SAI20 CONSOLIDATED THEME PAPER

COLLABORATIVE AND INTEGRATIVE EFFORTS FOR A FUTURE-READY WORKFORCE – BRIDGING THE SKILLS GAP IN SUSTAINABLE ECONOMIC GROWTH

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Solidarity
Equality
Sustainability

Executive summary

Bridging the skills gap for a future-ready workforce is a global economic development priority; one that is key to the realisation of solidarity, equality and sustainability. Consistent with this, the sustainable development goal (SDG) 4 is aimed at ensuring inclusive and equitable quality education and the promotion of lifelong learning for all. Economic development is dependent on the skills of each society, which means that high-quality, equitable education is paramount. Skills development can contribute to structural transformation and economic growth by enhancing employability and labour productivity and helping countries become more competitive. Beyond its well-established socioeconomic role, education has a crucial socialisation function through the shaping of personal collective identities, the formation of responsible citizenship and the promotion of social participation, based on principles of respect for life, human dignity and cultural diversity.

Bridging the skills gap for a future-ready workforce as a global economic development priority
There exists, however, an expanding gap between the volume, type and quality of skills required for the future and those that are currently available. The World Bank, for instance, reports huge gaps in literacy and numeracy of working age populations, as 750 million people aged 15+ (18% of global population) report being unable to read and write; megatrends such as automation, climate change, digitalisation of products and services and shrinking labour forces are also expected to transform over 1,1 billion jobs over the next decade. Overall, the World Bank estimates that the global economy could gain an estimated US $6,5 trillion in the next seven-years by closing workers' skills gaps, representing 5%-6% of the global gross domestic product (GDP), yet most countries invest less than 0,5% of global GDP towards lifelong learning.

Bridging the skills gap for a future-ready workforce as a G20 priority
As a result of the expanding gap as outlined above, addressing the skills gap is also a G20 priority and has featured on the agenda of G20 nations from multiple different perspectives since inception, specifically with respect to:
- Formulation, adoption and implementation of policies and strategies
- Types of skills development and workforce interventions to be delivered
- Types of specific skills to be developed
- Qualitative features of interventions and broader system to be delivered and enabled
- Challenges to be confronted and overcome
- Key outcomes to be achieved/realised
- Key beneficiary groups to be prioritised.

Goals and priorities of SAI20 nations relating to bridging the skills gap for a future-ready workforce
The goals and priorities of the SAI20 nations relating to bridging the skills gap for a future-ready workforce, while varying according to country-specific factors, broadly cover the categories of:
- vocational education and training
- prioritisation of science, technology, engineering and mathematics (STEM) education
- developing, upskilling and reskilling initiatives based on labour market needs
- implementation of initiatives with a focus on addressing gender-based economic disparity gaps.

Factors shaping the current context of bridging the skills gap for a future-ready workforce in SAI20 nations
The current context with regards to bridging the skills gap for a future-ready workforce in SAI20 nations is broadly characterised by governments having to navigate the complex challenge of having to deploy integrated systems of skilling, reskilling and upskilling their people at the speed of change and entails the factors relating to the following:

- Value chain of skills development

- Providers of education/skills development
- Funding for education/skills development
- Curriculum
- Teaching and learning environments
- Demographic factors affecting the availability of people of a productive age to skill
- Societal segments specifically targeted for skills development
- Labour market requirements
- Labour absorption capacity of industry.

SAIs and the skills gap

SAIs have a unique nature and role, as public assurance providers which audit government's use of public funds. On the one hand, understanding the complexities pertaining to bridging the skills gap for a future ready workforce; and on the other hand, also understanding the role, mandate, capabilities and perspectives that SAIs have — particularly on the workings of government and the outcomes thereof — SAIs are uniquely positioned to support their governments in addressing the complexities and the challenges of bridging the skills gap for a future-ready workforce. SAI20 SAIs specifically support their countries by providing recommendations for optimising educational investments, existence, design and implementation of human capital policies and integrated skills development.

Recommendations with respect to the enhanced role that G20 SAIs could play in supporting their countries to accelerate the bridging of the skills gap for a future-ready workforce

SAI20 nations have presented a host of recommendations to G20 nations and to the SAIs of G20 nations on how efforts to unlock and leverage public infrastructure funding for equality, sustainable growth and bringing improvement to the lives of citizens might be accelerated. Those around which there has been greatest consensus among the SAI20 nations are:

To the G20 nations:

Governance
- Plan for closing the skills gap through proactive skills assessment. Collect data that supports each dimension of the plan to measure success, take corrective action and respond to emerging trends and risks on an ongoing basis.
- Ensure that the skills gap is addressed equitably across diverse communities taking into consideration both rural and urban areas, as well as the youth and gender divide.
- Reinforce performance measures such as eligibility requirements, support activities, skill transfer into the workplace, as well as placement and job market integration, to the point at which the whole value chain of skills development can be subjected to auditing.

Curriculum development
- Develop dynamic curricula that equip individuals with the necessary competencies to be future-fit, ensuring that governments consider the full value chain of education – from early childhood development to workforce integration – including the revitalisation of vocational education as a key driver.
- Establish guidelines/policies in developing the curriculum that includes strengthening aspects of soft skills and work character to complement hard skills in accordance with workforce needs.
- Use technology-based, universally accessible public platforms for developing and sustaining structured learning modules, on-demand skills training and low-cost options to ensure universal skills development access.

Funding

- Draft regulations on education budget allocation dealing with the full value chain of events that will lead to the realisation of envisaged economic impact.
- Advocate for public-private partnerships (PPPs), advancing the value of collaboration between government, educational institutions, and the private sector (business) in dealing with the skills gap through ensuring training programmes align with labour market demands.

To the SAIs of the G20 nations:

Education and skills development system
- Attend to the authenticity, lawfulness and effectiveness of skills development funding, including the use of funds to improve basic conditions and technological enablement in under-resourced schools and the orderly increase of intake capacity in urban areas.

Audit frameworks and methodologies
- Adapt audit frameworks and methodologies to changes in the education sector, thus allowing SAIs to remain relevant, and ensure that audits accurately reflect the dynamic nature of education and skills development;
- Encourage citizen participation in enhancing transparency and accountability, gaining valuable insights from lived experiences of affected community members.

Audit focus areas
- To effectively address the complex skills gap, SAIs need to strategically select audit areas based on evidence and risk assessment, targeting issues that will have the greatest impact.
- Encourage the identification of future critical skills to align educational outcomes and curricula with national development goals.
- Ensure that government programmes and policies are implemented effectively and transparently while being cognisant of the full value chain of events required to ensure employment and economic growth.

Capacity
- Invest in auditors of the future, through specialised training, knowledge-sharing and integration of new technologies and approaches to gain deeper insights (trends, patterns and potential inefficiencies) into the performance of various government entities within the education and skills ecosystem to improve training programmes.
- Integrate data analytics and technology in the audit process to gain deeper insights (trends, patterns and potential inefficiencies) into the performance of various government entities within the education and skills ecosystem to improve training programmes.

Reporting
- Regularly produce whole-of-government and/or education sector reports that provide a consolidated view of government's success in dealing with the full value chain related to skills development.

