Generative AI and the future of work global dialogue: Perceptions and prospects

Roundtables in Asia, Europe, and Latin America

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## Introduction

The impact of generative artificial intelligence (GenAI) on the labour market is one of the 'big unknowns' in current debates about the future of work worldwide. The effects on employment levels have the potential to be very significant, with recent studies estimating millions of jobs either at risk of full automation or benefiting from complementarities and 'augmentation' of human capabilities. On job quality, the impact of GenAI must be judged by its impact on all job quality dimensions, including (but not limited to) employment and working conditions.

Owing to the emerging nature of GenAI, research on redesigning work in such a context is still in its infancy. Moreover, the inherent lack of data about the future entails that alternative approaches beyond traditional social science methods may be necessary to deepen our understanding of these issues. Against this backdrop, the project 'Generative AI and the future of work global dialogue: Perceptions and prospects', organised in the framework of the Global Partnership on Artificial Intelligence (GPAI), sought to complement existing streams of theoretical and empirical research by incorporating regional perspectives. To achieve this, three roundtable discussions with experts, policymakers, and stakeholders were held across Asia, Europe, and Latin America, with the aim of exploring the (actual and potential) impact of AI and GenAI on the world of work (Box 1).

This report frames the issues relevant to understanding GenAl's implications for work, provides the most recent research findings and policy developments in this area, and integrates them with insights drawn from the roundtable discussions. It compares the regional perspectives in three main domains: a) approaches for grasping the future of work; b) perspectives on and experiences of GenAl's impact on employment and job quality; and c) current policies and future policy priorities. The analysis of the roundtable discussions shows that debates tended to focus primarily on impacts on employment levels, with job quality aspects receiving less attention – though European stakeholders voiced the strongest concerns on these issues, especially regarding social dialogue and working conditions. The Asian perspective stood out for its broader emphasis on reskilling, focusing on Al literacy for all citizens (beyond the workforce) and integrating human skills, such as critical thinking, into education from its early stages. Asian stakeholders also raised the point of job and organisational redesign. In Latin America, fears of job displacement were more prevalent, especially in the context of digital divides among the population, and participants highlighted the need for innovative regulatory approaches.

The report is structured as follows. Section 1 grounds the debate on the future of work by outlining the main hopes and concerns, while Section 2 presents some of the key approaches for grasping the future of work, highlighting how these are currently employed worldwide and how they are perceived by stakeholders in the three regions analysed. Section 3 reviews recent research on the specific impact of AI and GenAI on employment and job quality, integrating these findings with insights from the three roundtables. Section 4 details the policy responses adopted to address future of work challenges and highlights future policy priorities (and proposals) identified in each region. The conclusion summarises the key findings of the project and advances recommendations for future research and policy.



#### **Box 1: Project methodology**

To explore views on GenAl's impact on the world of work, three roundtables were held between September and November 2024 in Asia (with a focus on East, South, and Southeast Asia), Europe, and Latin America. The roundtables brought together a diverse range of stakeholders from both the public and private sectors across multiple countries. Participants included representatives from national authorities, international and regional institutions, trade unions, employers' associations, private firms, academia, think tanks, and nongovernmental organisations (NGOs):

Region	Location	Date	Mode	Participants (gender)	Participants by type of stakeholders	Stakeholder origin
Latin America	Brasília (Brazil)	25 September 2024	Hybrid	31 (20 M, 11 F)	National authorities (17), International institutions/organisations (2), Academia/research (7), Employers' associations (2), Private firms (2), NGOs (1)	Argentina, Brazil, Chile, Costa Rica, Uruguay + international institutions and organisations
Europe	Brussels (Belgium)	25 October 2024	Hybrid	17 (13 M, 4 F)	International institutions/organisations (5), Academia/research (2), Employers' associations (2), Trade unions/worker representatives (3), Private firms (3), NGOs (2)	France, Germany, the Netherlands + European Union and international institutions and organisations
Asia	Singapore	8 November 2024	Online	15 (10 M, 5 F)	National authorities (2), International institutions/organisations (2), Academia/research (6), Employers' associations (1), Private firms (2), NGOs (2)	India, Japan, Malaysia, Singapore, Taiwan + international institutions and organisations

To guide the discussions, a scoping paper including a set of framing questions (see Annex) was circulated among all the participants about a week in advance. The scoping paper reported findings from the most recent studies on (generative) AI and the future of work, alongside information on approaches for grasping the future and current policy interventions. These were all kept as background information in this report.

The qualitative data from the roundtable discussions were examined via a thematic analysis. After a close reading of each transcript, the various statements were categorised under four themes: 1) general perceptions of GenAl and the future of work (opportunity or threat); 2) approaches for grasping future trends and scenarios; 3) focus of existing policies; and 4) policy priorities and proposals for the future. The statements grouped under each theme were then examined to identify emerging patterns, and to highlight both the issues discussed and those overlooked. The analysis focused in particular on mentions of issues related to a) job quantity (or employment) and job quality, and b) labour demand (or jobs) and labour supply (people) (see Section 3 for the analytical framework of the study).



## 1. Future of work narratives: promise or peril?

Hopes and fears about the future of work are not new. Ever since the rise of the modern industrial society, and again with each technological revolution, questions about what will happen to jobs and employment have emerged. During the first industrial revolution, the threat of income losses, exploitative working conditions, and diminishing wellbeing coming from automation led textile workers to attack mechanical looms in what became known as the <u>Luddite protests</u>. More optimistic views were voiced by <u>John Maynard Keynes in 1930</u>, when electrified mass production had just taken off. He envisioned that productivity growth would enable 15-hour work weeks by 2030, and that the world would be defined more by abundance than by scarcity. Hence, both fears of 'technological unemployment' and hopes of 'post-work' societies have a long history.

The term 'Future of Work' itself started appearing in English language books at the end of the 1960s, just as the computer revolution was beginning to gain momentum (Figure 1). Nonetheless, the incidence of this term only began to rapidly increase around 15 years ago, coinciding with a period of growing unease about work-related issues. This shift aligns with several major disruptions to worldwide economic and social systems during that timeframe. The 2007-08 global financial crisis and the ensuing recession led to job losses and rising unemployment. In the 2010s, the birth of the digital and sharing economy gave rise to online labour platforms. The 2020 Covid-19 pandemic abruptly increased prevalence of remote and hybrid working. And finally, the release of ChatGPT in 2022 made creative and knowledge work more susceptible to automation than ever before.



## Figure 1: Incidence of 'Future of Work' in English language books

Source: Google Books Ngram Viewer



These shocks and changes constituted a breeding ground for renewed interest in and discussions about the future of work, fostering a broad exploration of opportunities and challenges in the context of emerging technologies like GenAI. The analysis of the roundtable discussions highlights that there is no embrace of utopian narratives of 'post-work' societies nor of dystopian narratives of AI takeover and widespread unemployment across the three regions. Rather, stakeholders' views across Asia, Europe, and Latin America sat somewhere in the middle, emphasising both the potential benefits and the associated risks.

...what I can say is that the excitement is everywhere. [...] And to me, it's not a question of if this is an opportunity or a risk. It's both of them at the same time, it's like a quantum superposition. *(Latin American participant)* 

The benefits of recent advances in GenAI were primarily framed in economic and quantitative terms. The focus was on their potential to drive economic growth (particularly in middle-income countries, where they were seen as an opportunity to catch up with more advanced economies), and to increase labour productivity through automation of routine tasks and augmentation of workers' capabilities. In contrast, potential improvements in qualitative aspects – such as making jobs safer or more attractive by automating menial tasks – generally received no or only scant mentions.

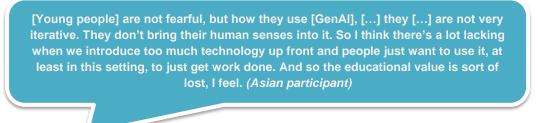
Alongside potential benefits, there was also awareness of the risks. Fears of widespread job displacement were more present in *Latin America*, while in Europe and Asia the general perception was one of uncertainty, even though worries of large-scale automation were still lingering. In *Europe*, in particular, the emphasis was more on lack of knowledge and need for further research, albeit with a recognition of the potential uneven impact across genders, occupations, and generations (see Section 3). European stakeholders also voiced calls for more conceptual and definitional clarity regarding what GenAl is (and what it is not) to avoid conflating different issues and blurring the debate. Moreover, the discussion centred specifically on the gap in attitudes towards (generative) Al between employers (portrayed as being afraid of 'missing out' on the Al revolution) and workers (seen as more cautious on Al's benefits), and on a supposed polarisation of public discourse on the topic.



In *Asia*, the uncertainty was said to arise from specific features of East, South, and Southeast Asian economies, such as the prevalence of micro and small firms, the presence of a large informal sector and of a sizeable number of undocumented workers, or the existence of digital divides – all of which make it difficult to ascertain GenAl's impact. Asian stakeholders also took a broader perspective on the risks of (generative) AI, including discussions on implications for human-AI interactions, redesign of work processes and organisations, and ethical concerns.



Both in Europe and Asia, GenAl's adverse effects were reported as being at the basis of a lack of trust in the technology in some sectors and among certain workforce groups, including knowledge and creative professionals, as well as school and university educators.



