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From the New Partnership for Africa's Development to Agenda 2063: progress in the implementation of sustainable development in Africa and international support

Biennial report on the review of the implementation of commitments made towards Africa's development

Report of the Secretary-General**

Summary

The present report is submitted pursuant to General Assembly resolution 66/293, through which the General Assembly established the United Nations monitoring mechanism to review commitments made towards Africa's development and requested the Secretary-General to submit a biennial report to review progress on the implementation of such commitments. The report assesses Africa's development commitments using the SDG framework, focusing on the interconnection between science, technology, and innovation (STI) with governance and human capital. Five years before the deadline for the implementation of the 2030 Agenda, progress in these areas is insufficient. The report provides recommendations to reverse this trend and activate STI as a driver for industrialization and job creation, and governance as an enabler for human capital development.

- A/79/150.

** The present report was submitted for processing after the de adline for technical reasons beyond the control of the submitting office

I. Introduction

1. This report is submitted pursuant to resolution 66/293, through which the General Assembly established the United Nations monitoring mechanism to assess progress made on commitments to Africa's development. Through resolution 76/236, the General Assembly endorsed the evaluation by the Office of Internal Oversight Services (OIOS) of United Nations support for the New Partnership for Africa's Development (see A/76/16 and E/AC.51/2021/4), whichsuggested focusing on gaps and challenges preventing the implementation of commitments and recommended establishing a dedicated intergovernmental forum for the periodic review of commitments[1].

2. In implementing this Resolution, the Office of the Special Adviser on Africa devised a new structure, differentiating the three components of the monitoring mechanism: (a) monitoring, through a permanently available data platform[2]; (b) reporting, through the biennial reports and other analytical products; and (c) accountability, through a multi-stakeholder dialogue under the auspices of the General Assembly, to provide a dedicated intergovernmental forum.

Methodology for the review of commitments

3. The methodology for reviewing commitments is guided by five principles established in General Assembly Resolution 66/293: mutual accountability, focus on outcomes, reliance on existing monitoring mechanisms, coherence with UN processes, and a cluster-based approach. It builds on the commitments included in the 2030 Agenda for Sustainable Development[3] and aligns with Agenda 2063: The Africa We Want[4].

4. This report focuses on two interlinked clusters: governance and human capital, and science, technology, and innovation. It considers the relevance of those clusters for advancing education, digital transformation and jobs and social protection, three of the six transformative entry points[5] for advancing SDG implementation. It also reviews the interaction of those transitions with the four critical means of implementation[6] identified. Through its analysis and recommendations, the report seeks to contribute to UN Country Teams' efforts to accelerate SDG implementation during the last five years of the 2030 Agenda, in particular when developing the new generation of Cooperation Frameworks.

II. Integrated Analysis of STI, Skills, and Industrialization for Sustainable Development

5. The 2030 Agenda recognizes the interconnections between science, technology, and innovation (STI), human capital, and industrialization as key drivers of sustainable development. Through the Global Digital Compact Member States adopted specific commitments to maximize this potential through digital technologies. This section assesses Africa's progress in STI[7] policies and investments, with a particular focus on

1 Established through resolution 76/297.

2 https://app.powerbi.com/groups/me/reports/e59489f0-8ad4-43d3-a652-051927690721/85729b4ce67408b0cb32?ctid=0f9e35db-544f-4f60-bdcc-5ea416e6dc70&experience=power-bi&bookmarkGuid=c9df246e-c069-4b4e-b0ba-b844b3cd933a & https://app.powerbi.com/reportEmbed?reportId=80af2bc8-d43d-4ead-804e-2d859ba414b6&autoAuth=true&ctid=0f9e35db-544f-4f60-bdcc-5ea416e6dc70

3 https://unstats.un.org/sdgs/dataportal

4 For more information see A/77/908

5 Food systems, Energy, Education, Digital, Climate change and biodiversity and Jobs and social protection

6 Finance, Technology, SDG localisation and Public sector capabilities

7 STI encompasses policies, systems, and collaborative efforts that drive scientific research, technological advancement, and innovation to address global challenges and achieve the SDGs. (https://sdgs.un.org/documents/policy-brief-1-science-technology-and-innovation-sdgs-roadmaps-framework-and-working)

strengthening STEM[8] education to build a skilled workforce. It then explores how these skills support the growth of ICT-led MSMEs and industrialization, which are essential for creating decent jobs. Finally, it considers the role of governance and social protection in ensuring that economic gains translate into inclusive and resilient development.

A. Enhancing STEM education to promote skilled workforce in Africa

Assessing Progress towards Science Technology and Innovation Policy Development

6. African governments adopted the STI Strategy for Africa-2024 (STISA-2024), 'that places STI at the centre of Africa's socio-economic development and growth'.[9] Currently, 41 African Union (AU) member states have either developed or revised STI policies, with 24 of them doing so since the establishment of the STISA-24 in 2014[10]. Many African countries' STI policies give prominence to investment in Research and Development (R&D), with a specific commitment to increase gross expenditure on research and development (GERD) to at least 1 per cent as a percentage of GDP[11].

7. However, the implementation of this commitment has remained a persistent challenge for Africa, underlining the challenges of mobilizing resources for investment in economic transformation. For instance, in 2023, Africa's average R&D investment across sectors was at approximately 0.45% of GDP compared to the global average of 1.7%[12] (SDG Indicator 9.5.1). One notable exception is Egypt, which has exceeded the AU's target by allocating over 1% of its GDP to R&D. While other countries are still working towards meeting the continental benchmark, the trend shows growing investments, for example in Kenya (0.41 in 2022 to 0.81 in 2023), Rwanda (0.65 in 2016 to 0.79 in 2023), South Africa (0.60 in 2020 to 0.62 in 2022), and, Tunisia (0.59 in 2015 to 0.75 in 2019[13].

8. Increasing R&D investments foster industrialization, facilitate technology transfer, and promote ICT-driven MSMEs, particularly in the era of digitalization and knowledge-based economies. For instance, IP cross-border payments surpassed $US 1 trillion dollars in 2022, marking a record high and doubling from 2010, and representing 7.5% of the total commercial services trade.

