self-awareness** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

24%

## Skill importance

Companies for which **Motivation and self-awareness** is a core skill for workers (share of companies surveyed)

49%

## Skill evolution

Share of companies for which **Motivation and self-awareness** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+59%

## Jobs in focus

Roles where organizations surveyed report **Motivation and self-awareness** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

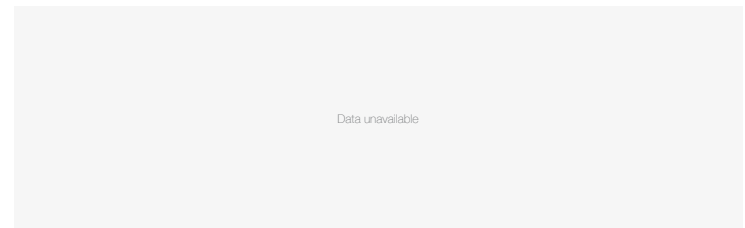
ROLES

	NET GROWTH
1. Assembly and Factory Workers	-6%
2. Business Development Professionals	21%
3. General and Operations Managers	0%
4. Managing Directors and Chief Executives	-2%
5. Accounting, Bookkeeping and Payroll Clerks	-27%
6. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
7. Business Services and Administration Managers	-5%

## Time to skill

Learning hours required to achieve a credential in **Motivation and self-awareness** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34



## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Motivation and self-awareness** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill	Percentage
Analytical thinking	56%
Leadership and social influence	53%
Creative thinking	48%
Resilience, flexibility and agility	47%
Curiosity and lifelong learning	41%
Empathy and active listening	37%
Technological literacy	37%
Talent management	36%
AI and big data	34%
Service orientation and customer service	33%

## Simultaneous skill development

Probability that courses in **Motivation and self-awareness** also teach other skills. Source: Coursera.

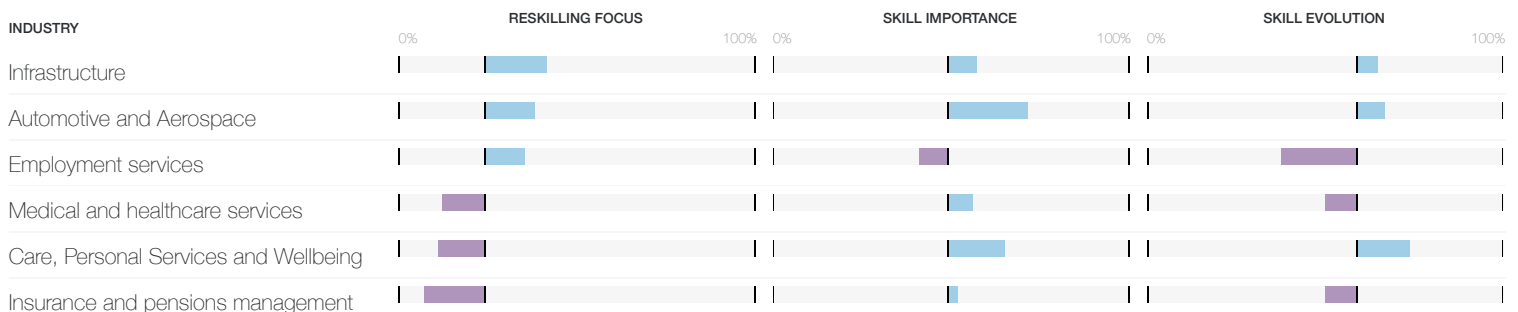
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill	Percentage
Curiosity and lifelong learning	100%
Creative thinking	63%
Empathy and active listening	63%
Leadership and social influence	56%
Resource management and operations	56%
Marketing and media	38%
Talent management	31%
Design and user experience	25%
Resilience, flexibility and agility	19%
Analytical thinking	19%

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Motivation and self-awareness** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean



## Empathy and active listening

10th

Attitudes / Working with others / Empathy and active listening

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Empathy and active listening** from 2017 to 2022 (share of total learning hours).  
Source: Coursera



## Reskilling focus

Companies for which **Empathy and active listening** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

24%

## Skill importance

Companies for which **Empathy and active listening** is a core skill for workers (share of companies surveyed)

42%

## Skill evolution

Share of companies for which **Empathy and active listening** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+52%

## Jobs in focus

Roles where organizations surveyed report **Empathy and active listening** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

## ROLES

ROLES	NET GROWTH
1. Shop Salespersons	-11%
2. Managing Directors and Chief Executives	-2%
3. General and Operations Managers	0%
4. Accounting, Bookkeeping and Payroll Clerks	-27%
5. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
6. Business Development Professionals	21%
7. Assembly and Factory Workers	-6%

## Time to skill

Learning hours required to achieve a credential in **Empathy and active listening** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34

## FORMAL EDUCATION BACKGROUND

FORMAL EDUCATION BACKGROUND	BEGINNER	INTERMEDIATE	ADVANCED
All	2.6	7.3	11.1
No Bachelor's Degree	2.7	7.0	9.8
Bachelor's Degree	2.8	8.2	12.3
Graduate Degree	2.7	8.0	12.3

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Empathy and active listening** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Creative thinking	55%
Analytical thinking	54%
Leadership and social influence	51%
Resilience, flexibility and agility	49%
Curiosity and lifelong learning	48%
AI and big data	39%
Motivation and self-awareness	38%
Talent management	37%
Service orientation and customer service	34%
Technological literacy	33%

## Simultaneous skill development

Probability that courses in **Empathy and active listening** also teach other skills. Source: Coursera.

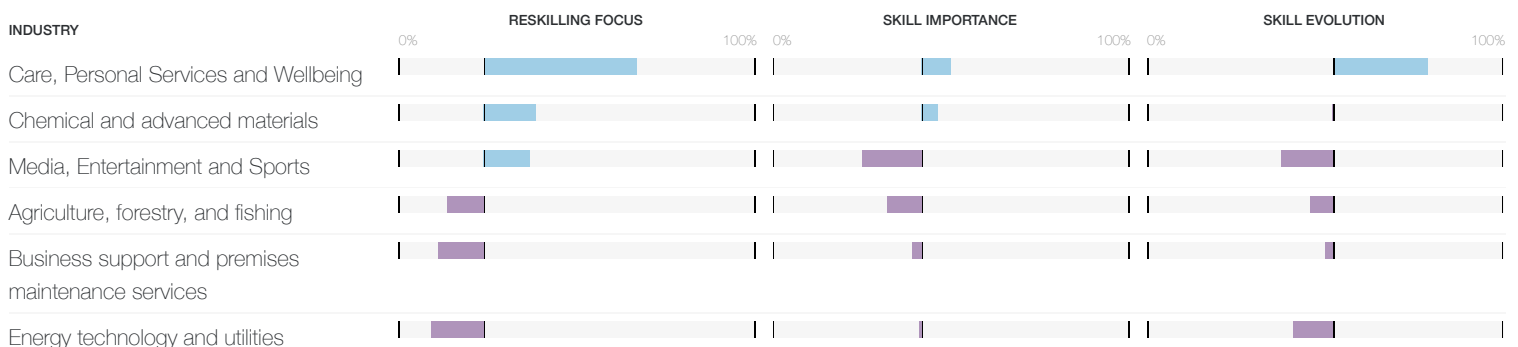
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Resource management and operations	65%
Marketing and media	54%
Leadership and social influence	52%
Creative thinking	50%
Design and user experience	42%
Analytical thinking	30%
Reading, writing and mathematics	24%
Technological literacy	21%
Systems thinking	20%
Programming	19%

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Empathy and active listening** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean



## Talent management

11th

Skills, knowledge and abilities / Management skills / Talent management

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Talent management** from 2017 to 2022 (share of total learning hours). Source: Coursera



## Reskilling focus

Companies for which **Talent management** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

25%

## Skill importance

Companies for which **Talent management** is a core skill for workers (share of companies surveyed)

35%

## Skill evolution

Share of companies for which **Talent management** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+56%

## Jobs in focus

Roles where organizations surveyed report **Talent management** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

## ROLES

	NET GROWTH
1. Managing Directors and Chief Executives	-2%
2. General and Operations Managers	0%
3. Assembly and Factory Workers	-6%
4. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
5. Business Development Professionals	21%
6. Business Services and Administration Managers	-5%
7. Accounting, Bookkeeping and Payroll Clerks	-27%

## Time to skill

Learning hours required to achieve a credential in **Talent management** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34

## FORMAL EDUCATION BACKGROUND

	BEGINNER	INTERMEDIATE	ADVANCED
All	2.7	7.3	10.9
No Bachelor's Degree	2.9	7.4	14.3
Bachelor's Degree	2.7	7.6	12.7
Graduate Degree	2.6	7.1	9.7

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Talent management** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Leadership and social influence	62%
Analytical thinking	55%
Creative thinking	53%
Resilience, flexibility and agility	49%
AI and big data	47%
Curiosity and lifelong learning	40%
Technological literacy	40%
Empathy and active listening	36%
Motivation and self-awareness	35%
Resource management and operations	34%

## Simultaneous skill development

Probability that courses in **Talent management** also teach other skills. Source: Coursera.