In sum, technological advances have always sparked both hopes and fears, often leading to polarised debates about their potential impact. Throughout history, each wave of technological innovations – from the rise of automation during the first industrial revolution to the advent of AI – has raised questions about the future of work. In the case of GenAI, there was clear recognition among roundtable participants from Asia, Europe, and Latin America of both the potential benefits and the risks, including concerns about future uncertainty. This highlights the need for further exploration into how emerging technologies will shape the future of work. The following section will outline the approaches used to examine these dynamics and to provide a clearer understanding of what lies ahead.



## 2. Approaches for grasping the future of work

The future of work is not yet defined, making its analysis distinct from the study of historical phenomena. While no data exists for the future, various approaches can help us identify potential trends, outline likely scenarios, and explore possible paths ahead.

On the quantitative side, forecasting typically involves projecting historical employment time series in sectors and occupations into the future. This technique assumes that past trends are a good predictor of future ones, which may not always hold true in the face of truly disruptive technological advancements. This type of research is primarily requested by national or regional public administrations in the domain of work, education, and training policy. Examples include the Project Education-Labour Market by the Research Centre for Education and the Labour Market (ROA) in the Netherlands (Box 2) and the Integrated Labour Market Projections for the Flanders region in Belgium. At European Union (EU) level, the European Centre for the Development of Vocational Training (Cedefop) has developed a <u>Skills Forecast</u> based on historical data from the EU Labour Force Survey. In South Korea, the Korea Employment Information Service (KEIS) conducts medium- and long-term forecasting exercises, projecting, among others, labour force, employment, and education-related gaps. Similarly, the New Zealand Department of Labor (NZDoL) produces forecasts for both shortterm (2-3 years) and long-term (5-10 years) time horizons to inform priority setting on immigration, tertiary education, and industry training. Finally, the Economic Policy Directorate (EPD) of Employment and Social Development Canada (ESDC) carries out a detailed 10-year national labour market forecast, identifying trends in level, composition, and sources of labour demand and supply, as well as imbalances between the two.

## Box 2: ROA's Education-Labour Market forecasts (The Netherlands)

ROA is a research institute of the Maastricht University School of Business and Economics. Its <u>Project</u> <u>Onderwijs-Arbeidsmarkt (POA)</u> focuses on the alignment between education and occupation, labour market substitution processes, and mid-term labour market forecasts. It covers around 100 educational programmes, 35 labour market regions, and 21 industry sectors. ROA uses various data sources and econometric models to forecast labour demand (expansion, replacement, and substitution) and supply (graduate influx into the labour market). These forecasts, updated biennially, generate early warning indicators to identify potential labour market imbalances. The indicators are valuable for various stakeholders: young people considering educational and career choices; the unemployed and placement agencies considering retraining; employers shaping hiring policies; and policymakers concerned with optimising the match between educational demand and labour market supply. ROA also produces an online database, the Arbeidsmarktinformatiesysteem (AIS), which provides both forecasts and actual labour market data. These insights <u>are used in research and policy</u>, contributing to improved transparency in labour market trends and supporting informed educational decisions.

Another approach for grasping the future of work is to examine the current task content of jobs and assess which of those tasks could be automated or impacted by technological or organisational changes. By aggregating these task-level scores, an overall **occupational automation risk** can be calculated. This approach is widely used in academia and has recently been applied by large international organisations, including by the <u>ILO</u>, the <u>International Monetary Fund (IMF)</u>, the <u>Organisation for Economic Co-operation and Development (OECD)</u>, and in a joint study between the <u>ILO and the World Bank</u> focusing specifically on Latin America. Going one step further, the Singapore government-mandated *Guide to Job Redesign in the Age of AI* uses a task-based assessment of jobs to provide employers with a methodology to identify not only the potential AI's impacts, but also a proactive reconfiguration of jobs and career paths (Box 3). While task-based assessments of



automation risk are predominantly quantitative, they often heavily rely on qualitative input by experts or through crowdsourcing to determine automation scores at the task level.

## Box 3: Job Redesign in the Age of AI (Singapore)

The *Guide to Job Redesign in the Age of AI*, produced by Singapore's Lee Kuan Yew Centre for Innovative Cities in 2020, aims to support organisations in integrating AI responsibly in their work processes. The focus is on redesigning jobs to enhance employee value and build trust, while aligning with business needs, with the ultimate goal of ensuring a human-centric and inclusive transformation. In particular, the Guide advocates a task-based analysis to optimise AI's potential while preserving the human aspects of work. The methodology advanced is divided into six steps: 1) breaking jobs down into tasks; 2) assessing the potential impact of AI on each of the tasks; 3) assessing if AI should be implemented for each task, and the extent to which AI can be deployed; 4) consulting managers and employees about which tasks are valuable to them; 5) deciding the appropriate timeframe to implement AI; and 6) re-combining and reconstructing the transformed tasks into a future job. The report also includes a series of practical case studies, as well as guidance on charting pathways between 'old' and 'new' jobs, overcoming digital transformation barriers, and ensuring effective employer-worker communication.

Predictive methods are useful for assessing the entire labour market and identifying potential groups at risk. However, they tend to overlook the agency of policymakers and other stakeholders in shaping the future. Furthermore, these predictive methods have notable drawbacks: their illusion of precision – as they often generate long lists of figures with multiple decimal places – and their determinism – as if the future is fixed and can be 'uncovered' using these methods. These limitations were echoed during the roundtable discussions, particularly in Europe and Asia. *European* stakeholders, in particular, expressed caution, urging researchers to consider entire value chains rather than focusing solely on individual jobs or sectors. They also emphasised the need to clearly communicate the underpinning assumptions and the indicative nature of the findings.

You all remember the paper from a few years ago, which [...] was reported as predicting that 50 % of jobs would disappear because of artificial intelligence. And it turns out that that paper did not say that. [...] So there is really a plea [to researchers]: be very careful, because [...] senior decision-makers will read stuff very quickly and will understand words in a different way than you understand. *(European participant)* 

The discussion in *Asia* raised concerns about automation impact estimates, stressing the importance of considering distributional impacts of technological change within the workforce, as well as the specific features of the regions, countries, and sectors where technologies are (not) adopted. Task-based approaches were equally criticised for disregarding wider factors, such as impacts on organisational processes and on firm-level competition. Finally, Asian participants suggested relying more on qualitative insights to better capture real-world technology usage and assess the added value of human work.



This reflection brings us to consider exploratory approaches that lean more on qualitative methods, such as **strategic foresight** – an approach that is becoming increasingly popular in both the private sector and public policy. It starts with identifying the main drivers of change and then developing a range of competing future scenarios based on these axes of change. Policy can then be formulated to be robust and effective in each of the scenarios. <u>Numerous examples of strategic foresight</u> have been carried out by both public and private organisations worldwide, including the <u>UN</u>, <u>UNESCO</u>, the <u>OECD</u>, and the <u>Inter-American Development Bank</u>. The EU Competence Centre on Foresight supports EU policymaking by providing practical foresight methodologies and tools for decision-making (Box 4). In this framework, the European Commission's Joint Research Centre (JRC) compiled information structured around <u>14 megatrends</u> shaping the future of Europe, along with reference foresight scenarios and workshop formats that can be used by other Commission directorate-generals.

## Box 4: EU Competence Centre on Foresight

The <u>Competence Centre on Foresight</u> was launched in 2018 as part of the EU Policy Lab to strengthen anticipatory approaches in policymaking. The objective is to embed foresight into the EU's geopolitical and strategic framework, facilitating collaboration across European Commission services, and preparing policies for future challenges. The Centre aims to regularly identify emerging issues and 'weak signals of change', thereby offering early warnings to policymakers. It also designs both in-depth foresight processes (lasting 6-24 months) and shorter future-oriented policy support formats. Among the methods employed, of particular relevance is the <u>Scenario Exploration System</u> developed by the JRC – a game-like future simulation tool exploring possible paths towards the future in a given topic. The Centre contributes to the European Commission's Strategic Foresight activities by co-drafting the Commission Strategic Yearly Foresight report. Furthermore, it supports European institutions by running a specific and systematic foresight exercise on <u>emerging and disruptive technologies</u> and their potential future impact.

Another exploratory approach for studying the future of work is **discourse analysis**, which investigates public debates and the narratives promoted by various stakeholders, each driven by their own interests in shaping the future. Recent research highlights differences in framing and narratives both across actors with different stakes in society and across countries (Box 5). Mapping and understanding how images and narratives of the future are developed, shaped, and advanced by various actors in society is crucial to grasp what the future will look like. As provocatively quipped by Keynes, 'the world is ruled by little else' than the 'ideas of economists and political philosophers'. Indeed, 'images of the future often are decisive factors in social decision-making', as they inform decisions made in the present to react to ongoing or upcoming challenges. Therefore, although to date these approaches are predominantly utilised in academic research, their use in policy research and policymaking could enable a better understanding of the implications of the unfolding public debate on the future of work. Additionally, these approaches allow us to identify which actors (and which interests) are behind particular narratives or discourses taking hold in society.