Background

Bridging the skills gap for a future-ready workforce as a global economic development priority

The United Nations SDGs have received considerable attention since their adoption in 2015. However, halfway through their implementation period, there is little indication that the ambitious agenda will be accomplished by 2030. The key to bringing about the 17 SDGs is enhanced world development that provides the resources needed to advance the goals, but there is a fundamental challenge. Economic development depends on the skills of each society, which means that high-quality, equitable education is paramount.

To succeed in the 21st century labour market, one needs a comprehensive skillset of:
- foundational and higher order skills – cognitive skills that encompass the ability to understand complex ideas, adapt effectively to the environment, learn from experience, and reason. Foundational literacy and numeracy as well as problem-solving, communication and informational analysis are cognitive skills;
- socio-emotional skills – the ability to manage relationships, emotions, and attitudes;
- specialised skills – acquired knowledge, expertise and interactions needed to perform a specific task, including the mastery of required materials, tools, or technologies. This includes technical, cognitive and entrepreneurship skills; and
- digital skills – cross-cutting skills that draw on the foundational and higher order skills, socio-emotional, specialised and digital skills and describe the ability to access, manage, understand, integrate, communicate, evaluate and create information safely and appropriately[11]. In 2018 the World Bank estimated that 54% of the workforce would require significant upskilling and reskilling over the next five years.

Skills development can contribute to structural transformation and economic growth by enhancing employability and labour productivity and helping countries become more competitive[1]. Across the globe, investments in education and skills development – from preschool through post-secondary education to vocational training – have high returns; conversely, sub-optimal investment therein has proportionately higher penalties. Skills development coupled with better jobs increases productivity – each additional year of education can boost African learners' earnings by up to 11,4%, the greatest return to education than in any other region. In Ghana, for instance, the wage penalty for low literacy is nine percentage points while in Brazil, graduates of vocational programmes earn wages about 10% higher than those with a general secondary school education.

Beyond its well-established socioeconomic role, education has a crucial socialisation function through the shaping of personal collective identities, the formation of responsible citizenship and the promotion of critical social participation, based on principles of respect for life, human dignity and cultural diversity[1.]

A strong education system broadens access to opportunities, improves health, and bolsters the resilience of communities – all while fueling economic growth in a way that can reinforce and accelerate these processes. Moreover, education provides the skills people need to thrive in the new sustainable economy, working in areas such as renewable energy, smart agriculture, forest rehabilitation, the design of resource-efficient cities, and sound management of healthy ecosystems.

More details in this regard are available as part of the individual SAI20 members' country paper submissions (www.sai20.org).

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[1] https://www.worldbank.org/en/topic/skillsdevelopment

Bridging the skills gap for a future-ready workforce as a G20 priority

Analysis of the G20 declarations since inception provides a clear indication that the challenge of bridging the skills gap for a future-ready workforce has remained a key and persistent issue of significance to global economic development and thus to the G20 for decades.

Testament to the significance and complexity of challenge to global economic development, it has featured on the agenda and been engaged with by the G20 nations from multiple different perspectives. The myriad of issues that have been engaged on with respect to the skills gap challenge individually and collectively represent the levers that the G20 nations believe are material to and ought to be pulled by governments in order to address the skills gap challenge for a future-ready workforce – key among these being:

Formulation, adoption and implementation of policies and strategies

Key issues	Type of position	G20 position
Training strategy	Entreaty	The International Labour Organization (ILO), in partnership with other organisations, to **convene its constituents and NGOs to develop a training strategy through multi-stakeholder collaboration**
	Acknowledgement	Work done through collaboration by ILO and the Organisation for Economic Cooperation and Development (OECD) on training strategy to **equip workforce with skills required for the jobs of today and those of tomorrow**
Medium-term employment and skills development	Direction	Ministers to consider medium-term employment and skills development policies to **ensure workers are prepared to take advantage of advances in science and technology**
Cooperation in education, skills development and training policies	Commitment	Intensify efforts to strengthen, including internship and on-the-job training, which **support a successful school-to-work transition**

Key issues	Type of position	G20 position
Coordinated and integrated public policies (macroeconomic, financial, fiscal, education, skills development, innovation, employment and social protection)	Acknowledgment	Key to achieving goal of **better quality and more productive jobs**
		Crucial to achieving **strong, sustainable and balanced growth and restoring confidence in the global economy**
	Endorsement	Recommendations of labour and finance ministers to mobilise, coordinate and integrate national policies to ensure **higher employment levels and sustained decline in unemployment, underemployment and informal employment**
	Commitment	Enhance coordination between education, employment and social policies to **improve transition from education to quality employment**
Human resource development	Commitment	Work **supports human resource development** as a key area for sustainable development
	Acknowledgment	**Progress achieved** on human resource development

Equitable quality education policies	Commitment	Promote coordination between employment and equitable quality education policies in order to be able to **develop comprehensive strategies that promote key competencies**
		Promote **inclusive and equitable quality education for all**
		Ensure inclusive and **equitable quality education and training**
Training and reskilling policies	Commitment	Support workers through training and reskilling policies
Professional development policies	Acknowledgment	Professional development policies capable of **qualifying and retaining teachers** and of **stimulating the interest of early-career teachers** have become an essential component of the multidimensional challenge of **preparing societies for the future ahead**

Types of skills development and workforce interventions to be delivered

Key issues	Type of position	G20 position
Apprenticeships and vocational programmes	Commitment	**Quality** apprenticeship and vocational training programmes
		Employment plans include investments in apprenticeships, education and training, and incentives for hiring young people and encouraging entrepreneurship
		Promoting decent work, vocational training and skills development, including reskilling workers and improving labour conditions to **build an inclusive, fair and sustainable future of work**
		Promoting sustainable development of human capacity, labour markets and productivity, including through **community-based vocational education**
	Acknowledgment	Important role of vocational education and training, including quality apprenticeship, in **integrating young people into labour markets**
	Emphasis	Expanding access to **high-quality** technical and vocational education and training
	Emphasis	Tailored strategies including youth guarantee approaches, developing school and university curricula that support entrepreneurship, and facilitating exchange of best practices among the G20 countries and the social partners are crucial
	Commitment	Intensify efforts to strengthen cooperation in education, skills development and training policies, including internship and on-the-job training, which support a successful school-to-work transition
	Acknowledgment	Have a responsibility to invest in people by providing education, job training, decent work conditions
Early Childhood Development	Commitment	Ensure **equal access to affordable, inclusive, equitable, safe and quality education** from early childhood through higher education to lifelong learning
		Develop comprehensive strategies that promote key competences such as learning to learn, foundation and