Advancing Africa's STI Landscape: Global Challenges and Regional Progress

9. Significant efforts are required to position the continent to benefit from the rapidly evolving STI ecosystem. No African country appeared among the top 50 countries in the Global Innovation Index[14] (GII 2024). Mauritius stands out as the highest-ranked African country in the GII due to its strategic focus on innovation and development. Its performance is driven by strengths across GII pillars, notably institutions (33rd), market

[8] STEM refers to the academic disciplines of science, technology, engineering, and mathematics. It focuses on education and skill development, forming the foundation for a nation's capacity to engage in STI activities. (https://unevoc.unesco.org/home/Glossary+article%3A+STEM)

9 Micheal J. Khan, SAGE Journals, Article: The Status of Science, Technology and Innovation in Africa, Volume 26, Issue 3

10 African Innovation Outlook (2024)

11 UNECA (2021) Course Brief on Accelerating the implementation of the "Science Technology and Innovation Strategy for Africa 2024

12 World Economic Forum (2023), Innovative approaches for unlocking R&D funding in Africa

13 UNESCO (2025) [14] The Global Innovation Index (GII) is an annual ranking of countries based on their innovation capabilities and performance, published by the World Intellectual Property Organization (WIPO)

[14] The Global Innovation Index (GII) is an annual ranking of countries based on their innovation capabilities and performance, published by the World Intellectual Property Organization (WIPO)

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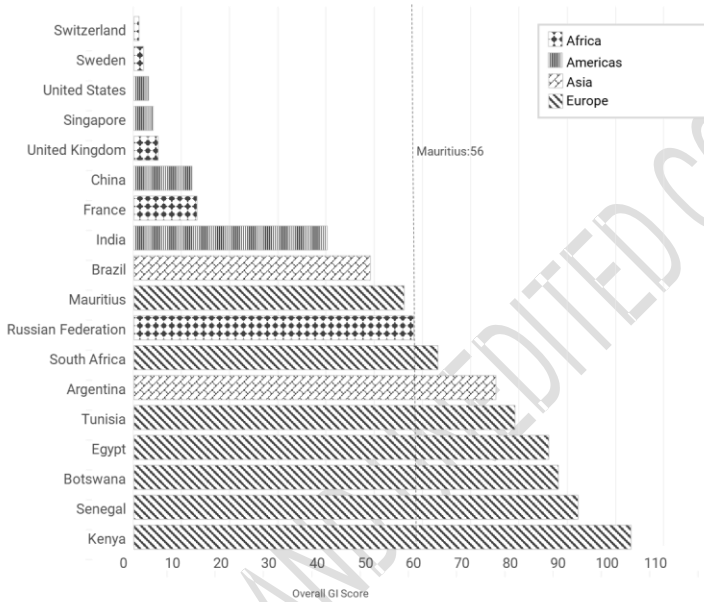
sophistication (24th), and human capital and research (69th), which support its shift toward manufacturing and financial services.[15]

Chart 1: Global Innovation Index in selected countries



Source: Global Innovation index 2024

10. At the regional level, there has been an increase in technology hubs, which are significantly impacting various sectors, including financing, agriculture, health and education. Technology hubs have increased from 260 in 2013 to 820 in 2023 across the continent[16]. For instance, Nigeria has 108 tech Hubs, South Africa 87, Kenya 83, and Egypt 53 tech hubs.[17] African countries have also made progress in scientific outputs, based on enhanced R&D partnerships, enhanced access to technology and research data, and an increased number of researchers. The number of scientific publications has increased from 73,055 in 2014 to 171,576 in 2022.[18]

11. A critical enabler of this innovation ecosystem is digital infrastructure, which is expanding rapidly in sub-Saharan Africa, driven by strong investment incentives. However, unlocking the full potential of digital growth will require making digital access both affordable and widespread. In this regard, the adoption of Digital Public Infrastructure (DPI) presents a transformative opportunity. By adopting DPI approaches,

15 World Intellectual Property Organization. et al., Global Innovation Index 2024 : https://doi.org/10.34667/TIND.50062
16 AU (2024) Review of the Science, Technology and Innovation Strategy for Africa, Final Report
17 Ibid
18 Ibid

African countries can upgrade their service delivery systems in a safe, inclusive, and secure manner—while upholding human rights and safeguarding intellectual property. DPI can serve as a foundational layer that accelerates innovation, fosters entrepreneurship, and ensures that technological progress benefits all segments of society[19]. African countries like Ghana, Kenya, Morocco, Nigeria, Rwanda, Senegal, South Africa, and Tunisia are developing tech companies with support from new legislation, digital innovation policies, private investors, and international partners.

Strengthening Africa's STI through International Partnerships and Domestic Resource Mobilization

12. Achieving sustainable progress in STI in Africa requires a decisive shift toward domestic resource mobilization (DRM), supported by strong DPI. While international partnerships remain important, as emphasized by SDG Indicator 17.6.1, over-reliance on external funding undermines long-term resilience. In over 45 African countries, more than 80% of gross domestic expenditure on R&D (GERD) is financed by external sources. This dependency is compounded by persistently low public and private investment in tertiary and STEM education. For instance, although Tunisia's STEM graduation rate stood at 22% in 2021, its public spending on tertiary education remained at just 1.4% of GDP. Across the continent, average R&D investment is only 0.45% of GDP—well below the global average of 1.7%, with only Egypt exceeding the AU target of 1%. Private sector engagement remains limited, further constraining innovation capacity. Strengthening domestic investment in STI alongside, not in place of, international support, is therefore critical. It will require coordinated policies that align education systems with national innovation goals, create incentives for private sector participation, and leverage digital infrastructure to expand inclusive access and accountability.[20]

13. At the same time, most African countries lack concrete strategies to mobilize private investment in research and development, including the use of fiscal and legal incentives. The private sector contributes less than 15 percent of national GERD in many countries, and in some cases this share is declining.[21] However, there are notable exceptions. For example, South Africa mobilizes over 40 percent of its GERD from private sources, and Egypt recorded the highest level of domestic research and development expenditure on the continent—amounting to USD 8.86 billion in 2022.[22]

14. To reduce dependence on external funding and support a lasting STI system, African countries need to strengthen DRM systems. This depends on digital tools that help governments in public financial management, share data more effectively, and increase public trust. These systems can improve how resources are managed and make it easier to fund science, research, and innovation in the long run.[23]

15. While international funding will remain important, the long-term sustainability and resilience of Africa's STI systems hinge on domestic investments supported by DPI-enabled DRM.

