International Labour Organization

▶ WSSD2 Brief

Policy Brief

prepared for the Second World Summit for Social Development

July 2025

Empowering people, strengthening societies
Investing in skills and lifelong learning

Key considerations for WSSD2

- **Social dialogue is key to integrated and well-coordinated jobs and skills growth strategies.** The establishment of effective skills and lifelong learning strategies is a joint responsibility. Through social dialogue, governments and social partners should aim to align macroeconomic, industrial and trade policies with employment creation objectives and an adapted skills development agenda. Such an integrated approach fosters inclusive and sustainable social development through decent work.
- **Setting lifelong learning targets with adequate costing.** Establishing specific targets for skills development and lifelong learning, accompanied by clear costing and effective financing mechanisms, supports coordinated planning and implementation in line with national growth strategies. Effective and inclusive skills development and lifelong learning systems require strategic and well-planned actions supported by sufficient and sustained investment.
- **Innovative, inclusive and flexible skills policies for demographic realities and talent partnerships.** Employment and skills strategies must be tailored to demographic contexts. In countries with a youth bulge, job creation and youth skills training should be accelerated. In ageing societies, upskilling and reskilling of mid-career and older workers should be facilitated through integrated policies that combine active labour market policies and social protection. Cross-border talent partnerships can foster mutually beneficial skills mobility schemes. Digital technology should be harnessed for inclusive skills development.
- **Strengthened public employment services (PES).** Modernized PES can serve as service hubs that provide comprehensive support, such as career guidance, job matching and training referrals. Integrated service models that combine training with counselling and job placement services yields the best results in supporting youth and vulnerable groups in their labour market transitions.

▶ Why is "investing in skills and lifelong learning" at the forefront of social development?

Three decades after the first Social Summit in Copenhagen, the global context has evolved dramatically. Rapid digitalization, demographic shifts and the transition to environmental sustainability are dramatically changing the skills needed in the labour market. While educational attainment has risen globally, millions of individuals remain unemployed, underemployed or excluded from decent work opportunities. At the same time, employers across sectors, especially those undergoing rapid changes, face growing difficulties in finding workers with the right skills for the wages they are willing to pay. This paradox of simultaneous skills surplus, skills underutilization and skills shortages highlights the complex nature of persistent mismatches among jobs, skills and people's aspirations.

Addressing these gaps is an economic priority and a social imperative. Investing in inclusive and future-ready skills and lifelong learning expands people's capabilities, strengthens resilience and productivity and enhances the competitiveness of countries (ILO 2021a). Such efforts align with global commitments under the United Nations' 2030 Agenda for Sustainable Development, in particular: SDG 8 on promoting full employment and decent work; SDG 4 on ensuring inclusive, quality education and lifelong learning for all; and SDG 5 on achieving gender equality, which are mutually reinforcing (ILO 2022). The ILO Centenary Declaration for the Future of Work (ILO 2019) highlights the need to invest in people's capabilities throughout their working lives, irrespective of age or employment status. As stipulated in the Human Resources Development Convention, 1975 (No. 142), the policies and programmes should "encourage and enable all persons, on an equal basis and without any discrimination whatsoever, to develop and use their capabilities for work in their own best interests and in accordance with their own aspirations, account being taken of the needs of society". This human-centred approach calls for effective skills and lifelong learning systems that promote better responsiveness of skills supply to current and future labour market needs and, thus, serve as key enablers of human development, full, productive and freely chosen employment and decent work for all (ILO 2022).

Where do we stand?

Global labour market trends offer a mixed picture of progress and persistent challenges in different demographic contexts. By 2023, youth (between 15 and 24 years old) unemployment rates had fallen below those before the COVID-19 pandemic in most parts of the world (ILO 2024a). However, the persistent challenges faced by youth are evident in the alarmingly high rate of youth not in employment, education or training (NEET) at 20.4 per cent as of 2023 (ILO 2024a), of particular importance for economies facing a youth bulge. In ageing economies, the share of older workers (55 to 64, and over 65 years old) in the workforce is rising, and they face their own skills and career challenges (Gammarano 2024; OECD 2024a). Older workers tend to have lower levels of basic digital skills and formal education than younger cohorts. In addition, many have skills that have become obsolete due to technological advancement. According to the OECD's Survey of Adult Skills, workers aged 55 to 65 consistently score lower in literacy, numeracy and problem solving in technology-rich environments compared to 25- to 34-year-olds (Paccagnella 2016). Yet, opportunities for reskilling and upskilling older workers are not sufficiently flexible to accommodate lifelong learning needs (OECD 2024b). As a result, many older workers face risks of displacement and forced early exit from the labour market, raising concerns for old-age poverty (Mazzeo Ortolani, Gebremariam and Biagi 2024).