		digital skills, in a **lifelong learning perspective from early childhood**
		Enhancing **quality and sustainably financed** early childhood programmes that consider the multidimensional approach of Early Childhood Development (ECD)
	Acknowledgment	Importance of improving **accessibility and affordability** of quality early childhood education
Matching skills with job opportunities	Acknowledgment	Policy reforms to support higher employment and facilitate job creation and better matching of skills with job opportunities are central in our growth strategies
Job search assistance	Emphasis	Labour market reforms might include more effective labour market policies (such as job retraining, job search and skills development programs, and raising labour mobility)
	Commitment	Develop and strengthen tailored activation strategies for underrepresented and vulnerable groups that combine income support for those out of work with measures to improve their employability through job search assistance, work experience, public employment programmes, hiring subsidies, conditional transfers and training as well as reduced obstacles for employment as per country's circumstances
Retraining and reskilling	Emphasis	Labour market reforms might include more effective labour market policies (such as job retraining, job search and skills development programmes, and raising labour mobility)
		Importance of enabling lifelong learning focused on skilling, reskilling and upskilling especially for vulnerable groups
	Commitment	Building an inclusive, fair and sustainable future of work including by reskilling workers
		Continue to support workers through training and reskilling policies
	Acknowledgment	Increasing demand for reskilling and upskilling to meet demands for a workforce adept at utilising emerging technologies
		Comprehensive toolkit with adaptable frameworks for designing and introducing digital upskilling and reskilling programmes
Lifelong education	Commitment	Develop comprehensive strategies that promote key competences such as learning to learn, foundation and digital skills, in a lifelong learning perspective from early childhood
		Promote lifelong learning at all levels
		Increase efforts to make education systems inclusive, adaptable and resilient through lifelong learning
		Boost job creation and flexible work arrangements, seek to raise quality of employment and enhance employability of workers through lifelong learning as working lives are expected to be longer
	Entreaty	Innovation, skills training and lifelong education for all

		Ensure access to training programmes that support lifelong skills development and focus on future market needs
	Emphasis	Importance of enabling lifelong learning focused on skilling, reskilling and upskilling especially for vulnerable groups
Primary and secondary education	Commitment	Continued support for girls' and women's education and training, including providing quality primary and secondary education
Work experience	Commitment	Develop and strengthen tailored activation strategies for those groups facing the greatest barriers to finding or remaining in employment (e.g. youth, women, long-term unemployed, low skilled workers, single parents, persons with disabilities and older workers) that combine income support for those out of work with measures to improve their employability through work experience
Skills development	Commitment	Building an inclusive, fair and sustainable future of work by promoting skills development
		Maximise approach to skills development to respond effectively to the needs of the labour market
	Emphasis	Intensify efforts to strengthen cooperation in education, skills development and training policies, including internship and on-the-job training, which support a successful school-to-work transition
	Direction	Importance of taking measures to support skills development
	Acknowledgment	Ministers to consider medium-term employment and skills development policies
		It is no longer sufficient to train workers to meet their specific current needs; should ensure access to training programmes that support lifelong skills development and focus on future market needs
Training	Commitment	Inclusive, equitable, high-quality education and skills training for all, including for those in vulnerable situations
		Support employment by investing in education and training
		Continue to provide training support for the unemployed and those most at risk of unemployment
		Support robust training efforts in our growth strategies and investments
		Advance gender equality in all areas, including skills training
		Reducing youth unemployment, which is unacceptably high, by acting to ensure young people are in education, training or employment
		Pursue pro-innovation strategies and policies, support investment in science, technology and innovation (STI), and support skills training for STI
		Improve women's access to labour markets through provision of quality education and training

		Recommitment to SDG 4 to ensure inclusive and equitable quality education and training
	Emphasis	Critical role of quality education and training as an enabler for human dignity and empowerment; equity, equality, and inclusiveness; sustainable and socio-economic growth; active citizenship, prosperity, peace and wellbeing
	Acknowledgment	New framework for strong, sustainable and balanced growth requires structural reforms to create quality education and training programmes
		It is no longer sufficient to train workers to meet their specific current needs; should ensure access to training programmes that support lifelong skills development

Types of specific skills to be developed

Key issues	Type of position	G20 position
Cyber education	Acknowledgment	G20 toolkit on cyber education and cyber awareness of children and youth
Digital skills and education	Commitment	Development of **women and girls' digital skills**
		Support the **greater enrolment, participation and leadership of all women and girls, including those with disabilities**, in STEM fields and in emerging digital technologies
		Halve the **digital gender gap** by 2030
		Promote regulatory policy frameworks that enable all women and girls to actively participate in the formulation and implementation of national digital strategies, including enhancing digital literacy and skills
		Enhance efforts to ensure that **research and work forces are able to adapt** their skills to the rapidly evolving digital environment and **harness the potential of innovation and digital tools** whilst upholding shared ethical principles and values
		Leverage **common digital infrastructures** to promote research collaboration, open science and higher education
		Improving the **digital literacy skill of learners, teachers, school leaders, and other educational professionals**
		Harness digital to overcome digital divides for all learners
		Promote digital literacy and digital skills in all forms of education and life-long learning
	Entreaty	International collaboration to further **develop digital skills and digital literacy to harness the positive impacts of digital transformation**, especially for women, girls, and people in vulnerable situations

		Promotion of inclusive international cooperation and capacity building for developing countries in digital domain in acknowledgment of growing digital divides between countries
		Digital literacy and skills are essential to achieve meaningful digital inclusion
Digital skills and education (continued)	Acknowledgment	Comprehensive toolkit with adaptable frameworks for designing and **introducing digital upskilling and reskilling programmes**
	Emphasis	Critical role of quality education and training, including **digital education, as an enabler for human dignity and empowerment; equity, equality, and inclusiveness; sustainable and socioeconomic growth; active citizenship, prosperity, peace and wellbeing**
Foundational learning (literacy, numeracy, socioemotional skills)	Acknowledgment	Importance of foundational learning (literacy, numeracy, and socioemotional skills) as the primary building block for education and employment
STEM	Acknowledgment	Access to STEM (science, technology, engineering and mathematics) related trainings and occupations is key to establish an enabling environment for women's empowerment
	Commitment	Increasing the participation of women in STEM and high-tech sectors
		Improved access to STEM education as part of support for girls' and women's education and training
		Will work on key factors related to putting women and girls at the core of effort, such as equal access to education and opportunities, including in STEM sectors
		Support greater enrolment, participation and leadership of all women and girls, including those with disabilities, in STEM fields and in emerging digital technologies

Qualitative features of interventions and broader system to be delivered and enabled:

- Quality
- Coordinated
- Inclusive
- Equitable
- For all
- Affordability
- Adaptable
- Resilient
- Tech-enabled
- Accessible
- Effective
- Equally accessible
- Safe
- Robust
- Sustainable.

Imperatives

Change readiness
- Ensure that workers are prepared to take advantage of advances in science and technology
- Strengthen the ability of workers to adapt to changing market demands
- Develop skills required for the jobs of today and those of tomorrow

Resourcing and investing
- Invest in education, training and skills
- Invest in human capital

Teaching and learning environments
- Improve teaching and learning environments
- Capacitate educational institutions and teachers
- Stimulate the interest of early-career teachers

Lifelong learning
- Invest in people's skills, quality education and lifelong learning programmes
- Inculcate a lifelong learning perspective from early childhood
- Enhance employability of workers through lifelong learning
- Re- and upskilling throughout their working lives
- Education from early childhood through higher education to lifelong learning.