#### Box 5: Discursive or narrative methods in future studies

The study of the contest between narratives on the future of work is increasingly prominent in the social sciences, particularly in political science and management studies. <u>Schlogl, Weiss and Prainsack</u>, through an analysis of 195 policy documents, show that the dominant narrative – the 'Machine v. Human' narrative emerging from the Global North – is a technological deterministic view which assumes unprecedented and rapid technological change creating both opportunities and risks. This narrative places the burden of adjustment on workers through re- or upskilling, while neglecting debates around technology development, adoption, and income replacement. <u>Marenco and Seidl</u>, using a discursive-institutionalist approach to examine newspaper articles and policy documents across eight European countries, find that dominant discourses vary across countries due to institutional and politico-economic differences. Existing institutions favour coalitions supporting them, but they remain open to challenges from actors advocating alternative discourses. Finally, <u>Dries, Luyckx and Rogiers</u>, drawing on 485 print media articles and a survey of experts, policymakers, and engaged citizens, show how competing narratives about the future are driven by actors with varying interests. For example, technologists often promote 'accelerationist' views (akin to the 'Machine v. Human' narrative above), while journalists and authors tend to adopt more critical positions towards technological advancements.

The most prescriptive or normative approach is **backcasting**, which shifts the guiding question from 'what will the future look like?' to 'what kind(s) of future would we like to create?'. It thus begins by defining a goal for a desired future and working backwards to develop a step-by-step plan to achieve it. <u>This approach requires a clear 'North Star'</u> to guide policymakers in setting intermediate objectives, targets, and coherent, multilevel policies. In the climate change context, for instance, a global collaboration effort has established such a North Star – a planet that can sustain future generations – allowing the design of substantive regulations and investments to achieve that goal. On social issues, however, a comparable North Star currently seems less defined, though by no means less essential. A notable example of backcasting applied to challenges linked to technological change is Japan's Moonshot Programme (Box 6).

#### Box 6: Japan's Moonshot Programme and Visions of Society in 2050

Launched in 2019 with an initial budget of <u>100 billion yen (USD 963 million</u>), Japan's <u>Moonshot Programme</u> is a government initiative seeking to address complex societal challenges through bold R&D initiatives. The programme targets breakthroughs that go beyond incremental technological advances, aiming to solve critical issues, such as an ageing population, climate change, and resource scarcity. The Programme identifies 10 long-term 'moonshot' goals, each defining a 'Vision of Society' in 2050. Examples include designing ultra-early disease prediction and intervention, creating sustainable resource circulation systems, and realising autonomously learning and evolving AI robots acting alongside humans. It then determines what technological breakthroughs, societal changes, and targeted R&D projects are required to meet these goals, establishing institutional frameworks and global collaborations to ensure progress aligns with the objectives. The projects also incorporate flexibility, learning from each phase to adapt the pathway towards achieving the long-term vision.

Grasping future developments can involve using **mixed methods and exercises** drawn from multiple approaches. For instance, Brazil's National Service for Industrial Training (SENAI) has developed an integrated approach to anticipating occupation trends and skills needs over a 5- to 10-year horizon (Box 7). Similarly, ILO's <u>Skills for Trade and Economic Diversification (STED)</u> programme combines qualitative and quantitative methods, including employer surveys, key informant interviews, expert workshops, and labour market data analysis, to anticipate skills needs in sectors exposed to international trade across multiple countries.



#### Box 7: SENAI integrated model for skills anticipation (Brazil)

The approach to skills anticipation developed by <u>SENAI</u> in Brazil was first initiated in 2001 and later updated. It is considered a pioneering example of skills anticipation, aligning labour market demands with industrial, technological, and organisational changes. Although labelled 'foresight model', SENAI's approach can be defined as an <u>integrated</u> one, as it combines (qualitative) foresight with (quantitative) forecasting. In particular, the model relies on, among other things: *technology foresight* via sectoral studies and Delphi rounds to identify technologies likely to diffuse in the Brazilian economy over 5-10 years, and evaluate their impact on skills needs; *organisational trends foresight* to assess workplace changes, such as decision-making and workforce dynamics; *quantitative forecasting* to estimate future employment by industry and occupation; and *comparative studies* via literature reviews to benchmark vocational education and training (VET) practices internationally and to guide national strategies. The results from the various exercises are then presented in a 'thematic antenna' – a workshop gathering SENAI technical representatives, academia and business representatives, which issues recommendations for VET provision and technical and technical and technical services.

The approaches for grasping the future presented in this section are summarised in Table 1 and Figure 2. Insights from the roundtable discussions reveal that these approaches are unevenly applied – or, at least, that their prominence in public and policy debates varies depending on the region. In *Europe*, research approaches informing policymaking appeared to be of particular salience. European stakeholders were remarkably eager to showcase studies conducted by their own organisations and to support their own interventions with data from other research projects. Alongside strategic foresight and forecasting, surveys with workers and managers in various sectors, quantitative analysis of job advertisements, and qualitative case studies were among the most frequently mentioned, even though these are not always tailored to grasp future trends. In *Asia*, task-level automation risk studies and backcasting were cited, while in *Latin America*, participants proposed creating a public observatory in Brazil to monitor current and future trends. This initiative would involve collaboration between public authorities, social partners, researchers, and other relevant stakeholders.

A number of these approaches are thus already being used to analyse the potential impact of technological change on the world of work. The next section identifies the main issues at stake for both employment and job quality (e.g. working and employment conditions, industrial relations, workers' autonomy) and presents the findings of a number of studies on the implications of AI and GenAI for these two dimensions.

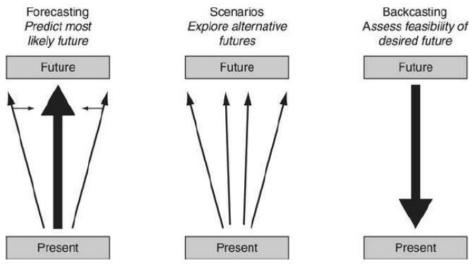


#### Table 1: Approaches for grasping the future

Approach	Methods	Time horizon	Purpose
Forecasting	Quantitative	1-5 years	Predictive (what will happen)
Occupational automation risk	Mixed methods	5-10 years	Predictive (what will happen)
Strategic foresight	Qualitative	> 10 years	Explorative (what <i>can</i> happen)
Discourse analysis	Mixed methods	> 10 years	Explorative (what <i>can</i> happen)
Backcasting	Qualitative	> 10 years	Normative (what should happen)
Mixed approaches	Mixed methods	5-10 years	Predictive and explorative

Source: Authors

## Figure 2: Different ways of connecting the present with the future (forecasting, foresight, backcasting)



Source: Quist & Leising (2016)



# 3. The future of work: navigating the impact of technological change and (generative) AI

Based on the desk research and the roundtable discussions, some thematic areas were identified that lie at the heart of debates on the future of work. These essentially revolve around the changing nature of work, both **quantitatively** (in terms of employment) and **qualitatively** (for instance, in terms of working conditions and wages). These changes are driven by megatrends affecting both **jobs** (labour demand) and **people** (labour supply) (Table 2).

On the *quantitative* side, shifts in the number of jobs – driven by technological, organisational, or environmental changes – may interact with shifts in the number of workers able to fill those jobs – due to ageing, migration, and labour market participation trends. This interaction, in turn, can lead to reconfigurations (and potentially to mismatches) in patterns of employment across regions, sectors, occupations, and skill levels. On the *qualitative* side, the megatrends affecting jobs and people outlined above may influence job quality through changes in working and employment conditions, social and industrial relations, and skills' use and autonomy. These dynamics can, in turn, shape both the structure and experience of work, with implications for workers' objective and subjective wellbeing. Given these megatrends, policy responses can focus on jobs (labour demand), people (labour supply), or both. Policies targeting jobs can include updating employment regulation or strengthening social dialogue and collective bargaining. Research and innovation (R&I) policies can redirect technological and organisational changes, while industrial policy can foster the creation of new sectors or the expansion of existing ones. Conversely, policy responses targeting people might include supporting training and reskilling, adopting and implementing active labour market policies (ALMPs), and redesigning social protection systems (see also Section 4).

		Jobs (labour demand)		People (labour supply)
Drivers of change		Technological change Organisational change Environmental change	$\leftrightarrow$	Ageing Migration Labour market participation
Concerns	Employment	Number of jobs across: <ul> <li>Regions</li> <li>Sectors</li> <li>Occupations</li> <li>Skills</li> </ul>	$\leftrightarrow$	Number of workers across: <ul> <li>Regions</li> <li>Sectors</li> <li>Occupations</li> <li>Skills</li> </ul>
	Job quality	Working conditions Employment conditions Social/Industrial relations Skills use & discretion	$\leftrightarrow$	Objective wellbeing Subjective wellbeing
Policy responses		Employment regulation Social dialogue R&I policy Industrial policy	$\leftrightarrow$	Reskilling Active labour market policies Social protection

Table 2: Drivers, concerns and policy responses regarding jobs and people in the future of work

Source: Authors. For an extensive literature review on the Future of Work, see for example ILO (2018).