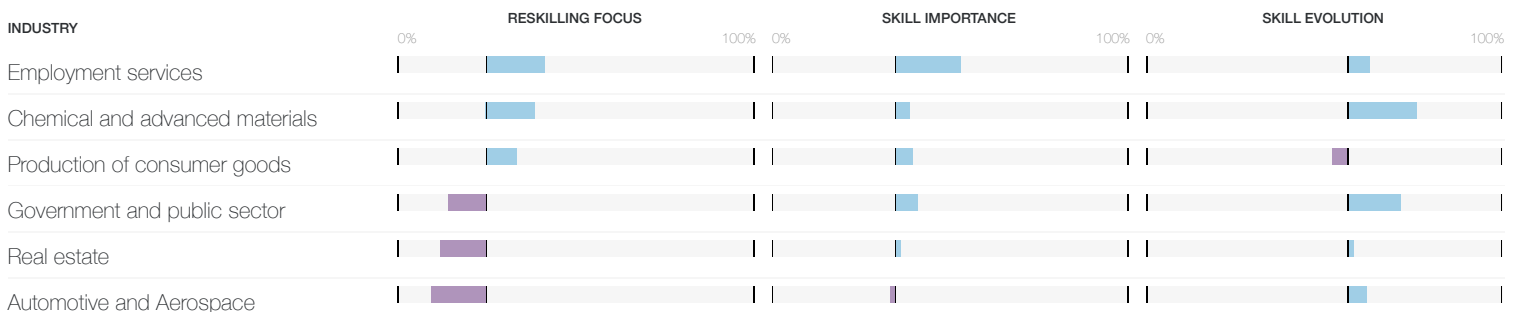
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Resource management and operations	54%
Creative thinking	45%
Empathy and active listening	45%
Leadership and social influence	41%
Marketing and media	26%
Design and user experience	23%
Curiosity and lifelong learning	22%
Analytical thinking	22%
Systems thinking	16%
Resilience, flexibility and agility	11%

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Talent management** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean



# Service orientation and customer service

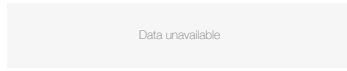
12th

Skills, knowledge and abilities / Engagement skills / **Service orientation and customer service**

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Service orientation and customer service** from 2017 to 2022 (share of total learning hours). Source: Coursera



## Reskilling focus

Companies for which **Service orientation and customer service** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



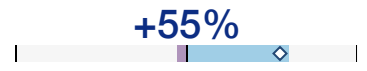
## Skill importance

Companies for which **Service orientation and customer service** is a core skill for workers (share of companies surveyed)



## Skill evolution

Share of companies for which **Service orientation and customer service** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.



## Jobs in focus

Roles where organizations surveyed report **Service orientation and customer service** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

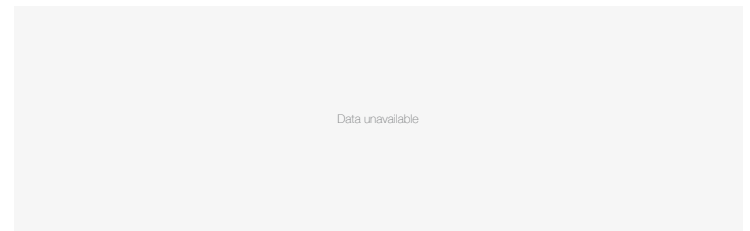
### ROLES

ROLES	NET GROWTH
1. Shop Salespersons	-11%
2. Business Development Professionals	21%
3. Accounting, Bookkeeping and Payroll Clerks	-27%
4. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
5. Managing Directors and Chief Executives	-2%
6. Assembly and Factory Workers	-6%
7. General and Operations Managers	0%

## Time to skill

Learning hours required to achieve a credential in **Service orientation and customer service** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

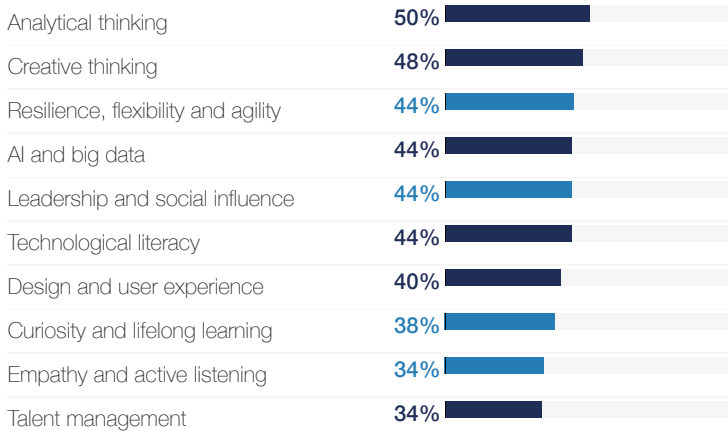
Hours 0 34



## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Service orientation and customer service** from 2023 to 2027 will also prioritise other skills.

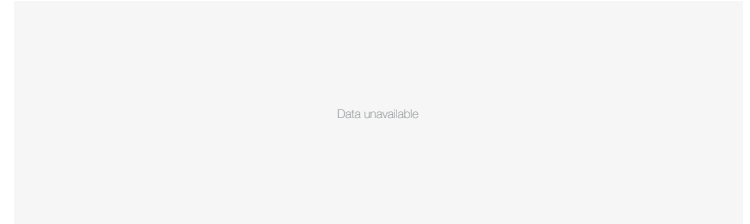
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes



## Simultaneous skill development

Probability that courses in **Service orientation and customer service** also teach other skills. Source: Coursera.

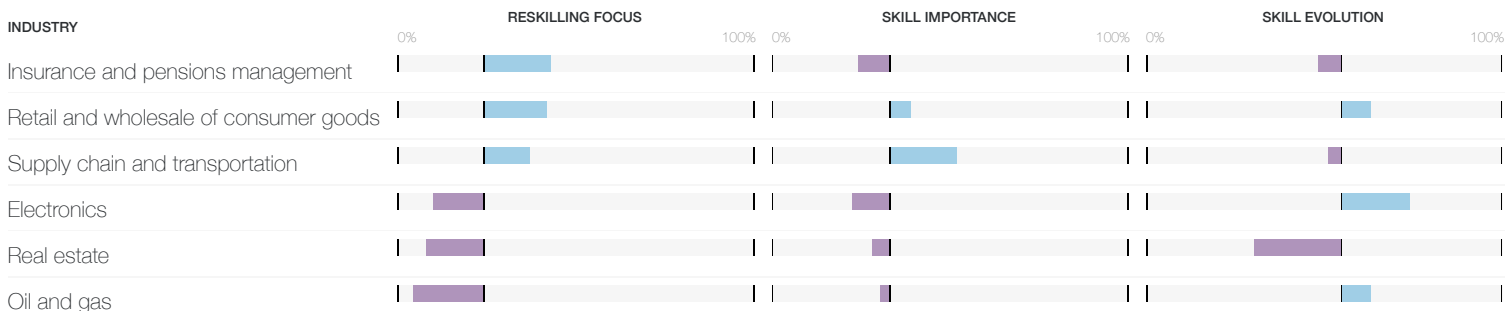
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes



## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Service orientation and customer service** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean



# Environmental stewardship

13th

Attitudes / Ethics / Environmental stewardship

Global Skills Taxonomy ↗

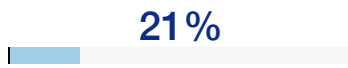
### Five year trend

Learning hours spent pursuing assessments and credentials in **Environmental stewardship** from 2017 to 2022 (share of total learning hours).  
Source: Coursera



### Reskilling focus

Companies for which **Environmental stewardship** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



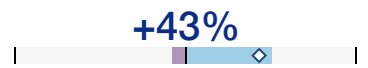
### Skill importance

Companies for which **Environmental stewardship** is a core skill for workers (share of companies surveyed)



### Skill evolution

Share of companies for which **Environmental stewardship** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.



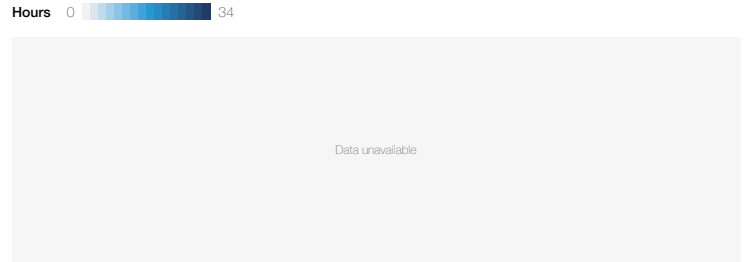
### Jobs in focus

Roles where organizations surveyed report **Environmental stewardship** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Chemical Processing Plant Operators	2%
2. Managing Directors and Chief Executives	-2%
3. Assembly and Factory Workers	-6%
4. Accounting, Bookkeeping and Payroll Clerks	-27%
5. Business Development Professionals	21%
6. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
7. Business Services and Administration Managers	-5%

### Time to skill

Learning hours required to achieve a credential in **Environmental stewardship** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.