Bridging the STI Gap: Enhancing STEM Education and Policy Implementation in Africa

16. STEM education and training are pivotal to creating a skilled workforce to advance STI – (SDG Indicator 4.4.1) and leverage the potential of frontier technologies. Frontier technologies represented a $2.5 trillion market in 2023 and are estimated to reach

19 OSAA, 'Annual Report of the UN Interdepartmental Task Force on African Affairs', 2024

20 Ibid

21 AU (2024) Review of the Science, Technology and Innovation Strategy for Africa (STISA-2024) – Final Report

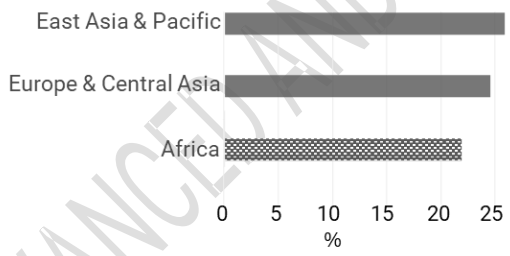
22 Galal Saifaddin (2023)

23 OSAA, 'Annual Reports of the UN Interdepartmental Task Force on African Affairs (IDTFAA)', 2024

$16.4 trillion by 2033[24]. STEM education can address the skills mismatch and a general lack of prospects that push an estimated 30 million youth entering the labour market in Africa each year (excluding North Africa) into joblessness.[25] For example, from 2022 to 2023, Nigeria, Ghana and Kenya were the world's fastest-growing countries in Github developers, which is considered a proxy for AI readiness[26]. Furthermore, artificial intelligence has the potential to help overcome barriers caused by disabilities, leading to more inclusive societies and job markets. Recognizing this potential, the Transforming Education Summit reaffirmed digital education as a public good and put forward a gateway initiative to support the development of public digital learning platforms and curricula. Similarly, the Doha Programme of Action proposed the creation of an online university aimed at making STEM education accessible to Least Developed Countries. At the regional level, the AU Agenda 2063, STISA-2024, Continental Education Strategy for Africa (CESA 2025), and Digital Transformation Strategy for Africa (2030) provide a framework for strengthening STEM education and harnessing STI to enhance industrialization and socio-economic development in Africa, including the establishment of a Pan African Virtual and E-University.

17. Based on these commitments, most African countries have developed national policies that promote STEM education through domesticating the STISA-2024. [27] However, even though most African government development policies and national plans reference STEM (usually called Mathematics and Science), effective policy implementation remains a challenge. Given that the number of STEM graduates per country or region may serve as an indicator of future scientific and technological capacity, Africa has the biggest gap to overcome in terms of STEM graduates compared to other regions.

Chart 2 – Average % of STEM Graduates (2015-2020)



Source: UNESCO UIS School Closure Data

18. Currently, less than 2% of African students under 18 complete school with basic STEM skills.[28] Within the continent, the Northern African sub-region represents an exception. Tunisia has around 40% of tertiary students graduating in STEM fields—one of the highest rates globally. Algeria, Mauritania, and Morocco also have roughly 29–30% of STEM graduates, exceeding many developed economies such as the United Kingdom

[24] Technology and Innovation Report 2025, UNCTAD
25 Mo Ibrahim Foundation (2019) - Africa's Youth: Jobs or Migration?
[26] UNCTAD
27 OSAA (2022) STEM as an enabler for Development and Peace
28 Chibale Kelly (2022), Investing in STEM education and building scientific capacity is critical for Africa

(26%), France (25%), and Spain (23%)[29]. Governments in Northern Africa have implemented ambitious policies to promote STEM, including curriculum reforms and teacher training programmes, which could suggest a correlation between public and private investment in STEM and higher graduate rates.

Vocational/Technical Training

19. Most African countries also face challenges with STEM-oriented vocational and technical education, which average less than 17% of the student population[30]. This is in contrast to some OECD countries, which have 40%, on average, of high school students choosing vocational/technical tracks on average[31], and China with approximately 36% of upper-secondary students enrolled in vocational programs[32].

20. This means Africa has a much smaller pipeline of youth gaining practical STEM technical skills through vocational training. Low participation in both academic STEM and technical/vocational training contributes to the continent's skills gap. Improving STEM outcomes in Africa will require growing public investment to increase university STEM graduates and expanding quality Technical and Vocational Education and Training (TVET) education (e.g., technician training, ICT certificates, engineering technology programs) to meet labour market needs. Africa will need an additional 23 million STEM graduates by 2030 to fill critical positions in engineering, information technology, and healthcare[33].

21. It is estimated that by 2030, over 230 million jobs in Africa will require digital skills, creating a potential demand for nearly 650 million training opportunities to upskill the workforce, particularly in STEM fields.[34] The ability of Africa to convert its youth dividend–with a projected 850 million young people by 2050—into a highly skilled STEM workforce can be a game-changer[35] for a digital-driven economy and industrialization. In this context, the brain drain is a risk to mitigate through comprehensive policies that expand training capacities and promote job opportunities in the tech sector[36]. Leveraging STEM education as an enabler of STI has the potential to significantly drive the growth of ICT-led MSMEs and industrialization in Africa. By investing in STEM education, African countries can cultivate a new generation of skilled professionals and innovative entrepreneurs capable of leading the continent's transformation in the global economy.

B) ICT-Led MSMEs, Innovation and Industrialization

Unleashing possibilities of digitalization and MSMEs

Progress in Upscaling Africa's ICT Infrastructure

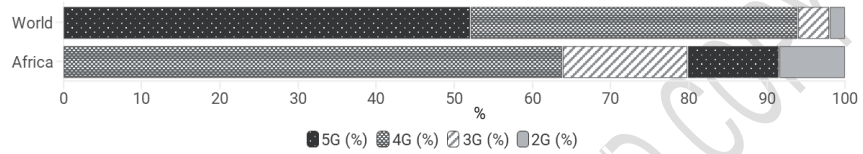
22. Africa continues to lag in digital infrastructure compared to other regions. In 2023, Fixed Internet broadband subscriptions per 100 inhabitants (SDG Indicator 17.6.1) in Africa stood at 0.8, while the significantly lower than the global average of 19.[37] Despite this infrastructure gap, the percentage of individuals using the internet increased by 10 percent since 2019 to reach 38 percent (SDG indicator 17.8.1) although this rate remains