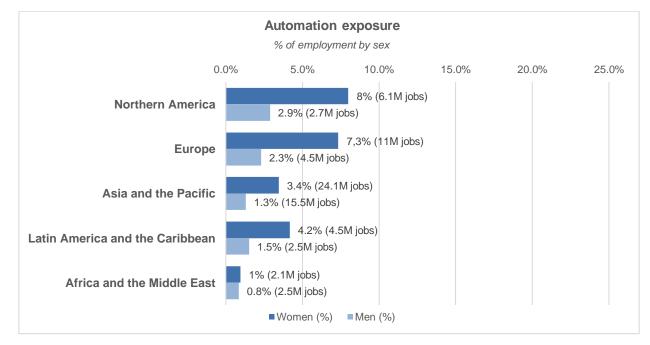


To link back to GenAI, we will now focus on one of the megatrends – technological change – and explore the concerns, expectations, and policy responses related to its impact on both employment levels and job quality.

## 3.1 Employment

Concerns about technology's impact on job numbers stem from the increasing potential for automation in new technologies. As technology progress accelerates, more tasks become susceptible to automation, raising concerns about the risk of job loss. A <u>large body of literature in labour</u> <u>economics</u> attempts to estimate the 'exposure to automation' across occupations and sectors, building on Carl Frey and Michael Osborne's 2017 <u>seminal study</u>, which estimated that 47 % of US employment was susceptible to 'computerization'.

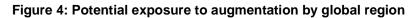
However, substantial evidence of widespread job losses due to automation is still lacking. In 2021, the OECD released a study titled '*What happened to jobs at high risk of automation?*', which found that, contrary to predictions, occupations identified as 'at risk of automation' a decade earlier had in fact experienced employment growth, albeit at a much slower rate compared to 'low-risk' occupations. Since then, additional studies such as those mentioned above by the ILO, the IMF, the OECD and the ILO-World Bank have further calculated task-level occupational automation risks specifically due to GenAI, depicting a more nuanced picture of employment changes and job transformations. For a large share of occupations exposed to GenAI, its impact remains uncertain, as exposure to the technology 'can have varied and idiosyncratic effects'. When impacts could be estimated, several occupations, especially in high-income countries, are found to face exposure to automation (Figure 3). However, a broader range of jobs exhibit high 'augmentation' potential, whereby some tasks may be automated, but the human role remains essential for most tasks (Figure 4). As a result, in most occupations exposed to GenAI, the technology is likely to complement human labour, enhancing job functions rather than replacing them.

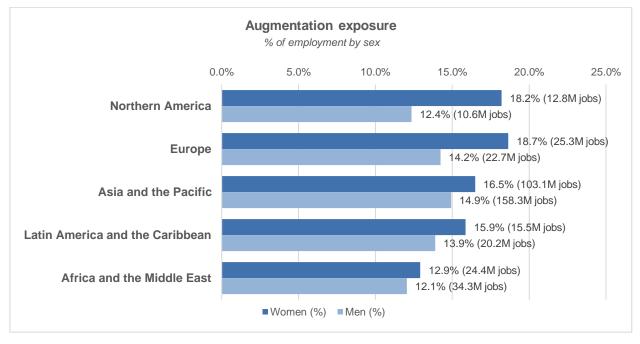


## Figure 3: Potential exposure to automation by global region

Source: own calculations based on <u>UN Secretary-General's Envoy on Technology & ILO (2024)</u>







Source: own calculations based on UN Secretary-General's Envoy on Technology & ILO (2024)

As hinted at in Section 1, balanced perspectives on GenAl's impact on employment were predominant across the three regions. In Latin America, GenAl's augmentation potential was emphasised as an opportunity to increase productivity, particularly in public administration and the services sector. Nonetheless, GenAI uptake was also seen by many as likely leading to job losses in presence of low levels of digital literacy and of digital divides among the population (see below). In Asia, while automation fears were present, they were tempered by some evidence of industries adapting and generating net job gains through enhanced productivity and efficiency. Similarly, in Europe, many highlighted how the fears of widespread automation gripping the public after the release of ChatGPT in 2022 had somewhat subsided. Evidence was shared of potential productivity gains for specific sectors and occupations thanks to the technology. However, European workers were also said to be somewhat wary or cautious about GenAl's implications for employment levels. Additionally, discussions in Asia and Europe emphasised uncertainty around GenAl's impact on job numbers. Indeed, as some of the aforementioned studies also note, exposure calculations are not (and cannot be) predictions. Instead, they are estimates based on current technological capabilities, and without accounting for regional differences and for a range of societal, institutional, and political factors potentially shaping (generative) AI adoption and its consequences.

In the research context, a number of these factors are already being addressed in studies by international organisations, which find that the impact of GenAl can be <u>highly uneven</u> both across countries and along gender lines. First, the share of employment exposed to automation is larger in high-income countries than it is in lower-income countries, suggesting that <u>wealthier countries are likely to face both more disruptive effects in the technological transition and higher net gains from the process</u>. And while the augmentation potential is more evenly distributed across countries, its realisation is more constrained in lower-income countries, <u>owing to limited physical infrastructures</u> (especially electricity and computer and broadband access) and gaps in digital skills. Second, GenAl can have a gendered impact on the workforce, as occupations with a larger share of female workers are consistently found to be more exposed to automation risks (see Figure 3 and Figure 4).



GenAl's potentially unequal impact was also a key topic in the roundtable discussions. Consistent with research findings, *European* stakeholders appeared to be particularly concerned with the gendered effects, with occupations and sectors where women are over-represented (such as clerical and customer service roles) facing heightened exposure. While this was broadly viewed as a risk, some participants noted the potential opportunity and incentive for women to 'upskill' and prepare for future waves of technological disruption. Nonetheless, it should be noted that this view can become problematic if women are not provided with adequate support during transitions, especially given their greater likelihood of shouldering the 'double burden' of work and unpaid care responsibilities, leaving them with reduced time to engage in training or reskilling programmes (see also Section 4 on the need for 'inclusive' skills development). Additionally, young workers, who may see entry-level opportunities diminish as routine tasks are automated, were identified as a group particularly exposed to GenAl's disruptions. Finally, creative professionals were also regarded as negatively impacted by the technology. As these workers are predominantly self-employed, concerns over job displacement and automation intersect with concerns over job quality (especially on remuneration) and intellectual property rights:

Our [creative] works are needed to train the GenAl models. But we aren't and haven't been asked for consent, aren't granted any compensation, nor given any credit. And those GenAl machines are getting ready to replace us in our own workspace or work market. So who should pay for the fuel that big tech needs for its machines? Big tech, society, or we as the fuel suppliers? [...] Refusal to pay leads to job loss, and that means unemployment. (European participant)

The discussion in *Asia* also emphasised the sense of uncertainty surrounding GenAl's impact on employment when specific features of East, South, and Southeast Asian economies are considered, including the prevalence of micro and small firms, the presence of sizeable informal sectors and of many undocumented workers, and the existence of rural-urban digital divides. The last issue was also mentioned by stakeholders in *Latin America*, where the <u>ILO-World Bank study</u> finds that digital divides represent a major barrier to realising GenAl's potential for augmentation.

Nonetheless, automation and job losses are only part of the story concerning employment levels. On the labour supply (or people) side, the key challenge is that, while automation may displace some jobs, new ones will be created, but they will remain inaccessible to workers lacking the required skills. This challenge is typically framed within the broader context of the twin digital and green transitions. To accompany and enable these transitions, new occupations and industries will be created, with workers increasingly expected to develop 'future skills', such as digital and green skills, along with transversal and soft skills. For example, regarding the digital transition, the debate revolves around the skills needed to do research on AI models, to develop AI applications, to implement AI in organisational processes, and to monitor or use AI on a day-to-day basis. Soft and transversal skills are considered complements to the technology: if all the routine work is automated by AI and GenAI, human skills of problem-solving or interaction will then become more valuable in organisations. In this context, the claimed 'undersupply' of skills in the current workforce fuels the debate on skill gaps or skill shortages. Moreover, the ageing population and shrinking workforce experienced in some geographical contexts - giving rise to tight labour markets - compound the fear of skill shortages and raise concerns around general 'labour shortages'. Thus, on the employment side, somewhat paradoxically, worries about technological unemployment and labour shortages go hand in hand.



These challenges and debates around jobs, people, and skills are further nuanced by regional perspectives. In *Latin America*, the digital skills gap was seen as a problem affecting not only workers but the population at large:

One of the major concerns is that people [do not] have digital skills. Enough [people do not] have access to the Internet or access to computer. We see in Brazil some numbers that use of computer is going down in time, while people are using more smartphones, but this is a signal that people are somehow not being prepared to use [these technologies] in very important daily tasks, or are not getting a deeper understanding of these technologies. (Latin American participant)

GenAl was also regarded as enabling workers to acquire new skills (e.g. coding), while it was reported that workers often adopt GenAl autonomously (i.e. without their employers knowing) to enhance workflows and efficiency, implementing self-training strategies 'from below'. However, it should be noted that, while this highlights a certain eagerness on the part of workers to explore the frontier of possibilities of the new technology, it also raises concerns about inequalities: without inclusive training programmes, only self-reliant workers may reap the benefits, leaving others behind.