### Strategically adjacent skills

Probability that a company which will prioritise skills training in **Environmental stewardship** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy: Skills, knowledge and abilities (dark blue), Attitudes (light blue)

Skill	Percentage
AI and big data	49%
Resilience, flexibility and agility	47%
Creative thinking	45%
Analytical thinking	44%
Leadership and social influence	42%
Talent management	38%
Design and user experience	37%
Technological literacy	37%
Motivation and self-awareness	36%
Service orientation and customer service	34%

### Simultaneous skill development

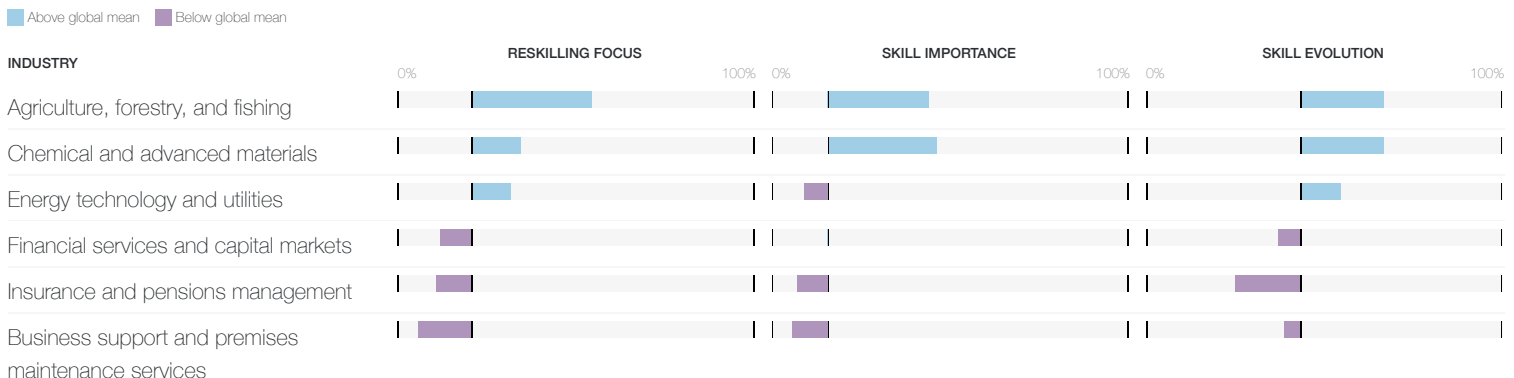
Probability that courses in **Environmental stewardship** also teach other skills. Source: Coursera.

Skill taxonomy: Skills, knowledge and abilities (dark blue), Attitudes (light blue)

Skill	Percentage
Resource management and operations	51%
Design and user experience	45%
Analytical thinking	37%
Creative thinking	35%
Marketing and media	26%
Reading, writing and mathematics	25%
Programming	20%
AI and big data	18%
Resilience, flexibility and agility	16%
Empathy and active listening	16%

### Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Environmental stewardship** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)



## Resource management and operations

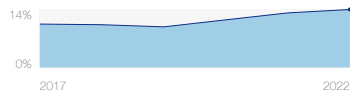
14th

Skills, knowledge and abilities / Management skills / Resource management and operations

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Resource management and operations** from 2017 to 2022 (share of total learning hours). Source: Coursera



## Reskilling focus

Companies for which **Resource management and operations** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

19%

## Skill importance

Companies for which **Resource management and operations** is a core skill for workers (share of companies surveyed)

31%

## Skill evolution

Share of companies for which **Resource management and operations** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+51%

## Jobs in focus

Roles where organizations surveyed report **Resource management and operations** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES

ROLES	NET GROWTH
1. Business Services and Administration Managers	-5%
2. Assembly and Factory Workers	-6%
3. Managing Directors and Chief Executives	-2%
4. Accounting, Bookkeeping and Payroll Clerks	-27%
5. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
6. General and Operations Managers	0%
7. Business Development Professionals	21%

## Time to skill

Learning hours required to achieve a credential in **Resource management and operations** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34

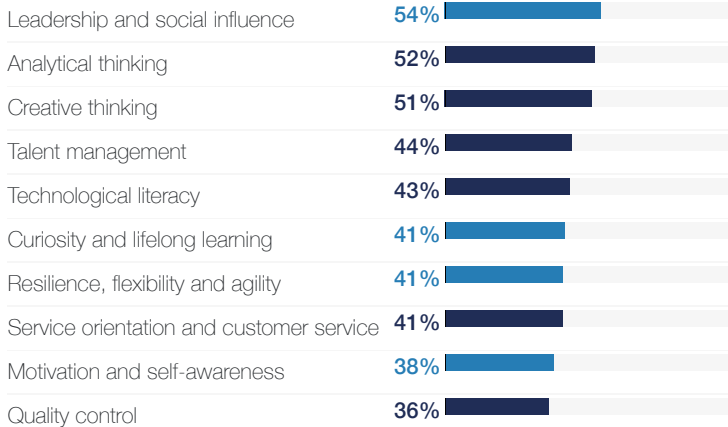
FORMAL EDUCATION BACKGROUND

FORMAL EDUCATION BACKGROUND	BEGINNER	INTERMEDIATE	ADVANCED
All	3.1	11.4	22.3
No Bachelor's Degree	3.4	12.1	19.0
Bachelor's Degree	3.2	12.3	21.2
Graduate Degree	3.1	11.4	19.9

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Resource management and operations** from 2023 to 2027 will also prioritise other skills.

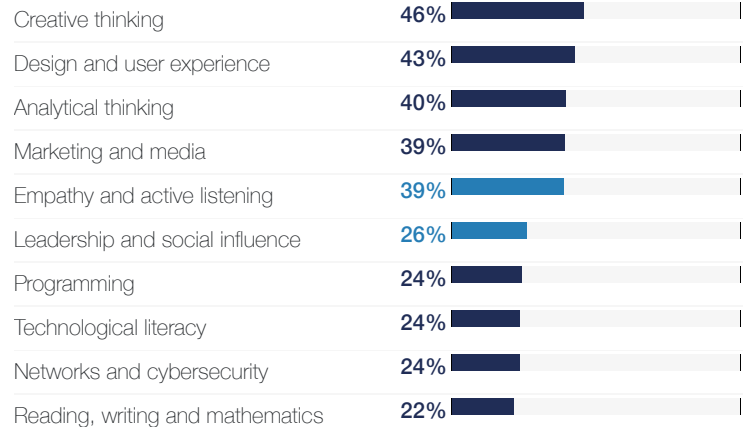
Skill taxonomy Skills, knowledge and abilities Attitudes



## Simultaneous skill development

Probability that courses in **Resource management and operations** also teach other skills. Source: Coursera.

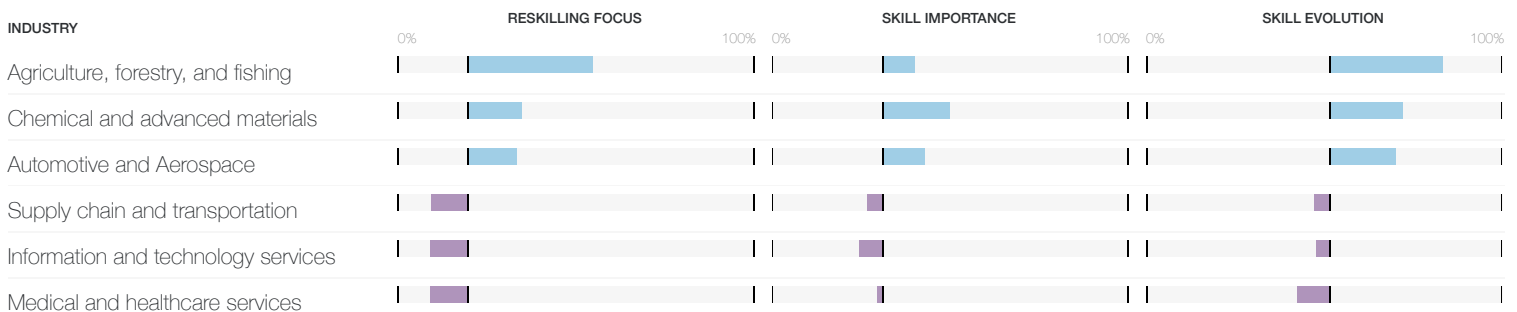
Skill taxonomy Skills, knowledge and abilities Attitudes



## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Resource management and operations** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

Above global mean Below global mean



## Marketing and media

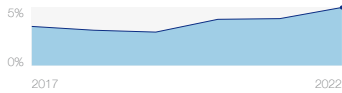
15th

Skills, knowledge and abilities / Engagement skills / Marketing and media

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Marketing and media** from 2017 to 2022 (share of total learning hours). Source: Coursera



## Reskilling focus

Companies for which **Marketing and media** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

18%

## Skill importance

Companies for which **Marketing and media** is a core skill for workers (share of companies surveyed)

18%

## Skill evolution

Share of companies for which **Marketing and media** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+38%

## Jobs in focus

Roles where organizations surveyed report **Marketing and media** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
2. Managing Directors and Chief Executives	-2%
3. Business Development Professionals	21%
4. Accounting, Bookkeeping and Payroll Clerks	-27%
5. Business Services and Administration Managers	-5%
6. Assembly and Factory Workers	-6%
7. General and Operations Managers	0%

## Time to skill

Learning hours required to achieve a credential in **Marketing and media** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34

## FORMAL EDUCATION BACKGROUND

	BEGINNER	INTERMEDIATE	ADVANCED
All	3.8	12.8	18.2
No Bachelor's Degree	4.0	12.3	15.0
Bachelor's Degree	3.8	11.4	16.8
Graduate Degree	3.8	14.1	21.8

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Marketing and media** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Creative thinking	54%
AI and big data	52%
Analytical thinking	48%
Leadership and social influence	47%
Service orientation and customer service	41%
Empathy and active listening	38%
Talent management	36%
Technological literacy	35%
Design and user experience	34%
Quality control	34%

## Simultaneous skill development

Probability that courses in **Marketing and media** also teach other skills. Source: Coursera.