29 World Economic Forum (2023), Which countries' students are getting most involved in STEM?,
30 Based on available data for 32 African countries
31 OECD (2019), Vocational education and training (VET)
32 World Bank (2020), Share of all students in upper secondary education enrolled in vocational programmes (%)
33 World Economic Forum (2023). Future of Jobs Report 2023
34 International Finance Corporation (2019). Digital Skills in Sub-Saharan Africa: Spotlight on Ghana
35 Ogunleye E.K (2023), Leveraging Potentials of the Youth for inclusive, Green and Sustainable Development in Africa, African Development Bank
36 Migrants, Refugees and Societies, in World Development Report, World Bank 2023
37 ITU, https://www.itu.int/en/ITU-D/Statistics/Pages/SDGs-ITU-ICT-indicators.aspx

below the global average increase from 52% to 68%.[38] In 2024, 34% of African women and 45% of men used the Internet, compared to the global average of 65% and 70%, showing a wider gender gap.[39]

23. Concerning the mobile network, most of Africa's population was covered by 4G (60%) in 2024. While a small number of Africans are covered by 5G (11%), the rest remain with 3G (15%) and 2G (11%).[40] (SDG indicator 9.c.1). This shows a lag in technology penetration compared to the global average, as shown in Chart 3.

Chart 3 – Share of Population Covered by Mobile Network (%), 2024



Source: ITU, Measuring digital development Facts and Figures 2024

Leveraging ICT to Unlock the potential of MSMEs

24. MSMEs, many of which are led by women and youth, are the backbone of Africa's economy and the main source of employment. [41] In some African countries, MSMEs contribute between 20% and 40% of national GDP, with even higher figures when informal businesses are accounted for.[42] ICT-driven MSMEs are crucial for advancing digitalization and industrialization in Africa. Access to electricity, still limited in many African countries, and ICT availability and affordability are critical factors for promoting the digitalisation of MSMEs, particularly in rural areas. Three out of four firms experience recurrent electricity outages in Africa, disproportionately impacting small and medium-sized enterprises, which are less likely to have access to generators.[43]

25. To unlock their full potential MSMEs need to be fully integrated into the regional and global value chains. Africa's MSMEs currently operate in upstream, less technology-intensive sectors, which require less processing and, therefore, contribute less value-added to exports.[44] In addition, the lack of adequate financing for MSMEs remains a critical challenge. Between 2006 to 2023, only 16.9% of small-scale manufacturing industries in sub-Saharan Africa accessed loans or lines of credit, compared to the global 30.6% (SDG indicator 9.3.2).[45] The MSMEs financing gap in sub-Saharan Africa is estimated at $331 billion.[46]

26. Innovative fintech financing solutions are crucial for closing the financial gap. As Africa's fintech market evolves, investment has increasingly focused on advanced areas like SME lending and specialized payment solutions, which accounted for approximately

[38] ITU, https://www.itu.int/hub/publication/D-IND-ICT_MDD-2024-4/
[39] Ibid.
[40] ITU, https://www.itu.int/itu-d/reports/statistics/2024/11/10/ff24-mobile-network-coverage/#chart-2
41 Raia, Alexander, "Responsibly Financing Africa's Missing Middle" 12, November, 2024.
[42] Ibid.

[43] World Bank, "Digital opportunities in African Business, " (2024)
[44] World Trade Organization (WTO), "Small and medium manufacturing enterprise trade participation in developing economies,"(2022),
[45] UN SDG Statistic division
[46] World Bank, "MSME Finance Gap, Assessment of the Shortfalls and Opportunities in Financing Micro, Small, and Medium Enterprises in Emerging Markets" (2017), .

70% of funding value in 2022-2023.[47] By 2028, financial technology revenues could reach $47 billion, nearly five times their 2023 value of $10 billion.[48]

27. Another challenge is MSMEs' limited digital capacity to promote an ICT-driven economy. A study in six African countries found that, while 86% of firms with five or more workers had digital tools, only 23% used them for productive tasks. [49] [50] The overall economic effects of digitalization of firms might be limited if not expanded to micro and informal businesses, which account for most employment in Africa.[51]

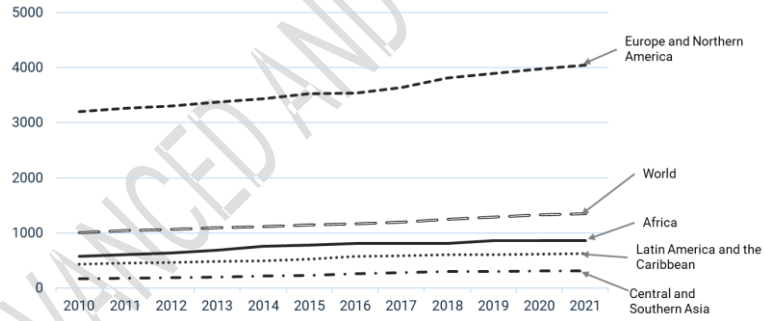
Promoting innovation and industrialization in Africa

Calibrating innovation ecosystems for industrialization

28. Innovation is crucial for advancing technology and diversifying Africa's economy through industrialization. A conducive policy environment, including effective intellectual property (IP) ecosystems, is essential to fostering local innovation. Member states are committed to promoting innovation through SDGs 9 and 17,[52] but SDG 9 performance has been slow in Africa. With a projected 91% gap in innovation by 2030, urgent, continent-wide efforts are needed to foster technological advancement.[53]

29. Africa's limited innovation capacity constrains industrial competitiveness and decent job creation by hindering technological progress. According to SDG indicator 9.5.2, in 2021, Africa had only 821 researchers per million inhabitants, significantly below the global average of 1,352. The potential of Africa is nonetheless underlined by the relatively higher number of researchers than other developing regions.