Alignment between skills development and world of work
- Better matching of skills with job opportunities
- Skills development to respond effectively to the needs of the labour market.

Facilitating employment
- Innovative ways to encourage firms to hire youth
- Effective job-search assistance for different groups of youth
- Incentives for hiring young people
- Transition from education to quality employment.

Women and girls
- Women and girl's equal access to inclusive and quality education
- Women and girl's equal participation in STEM education
- Greater enrolment, participation and leadership of all women and girls, including those with disabilities, in STEM field and emerging digital technologies.

Work type and conditions
- Decent work conditions.

Skills portability and globalisation
- Database on skills indicators
- Fostering internationalisation in education
- Global skills
- International reference classification of occupation by skill and qualification requirements
- Inclusive international cooperation and capacity building for developing countries
- Well managed, regular and skills-based migration pathways.

Facilitating access to skills development
- Access to education
- Access to STEM education
- Access to education and opportunities
- Universal access to education.

Resilience of education/skills delivery systems
- Continuity of education in times of crisis
- Safe in-person learning, effective quality distance and blended teaching and learning
- Learning recovery.

Digital
- Adapt skills to rapidly evolving digital environment
- Develop digital skills and digital literacy
- Digital literacy skill of learners, teachers and school leaders and other educational professionals
- Overcome digital divides for all learners
- Responsible artificial intelligence (AI) for improving education.

Challenges to be confronted and overcome

Key issues	Type of position	G20 position
Impact of crisis	Acknowledgment	With concern, the adverse impact of the global crisis on low-income countries' (LICs) capacity to protect critical core spending in areas such as education
	Emphasis	Importance of continuity of education in times of crisis through the implementation of measures to ensure safe in-person learning, effective quality distance and blended teaching and learning, as appropriate
Barriers to education	Commitment	Empower relevant actors within and beyond G20 to remove barriers to education
Teacher shortage	Acknowledgment	Note with concern the current global teacher shortage
Skills gap	Commitment	Addressing skills gaps
	Endorse	Efforts to map global skills gaps and development of the G20 policy priorities to address skill gaps globally, including through further strengthening our national statistical data, extending coverage of the ILO and OECD skills for jobs databases to G20 countries, as appropriate
Adaptation to changes in skills requirements	Endorsement	Strategies, action plans and initiatives developed by G20 labour and employment ministers to enhance the growth and development agenda by taking effective actions to address changes in skill needs
	Acknowledgment	Need to educate and train people with the necessary skills for the future of work, the importance of opportunities to re- and upskill throughout their working lives, and assist them to successfully adapt to change, in accordance with each member's domestic social framework
	Commitment	Strengthen the ability of workers to adapt to changing market demands

		Enhance efforts to ensure that research and work forces are able to adapt their skills to the rapidly evolving digital environment

Key outcomes to be achieved/realised:

Key issues	Type of position	G20 position
Skills portability	Commitment	Take broad-ranged action, tailored to national circumstances, to promote more and better jobs: Invest in our people's skills, quality education and life-long learning programmes to give them skill portability and better prospects, to facilitate mobility and enhance employability
		Consider the development of an international reference classification of occupation by skill and qualification requirements to facilitate cross-country comparability and mutual recognition of skills and qualifications
Labour force participation	Commitment	Wide range of reforms to strengthen the foundations for strong, sustainable and balanced growth over the long term by increasing labour force participation

Key beneficiaries to be prioritised:

- Unemployed
- Most at risk of unemployment
- Women in the labour force
- Young people
- Women
- Girls
- Research forces
- Work forces
- Persons with disabilities
- Vulnerable groups.

Bridging the skills gap for a future-ready workforce as a challenge for SAI20 nations

As indicated above, the skills development gap persists among G20 nations despite it:
- having been, over the decades, and remaining to this date, a global development priority, most recently articulated in the UN SDGs under Goal 4;
- having been a consistent feature on the G20 agenda and among the G20 resolutions since inception.

This skills gap is driven by the primary challenge of rapidly evolving needs, a complex array of mutually reinforcing levers to be pulled within both the skills development context and the broader socioeconomic context by multiple different stakeholders, sometimes with clashing imperatives among them and there only being a finite set of resources available to allow governments to comprehensively pull all relevant levers in a collaborative and integrative manner.

Goals and priorities of SAI20 nations relating to bridging the skills gap for a future-ready workforce

SAI20 nations report the key goals with regard to bridging the skills gap for a future-ready workforce as being:

Focus on vocational education and training

Vocational education and training are a high priority across most of the SAI20 nations as it significantly contributes to securing skilled labour capacities and the competitiveness of the economy. The prioritisation of vocational education and training programmes, including curriculum updates and the development of clear vocational education roadmaps, is seen as presenting an opportunity to align programmes with the evolving needs of the labour market, ensuring that graduates are equipped with relevant skills and enhancing their employment opportunities.

Prioritisation of STEM education

Some SAI20 nations are placing a strong emphasis on the development of education, science, and technology, with a particular focus on digital skills, innovation, and talent to align with emerging technologies such as AI, robotics, and data analytics to drive future growth and modernisation. Education systems are undergoing significant reforms to prioritise STEM education, digital skills, and soft skills to prepare the workforce for the evolving demands of the global economy. These efforts are seen as requiring multifaceted approaches that includes skills development, policy support, and proactive measures to equip workforces for future growth and modernisation.

Developing, upskilling and reskilling initiatives based on labour market needs

Various SAI20 nations report that they are making efforts to develop education through comprehensive reforms aimed at nurturing talent, fostering innovation, and creating competitive environments to attract and develop skilled personnel. These also include:
- exploring systems to support the immigration of highly skilled workers
- ensuring continuous learning and up-to-date skill sets, particularly within the public sector
- Introducing programmes targeting youth, such as vocational tracks, apprenticeships, and entrepreneurship support
- Launching key initiatives focusing on technology, including vocational training and upskilling programmes, digital literacy improvement, STEM education promotion, innovation-driven entrepreneurship, and AI-based learning across various sectors to enhance employability and workforce readiness.

Implementation of initiatives with a focus on addressing gender-based economic disparity gaps

There are positive strides being made by some SAI20 countries to bridge the skills gap and ensure that women are equitably represented in STEM fields and leadership roles across both public and private sectors. This includes implementing policies to address labour market changes, such as improving labour market flexibility, through developing after school care programmes to allow women participation in the workforce and promoting and supporting, particularly the increasing participation of women in the workforce.

Factors shaping the current context of bridging the skills gap for a future-ready workforce in SAI20 nations

The current context with regard to bridging the skills gap for a future-ready workforce in SAI20 nations is broadly characterised by governments having to navigate the complex challenge of having to deploy integrated systems of skilling, reskilling and upskilling their people at the speed of change as follows:

Deploy integrated systems

Value chain of skills development
The value chain of skills development refers to the various skills development touchpoints that exist within and comprise the SAI20 nations' broader and holistic skills development systems. SAI20 nations report the key factors that characterise their value chains of skills development as:
- Many industries face challenges in maintaining competitiveness and productivity due to skill shortages, making it difficult to leverage new technologies and practices in their evolving operations;
- In certain countries, most companies struggle to find workers with the skills needed to meet industry demands. Therefore, highlighting the need for skills development systems which are structured to involve both government bodies and companies, working together to provide qualifications and training across various professions.