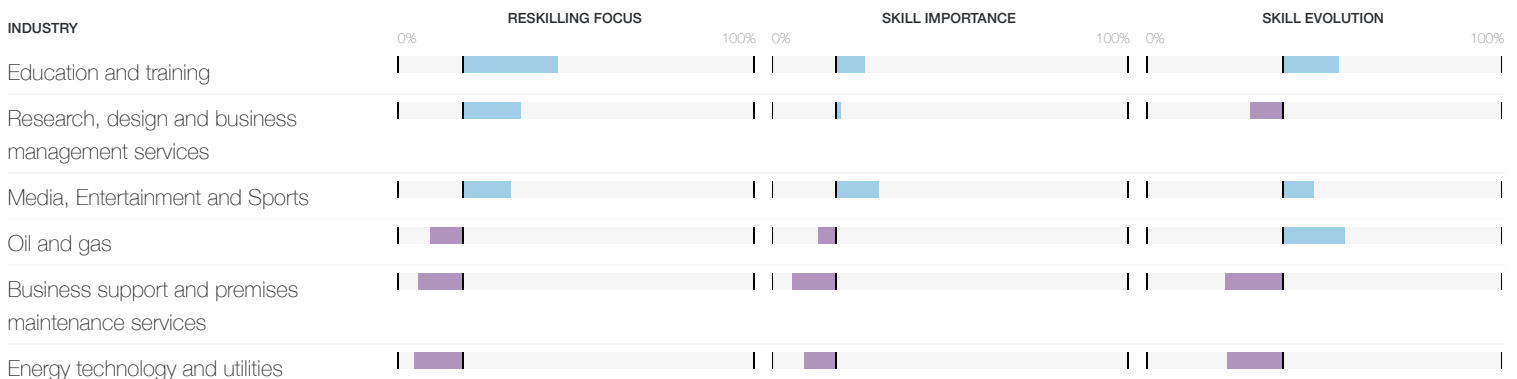
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Resource management and operations	60%
Empathy and active listening	49%
Design and user experience	48%
Creative thinking	46%
Analytical thinking	31%
Technological literacy	27%
Leadership and social influence	23%
Systems thinking	22%
Programming	19%
Reading, writing and mathematics	17%

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Marketing and media** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean





# Networks and cybersecurity

17th

Skills, knowledge and abilities / Technology skills / Networks and cybersecurity

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Networks and cybersecurity** from 2017 to 2022 (share of total learning hours).  
Source: Coursera



## Reskilling focus

Companies for which **Networks and cybersecurity** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

17%

## Skill importance

Companies for which **Networks and cybersecurity** is a core skill for workers (share of companies surveyed)

18%

## Skill evolution

Share of companies for which **Networks and cybersecurity** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+50%

## Jobs in focus

Roles where organizations surveyed report **Networks and cybersecurity** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

### ROLES

Role	NET GROWTH
1. Business Development Professionals	21%
2. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
3. Managing Directors and Chief Executives	-2%
4. Business Services and Administration Managers	-5%
5. Assembly and Factory Workers	-6%
6. General and Operations Managers	0%
7. Accounting, Bookkeeping and Payroll Clerks	-27%

## Time to skill

Learning hours required to achieve a credential in **Networks and cybersecurity** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34

### FORMAL EDUCATION BACKGROUND

	BEGINNER	INTERMEDIATE	ADVANCED
All	3.6	10.9	19.2
No Bachelor's Degree	3.8	11.0	18.2
Bachelor's Degree	3.7	11.1	16.5
Graduate Degree	3.6	11.5	18.9

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Networks and cybersecurity** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill	Percentage
AI and big data	73%
Analytical thinking	52%
Leadership and social influence	46%
Technological literacy	41%
Creative thinking	40%
Service orientation and customer service	38%
Resilience, flexibility and agility	37%
Design and user experience	36%
Talent management	36%
Environmental stewardship	35%

## Simultaneous skill development

Probability that courses in **Networks and cybersecurity** also teach other skills. Source: Coursera.

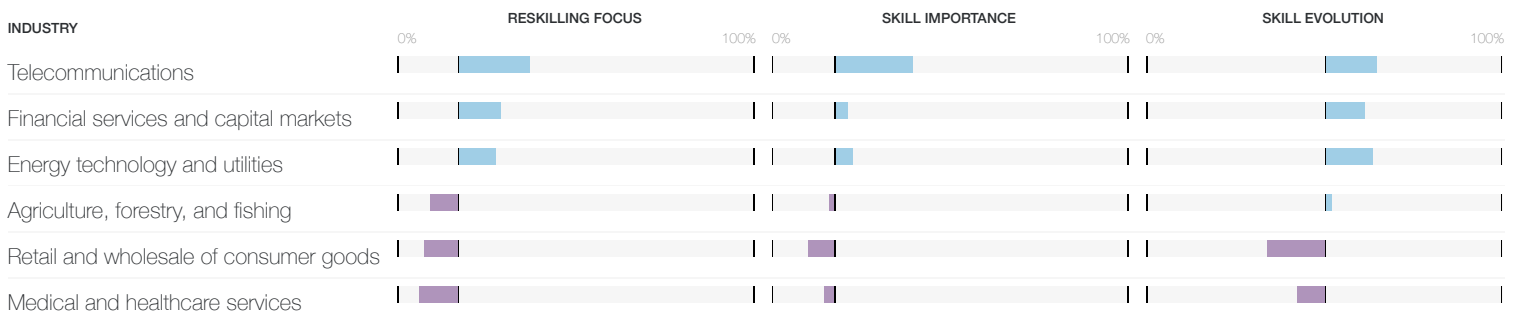
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill	Percentage
Programming	53%
Technological literacy	40%
Design and user experience	38%
Resource management and operations	35%
AI and big data	28%
Analytical thinking	24%
Reading, writing and mathematics	17%
Marketing and media	15%
Empathy and active listening	13%
Creative thinking	13%

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Networks and cybersecurity** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean



# Dependability and attention to detail

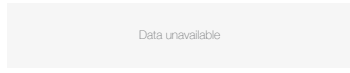
18th

Attitudes / Self-efficacy / Dependability and attention to detail

Global Skills Taxonomy ↗

### Five year trend

Learning hours spent pursuing assessments and credentials in **Dependability and attention to detail** from 2017 to 2022 (share of total learning hours). Source: Coursera



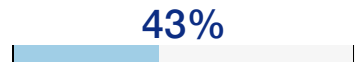
### Reskilling focus

Companies for which **Dependability and attention to detail** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



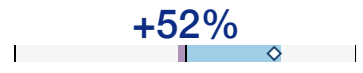
### Skill importance

Companies for which **Dependability and attention to detail** is a core skill for workers (share of companies surveyed)



### Skill evolution

Share of companies for which **Dependability and attention to detail** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.



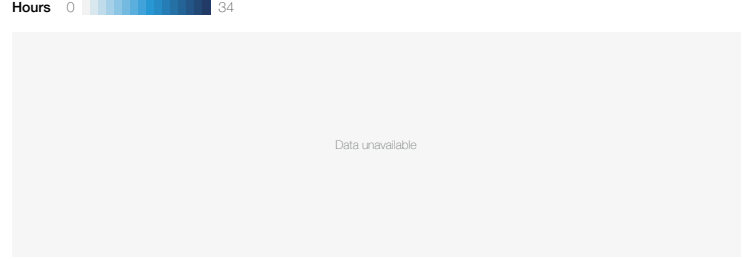
### Jobs in focus

Roles where organizations surveyed report **Dependability and attention to detail** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Assembly and Factory Workers	-6%
2. Business Development Professionals	21%
3. Business Services and Administration Managers	-5%
4. Accounting, Bookkeeping and Payroll Clerks	-27%
5. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
6. General and Operations Managers	0%
7. Managing Directors and Chief Executives	-2%

### Time to skill

Learning hours required to achieve a credential in **Dependability and attention to detail** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.



### Strategically adjacent skills

Probability that a company which will prioritise skills training in **Dependability and attention to detail** from 2023 to 2027 will also prioritise other skills.