Concerns about workforce skills were particularly prominent in the *European* roundtable. Participants highlighted obstacles to reskilling, notably the perceived 'lack of preparedness' among companies to implement GenAl tools and organise training initiatives. These challenges were seen as compounded by GenAl's potential to contribute to *deskilling*. Specifically, it was noted that GenAl could alter incentives for individuals to invest in specialised skills. In line with this, it should be added that other pathways through which task automation may lead to deskilling include over-reliance on Al, simplification of roles, and standardisation of methods. Moving to *Asia*, the emphasis on the need for workers to develop new skills to align with technological shifts was also prominent. However, the Asian perspective on reskilling was notably broader, highlighting the importance of Al literacy among citizens and encompassing reflections on GenAl's implications for 'what it means to be human'. Domain knowledge and uniquely human attributes – such as critical thinking, sense-making, and contextual awareness – were regarded as essential complements to the technology.

...domain knowledge becomes an increasingly important part of it for contextualisation, because when you look at GenAl, one of the weakest things it has is contextualisation in time, in organisations, in problems, tasks, things like that. And then when you get into more complex human-Al interactions, [...] that's where the value of the human has to be accounted for. Things like authenticity, how humans ground knowledge, sense-making, creativity. If we only measure Al on productivity grounds, we lose a lot of that humanness in the work. (Asian participant)



In sum, GenAI's impact on employment is complex and multifaceted. While it may displace certain jobs, it also holds the potential to 'augment' human capabilities and create new roles. However, the adoption of GenAI is likely to be unequal across regions because of varying levels of digital infrastructure and literacy. Furthermore, its effects may vary along gender lines and across workforce groups, exacerbating existing inequalities. A primary concern on the labour supply (or people) side is that displaced workers may lack the skills required for new roles, pointing to the importance of reskilling. Stakeholders across Asia, Europe, and Latin America have also highlighted both commonalities and unique dynamics in the interplay between GenAI, workforce transformations, and skill development.

Nevertheless, the above discussions have two main limitations. First, they are mostly based on a task-centric view of the implications of technological change, neglecting the impact at other levels of work, such as processes, jobs, and organisations. Second, they tend to focus on skills mismatches, while overlooking other important dimensions related to social (and power) relations at work, remuneration, and working conditions. For instance, in the European context, concerns around 'labour shortages' tend to be narrowly framed in terms of skills gaps, without considering that the most significant labour shortages in the wake of the Covid-19 pandemic occurred in sectors offering 'bad jobs'. These limitations underscore the importance of analysing *job quality* alongside employment levels in understanding the full implications of technological change and GenAl adoption.

## 3.2 Job quality

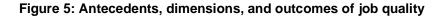
Technology can make jobs better by automating dull, dirty, and dangerous tasks. Hard manual labour in agriculture has decreased significantly with the advent of tractors and harvesters. While leading to less agricultural jobs in total, it has made the remaining farming jobs much more comfortable. At the same time, technology can make jobs also more repetitive and alienating when it is accompanied by increasing standardisation and proceduralisation, as seen in the assembly lines of the Fordist factories. A similar process occurred with the computer revolution: while employment in routine factory and office work has declined, <u>routineness increased across all the remaining occupations</u> between 1995 and 2015.

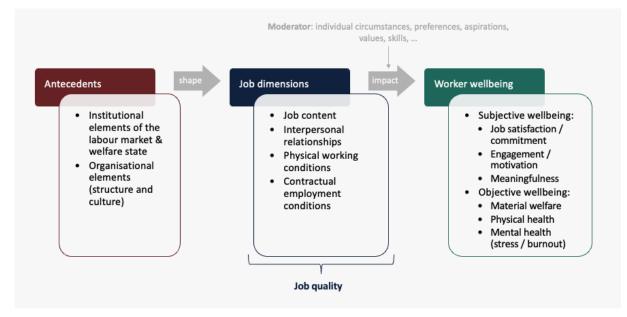
The full <u>impact of technology on the quality of work</u> can only be understood when considering all the dimensions that constitute job quality. Most job <u>quality frameworks</u> identify four key dimensions: 1) physical working conditions; 2) contractual employment conditions; 3) social and industrial relations; and 4) task content, including job demands and job resources, such as skills use and autonomy. This fourth dimension enriches the static notion of jobs embracing a <u>dynamic perspective</u> that emphasises human flourishing and growth.

Investigating the antecedents that shape the different job dimensions can help trace the impact of technology on job quality. Those antecedents include both institutional elements of the labour market and welfare state, as well as <u>organisational elements</u> such as the structure and culture of organisations (Figure 5). Consider for example the 'platformisation' of work. Algorithms divide, allocate and coordinate tasks on online labour platforms, where workers take up increasingly smaller and fragmented tasks. This leaves workers with less autonomy, less <u>task identity</u>, more social isolation, and more precarious contractual conditions. These job dimensions then impact worker wellbeing, both objectively – in terms of material, physical, and mental health – and subjectively – in terms of commitment, engagement, and experienced meaningfulness. Similarly, algorithmic management can lead to '<u>fissured employment relations</u>' by fostering reliance on precarious contractual forms and outsourcing of non-core functions. This, in turn, can undermine industrial relations and collective bargaining mechanisms, negatively impacting workers' material welfare and physical and mental health.



Another major concern is related to the <u>extensive amount of human labour in the form of labelling</u> required by GenAI. Pieces of texts and images need to be hand labelled by humans, meaning that humans identify the topic of a text or image. These labels are necessary for AI systems to learn to generate similar texts and images on request. Moreover, reinforcement learning also requires humans to judge the quality of AI outputs manually. Finally, human labelling is essential to remove inappropriate and harmful content from training datasets. This work is frequently <u>outsourced to countries in the Global South</u>, including <u>Kenya</u>, <u>India</u>, <u>the Philippines</u>, and <u>Venezuela</u>. Here, online platforms and <u>AI 'factories'</u> are creating a <u>new underclass of workers</u> performing these tasks in hazardous working conditions, in exchange for low wages, and under precarious contractual arrangements (often as bogus self-employed), with these practices undermining their material welfare and physical and mental health.







Despite these reflections in current debates, GenAI's impact on job quality received limited attention during the roundtable discussions – perhaps a sign of its lower prominence in public debates across Asia, Europe, and Latin America compared to concerns about employment levels. As noted above, one opportunity of GenAI uptake lies in automating routine tasks – such as email drafting or text translation – freeing office workers to focus on tasks requiring human judgement and expertise, and even enabling working-time reduction. However, this potential benefit – and the prospect of shorter working weeks – was mentioned by only a few participants across the three roundtables.

...looking at the impact on the economic structure, on the types of jobs, impact on wages and work hours, how might that also then shift the way people think about work and what they want out of work?[...] if ChatGPT can save me one day a week of work, will I then want to push towards four-day work week or will I want to actually fill up the remaining one day of my week with more work or other forms of work? [...] could gig work actually grow in prominence in our economy and what does that then mean for the way we think about job opportunities and value capture? (Asian participant)



Job quality concerns were more pronounced among *European* stakeholders, for instance regarding industrial relations. The discussion highlighted the potential adverse effects of AI (including GenAI) on social dialogue, particularly in terms of the scope of collective bargaining (e.g. when it comes to firms' adoption of software packages including AI features) and the technical expertise of labour representatives. These issues underscored the need for clearer terms in social partners' framework agreements and training for trade union negotiators. On the jobs side, GenAI's impact on working conditions and the remuneration of creative professionals was also noted (see 3.1), while on the people side, its potential effects on workers' objective and subjective wellbeing were mentioned, but primarily in the broader context of algorithmic management. In *Asia* and *Latin America*, concerns about GenAI's implications for job quality were less prominent, apart from brief references to gig work and the precarisation of employment. Interestingly, in Asia, one participant framed 'platformisation' – a term usually negatively connotated in Europe – as an opportunity for 'AI talents' to work remotely for international employers while remaining in their home country.

Overall, GenAl's impact on jobs (e.g. working conditions, contractual employment, autonomy and skills use) and people (e.g. objective and subjective wellbeing) was thus less extensively covered and the content of the discussions on job quality was often vaguer compared to discussions on employment.



## 4. Worldwide policy responses on the future of work

With rapid technological advancements, the need for a green transition, demographic shifts, and evolving labour market dynamics, policymakers around the world have been compelled to develop policy initiatives that anticipate and mitigate emerging challenges for the future of work. Policies relevant to or directly addressing challenges stemming from recent developments and breakthrough in AI and GenAI can target several different aspects and dimensions. A <u>recent report by the UN</u> <u>Secretary-General's Envoy on Technology and the ILO</u> issues a number of recommendations with an eye to ensuring that the benefits of (generative) AI in the world of work are reaped equitably and without exacerbating global inequalities. The measures are organised around three policy pillars: strengthening international cooperation, building national capacity, and addressing AI in the world of work (Table 3). These sets of measures can represent a useful framework to proactively start policy dialogues and design policy initiatives aimed at making the most of this emerging technology while mitigating its risks.