Providers of education/skills development
The following stand out as the key factors relating to who the providers of education/skills development are that SAI20 nations highlight as characterising their countries in the context of seeking to bridge the skills gap for a future-ready workforce:
- In certain countries various institutions, including basic learning schools, public universities, vocational education and training institutions, sector-specific education and training authorities, specialised institutions such as vocational high schools contribute to a diverse education and skills development landscape designed to meet economic and labour market needs;
- In some country systems education and training are organised at a federal level, with both government bodies and private companies taking responsibility for training and qualifications.

Funding for education/skills development
The key factors that stand out relating to the manner in which education/skills development is funded in SAI20 nations in the context of seeking to bridge the skills gap for a future-ready workforce are:
- SAI20 governments allocate education budgets through various different mechanisms, such as ring-fenced funds, with the aim of improving education, addressing inequalities, tackling any social and economic disparities and supporting educational development;
- It is worth noting that some SAI20 countries indicate that they provide further fiscal support for the nutrition of students in compulsory education, focusing on students in impoverished areas and those from economically disadvantaged families; fiscal support for improvement of school conditions and fiscal support for narrowing of the urban-rural, regional, inter-school and group gaps in education.

Skilling, reskilling and upskilling

Curriculum
Curricula serve as critical pillars in the skilling, reskilling and upskilling efforts of nations. SAI20 nations reported the following as key curriculum factors shaping their current contexts:
- While curricula are designed to emphasise practical and technical skills relevant to industry needs, some countries report struggling with mismatches between the curriculum taught and the actual needs in the field;
- While tertiary education enrolment is relatively high, certain fields (e.g. advanced engineering, AI, and specialised technical areas) still face skill shortages;

- Key challenges remain in ensuring that the workforce in some countries is future-ready, including matching education and training outcomes with the evolving demands of the fourth industrial revolution and fostering lifelong learning to adapt to rapid technological advances.

Teaching and learning environments

Robust and relevant curricula remain as ineffective theories if not brought to life through pedagogical approaches and within environments that are conducive for teaching and learning. SAI20 nations highlighted this as an area of pronounced focus relating to:

- In some countries, the rapid adoption of emerging technologies such as geographic information systems (GIS), artificial intelligence (AI), and machine learning (ML) are said to be reshaping skill development and employment landscapes;
- Some countries highlight that collaboration with industry is vital and encouraged in order to ensure training alignment with evolving job market demands; this serves to enhance the quality and competitiveness of human resources;
- Government interventions also play a pivotal role in supporting integration into the labour and training markets, offering counselling, placement, and support services;
- Certain countries have implemented nutritional improvement programmes targeting students in economically disadvantaged areas which aim to support the wellbeing and education of those from underprivileged backgrounds.

People

Demographic factors affecting the availability of people of a productive age (youth divide)

Demographic factors have a strong bearing on the availability of the required quantity and type of skills required in a society. High population growth, for instance, causes an increase in the number of people entering the productive age group, leading to a larger labour force. However, if growth is rapid, it may also strain resources, creating challenges in education and employment (youth divide). Whilst, a youthful population means a future increase in the productive-age group, it also necessitates investment in education and skills development before they enter the labour market.

A country's demographic trends, such as population ageing, migration patterns, and educational factors, all play critical roles in shaping the size and capabilities of its productive-age workforce. These factors are having to be managed carefully by SAI20 nations to ensure sustainable and balanced labour markets. Some of the key matters identified in that regard include:

- In spite of their large, youthful working-age populations, some regions face persistent issues, such as regional disparities in education, high dropout rates, and youth unemployment, which significantly limits the productive potential of these young populations;
- In some countries, the gap between education standards and labour market demands further exacerbates the challenges, with bureaucratic inefficiencies hindering the adaptation of educational programmes to meet evolving market needs;
- The rapid adoption of new technologies and the digital transformation of work environments presents both opportunities and challenges, particularly for countries with ageing workforces or insufficient training to bridge emerging skills gaps;
- Issues such as structural mismatches in employment, as well as difficulties in managing and expanding educational programmes effectively, add complexity to efforts aimed at improving skills development. These challenges necessitate comprehensive approaches to education, training, and policy reform to ensure that young populations can become driving forces for sustained economic growth across SAI20 nations.

Societal segments specifically targeted for skills development

In some of the SAI20 nations, very specific segments of society are prioritised for skilling, reskilling and upskilling efforts. Key observations in that regard across the SAI20 nations include:

- Most of the SAI20 countries, due to country-specific factors, identify and earmark specific segments of their societies for prioritised focus in skilling interventions. These groups range across countries and include citizens, women, older people, refugees and immigrants as well as

persons with disabilities. Young people who have not completed vocational training and are at risk of unemployment also appear amongst the prioritised in some nations;

- Providing equal and equitable education for vulnerable populations is significantly influenced by the availability of skilled professionals to deliver specialised education. In many countries, skills development for vulnerable groups has been observed as remaining underdeveloped, particularly in addressing cultural barriers surrounding vulnerable groups, such as those with disabilities. A lack of teachers, caregivers, and assessors in these areas hampers progress toward achieving global education targets.

At the speed of change

Labour market requirements
A key challenge that is observed to characterise most of the skills development systems of SAI20 nations, is that of synchronising skilling, reskilling and upskilling efforts to labour market requirements. Key factors affecting SAI20 nations' progress in this regard include:

- In most countries the skills development systems face significant challenges in aligning with the evolving needs of the labour market, particularly with the increasing demand for skilled workers;
- Certain countries report that they use education roadmaps which highlight the importance of gathering detailed labour market information, including timelines for implementing education strategies and assessing the role of academic institutions in delivering educational interventions;
- As industries undergo transformations, especially with digital advancements, there is a growing need for specific skills that are not always covered by traditional education systems or are developed in the labour market;
- Ongoing structural and digital shifts are creating noticeable challenges for both jobseekers and those already employed in most countries, as rapidly changing expertise makes lifelong learning and continuous training more critical than ever. Additionally, despite high rates of tertiary education enrolment, certain sectors continue to experience skills shortages, especially in areas like advanced engineering, AI, and specialised technical fields;
- There is an increasing focus on enhancing vocational education and training to address gaps in mid-level technical skills.

Labour absorption capacity of industry
A key and defining challenge of skills development systems both within G20 nations and beyond is the management of bottlenecks within the skills development system; mindful that the eventual aim of all skilling efforts is to translate those into productive contribution by the people of those countries. SAI20 nations report the following as characterising the ability of their industries to absorb labour:

- Some countries struggle to find workers whose skills align with industry demands, leading to a significant skills gap that contributes to rising unemployment;
- The mismatch between supply and demand in the labour and training markets is evident in several sectors, particularly in skilled crafts and information technology (IT), where unfilled training positions and vacancies persist. At the same time, certain groups face difficulties in securing jobs or training opportunities;
- Certain countries manage training levies, taxes imposed on private companies to fund workforce development, in ways that align training programmes more effectively with industry needs, often through private sector management rather than public sector oversight. This approach is said to allow for better tailoring of training initiatives to meet specific industry requirements. In some countries, these levies are overseen by private non-profit organisations, while in others, they are managed by public sector entities responsible for coordinating skills development initiatives across various industries which may influence the impact on the effective implementation of skills development initiatives.