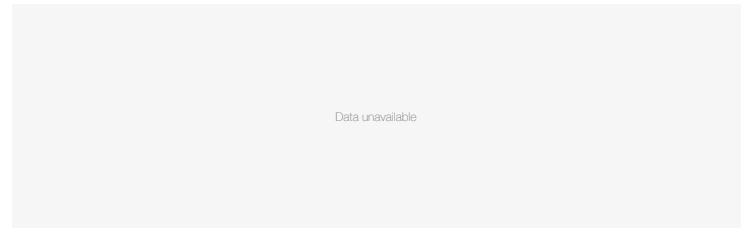
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill	Percentage
Analytical thinking	58%
Creative thinking	54%
Leadership and social influence	48%
Motivation and self-awareness	46%
Resilience, flexibility and agility	44%
Technological literacy	43%
Environmental stewardship	39%
Service orientation and customer service	39%
Quality control	37%
Empathy and active listening	36%

### Simultaneous skill development

Probability that courses in **Dependability and attention to detail** also teach other skills. Source: Coursera.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes



### Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Dependability and attention to detail** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean

INDUSTRY	RESKILLING FOCUS	SKILL IMPORTANCE	SKILL EVOLUTION
Media, Entertainment and Sports	Above global mean	Below global mean	Above global mean
Agriculture, forestry, and fishing	Above global mean	Above global mean	Above global mean
Mining and Metals	Above global mean	Above global mean	Above global mean
Medical and healthcare services	Below global mean	Above global mean	Below global mean
Business support and premises maintenance services	Below global mean	Below global mean	Below global mean
Electronics	Below global mean	Above global mean	Above global mean

# Systems thinking

19th

Skills, knowledge and abilities / Cognitive skills / **Systems thinking**

Global Skills Taxonomy ↗

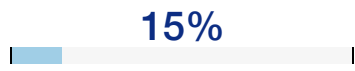
## Five year trend

Learning hours spent pursuing assessments and credentials in **Systems thinking** from 2017 to 2022 (share of total learning hours). Source: Coursera



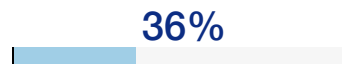
## Reskilling focus

Companies for which **Systems thinking** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



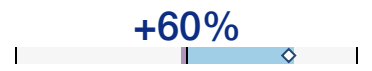
## Skill importance

Companies for which **Systems thinking** is a core skill for workers (share of companies surveyed)



## Skill evolution

Share of companies for which **Systems thinking** is increasing or decreasing in importance at work. White diamond and label represent net share.



## Jobs in focus

Roles where organizations surveyed report **Systems thinking** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
2. Managing Directors and Chief Executives	-2%
3. Business Development Professionals	21%
4. General and Operations Managers	0%
5. Business Services and Administration Managers	-5%
6. Accounting, Bookkeeping and Payroll Clerks	-27%
7. Assembly and Factory Workers	-6%

## Time to skill

Learning hours required to achieve a credential in **Systems thinking** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours	BEGINNER	INTERMEDIATE	ADVANCED
All	2.0	6.4	9.2
No Bachelor's Degree	2.3	5.8	8.2
Bachelor's Degree	2.1	6.0	10.8
Graduate Degree	2.0	6.8	9.3

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Systems thinking** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
Analytical thinking	66%	
Leadership and social influence	57%	
AI and big data	56%	
Creative thinking	56%	
Technological literacy	54%	
Resilience, flexibility and agility	52%	
Curiosity and lifelong learning	47%	
Motivation and self-awareness	45%	
Talent management	44%	
Service orientation and customer service	43%	

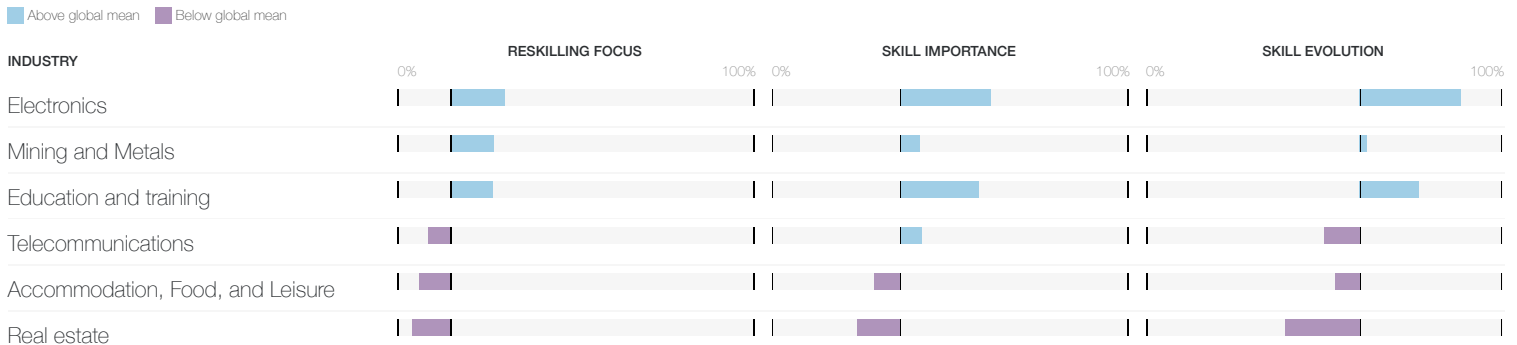
## Simultaneous skill development

Probability that courses in **Systems thinking** also teach other skills. Source: Coursera.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
Resource management and operations	81%	
Creative thinking	77%	
Analytical thinking	68%	
Marketing and media	66%	
Design and user experience	63%	
Empathy and active listening	54%	
Leadership and social influence	41%	
Reading, writing and mathematics	31%	
Programming	30%	
Technological literacy	29%	

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Systems thinking** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)



# Programming

20th

Skills, knowledge and abilities / Technology skills / Programming

Global Skills Taxonomy ↗

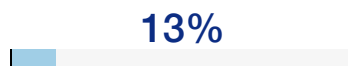
## Five year trend

Learning hours spent pursuing assessments and credentials in **Programming** from 2017 to 2022 (share of total learning hours). Source: Coursera



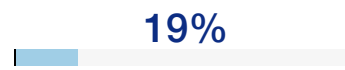
## Reskilling focus

Companies for which **Programming** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



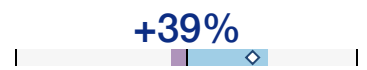
## Skill importance

Companies for which **Programming** is a core skill for workers (share of companies surveyed)



## Skill evolution

Share of companies for which **Programming** is increasing or decreasing in importance at work. White diamond and label represent net share.



## Jobs in focus

Roles where organizations surveyed report **Programming** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Business Development Professionals	21%
2. Assembly and Factory Workers	-6%
3. Business Services and Administration Managers	-5%
4. Managing Directors and Chief Executives	-2%
5. Accounting, Bookkeeping and Payroll Clerks	-27%
6. General and Operations Managers	0%
7. Sales Representatives, Wholesale and Manufacturing, Technical...	0%

## Time to skill

Learning hours required to achieve a credential in **Programming** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours	BEGINNER	INTERMEDIATE	ADVANCED
All	3.9	13.4	19.1
No Bachelor's Degree	3.7	13.0	16.7
Bachelor's Degree	4.1	12.4	18.1
Graduate Degree	4.1	12.9	19.2

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Programming** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
AI and big data	65%	
Analytical thinking	58%	
Creative thinking	48%	
Design and user experience	44%	
Marketing and media	43%	
Leadership and social influence	42%	
Curiosity and lifelong learning	41%	
Talent management	41%	
Technological literacy	41%	
Networks and cybersecurity	38%	

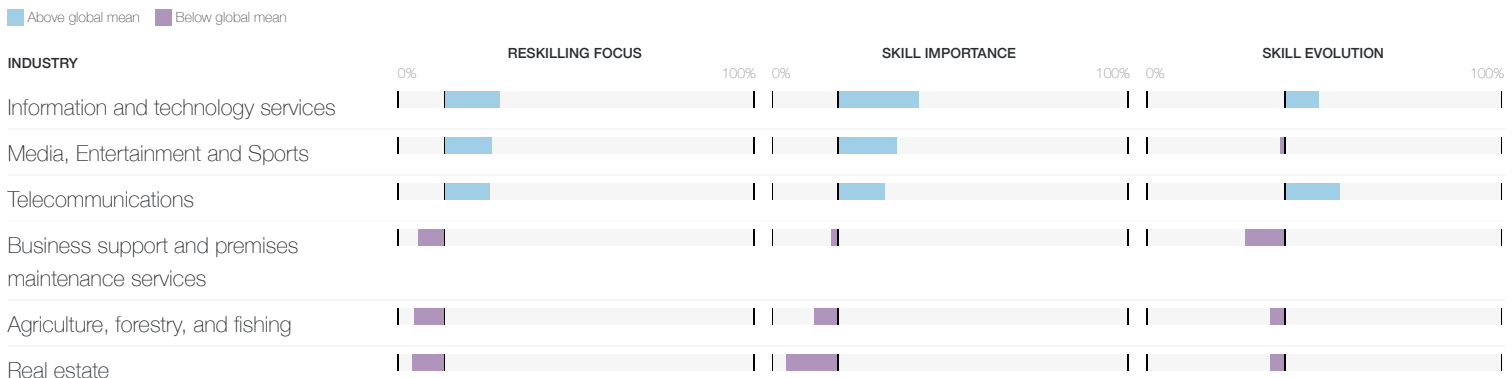
## Simultaneous skill development

Probability that courses in **Programming** also teach other skills. Source: Coursera.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
Design and user experience	45%	
Networks and cybersecurity	37%	
Technological literacy	32%	
AI and big data	30%	
Analytical thinking	27%	
Resource management and operations	26%	
Reading, writing and mathematics	23%	
Marketing and media	13%	
Empathy and active listening	12%	
Creative thinking	12%	

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Programming** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)



# Teaching and mentoring

21st

Attitudes / Working with others / Teaching and mentoring

Global Skills Taxonomy ↗

### Five year trend

Learning hours spent pursuing assessments and credentials in **Teaching and mentoring** from 2017 to 2022 (share of total learning hours). Source: Coursera



### Reskilling focus

Companies for which **Teaching and mentoring** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)

14%

### Skill importance

Companies for which **Teaching and mentoring** is a core skill for workers (share of companies surveyed)

22%

### Skill evolution

Share of companies for which **Teaching and mentoring** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.