Strengthening international cooperation	Building national capacity	Addressing Al in the world of work
Global network of knowledge sharing Unified methodology for assessing AI's impact on skills and occupations Joint training initiatives Multi-nation R&D partnerships Equitable AI resource and infrastructure allocation	Robust educational, skills and lifelong learning frameworks to build a skilled AI workforce Digital infrastructures and equitable access to AI resources and tools Comprehensive policies and regulations supporting human- centred AI development and use, including in the workplace	Measures to ensure decent work along the AI value chain Social dialogue and public- private partnerships to encourage training, reskilling, and redeployment Policies to address gender- specific needs in the transition process Social dialogue in the integration of AI in the workforce

## Table 3: UN-ILO recommended policy pillars for AI and the future of work

Source: UN Secretary-General's Envoy on Technology & ILO (2024)

**Measures adopted** across Asia, Europe, and Latin America to address challenges brought by advancements in (generative) AI mainly fall within the second and third pillars. Generally speaking, based on the insights from the roundtable discussions, three distinct regional approaches seem to emerge in relation to policy design and regulation. In *Asia*, given the mostly positive perceptions of AI and GenAI in the region (see Section 1), it was noted that the 'risk of over-regulation' is more strongly perceived compared to other regions. Current initiatives in this region appear to prioritise AI uptake by businesses along with AI and soft skill development among all people. Although legally binding regulations have been put in place (e.g. the <u>automated driving technology regulation</u> in Japan or the <u>Digital Personal Data Protection Act</u> in India), ethical concerns seem to be largely addressed through 'soft law' instruments, such as non-binding guidelines or promotion of best practices. In contrast, *Europe*'s approach tends to emphasise workforce reskilling, while preventing potential misuse and protecting individual data subjects mainly via 'hard' legal instruments. Lastly, in *Latin America*, policy initiatives and reflections appear to occupy a middle ground, combining efforts to promote <u>AI adoption and self-regulation with risk-based regulatory measures</u>.



On *employment*, policy responses have so far focused on (generative) AI adoption, on job creation, and, most notably, on increasing the supply of skilled workers. Regarding AI and GenAI uptake, most countries in the three regions have already adopted <u>national AI plans or strategies</u> which, among other things, establish governance principles, foster responsible adoption, and mobilise investments, including in R&I. One of the most recent examples is in *Latin America*, with the Brazil AI Plan launched in July 2024 (Box 8). In *Asia*, relevant initiatives mentioned during the roundtable include the <u>AI for</u> <u>SME portal</u> in Singapore, which connects SMEs to AI solution providers, assesses their AI readiness, and offers AI learning resources. Additionally, the Singapore government is reportedly very active in promoting AI ethics standards and governance frameworks. For instance, the <u>AI Verify Foundation</u> promotes best practices and develops tools to test AI (and GenAI) models for robustness and biases.

#### Box 8: Brazil Al Plan

The Brazil Al Plan ('Al for the Good of All') is a USD 4 billion investment effort to be undertaken until 2028. Experts and scientists from 117 public, private, and civil society organisations in Brazil have been involved in the preparation of the Plan, which features 54 measures to streamline Al adoption in sectors such as public health, agriculture, environment, business, and education. One of the key initiatives to boost Al research and development is the creation of the <u>Artificial Intelligence Institute of the National Laboratory for Scientific Computing (LNCC)</u>, which aims to foster Al innovation, strengthen Brazil's scientific community, and promote international collaboration. The Plan also includes 'dissemination, training and capacity building' initiatives to promote general awareness and prepare the Brazilian workforce for future Al uptake. In particular, a programme for Al dissemination and outreach will focus on improving digital and Al literacy as well as awareness of everyday technology applications (including risks for and rights of citizens) among the general population. Moreover, scholarships, training programmes, and reskilling initiatives will aim to increase both the number of Al professionals in various sectors and the number of workers trained in the use of specific Al tools.

When it comes to people, workforce reskilling has been central to recent EU-level initiatives in *Europe*. While employment is not an exclusive EU competence, the <u>European Pillar of Social Rights (EPSR)</u> <u>Action Plan</u> sets targets on employment and training for 2030: 78 % of the working-age population should be employed and 60 % of all adults should participate in training each year. To support the training target, the Council of the EU issued recommendations to Member States to implement <u>Individual Learning Accounts</u> – virtual wallets for accumulating and spending training entitlements – and <u>Micro-credentials</u> – formal certifications of learning outcomes from short-term learning and training experiences. Specifically related to AI, the EU's AI Act also mandates companies producing or deploying AI to ensure a sufficient level of <u>AI literacy</u> of their staff. Similarly, in Latin America, workforce training and reskilling in AI is one of the key priorities of the Brazil AI Plan (see Box 8).

In *Asia*, there is evidence of a more comprehensive approach to reskilling which: a) targets citizens of all ages, beyond the workforce; and b) encompasses the entire educational journey, starting from primary schools through post-secondary education and lifelong learning. For instance, AI Singapore (the national AI research and innovation programme) pioneered an *AI for everyone* (AI4E) module (Box 9). A similar approach can be observed in Kerala (India), where AI is introduced in Information & Communication Technology (ICT) classes from primary school. In Taiwan, the <u>AI Academy</u>, established in 2018, provides companies with training on AI applications across various fields. Japan also prioritises AI skills and soft complementary skills among workers and the broader population. The <u>AI Guidelines for Business</u> place responsibility on companies for educating employees on AI literacy, while the <u>guidelines for the use of GenAI in primary and secondary education</u> stress the importance of essential complementary human skills, such as critical thinking, awareness of ongoing issues, and a questioning mindset.



#### Box 9: Singapore's AI for everyone (AI4E)

Al4E is an initiative by Al Singapore that aims to increase public understanding of Al and its applications. Launched in 2018 as a three-hour workshop, Al4E is now an open-access foundational course made up of six modules designed to demystify Al, dispel misconceptions, and show its practical uses. The programme targets a broad audience, including students, professionals, and retirees, and has been adapted into an online format to reach a larger number of participants. Its original goal was to train 10 000 people by 2021, which has since been surpassed: over 61 000 learners had completed the programme as of November 2022. Al4E is part of Al Singapore's broader mission to build Al awareness and capability across all segments of society while fostering responsible and ethical Al usage. This programme is complemented by other initiatives such as *Al for Industry* (Al4I) aimed at technical professionals and *Al for Kids* (Al4K) for children aged 7 to 12 years.

Still in Singapore, the *Job Redesign in the Age of AI* – already highlighted among the approaches for grasping the future in Section 2 – also stands out as a noteworthy policy initiative addressing both employment and job quality. The report offers employers a methodology to assess potential AI disruptions, while also prioritising job meaningfulness and human flourishing.

This brings us to relevant policy initiatives on the side of *job quality*. This dimension is especially emphasised in *Europe*, and specifically at EU level, where initiatives have focused on preventing potential misuse of AI systems and on data protection via the <u>General Data Protection Regulation</u> (GDPR) and the <u>AI Act</u>. The latter classifies recruitment and worker management systems as 'high risk', and imposes strict obligations, such as fundamental rights impact assessments, conformity checks, and establishment of risk management systems. Alongside these regulations, European social partners signed a Framework Agreement on Digitalisation in 2020 (Box 10), while a <u>Code of</u> <u>Practice for General-Purpose AI</u> is currently being drafted. Other EU policy responses relevant to future of work concerns include the upcoming <u>Platform Work Directive</u> (which regulates the use of algorithmic management in platform work), the <u>Minimum Wage Directive</u>, and the <u>Directive on</u> <u>Transparent and predictable working conditions in the EU</u>.

#### Box 10: European Social Partners' Framework Agreement on Digitalisation

Negotiated at the height of the Covid-19 pandemic in June 2020, <u>the Framework Agreement on Digitalisation</u> signed by the European Trade Union Confederation (ETUC), BusinessEurope, SMEUnited, and Services of General Interest Europe (SGI Europe) aims to 'encourage, guide and assist employers, workers and their representatives in devising measures and actions' to steer the digital transformation in the workplace. The agreement covers public and private sectors in all economic activities across the EU, and devises a process to encourage consensual integration of digital technologies in five stages: 1) joint discussion and exploration to build a climate of trust and enable discussion; 2) joint mapping, regular assessment, and analysis of opportunities and risks of integrating digital technologies; 3) joint overview of the situation and adoption of strategies for digital transformation; 4) adoption of appropriate measures and actions based on the joint overview; and 5) regular joint monitoring, learning, and evaluation. The agreement covers four major topics: digital skills and securing employment; modalities of connecting and disconnecting; AI and the 'human in control' principle; and surveillance and respect for human dignity.

In relation to **future policy priorities**, there are both commonalities and differences in the perspectives arising from the three regions. In *Asia*, stakeholders expressed concerns about the potential misuse of GenAI in everyday life and education, advocating for education systems to continue equipping students with domain knowledge to critically assess its reliability. Moreover, labour shortages and skills mismatches were seen as areas that could be addressed through public-private partnerships focused on training programmes and scholarships. The limitations of current strategies in accounting for specific characteristics of Asian economies, such as the large informal sector and



the prevalence of micro and small firms, were also highlighted. In this respect, there were calls for improved AI literacy among irregular workers, as well as greater public financial support and incentives for SMEs to acquire and implement new technologies. Finally, despite Singapore's noteworthy *Job Redesign* initiative, there was a call to focus more on job redesign through clearer use cases for businesses:

...I really believe the next stage of conversation about AI and the future work must really be about redesigning what work looks like. [...] And so what this really means is that businesses will need to have really clear use cases in mind. (Asian participant)

However, issues related to social dialogue and employment regulation were largely missing from the Asian discussion. These aspects, along with a greater attention to job quality dimensions, were more prominent during the *European* roundtable. Here, a few participants noted the renewed emphasis on job quality in the <u>mission letter</u> for Roxana Mînzatu, the newly-appointed European Commission's Executive Vice-President for Social Rights and Skills, Quality Jobs and Preparedness, particularly regarding future initiatives on the impact of digitalisation and algorithmic management. This aligns with recent calls from the <u>European Parliament</u> and social partners for a Directive on Psychosocial Risks, as well as the need to modernise the Directive on Occupational Safety and Health 'implementing prevention of occupational psychosocial risks at the source, and *changing the way work is designed, managed and organised*' (from the <u>Opinion of the European Parliaments</u> recognised the critical role of social dialogue in shaping the adoption of AI and GenAI in the workplace, and emphasised the need for more inclusive policymaking processes involving the most vulnerable social groups. However, it was also pointed out that social dialogue cannot be a panacea, as it is less effective in preventing a number of issues related to stress levels or job insecurity.