Implications of the persistence of the skills gap

The skills gap's existence, widening and persistence in SAI20 nations is a function of a complex array of factors. Amongst these, SAI20 nations report that the mismanagement of funds intended to support development and integration creates problems such as inadequate school infrastructure and insufficient teaching resources which reinforce the skills gap.

The existence, widening and persistence of the skills gap has far-reaching consequences, further aggravated by challenges such as uneven regional development, digital inequalities, financial constraints and demographic challenges.

SAIs and the skills gap

The unique nature and role of supreme audit institutions

The The International Organization of Supreme Audit Institutions (INTOSAI) describes supreme audit institutions (SAIs) as public assurance providers which audit government's use of public funds. They serve as a critical link in a country's accountability chain. Some of the key characteristics of SAIs ideally include:

(a) Have an all-of-government perspective as they audit all public institutions;

(b) Legislatively enshrined independence;

(c) By scrutinising public financial management and reporting, they provide assurance that resources are used as prescribed;

(d) Mostly derive their mandates from the constitution and/or legislation;

(e) Empowered to audit the: (i) use of public monies, resources, or assets, by a recipient or beneficiary regardless of its legal nature; (ii) collection of revenues owed to the government or public entities; (iii) legality and regularity of government or public entities accounts; (iv) quality of financial management and reporting; (v) economy, efficiency, and effectiveness of government or public entities operations; and (vi) government performance (in some jurisdictions);

(f) Being a credible source of independent and objective insight and guidance to support beneficial change in the public sector;

(g) Undertake financial audits of organisations' accounting procedures and financial statements, and compliance audits reviewing the legality of transactions made by the audited body. They also conduct performance audits to scrutinise the efficiency, effectiveness or economy of government's undertakings;

(h) Have adequate powers to obtain timely, unfettered, direct and free access to all necessary documents and information, for the proper discharge of their statutory responsibilities;

(i) Have the right and obligation to report on their work and the freedom to decide the content and timing of audit reports and to publish and disseminate them – their audit reports and recommendations contribute to accountability and transparency in public finance management, and in turn to good governance;

(j) Through delivering on their mandates, SAIs may uncover irregular conduct (non-compliance), misspending, mismanagement, and poor performance. They also consider risks for misuse, evaluate entities' control environment, and uncover weaknesses (or red flags) that may be indicative of corruption and fraud;

(k) Examine the effectiveness of other assurance providers and governance structures such as internal audit, audit committees and boards of directors;

(l) Submit their reports to the legislature, one of their commissions, or an auditee's governing board, as appropriate, for review and follow-up on specific recommendations and corrective actions;

(m) Enable those charged with public sector governance to discharge their responsibilities in responding to audit findings and recommendations and taking appropriate corrective action;

(n) Expert capabilities in identification, assessment and mitigation of risks to the economy, efficiency and effectiveness of government's use of public funds.

Relevance of SAIs to the challenge of bridging the skills gap for a future-ready workforce through collaborative and integrative efforts

On the one hand, understanding the myriad of issues and levers to be pulled by governments pertaining to the challenge of bridging the skills gap; and on the other hand, also understanding the role, mandate, capabilities and perspectives that SAIs have — particularly on the workings of government and the outcomes thereof — SAIs are uniquely positioned to support their governments in addressing the skills gap by:

Formulation, adoption and implementation of policies and strategies
Allocating resources towards auditing and providing government with assurance and recommendations on:
(a) Existence and implementation of human resource development and skills development policies and their alignment to the priority of equipping the workforce with skills required for the jobs of today and of tomorrow;
(b) Existence and implementation of human resource development and skills development policies and their alignment to the priority of ensuring that workers are prepared to take advantage of advances in science and technology;
(c) Coordination and integration of public policies (i.e. macroeconomic, financial, fiscal, education, skills development, innovation, employment and social protection);
(d) Coordination between education, employment and social policies to align with the priority of improving transition from education to quality employment;
(e) Existence of education policies, their translation to comprehensive strategies and their effectiveness in promoting key competencies;
(f) Inclusiveness and equitability of education and training for all citizens;
(g) Existence and effectiveness of professional development policies aimed at qualifying teachers, stimulating the interest of early-career teachers and retaining teachers.

Types of skills and workforce development interventions to be delivered
Allocating resources towards auditing and providing government with assurance and recommendations on:
(a) Existence, access to and quality of apprenticeship and vocational training programmes;
(b) Inclusion of investments in apprenticeships, education and training, incentives for hiring young people and encouraging entrepreneurship in government's employment plans;
(c) Existence, quality and effectiveness of community-based vocational education;
(d) Existence, quality and effectiveness of tailored strategies including youth guarantee approaches and school and university curricula that support entrepreneurship;
(e) Equality of access to affordable, equitable, safe and quality education from early childhood through to higher education and lifelong learning;
(f) Quality and sustainability of financing early childhood programmes that consider the multidimensional approach of ECD;
(g) Existence, quality and effectiveness of strategies for matching skills with job opportunities;
(h) Existence, quality and effectiveness of tailored activation strategies for underrepresented and vulnerable groups that combine income support for those out of work with measures to improve their employability through job search assistance, work experience, public employment programmes, hiring subsidies, conditional transfers and training as well as reduced obstacles for employment as per country's circumstances;
(i) Existence, quality, implementation and effectiveness of policies and strategies for skilling, reskilling and upskilling citizens as part of lifelong learning;
(j) Access to training programmes that support lifelong skills development and future market needs;
(k) Provision of quality primary and secondary education;
(l) Provision of training support for the unemployed and those most at risk of unemployment;
(m) Inclusion of training efforts in growth and investment strategies;
(n) Gender equality in all areas, including skills training;

(o) Existence, quality and effectiveness of investment and skills training in science, technology and innovation.

Types of specific skills to be developed
Allocating resources towards auditing and providing government with assurance and recommendations on:
(a) Provision, quality and effectiveness of cyber education;
(b) Provision, quality, accessibility and effectiveness of digital skills education;
(c) Existence and persistence of the digital gender gap;
(d) Effectiveness of efforts to ensure that research and workforces are able to adapt their skills to the rapidly evolving digital environment and able to harness; the potential of innovation and digital tools;
(e) Upholding of ethical principles and values in efforts to harness the potential of innovation and digital tools;
(f) Adoption of common digital infrastructures in order to promote research collaboration, open science and higher education;
(g) Existence, quality, implementation and effectiveness of strategies for improving the digital literacy skill of learners, teachers, school leaders, and other educational professionals;
(h) Existence, quality, implementation and effectiveness of frameworks for designing and introducing digital upskilling and reskilling programmes;
(i) Extent to which digital education is being leveraged as an enabler for human dignity and empowerment; equity, equality, and inclusiveness; sustainable and socioeconomic growth; active citizenship, prosperity, peace and wellbeing;
(j) Existence, quality, implementation and effectiveness of strategies for delivering foundational learning (literacy, numeracy, and socioemotional skills);
(k) Existence, quality, implementation and effectiveness of STEM education;
(l) Existence, quality, implementation and effectiveness of strategies for increasing access to and participation of women and girls in STEM education and training;
(m) Existence, quality, implementation and effectiveness of strategies to provide equal access to education and opportunities, including in STEM sectors;
(n) Existence, quality, implementation and effectiveness of strategies for supporting greater enrolment, participation and leadership of all women and girls, including those with disabilities, in STEM fields and in emerging digital technologies.