+48%

### Jobs in focus

Roles where organizations surveyed report **Teaching and mentoring** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

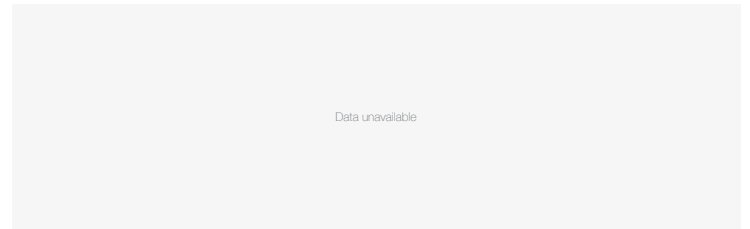
ROLES

Role	NET GROWTH
1. Assembly and Factory Workers	-6%
2. General and Operations Managers	0%
3. Managing Directors and Chief Executives	-2%
4. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
5. Business Development Professionals	21%
6. Accounting, Bookkeeping and Payroll Clerks	-27%
7. Business Services and Administration Managers	-5%

### Time to skill

Learning hours required to achieve a credential in **Teaching and mentoring** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34



### Strategically adjacent skills

Probability that a company which will prioritise skills training in **Teaching and mentoring** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill	Percentage
Talent management	60%
Leadership and social influence	59%
Analytical thinking	58%
Creative thinking	58%
AI and big data	54%
Technological literacy	54%
Curiosity and lifelong learning	53%
Resilience, flexibility and agility	53%
Motivation and self-awareness	48%
Design and user experience	45%

### Simultaneous skill development

Probability that courses in **Teaching and mentoring** also teach other skills. Source: Coursera.

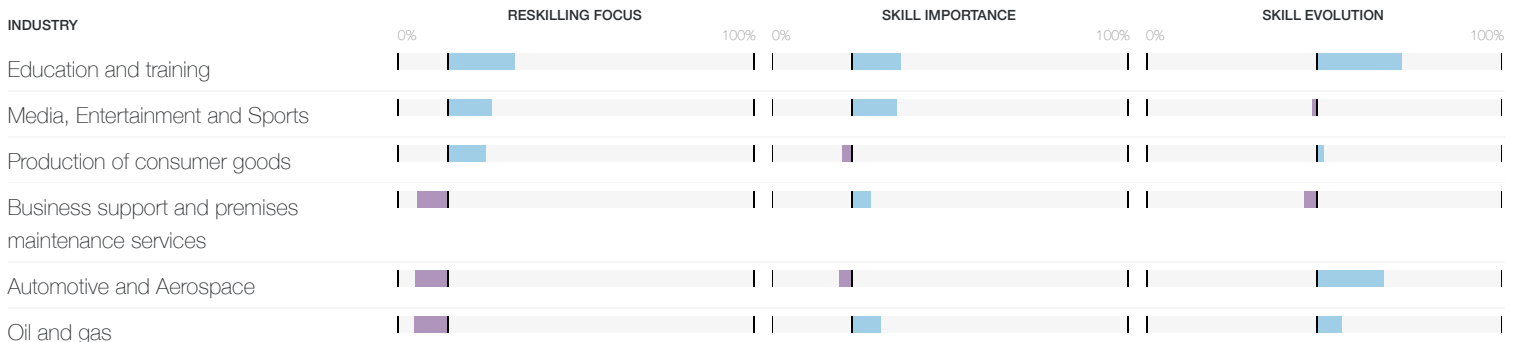
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Skill	Percentage
Empathy and active listening	51%
Resource management and operations	45%
Creative thinking	45%
Leadership and social influence	39%
Curiosity and lifelong learning	38%
Design and user experience	30%
Talent management	26%
Analytical thinking	17%
Marketing and media	14%
Reading, writing and mathematics	11%

### Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Teaching and mentoring** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean



## Multi-lingualism

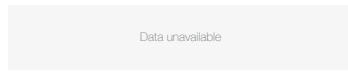
22nd

Skills, knowledge and abilities / Cognitive skills / Multi-lingualism

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Multi-lingualism** from 2017 to 2022 (share of total learning hours). Source: Coursera



## Reskilling focus

Companies for which **Multi-lingualism** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



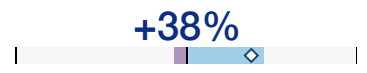
## Skill importance

Companies for which **Multi-lingualism** is a core skill for workers (share of companies surveyed)



## Skill evolution

Share of companies for which **Multi-lingualism** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.



## Jobs in focus

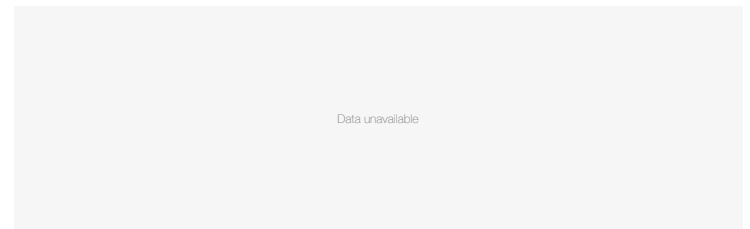
Roles where organizations surveyed report **Multi-lingualism** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Business Services and Administration Managers	-5%
2. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
3. Accounting, Bookkeeping and Payroll Clerks	-27%
4. Managing Directors and Chief Executives	-2%
5. Business Development Professionals	21%
6. Assembly and Factory Workers	-6%
7. General and Operations Managers	0%

## Time to skill

Learning hours required to achieve a credential in **Multi-lingualism** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34



## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Multi-lingualism** from 2023 to 2027 will also prioritise other skills.

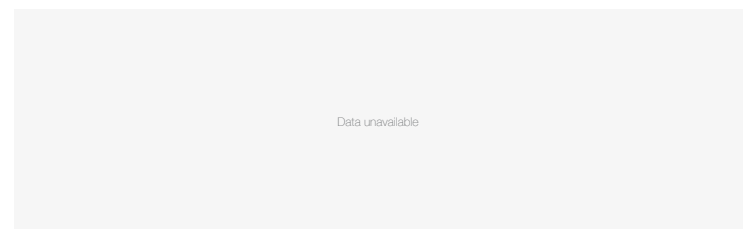
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Analytical thinking	60%
Creative thinking	59%
Leadership and social influence	57%
Technological literacy	54%
Talent management	50%
AI and big data	47%
Design and user experience	44%
Curiosity and lifelong learning	43%
Marketing and media	43%
Resilience, flexibility and agility	43%

## Simultaneous skill development

Probability that courses in **Multi-lingualism** also teach other skills. Source: Coursera.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes



## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Multi-lingualism** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean

INDUSTRY	RESKILLING FOCUS	SKILL IMPORTANCE	SKILL EVOLUTION
Employment services	Above global mean	Above global mean	Above global mean
Accommodation, Food, and Leisure	Above global mean	Above global mean	Below global mean
Production of consumer goods	Above global mean	Below global mean	Below global mean
Government and public sector	Below global mean	Below global mean	Above global mean
Oil and gas	Below global mean	Above global mean	Above global mean
Insurance and pensions management	Below global mean	Below global mean	Below global mean

# Manual dexterity, endurance and precision

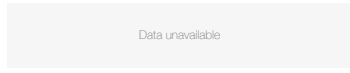
23rd

Skills, knowledge and abilities / Physical abilities / Manual dexterity, endurance and precision

Global Skills Taxonomy ↗

### Five year trend

Learning hours spent pursuing assessments and credentials in **Manual dexterity, endurance and precision** from 2017 to 2022 (share of total learning hours). Source: Coursera



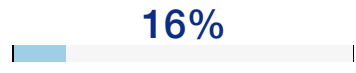
### Reskilling focus

Companies for which **Manual dexterity, endurance and precision** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



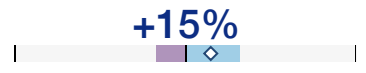
### Skill importance

Companies for which **Manual dexterity, endurance and precision** is a core skill for workers (share of companies surveyed)



### Skill evolution

Share of companies for which **Manual dexterity, endurance and precision** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.