Gender equality must also be considered. In spite of steadily improving levels of educational attainment, women's returns on investment in training remain much lower than those of men. Women are more likely to be in vulnerable employment (such as informal employment and unpaid family work), with limited chances of accessing education and training, or of participating in the labour force. Occupational segregation remains a predominant feature of training and labour markets, limiting women's choices and confining them to lower-paid and lower-status jobs than men (ILO 2024b).

Special attention should also be paid to vulnerable populations – including migrant workers, refugees, informal workers, self-employed workers and workers in micro, small and medium-sized enterprises (MSMEs) – who often face significant barriers to skills development. Migrant workers, for example, may have skills or qualifications not recognized by host countries, leading to underemployment and skill underutilization. Similarly, MSMEs and self-employed workers often lack the capacity and resources to invest in upskilling, despite these entities and individuals being a major source of employment globally (ILO 2021a).

Thus, the global labour market faces the urgent need to establish effective and inclusive quality education, skills development and lifelong learning systems to support employability of all workers.

A global snapshot of lifelong learning systems reveals substantial disparities shaped by income levels, demographic structures and formal labour market integration.

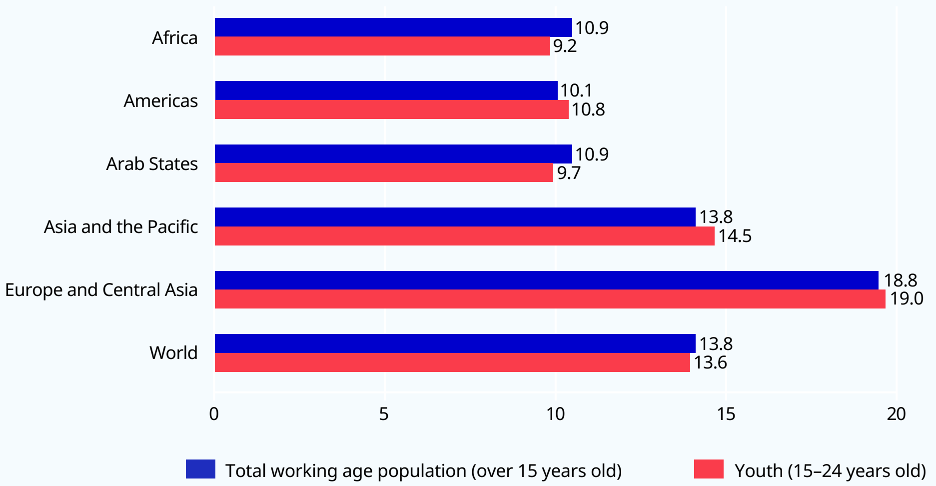
Investment in general education varies depending on country income levels. Despite steady progress over the past decade, low-income countries spend about 3.9 per cent of gross domestic product (GDP) on education, compared to roughly 4.4 per cent of GDP in high-income countries (World Bank and UNESCO 2024). The disparity in investment translates into differences in schooling resources. Many low-income countries struggle with shortages of qualified teachers, infrastructure and access to information and communication technology in schools (UNESCO 2024). With a large share of children aged 0 to 14, the quality of education is jeopardized. Evidence shows that educational outcomes mirror these investment and demographic patterns. Low-income countries suffer from high drop-out and low completion rates in lower-secondary education, which translates into low upper-secondary enrolments and low proficiency scores in reading and mathematics (UNESCO 2024).

The disparities are also evident in skills development at the technical and vocational education and training (TVET) level. Vocational education is critical in honing specialized skills. Yet, as shown in figure 1, only 13.6 per cent of youth (aged 15 to 24) worldwide have completed TVET. The share is highest in Europe and Central Asia at 19.0 per cent, and lowest in Africa at 9.2 per cent. These figures mirror the share of the working-age population (aged 15 and above) who have completed vocational education and training (see figure 1). Among those who have participated in TVET, there is notable gender segregation in course types, with women less likely to engage in science, technology, engineering and mathematics (STEM) studies (Rubiano-Matulevich et al. 2019). The challenges that lower-income countries face include: low levels of foundational skills among learners; financial, cultural, geographical and social barriers; insufficient facilities and equipment available for training institutions; inadequate pedagogical skills of teachers and trainers to meet the industry needs; and under-resourced TVET system.