Qualitative features of interventions and broader system to be delivered and enabled
Allocating resources towards auditing and providing government with assurance and recommendations on the extent to which the education, training and broader skills development system can be characterised as:
• Quality
• Coordinated
• Inclusive
• Equitable
• For all
• Affordable
• Adaptable
• Resilient
• Tech-enabled
• Effective
• Equally accessible
• Safe
• Robust
• Sustainable.

Imperatives

Allocating resources towards auditing and providing government with assurance and recommendations on:

(a) Existence, quality, implementation and effectiveness of policies and strategies that are meant to ensure that workers are prepared to take advantage of advances in science and technology;

(b) Existence, quality, implementation and effectiveness of policies and strategies that are meant to strengthen the ability of workers to adapt to changing market demands;

(c) Adequacy, efficiency and effectiveness of investments in education, training, skills and human capital development;

(d) Availability, quality and effectiveness of teaching and learning environments;

(e) Availability, quality and effectiveness of appropriate educational institutions;

(f) Existence, quality, implementation and effectiveness of investments into lifelong learning programmes and the inculcation of lifelong learning perspectives from early childhood;

(g) Existence, quality, implementation and effectiveness of strategies aimed at reskilling and upskilling citizens throughout their working lives;

(h) Existence, quality, implementation and effectiveness of strategies aimed at matching skills with job opportunities;

(i) Effectiveness of and extent to which skills development is responsive to labour market needs;

(j) Existence, quality, implementation and effectiveness of strategies aimed at encouraging firms to hire youth;

(k) Existence, quality, implementation and effectiveness of job-search assistance for different groups of youth;

(l) Existence, quality, implementation and effectiveness of strategies aimed at facilitating transition from education to quality employment;

(m) Existence, quality, implementation and effectiveness of policies and strategies aimed at providing women and girls with equal access to inclusive and quality education;

(n) Alignment of local skills indicators to global database of skills indicators;

(o) Existence, quality, implementation and effectiveness of policies and strategies aimed at fostering internationalisation in education;

(p) Existence, quality, implementation and effectiveness of strategies aimed at developing global skills amongst citizens;

(q) Alignment of local occupations to international reference classification of occupations by skill and qualification requirements to facilitate cross-country comparability and mutual recognition of skills and qualifications;

(r) Existence, quality, implementation and effectiveness of strategies aimed at advancing inclusive international cooperation and capacity building for developing countries;

(s) Existence, quality, implementation and effectiveness of well managed, regular and skills-based migration pathways;

(t) Existence, quality, implementation and effectiveness of policies and strategies aimed at ensuring continuity of education in times of crisis and post-crisis learning recovery;

(u) Resilience of the education and skills delivery system and government's capacity to protect critical core spending on education during crisis;

(v) Existence, quality, implementation and effectiveness of policies and strategies aimed at identification and removal of barriers to education;

(w) Availability, quality and effectiveness of appropriate teachers;

(x) Existence, quality, implementation and effectiveness of policies and strategies aimed at addressing teacher shortages;

(y) Existence, quality, implementation and effectiveness of policies and strategies aimed at increasing labour force participation.

Key beneficiaries to be prioritised

Allocating resources towards auditing and providing government with assurance and recommendations to the extent to which the following beneficiary groups are prioritised for accessing quality education and skills development interventions:

- Unemployed
- Most at risk of unemployment
- Women in the labour force
- Young people
- Women
- Girls
- Research forces
- Work forces
- Persons with disabilities
- Vulnerable groups.

Role SAIs of the SAI20 nations play in supporting their countries to bridge the skills gap for a future-ready workforce through collaborative and integrative efforts

SAIs of the SAI20 nations reported various ways in which they were participating in supporting their countries to address the skills gap challenge; key amongst these being:

- **Optimising educational investments** – Some of the SAIs report themselves as providing assurance on the efficient use of education budgets, ensuring maximum return on limited resources. Some countries have a central role in ensuring that public investments in skill-building are both effective and impactful through performing rigorous performance and financial audits. From these audits, the SAIs provide recommendations for further development ensuring that public investments in skill-building initiatives are impactful and transparent, they also provide recommendations for improving statutory frameworks and implementation practices to enhance training and employment opportunities.
- **Human capital policies** – Some of the SAIs indicate a prioritised focus on governments, as major employers that influence the national skills pool through their talent management policies. Those SAIs indicate that they assess the comprehensiveness, validity, and effectiveness of these policies, mitigating risks related to work culture, competence, and performance management;
- **Integrated skills development** – Some of the SAIs report that they focus on contributing towards better coordination of skills development efforts across state and non-state actors in order to enhance effectiveness. These SAIs take advantage of their unique positioning relative to the government system to contribute to integrated approaches;

Good practices on the role that SAI20 SAIs are playing in supporting their countries to address the challenge of bridging the skills gap for a future-ready workforce through collaborative and integrative efforts

Some of the ways that SAI20 SAIs report themselves as having driven positive, meaningful results towards closing the skills gap for a future-ready workforce are:

- Investing in capacity building and staff development as crucial drivers for improved auditing capabilities. Many audit institutions have focused on enhancing staff skills through training programmes, including e-learning platforms, online courses in data analytics, and digital auditing tools;
- This approach of leveraging AI has led to improved audit quality, with an emphasis on emerging technologies, data analytics, and risk management to address evolving public sector challenges. By preparing auditors with modern tools and skills, these institutions are better equipped to tackle future challenges;

- The use of advanced technology, such as data analytics and AI, is increasingly being incorporated into audit processes to enhance accuracy and efficiency. By analysing large datasets, audit institutions can improve the depth and precision of their audits, ensuring transparency and

identifying gaps in key areas like resource allocation, vocational training, and workforce development. These efforts contribute to building a future-ready workforce aligned with national and global development goals.

- Certain SAI's have reflected on the collaboration with civil society and parliamentary committees and how it has also proven effective in increasing transparency and accountability, helping to publicise audit findings and fostering a culture of accountability within government institutions.

- In some cases, audits are systematically conducted in multiple phases to assess project planning, budget allocation, execution, and post-management. For example, audits related to after-school care programmes focus on the financial aspects, including facility expansions and operational initiatives, ensuring the effective implementation of these programmes. These audits help assess the progress and impact of public sector initiatives, ensuring that resources are used efficiently and that the intended objectives are achieved.