Regarding employment, policy proposals raised during the European roundtable reflected concerns about job displacement, with calls for more robust social safety nets across all EU Member States. Challenges faced by creative professionals were also noted, with better protection of intellectual property rights beyond traditional licensing systems being among the top priorities. Moreover, European experts and stakeholders generally showed greater alignment on supply-side measures than on demand-side ones, as several interventions emphasised the importance of lifelong learning and reskilling<sup>1</sup>. In this regard, inclusiveness was a central theme also with regard to skills development:

And just to give an example between skills and inclusiveness, we see that people who are in lower socioeconomic classes have less access to developing new skills. So that's maybe a message I'd like to push forward that this is a revolution, but a revolution we should all be part of. *(European participant)* 

<sup>&</sup>lt;sup>1</sup> Here and throughout, it should be noted that, unless specified otherwise, participants across the three roundtables used terms such as 'training' and 'reskilling' in a broad sense, i.e. without explicitly distinguishing between training on specific AI tools or training to become AI professionals.



Opinions were more divided on demand-side measures and investments in innovation. Some argued that the EU needs (and has the capacity) to match the investment efforts of its international competitors, while cautioning against 'over-regulation' and 'over-reporting'. Others, however, were sceptical about the EU's ability to invest in this area and viewed regulation not as an obstacle to innovation, but as an opportunity to create a distinctively European space for the deployment of new technologies.

As in Europe, the discussion in *Latin America* primarily centred on labour supply initiatives, with most participants invoking the need for skills development within the education system and for workers' reskilling and lifelong learning. This was seen also as crucial to narrow the digital divide among the broader population (see 3.1).

Improve capacities, improve skills to create a feedback for systems and with a perspective to improve outputs. So, for this objective it's very important [to develop] skills, especially [among] children, professors, teachers, [in the] educational system, to lead with generative AI and [have] greater perspective to improve the technology applied to all our fields of society. *(Latin American participant)* 

Latin American stakeholders and experts also highlighted the necessity of social protection systems ensuring that no workforce group is left behind, particularly self-employed workers who are generally less protected than employed workers and are more likely to be exposed to GenAI. Social dialogue, although addressed indirectly, also emerged in the discussion, with a call to emulate the *Partnership on AI and the future of the workforce* between Microsoft and the American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) in the US. This partnership has three main goals: 1) providing workers with formal learning and training opportunities on AI; 2) integrating workers' expertise and perspectives into AI tool development; and 3) shaping public policy through joint advocacy for expanded apprenticeships and further education funding. Finally, a debate similar to the European one emerged regarding regulation, with some advocating in favour of measures to prevent labour precarisation and others cautioning against the risk of 'over-regulation'. In this context, a proposal was advanced to increase the use of regulatory sandboxes – controlled spaces where businesses can temporarily test new products and services under regulatory supervision – requiring a shift in administrative and regulatory culture.

The heatmap below (Table 4) summarises the dialogue on future policy priorities and proposals in all the roundtables. At first glance, it is immediately apparent that themes related to reskilling were the most frequently mentioned across the three regions (darker blue), whereas mentions of ALMPs were notably absent (light blue). The heatmap also reflects varied attention to industrial policy, even though discussions on this policy area did not consider its potential to enhance job quality through labour conditionalities. A prominent example is the US Inflation Reduction Act (IRA), which aims to create between 1.5 and 9 million 'good jobs' over the next decade. This legislation includes social conditionalities on living wages and apprenticeships, offering increased tax benefits to employers who meet prevailing wage and apprenticeship standards. While representing an inspirational approach combining industrial and labour policies, the jury is still out on whether the US IRA is on course to achieve its industrial and social objectives, as a comprehensive evaluation of its outcomes is yet to be conducted. Moreover, social conditionalities run the risk of further entrenching labour market segmentations and inequalities, most notably between workers in companies meeting higher social standards to qualify for tax benefits and those in companies that do not meet these criteria. Despite



these risks, this approach offers an opportunity to leverage synergies between industrial development, labour market activation, and skills development, while ensuring that industrial policy goals are not achieved at the expense of social objectives. After all, jobs need people, and people need jobs, and therefore shaping labour demand and supply together appears to be a sensible strategy.

Another avenue to implement social conditionalities is through <u>socially responsible public</u> <u>procurement (SRPP)</u>. Given the significant size of public procurement expenditure, particularly in midto high income countries (around 13 % of GDP in <u>OECD countries</u> and 14 % of GDP in <u>the EU</u>), social conditionalities in the awarding of public contracts hold considerable potential for addressing job quality issues. For instance, decisions regarding the *object* of procurement, the *buying process*, and the type of *provider* can <u>shape equality of access to employment and training, as well as working</u> <u>conditions</u>. In the EU, <u>Directive 2014/24/EU</u> on public procurement already provides some tools to support social goals, even though <u>further progress</u> is needed to monitor SRPP and to curtail the practice of awarding tenders solely on the basis of lowest price or cost. Although labour segmentation risks remain, SRPP has also the potential to <u>promote gender equality</u> and reduce inequalities between workers in contracting and subcontracting entities, as well as across value chains.

## Table 4: Heatmap of problem framing and policy proposals across the three regions

		Asia	Europe	Latin America
	Employment regulation			
Jobs	Social dialogue			
5055	Research and innovation			
	Industrial policy			
	Reskilling			
People	Active labour market policies			
	Social protection			

Source: Authors

Note: Darker colours denote themes more prominently discussed in the roundtables.

## Conclusion

The GPAI project 'Generative AI and the future of work global dialogue' explored the complex landscape of the future of work in the context of the advances in GenAI, examining the perceived promises and risks, the various approaches for grasping future dynamics, and the potential impact on both employment and job quality. The analysis presented in this report also highlighted the diverse perspectives, policy initiatives, and proposals emerging from Asia, Europe, and Latin America. The key findings and main recommendations of this study are presented in Table 5.

Historically, hopes and fears surrounding technological advancements have driven debates on the future of work, and the rapid growth of AI, and especially GenAI, is no exception. Overall, stakeholders across the three regions hold nuanced viewpoints on the implications of GenAI for the world of work, highlighting both the potential benefits and risks associated with this rapidly evolving technology. **Approaches for understanding the future of work** can help shed light on these potential benefits and risks. One of the project's key contributions highlighted in this report is precisely to bring forward a taxonomy of approaches (predictive, exploratory, and normative) for grasping the future, as well as to provide an inventory of those currently being developed and deployed across the three regions (and beyond). These approaches include forecasting, occupational automation risk assessments, strategic foresight, discourse analysis, and backcasting. Their application and prominence vary across regions, reflecting diverse perspectives and priorities in addressing the uncertainties surrounding the future of work. European stakeholders generally showed greater interest in showcasing research done by their own organisations and referencing other regional studies, whereas this emphasis was less apparent in the Asian and especially in the Latin American roundtables.

Insights from the desk research and the roundtables shed light on the potential limitations of approaches relying on quantitative methods, such as forecasting and task-based assessment of automation risks. These often convey a false sense of certainty and overlook impacts on wider factors, including work processes and organisations. Therefore, it is crucial to complement the use of these approaches with others relying on qualitative methods. Additionally, a greater reliance on discursive methods – currently confined to academia – can offer valuable insights into how public debates are being shaped by competing narratives, as well as by the actors and interests driving them. Since all approaches inevitably have their strengths and weaknesses, each should play a role in efforts aimed at not only understanding future challenges and reducing the shadow of uncertainty, but also collectively shaping the kind of future we would like to see realised.

Another core contribution of the study is the development of an **analytical framework** to navigate the evidence and the debates on the future of work, and to systematically analyse stakeholders' perceptions and actions. The framework enables us to capture the impact of megatrends (including technological change) on jobs (labour demand) and people (labour supply) across the two dimensions of job quantity (or employment levels) and job quality (Table 2 above).

When considering GenAl's impact on **employment levels**, studies by international organisations depict a nuanced picture despite initial concerns about widespread job losses. Although the long-term effects remain largely uncertain, many occupations seem to be more exposed to the potential augmentation of human capabilities than to full automation. However, these studies also highlight the uneven nature of this impact, particularly along geo-economic and gender lines. In the roundtables, a diversity of regional perspectives emerged in relation to GenAl's impact on employment. While in all regions there was recognition that GenAl may disrupt labour markets, leading to job displacement in certain sectors, each region put forward specific concerns. Latin American stakeholders expressed concern about job losses due to low digital literacy and the presence of digital divides within the

population. In Europe, amid a widespread sense of uncertainty, the focus was more on the potentially uneven impact on women and young workers. Lastly, in Asia, the ambiguity surrounding GenAl's effects in the context of specific characteristics of the Asian economies, such as the prevalence of micro and small firms, sizeable informal sectors, and digital divides in the region, was highlighted.