Apprenticeships and other forms of work-based learning provide access to hands-on skills acquired through on-the-job training and relevant to the world of work. Therefore, the promotion of quality apprenticeships is a priority. In many countries, apprenticeships have been formalized through law, regulations, policies, collective bargaining agreements and programmes to maximize their effectiveness and strengthen the protection of apprentices. In many lower-income countries, however, informal apprenticeships are the last chance of an education for many vulnerable youth. Besides, this form of apprenticeship continues to dominate, where apprentices learn and work in the informal economy without formal arrangements. According to an ILO study on 14 countries with a large informal economy, there are currently close to 6 million apprentices, mainly male. Women are more likely to participate in unpaid apprenticeships (ILO 2023a).

Access to learning opportunities in the workplace is closely linked to labour market participation and employment status. On-the-job training delivered by employers remains the most common form of non-formal learning worldwide, with occupation-specific training being the most prevalent. However, access is far from equitable. First, women and informal workers have less access to this type of learning, due to lower labour force participation and less stable and legally protected work, respectively. Second, women are less likely to participate in training in digital skills but more likely to engage in personal development courses. For many informal workers, informal learning – especially learning by doing – is often the only available pathway to develop skills, though such learning often lacks

▶ **Figure 1. Share of working-age population and youth with vocational education, by region** (percentage)



Note: Unweighted averages based on data from the latest year available in 140 countries and territories.

Source: Stoevska (2024).

formal certification and recognition. These patterns underscore the close relationship between access to skills development and lifelong learning and access to decent work.

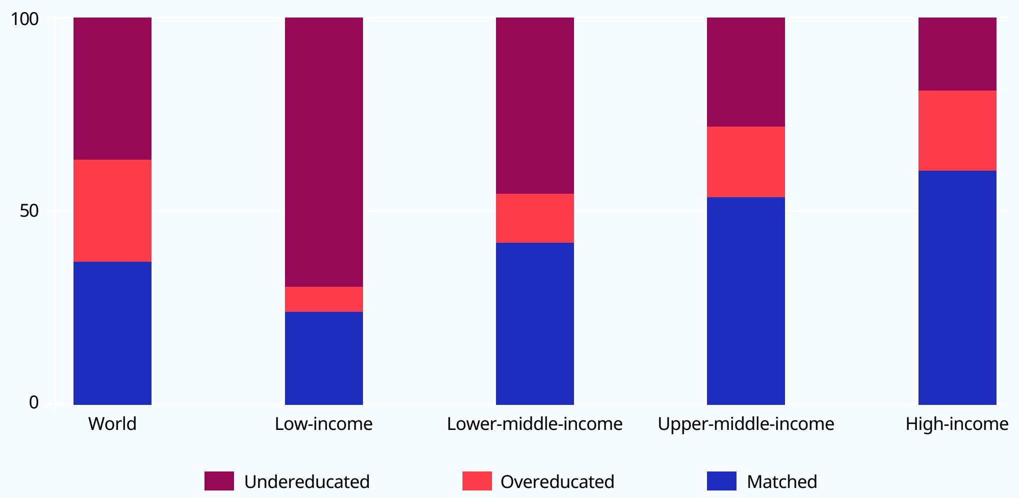
For those who have access to skills development and lifelong learning opportunities, challenges remain regarding the mismatch between skills supply and demand. On one hand, educational attainment has risen significantly worldwide. Today's youth are the most educated generation ever, with many more completing upper-secondary education than in past decades (UNESCO 2024). On the other hand, labour markets have not generated enough higher-skilled jobs to absorb these graduates. As shown in figure 2, only about half of these workers hold jobs corresponding to their level of education; the other half are either over- or undereducated for their jobs. Workers in high-income countries are more likely to have jobs that match their level of education, compare to only one in four workers in low-income countries. These observations suggest that "the rate of matching increases with countries' level of development" (Stoevska 2021). A recent ILO analysis found increasing education–job mismatches in emerging economies, as young people with higher qualifications often end up in jobs below their skill level (ILO 2024a). Simultaneously, figure 3 shows that, as of 2025, 74 per cent of employers globally report difficulties in finding the skilled workers they need at the wage they are able and willing to pay, showing a sign of skills shortages in certain fields – such as healthcare and life sciences; energy and utilities; information technology; and transport, logistics and automotive, among others (Manpower Group 2025).