A range of proposals on the enhanced role that G20 SAIs might play in supporting their countries to accelerate the bridging of the skills gap for a future-ready workforce

To the G20 nations:

Governance factors

1. Focus on improving the health of students by implementing nutritional improvement programmes for students in compulsory education, focusing on students in impoverished areas and those from economically disadvantaged families;

2. Realistically plan requirements and monitor success – targeting of measures is only possible if needs are analysed in advance and data on the use of the measures is subsequently collected and evaluated. Support instruments need to be consistently reviewed to determine whether they are achieving intended objectives;

3. Enhance quality assurance.

Societal segments specifically targeted for skills development

4. Avoid disincentives and deadweight loss – effectiveness of measures also depends crucially on the extent to which disincentives and deadweight effects can be avoided. If the need for further training is identified and addressed quickly, this also prevents people from remaining in the social security system for an unnecessarily long time.

Education and skills development system

5. Targeted support – participation in support measures can only lead to success if the participants fulfil the eligibility requirements and the measures are targeted. It is also key that participants are closely assisted by the agency during and after their participation in the measure. This helps to use newly acquired skills and qualifications for further placement and integration activities.

Curriculum

6. Develop curricula that equip individuals with the necessary competencies to develop a future-ready workforce;

7. Create and establish guidelines/policies in developing the curriculum in collaboration with the workforce that includes strengthening aspects of soft skills and work character to complement hard skills in accordance with workforce needs.

Teaching and learning environments

8. Improve school conditions by providing financial subsidies for the safety of school buildings and provision of teaching equipment;

Funding of education/skills development;

9. Draft clear regulations on education budget allocation – draft technical regulations regarding the formulation mechanism for the allocation of the national budget to education and criteria for realising the spending thereof;

10. Provide guidelines to local education authorities regarding grant application criteria and review whether grant applications align with programme objectives. Ensure that funds are allocated to schools where expansion is deemed necessary.

To the SAIs of the G20 nations:

Education and skills development system

1. Pay close attention to the authenticity, lawfulness and effectiveness of funds by keeping a close eye on issues including the use of funds to improve basic conditions in under-resourced schools, the orderly increase of school capacity in urban areas, and the IT application in under-resourced schools;

2. Promote the healthy development of higher education by carrying out economic accountability audits of leading officials of higher education institutions, focusing on the implementation of major decisions and policies on the development of education, as well as financial laws and regulations and decision-making on major economic matters.

Teaching and learning environments

3. Audit the funds related to the improvement of weak links in compulsory education and the safety of school buildings, focusing on the subsidy for the improvement of weak links and capacity enhancement, the illegal charging of fees and the disposal of assets of by schools, and the

allocation, management and use of long-term grants for the safety of school buildings and in the implementation of relevant policies.

Funding for education/skills development

4. Advocate for public-private partnerships – one of the key drivers of success in closing skills gaps is fostering public-private partnerships. G20 SAIs should advocate for the development and implementation of initiatives that involve collaboration between the government, educational institutions, and the private sector (business). These partnerships can help bridge the gap between education and industry needs, ensuring that training programmes are aligned with labour market demands and creating opportunities for sustainable job creation.

SAI audit focus areas

5. Ensure that governments are actively creating employment opportunities and managing skills to enable a future of work;

6. Ensure that government programmes and policies are implemented effectively and transparently. This helps build trust in public institutions and ensures that resources are used efficiently to support workforce development;

7. Monitor and evaluate the implementation of workforce development programmes to ensure compliance with laws and regulations. This helps identify gaps and challenges that must be addressed to achieve sustainable economic growth;

8. Address corruption and promote transparency to create a more conducive environment for sustainable economic growth. This helps ensure that resources are allocated fairly and efficiently, benefiting the workforce and the economy;

9. Intentional and evidence-based selection of focus areas and themes to elevate – the expansiveness and complexity of the skills gap challenge towards developing a future-ready workforce place before SAIs a vast volume of potential issues to focus on and elevate while time and resource constraints would make it near impossible to meaningfully address all of the issues. It is thus important that SAIs form systemic views of the problem and formulate evidence-based, multivariate risk analyses that enable them to target the few issues in the broad system that would unlock the greatest impact with regards to speed and efficacy of narrowing the skills gap and developing a future-ready workforce. Failure to do so risks SAIs focusing on issues that might, indeed, be legitimate in their individual right but immaterial in the broader context or not focused on the real root causes and drivers of persistence of the skills gap;

10. Encourage the identification of future critical skills – to align educational outcomes with national development goals, G20 SAIs can play a crucial role in encouraging governments to prioritise future critical skills. By identifying and promoting the development of these skills, SAIs can help shape a workforce that meets the needs of the future economy, improving both economic performance and social equity;

11. Advocate for targeted recruitment and training strategies – to address the skills mismatch, G20 SAIs should advocate for the implementation of targeted recruitment and training strategies that align talent development with national priorities. Additionally, promoting merit-based appointments ensures that qualified individuals are placed in positions where they can make the greatest impact. These efforts will contribute to more effective public sector service delivery and build public trust in government institutions;

12. Check whether the authorities have reliably defined the requirements and described them as precisely as possible for all measures having a financial impact. They need to monitor and assess the success of their measures.

13. Assess the performance of education programmes and evaluate whether they are achieving their intended outcomes.

SAI capacity and capabilities to support the narrowing of the skills gap in their countries

14. Monitor emerging trends and developments to allow appropriate internal capacity building to pro-actively respond to these;

15. Integrate data analytics and technology in the audit process – the adoption of data analytics and technology in audit processes will significantly enhance the effectiveness and efficiency of SAIs. By leveraging these tools, SAIs can gain deeper insights into the performance of different government entities within the education and skills ecosystem. This technological advancement will enable SAIs to identify trends, patterns, and potential inefficiencies, providing valuable recommendations to improve the impact of education and training programmes.

Audit process and methodology
16. Raise the importance of auditing performance information with Parliaments and accountants-general in their respective countries;
17. Engage in real-time audits – as education and skills development efforts evolve, real-time audits become essential in ensuring responsiveness to emerging challenges. G20 SAIs should actively engage in real-time audits to provide timely insights, enhance accountability, and address issues proactively. This approach will enable SAIs to identify and correct weaknesses in government programmes more swiftly, ensuring that actions taken are more effective and lead to better governance outcomes;
18. Adapt to changes in the education sector – the education sector is undergoing significant transformation, driven by technological advancements and shifting labour market needs. G20 SAIs should continuously adapt their audit procedures to these changes, investing in new competencies and methodologies to meet the evolving demands of the sector. This will allow SAIs to remain relevant and ensure that audits accurately reflect the dynamic nature of education and skills development.

SAI reporting
19. Advocate for investment in digital infrastructure and literacy – G20 SAIs should advocate for investments in digital information technology infrastructure, especially in the education sector. By improving the availability and accessibility of digital tools, governments can facilitate a more inclusive and adaptable education system. Additionally, comprehensive digital literacy programmes should be introduced for public sector employees to ensure that government employees are equipped to use modern tools that enhance efficiency in public service delivery and governance.

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