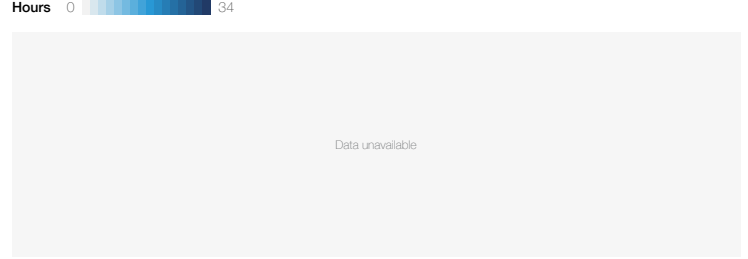
### Jobs in focus

Roles where organizations surveyed report **Manual dexterity, endurance and precision** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Assembly and Factory Workers	-6%
2. Managing Directors and Chief Executives	-2%
3. Business Development Professionals	21%
4. Accounting, Bookkeeping and Payroll Clerks	-27%
5. Business Services and Administration Managers	-5%
6. Sales Representatives, Wholesale and Manufacturing, Technical...	0%
7. General and Operations Managers	0%

### Time to skill

Learning hours required to achieve a credential in **Manual dexterity, endurance and precision** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.



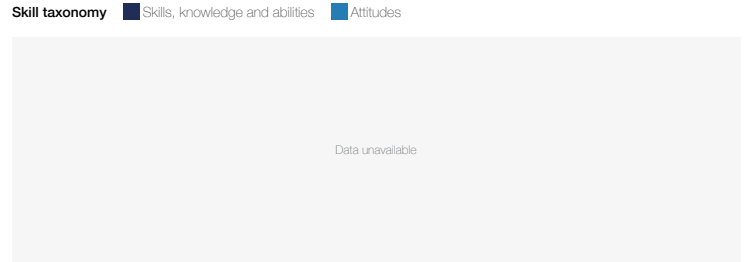
### Strategically adjacent skills

Probability that a company which will prioritise skills training in **Manual dexterity, endurance and precision** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
Creative thinking	57%	
Quality control	53%	
Resilience, flexibility and agility	53%	
Technological literacy	53%	
Resource management and operations	51%	
Service orientation and customer service	51%	
Motivation and self-awareness	49%	
Analytical thinking	47%	
Leadership and social influence	47%	
Dependability and attention to detail	45%	

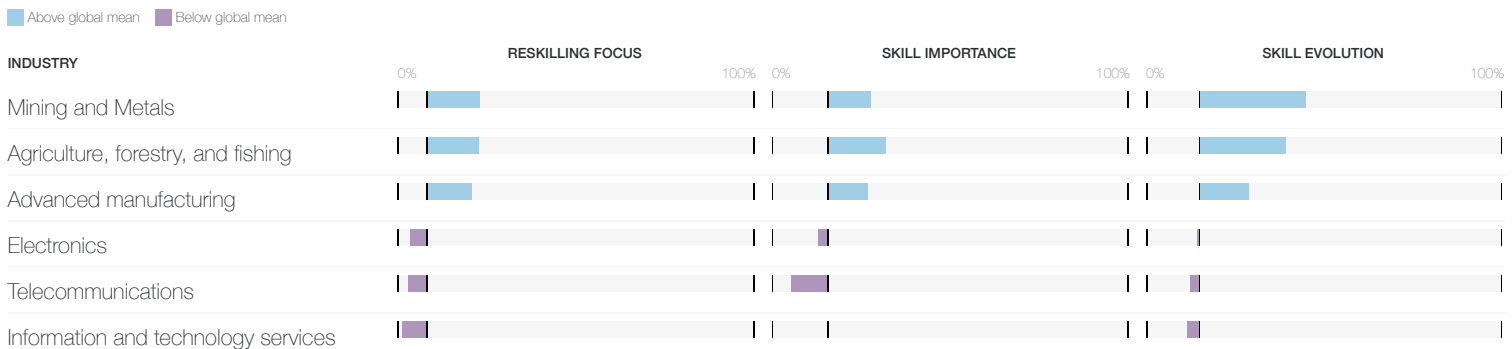
### Simultaneous skill development

Probability that courses in **Manual dexterity, endurance and precision** also teach other skills. Source: Coursera.



### Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Manual dexterity, endurance and precision** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)



# Global citizenship

24th

Attitudes / Ethics / Global citizenship

Global Skills Taxonomy ↗

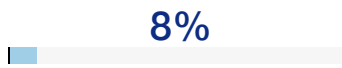
### Five year trend

Learning hours spent pursuing assessments and credentials in **Global citizenship** from 2017 to 2022 (share of total learning hours). Source: Coursera



### Reskilling focus

Companies for which **Global citizenship** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



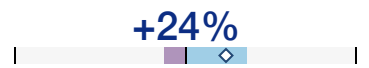
### Skill importance

Companies for which **Global citizenship** is a core skill for workers (share of companies surveyed)



### Skill evolution

Share of companies for which **Global citizenship** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.



### Jobs in focus

Roles where organizations surveyed report **Global citizenship** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Managing Directors and Chief Executives	-2%
2. Accounting, Bookkeeping and Payroll Clerks	-27%
3. Business Development Professionals	21%
4. General and Operations Managers	0%
5. Assembly and Factory Workers	-6%
6. Business Services and Administration Managers	-5%
7. Sales Representatives, Wholesale and Manufacturing, Technical...	0%

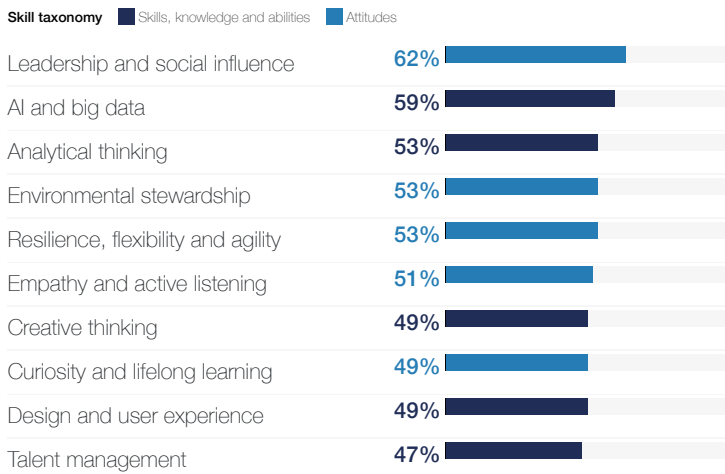
### Time to skill

Learning hours required to achieve a credential in **Global citizenship** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours	BEGINNER	INTERMEDIATE	ADVANCED
All	3.4	10.0	16.6
No Bachelor's Degree	3.7	10.1	15.6
Bachelor's Degree	3.7	12.1	19.6
Graduate Degree	3.4	9.4	16.0

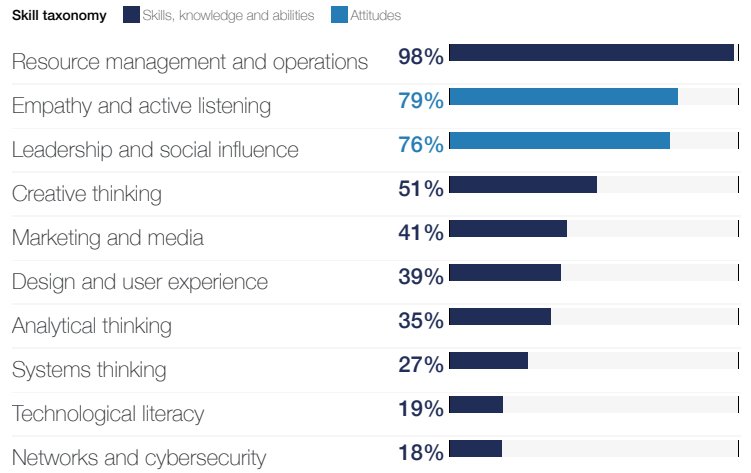
### Strategically adjacent skills

Probability that a company which will prioritise skills training in **Global citizenship** from 2023 to 2027 will also prioritise other skills.



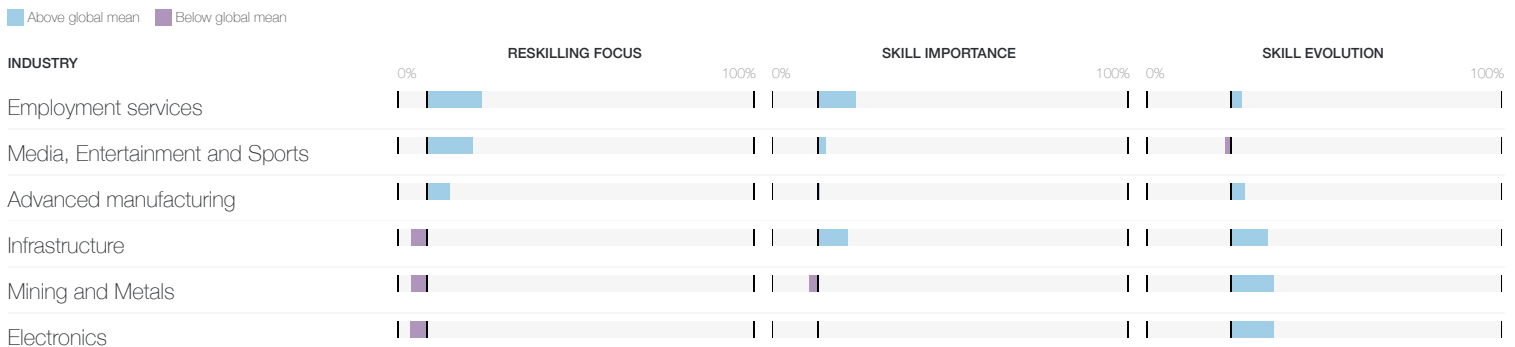
### Simultaneous skill development

Probability that courses in **Global citizenship** also teach other skills. Source: Coursera.



### Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Global citizenship** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)



# Reading, writing and mathematics

25th

Skills, knowledge and abilities / Cognitive skills / Reading, writing and mathematics

Global Skills Taxonomy ↗

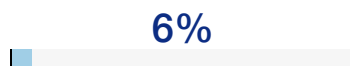
## Five year trend

Learning hours spent pursuing assessments and credentials in **Reading, writing and mathematics** from 2017 to 2022 (share of total learning hours).  
Source: Coursera



## Reskilling focus

Companies for which **Reading, writing and mathematics** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



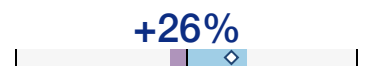
## Skill importance

Companies for which **Reading, writing and mathematics** is a core skill for workers (share of companies surveyed)



## Skill evolution

Share of companies for which **Reading, writing and mathematics** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.



## Jobs in focus

Roles where organizations surveyed report **Reading, writing and mathematics** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Accounting, Bookkeeping and Payroll Clerks	-27%
2. Chemical Processing Plant Operators	2%
3. Business Development Professionals	21%
4. Business Services and Administration Managers	-5%
5. Assembly and Factory Workers	-6%
6. Managing Directors and Chief Executives	-2%
7. General and Operations Managers	0%

## Time to skill

Learning hours required to achieve a credential in **Reading, writing and mathematics** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours	BEGINNER	INTERMEDIATE	ADVANCED
All	4.0	13.8	24.3
No Bachelor's Degree	3.9	12.8	21.4
Bachelor's Degree	4.1	14.6	25.6
Graduate Degree	4.3	14.9	25.8

## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Reading, writing and mathematics** from 2023 to 2027 will also prioritise other skills.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
Talent management	73%	
Leadership and social influence	70%	
Technological literacy	70%	
Analytical thinking	68%	
Creative thinking	65%	
Resilience, flexibility and agility	65%	
Resource management and operations	65%	
AI and big data	63%	
Empathy and active listening	63%	
Motivation and self-awareness	63%	

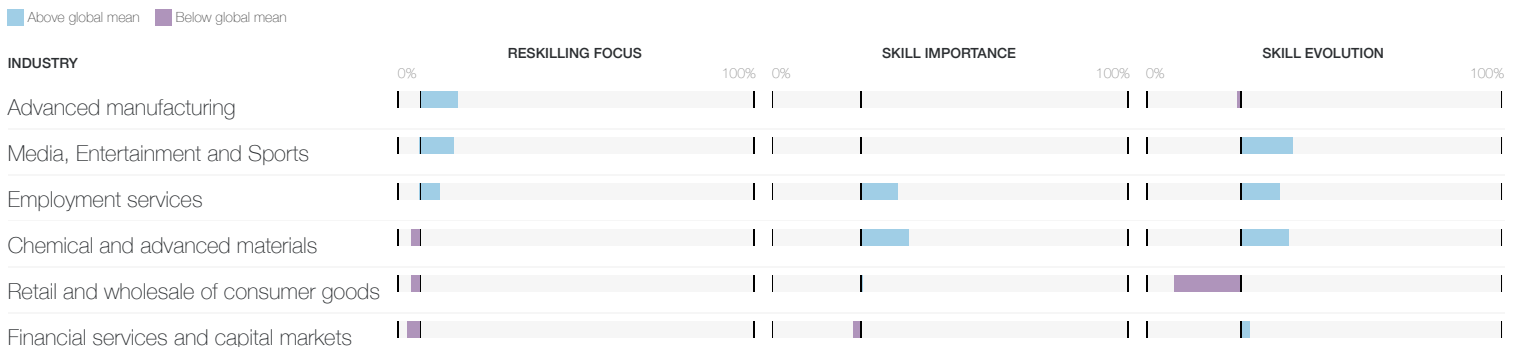
## Simultaneous skill development

Probability that courses in **Reading, writing and mathematics** also teach other skills. Source: Coursera.

Skill taxonomy	Skills, knowledge and abilities	Attitudes
Resource management and operations	45%	
Programming	45%	
Analytical thinking	44%	
AI and big data	40%	
Design and user experience	38%	
Empathy and active listening	29%	
Creative thinking	26%	
Marketing and media	24%	
Networks and cybersecurity	24%	
Technological literacy	23%	

## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Reading, writing and mathematics** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)



## Sensory-processing abilities

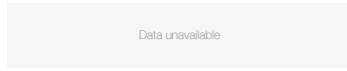
26th

Skills, knowledge and abilities / Physical abilities / Sensory-processing abilities

Global Skills Taxonomy ↗

## Five year trend

Learning hours spent pursuing assessments and credentials in **Sensory-processing abilities** from 2017 to 2022 (share of total learning hours).  
Source: Coursera



## Reskilling focus

Companies for which **Sensory-processing abilities** is a priority in their upskilling and reskilling programmes for 2023-2027 (share of companies surveyed)



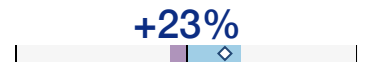
## Skill importance

Companies for which **Sensory-processing abilities** is a core skill for workers (share of companies surveyed)



## Skill evolution

Share of companies for which **Sensory-processing abilities** is **increasing** or **decreasing** in importance at work. White diamond and label represent net share.



## Jobs in focus

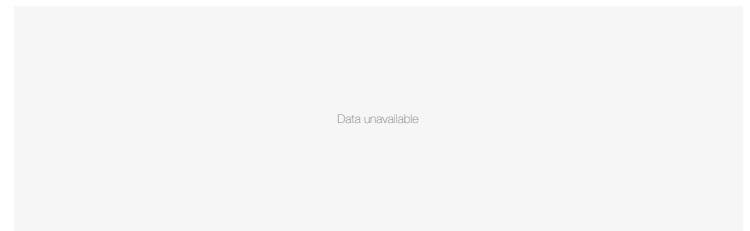
Roles where organizations surveyed report **Sensory-processing abilities** to be increasing in importance fastest, alongside estimates of the net job growth (percent) from 2023 to 2027.

ROLES	NET GROWTH
1. Assembly and Factory Workers	-6%
2. Managing Directors and Chief Executives	-2%
3. Accounting, Bookkeeping and Payroll Clerks	-27%
4. Business Development Professionals	21%
5. Business Services and Administration Managers	-5%
6. General and Operations Managers	0%
7. Sales Representatives, Wholesale and Manufacturing, Technical...	0%

## Time to skill

Learning hours required to achieve a credential in **Sensory-processing abilities** at beginner, intermediate or advanced proficiency as a function of the learner's level of formal education.

Hours 0 34



## Strategically adjacent skills

Probability that a company which will prioritise skills training in **Sensory-processing abilities** from 2023 to 2027 will also prioritise other skills.

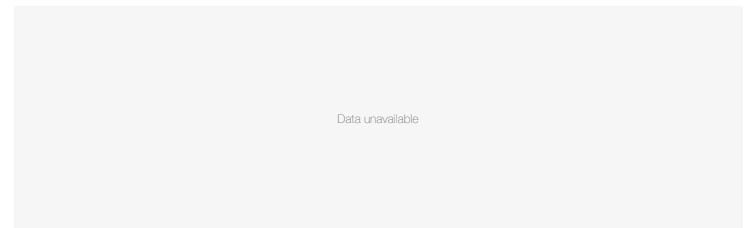
Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes

Leadership and social influence	85%
Resilience, flexibility and agility	85%
Service orientation and customer service	85%
Talent management	85%
Resource management and operations	81%
Systems thinking	81%
AI and big data	77%
Creative thinking	77%
Motivation and self-awareness	77%
Networks and cybersecurity	77%

## Simultaneous skill development

Probability that courses in **Sensory-processing abilities** also teach other skills. Source: Coursera.

Skill taxonomy ■ Skills, knowledge and abilities ■ Attitudes



## Industry trends

Industry-by-industry variations in reskilling focus, current and future importance, forecast evolution in importance, and strategic focus companies will place on **Sensory-processing abilities** from 2023 to 2027 for the industries which assign the highest and lowest reskilling focus to this skill (share of companies surveyed)

■ Above global mean ■ Below global mean

INDUSTRY	RESKILLING FOCUS	SKILL IMPORTANCE	SKILL EVOLUTION
Advanced manufacturing	0% 100%	0% 100%	0% 100%
Research, design and business management services	0% 100%	0% 100%	0% 100%
Production of consumer goods	0% 100%	0% 100%	0% 100%
Infrastructure	0% 100%	0% 100%	0% 100%
Retail and wholesale of consumer goods	0% 100%	0% 100%	0% 100%
Information and technology services	0% 100%	0% 100%	0% 100%

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# Collaborations

The Centre for the New Economy and Society aims to empower decision-making among leaders in business and policy by providing fresh, actionable insight through collaboration with leading experts and data-holding companies.

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