Chart 4 – Researchers per million inhabitants (2010 -2021)



[47] https://www.mckinsey.com/industries/financial-services/our-insights/redefining-success-a-new-playbook-for-african-fintech-leaders
[48] Ibid
[49] Burkina Faso, Ethiopia, Ghana, Kenya, Malawi, and Senegal,
[50] https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099750505152441180/idu11f32850318775148021bc901e832456ad32a

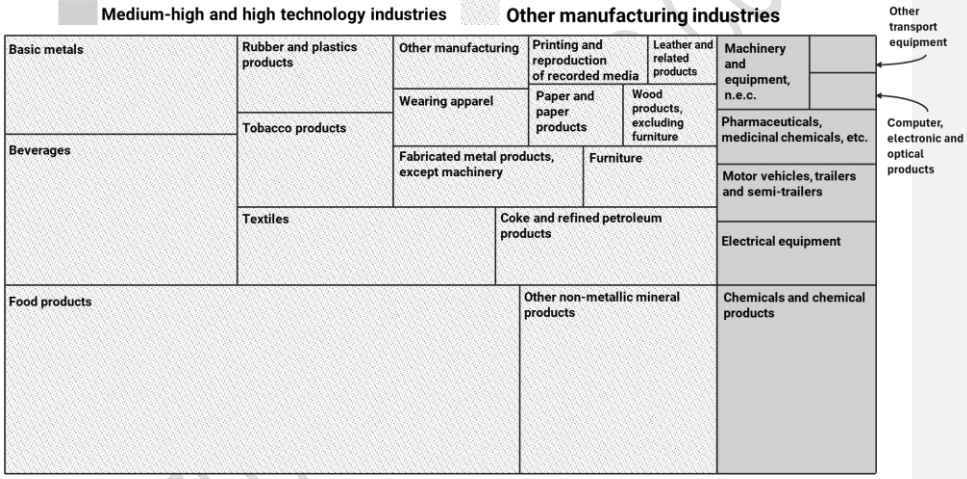
[51] Ibid
[52] SDG target 9-5, Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending.
[53] https://www.unido.org/sites/default/files/unido-publications/2024-06/Industrial%20Development%20Report%202024.pdf

Source: created by author using UNESCO Institute for Statistics

Accelerating Africa's industrialization through STI

30. Africa's limited technological and innovation capacity contribute to slow industrialization progress. In 2023, Africa's share of global manufacturing value added (MVA) was 2.0%, Africa's MVA share in GDP was 10.3%, compared to the global average of 16.7% (SDG 9.2.1).[54] While MVA generation responds to various factors, inadequate STI capacities limit direct value addition and disincentivise investment, creating a ripple effect on industrialization.

Chart 5 – Distribution of manufacturing value added by industry in Africa, 2022



Source: UNIDO, "Factsheet: Africa International yearbook of industrial statistics 2024"

31. Similarly, Africa's Medium and high-tech (MHT) share in MVA is 19.8% in 2021, which is less than the world average of 46.1% and lowest among global regions (SDG 9.b.1: MHT industry value added). [55]. To further promote MHT, it is necessary to reinforce coherence between STI and industry policies to effectively leverage STI for industrialization.

32. Implementing effective STI policy frameworks and targeted investments will strengthen Africa's physical and human capacities that fosters capacities of MSMEs. A thriving MSME sector expands employment opportunities, ultimately increasing the potential for broader social protection.

[54] https://stat.unido.org/publications/international-yearbook-industrial-statistics-2024

[55] Asia and Oceania, 48.0%; Northern America and Europe, 45.7%; and Latin America and the Caribbean 32.5%. UNIDO, "International Yearbook of Industrial Statistics 2024," (2024),

C. Creation of Decent Jobs Through Innovation and Industrial Growth

The link between ICT-led MSMEs, industrialization, and decent jobs

33. The expansion of ICT-led MSMEs and industrialization represents a vital pathway to increasing productivity and creating decent jobs in Africa, building directly on the foundations of strengthened STI systems and improved STEM education. By equipping the workforce with relevant technical skills, innovation capacities, and digital literacy, STI and STEM initiatives enable MSMEs and industries to grow, diversify, and generate employment opportunities, particularly for youth and women. These jobs are essential not only for providing income and stability but also for developing Africa's human capital and reducing reliance on informal, insecure work. However, unlocking this potential requires effective governance to ensure that the growth of MSMEs and industrialization translates into fair wages, labor protections, and equal opportunities—with benefits for both people and planet. In this way, STI, skills development, and industrial growth work together to drive inclusive economic transformation, with governance creating an enabling framework that secures rights and sustains resilience.

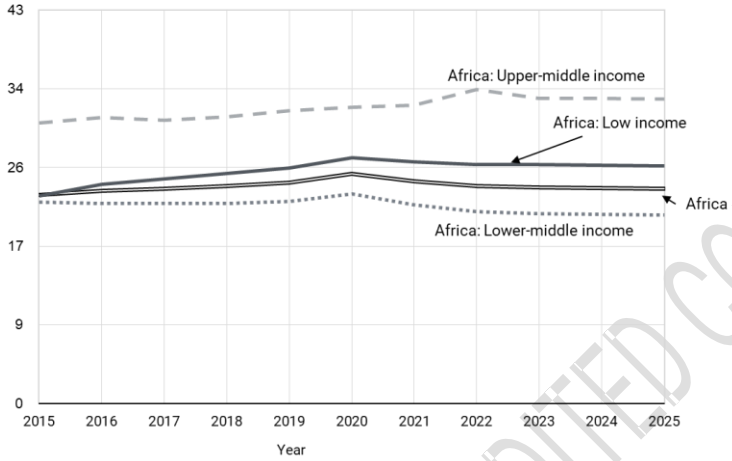
Unemployment, Informality, and the Barriers to Decent Work in Africa

34. Africa's labor markets continue to face persistent challenges, with youth and women disproportionately excluded from stable employment. SDG indicator 8.5.2 reveals that youth unemployment rates remain alarmingly high as of 2024, particularly among young women (23.2%), compared to 18.5% for young men. The picture becomes even more bleak considering that nearly three in four (71.7%) young adult workers were in insecure employment in 2023, decreasing by only 0.6 percentage over the past two decades[56]. These figures highlight the growing difficulties young people face in transitioning into decent work, despite the continent's expanding workforce.

35. This exclusion is further reflected in the large proportion of youth not in education, employment, or training (NEET). According to SDG Indicator 8.6.1, 27.2% of Africa's youth are disengaged from both work and education, with young women facing significantly higher rates of exclusion than their male counterparts. This gendered gap highlights systemic inequalities that limit access to skills development and job opportunities, weakening the continent's ability to harness its demographic dividend.