In discussions on GenAl's employment effects, stakeholders also emphasised the importance of skills development. All regions underscored the need for robust reskilling and upskilling initiatives to equip workers with the necessary competencies to navigate future GenAl-driven environments. However, each region's approach to skills development revealed distinct priorities. In Latin America, GenAl was seen as a potential tool for workers to acquire new skills, with an emphasis on the importance of bridging the digital divide to ensure equal access to these opportunities. European participants, meanwhile, focused on the need for *workforce* reskilling and for skills development programmes addressing the uneven impact on women and other exposed groups. Asian stakeholders offered a broader perspective on reskilling, advocating in favour of Al literacy for *all* citizens and of targeting uniquely human attributes, such as critical thinking and problem solving.

Generally speaking, debates on the impact of technological changes on the future of work suffer from a 'task-centric' and 'skill-centric' view, overlooking the importance of other **job quality** dimensions. Indeed, a key finding of the roundtable discussions is that considerations on the *quantity* of jobs largely outweighed those on the *quality* of jobs – perhaps a sign that discussions about employment effects are more prominent in public debates and policy circles than those touching on working conditions, wages, social and industrial relations, and workers' wellbeing. Nonetheless, mentions of qualitative aspects were still present. In this respect, European stakeholders were the ones expressing the strongest concerns, particularly in relation to social dialogue and working conditions.

In terms of **policy design and regulation**, while more systematic and detailed analysis is needed, the desk research and the roundtable discussions appear to indicate the emergence of three distinct regional approaches. In Asia, the priority appears to be on AI uptake by businesses, as well as on the development of both AI and 'human' skills among the *broader population*. 'Soft law' instruments, such as guidelines and best practices, seem to be more prominent in the region than legally binding regulations for addressing ethical concerns. In Europe, by contrast, the emphasis is on *workforce* reskilling, while prevention of technology misuse and data protection are entrusted to legally binding regulations like the GDPR and AI Act. Finally, in Latin America, a mix of AI adoption initiatives, self-regulation, and risk-based regulatory measures can be observed.

Looking towards the future, while reskilling was viewed as key in all three regions, other policy priorities were distinctly identified. Asian stakeholders focused on improved AI literacy among irregular workers, public financial support for SMEs, and job redesign. European participants called for the development of robust social safety nets, protection of intellectual property rights for creative professionals, inclusive policymaking processes (particularly in relation to social dialogue), and a renewed emphasis on job quality. Lastly, Latin American participants referred to the need for comprehensive social protection systems and for experimentation via regulatory sandboxes. However, another key finding of the analysis is that, in all regions, the role of ALMPs was largely overlooked, as was the potential of industrial policies and public procurement procedures to enhance job quality through labour and social conditionalities.

In conclusion, the roundtable discussions offered a nuanced and multifaceted picture of the implications of GenAI for the future of work. While GenAI presents both significant opportunities and challenges, stakeholders stressed that proactive and regionally tailored policy responses are essential. Such responses are crucial to ensuring that the benefits of GenAI are shared equitably and that the risks are mitigated effectively.



## Table 5: Summary of key findings and recommendations

	Aspects	Key findings	Recommendations
	oproaches for sping the future	<ul> <li>Taxonomy and inventory of approaches: forecasting and occupational automation risk (predictive); foresight and discourse analysis (exploratory); backcasting (normative); mixed approaches.</li> <li>Limitations of predictive approaches based on quantitative methods: illusion of precision, determinism and neglect of human agency, disregard for wider factors beyond impact on job tasks.</li> </ul>	<ul> <li>Increasing reliance on qualitative methods to mitigate the limitations of quantitative methods, investigate interdependencies between megatrends, and capture contextual insights about socio-technical dynamics shaping GenAl adoption.</li> <li>In particular, exploring potential of discourse analysis to assess how narratives around technology influence policy, organisational strategies, and worker perceptions.</li> <li>Taking into account distributional impacts of technological change, socioeconomic features of regions, countries, and sectors where technologies are adopted, and wider factors such as organisational and institutional processes.</li> </ul>
SU	Employment	<ul> <li>Largely unknown impact of GenAl, but many occupations seem more exposed to augmentation potential than to full automation. Uneven impact, particularly along geo-economic and gender lines.</li> <li>Diverse views across regions: emphasis on job displacement concerns in Latin America, on uneven impact within the workforce in Europe, and on uncertainty in the context of specific economic characteristics in Asia.</li> <li>Emphasis on skills in all three regions, but different approaches: focus on digital divides in Latin America; importance of workforce reskilling in Europe; broader approach highlighting Al literacy for all citizens and human attributes in Asia.</li> <li>Limitation of debates: task-centric and skill- centric views, disregarding organisational and institutional levels.</li> </ul>	<ul> <li>Further investigating how socioeconomic conditions in specific regions and countries shape GenAl's adoption and its impact on labour markets.</li> <li>Highlighting the importance of identifying and addressing barriers to digital access, particularly in underserved regions and among the most vulnerable socioeconomic groups.</li> <li>Integrating a gender-sensitive lens to assess how GenAl affects men and women differently in various occupations, accounting for structural inequalities that may exacerbate uneven outcomes.</li> <li>Exploring how GenAl can not only cause job displacement or task replacement but also facilitate opportunities for job redesign that support skills development and enhance job satisfaction.</li> </ul>
Concerns	Job quality	<ul> <li>'Job quality' encompasses different dimensions (working conditions, employment conditions, social and industrial relations, skills use and discretion), all of which can have an impact on workers' objective and subjective wellbeing. Impact of technology on job quality is also shaped by 'antecedents' (e.g. labour market, welfare state, organisational culture and structure).</li> <li>(Generative) Al directly or indirectly impacts all job quality dimensions via at least three channels: 1) task automation changing job content; 2) platformisation of work and algorithmic management; 3) increased need for labour-intensive and manual work (labelling and data annotation).</li> <li>However, job quality aspects received limited attention in the roundtables compared to job quantity, with stakeholders in Europe expressing the strongest concerns.</li> </ul>	<ul> <li>Investigating in more depth how job quality dimensions can be affected by GenAl via the three channels identified (i.e. task automation, platformisation and algorithmic management, and increased need for labour-intensive work).</li> <li>Empirically assessing the impact of GenAl on quality of jobs (including shifting skills use and discretion) and workers' objective and subjective wellbeing, paying closer attention to psychosocial risks stemming from Al technologies.</li> <li>Understanding how organisational structures, workplace culture, and institutional frameworks ('antecedents') can mediate GenAl's impact on job quality.</li> <li>Promoting awareness among policymakers, social partners, and other stakeholders on the critical importance of job quality, encouraging initiatives that foreground working conditions and worker rights.</li> </ul>



Policy responses and priorities	<ul> <li>three distinct regional approaches to policy design and regulation:</li> <li>1. Asia: prominence of 'soft law' instruments, focus on AI uptake by businesses and AI and 'human' skills development among wider population;</li> <li>2. Europe: preference for legally binding regulations for data protection and to prevent misuse, focus on workforce reskilling;</li> <li>3. Latin America: mix of AI adoption initiatives colf regulation</li> </ul>	Investigating in more depth the evolution of regional regulatory frameworks and policy priorities, examining the motivations, effectiveness, and socioeconomic impacts of different approaches. Exploring the potential for labour and social conditionalities in industrial policy and public procurement procedures in relation to (generative) Al to enhance job quality. Evaluating policy initiatives already adopted in each region, selecting best practices, and facilitating policy learning and sharing of lessons learned across the regions.
	<ul> <li>Reskilling (in various forms) as a key future priority in all three regions, but other distinct priorities were also mentioned in each region.</li> <li>Overlooked policy responses: ALMPs and labour and social conditionalities in industrial policy.</li> </ul>	



## **ANNEX:** Questions used to frame the roundtable discussions

## How is GenAl perceived in your country or region?

- Is GenAl perceived as a threat or an opportunity?
- Which stakeholders are expressing these hopes or worries?
- Does the discussion revolve around job losses/gains or around quality of employment?
- Are these threats/opportunities perceived as requiring policy intervention?

## How are policymakers in your country or region trying to understand the potential threats and opportunities of GenAI?

- How does your country/region engage with the future? Through quantitative/predictive methods or through qualitative/exploratory methods?
- How do insights from future studies inform policymaking in your country/region?

Does your country/region have a North Star to guide them towards a desired future of work? If so, what does this future look like?

## What is the focus of current or proposed GenAl policies in your country or region?

- Are any industrial policies being proposed in relation to GenAl, i.e. to support the development or adoption of GenAl among businesses?
- Are any labour policies being proposed in relation to GenAl, i.e. to support reskilling or protect workers from harm?
- Are you aware of experiments with joint industrial-labour policy or labour conditionalities in non-labour policy?
- Are trade unions and employers addressing the challenges of GenAl for employment and in the workplace in your country/region? How?