The digital and green transitions will further alter skills needs. By 2030, investments to achieve universal broadband coverage (hereafter "the digital scenario") and net-zero carbon emissions through the energy transition (hereafter "the green scenario") are expected to create 23.5 million and 37.2 million more jobs, respectively, than the "business-as-usual" scenario. When these investments are integrated (hereafter "the integrated scenario"), higher investment is expected to generate stronger productivity gains through economies of scale. In this integrated scenario, 57.6 million additional jobs can be created (ILO 2024c).

In these scenarios, occupations at all skill levels benefit from employment gains, with medium-skilled occupations gaining the most: 13 million additional jobs in the digital scenario, 18.5 million in the green scenario and 30 million in the integrated scenario. These account for about half of new job opportunities. Youth (15 to 24 years old) are projected to gain 3.6 million jobs in the digital scenario, 5.8 million in the green scenario and 9 million in the integrated scenario. These opportunities will be mainly created at medium- and high-skill levels, suggesting more opportunities for relatively higher-skilled youth but also pointing towards the need to upskill low-skilled youth (ILO 2024c).

Despite new opportunities, the projected impacts are not always distributed broadly. The distribution of the additional job creation by sex is alarmingly unequal, with women gaining a smaller share of new jobs than men by 30 percentage points in the digital scenario, 46 percentage points in the green scenario and 40 percentage points in the integrated scenario

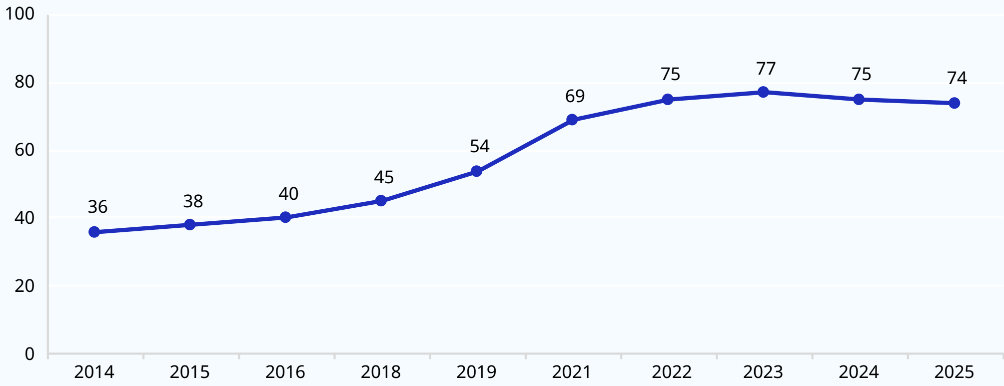
▶ **Figure 2. Share of matched, overqualified and underqualified workers, by country income group** (percentage)



Note: Unweighted averages based on the latest year available for 130 countries.

Source: Stoevska (2021).

Figure 3. Share of employers reporting difficulties finding skilled workers, 2014–25 (percentage)



Note: The annual Talent Shortage Survey was not conducted in 2017 and 2020.

Source: Manpower Group (2025).

(see figure 4). Similarly, in all scenarios, the creation of additional jobs for older workers would be lower in percentage points than for the total working-age population (see figure 5). Furthermore, certain groups of occupations are more likely to benefit or lose out during the transitions. For instance, in the green scenario, occupations related to agriculture, fishery and forestry sectors are likely to experience negative employment growth in middle-income countries (ILO 2024c).

Reskilling, upskilling and other support from labour market institutions and employment and social protection measures – designed and implemented through social dialogue – will be vital:

- for workers to safeguard income-generation opportunities or transition to new jobs in an inclusive manner; and
- for enterprises to harness the opportunities presented by the green and digital transitions.