Figure 6: SDG indicator 8.6.1 - Proportion of youth (aged 15-24 years) not in education, employment or training

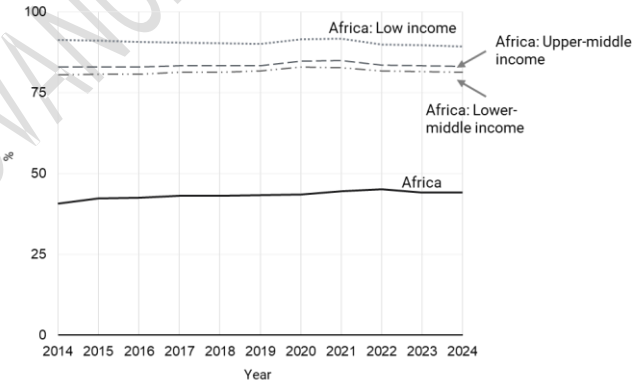
56 ILO, 'Employment Trends for Youth in Sub-Saharan Africa | International Labour Organization', 9 August 2024



Source: OSAA with ILO data

36. Moreover, even among those who are employed, most remain trappedin informal work. According to SDG indicator 8.3.1, as of 2024, informal employment accounts for 76.6% of non-agricultural jobs in Africa, with women (78.1%) slightly more affected than men (75.2%). Figure 7 illustrates how informality dominates across sectors, particularly in agriculture and services, leaving workers without legal protections, stable wages, or social benefits. This persistent informality reflects the underdevelopment of high-productivity sectors like manufacturing and technology, which are crucial for driving structural transformation and providing decent employment.

Figure 7: Percentage of Informal Employment in Agriculture and Non-Agriculture Sectors in Africa (2014–2024): SDG Indicator 8.3.1



Source: OSAA with ILO data

37. Together, these trends highlight the urgent need to link Africa's industrialization and digitalization efforts with effective job creation strategies.

Industrialization as a Driver of Employment Transformation

38. Industrialization is essential for creating formal, stable, and higher-paying jobs in Africa. One promising approach is to pursue import substitution strategies at the continental level, which would allow African countries to capitalize on economies of scale[57]. Developing industries that currently rely on imported goods presents a low-hanging opportunity—not only to generate direct employment in manufacturing but also to create jobs across related value chains. These include sectors such as transport, logistics, and business services. Together, this can help shift workers out of informal and low-productivity employment into more secure and productive work.

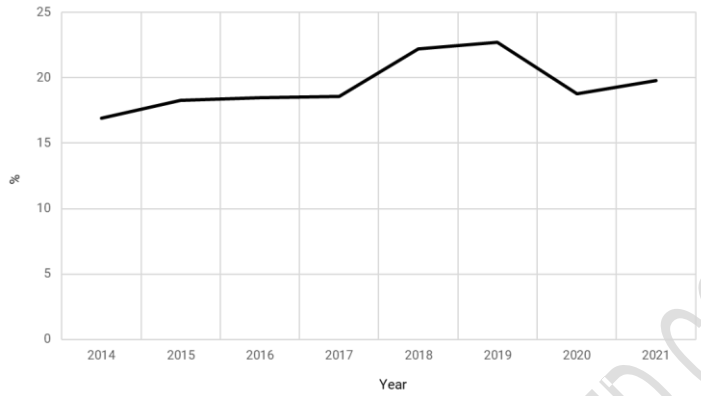
39. Referring to some examples from across the continent, Morocco's manufacturing sector benefits from strong automotive and aeronautics industries, pushing its medium- and high-tech (MHT) industry value added to 37.5% of total manufacturing. Similarly, South Africa has leveraged its pharmaceutical and machinery sectors, achieving 23% MHT share, while Egypt reached 18.7%, reflecting steady progress towards industrial upgrading. Moreover, while medium- and high-tech industries are essential for decent, future-ready jobs, progress has been inconsistent. After a modest rise from 16.9% in 2014 to 22.7% in 2019, MHT value added—due to the impact of COVID 19—dropped back to 19.8% in 2021, highlighting ongoing challenges in scaling up advanced manufacturing and technology sectors. Figure 8 illustrates this fluctuation, signalling the need for targeted policies to stabilize and grow these industries.

40. However, despite these positive examples, overall industrialization across Africa remains limited. Manufacturing's contribution to GDP has stagnated[58], averaging only 10.57% from 2014 to 2023, with value-added per capita declining from $217 in 2014 to $209 in 2023.

Figure 8: Proportion of medium and high-tech industry value added in total value added (%) in Africa (2014–2021) – SDG Indicator 9.b.1

57 https://www.un.org/en/un-chronicle/growing-middle-class-and-continental-import-substitution-connecting-dots-unlock-%E2%80%9Cmade.

58 For more information https://openknowledge.worldbank.org/server/api/core/bitstreams/59357018-7c50-5925-b91d-e98d4966d14b/content

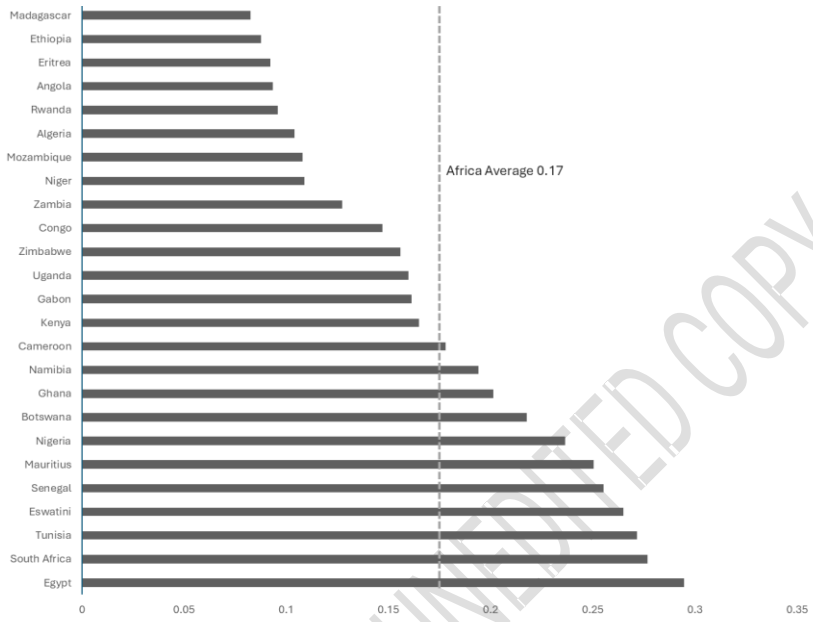


Source: OSAA with ILO data

41. The benefits of industrialization also lie in its potential to reduce informality by offering structured, contract-based employment and supporting linked sectors through value chain development. When industries grow, they stimulate demand for transport, warehousing, marketing, and other services, reinforcing the creation of decent work beyond factory floors.