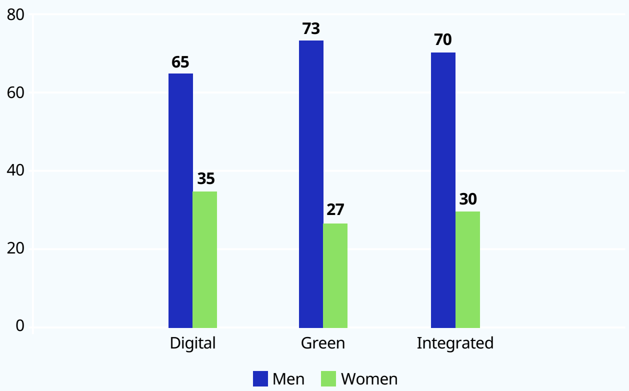
In addition to job-specific technical and vocational skills, employers are placing ever greater importance on recruiting workers with sound core skills (ILO 2021b). Empirical evidence suggests that jobs demanding both high STEM skills and strong social skills are experiencing particularly strong employment and wage growth (Deming 2017). Yet, many adults – especially older workers and workers in low-income countries – lack core skills, which hinders their access to lifelong learning opportunities and decent work opportunities. Likewise, there is a persistent digital skills gap, especially between women and men, reflecting the gender gap in participation in STEM fields education, as was discussed earlier in this brief (Rubiano-Matulevich et al. 2019). This picture underlines the importance of identifying both technical and core skills to inform training programmes and post-training services.

Despite its critical role, PES face a wide range of constraints, such as resource availability, staff bandwidth, policy orientation and regulatory requirements. Resource constraints and often outdated service models mean that PES often struggle to effectively serve jobseekers and employers. This situation makes better-resourced employers and higher-skilled workers more inclined to use private recruitment channels (ILO 2023b) and leaves PES primarily dealing with the most difficult-to-employ populations but with insufficient tools. Facing these challenges, promising examples of reform exist. Notably, integrated approaches that combine training with employment services have proven most successful for vulnerable groups, such as youth in NEET status (ILO 2023b).

A coherent and forward-looking skills development and lifelong learning strategy must be an integral component of broader growth strategies, supporting employment, productivity and innovation through an adaptable and skilled workforce. Yet, discussions on macroeconomic stability, industrial, trade and investment policies, education, skills development and labour market policies are often managed by separate ministries with minimal or no coordination. This siloed approach results in duplicative efforts and inefficient use of public resources. Due to the lack of coordination with industrial policies, education and skills development programmes often fail to respond to the industry needs and the country's growth strategies. The lack of coordination mechanisms also makes it difficult for the social partners to engage in skills development and lifelong learning.

There is growing recognition that skills systems must be structurally and financially integrated into broader national development strategies. Countries like Poland and Rwanda have anchored

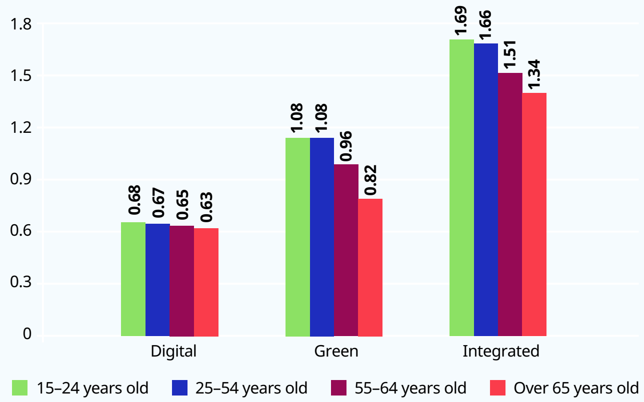
Figure 4. Share of additional job creation by sex and policy scenario by 2030 (percentage)



Note: Projections of employment by 2030 are produced by the global macroeconometric model E3ME of the Cambridge Econometrics. E3ME is a computer-based model of the world's economic, energy and environmental systems, in which behavioural relationships are estimated using econometric time-series techniques to quantify the economic and employment impacts of the implementation of policy-induced scenarios.

Source: ILO (2024c), based on the E3ME model of the Cambridge Econometrics.

Figure 5. Additional job creation compared to baseline, by age group and policy scenario (percentage)



Source: ILO (2024c), based on the E3ME model of the Cambridge Econometrics.

skills development within investment promotion and industrial modernization strategies. Sector skills bodies as seen, for example, in Bangladesh, India, New Zealand and South Africa, offer promising platforms to unite governments, the industry and workers in shaping demand-driven training systems. Recent research confirms that policy coherence and stakeholder coordination are essential to ensure that strategic initiatives receive adequate political support and funding. Conversely, persistent fragmentation remains one of the main obstacles to effective skills strategy development and implementation (World Bank, UNESCO and ILO 2023).