42. However, Africa's industrial competitiveness, as measured by the SDG 9 Industry Index, remains low, with an average score of 0.17, far below global benchmarks. Without stronger investment and financing mechanisms, better infrastructure, and coordinated industrial policies, Africa's transition to a high-productivity economy will remain slow and uneven. This is highlighted in *Figure 9*, showing how African countries lag in overall industrial development and competitiveness.

Figure 9: Average SDG 9 Industry Index Scores (2014–2021) for selected African Countries



Source: OSAA with UNSDG data

43. As Africa advances industrialization, expands ICT-led MSMEs, and creates pathways for decent jobs, millions of workers remain trapped in vulnerability. Informality dominates labor markets, and structural inequalities continue to exclude large parts of the population from stable employment. In this context, social protection systems become essential to ensure that the gains of industrial transformation are both sustainable and inclusive. Without adequate safety nets, workers remain exposed to economic shocks, job losses, and income insecurity, conditions that can quickly undermine progress made through industrial growth. For industrialization and decent work to truly drive resilience, they must be matched by robust social protection systems that support workers during periods of transition and safeguard livelihoods as economies evolve.

D. Hybrid Social Protection Systems: Safeguarding Workers and Sustaining the Gains of Industrialization

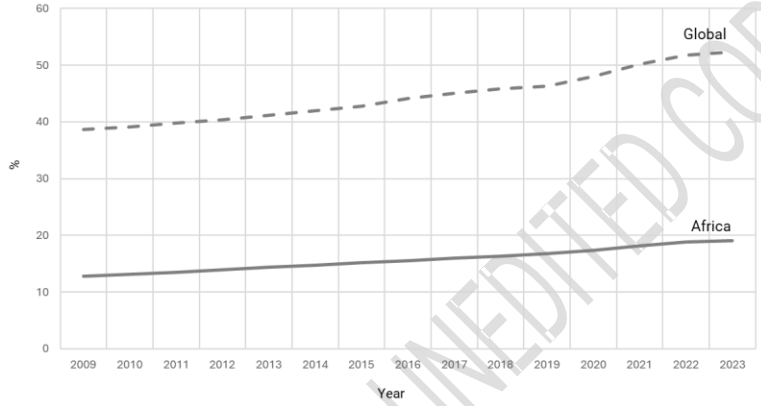
Limited Formal Coverage, Enduring Indigenous Systems

44. In 2023, 19 percent of Africans (Figure 10)– in comparison to 52 percent global average- had access to at least one form of social protection benefit.[59] This limited coverage leaves workers particularly vulnerable in the face of industrial restructuring or economic downturns, where job losses are not met with adequate compensation or retraining support. Despite the growth of formal social protection policies across the Global South, coverage remains low. As a result, indigenous support systems remain the main source of protection for many rural and vulnerable populations. While some argue

59 https://www.social-protection.org/gimi/WSPDB.action?id=32

these should be replaced by formal frameworks, evidence from countries like Botswana, South Africa, Nigeria, and shows that limited resources make this unrealistic[60]. In many contexts, indigenous systems are not just complementary, they are essential. In Ethiopia, for example, about 90 percent of the population relied on at least one indigenous support system in 2015.[61]

Figure 10: SDG Indicator 1.3.1 – Proportion of Population Covered by at Least One Social Protection Benefit

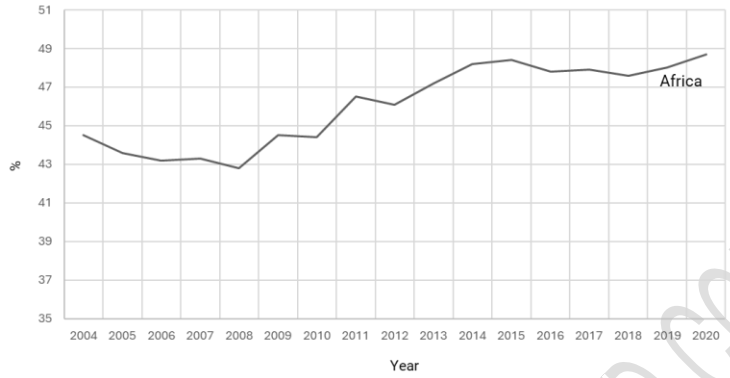


Source: OSAA with UNSDG data

45. The inadequacy of formal social protection is further reflected in the declining share of labor income in Africa's economies. Over the past two decades, the labor share of GDP has remained persistently low, exacerbating income inequality and reducing the share of economic growth that reaches workers. Figure 11 highlights this trend, labor's share of GDP remains persistently low. In 2004, labor's share stood at 44.5%, declining to 42.8% in 2008, with only a modest recovery to 48.7% by 2020. Without stronger mechanisms to redistribute gains, economic growth risks deepening rather than reducing inequality.

Figure 11: Labour Share of GDP (%) in Africa: SDG Indicator 10.4.1 – Tracking Workers' Share in Economic Output.

60 Tomy Ncube and Una Murray, 'Using Design Thinking and Community Development Principles to Optimise the Interaction between Informal and Formal Social Protection Systems', *Journal of International and Comparative Social Policy*, 7 March 2025,
61 Martha A. Nathan and Elliot Fratkin, 'The Lives of Street Women and Children in Hawassa, Ethiopia', *African Studies Review* 61, no. 1 (April 2018)



Source: Global Findex database

E) Governance as the Foundation for Resilience and People-Centered Development

Public Spending Inefficiencies and Budget Execution Challenges

46. Resilience cannot be achieved without governance that places people at the center of policy design and implementation. Beyond facilitating growth, governance can enable an integrated approach to industrialization and social policies to build human capital, promote decent work, and protect vulnerable populations. This requires an approach that combines regulatory frameworks to promote fair labour practices, including occupational health and safety, and public investments to enhance health and education systems, support health and unemployment insurance schemes and other programmes that contribute to the social protection floor. For example, national action plans on business and human rights are effective policy tools to promote decent jobs and social corporate responsibility. In this context, public inefficiencies represent a significant challenge as they reduce the funding available for public social protection programmes and undermine the capacity of public administrations to enforce regulatory frameworks.