Policy priorities for making lifelong learning a reality for all

To respond to the multifaceted challenges and opportunities outlined above, a **comprehensive and integrated policy approach** is required. The Human Resources Development Recommendation, 2004 (No. 195), recognizes that education, training and lifelong learning are fundamental and should form an integral part of comprehensive economic, fiscal, social and labour market policies and programmes for sustainable economic growth, employment creation and social development. Recalling Convention No. 142, Recommendation No. 195 and other international labour standards relevant to skills development and lifelong learning, "the ILO strategy on skills and lifelong learning 2022–30", adopted by the ILO constituents in 2022, lays out **five pillars** of an effective and inclusive skills and lifelong learning system:

- **Pillar 1:** Improved policies, governance and financing for effective skills development and lifelong learning.
- **Pillar 2:** Strengthened skills needs intelligence.
- **Pillar 3:** Innovative and flexible learning programmes and pathways.
- **Pillar 4:** Inclusive skills programmes for diverse needs of labour markets.
- **Pillar 5:** Quality apprenticeships and work-based learning for employability, productivity and sustainable enterprises.

Furthermore, the Quality Apprenticeships Recommendation, 2023 (No. 208), recognizes that the promotion and development of quality apprenticeships can: lead to decent work; contribute to effective and efficient responses to the world of work challenges; and provide lifelong learning opportunities.

Building on these international labour standards and strategic frameworks, the following mutually reinforcing policy priorities are recommended for consideration.

- **Positioning skills and lifelong learning at the core of macroeconomic and employment policies.** Skills development and lifelong learning must be fully embedded in macroeconomic, fiscal, industrial and employment policies as a critical enabler of competitiveness, productivity and inclusive growth. Governments should ensure that national and sectoral policies are aligned with the goal of creating more and better jobs, while ensuring that a robust skills base is available.
- **Investing in quality education, skills development and lifelong learning systems.** In line with national development goals, governments and social partners should establish specific targets for skills development and lifelong learning with adequate costing and effective financing mechanisms to facilitate coordinated planning and required investment. Governments should suggest innovative mechanisms for incentivizing investments in skills by the private sector and workers, including targeted training vouchers, individual learning accounts, cash transfer programmes and training levies (ILO 2021c).
- **Strengthening skills intelligence for future skills.** Skills needs are a moving target. Governments and social partners should therefore institutionalize processes for skills needs anticipation and labour market information analysis, with a strong emphasis on emerging skills demand driven by digitalization and the green transition. Innovative approaches, such as the use of real-time labour market data, scenario-based skills forecasting and foresights can support this goal. The insights must feed back into policy and programmes through a well-coordinated mechanism and be communicated widely to the public.
- **Modernizing PES and active labour market policies through integrated service model.** Modernize and expand PES as hubs connecting workers to decent work opportunities and employers to talent, while reinforcing active labour market policies to support those at risk of exclusion. Improving the accessibility and quality of PES means ensuring that services reach urban and rural areas, and cater to the needs of different user groups.
- **Mobilizing talent though inclusive and adaptive skills strategies for changing demographic realities.** Given the urgency of the global employment challenge, skills policies should be responsive to demographic shifts and population diversity, including gender. In countries with growing youth populations, efforts must be enhanced to expand access to quality vocational education and training, apprenticeships and post-training support to facilitate school-to-work transitions. In ageing societies, targeted upskilling and reskilling initiatives – and their integration with social protection, active labour market policies– are urgently needed. Ensuring workers have access to paid education leave, as per the Paid Educational Leave Convention, 1974 (No. 140), is crucial. International cooperation on skills development – including cross-border talent partnerships – can help address labour shortages, while ensuring skills mobility frameworks are fair and beneficial for countries of origins and destinations.
- **Harnessing digital technology and artificial intelligence for inclusive skills development.** Countries should embrace the digitalization of TVET and skills systems to support lifelong learning and, at the same time, concerted efforts are needed to bridge the digital divide (ILO 2025). This means investing in infrastructure, especially in rural and underserved regions; supporting access to digital infrastructure; and improving access to digital skills trainings for women, girls and low-income groups.

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