47. In Africa, inefficiencies in public spending across key sectors result in estimated annual losses of over US$40 billion (education and infrastructure) and US$28 billion (health).[62] Budget deviations frequently exceed 15 percentage points, disrupting the delivery of vital services such as health, education, and social safety nets.[2] These gaps are reflected in low public spending efficiency scores, averaging just 0.585 compared to 0.825 in other developing regions, 63 significantly reducing the impact of government spending on poverty reduction and social protection. Such inefficiencies restrict the reach and quality of social protection systems, including health and education, leaving millions exposed to economic shocks and insecurity.

48. Yet, political will exists. Africa's regional frameworks, including Agenda 2063, the Yaoundé Tripartite Declaration (2011) on implementing Social Protection Floors, the Ouagadougou +10 Declaration (2015) on employment and poverty eradication, and the

62 OSAA, 'Fighting Inefficiencies in Public Spending: Africa's next Battle? | 2023,
63 Yohou D. H. (2015) "In Search of Fiscal Space in Africa: The Role of the Quality of Government Spending", Études et Documents , n° 27, CERDI, and. OSAA. (2023). *Fighting Inefficiencies in Public Spending: Africa's Next Battle*.

Abidjan Declaration (2019) on advancing social justice, demonstrate strong commitments to positioning social protection as a foundation of inclusive development.[64] However, translating these commitments into impact requires accountable governance that strengthens budget credibility, prioritizes investment in people, and aligns national strategies with the evolving needs of workers and communities.

49. Moreover, effective governance must acknowledge and integrate Africa's traditional forms of social protection, such as community savings groups, family support networks, and indigenous welfare systems, into formal national strategies. These locally embedded systems provide critical, low-cost support for vulnerable populations and have historically filled protection gaps. [65] As demand for formal social protection grows, these informal mechanisms present an opportunity to rapidly expand coverage in underserved areas if complemented by enabling legal and policy frameworks that bridge formal and informal safety nets.

50. Good governance is, therefore, the connective tissue that binds together human capital investment, decent work creation, and resilient social protection. Without strong institutions and transparent management of resources to coordinate these elements, Africa risks repeating the shortcomings of the MDG era, where economic growth was not inclusive, and vulnerabilities persisted[66]. By adopting people-centred governance approaches focused on accountability, efficiency, and inclusion, Africa can transform its demographic dividend into a foundation for long-term resilience, social equity, and sustainable development.

III. Conclusions and Recommendations

51. With only five years remaining to meet the commitments reflected in the 2030 Agenda for Sustainable Development, time is running out. As highlighted throughout the analysis, progress in the implementation of commitments, has been too slow, putting the achievement of the Sustainable Development Goals in Africa and globally at risk. STI, in particular frontier technologies and the digital transformation, can be instrumental in accelerating the implementation of the 2030 Agenda and Agenda 2063.

52. The identification of six transitions as investment pathways and four means of implementation has sought to address this challenge. Their potential catalytic impact can help developing countries leapfrog toward sustainable development, moving from narrow project-based approaches to strategic interventions with a multiplier effect on all areas of development. As the report shows, financing, STI and governance (both from the perspective of institutional capacities and SDG localisation) are key enablers needed to activate the multiplier impact of education and digital transformation, leading to more decent jobs, enhanced social protection and resilience. Indeed, efficient institutions and conducive policy and regulatory frameworks are pivotal to reversing the current trend and fully harnessing the potential of STI. Targeted policy interventions can activate a virtuous circle that advances human capital formation, creates decent jobs and strengthens social protection systems by promoting technology-driven economic growth and industrialisation.

53. Progress in STI requires scaling up investments in education, R&D and infrastructure, particularly DPI. In the current context of fiscal constraints, DRM is the only tool that can mobilise the necessary financing by increasing the efficiency of public revenue, de-risking private investments and tapping into new potential funding sources. In turn, enhancing

64 Indigenous Social Protection Schemes as Building Blocks for Extending Social Protection Coverage in Africa OSAA, 2024.
65 Ibid
66 Cristina Duarte, 'Home-Grown School Feeding: From Hot Meal to Macroeconomic Tool - A Low-Hanging Fruit for Africa's Urgent Challenges | OSAA, 2024

DRM systems to meet this function entails embracing DPI and digital transformation. Understanding this circular relationship is essential to promoting complementary interventions that trigger a positive ripple effect. In this context, social protection systems and STEM education play a mutually reinforcing role, supporting the job market and creating a safety net to ensure that technology-driven growth is inclusive and sustainable.

54. To advance in this direction, UN Country Teams are playing a central role in shaping a new generation of Cooperation Frameworks that respond to national priorities and specific development needs. In line with the 2030 Agenda for Sustainable Development and Agenda 2063, these framework integrate key transformative initiatives and align withthe priority actions identified in the Pact for the Future to harness STI. In this context, the following recommendations are made for African countries and their development partners:

1. **Advance integration between STI, DRM, and DPI to build a sustainable innovation and financing ecosystem by aligning national STI strategies with domestic development priorities, prioritising investment in STI to drive long-term productivity and resilience and leveraging DPI to enhance revenue collection, public financial management, and transparency.**
2. **Strengthen STEM education to build a future-ready workforce, by establishing coordination mechanisms that foster collaboration between academia and industry to continuously align skills with labour market needs, and developing monitoring and evaluation frameworks and robust data to appropriately direct investment and other interventions.**
3. **Enable ICT-led MSMEs and industrialization as engines of decent work, by expanding digital infrastructure, including last-mile infrastructure, harmonizing IP frameworks through the adoption of AfCFTA IP protocol annexes, and enhancing targeted financing mechanisms for MSMEs in technology-intensive sectors, in particular through fintech.**
4. **Expand hybrid social protection systems to support workers and sustain development, by harmonising legal frameworks that protect and regulate traditional social protection practices, ensuring alignment with national and international labour and welfare standards, and recognising and fostering their role as complements to national social protection strategies and effective, low-cost tools to increase coverage in rural and underserved areas rapidly.**
5. **Promote inclusive STI-led growth, creating decision-making spaces that bring workers, employers, and governments together, and advancing research, policy, investment and capacity-building efforts to reduce gender disparities , in particular in STEM education.**